In the opinion of Bond Counsel, interest on the Bonds (including any original issue discount properly allocated to a holder thereof) is excludable from gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions, subject to the conditions described in "TAX EXEMPTION AND OTHER TAX MATTERS" herein. Interest on the Bonds is not a specific preference item for purposes of computing the federal alternative minimum tax on individuals. Under the laws of the Commonwealth of Pennsylvania, as enacted and construed on the date hereof, the interest on the Bonds is exempt from Pennsylvania income tax and Pennsylvania corporate net income tax. For a more complete discussion, see "TAX EXEMPTION AND OTHER TAX MATTERS" herein.

TEMPLE HEALTH

\$165,890,000 THE HOSPITALS AND HIGHER EDUCATION FACILITIES AUTHORITY OF PHILADELPHIA

Revenue Bonds

(Temple University Health System Obligated Group) Series 2022

Dated: Date of Delivery

Due: As set forth on inside cover

The Hospitals and Higher Education Facilities Authority of Philadelphia Revenue Bonds (Temple University Health System Obligated Group), Series 2022, issued in the original aggregate principal amount of \$165,890,000 (the "Bonds") will be limited obligations of the Hospitals and Higher Education Facilities Authority of Philadelphia (the "Authority") and will be issued under and secured by a Bond Indenture, dated as of April 1, 2022 (the "Indenture"), between the Authority and U.S. Bank Trust Company, National Association, as Bond Trustee (the "Bond Trustee").

Defined terms used herein and not otherwise defined herein shall have the meanings set forth in APPENDIX C, APPENDIX D, APPENDIX E and APPENDIX F, as applicable. The principal or Redemption Price and interest on the Bonds will be payable from, and will be secured by, Loan Repayments and other Revenues received by the Authority under a Loan Agreement, dated as of April 1, 2022 (the "Loan Agreement"), between the Authority and Temple University Health System, Inc. (the "Corporation" or "Temple University Health"), and any other amounts held in the funds and accounts established under the Indenture (other than the Rebate Fund). Payments to be made under the Loan Agreement are evidenced and secured by Temple University Health Master Indenture Obligation No. 1 "Obligation No. 1"), issued pursuant to a Supplemental Master Indenture No. 1, dated as of April 1, 2022 (the "Supplemental Master Indenture"), between the Corporation, as Credit Group Representative, and U.S. Bank Trust Company, National Association, as Master Trustee (the "Master Trustee"). The Supplemental Master Indenture supplements that certain Master Trust Indenture, dated as of April 1, 2022, among the Corporation and the other Obligated Group Members from time to time thereunder and the Master Trustee (as amended and supplemented from time to time, the "Master Indenture"). The Bonds and Obligation No. 1 will be equally and ratably secured with the LTA Indebtedness (as defined herein) and will be "Parity Debt" under the Loan and Trust Agreement (as described herein).

As described herein, the Obligated Group Members intend to modify or eliminate certain financial covenants applicable to them in the Loan and Trust Agreement. The modification or elimination of the covenants will be accomplished by the amendment, or amendment and restatement, or replacement of the Loan and Trust Agreement (the "LTA Modifications"). By their purchase of the Bonds on the date of issuance, the purchasers and the Beneficial Owners, on behalf of themselves and all subsequent holders of the Bonds, irrevocably consent, and shall be deemed to have irrevocably consented, to the LTA Modifications. The LTA Modifications require the consent of the holders of a majority in aggregate principal amount of then outstanding LTA Obligations to become effective. See – "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS – Master Indenture – Parity Debt under Loan and Trust Agreement; LTA Modifications" herein and "FORM OF TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT" in APPENDIX F.

The Bonds are issuable only as fully registered bonds and, when initially issued, will be registered in the name of and held by Cede & Co., as nominee for The Depository Trust Company ("DTC"), New York, New York. DTC will act as securities depository for the Bonds. Purchases of beneficial interests in the Bonds will be made in book-entry form, initially in denominations of \$5,000 and integral multiples thereof. Except as herein described, purchasers will not receive certificates representing their beneficial interests in the Bonds. So long as DTC or its nominee, Cede & Co., is the registered owner of the Bonds, payments of principal or Redemption Price and interest on the Bonds will be made directly to DTC or such nominee by the Bond Trustee. Disbursement of such payments to the DTC Participants is the responsibility of DTC and disbursements of such payments to the beneficial owners is the responsibility of the DTC Participants and the Indirect Participants, as more fully described herein.

The scheduled payment of principal of and interest on the Bonds, when due, will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Bonds by ASSURED GUARANTY MUNICIPAL CORP.



The Bonds will bear interest at the interest rates set forth on the inside front cover of this Official Statement. Interest on the Bonds will be payable on July 1, 2022 and semiannually thereafter on January 1 and July 1 of each year (each an "Interest Payment Date"), to the registered owner of record as of the close of business on the fifteenth day of the month immediately preceding such Interest Payment Date.

MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, YIELDS AND CUSIPS ARE SHOWN ON THE INSIDE COVER HEREOF

The Bonds are subject to optional, sinking fund and extraordinary redemption and purchase in lieu of optional redemption prior to maturity as described herein.

This cover and the inside cover contain information for general reference only. Investors must read the entire Official Statement, including all appendices, to obtain information essential to making an informed investment decision.

THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND ARE PAYABLE SOLELY FROM THE SOURCES REFERRED TO IN THE INDENTURE. NEITHER THE CREDIT NOR THE TAXING POWER OF THE CITY OF PHILADELPHIA OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED FOR THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR INTEREST ON, ANY BOND, NOR SHALL ANY BOND BE OR BE DEEMED AN OBLIGATION OF THE CITY OF PHILADELPHIA OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF. THE AUTHORITY HAS NO TAXING POWER.

The Bonds are offered when, as and if issued and received by the Underwriters, subject to prior sale, to withdrawal or modification of the offer without notice, and to receipt of an approving legal opinion of Dilworth Paxson LLP, Bond Counsel to the Authority. Certain legal matters will be passed upon for the Credit Group Members by John C. Ryan, Esquire, Chief Counsel of Temple University Health; and for the Underwriters by their counsel, Hawkins Delafield & Wood LLP and for the Authority for its Counsel, Austin J. McGreal, Esquire of Philadelphia, Pennsylvania. It is anticipated that the Bonds will be available for delivery to DTC in New York, New York, on or about April 5, 2022.

RBC Capital Markets

Morgan Stanley J.P. Morgan

PNC Capital Markets LLC Siebert Williams Shank & Co., LLC

\$165,890,000

The Hospitals and Higher Education Facilities Authority of Philadelphia Revenue Bonds (Temple University Health System Obligated Group) Series 2022

MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, YIELDS AND CUSIPS[†]

Due	Principal	Interest		
<u>July 1,</u>	<u>Amount</u>	Rate	Yield*	<u>CUSIP</u> †
2035	\$24,520,000	5.000%	2.720%	717825PY3
2036	25,745,000	5.000	2.750	717825PZ0
2037	27,030,000	5.000	2.770	717825QA4
2038	28,380,000	4.000	3.010	717825QB2
2039	29,515,000	4.000	3.030	717825QC0
2040	30,700,000	4.000	3.050	717825QD8

^{*} Yield calculated to July 1, 2032 call date at 100%

[†] A registered trademark of the American Bankers Association. CUSIP data herein is provided to the CUSIP Service Bureau, managed on behalf of the American Bankers Association by FactSet Research Systems Inc. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Services Bureau. CUSIP numbers have been assigned by an independent company not affiliated with the Authority, the Underwriters, or the Obligated Group and are included solely for the convenience of the registered owners of the applicable Bonds. None of the Authority, the Underwriters or the Obligated Group is responsible for the selection or uses of those CUSIP numbers, and no representation is made as to their correctness on the applicable Bonds or as included herein. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Bonds.

REGARDING USE OF THIS OFFICIAL STATEMENT

No dealer, broker, salesperson or other person has been authorized by the Authority, the Corporation or the Underwriters to give any information or to make any representations, other than those contained in this Official Statement, in connection with the offering of the Bonds and, if given or made, that information or representation must not be relied upon as having been authorized by any of them. This Official Statement does not constitute an offer to sell the Bonds or the solicitation of an offer to buy, nor shall there be any sale of the Bonds by any person, in any state or other jurisdiction to any person to whom it is unlawful to make an offer, solicitation or sale in that state or jurisdiction.

The Underwriters have provided the following sentence for inclusion in this Official Statement: The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

This Official Statement has been approved by the Credit Group Representative (as defined in the Master Indenture), and the use and distribution of this Official Statement for the purposes described in this Official Statement have been authorized by the Authority and by the Obligated Group Members. The information in APPENDIX I has been furnished by DTC. Such information is believed to be reliable but is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the Underwriters or the Obligated Group Members. All other information in this Official Statement (other than certain information furnished by the Authority under the captions "INTRODUCTORY STATEMENT – The Authority," "THE AUTHORITY" and "LITIGATION" (insofar as such statement applies to the Authority)) has been furnished by the Obligated Group Members and other sources identified herein that are believed to be reliable, but is not to be construed as a representation of the Underwriters or the Authority and is not guaranteed as to accuracy or completeness by the Authority. The information and expressions of opinion in this Official Statement are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall under any circumstances create any implication that there has been no change in the affairs of the Authority, DTC or the Credit Group Members (as defined in the Master Indenture) since the date of this Official Statement.

CUSIP numbers are included on the inside cover page of this Official Statement for the convenience of the holders and potential holders of the Bonds. None of the Authority, the Credit Group Members, the Bond Trustee or the Underwriters takes any responsibility for the accuracy of such numbers. No assurance can be given that the CUSIP numbers for the Bonds will remain the same after the date of issuance and delivery of the Bonds.

A wide variety of other information, including financial information, concerning the Credit Group Members is available from publications and the website of the Credit Group Members and other sources. Any such information that is inconsistent with the information set forth in this Official Statement should be disregarded. No such information is a part of or incorporated into this Official Statement, except as expressly noted herein.

NEITHER THE BONDS NOR OBLIGATION NO. 1 HAS BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND NEITHER THE INDENTURE NOR THE MASTER TRUST INDENTURE HAS BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. THE REGISTRATION OR QUALIFICATION OF THE BONDS IN ACCORDANCE WITH APPLICABLE PROVISIONS OF LAWS OF THE STATES IN WHICH BONDS HAVE BEEN REGISTERED OR QUALIFIED AND THE EXEMPTION FROM REGISTRATION OR

QUALIFICATION IN OTHER STATES CANNOT BE REGARDED AS A RECOMMENDATION THEREOF. NONE OF THESE STATES OR ANY OF THEIR AGENCIES HAS PASSED UPON THE MERITS OF THE BONDS OR THE ACCURACY OR COMPLETENESS OF THIS OFFICIAL STATEMENT. ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.

IN CONNECTION WITH THE OFFERING OF THE BONDS, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS OFFERED HEREBY AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

In making an investment decision, investors must rely upon their own examination of the Corporation and the Credit Group and the terms of the offering, including the merits and risks involved.

Assured Guaranty Municipal Corp. ("AGM") makes no representation regarding the Bonds or the advisability of investing in the Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE" and in APPENDIX J – "Specimen Municipal Bond Insurance Policy."

CAUTIONARY STATEMENT REGARDING PROJECTIONS, ESTIMATES AND OTHER FORWARD-LOOKING STATEMENTS IN THIS OFFICIAL STATEMENT

Certain statements included or incorporated by reference in this Official Statement constitute projections or estimates of future events, generally known as forward-looking statements. These statements are generally identifiable by the terminology used such as "plan," "expect," "estimate," "budget" or other similar words. These forward-looking statements include, but are not limited to, the information under the captions "PLAN OF FINANCE", "BONDHOLDERS' RISKS" and "REGULATION OF THE HEALTH CARE INDUSTRY" in the forepart of this Official Statement and in APPENDIX A – "CERTAIN INFORMATION CONCERNING TEMPLE UNIVERSITY HEALTH SYSTEM" to this Official Statement.

The achievement of certain results or other expectations contained in such forward-looking statements involves known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Other than as may be required by law, the Credit Group Members do not plan to issue any updates or revisions to those forward-looking statements if or when changes in their expectations, or events, conditions or circumstances on which such statements are based occur.

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OFFICIAL STATEMENT

relating to \$165,890,000

The Hospitals and Higher Education Facilities Authority of Philadelphia Revenue Bonds

(Temple University Health System Obligated Group) Series 2022

INTRODUCTORY STATEMENT

This Introductory Statement is subject in all respects to more complete information contained in this Official Statement. This entire Official Statement, including its Appendices, should be read by any prospective purchaser of the Bonds. No person is authorized to detach this Introductory Statement from this Official Statement or otherwise to use it without this entire Official Statement, including the Appendices.

Purpose

This Official Statement provides information in connection with the issuance by the Hospitals and Higher Education Facilities Authority of Philadelphia (the "Authority") of \$165,890,000 aggregate principal amount of its Revenue Bonds (Temple University Health System Obligated Group), Series 2022 (the "Bonds"). The Bonds will be issued under and secured by a Bond Indenture, dated as of April 1, 2022 (the "Indenture"), between the Authority and U.S. Bank Trust Company, National Association, as Bond Trustee (the "Bond Trustee"). The Authority will lend the proceeds of the Bonds to Temple University Health System, Inc. (the "Corporation" or "Temple University Health") pursuant to a Loan Agreement, dated as of April 1, 2022 (the "Loan Agreement"), the terms of which will require payment by the Corporation which, together with other monies available for such purposes, if any, will be sufficient to provide for the timely payment of the principal or Redemption Price and interest on the Bonds.

Defined Terms

All defined terms used and not otherwise defined herein shall have the respective meanings set forth in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – DEFINITIONS OF CERTAIN TERMS," APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT – DEFINITIONS OF CERTAIN TERMS," APPENDIX E – "SUMMARY OF LOAN AND TRUST AGREEMENT" and APPENDIX F – "FORM OF TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT" hereto, as applicable.

The Authority

The Authority is a body corporate and politic existing under the laws of the Commonwealth of Pennsylvania pursuant to the Municipality Authorities Act, 53 Pa. Cons. Stat. §5601 et seq., as amended and supplemented (the "Act"), and by an Ordinance of the Council of the City of Philadelphia approved on January 28, 1974. See "THE AUTHORITY" herein.

Temple University Health and the Credit Group

Temple University Hospital, Inc. ("Temple University Hospital" or "TUH"), Temple University Health, Temple Health System Transport Team, Inc. ("Temple Transport"), Temple Physicians, Inc. ("TPI"), American Oncologic Hospital d/b/a Hospital of Fox Chase Cancer Center ("AOH"), The Institute

for Cancer Research d/b/a The Research Institute of Fox Chase Cancer Center ("ICR"), Fox Chase Cancer Center Medical Group, Inc. ("FCCCMG") and Fox Chase Network, Inc. (the "Network") (each is sometimes individually referred to as a "Member" or "Obligated Group Member" and collectively as the "Members" or "Obligated Group Members") will be, on the date the Bonds are issued, members of an obligated group (the "Obligated Group") with respect to Obligations issued under the Master Trust Indenture (as defined herein). Each Obligated Group Member is jointly and severally liable for all Obligations issued under or secured by the Master Trust Indenture. See "The Master Indenture" below and "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS" herein.

Temple University - Of The Commonwealth System of Higher Education ("*Temple University*") is the sole member of the Corporation. The Corporation is the sole member of Temple University Hospital, Temple Transport, TPI and AOH. AOH is the sole member of ICR, FCCCMG and Network. The Corporation coordinates the activities and plans for those entities as well as certain other affiliated health-care related entities of the Corporation that are not members of the Obligated Group (the "*Non-Members*"). Temple University Hospital, the Corporation, Temple Transport, AOH, ICR, FCCCMG, the Network, TPI and the Non-Members are referred to hereinafter collectively as the "Health System."

Each of the Members of the Obligated Group is an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code") exempt from federal income tax under Section 501(a) of the Code, except for unrelated business income subject to taxation under Section 511 of the Code, and is not a "private foundation" within the meaning of Section 509(a) of the Code.

See APPENDIX A – "CERTAIN INFORMATION CONCERNING TEMPLE UNIVERSITY HEALTH SYSTEM" for a more detailed description of the Health System, the Corporation and the Credit Group Members.

None of Temple University, the Non-Members, nor any other affiliate of Temple University (other than the Obligated Group) has guaranteed or is otherwise liable for the payment of the principal or redemption price of, or interest on, the Bonds.

The Master Indenture (as defined herein) creates a Credit Group consisting of the Obligated Group Members, Designated Affiliates, if any, Unlimited Credit Group Participants, if any, and Limited Credit Group Participants, if any. Additional entities may become Obligated Group Members or Credit Group Members, and any Obligated Group Member or Credit Group Member may cease to be an Obligated Group Member or Credit Group Member, upon satisfaction of the conditions set forth in the Master Indenture. The Corporation serves as the initial Credit Group Representative, with powers to take certain actions on behalf of the Credit Group Members, under the Master Indenture. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1" hereto.

Plan of Finance

The Corporation will use the proceeds of the Bonds to: (i) current refund the Authority's outstanding Hospital Revenue Bonds (Temple University Health System Obligated Group) Series A of 2012 (the "Refunded Bonds"); and (ii) pay the costs of issuance of the Bonds. For a more detailed description of the application of proceeds of the Bonds and the Corporation's plan of finance, *see* "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF FUNDS" herein.

Payment of and Security for the Bonds

The Bonds are and will be limited obligations of the Authority payable solely from the Revenues and any other amounts held in any fund or account established pursuant to the Indenture (other than the Rebate Fund). The Revenues include certain payments to be made by the Corporation under the Loan Agreement or to be made by the Obligated Group on Obligation No. 1 (as defined herein) issued under the Master Indenture, which payments are pledged and assigned to the Bond Trustee. The Corporation's payment obligations under the Loan Agreement with respect to the Bonds are general obligations of the Corporation secured by Obligation No. 1 issued under the Master Indenture. Obligation No. 1 is a joint and several obligation of the Obligated Group Members that is secured by a pledge, assignment, and grant to the Master Trustee (as defined herein) of a security interest in the Gross Receipts of the Obligated Group Members on a parity with all other Master Indenture Obligations issued and outstanding from time to time under the Master Indenture (the "Parity Obligations"). In addition to the pledge of Gross Receipts, Obligation No. 1 is also secured by Mortgages (as defined herein) on certain real property interests of certain Members of the Obligated Group. The Bonds will not be secured by a debt service reserve fund.

Upon the issuance of the Bonds, any Obligations issued under the Master Indenture (including Obligation No. 1), the LTA Indebtedness (as defined herein) and any additional LTA Obligations (as defined herein) will be secured on a parity basis by a lien on the Gross Receipts with the Authority's Hospital Revenue Bonds (Temple University Health System Obligated Group) Series 2017 (the "Series 2017 Bonds"), which Series 2017 Bonds will be outstanding on the date of issuance of the Bonds in the amount of \$217,615,000. The Series 2017 Bonds were issued and are secured under a Fourteenth Supplemental Loan and Trust Agreement, dated as of October 1, 2017 (the "Fourteenth Supplement"), by and among the Members of the Obligated Group, the Authority and U.S. Bank Trust Company, National Association, as successor trustee (the "LTA Trustee"), which amended and supplemented a certain Loan and Trust Agreement, dated as of January 15, 1993 (as previously amended and supplemented, the "Original Loan and Trust Agreement" and, together with the Fourteenth Supplement, the "Loan and Trust Agreement"). In addition to the Series 2017 Bonds, the Corporation maintains a short-term revolving line of credit arrangement with a financial institution that was issued and is secured under the Loan and Trust Agreement (the "Line of Credit" and, together with the Series 2017 Bonds, the "LTA Indebtedness"), which will also be secured on a parity basis with any Obligations issued under the Master Indenture (including Obligation No. 1) and any additional LTA Obligations by a lien on the Gross Receipts. There is currently a zero balance on the Line of Credit. Further, Obligation No. 1 and the LTA Obligations will be secured on a parity basis by the Mortgages.

U.S. Bank Trust Company, National Association, in its capacity as Master Trustee and as LTA Trustee, will enter into an Intercreditor Agreement with the Members of the Obligated Group and the Authority, dated as of April 1, 2022, in connection with the execution and delivery of the Indenture, the Master Indenture, the Bonds and Obligation No. 1 (the "Intercreditor Agreement"). Pursuant to the Intercreditor Agreement, the parties will acknowledge and agree that the LTA Indebtedness, any additional LTA Obligations (as defined herein), Obligation No. 1 and any additional Obligations issued under the Master Indenture are and will be equally and ratably secured by the pledge of Gross Receipts, and the LTA Indebtedness, any additional LTA Obligations, and Obligation No. 1 will be equally and ratably secured by the Mortgages. See "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS" herein.

The Members of the Obligated Group intend to modify or eliminate certain financial covenants applicable to them in the Loan and Trust Agreement. The modification or elimination of the covenants will be accomplished by the amendment, or amendment and restatement, or replacement of the Loan and

Trust Agreement (the "LTA Modifications"). The LTA Modifications require the consent of holders of a majority of the obligations issued and outstanding under the Loan and Trust Agreement, including the LTA Indebtedness and any Parity Debt issued thereunder (collectively, the "LTA Obligations"). Obligation No. 1 will be deemed to be "Parity Debt" under the Loan and Trust Agreement, secured on a parity basis with the LTA Obligations. By purchase of the Bonds on the date of issuance, the purchasers and the Beneficial Owners (as defined herein), on behalf of themselves and all subsequent holders of the Bonds irrevocably consent, and shall be deemed to have irrevocably consented, to the LTA Modifications. The consent of the Bond Trustee, as holder of Obligation No. 1, acting on the deemed consent of the holders of the Bonds, will represent consents of the holders of approximately 44.4% in principal amount of outstanding LTA Obligations after giving effect to the issuance of the Bonds.

See "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS" below, APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1," and APPENDIX F – "FORM OF TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT."

Bond Insurance

The scheduled payment of principal of and interest on the Bonds, when due, will be guaranteed under a Municipal Bond Insurance Policy (the "*Policy*") to be issued concurrently with the delivery of the Bonds by Assured Guaranty Municipal Corp (the "*Insurer*" or "*AGM*"). See "BOND INSURANCE" and APPENDIX J – "SPECIMEN MUNICIPAL BOND INSURANCE POLICY."

The Master Indenture

To evidence and secure the loan to be made by the Authority to the Corporation under the Loan Agreement, the Corporation will issue and deliver to the Bond Trustee, as assignee of the Authority, Temple University Health Master Indenture Obligation No. 1 ("Obligation No. 1"). Obligation No. 1 will be issued pursuant to Supplemental Master Indenture No. 1, dated as of April 1, 2022 (the "Supplemental Master Indenture"), between the Corporation, as Credit Group Representative, and U.S. Bank Trust Company, National Association, as Master Trustee (the "Master Trustee"). The Supplemental Master Indenture supplements that certain Master Trust Indenture, dated as of April 1, 2022, among the Corporation, the other Obligated Group Members and the Master Trustee (as amended and supplemented from time to time, the "Master Indenture"). The terms of the Loan Agreement will require payment by the Corporation, and the terms of Obligation No. 1 will require payment by the Obligated Group, which, together with other monies available for such purposes, if any, will be sufficient to provide for the timely payment of the principal or Redemption Price and interest on the Bonds.

The Master Indenture creates a Credit Group consisting of the Obligated Group Members, Designated Affiliates, if any, Unlimited Credit Group Participants, if any, and Limited Credit Group Participants, if any. As of the date of issuance of the Bonds, the Credit Group will consist solely of the Obligated Group Members. As of the date of issuance of the Bonds, no Designated Affiliates and no Unlimited Credit Group Participants or Limited Credit Group Participants will be designated or appointed under the Master Indenture. Only the Members of the Obligated Group are obligated to make payments on Master Indenture Obligations, including Obligation No. 1.

The obligations of the Corporation and the other Obligated Group Members to make payments on any Master Indenture Obligation issued from time to time by the Credit Group Representative under the Master Indenture, including Obligation No. 1, will be joint and several obligations of the Obligated Group

Members that are secured by a pledge, assignment and grant to the Master Trustee by each Obligated Group Member of a security interest in all of its right, title and interest in and to the Gross Receipts of such Obligated Group Member on a parity with all other Master Indenture Obligations issued and Outstanding from time to time under the Master Indenture. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE."

The Obligated Group Members, upon compliance with the terms and conditions and for the purposes described in the Master Indenture or the Loan and Trust Agreement, as applicable, may incur additional indebtedness. Such indebtedness, if secured by a Master Indenture Obligation or LTA Obligation, would be secured by the Gross Receipts on a parity with any other outstanding Master Indenture Obligations, including Obligation No. 1, and, for so long as any LTA Obligations are outstanding under the Loan and Trust Agreement, all LTA Obligations. See APPENDIX C -"SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1." Such other indebtedness, if not so secured by a Master Indenture Obligation or LTA Obligation, would constitute a debt solely of the individual Obligated Group Member incurring such indebtedness (not a joint and several obligation of the entire Obligated Group) and, therefore, would not be entitled to the benefits of the Master Indenture or the Loan and Trust Agreement, See "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS" below as applicable. APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1" and APPENDIX E - "SUMMARY OF LOAN AND TRUST AGREEMENT."

The Loan and Trust Agreement contains provisions in which the Obligated Group Members have agreed to various financial and operating covenants including covenants relating to limitations on the disposition of assets; limitations on the incurrence of additional indebtedness, the creation or existence of liens or encumbrances on the assets of the Members of the Obligated Group and the establishment of rates and charges sufficient to cause the debt service coverage ratio in each fiscal year to be not less than 1.10. The LTA Modifications will modify or eliminate substantially all of the covenants described above in this paragraph. See "FORM OF TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT" in APPENDIX F hereto. Upon the effectiveness of the LTA Modifications, the holders of the Bonds will be entitled to the benefit only of the financial and operating covenants of the Obligated Group Members contained in the Master Indenture and, for so long as the Loan and Trust Agreement remains in effect, the financial and operating covenants of the Obligated Group Members contained in the Loan and Trust Agreement as amended by the LTA Modifications.

Bondholders' Risks and Regulation of the Health Care Industry

There are risks associated with the purchase of the Bonds. For a discussion of certain risks associated with the purchase of the Bonds, *see* "BONDHOLDERS' RISKS" and "REGULATION OF THE HEALTH CARE INDUSTRY" herein.

Book-Entry Only

The Bonds, when issued, will be payable solely in book-entry form through The Depository Trust Company. *See* APPENDIX I – "INFORMATION REGARDING BOOK-ENTRY ONLY SYSTEM."

Continuing Disclosure

The Corporation, on behalf of itself and as Credit Group Representative for the Members of the Obligated Group, will enter into a Continuing Disclosure Agreement (as defined below) with Digital Assurance Certification, L.L.C., as dissemination agent (the "Dissemination Agent"), to provide certain financial and operating data. See the information under the caption "CONTINUING DISCLOSURE" and APPENDIX H – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

Underlying Documents

The descriptions and summaries of various documents set forth in this Official Statement (including the Appendices hereto) do not purport to be comprehensive or definitive, and reference is made to each document for the complete details, terms and conditions thereof. All statements herein are qualified in their entirety by reference to each such document, copies of which, as executed and delivered, may be obtained from the Bond Trustee or the LTA Trustee.

THE AUTHORITY

The Authority is a body corporate and politic organized under the Act and by an ordinance of the Council of the City of Philadelphia ("City Council") approved on January 28, 1974. Pursuant to an ordinance approved by City Council on March 10, 1983, the Authority changed its name from "The Hospitals Authority of Philadelphia" to "The Hospitals and Higher Education Facilities Authority of Philadelphia." The purpose of the Authority is to acquire, hold, construct, finance, improve, maintain and operate, own and lease, either in the capacity of lessor or lessee, projects including hospitals, certain not-for-profit sub-acute health care facilities, and certain educational institutions. The address of the Authority is 1880 J.F.K. Boulevard, Suite 1102, Philadelphia, Pennsylvania 19103.

Board

The governing body of the Authority is a Board consisting of five members appointed by an affirmative vote of two-thirds of all members of City Council from nominations made by the Mayor of the City of Philadelphia. Members of the Board are appointed for staggered five-year terms and each serves until death, disqualification, resignation, removal or the appointment of a successor.

Currently serving as members of the Board are:

NAME OFFICE

Robert W. Bogle Chairman

Theodore Burden, M.D., M.B.A. Vice Chair James P. Baker, Jr. Member

Authority Staff. The Authority Board appoints a staff to execute the functions of the Authority. Present members of the staff are:

NAME OFFICE

James P. Baker, Jr. Interim President, Assistant

Secretary and Assistant Treasurer

Marinita Perrin-Lambert Secretary and Treasurer

Financings of the Authority

From its inception through February 8, 2022, the Authority has issued 144 revenue or special obligation bond or note issues in the aggregate principal amount of \$6,643,574,999. Each issue is payable solely from revenues derived from the project being financed or from special funds established therefor, and is separately secured from the Bonds, except for certain bonds and other obligations previously issued by the Authority for the benefit of the Members of the Obligated Group as described herein that are secured on a parity with the Bonds.

The Authority intends from time to time to enter into additional financing transactions for hospitals, certain not-for-profit sub-acute healthcare facilities, and institutions of higher education. Such transactions will provide for the issuance of bonds or notes, which will be limited obligations of the Authority, payable from and secured by revenues derived from such projects. The Authority may also from time to time enter into refinancing transactions for obligations previously issued.

TEMPLE UNIVERSITY HEALTH SYSTEM AND THE CREDIT GROUP

For information regarding the Corporation, the Credit Group and the Health System, *see* the information in APPENDIX A – "CERTAIN INFORMATION CONCERNING TEMPLE UNIVERSITY HEALTH SYSTEM" to this Official Statement.

THE BONDS

THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND ARE PAYABLE SOLELY FROM THE SOURCES REFERRED TO IN THE INDENTURE. NEITHER THE CREDIT NOR THE TAXING POWER OF THE CITY OF PHILADELPHIA OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF IS PLEDGED FOR THE PAYMENT OF THE PRINCIPAL, REDEMPTION PRICE OR INTEREST ON ANY BOND, NOR SHALL ANY BOND BE OR BE DEEMED AN OBLIGATION OF THE CITY OF PHILADELPHIA OR THE COMMONWEALTH OF PENNSYLVANIA OR OF ANY POLITICAL SUBDIVISION THEREOF. THE AUTHORITY HAS NO TAXING POWER.

The following is a summary of certain provisions of the Bonds. Reference is made to the Bonds and to the Indenture for a more detailed description of such provisions. The discussion herein is qualified by such reference. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT." Any reference herein to the Bonds or to the Indenture or other similar documents shall be deemed to mean the Bonds or the documents related thereto, unless the context or use clearly indicates otherwise. All capitalized terms used herein but not otherwise defined shall have the meanings given to them in APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT" hereto.

General

The Bonds will be dated the date of delivery and will mature as shown on the inside cover of this Official Statement. Interest on the Bonds (based on a 360-day year of twelve 30-day months) will be payable each January 1 and July 1 (each, an "Interest Payment Date"), commencing July 1, 2022, or if any January 1 and July 1 is not a Business Day, the next succeeding Business Day with the same effect as if made on such January 1 or July 1, as applicable.

The Bonds will be subject to sinking fund, optional and extraordinary optional redemption, and purchase in lieu of optional redemption prior to maturity as described under "The Bonds — Redemption and Purchase" herein.

The Bonds will be made available to Beneficial Owners in book-entry form only, in Authorized Denominations of \$5,000 and any integral multiple thereof. Beneficial Owners of the Bonds will not receive certificates representing their interests in the Bonds, except as described below. So long as Cede & Co. is the registered owner of the Bonds, the principal of, and the interest on, the Bonds are payable by wire transfer by the Bond Trustee to Cede & Co., as nominee for DTC which, in turn, will remit such amounts to DTC Participants for subsequent disbursement to the Beneficial Owners. So long as all records of ownership of the Bonds are maintained through the book-entry only system, all payments to the Beneficial Owners of the Bonds will be made in accordance with the procedures described herein in APPENDIX I – "INFORMATION REGARDING BOOK-ENTRY ONLY SYSTEM."

The principal or Redemption Price of, and interest on, the Bonds shall be payable in lawful money of the United States of America. Such principal or Redemption Price shall be payable at the designated corporate trust office of the Bond Trustee upon surrender for cancellation. Interest on the Bonds shall be payable on each Interest Payment Date by the Bond Trustee by check mailed on the date on which due to the Holders of Bonds at the close of business on the fifteenth day of the month preceding the month in which such Interest Payment Date occurs, whether or not such day is a Business Day (each, a "Record Date") in respect of such Interest Payment Date at the registered addresses of Holders as shall appear on the registration books of the Bond Trustee as of the close of business as of such Record Date. In the case of any Holder of Bonds in an aggregate principal amount in excess of \$1,000,000 as shown on the registration books of the Bond Trustee who, prior to the Record Date next preceding any Interest Payment Date, shall have provided the Bond Trustee with written wire transfer instructions containing the wire transfer address within the continental United States, interest payable on such Bonds shall be paid in accordance with the wire transfer instructions provided by the Holder of such Bond.

Redemption and Purchase

Optional Redemption. The Bonds are subject to optional redemption prior to maturity, at the option of the Authority, at the direction of the Corporation, in whole or in part at any time on and after July 1, 2032, at the redemption price of 100% of the principal amount to be redeemed, plus interest accrued to the redemption date.

Extraordinary Optional Redemption. The Bonds are subject to redemption prior to their stated maturity, at the option of the Authority, at the direction of the Corporation, in whole or in part on any Business Day in such amounts as are designated by the Corporation, from hazard insurance or condemnation proceeds received with respect to the facilities of any of the Obligated Group Members and deposited in the Optional Redemption Fund, at a Redemption Price equal to the principal amount thereof, plus accrued interest thereon (if any) to the date fixed for redemption, without premium.

Purchase in Lieu of Optional Redemption

Notwithstanding the redemption provisions of the Indenture, any Bonds subject to optional redemption and cancellation pursuant to the provisions of the Indenture summarized under the heading "The Bonds – Redemption and Purchase – Optional Redemption" above, shall also be subject to optional call for purchase by the Corporation and, at the option of the Corporation, holding, resale or cancellation by the Corporation, at the same time as are applicable to the optional redemption of Bonds and at a purchase price equal to the applicable Redemption Price of such Bonds. To exercise such option, the

Corporation shall give the Bond Trustee a Written Request exercising such option as though such Written Request were a written request for redemption, and the Bond Trustee shall thereupon give the holders of the Bonds to be purchased notice of such purchase in the manner specified, and within the time period specified, under the heading "THE BONDS - Notice of Redemption" as though such purchase by the Corporation were a redemption and the purchase of such Bonds shall be mandatory and enforceable against the Bondholders. On the date fixed for purchase pursuant to any exercise of such option, the Corporation or its assignee shall pay the purchase price of the Bonds then being purchased to the Bond Trustee in immediately available funds on the purchase date, and the Bond Trustee shall pay the same to the sellers of such Bonds against delivery thereof. Following such purchase, the Bond Trustee shall cause such Bonds to be registered in the name of the Corporation or its assignee and shall deliver them to the Corporation or its assignee. In the case of the purchase of less than all of the Bonds, the particular Bonds to be purchased shall be selected in accordance with the provisions summarized under the heading "THE BONDS - Selection of Bonds for Redemption" below. No purchase of the Bonds pursuant to the provisions of the Indenture summarized in this paragraph shall operate to extinguish the indebtedness of the Authority evidenced thereby (subject to all the terms and limitations contained in the Indenture). Notwithstanding the foregoing, no purchase shall be made pursuant to the provisions of the Indenture summarized in this paragraph unless the Corporation shall have delivered to the Bond Trustee and the Authority concurrently therewith a Favorable Opinion of Bond Counsel.

Selection of Bonds for Redemption

Whenever provision is made in the Indenture for the redemption of less than all of the Bonds or any given portion thereof, the Bond Trustee shall select the Bonds to be redeemed, from all Bonds subject to redemption or such given portion thereof not previously called for redemption, as directed in writing by the Corporation or in the absence of direction by lot.

Notice of Redemption

Notice of redemption shall be mailed by the Bond Trustee, not less than twenty (20) days nor more than sixty (60) days prior to the redemption date to the Holders of Bonds called for redemption at their addresses appearing on the bond registration books of the Bond Trustee as of the date of the giving of such notice. Each notice of redemption shall state the date of such notice, the date of issue of the Bonds, the redemption date, the Redemption Price, the place or places of redemption (including the name and appropriate address or addresses of the Bond Trustee), the maturity date, the CUSIP numbers, if any, and, in the case of Bonds to be redeemed in part only, the respective portions of the principal amount thereof to be redeemed. Each such notice shall also state that, subject to the deposit of sufficient funds with the Bond Trustee on or prior to the redemption date to effect the redemption and to prior rescission as provided in the next paragraph, on that date there will become due and payable on each of the Bonds, the Redemption Price thereof or of the specified portion of the principal amount thereof in the case of a Bond to be redeemed in part only, together with interest accrued thereon to the redemption date, and that from and after such redemption date interest thereon shall cease to accrue, and shall require that such Bonds be then surrendered.

Any notice of optional redemption or extraordinary optional redemption may state (i) that it is conditioned upon the deposit with the Bond Trustee on or prior to the redemption date of moneys in an amount equal to the amount necessary to effect the redemption and may also be conditioned on any other conditions as may be set forth in the notice of redemption and (ii) that the notice may be rescinded by written notice given to the Bond Trustee by the Corporation on or prior to the date specified for redemption, and in either of such cases such notice and redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described in the Indenture. Any Bond for which a

notice of redemption has been rescinded or for which sufficient funds to pay the Redemption Price thereof have not been deposited with the Bond Trustee on or prior to the redemption date shall remain outstanding and neither the rescission of the notice nor the failure to fund the Redemption Price shall constitute an Event of Default under the Indenture. The Bond Trustee shall give notice of such rescission or failure to fund the Redemption Price as soon thereafter as practicable in the same manner, and to the same Persons, as notice of such optional redemption was given.

Failure by the Bond Trustee to mail a notice of redemption to any one or more of the respective Holders of any Bonds designated for redemption shall not affect the sufficiency of the proceedings for redemption with respect to the Holders to whom such notice was mailed.

Registration, Transfer and Exchange

For a description of the procedure to transfer ownership of a Bond while in the book-entry only system, see APPENDIX I – "INFORMATION REGARDING BOOK-ENTRY ONLY SYSTEM." The Bonds, if not then in book-entry only registration, are subject to the limitations described below.

Upon surrender for transfer or exchange of any Bond at the designated corporate trust office of the Bond Trustee, the Authority shall execute and the Bond Trustee shall authenticate and deliver in the name of the transferee or transferees, one or more new Bond or Bonds of the same maturity and of any Authorized Denominations and of a like aggregate principal amount.

All Bonds presented or surrendered for transfer or exchange shall (if so required by the Bond Trustee) be duly endorsed, or be accompanied by a written instrument of transfer or authorization for exchange, in form satisfactory to the Bond Trustee, duly executed by the registered owner or by such owner's attorney or legal representative duly authorized in writing.

No service charge shall be imposed for any registration, exchange or transfer of Bonds. The Bond Trustee may, however, require payment by the person requesting an exchange or transfer of Bonds of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto, except in the case of the issuance of a Bond or Bonds for the unredeemed portion of a Bond surrendered for redemption.

The Bond Trustee shall not be required to (a) transfer or exchange any Bond during the 15-day period preceding the mailing of such notice of redemption of Bonds, or (b) transfer or exchange any Bond so selected for redemption in whole or in part during a period beginning at the opening of business on any Record Date for such Bond and ending at the close of business on the relevant Interest Payment Date.

Defeasance and Retained Call Rights

The Indenture provides that the Bonds may be defeased prior to payment or redemption by the deposit of cash or noncallable United States Government Obligations, or a combination thereof, sufficient to provide for the payment of all principal of and interest on the Bonds through maturity or the date upon which the Bonds will be redeemed pursuant to the Indenture. Bonds that are defeased will no longer be entitled to any security under the Indenture or the Master Indenture, except for the right to payment from such cash and noncallable United States Government Obligations.

Upon the provision for payment of the Bonds or a portion thereof through a date subsequent to any optional redemption date as specified in the defeasance provisions of the Indenture, the optional redemption provisions of the Indenture allowing such Bonds to be called prior to maturity upon proper

notice (notwithstanding provision for the payment of such Bonds having been made through a date subsequent to the first optional redemption date) shall remain available to the Authority, upon direction of the Corporation, unless, in connection with making the deposit referred to in optional redemption provisions, the Authority, at the direction of the Corporation, shall have irrevocably elected in writing to waive any future right to call the Bonds or portions thereof for redemption prior to maturity. Upon the provision for payment of the Bonds or a portion thereof prior to the maturity thereof as specified in the defeasance provisions of the Indenture, the Authority, upon direction of the Corporation, may elect to pay such Bonds on the respective maturity dates therefor unless, in connection with making the deposits, the Authority, at the direction of the Corporation, shall have irrevocably elected in writing to waive such right to provide for the payment thereof on the maturity date. No such redemption or restructuring shall occur, however, unless the Corporation shall deliver on behalf of the Authority to the Bond Trustee (a) United States Government Obligations and/or cash sufficient to discharge such Bonds (or portion thereof) on the redemption or maturity date or dates selected, (b) an opinion of an independent certified public accountant verifying that such United States Government Obligations, together with the expected earnings thereon, and/or cash will be sufficient to provide for the payment of such Bonds to the redemption or maturity dates, and (c) a Favorable Opinion of Bond Counsel addressed to the Bond Trustee and the Authority. The Bond Trustee will give written notice of any such redemption or restructuring to the owners of the Bonds affected thereby. See APPENDIX D - "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT - THE BOND INDENTURE - Effect of Defeasance," "- Deposit of Money or Securities with Bond Trustee" and "- Redemption after Satisfaction of Bond Indenture."

SOURCE OF PAYMENT AND SECURITY FOR THE BONDS

Set forth below is a narrative description of certain contractual provisions relating to the source of payment of and security for the Bonds. These provisions have been summarized and this description does not purport to be complete. Reference should be made to the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture and Obligation No. 1. Copies of the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture and Obligation No. 1 are on file with the Bond Trustee. See also APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1" and APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT" for a more complete statement of the rights, duties and obligations of the parties thereto.

Indenture, Loan Agreement and Obligation No. 1

The Bonds are limited obligations of the Authority, payable solely from Revenues (as defined below) and certain other amounts pledged under the Indenture for such payment. "Revenues" consist primarily of payments required to be made by the Corporation under the Loan Agreement, payments required to be made by the Obligated Group on Obligation No. 1 and from other funds held under the Indenture. Obligation No. 1 is a joint and several obligation of the Obligated Group Members.

In the Loan Agreement, the Corporation agrees to make payments, or cause payments to be made, at the times and in the amounts required to be paid as principal or Redemption Price of, and interest on, the Bonds from time to time Outstanding under the Indenture and other amounts required to be paid under the Indenture, as the same shall become due whether at maturity, upon mandatory sinking fund redemption, by declaration of acceleration or otherwise.

The Authority will assign its right, title and interest in Obligation No. 1 and the Loan Agreement to the Bond Trustee, except for (i) the right to receive Additional Payments or Administrative Fees and

Expenses to the extent payable to the Authority and (ii) any other Unassigned Rights of the Authority, including, but not limited to, certain consent rights of the Authority and rights of the Authority to be indemnified by the Corporation.

Under certain circumstances and upon satisfaction of the requirements of the Master Indenture and the Loan and Trust Agreement (assuming it is still in effect at the time), Obligation No. 1 and the LTA Obligations may be replaced, without the consent of any of the Holders of the Bonds, by an obligation of a different obligated group or different credit group. Under certain circumstances, this could lead to the substitution of different security in the form of an obligation backed by an obligated group or credit group that is financially and operationally different from the then-existing Obligated Group or Credit Group. That new obligated group or credit group could have substantial debt outstanding that would rank on a parity basis with the obligation substituted for Obligation No. 1 and the LTA Obligations. See "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS – Master Indenture – Replacement of Obligation No. 1 with an Obligation Issued Under a Separate Master Indenture" below and APPENDIX E - "SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AND TRUST AGREEMENT – Substitution of Security."

The Indenture and the Loan Agreement may be amended from time to time in certain circumstances without the consent of the Bondholders, and in certain circumstances with the consent of the Holders of at least a majority in aggregate principal amount of the Bonds then Outstanding. Such amendments could be substantial and result in the modification, waiver or removal of existing covenants or restrictions contained in the Indenture or the Loan Agreement. See APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT – THE BOND INDENTURE – Amendments to the Bond Indenture" and " – Amendment of Loan Agreement; Other Covenants."

Master Indenture

Parity Debt under Loan and Trust Agreement; LTA Modifications. Obligation No. 1 will be issued as an Obligation under the Master Indenture and will also constitute Parity Debt under the Loan and Trust Agreement securing the LTA Indebtedness. The Obligated Group intends to centralize and consolidate the financial and operating covenants relating to indebtedness and ancillary obligations (such as interest rate exchange agreements) by effectuating the LTA Modifications (which are intended to modify and/or eliminate some or all of the financial and operating covenants of the Obligated Group in the Loan and Trust Agreement). The LTA Modifications require the consent of the holders of a majority in aggregate principal amount of then outstanding LTA Obligations to become effective. The consent of the Bond Trustee, acting on the deemed consent of the holders of the Bonds, will represent consents of the holders of approximately 44.4% in principal amount of the outstanding LTA Obligations after giving effect to the issuance of the Bonds.

By purchase of the Bonds on the date of issuance, the purchasers and the Beneficial Owners, on behalf of themselves and all subsequent holders of the Bonds irrevocably (i) consent, and shall be deemed to have irrevocably consented, to the LTA Modifications, (ii) direct the Bond Trustee (as holder of Obligation No. 1) to consent to the LTA Modifications, and (iii) waive, and shall be deemed to have irrevocably waived, and consented to the waiver by the Bond Trustee (acting pursuant to the deemed consent of the holders of the Bonds and as holder of Obligation No. 1) of, any and all other formal notice, implementation, execution or timing requirements that may otherwise be required under the Loan and Trust Agreement in order to implement the LTA Modifications.

The following is a brief summary of certain of the security provisions of the Master Indenture. For a more detailed summary of certain provisions of the Master Indenture and the Supplemental Master Indenture, see APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1."

The Master Indenture may be amended from time to time in certain circumstances without the consent of the holders of Outstanding Master Indenture Obligations, and in certain circumstances, with the consent of the holders of not less than a majority in aggregate principal amount of the Master Indenture Obligations then Outstanding. Such amendments could be substantial and result in the modification, waiver or removal of existing covenants or restrictions contained in the Master Indenture. The Master Indenture may also be replaced by a replacement master indenture of a new credit group, without the consent of the Holders of the Bonds upon satisfaction of the requirements set forth in the Master Indenture. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1."

The Obligated Group and the Credit Group. The Master Indenture creates the Credit Group, which is comprised of the Obligated Group Members, Designated Affiliates, if any, Unlimited Credit Group Participants, if any, and Limited Credit Group Participants, if any. As of the date of issuance of the Bonds, the Corporation, Temple University Hospital, Temple Transport, TPI, AOH, ICR, FCCCMG and the Network will be the only Obligated Group Members. On the date of issuance of the Bonds, there will be no Designated Affiliates, and no Unlimited Credit Group Participants or Limited Credit Group Participants. No other entities or affiliates within the Health System, other than the Obligated Group Members, are obligated to make payments with respect to the Bonds or the Master Indenture Obligations.

All Obligated Group Members are jointly and severally obligated for the amounts due on Master Indenture Obligations. Designated Affiliates, Unlimited Credit Group Participants and Limited Credit Group Participants are not obligated to make payments on Master Indenture Obligations. However, they may be required to transfer funds to the Obligated Group Members acting as their Controlling Members under the Master Indenture, in amounts necessary to enable such Obligated Group Members to comply with the provisions of the Master Indenture, including to make payments due on Master Indenture Obligations. Although Designated Affiliates, Unlimited Credit Group Participants and Limited Credit Group Participants are not obligated to make payments on Master Indenture Obligations, such entities, if any are so designated under the Master Indenture, are Credit Group Members and are subject to certain covenants under the Master Indenture and certain financial covenants and ratios under the Master Indenture, including the Long-Term Debt Service Coverage Ratio, based on the consolidated financial results of the Credit Group, which may include the results of operations of Immaterial Affiliates (as defined in the Master Indenture). See APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 - THE MASTER INDENTURE." See also "Designated Affiliates; Unlimited Credit Group Participants; Limited Credit Group Participants" below.

Issuance of Master Indenture Obligations; Joint and Several Obligations. Under the Master Indenture, each Obligated Group Member authorizes to be issued from time to time Master Indenture Obligations, without limitation as to amount, except as provided in the Master Indenture or as may be limited by law, and subject to the terms, conditions and limitations established in the Master Indenture and in any Related Supplement. Master Indenture Obligations may be in any form set forth in a Related Supplement, including, but not limited to, bonds, notes, obligations, debentures, reimbursement agreements, loan agreements, Financial Product Agreements or leases. Each Obligated Group Member jointly and severally covenants to promptly pay, or cause to be paid, all Required Payments at the place,

on or before the dates and in the manner provided in the Master Indenture or in any Related Supplement or Master Indenture Obligation. Each Obligated Group Member further covenants to faithfully observe and perform all of the conditions, covenants and requirements of the Master Indenture, any Related Supplement and any Master Indenture Obligation.

Obligation No. 1 is being issued by the Corporation, as Credit Group Representative, pursuant to the Master Indenture, on parity with all Master Indenture Obligations issued or to be issued under the Master Indenture. From and after the effective date of the LTA Modifications, Obligations issued and outstanding under the Loan and Trust Agreement may be secured by Obligations under the Master Indenture.

See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1."

Changes to the Members of the Credit Group. Entities may be added to and withdrawn from the Credit Group from time to time. The Master Indenture imposes minimum conditions on the right of any Obligated Group Member or Credit Group Member to enter or withdraw from the Obligated Group or the Credit Group, respectively, at any time, or to change the status of an Obligated Group Member to that of a Designated Affiliate. For a description of the Obligated Group, see APPENDIX A – "CERTAIN INFORMATION CONCERNING TEMPLE UNIVERSITY HEALTH SYSTEM." For a more detailed discussion of entry into or withdrawal from the Obligated Group or Credit Group, respectively, see APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Credit Group Membership – Membership in Obligated Group," and "– Withdrawal from Obligated Group."

Designated Affiliates; Unlimited Credit Group Participants; Limited Credit Group Participants. Under the Master Indenture, the Corporation, as the Credit Group Representative, may designate "Designated Affiliates," "Unlimited Credit Group Participants" and "Limited Credit Group Participants" from time to time, and may rescind any such designation at any time on the conditions set forth in the Master Indenture. In connection with such designation, the Credit Group Representative shall designate (i) for each Designated Affiliate, an Obligated Group Member to serve as the Controlling Member for such Designated Affiliate, and (ii) for each Unlimited Credit Group Participant or Limited Credit Group Participant, an Obligated Group Member or a Designated Affiliate to serve, by contractual agreement, as the Controlling Member for such Unlimited Credit Group Participant or Limited Credit Group Participant, as applicable. So long as such Person is designated as a Designated Affiliate, the Controlling Member of such Designated Affiliate shall either (i) maintain, directly or indirectly, control of such Designated Affiliate to the extent necessary to cause such Designated Affiliate to comply with the terms of the Master Indenture, whether through the ownership of voting securities, by contract, corporate membership, reserved powers or the power to appoint corporate members, trustees or directors, or otherwise or (ii) execute and have in effect such contracts or other agreements which the Credit Group Representative and the Controlling Member, in the judgment of their respective Governing Bodies, deem sufficient for the Controlling Member to cause such Designated Affiliate to comply with the terms of the Master Indenture. An Unlimited Credit Group Participant is a Person designated as such by the Credit Group Representative that is contractually obligated by agreement with the Controlling Member to make transfers to such Controlling Member and perform all of the obligations of a Credit Group Member and to do all things necessary to permit the Obligated Group to perform its obligations and covenants as set forth in the Master Indenture. A Limited Credit Group Participant is a Person designated as such by the Credit Group Representative that has a limited contractual obligation as set forth in an agreement with the Controlling Member to make transfers to such Controlling Member and to do all things necessary to permit the Obligated Group to perform its obligations and covenants as set forth in the Master Indenture,

subject in each case to the limitations set forth in such agreement with the Controlling Member. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Credit Group Membership." As of the date of issuance of the Bonds, there will be no Designated Affiliates, Unlimited Credit Group Participants, or Limited Credit Group Participants designated under the Master Indenture.

Designated Affiliates, Unlimited Credit Group Participants and Limited Credit Group Participants are not obligated to make payments on any Master Indenture Obligation. Each Controlling Member agrees, however, that it shall cause each of its Designated Affiliates, Unlimited Credit Group Participants and Limited Credit Group Participants to transfer to such Controlling Member such amounts as are necessary (subject with respect to each Limited Credit Group Participant, the limitations set forth in the applicable agreement entered into with its Controlling Member) to enable the Obligated Group Members to comply with the provisions of the Master Indenture; *provided*, *however*, that nothing in the Master Indenture shall be construed to require any Controlling Member to cause its Designated Affiliates, Unlimited Credit Group Participants or Limited Credit Group Participants to transfer to such Controlling Member any amounts that constitute Restricted Moneys.

Security for Master Indenture Obligations. All Master Indenture Obligations Outstanding from time to time under the Master Indenture, including Obligation No. 1, will be secured by a pledge, assignment and grant by each Obligated Group Member to the Master Trustee of a security interest in all of such Obligated Group Member's right, title and interest in its Gross Receipts. See "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS – Security and Enforceability – Perfection of a Security Interest." See also APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Credit Group Membership," "– Gross Receipts Pledge," "– Membership in Obligated Group," and "– Withdrawal from Obligated Group."

Security Interests in Gross Receipts for Master Indenture Obligations. Each Obligated Group Member has pledged, assigned and granted to the Master Trustee a security interest in all of its right, title and interest, whether now owned or hereafter acquired, in and to its Gross Receipts, subject to Permitted Liens. Any future Obligated Group Members will also be required to grant a security interest in their Gross Receipts. For purposes of the Master Indenture, "Gross Receipts" is defined to mean all receipts, revenues, income and other moneys received by or on behalf of such Obligated Group Member; including, but without limiting the generality of the foregoing, revenues derived from the ownership or operation of Property, including insurance and condemnation proceeds with respect to such Property or any portion thereof, and all rights to receive the same, whether in the form of accounts, accounts receivable, contract rights or other rights, and the proceeds of such rights, whether now owned or held or hereafter coming into existence; provided, however, that there shall be excluded from Gross Receipts (A) gifts, grants (including Hill-Burton grants), bequests, donations and contributions heretofore or hereafter made and designated or specified by the granting authority, donor or maker thereof as being for specified purposes (inconsistent with the payment of debt service on Indebtedness) and the income derived therefrom to the extent required by such designation or specification, (B) revenues, receipts and income derived from the ownership and operation of Property which secures Non-Recourse Indebtedness, and (C) any cash or investments held by any Obligated Group Member on the date of execution and delivery of this Master Indenture, or with respect to any Obligated Group Member which joined or may join the Obligated Group after such date, any cash or investment held by such Obligated Group Member on the date such Obligated Group Member joined or joins the Obligated Group. "Gross Receipts" shall not include Restricted Moneys.

The security interest of the Master Trustee in the Gross Receipts is subject to certain limitations as described below in this section under the heading "Security and Enforceability – Perfection of Security Interest."

Nothing in the Master Indenture shall give any party other than the licensed provider of services any right in or to any deposit account, bank account (or the funds on deposit therein) or other account into which funds received directly from Medicare, Medicaid or other governmental payor sources are deposited, or to give any party the right to collect payments directly from such payor sources, except in strict accordance with applicable law, including, without limitation, the so-called anti-assignment provisions of the Medicare and Medicaid regulations and accompanying operations manuals. *See* APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Gross Receipts Pledge."

Permitted Liens Under the Master Indenture; Permitted Encumbrances under the Loan and Trust Agreement. Pursuant to the Master Indenture, each Obligated Group Member agrees that it will not, and each Controlling Member agrees that it will not permit any Designated Affiliate it controls, any Unlimited Credit Group Participant, or, subject to applicable contractual limitations, any Limited Credit Group Participant with which it has a contractual agreement, to create or suffer to be created or permit the existence of any Lien upon Property (excluding the Excluded Property), now owned or hereafter acquired by it, other than Permitted Liens. Permitted Liens include, but are not limited to, Liens that may be granted to secure additional Master Indenture Obligations and other Indebtedness. The Obligated Group may incur substantial liabilities secured by Permitted Liens.

The Master Indenture excludes from the definition of Property certain Excluded Property, and such Excluded Property is not subject to the covenant against Liens set forth in the Master Indenture. The Master Indenture permits additions to the Excluded Property upon satisfaction of certain conditions set forth in the Master Indenture. *See* the definitions of "Permitted Liens" and "Excluded Property" in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – DEFINITIONS OF CERTAIN TERMS THE MASTER INDENTURE" and "– THE MASTER INDENTURE – Additions to Excluded Property."

In addition, so long as the Loan and Trust Agreement is in effect, the Obligated Group has agreed that no Obligated Group Member will create or suffer to be created or exist any Lien upon Property, Gross Receipts or Current Assets now owned or hereafter acquired by the Obligated Group or any Obligated Group Member other than Permitted Encumbrances. *See* APPENDIX E - "SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AND TRUST AGREEMENT – Limitation on Creation of Liens."

Other Master Indenture Covenants; Long-Term Debt Service Coverage Ratio; Immaterial Affiliates; Other Loan and Trust Agreement Covenants. In addition to the security and other provisions described above, the Master Indenture and the Loan and Trust Agreement contain provisions, covenants and restrictions related to incurrence of indebtedness, mergers and other corporate combinations and divestitures, sales, leases or other dispositions or assets and other matters. The Master Indenture requires the Credit Group to maintain a Long-Term Debt Service Coverage Ratio of at least 1.1 to 1.0 for each Fiscal Year. The Credit Group has agreed in the Master Indenture to retain an Independent Consultant if the Long-Term Debt Service Coverage Ratio is less than 1.1 to 1.0 for any Fiscal Year. Failure to achieve a Long-Term Debt Service Coverage Ratio of at least 1.0 to 1.0 for any two consecutive Fiscal Years shall constitute an Event of Default under the Master Indenture. In calculating any financial test, restriction, or covenant under the Master Indenture, including the Long Term Debt Service Coverage

Ratio, the Credit Group shall be permitted to include in such calculations, the results of operations and financial performance of Immaterial Affiliates, to the same extent as though such Immaterial Affiliates were Credit Group Members. "Immaterial Affiliates" means Persons that are not Credit Group Members and whose combined or consolidated operating revenues, as shown on their financial statements for their most recently completed fiscal year for which financial statements are available, were less than 20% of the combined or consolidated operating revenues of the Credit Group as shown on the Credit Group Financial Statements plus the operating revenues of such Persons as if they were Credit Group Members for such period, for the most recently completed Fiscal Year of the Credit Group, provided that a single Person who is not a Credit Group Member but whose operating revenues would be more than 15% of the combined or consolidated operating revenues of the Credit Group as shown on the Credit Group Financial Statements and calculated in the above manner may not be an Immaterial Affiliate. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Long-Term Debt Service Coverage Ratio," "– Merger, Consolidation, Sale or Conveyance," "– Limitation on Disposition of Assets" and "– Limitation on Additional Indebtedness."

Until the LTA Modifications take effect, the Obligated Group has covenanted under the Loan and Trust Agreement that it will use its best efforts to maintain for each Fiscal Year a ratio of Income Available for Debt Service (as defined in the Loan and Trust Agreement) to Annual Debt Service (as defined in the Loan and Trust Agreement) of at least 1.10 and shall furnish the LTA Trustee with an Officer's Certificate to that effect promptly after the audited financial statements for such Fiscal Year shall have become available. If such ratio, as calculated based on the audited financial statements for such Fiscal Year, is below 1.10, the Obligated Group Agent is required to notify the LTA Trustee to that effect and the Obligated Group covenants to retain a Consultant (as defined in the Loan and Trust Agreement) within sixty (60) days of such calculation to make recommendations to increase such ratio for subsequent Fiscal Years of the Obligated Group at least to the level required or, if in the opinion of the Consultant the attainment of such level is impracticable, to the highest practicable level. The Obligated Group agrees that the Obligated Group will, to the extent practicable and not prevented by law or existing contracts, follow the recommendations of the Consultant. The Obligated Group must promptly notify the LTA Trustee in each case in which a Consultant is retained and of the recommendations of the Consultant. So long as the Obligated Group shall retain a Consultant and shall follow such Consultant's recommendations to the extent not prevented by law or existing contracts, this covenant shall be deemed to have been complied with even if such ratio for any subsequent Fiscal Year of the Obligated Group is below 1.10, provided that such ratio shall not be below 1.00. See APPENDIX E - "SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AND TRUST AGREEMENT - Rate Covenant." Under the Loan and Trust Agreement, calculations in connection with the Rate Covenant are based upon the financial statements of the Obligated Group while under the Master Indenture the calculations in connection with the Rate Covenant are based upon the financial statements of the Credit Group. For the fiscal year ended June 30, 2021, the Obligated Group generated 92% of the Total Operating Revenue of the Health System. APPENDIX A - "CERTAIN INFORMATION CONCERNING TEMPLE UNIVERSITY HEALTH SYSTEM - SUMMARY FINANCIAL AND OPERATING INFORMATION."

Until the LTA Modifications take effect, the Obligated Group has covenanted under the Loan and Trust Agreement that, so long as the Series 2017 Bonds remain Outstanding, it shall maintain Days-Cash-On-Hand of at least forty-five (45) days. Compliance shall be tested annually, on the basis of the annual audited financial statements delivered pursuant to the Loan and Trust Agreement for the preceding Fiscal Year. "Days-Cash-On-Hand" is defined in the Loan and Trust Agreement to mean, for each Fiscal Year, Unrestricted Cash and Investments (as defined in Appendix "E"), divided by total operating expenses, net of Depreciation, Amortization, Restructuring Costs, Asset Impairment, Gain or Losses (as such terms are defined in accordance with GAAP) on the sale of fixed assets, bad debt

expense and other non-cash expense items, divided by 365. For purposes of this definition, "total operating expenses," "bad debt expense" and "non-cash expense items" shall mean such line items as reported on the consolidated statements of operations and changes in net assets of the audited financial statements of the Obligated Group delivered pursuant to the Loan and Trust Agreement. *See* APPENDIX E - "SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AND TRUST AGREEMENT – Days-Cash-On-Hand Covenant."

Other Outstanding Indebtedness and Master Indenture Obligations. On the date of issuance of the Bonds, Obligation No. 1 will be the only Master Indenture Obligation Outstanding under the Master Indenture. From and after the effective date of the LTA Modifications, Obligations issued and outstanding under the Loan and Trust Agreement may be secured by Obligations under the Master Indenture. The Obligated Group Members have outstanding indebtedness and other obligations that are not secured by Master Indenture Obligations or LTA Obligations, including capital lease obligations, equipment financing arrangements and mortgage obligations. See Notes 9 and 10 to the financial statements included in this Official Statement as APPENDIX B — "AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF TEMPLE UNIVERSITY HEALTH SYSTEM AS OF AND FOR THE YEARS ENDED JUNE 30, 2021 AND 2020" with respect to certain information concerning outstanding indebtedness, leases and certain equipment financing arrangements.

Replacement of Obligation No. 1 with an Obligation Issued Under a Separate Master Indenture; Substitution of Security in Accordance with the Loan and Trust Agreement. The Master Indenture provides that Master Indenture Obligations must be surrendered by their Holders and delivered to the Master Trustee for cancellation upon satisfaction of certain requirements that include receipt of (i) a request from the Credit Group Representative requesting such surrender and delivery and stating that (A) each of the Obligated Group Members have become members of an obligated group under a replacement master indenture (other than the Master Indenture) (the "Replacement Master Indenture") and (B) an obligation or obligations under the Replacement Master Indenture are being issued (collectively, the "Replacement Obligation") to such Holder with the same tenor and effect as the related Master Indenture Obligation to be surrendered for cancellation; (ii) certain opinions of counsel and other documents described in the Master Indenture; and (iii) written evidence from any one of the Rating Agencies then rating any Related Bonds to the effect that, immediately following the delivery of such Replacement Obligation, a rating on indebtedness secured by Replacement Obligations issued pursuant to the Replacement Master Indenture (A) will not be less than "A" or its equivalent (without regard to any refinement or gradation by numerical modifier, outlook or otherwise), or, (B) if the then-current Rating Category on any indebtedness secured by a Master Indenture Obligation issued under the Master Indenture is less than "A" or its equivalent (without regard to any refinement or gradation by numerical modifier, outlook or otherwise), will not be withdrawn or reduced (without regard to any refinement or gradation by numerical modifier, outlook or otherwise), as compared to the Rating Category in effect immediately prior to the delivery of such Replacement Obligation. The Master Indenture does not require the consent of the Holders of any Bonds to the implementation of a Replacement Master Indenture and issuance of a Replacement Obligation. See APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Replacement of Master Indenture Obligations."

Until the LTA Modifications take effect, the Obligated Group has covenanted under the Loan and Trust Agreement that, in connection with any merger, consolidation, member substitution or similar transaction involving an affiliation of the Obligated Group with an entity or entities subject to an existing master trust indenture or similar financing document, the pledge of Gross Receipts securing the Obligations shall be terminated upon presentation to the LTA Trustee of certain deliverables and, at such time, the provisions of the Loan and Trust Agreement regarding requirements for the addition of an

Obligated Group Member shall be deemed inapplicable. Further, the provisions relating to the security interest in the Gross Receipts and certain restrictions on the Obligated Group, including but not limited to those relating to, additional indebtedness, the rate covenant, the Days-Cash-On-Hand covenant and transfers of Current Assets, will be terminated and one or more of the Mortgages may be released. *See* APPENDIX E - "SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AND TRUST AGREEMENT – Substitution of Security."

Security and Enforceability

Perfection of a Security Interest. Each Obligated Group Member has granted a security interest in all of its right, title, and interest, whether now owned or hereafter acquired, in and to its Gross Receipts, subject to Permitted Liens. The Master Indenture provides that the Master Trustee's security interest in the Gross Receipts shall be perfected, to the extent that such security interest may be so perfected, by the filing of financing statements which comply with the requirements of the UCC. Each Obligated Group Member shall file, in accordance with the requirements of the UCC, financing statements; and, from time to time thereafter, shall deliver such other documents (including, but not limited to, continuation statements as required by the UCC) as may be necessary or reasonably requested by the Master Trustee in order to maintain such security interests or give public notice thereof. It may not be possible to perfect a security interest in any manner whatsoever in certain types of Gross Receipts (e.g., gifts, donations, certain insurance proceeds and payments under the Medicare and Medicaid programs) prior to actual receipt by any Member. The Members of the Obligated Group are not obligated to, and will not, enter into any deposit account control agreements with or for the benefit of the Master Trustee in connection with the execution and delivery of the Master Indenture. See APPENDIX C -"SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 - THE MASTER INDENTURE - Gross Receipts Pledge." See also "BONDHOLDERS' RISKS - Security and Enforceability - Revenues Pledge."

Enforceability of the Master Indenture, the Loan and Trust Agreement, the Loan Agreement and Obligation No. 1. The state of the insolvency, fraudulent conveyance and bankruptcy laws relating to the enforceability of guaranties or obligations issued by one corporation in favor of the creditors of another or the obligations of an Obligated Group Member to make debt service payments on behalf of another Obligated Group Member is unsettled, and the ability to enforce the Master Indenture and/or the Loan and Trust Agreement and the Master Indenture Obligations and/or the LTA Obligations against any Obligated Group Member that would be rendered insolvent thereby could be subject to challenge.

The legal right and practical ability of the Bond Trustee and/or the LTA Trustee, as applicable, to enforce its rights and remedies against the Corporation and the Obligated Group under the Loan Agreement and/or the Loan and Trust Agreement, as applicable, and related documents and of the Master Trustee and/or the LTA Trustee, as applicable, to enforce its rights and remedies against the Obligated Group Members under Obligation No. 1 and/or the LTA Obligations, as applicable, may be limited by laws relating to bankruptcy, insolvency, reorganization, fraudulent conveyance or moratorium and by other similar laws affecting creditors' rights. In addition, the Bond Trustee's, the Master Trustee's and the LTA Trustee's ability to enforce such rights will depend upon the exercise of various remedies specified by such documents which may in many instances require judicial actions that are often subject to discretion and delay or that otherwise may not be readily available or may be limited. *See* "BONDHOLDERS' RISKS – Security and Enforceability – Enforceability of the Master Indenture and Obligation No. 1."

Other Indebtedness

The Obligated Group Members may issue additional Master Indenture Obligations under the Master Indenture that are secured on a parity with Obligation No. 1 and the Parity Obligations by the pledge of Gross Receipts. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Limitation on Additional Indebtedness" for a description of the conditions under which the Obligated Group Members may issue additional Master Indenture Obligations under the Master Indenture.

Under certain conditions set forth in the Master Indenture, in addition to incurring indebtedness represented by a Master Indenture Obligation, the Obligated Group Members may incur debt in the form of indebtedness incurred by the Obligated Group Members individually that is not secured by a Master Indenture Obligation issued under the Master Indenture. Such borrowing may be secured by Permitted Liens. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1" for a description of various financial covenants applicable to the Corporation and any other Obligated Group Members.

In addition, the Obligated Group Members may issue additional LTA Obligations under the Loan and Trust Agreement that are secured on a parity with Obligation No. 1 and the Parity Obligations by the pledge of Gross Receipts. Under certain conditions set forth in the Loan and Trust Agreement, in addition to incurring indebtedness represented by an LTA Obligation, the Obligated Group Members may incur debt in the form of indebtedness incurred by the Obligated Group Members individually that is not secured by an LTA Obligation issued under the Loan and Trust Agreement. Such borrowing may be secured by Permitted Encumbrances. *See* APPENDIX E – "SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AND TRUST AGREEMENT – Limitations on Incurrence of Additional Debt."

The Mortgages

As further security for their obligations under the Loan and Trust Agreement to make payment on account of the LTA Indebtedness, certain members of the Obligated Group executed and delivered to the LTA Trustee mortgages (the "Mortgages") with respect to certain real property interests held by them, all located in Philadelphia, Pennsylvania and with respect to certain facilities operated by the Obligated Group Members. The security of the Mortgages will extend to the Obligated Group's obligations under Supplemental Master Indenture No. 1 to make payment on account of Obligation No. 1. These Mortgages consist of a subleasehold first mortgage given by Temple University Hospital in its subleasehold property interest that is the subject of a lease from the Commonwealth of Pennsylvania to Temple University and a sublease from Temple University to Temple University Hospital; and a leasehold first mortgage given by Temple University Hospital in certain of its leasehold property interest that is the subject of a lease from Friends Fiduciary Corporation to Temple University Hospital for its Jeanes campus. The mortgages given by Temple University Hospital are each subject to certain limitations and conditions based on the provisions of the sublease or lease applicable to their respective property interests. Two additional fee mortgages were given by AOH and ICR on the two parcels of real property in Northeast Philadelphia which comprise the main campus of AOH, each of which is subject to a reversionary clause in the applicable deed, enforceable by the Friends Fiduciary Corporation, which provides that the land shall be re-conveyed to the Friends Fiduciary Corporation if ICR or AOH. respectively, shall no longer own the premises or if the premises are no longer used for the purposes of conducting researching and providing treatment for the prevention and cure of cancer and nervous and disabling ailments.

The property where Temple University Hospital is located ("TUH Premises") is subject to a lease between the Department of General Services, acting for and on behalf of the Commonwealth ("DGS"), and Temple University, dated December 18, 1978 (the "Temple University Lease"). The Temple University Lease provides that Temple University may enter into a sublease for the TUH Premises, and Temple University and Temple University Hospital entered into a Sublease Agreement dated April, 1997, as amended (the "Sublease") for use of the TUH Premises as a hospital, medical school, health care provider, and health services administration, management and office facility. Both the Temple University Lease and the Sublease expire on December 31, 2043. The Temple University Lease provides that Temple University is in default if it fails to pay annual rent of \$1.00 or is in breach of any covenants of the Temple University Lease, including the requirements that Temple University maintain the TUH Premises as a hospital, medical school, health care provider, and health services administration, management and office facility and procure certain insurance policies. If Temple University fails to cure a default within thirty days of written notice, DGS may void the Temple University Lease and take possession of the TUH Premises. The Temple University Lease does not require DGS to honor the Sublease.

Temple University and its successors and assigns may grant a leasehold mortgage to secure financing provided that the leasehold mortgagee agrees to be bound by the terms of the Temple University Lease. Pursuant to an Open-End Sub-Leasehold Mortgage and Security Agreement, dated June 20, 2005 (the "Temple Hospital Mortgage"), Temple University Hospital granted to the LTA Trustee a first mortgage on its sub-leasehold interest in the TUH Premises. At the time the Temple Hospital Mortgage was granted, the LTA Trustee agreed to be bound by the terms of the Temple University Lease.

Defaults under the Sublease include, but are not limited to, failure to pay rent and other amounts due under the Sublease, bankruptcy and a failure to comply with the provisions of the Sublease, including the requirement that Temple University Hospital obtain certain insurance policies. The minimum annual rent under the Sublease is \$1.00. The Sublease is a "triple net" lease and Temple University Hospital is required to pay all operating expenses, taxes, insurance, utilities, maintenance and repairs (including capital improvements) associated with the TUH Premises. Among other rights, upon a default by Temple University Hospital, Temple University has the right to enter the TUH Premises and lease the TUH Premises or any part thereof to other persons.

If the Sublease is terminated, either because it is not honored by DGS following a default under the Temple University Lease, or due to a default under the Sublease, the rights of the LTA Trustee, as leasehold mortgagee, are extinguished.

In 1996, in connection with the acquisition of Jeanes Hospital by the Corporation, Jeanes Hospital and the Friends Fiduciary Corporation ("FFC"), the owner of the property (the "Jeanes Property") on which the Jeanes Hospital is located, entered into an Income Agreement (the "Jeanes Income Agreement"), an Affiliation Agreement (the "Jeanes Affiliation Agreement") and a Lease Agreement (the "Jeanes Lease"). The Jeanes Income Agreement provides that the income on certain funds held by FFC will be transferred by FFC to Jeanes Hospital to be used for health, health-related and health-related educational purposes in the community in which the Jeanes Property is located. The Jeanes Affiliation Agreement governs the affiliation between the Corporation and Jeanes Hospital. The Jeanes Lease expires on June 30, 2046 but is renewable for additional 10 year terms after the first 20 years (which triggered on June 30, 2016) for a rolling 50 year period so long as Jeanes Hospital is a tenant in good standing. The annual rent for the balance of the demised term is \$100,000.00. The Jeanes Lease restricts the use of the Jeanes Property to health, health-related and health-related educational purposes in the community in which the Jeanes Property is located. Defaults under the Jeanes Lease include, but are

not limited to, failure to pay rent, bankruptcy, breach of the Jeanes Affiliation Agreement (which generally relate to governance issues, a change of purpose or a change of use of Jeanes Hospital) and a breach of the Jeanes Income Agreement.

The Jeanes Lease provides that Jeanes Hospital may grant a leasehold mortgage to secure financing provided that the leasehold mortgagee agrees to be bound by the terms of the Jeanes Lease, except those relating to use and governance. While FFC's remedies upon a default by Jeanes Hospital include specific performance, injunctive relief and damages, FFC can dispossess Jeanes Hospital only if (i) following notice and meetings between Jeanes Hospital and FFC, it concludes that further meetings would be unproductive and (ii) such notices occur twice within ten years.

At the time it became a member of the Obligated Group in 2005, Jeanes Hospital granted a leasehold mortgage on its interest in the Jeanes Property to the LTA Trustee. Jeanes Hospital merged into Temple University Hospital, effective February 1, 2020. The LTA Trustee, as leasehold mortgagee, can foreclose and, except as stated below, can continue to lease the Jeanes Property on the same terms. The Jeanes Lease provides that the leasehold mortgagee has six months to cure defaults, but has no obligation to cure defaults relating to use violations. It further provides that if the tenant provided by the leasehold mortgagee following a foreclosure action is not a 501(c)(3) organization, the rent to be paid will be a fair market rent.

Intercreditor Agreement

As described herein, pursuant to the Intercreditor Agreement, the parties will acknowledge and agree that the LTA Indebtedness, any additional LTA Obligations, Obligation No. 1 and any additional Obligations issued under the Master Indenture are equally and ratably secured by the pledge of Gross Receipts, and the LTA Indebtedness, any additional LTA Obligations, and Obligation No. 1 are equally and ratably secured by the Mortgages. Each party to the Intercreditor Agreement further agrees that it will share any proceeds of the Gross Receipts on a pro-rata basis as between the LTA Indebtedness (together with any additional LTA Obligations) and Obligation No. 1 (together with any additional Obligations issued under the Master Indenture), as more fully set forth in the Intercreditor Agreement. Each Party to the Intercreditor Agreement also agrees that it will share any proceeds of the Mortgages on a pro-rata basis as between the LTA Indebtedness (together with any additional LTA Obligations) and Obligation No. 1, as more fully set forth in the Intercreditor Agreement.

BOND INSURANCE

The following information is not complete and reference is made to Appendix J to this Official Statement for a specimen of the financial guaranty insurance policy of AGM relating to the insured Bonds.

Bond Insurance Policy

Concurrently with the issuance of the Bonds, Assured Guaranty Municipal Corp. will issue its Municipal Bond Insurance Policy for the Bonds. The Policy guarantees the scheduled payment of principal of and interest on the Bonds when due as set forth in the form of the Policy included as an exhibit to this Official Statement.

The Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.

Assured Guaranty Municipal Corp.

AGM is a New York domiciled financial guaranty insurance company and an indirect subsidiary of Assured Guaranty Ltd. ("AGL"), a Bermuda-based holding company whose shares are publicly traded and are listed on the New York Stock Exchange under the symbol "AGO". AGL, through its operating subsidiaries, provides credit enhancement products to the U.S. and international public finance (including infrastructure) and structured finance markets and asset management services. Neither AGL nor any of its shareholders or affiliates, other than AGM, is obligated to pay any debts of AGM or any claims under any insurance policy issued by AGM.

AGM's financial strength is rated "AA" (stable outlook) by S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC ("S&P"), "AA+" (stable outlook) by Kroll Bond Rating Agency, Inc. ("KBRA") and "A2" (stable outlook) by Moody's Investors Service, Inc. ("Moody's"). Each rating of AGM should be evaluated independently. An explanation of the significance of the above ratings may be obtained from the applicable rating agency. The above ratings are not recommendations to buy, sell or hold any security, and such ratings are subject to revision or withdrawal at any time by the rating agencies, including withdrawal initiated at the request of AGM in its sole discretion. In addition, the rating agencies may at any time change AGM's long-term rating outlooks or place such ratings on a watch list for possible downgrade in the near term. Any downward revision or withdrawal of any of the above ratings, the assignment of a negative outlook to such ratings or the placement of such ratings on a negative watch list may have an adverse effect on the market price of any security guaranteed by AGM. AGM only guarantees scheduled principal and scheduled interest payments payable by the issuer of bonds insured by AGM on the date(s) when such amounts were initially scheduled to become due and payable (subject to and in accordance with the terms of the relevant insurance policy), and does not guarantee the market price or liquidity of the securities it insures, nor does it guarantee that the ratings on such securities will not be revised or withdrawn.

Current Financial Strength Ratings

On October 20, 2021, KBRA announced it had affirmed AGM's insurance financial strength rating of "AA+" (stable outlook). AGM can give no assurance as to any further ratings action that KBRA may take.

On July 8, 2021, S&P announced it had affirmed AGM's financial strength rating of "AA" (stable outlook). AGM can give no assurance as to any further ratings action that S&P may take.

On August 13, 2019, Moody's announced it had affirmed AGM's insurance financial strength rating of "A2" (stable outlook). AGM can give no assurance as to any further ratings action that Moody's may take.

For more information regarding AGM's financial strength ratings and the risks relating thereto, see AGL's Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Capitalization of AGM

At December 31, 2021:

- The policyholders' surplus of AGM was approximately \$3,053 million.
- The contingency reserve of AGM was approximately \$877 million.

• The net unearned premium reserves and net deferred ceding commission income of AGM and its subsidiaries (as described below) were approximately \$2,127 million. Such amount includes (i) 100% of the net unearned premium reserve and deferred ceding commission income of AGM, and (ii) the net unearned premium reserves and net deferred ceding commissions of AGM's wholly owned subsidiaries Assured Guaranty UK Limited ("AGUK") and Assured Guaranty (Europe) SA ("AGE").

The policyholders' surplus of AGM and the contingency reserves, net unearned premium reserves and deferred ceding commission income of AGM were determined in accordance with statutory accounting principles. The net unearned premium reserves and net deferred ceding commissions of AGUK and AGE were determined in accordance with accounting principles generally accepted in the United States of America.

Incorporation of Certain Documents by Reference

Portions of the following document filed by AGL with the Securities and Exchange Commission (the "SEC") that relate to AGM are incorporated by reference into this Official Statement and shall be deemed to be a part hereof: the Annual Report on Form 10-K for the fiscal year ended December 31, 2021 (filed by AGL with the SEC on February 25, 2022).

All information relating to AGM included in, or as exhibits to, documents filed by AGL with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, excluding Current Reports or portions thereof "furnished" under Item 2.02 or Item 7.01 of Form 8-K, after the filing of the last document referred to above and before the termination of the offering of the Bonds shall be deemed incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents. Copies of materials incorporated by reference are available over the at SEC's website http://www.sec.gov, AGL's internet the at at website http://www.assuredguaranty.com, or will be provided upon request to Assured Guaranty Municipal Corp.: 1633 Broadway, New York, New York 10019, Attention: Communications Department (telephone (212) 974-0100). Except for the information referred to above, no information available on or through AGL's website shall be deemed to be part of or incorporated in this Official Statement.

Any information regarding AGM included herein under the caption "BOND INSURANCE – Assured Guaranty Municipal Corp." or included in a document incorporated by reference herein (collectively, the "AGM Information") shall be modified or superseded to the extent that any subsequently included AGM Information (either directly or through incorporation by reference) modifies or supersedes such previously included AGM Information. Any AGM Information so modified or superseded shall not constitute a part of this Official Statement, except as so modified or superseded.

Miscellaneous Matters

AGM makes no representation regarding the Bonds or the advisability of investing in the Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE".

PLAN OF FINANCE

The Corporation will use the proceeds of the Bonds to: (i) current refund the Refunded Bonds; and (ii) pay the costs of issuance of the Bonds.

The Authority will currently refund all or a portion of the Refunded Bonds with a portion of the proceeds of the Bonds and other available funds at closing. The moneys so provided will be deposited in an escrow fund (the "Series 2012 Escrow Fund") established pursuant to a Refunding Escrow Deposit Agreement among the Authority, the Corporation and U.S. Bank Trust Company, National Association, as Refunding Escrow Deposit Agent, and will be used to pay when due (i) interest on the Refunded Bonds to July 1, 2022, and (ii) the redemption price on July 1, 2022 of the Refunded Bonds. Upon the deposit of such funds in the Series 2012 Escrow Fund, the Refunded Bonds will be defeased, and the corresponding indebtedness of the Obligated Group will be discharged.

ESTIMATED SOURCES AND USES OF FUNDS

The sources and uses of funds relating to the issuance of the Bonds are estimated below.

Estimated Sources of Funds

Don Amount	\$165,890,000					
Par Amount						
Plus Original Issue Premium	22,952,687					
Available Funds of the Obligated Group	14,767,496					
Released Funds [†]	26,357,607					
Total Estimated Sources of Funds	<u>\$229,967,790</u>					
Estimated Uses of Funds						
Deposit for Refunded Bonds	\$225,375,282					
Costs of Issuance ^{††}	4,592,508					
Total Estimated Uses of Funds	\$229,967,790					

Totals may not add due to rounding.

From the debt service reserve fund and the debt service fund relating to the Refunded Bonds.

Costs of issuance includes Underwriters' fee, certain fees and expenses of various legal counsel, accountants, the Obligated Group's Financial Advisor, the Bond Trustee, the Master Trustee, the Verification Agent, the rating agencies, bond insurance premium and costs of printing.

ESTIMATED ANNUAL DEBT SERVICE REQUIREMENTS

The following table sets forth, for each fiscal year ending June 30, the amounts (rounded to the nearest whole dollar) required to be paid in such fiscal year for the payment of principal of (whether at maturity or pursuant to mandatory redemption) and interest on the Bonds and other Long-Term Indebtedness of the Obligated Group.

Fiscal Year Ending <u>June 30,</u>		022 Bonds <u>Service</u>	Total Debt Service on Other Long-Term <u>Indebtedness⁽¹⁾</u>	Total Debt Service Requirements
	<u>Principal</u>	<u>Interest</u>		
2023	-	\$5,474,095	\$23,648,375	\$29,122,470
2024	-	7,408,550	20,648,750	28,057,300
2025	-	7,408,550	23,531,625	30,940,175
2026	-	7,408,550	23,528,750	30,937,300
2027	-	7,408,550	23,528,625	30,937,175
2028	-	7,408,550	22,451,875	29,860,425
2029	-	7,408,550	22,448,000	29,856,550
2030	-	7,408,550	22,443,875	29,852,425
2031	-	7,408,550	22,525,250	29,933,800
2032	-	7,408,550	22,485,750	29,894,300
2033	-	7,408,550	22,490,000	29,898,550
2034	-	7,408,550	22,494,500	29,903,050
2035	-	7,408,550	23,657,000	31,065,550
2036	\$24,520,000	6,795,550	-	31,315,550
2037	25,745,000	5,538,925	-	31,283,925
2038	27,030,000	4,219,550	-	31,249,550
2039	28,380,000	2,976,200	-	31,356,200
2040	29,515,000	1,818,300	-	31,333,300
2041	30,700,000	614,000	<u>-</u> _	31,314,000
TOTAL	<u>\$165,890,000</u>	<u>\$116,339,220</u>	<u>\$295,882,375</u>	<u>\$578,111,595</u>

Totals may not add due to rounding.

BONDHOLDERS' RISKS

Some of the identifiable risks which should be considered when making an investment decision regarding the Bonds are discussed below. The discussion herein of risks to the Holders (including the Beneficial Owners) of the Bonds is not intended as dispositive, comprehensive or definitive, but rather is intended to summarize certain matters which could adversely affect payment on the Bonds. The risks discussed below should be read in conjunction with APPENDIX A – "INFORMATION CONCERNING THE HEALTH SYSTEM AND THE UNIVERSITY" and the discussion set forth under the caption "REGULATION OF THE HEALTH CARE INDUSTRY" below. Other sections of this Official Statement, as cited herein, should be referred to for a more detailed description of certain risks described in this section, which descriptions are qualified by reference to any documents discussed therein. Copies of all such documents are available from the Bond Trustee. The operations and financial condition of the Obligated Group Members (and any future Obligated Group Members) may be affected by factors other than those described in this section and "REGULATION OF THE HEALTH CARE INDUSTRY" below and elsewhere in this Official Statement. No assurance can be given as to the nature of such factors or the potential effects thereof on the Obligated Group Members.

⁽¹⁾ Does not include certain capital leases, equipment financing arrangements and mortgage obligations. See notes 9 and 10 in Appendix B for more information on outstanding capital leases, equipment financing arrangements and mortgage obligations of the Obligated Group.

General

As set forth under "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS," the Bonds will constitute special fund revenue bonds of the Authority and will be payable solely from Revenues and certain other amounts pledged under the Indenture for such payment. "Revenues" consist primarily of payments required to be made by the Corporation under the Loan Agreement, payments required to be made by the Obligated Group on Obligation No. 1 and from other funds held under the Indenture. Obligation No. 1 is a joint and several obligation of the Obligated Group Members. No representation or assurance can be made that the Obligated Group Members will realize Revenues in amounts sufficient to pay principal of and interest on the Bonds when due. The revenues and expenses of the Obligated Group Members (and any future Obligated Group Members) are subject to, among other things, the capabilities of the management of the Obligated Group Members, the confidence of physicians in management, the availability of physicians and trained support staff, changes in the population or the economic condition of the Obligated Group's service area, the level of and restrictions on federal funding of Medicare and federal and state funding of Medicaid, the imposition of government wage and price controls, the demand for the Obligated Group Members' services, increased competition, reduced third-party reimbursement rates or delays in payment, government regulations and licensing requirements, continued funding by the Commonwealth of Pennsylvania (the "Commonwealth"), future economic conditions and other conditions which are unpredictable and may not be quantifiable or determinable at this time.

See APPENDIX A – "INFORMATION CONCERNING THE HEALTH SYSTEM AND THE UNIVERSITY – SUMMARY FINANCIAL AND OPERATING INFORMATION" and see also APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1."

The discussion herein describes risks related to certain existing federal and state laws, regulations, rules and governmental administrative policies and determinations to which the Obligated Group Members and the health care industry are subject. Several of the federal statutes and regulations described herein may be substantially modified or repealed in whole or in part. The scope and effect of future legislation cannot be predicted and such future legislation could have a material adverse impact on the Obligated Group. In addition to statutory changes, regulatory changes and executive actions implemented by past, present and future presidential administrations could have a material adverse impact on the Obligated Group. Accordingly, it is possible that the significant risk areas summarized under this caption "BONDHOLDERS' RISKS" will undergo significant change in the near term.

ADVERSE CONSEQUENCES ARISING FROM ONE OR MORE OF THE FOLLOWING RISKS, OR THE OCCURRENCE OF OTHER UNANTICIPATED EVENTS, COULD ADVERSELY AFFECT THE OPERATIONS OR FINANCIAL PERFORMANCE OF THE OBLIGATED GROUP MEMBERS. THIS DISCUSSION IS NOT, AND IS NOT INTENDED TO BE, EXHAUSTIVE. THE RISKS DISCUSSED BELOW SHOULD BE READ IN CONJUNCTION WITH THE DISCUSSION SET FORTH IN APPENDIX A – "INFORMATION CONCERNING THE HEALTH SYSTEM AND THE UNIVERSITY," THE DISCUSSION APPEARING UNDER THE CAPTION "REGULATION OF THE HEALTH CARE INDUSTRY" BELOW AND THE INFORMATION APPEARING ELSEWHERE IN THIS OFFICIAL STATEMENT.

COVID-19 Pandemic

General

The Obligated Group's business and financial results may be harmed by an international, national or localized outbreak of a highly contagious or epidemic disease. The COVID-19 pandemic has had, and continues to have, numerous and varied medical, economic, and social impacts, any and all of which may have had and may continue to have adverse effects on the Obligated Group's business and financial condition.

National, state, and local governments have taken, and may continue to take, various actions, including the passage of laws and regulations, on a wide array of topics, in an attempt to slow the spread of COVID-19 and to address the health and economic consequences of the outbreak. Many of these government actions have caused substantial changes to the way health care is provided and how society in general functions. Although COVID-19 vaccines began being administrated in the U.S. in December of 2020, it is impossible to predict what percentage of the population will ultimately be vaccinated, the duration of vaccine protection, and whether current vaccines will protect against new COVID-19 variants. Accordingly, it is not clear how long public health safety measures will remain in place or whether any new measures will be required.

It is generally expected that the overall impact of the COVID-19 pandemic on the U.S. economy will continue to be broad based and materially adverse. The ultimate effect of the pandemic on the operations and financial condition of the Obligated Group cannot be predicted at this time due to the dynamic nature of the outbreak, including uncertainties relating to its duration and severity, and the future actions of governmental authorities to contain or mitigate its impact, though such effect could be material and adverse. *See* "RECENT EVENTS – COVID-19 Pandemic" and "SUMMARY FINANCIAL AND OPERATING INFORMATION – Management's Discussion – Utilization and Financial Performance of the Consolidated Results of the Health System" and "— Management's Discussion – Balance Sheet of the Consolidated Results of the Health System" in APPENDIX A hereto.

Operational Disruption

The COVID-19 pandemic has affected the Obligated Group's ability to conduct normal business operations and, as a result, the operations, financial condition and financial performance of the Obligated Group has been, and may continue to be, adversely affected in significant ways. In order to reduce the spread of the virus, many state and local governments previously issued general "stay at home" or "shelter in place" orders that mandated social distancing, suspended elective surgeries and other nonemergency medical services, closed school systems and closed or limited non-essential business activities in an effort to slow the spread of COVID-19. As vaccination rates have increased, many states began the process of easing public health restrictions to allow more economic activity to take place. However, reimplementation of certain restrictions has occurred in some states due to spikes in positive COVID-19 cases and hospitalizations. Mitigation measures, such as self-quarantines, stay-at-home/shelter-in-place orders, and suspension of voluntary procedures and surgeries had, and may continue to have, an adverse impact on the operations and financial position of health care provider systems due to increased costs, potential reduction in overall patient volume and shifts in payor mix. Even if such vaccinations and/or sustained public health measures help reduce the rate of increase in COVID-19 cases in the near term, public health measures may need to be sustained for prolonged periods of time to be effective in controlling and reducing the transmission of COVID-19.

The U.S. Department of Health and Human Services Centers for Medicare & Medicaid Services ("CMS") issued guidance in March 2020 that all elective surgeries and procedures, including medical and dental, should be postponed nationwide to mitigate the burden on health systems due to increasing COVID-19 incidence and to preserve necessary facilities, equipment, supplies (including personal protective equipment), and personnel needed to treat COVID-19 patients. Several state and local governments, including Pennsylvania, subsequently issued directives, in varying forms, mandating such postponement. Although the restrictions on elective procedures were gradually lifted, the restrictions adversely affected the revenues of health care providers. It cannot be predicted whether progression of the COVID-19 pandemic will require that similar or new restrictions be implemented in the future. Business disruptions could also include temporary closures of the Obligated Group Members' facilities or the facilities of suppliers and their contract manufacturers, and a reduction in the business hours of nonemergent health care facilities. Health care providers and facilities may become overburdened if the number of COVID-19 cases grows, limiting their ability to provide comprehensive care to patients, and leading to diversion of medical resources, and priorities toward the treatment of COVID-19 patients. In addition, health care providers may be required to provide significant amounts of uncompensated care. Changes in operations at the Obligated Group Members' facilities may result in additional costs being incurred related to adjustments to the use of various facilities and to staffing during this outbreak, including overtime wages, wages paid to employees who are unable to work due to quarantine, and utilization of more expensive contract staff to provide care.

President Biden announced a COVID-19 Action Plan in fall of 2021 that, among other things, would require employers with one hundred or more employees to require their employees to get the COVID-19 vaccine or undergo weekly testing pursuant to a new Emergency Temporary Standard ("ETS") of the Occupational Safety and Health Administration ("OSHA") and also requires vaccination for federal workers and contractors, as well as health care workers in hospitals, nursing facilities, and other institutions that receive Medicare and Medicaid reimbursement. Both vaccine rules faced litigation and challenges from certain states. At one point, the CMS vaccine rule was preliminarily enjoined in 25 states. However, as of January 13, 2022, after the U.S. Supreme Court issued a decision in Missouri v. Biden, CMS's vaccine mandate is only preliminarily enjoined in Texas, pending further litigation and development. CMS is using enforcement discretion to implement their rule on a modified timeline after the enforcement delays that resulted from the litigation. Also on January 13, 2022, the U.S. Supreme Court issued an opinion staying enforcement of OSHA's ETS, finding that the states and business organizations challenging the ETS were likely to succeed in demonstrating OSHA exceeded its statutory authority. Compliance with vaccination mandates may increase operating costs or affect the Obligated Group's ability to recruit and retain employees.

The treatment of COVID-19 or another highly contagious disease at Obligated Group facilities, as well as governmental and commercial entity responses to the COVID-19 pandemic and resulting economic conditions, may adversely affect the Obligated Group's operations and financial performance in various ways, including but not limited to (1) an overburdening of facilities, (2) a quarantine, temporary shutdown, or diversion of patients, (3) a disruption in the production or supply of pharmaceuticals, medical supplies and protective equipment and increases in the costs of such products, (4) professional or non-professional staff shortages or illnesses, (5) an increase in overhead costs due to additional costs incurred related to adjustments to the use of various facilities and to staffing during the outbreak, including overtime wages, mandated sick pay, and the use of more expensive contract staff to provide care, (6) significantly delayed payments from third party payors, (7) increased numbers of professional liability lawsuits, (8) a larger number of uninsured patients due to increased unemployment rates, or (9) reduced patient volumes and operating revenues due to unaffected individuals deferring elective procedures or otherwise avoiding medical treatment. As the effects of, and responses to, the COVID-19 pandemic are far reaching and rapidly changing, management of Temple University Health cannot yet

fully predict the impacts or costs of the COVID-19 pandemic, but such impact and costs could be material and adverse.

Economic and Market Disruption

The COVID-19 pandemic has affected, and is expected to continue to affect, travel, commerce and financial markets in the United States and globally and is widely expected to affect economic growth worldwide. The COVID-19 pandemic has resulted in volatility in the United States and global financial markets, and significant realized and unrealized losses in investment portfolios. Financial results, generally, and liquidity, in particular, may be materially diminished. Access to capital markets may be hindered and increased costs of borrowing may occur as a result. The impact of the outbreak on the Obligated Group's operations, business and financial results cannot be predicted at this time due to the dynamic nature of the COVID-19 pandemic, including uncertainties relating to its duration and severity, as well as what actions may be taken by governmental authorities and other institutions to contain or mitigate its impact. The continued spread of COVID-19 and containment and mitigation efforts could have a material adverse effect on the operations of the Obligated Group and on state, national, and global economies.

Governmental Relief

A variety of federal, state and local efforts have been initiated in response to the economic disruption caused by the COVID-19 pandemic. On March 13, 2020, then President Trump declared a "national emergency" under both the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, which allowed access to disaster relief funds to address the COVID-19 pandemic and related economic dislocation, and the National Emergencies Act, which allowed the U.S. Department of Health and Human Services ("DHHS") to waive certain guidelines related to federal health care programs, including Medicare and Medicaid, to address the COVID-19 pandemic. The U.S. Congress followed by passing a series of federal relief packages to address the COVID-19 crisis, including (1) the Coronavirus Preparedness and Response Supplemental Appropriations Act of 2020 ("CPRSAA"), (2) the Families First Coronavirus Response Act ("FFA"), (3) the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"), (4) Paycheck Protection Program and Health Care Enhancement Act ("Enhancement Act"), (5) the Coronavirus response and relief portions of the Consolidated Appropriations Act, 2021 ("2021 Appropriations Act"), and (6) the American Rescue Plan Act ("American Rescue Plan" and, together with the CPRSAA, FFA, CARES Act, Enhancement Act and 2021 Appropriations Act, the "COVID-19 Relief Acts"). The COVID-19 Relief Acts were largely designed to help fund COVID-19 testing, tracing, and treatment and to provide economic relief and other support for individuals and businesses, including hospitals and other health care providers. The COVID-19 Relief Acts measures that may alleviate some of the financial strain on hospitals and other health care providers include, among others: (1) a \$178 billion "Public Health and Social Services Emergency Fund" to reimburse eligible health care providers for "health care related expenses or lost revenues that are attributable to coronavirus" ("Provider Relief Fund"), (2) an increase in the Federal Medicaid Assistance Percentage for state Medicaid programs, and (3) various other Medicare and Medicaid policy changes that temporarily boost Medicare and Medicaid reimbursement or provide for additional flexibility in patient care during the COVID-19 emergency period. The timing, adequacy and other ultimate effects of the COVID-19 Relief Acts, or other federal or state stimulus relief programs on the Obligated Group, or the economy generally, cannot be predicted at this time. Although the federal government may consider future COVID-19 emergency response and relief legislation, the content and passage of any such legislation is See "MANAGEMENT'S DISCUSSION OF OPERATIONS AND FINANCIAL CONDITION" and "IMPACT OF AND RESPONSE TO COVID-19" in APPENDIX A hereto for a discussion of COVID-19 relief obtained by the Health System to date.

The acceptance of funds from certain COVID-19 stimulus programs, including the Provider Relief Fund, is conditioned on eligibility and the acceptance of terms and conditions, and may be subject to other guidelines or requirements that may change from time to time. Additional guidance or clarifications concerning COVID-19 stimulus programs, including reporting, recordkeeping and repayment requirements, may be announced from time to time. Failure to comply with such guidelines or requirements could result in recoupment, False Claims Act liability, or other penalty or sanction.

Recognition of Provider Relief Funds

All Provider Relief Fund recipients must attest to the Provider Relief Fund Terms and Conditions, which among other things, require the submission of documentation to substantiate that relief funds were used for increased healthcare related expenses or lost revenue attributable to coronavirus. Payments in excess of healthcare related expenses or lost revenue attributable to coronavirus must be repaid. DHHS reserves the right to audit Provider Relief Fund recipients to ensure that this requirement is met and collect any Provider Relief Fund amounts that were made in error or exceed lost revenue or increased expenses due to COVID-19. Failure to comply with the Terms and Conditions may be grounds for recoupment or other penalty or sanction.

On January 15, 2021, DHHS issued reporting instructions on the use of Provider Relief Fund distributions ("PRF Reporting Instructions"), which superseded reporting instructions previously issued prior to the passage of the 2021 Appropriations Act. The PRF Reporting Instructions were issued to reflect changes to the reporting process in accordance with the 2021 Appropriations Act. The PRF Reporting Instructions direct health care providers receiving more than \$10,000 in Provider Relief Fund payments to provide expenditure reports for their Provider Relief Fund payments to the Health Resources and Services Administration ("HRSA"). Reports for Provider Relief Fund payments expended prior to January 1, 2021 were required to be submitted between January 15, 2021 and February 15, 2021. Health care providers that did not expend all of their Provider Relief Fund payments in 2020 must submit a second report (for the period January 1, 2021 through June 30, 2021) no later than July 31, 2021. The PRF Reporting Instructions also specify the formula for calculating a recipient's lost revenues attributable to COVID-19. Recipients may apply their Provider Relief Fund payments toward lost revenue, using one of the following options, up to the amount (a) of the difference between their 2019 and 2020 actual patient care revenue, (b) of the difference between 2020 budgeted and 2020 actual patient care revenue, using a budget that was established and approved prior to March 27, 2020, or (c) calculated by any reasonable method of estimating revenue, if the recipient submits a description of the methodology, an explanation of why the methodology is reasonable and establishes how the identified lost revenues were in fact a loss attributable to COVID-19, as opposed to a loss caused by any other source. The PRF Reporting Instructions indicate that a recipient electing to calculate lost revenue in accordance with clause (c) above will face an increased likelihood of an audit by the HRSA. The 2021 Appropriations Act and the PRF Reporting Instructions further clarify that health systems may move all PRF distributions within their system. Specifically, a parent organization may allocate (through transfers or otherwise) any or all of its subsidiary organizations' Provider Relief Fund distributions, including "targeted distributions," among subsidiary eligible health care providers of the parent organization. DHHS may release revised or additional Provider Relief Fund requirements or guidance in the future. Any future change to the formula for calculating lost revenues set forth in the PRF Reporting Instructions could have a potentially significant impact on whether a health care provider must repay a portion of its Provider Relief Fund payments. Temple University Health will continue to monitor compliance with the terms and conditions of the Provider Relief Fund. While not anticipated, if unable to attest to or comply with current or future terms and conditions, the ability of the Health System (as defined in APPENDIX A hereto) to retain some or all of the distributions received may be impacted. See Note 2 in APPENDIX B - "AUDITED

CONSOLIDATED FINANCIAL STATEMENTS OF TEMPLE UNIVERSITY HEALTH SYSTEM AS OF AND FOR THE YEARS ENDED JUNE 30, 2021 AND 2020."

General Economic Factors and Credit Market Disruptions

The U.S. economy is unpredictable. Economic downturns and other unfavorable economic conditions have previously impacted the health care industry and health care providers' business and financial condition, and as described above, the COVID-19 pandemic has and continues to adversely impact the U.S. economy. If general economic conditions worsen as a result of the COVID-19 pandemic and/or other causes, the Obligated Group may not be able to sustain future profitability, and its liquidity and ability to repay outstanding debt, including debt service on the Bonds, may be adversely affected. Broad economic factors—such as unemployment rates or instabilities in consumer demand and consumer spending—could affect the Obligated Group's volumes and its ability to collect outstanding receivables. Other economic conditions that from time to time may adversely affect Obligated Group revenues and expenses, and consequently, the ability of the Obligated Group to make payments on the related Obligation, include but are not limited to: (1) an inability to access financial markets on acceptable terms at a desired time, (2) significant investment portfolio losses, (3) increased business failures and consumer and business bankruptcies, (4) federal and state budget challenges resulting in reduced or delayed Medicare and Medicaid reimbursement, (5) a reduction in the demand for health care services or patient decisions to postpone or cancel elective and non-emergency health care procedures, (6) increased malpractice and casualty insurance expenses, (7) reduced availability or affordability of health insurance, (8) a shortage of physician, nursing, or other professional personnel, (9) a shortage of medical supplies and critical care unit beds caused by the COVID-19 pandemic or other pathogen, (10) increased operating costs, (11) a reduction in the receipt of grants and charitable contributions, (12) unfavorable demographic developments in the Obligated Group's service areas, (13) unavailability of liquidity during periods of economic stress caused by delayed reimbursement or payment, or increased costs of liquidity facilities, or (14) increased competition from other health care institutions. All or any of the foregoing conditions could be exacerbated by the COVID-19 pandemic.

Nonprofit Health Care Environment

Each Obligated Group Member is a nonprofit corporation, and is exempt from federal income taxation as an organization described in Section 501(c)(3) of the Code. As nonprofit tax-exempt organizations, the Obligated Group Members are subject to federal, state and local laws, regulations, rulings and court decisions relating to their organization and operation, including their operations for charitable purposes. At the same time, certain of the Obligated Group Members conduct large-scale complex business transactions and are large employers. There can often be a tension between the rules designed to regulate a wide range of charitable organizations and the day-to-day operations of a complex, large health care organization. Hospitals or other health care providers, such as the Obligated Group Members, may be forced to forego otherwise favorable opportunities for certain joint ventures, recruitment and other arrangements in order to maintain their tax-exempt status.

The operations and practices of nonprofit, tax-exempt health care providers are routinely challenged or criticized for inconsistency or inadequate compliance with regulatory requirements for, and societal expectations of, nonprofit tax-exempt organizations. These challenges in some cases are broader than concerns about compliance with federal and state statutes and regulations, such as Medicare and Medicaid compliance, and instead are examinations of core business practices of the health care organizations. A common theme of these challenges is that nonprofit hospitals may not confer community benefits that exceed or equal the benefit received from their tax-exempt status. Areas that have come under examination have included pricing practices, billing and collection practices, charitable

care, methods of providing and reporting community benefit, executive compensation, exemption of property from real property taxation, private use of facilities financed with tax-exempt bonds and others. These challenges and questions have come from a variety of sources, including state attorneys general, the Internal Revenue Service (the "IRS"), labor unions, Congress, state legislatures, and patients, and in a variety of forums, including hearings, audits and litigation.

The following are some examples of the challenges and examinations facing nonprofit health care organizations. They are indicative of a greater scrutiny of the billing, collection and other business practices of these organizations, and may indicate an increasingly more difficult operating environment for health care organizations, including the Obligated Group. The challenges and examinations, and any resulting legislation, regulations, judgments, or penalties, could have a material adverse effect on the Obligated Group.

Congressional Hearings and Investigations

A number of House and Senate Committees, including the House Committee on Energy and Commerce, the House Committee on Ways and Means and the Senate Finance Committee, have conducted hearings and/or investigations into issues related to nonprofit tax-exempt health care organizations. These hearings and investigations have included a nationwide investigation of hospital billing and collection practices, drug pricing programs that recognize health care systems that disproportionately serve populations requiring charity care, charity care and community benefit practices, prices charged to uninsured patients and possible reforms to the nonprofit sector. Additionally, former Senate Finance Committee Chairman Chuck Grassley had renewed his scrutiny of tax-exempt hospitals, requesting in a February 2019 letter to the IRS that the agency provide data with respect to its examinations of non-profit hospital compliance with Internal Revenue Code community benefit regulations. The effect of these hearings and investigations cannot be predicted, but may result in new legislation or regulatory action.

Bond Examinations

The IRS has active programs auditing both the qualification of hospital organizations as Section 501(c)(3) organizations and the qualification of bonds issued for the benefit of such organizations as tax-exempt. The IRS may use detailed information required to be reported on IRS Form 990 - Return of Organizations Exempt From Income Tax ("IRS Form 990") for this purpose.

IRS Examination of Compensation Practices and Community Benefit

For more than a decade, the IRS has been concerned about executive compensation practices of tax-exempt hospitals. In February 2009, the IRS issued its Hospital Compliance Project Final Report (the "IRS Final Report") that examined tax-exempt organizations' practices and procedures with regard to compensation and benefits paid to their officers and other defined "insiders." The IRS Final Report indicated that the IRS (1) will continue to heavily scrutinize executive compensation arrangements, practices and procedures and (2) in certain circumstances, may conduct further investigations or impose fines on tax-exempt organizations.

The IRS has also undertaken a community benefit initiative directed at hospitals. The IRS Final Report determined that the reporting of community benefit by nonprofit hospitals varied widely, both as to types of programs and expenditures classified as community benefit and the measurement of community benefits. As a result, IRS Form 990 requires detailed disclosure of compensation practices, corporate governance, loans to management and others, joint ventures and other types of transactions,

political campaign activities, and other areas the IRS deems to be a compliance risk. IRS Form 990 also requires the disclosure of information on community benefit as well as reporting of information related to tax-exempt bonds, including compliance with the arbitrage rules and rules limiting private-use of bond-financed facilities, and compliance with the safe harbor guidance in connection with management contracts and research contracts. IRS Form 990 is intended to provide enhanced transparency as to the operations of exempt organizations. It is likely that the IRS will use detailed information from IRS Form 990 to assist in its enhanced enforcement efforts. *See* "Risks Related to Tax-Exempt Status of Obligated Group Members – Maintenance of Tax-Exempt Status" below.

Schedule H of IRS Form 990, which hospitals and health systems must use to report their community benefit activities, has been revised to require details on how a hospital determines eligibility for free or discounted care (if the federal poverty guidelines are not used). Consistent with Section 501(r) of the Code, Schedule H now requires hospitals to describe billing and collection practices permitted under the hospital facility's policies, as well as information about the hospital's emergency medical care policy.

Litigation Relating to Billing and Collection Practices

Over the past several years, lawsuits have been filed in both federal and state courts alleging, among other things, that hospitals have failed to fulfill their obligations to provide charity care to uninsured patients, have overcharged uninsured patients, and have engaged in aggressive billing and collection practices. Other cases have alleged that charging patients more for services furnished in a hospital-based setting is a wrongful or deceptive practice. Some of these cases have since been dismissed by the courts and some hospitals and health systems have entered into substantial settlements. A number of cases are still pending in various courts around the country with inconsistent results, and others could be filed.

Attorney General and Other State Oversight or Audits

Nonprofit corporations, including the Obligated Group Members, are subject to oversight and examination by the Pennsylvania Office of Attorney General to ensure their charitable purposes are being carried out, that their fundraising and investment activities comply with state law and that the terms of charitable gifts are followed. The Pennsylvania Office of Attorney General reviews fundamental change transactions (e.g., sales, mergers, affiliations) involving nonprofit, charitable organizations outside the ordinary course of business to ensure that the public interest in the charitable assets of the organization is fully protected. In addition, the Pennsylvania state legislature may direct state executive bodies to monitor or audit levels of charity care being provided in nonprofit hospitals.

Charity Care

The legislatures of some states have attempted to pass legislation mandating charity care levels or imposing other requirements relating to charity care. From time to time Congress proposes new laws and the IRS proposes new regulations concerning the manner in which charity care is calculated or issues guidance concerning the provision of charity care by an organization exempt from tax under Section 501(c)(3) of the Code. Management of the Corporation cannot predict whether legislation, regulations, or guidance will be implemented in the future and cannot predict the affect it may have on the Obligated Group's financial condition, though such effect may be material. Additionally, tax-exempt hospitals often treat large numbers of indigent patients who are unable to pay in full for their medical care. General economic conditions that affect the number of employed individuals who have health coverage affect the

ability of patients to pay for health care. The COVID-19 pandemic and its impact on economic conditions could increase the number of uninsured and indigent patients.

Risks Related to Tax-Exempt Status of the Obligated Group Members

Maintenance of Tax-Exempt Status

Loss of tax-exempt status by an Obligated Group Member could result in loss of tax exemption of interest on the Bonds and/or other bonds (*see* "Tax-Exempt Status of Interest on the Bonds" below) and defaults in covenants regarding the Bonds or such other bonds would likely result. Such an event could also have other material adverse consequences for the Obligated Group. Management is not aware of any transactions or activities currently ongoing that are likely to result in the revocation of the tax-exempt status of any Obligated Group Member.

The maintenance by an entity of its status as an organization described in Section 501(c)(3) of the Code is contingent upon compliance with general rules promulgated in the Code and related regulations regarding the organization and operation of tax-exempt entities, including their operation for charitable and educational purposes and their avoidance of transactions that may cause their assets to inure to the benefit of private individuals.

The IRS has announced that it intends to closely scrutinize transactions between not-for-profit corporations and for-profit entities, and in particular has issued audit guidelines for tax-exempt hospitals. As these general principles were developed primarily for public charities that do not conduct large-scale technical operations and business activities, they often do not adequately address the myriad of operations and transactions entered into by a modern health care organization. Although traditional activities of hospitals, such as medical office building leases and compensation arrangements and other contracts with physicians, have been the subject of interpretations by the IRS in the form of Private Letter Rulings, many activities have not been addressed in any official opinion, interpretation or policy of the IRS. Because the Obligated Group Members conduct large-scale and diverse operations involving private parties, there can be no assurances that certain of their transactions would not be challenged by the IRS. The Obligated Group Members participate in a variety of transactions and joint ventures with physicians either directly or indirectly. Management believes that the transactions and joint ventures to which the Obligated Group Members are a party are consistent with the requirements of the Code as to tax-exempt status, but, as noted above, there is uncertainty as to the state of the law.

The IRS has taken the position that hospitals which are in violation of the federal Anti-Kickback Law may also be subject to revocation of their tax-exempt status. See "REGULATION OF THE HEALTH CARE INDUSTRY – Federal and State Legislation; National Health Care Reform – Medicare/Medicaid Anti-Kickback Laws" below. As a result, tax-exempt hospitals, such as those of the Obligated Group, which have, and will continue to have, extensive transactions with health providers and suppliers are subject to an increased degree of scrutiny and perhaps enforcement by the IRS.

The ACA also contains requirements for tax-exempt hospitals through Section 501(r) of the Code. Final regulations under Section 501(r) of the Code provide detailed guidance relating to requirements for community health needs assessments, financial assistance policies, emergency medical care policies, limitations on charges, and billing and collection practices, and also provide guidance on consequences of failure to satisfy Section 501(r) requirements. These final regulations are complex and administratively burdensome. An organization's failure to meet one or more Section 501(r) requirements could endanger the organization's Section 501(c)(3) status as of the first day of the tax year in which a

failure occurs. In addition, an organization may be subject to certain excise taxes if a hospital facility fails to maintain the requirements concerning community health needs assessments.

In certain cases, the IRS has imposed substantial monetary penalties and future charity care or public benefit obligations on tax-exempt hospitals in lieu of revoking their tax-exempt status, as well as requiring that certain transactions be altered, terminated or avoided in the future and/or requiring governance or management changes. These penalties and obligations are typically imposed on the tax-exempt hospital pursuant to a "closing agreement" with respect to the hospital's alleged violation of Section 501(c)(3) exemption requirements. Given the uncertainty regarding how tax-exemption requirements may be applied by the IRS, the Obligated Group Members are, and will be, at risk for potentially incurring monetary and other liabilities which could be imposed by the IRS through this "closing agreement" or similar process in the event of scrutiny.

The IRS has periodically conducted audit and other enforcement activity regarding tax-exempt health care organizations. Certain audits are conducted by teams of revenue agents, often take years to complete and require the expenditure of significant staff time by both the IRS and the audited organization. These audits examine a wide range of possible issues, including tax-exempt bond financings, partnerships and joint ventures, unrelated business income tax, retirement plans and employee benefits, employment taxes, political contributions and other matters.

In recent years, the IRS has increased the frequency and scope of its audit and other enforcement activity regarding tax-exempt organizations. If the IRS were to find that a Member of the Obligated Group has participated in activities in violation of certain regulations or rulings, the tax-exempt status of such entity could be in jeopardy. Although the IRS has not frequently revoked the 501(c)(3) tax-exempt status of nonprofit corporations, it could do so in the future. Loss of tax-exempt status by a Credit Member potentially could result in loss of tax exemption of the tax-exempt debt of or issued for an Obligated Group Member, and defaults in covenants regarding the tax-exempt debt and other obligations likely would be triggered. Loss of tax-exempt status also could result in substantial tax liabilities on income of the Obligated Group.

State and Local Tax Exemption

Various state and local governmental bodies in Pennsylvania have challenged the tax exempt status of health care organizations and have sought to remove the exemption of property from real estate taxes of part or all of the property of various nonprofit institutions on the grounds that a portion of such property was not being used to further the charitable purposes of such organizations or that the organizations did not provide sufficient care to indigent persons so as to warrant exemption from taxation as a charitable institution. These challenges have been based on a variety of grounds, including allegations of aggressive billing and collection practices, excessive financial margins and operations that closely resemble for-profit businesses. Several of these disputes have been determined in favor of the taxing authorities or have resulted in settlements that are not favorable to the tax exempt organization. Because of the uncertainty surrounding these local and judicial rulings, the Pennsylvania General Assembly proposed and passed a joint resolution in 2013 to amend the Constitution of the Commonwealth of Pennsylvania to allow the General Assembly to establish uniform standards and determine qualifications as institutes of public charity. Such an amendment would become effective only if approved by the voters but the amendment has never made it on the ballot.

There can be no assurance these types of challenges will not occur in the future or that changes in the laws and regulations of state or local governments will not materially adversely affect the Obligated Group by requiring payment of income, local property or other taxes.

Tax-Exempt Status of Interest on the Bonds

The Code and related regulations, rulings and policies impose a number of requirements that must be satisfied for interest on state and local obligations, such as the Bonds, to be excludable from gross income for federal income tax purposes. These requirements include limitations on the use of proceeds of the Bonds, limitations on the investment earnings of proceeds of the Bonds prior to expenditure, a requirement that certain investment earnings on proceeds of the Bonds be paid periodically to the United States, and a requirement that the Authority file an information report with the IRS. In the Tax Compliance Agreement pertaining to the issuance of the Bonds (the "Tax Agreement"), the Authority and the Corporation, on behalf of itself and other Members of the Obligated Group, have covenanted to comply with such requirements. However, future failure by the Authority and the Obligated Group Members to fulfill their respective obligations under the Tax Agreement in connection with the Bonds may result in the inclusion of interest on such obligations and any or all of the other Bonds in gross income for federal income tax purposes, retroactively to their date of issuance. In such event, the Indenture neither contains any specific provision for mandatory acceleration of the Bonds nor provides that any additional interest will be paid to the holders of the Bonds. See APPENDIX D - "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT – THE BOND INDENTURE - Events of Default," "- Acceleration; Annulment of Acceleration" and "-Application of Revenues and Other Funds After Default."

IRS officials have indicated that more resources will be invested in audits of tax-exempt obligations, including the use of tax-exempt obligation proceeds, in the charitable organization sector, with specific review of private use. In addition, the IRS has from time to time sent questionnaires to several hundred nonprofit corporations that have borrowed on a tax-exempt basis, inquiring about post-issuance compliance with various requirements for maintaining the federal tax exemption of interest on their tax-exempt obligations. The questionnaire includes questions relating to the borrower's (i) record retention, which the IRS has particularly emphasized, (ii) qualified use of bond-financed property, (iii) arbitrage yield restriction and rebate requirements, (iv) debt management policies, and (v) voluntary compliance and education.

The IRS has also added schedules to IRS Form 990 that create additional reporting responsibilities. On Schedule H, hospitals and health systems must report how they provide community benefit and specify certain billing and collection practices. Schedule K requires detailed information related to all outstanding bond issues of tax-exempt borrowers, including information regarding operating, management and research contracts as well as private use compliance. Tax-exempt organizations must also complete Schedule J, which requires reporting of compensation information for the organizations' officers, directors, trustees, key employees, and other highly compensated employees. IRS reviews and audits could and may adversely affect the marketability of or the market value for the Bonds.

The opinion of Bond Counsel delivered on the date the Bonds are issued is not binding on the IRS or the courts, and such opinion speaks only as of its date of delivery. There is no assurance that an IRS examination of the Bonds will not adversely affect the market price for, or the marketability of, such Bonds and any such examination may cause the Obligated Group and/or the holders of the Bonds to incur significant expense.

Future Legislation Regarding Limitations or Elimination of Tax-Exempt Status

Future tax legislation, administrative actions taken by tax authorities or court decisions, whether at the federal or state level, may adversely affect the tax-exempt status of interest on the Bonds under

federal or state law or otherwise prevent beneficial owners of the Bonds from realizing the full current benefit of the tax status of such interest. In addition, such legislation, administrative actions and court decisions could affect the market price or marketability of the Bonds. Prospective investors should consult with their tax advisors on the foregoing matters as they consider an investment in the Bonds.

Unrelated Business Income

In recent years, the IRS and state, county and local tax authorities have audited the operations of tax-exempt hospitals and health care systems with respect to their exempt activities and the generation of unrelated business taxable income ("UBTI."). Most hospitals and health care systems participate in activities that may generate UBTI. An investigation or audit could result in assessment of taxes, interest and penalties with respect to unreported UBTI and in some cases ultimately could affect the tax-exempt status of such entity, as well as the exclusion from gross income for federal income tax purposes of the interest payable on the Bonds.

Limitations on Contractual and Other Arrangements Imposed by the Internal Revenue Code

As tax-exempt organizations, the Obligated Group Members are limited with respect to the use of practice income guarantees, reduced rent on medical office space, low interest loans, joint venture programs and other means of recruiting and retaining physicians. The IRS scrutinizes a broad variety of contractual relationships commonly entered into by hospitals and has issued a detailed audit guide suggesting that field agents scrutinize numerous activities of the hospitals in an effort to determine whether any action should be taken with respect to limitations on or revocation of their tax-exempt status or assessment of additional tax. Any suspension, limitation, or revocation of the tax exempt status of a Member of the Obligated Group or assessment of significant tax liability could have a materially adverse effect on the Obligated Group and might lead to loss of tax-exempt of interest on the Bonds.

Cost of Capital

From time to time, Congress has considered and is considering revisions to the Code that may prevent or limit access to the tax-exempt debt market by borrowers such as the Obligated Group Members. Such legislation, if enacted into law, may materially increase the cost of capital to the Obligated Group Members. *See* "Tax Reform" below.

Security and Enforceability

Enforceability of the Master Indenture and Obligation No. 1

Each Obligated Group Member has made a covenant in the Master Indenture to make payments when due under the Master Indenture and on the Master Indenture Obligations, including Obligation No. 1. Obligation No. 1 is a joint and several obligation of each Obligated Group Member. The enforceability of the joint and several obligations of each Obligated Group Member is uncertain. As a consequence, the property of the Obligated Group Members that are not the beneficiaries of the proceeds of the Bonds may not be available to make such payments.

Counsel to the Obligated Group Members will deliver an opinion concurrently with the delivery of the Bonds to the effect that Obligation No. 1 is enforceable in accordance with its terms. However, such opinion will be qualified as to the joint and several obligation of the Obligated Group Members to make payments of debt service on Obligation No. 1. Such joint and several obligation may not be enforceable against an Obligated Group Member for a variety of reasons, including:

- To the extent payments on Obligation No. 1 are requested to be made from assets of such Obligated Group Member which are donor-restricted or which are subject to a direct, express or charitable trust which does not permit the use of such assets for such payments.
- If the purpose of the debt created and secured by Obligation No. 1 is not consistent with the charitable purposes of such Obligated Group Member, or if the debt was incurred by or issued for the benefit of an entity other than a nonprofit corporation which is exempt from federal income taxes under Sections 501(a) and 501(c)(3) of the Code and is not a "private foundation" as defined in Section 509(a) of the Code.
- To the extent payments on Obligation No. 1 would result in the cessation or discontinuation of any material portion of the health care or related services previously provided by such Obligated Group Member.
- If and to the extent payments are requested to be made pursuant to any loan violating applicable usury laws.

If the obligation of a particular Obligated Group Member to make payment on a Master Indenture Obligation is not enforceable, and payment is not made on such Master Indenture Obligation in full when due, then an Event of Default will arise under the Master Indenture.

An Obligated Group Member may not be required to make payments on or provide amounts for the payment of a Master Indenture Obligation, including Obligation No. 1, issued by or for the benefit of another entity if and to the extent that any such payment or transfer would render such Obligated Group Member insolvent or would conflict with or not be permitted by or would be subject to recovery for the benefit of other creditors of such Obligated Group Member under applicable fraudulent conveyance, bankruptcy, insolvency, moratorium or other similar laws affecting the enforcement of creditors' rights. There is no clear legal precedent as to whether payments on Master Indenture Obligations (including Obligation No. 1) by an Obligated Group Member may be voided by a trustee in bankruptcy in the event of a bankruptcy of such Obligated Group Member, or by third party creditors in an action brought pursuant to state fraudulent conveyances statutes. Under the United States Bankruptcy Code, a trustee in bankruptcy, and under state fraudulent conveyance statutes a creditor of a related guarantor, may avoid any obligation incurred by a related guarantor if, among other bases therefor, (1) the guarantor has not received fair consideration or reasonably equivalent value in exchange for the guaranty, and (2) the guaranty renders the guarantor insolvent, as defined in the United States Bankruptcy Code or state fraudulent conveyances statutes, or the guarantor is undercapitalized. Under such principles, the obligation of an Obligated Group Member to make payments on Master Indenture Obligations (including Obligation No. 1) that secures Related Bonds (including the Bonds) not issued for the direct benefit of such Obligated Group Member may be considered a guaranty.

Application by courts of the tests of "insolvency," "reasonably equivalent value" and "fair consideration" has resulted in a conflicting body of case law. If judicial action were brought to compel an Obligated Group Member to make a payment on a Master Indenture Obligation (including Obligation No. 1), a court might not enforce such payment in the event it is determined that sufficient consideration for the Member's obligation was not received, or that the incurrence of such obligation has rendered or will render the Member insolvent, or the Member is or will thereby become undercapitalized.

In addition, state courts have common law authority and authority under state statutes to terminate the existence of a nonprofit corporation or undertake supervision of its affairs on various

grounds, including a finding that such corporation has insufficient assets to carry out its stated charitable purposes or has taken some action which renders it unable to carry out such purposes. Such action may arise on the court's own motion or pursuant to a petition of the state attorney general or such other persons who have interests different from those of the general public, pursuant to the common law and statutory power to enforce charitable trusts and to see to the application of their funds to their intended charitable uses.

An action to enforce a charitable trust and to see to the application of its funds could also arise if an action to enforce the obligation to make payments on a Master Indenture Obligation would result in the cessation or discontinuation of any material portion of the health care or related service previously provided by the Obligated Group Member from which payment is requested.

Revenues Pledge

The Master Indenture provides that each Obligated Group Member shall grant to the Master Trustee a security interest in all of its Gross Receipts, subject to Permitted Liens, and to perfect the grant of a security interest in the Gross Receipts to the extent that a security interest may be granted therein under the UCC. The Master Trustee's security interest in the Gross Receipts shall be perfected, to the extent that such security interest may be so perfected, by the filing of financing statements which comply with the requirements of the UCC. The Members of the Obligated Group are not obligated to, and will not, enter into any deposit account control agreements with or for the benefit of the Master Trustee in connection with the execution and delivery of the Master Indenture. It may not be possible to perfect a security interest in any manner whatsoever in certain types of Gross Receipts (e.g., certain insurance proceeds and payments under the Medicare and Medicaid programs) prior to actual receipt of funds by any Member. The grant of a security interest in Gross Receipts may be subordinated to the interest and claims of others in several instances. Some examples of cases of subordination of prior interests and claims are (i) statutory liens, (ii) rights arising in favor of the United States of America or any agency thereof, (iii) present or future prohibitions against assignment in any federal statutes or regulations, (iv) constructive trusts, equitable liens or other rights impressed or conferred by any state or federal court in the exercise of its equitable jurisdiction, and (v) federal or state bankruptcy laws that may affect the enforceability of the Master Indenture or grant of a security interest in the Gross Receipts.

Amendments to Master Indenture, Indenture and Loan Agreement; Replacement Obligations

Certain amendments to the Master Indenture may be made without the consent of the owners of the Master Indenture Obligations. Certain other amendments to the Master Indenture may be made with the consent of the owners of not less than a majority of the aggregate principal amount of the Outstanding Master Indenture Obligations. Amendments to the Master Indenture may be obtained with the consent of the owners of Master Indenture Obligations other than Obligation No. 1. The Bond Trustee is considered the holder of Obligation No. 1. Certain amendments to the Indenture and the Loan Agreement may be made with the consent of the owners of not less than a majority of the outstanding principal amount of the Bonds. Such amendments may adversely affect the security of owners of the Bonds or other provision of the Master Indenture. Under certain circumstances and upon satisfaction of the requirements of the Master Indenture, Obligation No. 1 may be exchanged, without the consent of any of the Holders of the Bonds, for an obligation of a different obligated group or different credit group. Under certain circumstances, this could lead to the substitution of different security in the form of an obligation backed by an obligated group or credit group that is financially and operationally different from the then-existing Obligated Group or Credit Group. That new obligated group or credit group could have substantial debt outstanding that would rank on a parity basis with the obligation substituted for Obligation No. 1. See APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND

SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Supplements Not Requiring Consent of Holders" and "– Supplements Requiring Consent of Holders," APPENDIX D – "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND LOAN AGREEMENT – THE BOND INDENTURE – Amendments to Bond Indenture" and "– Amendment of Loan Agreement; Other Covenants" and APPENDIX E - "SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AND TRUST AGREEMENT – Amendment" and "– Substitution of Security."

Enforceability of Remedies

The remedies available to the Bond Trustee, on behalf of the beneficial owners of the Bonds, and to the beneficial owners of the Bonds upon an event of default under the Indenture or the Loan Agreement or available to the Master Trustee on behalf of holders of Master Indenture Obligations, including the Bond Trustee, under the Master Indenture, are in many respects dependent upon judicial actions which are often subject to discretion and delay. Under existing constitutional and statutory law and judicial decisions, including, specifically, the Bankruptcy Code, the remedies provided in the Indenture, the Master Indenture and the Loan Agreement may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the delivery of the Bonds will be qualified as to the enforceability of the various legal instruments by limitations imposed by general principles of equity and by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors' generally and laws relating to fraudulent conveyances.

Bankruptcy

In the event an Obligated Group Member files for protection from creditors under the United States Bankruptcy Code, the rights and remedies of the Owners of the Bonds would be subject to various provisions of the United States Bankruptcy Code. If an Obligated Group Member were to commence a proceeding in bankruptcy, payments made by that Obligated Group Member during the 90-day period immediately preceding such commencement (or, under certain circumstances, during the preceding one-year period) may be voided as preferential transfers to the extent such payments allow the recipients thereof to receive more than they would have received in the event of the liquidation of such Obligated Group Member. Security interests and other liens granted by such Obligated Group Member to the Bond Trustee or the Master Trustee and perfected during such preference period may also be voided as preferential transfers to the extent such security interest or other lien secures obligations that arose prior to the date of such grant or perfection.

A bankruptcy filing would operate as an automatic stay of the commencement or continuation of any judicial or other proceeding against such Obligated Group Member and its property and as an automatic stay of any act or proceeding to enforce a lien upon or to otherwise exercise control over its property as well as various other actions to enforce, maintain or enhance the rights of the Bond Trustee and the Master Trustee. If the bankruptcy court so ordered, the property of such Obligated Group Member could be used for the financial rehabilitation of such Obligated Group Member despite any security interest of the Bond Trustee or the Master Trustee therein. The rights of the Bond Trustee and the Master Trustee to enforce their respective interests and other liens could be delayed during the pendency of the rehabilitation proceeding.

An Obligated Group Member could also file a plan for the adjustment of its debts in any such proceeding which could include provisions modifying or altering the rights of creditors generally, or any class of them, secured or unsecured. The plan, when confirmed by a court, binds all creditors who had notice or knowledge of the plan and, with certain exceptions, discharges all claims against the debtor to the extent provided for in the plan. No plan may be confirmed unless certain conditions are met, among

which are conditions that the plan be feasible and that it shall have been accepted by each class of claims impaired thereunder. Each class of claims has accepted the plan if at least two-thirds in dollar amount and more than one-half in number of the class cast votes in its favor. Even if the plan is not so accepted, it may be confirmed if the court finds that the plan is fair and equitable with respect to each class of non-accepting creditors impaired thereunder and does not discriminate unfairly. Any such plan could adversely affect the beneficial owners of the Bonds.

In the event of bankruptcy of an Obligated Group Member, there is no assurance that certain covenants, including tax covenants, contained in the Tax Agreement, the Indenture, the Loan Agreement or the Master Indenture and certain other documents would survive. Accordingly, such Obligated Group Member, as debtor in possession, or a bankruptcy trustee could take action which might adversely affect the exclusion of interest on the Bonds from gross income for federal income tax purposes.

Under the United States Bankruptcy Code, a bankruptcy court could appoint a patient advocate, the cost of which would be an administrative expense of the estate and certain reimbursements from federal agencies could be discontinued.

In addition, the bankruptcy of a health plan or physician group that is a party to a significant managed care arrangement with one or more Obligated Group Members, or that of any significant contract payer obligated to any one or more Obligated Group Members, could have material adverse effects on the Obligated Group.

Patient Service Revenues

Net patient service revenues realized by the Obligated Group Members are derived from a variety of sources and will vary among the individual facilities owned and operated by the Obligated Group Members and also among the various market areas and regions in which such facilities are located.

A substantial portion of the net patient service revenues of the Obligated Group Members is derived from third-party payers that pay for the services provided to patients covered by third parties. These third-party payers include the federal Medicare program, the Pennsylvania Medical Assistance program ("Medicaid"), commercial health plans and insurers, including managed care organizations such as health maintenance organizations ("HMOs") and preferred provider organizations ("PPOs"), and self-funded employer benefit plans. Many third-party payers make payments to Obligated Group Members in amounts that may not reflect the direct and indirect costs of the Obligated Group Members providing services to patients. See APPENDIX A – "INFORMATION CONCERNING THE HEALTH SYSTEM AND THE UNIVERSITY – FINANCIAL AND OPERATING INFORMATION – Sources of Revenue" for a full breakdown of payment sources for the Health System.

Federal deficit reduction efforts have slowed the growth of federal Medicare and Medicaid spending, as discussed below. The financial performance of the Obligated Group has been and could be in the future adversely affected by the financial position or the insolvency or bankruptcy of or other delay in receipt of payments from third-party payers that pay for services provided to their insured members.

Dependence upon Commercial Third-Party Payers

The Obligated Group's ability to develop and expand its services and, therefore, operating margins, is dependent upon its ability to enter into contracts with commercial third-party payers, such as managed care organizations, at competitive rates. There can be no assurance that it will be able to attract third-party payers, and where it does, no assurance that it will be able to contract with such payers on

advantageous terms. The inability of the Obligated Group to contract with a sufficient number of such payers on advantageous terms would have a material adverse effect on the Obligated Group. Further, while the Obligated Group intends to effectively manage health care service utilization and increase quality, the Obligated Group cannot predict changes in utilization patterns or on health care providers. Additionally, commercial third-party payers are increasingly attempting to control health care costs through increased utilization reviews, greater enrollment in managed care programs, such as HMOs and PPOs, and directly contracting with health care facilities to provide services on a discounted basis. The trend toward consolidation among private managed care payers tends to increase their bargaining power over prices and fee structures. Other health care providers, including some with greater financial resources, greater geographic coverage or a wider range of services, may compete with the Obligated Group for opportunities with commercial insurers. For example, competitors may negotiate exclusivity provisions with certain managed care plans or otherwise restrict the ability of managed care companies to contract with Obligated Group providers.

The ACA imposes, over time, increased regulation of the health care industry, the use and availability of state-based exchanges in which health insurance can be purchased by certain groups and segments of the population, the extension of subsidies and tax credits for premium payments by some consumers and employers, and the imposition upon commercial insurers of certain terms and conditions that must be included in contracts with providers. Pennsylvania has opted to allow the federal government to run its health insurance exchange. In addition, the ACA imposes many new obligations on states related to health insurance.

It is unclear how the increased federal oversight of health care may affect future state oversight or affect the Obligated Group. The effects of these changes upon the financial condition of any third-party payer that offers health care insurance, rates paid by third-party payers to providers and, thus, the revenues of the Obligated Group, and upon the operations, results of operations and financial condition of the Obligated Group cannot be predicted.

Government Regulation of the Health Care Industry

A significant portion of the revenues of the Obligated Group is derived from government reimbursement programs including, in particular, the Medicare and Medicaid programs. See APPENDIX A — "INFORMATION CONCERNING THE HEALTH SYSTEM AND THE UNIVERSITY — HEALTH SYSTEM UTILIZATION — Sources of Revenue" for a breakdown of payment sources including Medicare and Medicaid. As a result, the Obligated Group Members are subject to a multitude of federal, state and local laws and regulations related to the Medicare and Medicaid programs. In addition to the Medicare and Medicaid programs, the Obligated Group Members and the health care industry in general are subject to regulation by a number of governmental agencies which affects the provision, administration and payment of health care services on both a national and local basis. Health care providers, including the Obligated Group Members, have been and will be affected significantly by changes that have occurred in the last several years in federal and state health care laws and regulations, particularly those pertaining to Medicare and Medicaid. See "REGULATION OF THE HEALTH CARE INDUSTRY" below for more information regarding the Medicare and Medicaid programs and regulations relating thereto.

Value Based Care

The health care industry is under pressure from the federal and state governments and managed care plans to transition from fee-for-service methods of payment to "value based care." *See* "REGULATION OF THE HEALTH CARE INDUSTRY." As law and policy related to value based care

continue to evolve, there can be no assurance that management of the Obligated Group Members will be able to reduce the Obligated Group's cost structure sufficiently quickly enough to align with potentially decreased revenues from a value based care model, or that the Obligated Group will otherwise adapt to value based care incentives sufficiently quickly to maintain positive financial results. *See* APPENDIX A "INFORMATION CONCERNING THE HEALTH SYSTEM AND THE UNIVERSITY – STRATEGY" herein.

Managed Care Organizations

Health maintenance organizations, preferred provider organizations and other managed health care systems (collectively, "Managed Care Organizations") are providers of health care coverage significantly different from traditional commercial insurers. Managed Care Organizations represent a broad continuum of systems generally designed to favorably affect the cost, the site and/or the utilization of health care services from a patient standpoint. As such, they include HMOs, which generally accept uniform per-member payments from employers and/or employees and, in return, agree to provide all, or substantially all, of an enrollee's health care needs, and PPOs, which generally negotiate favorable prices with providers and thus create preferred provider arrangements. Managed Care Organizations often rely upon case management analysis to reduce utilization of health care services, including pre-approving a member's admission to a hospital to assure such admission is absolutely necessary. As Managed Care Organizations' enrollment increases, such entities also become significant purchasers of health care services from hospitals and other providers, enabling negotiation of separate pricing terms and selection of health providers offering the most cost-effective services. Such case and cost management efforts on behalf of Managed Care Organizations may adversely affect utilization of the facilities and/or patient revenues of the Obligated Group.

Most Managed Care Organizations pay health care facilities or other providers, as applicable, on a discounted fee-for-service basis or on a discounted fixed rate per day of inpatient care. The discounts offered to Managed Care Organizations may result in payment at less than actual cost and the volume of patients directed to a health care facility under a Managed Care Organization's contract may vary significantly from projections. In cases where a Managed Care Organization is a major purchaser of services from a particular health care facility operated by a Member of the Obligated Group (or any future Obligated Group Members), contract rate reductions, contract cancellations, inability to pay, failure to make prompt payment, difficulty in meeting solvency thresholds, business failure or bankruptcy of the Managed Care Organization may have a substantial negative effect on the Obligated Group's financial condition.

Some Managed Care Organizations employ a "capitation" payment method under which health care providers are paid a predetermined periodic rate for each enrollee in the Managed Care Organization who is "assigned" or otherwise directed to receive care from a particular health care provider. The health care provider may assume financial risk for the cost and scope of institutional care provided. If payment is insufficient to meet the health care provider's actual cost of care, or if utilization by such enrollees materially exceeds projections, the financial condition of the health care provider could erode rapidly and significantly. In addition to the standard Managed Care Organization risk sharing approach, private health insurance companies are increasingly adopting various additional risk sharing/cost containing measures, sometimes similar to those introduced by government payers. Health care providers may expect health care cost containment and its associated risk sharing to continue to increase in the coming years among all payers.

Managed Care Organizations that experience financial pressure may slow payment to providers, withhold pay entirely, or utilize claims payment methodology that systematically reduces compensation

on a per claim basis. Managed Care Organizations that become insolvent may seek either federal bankruptcy or state insurance insolvency protection. Such bankruptcy or insurance insolvency protection may require that providers repay certain claims to the Managed Care Organization, or result in certain claims becoming uncollectible. It is not possible at this time to predict the future of the managed care industry in general or of specific Managed Care Organizations, or to predict what impact the state of the financial health of such organizations might have on the Obligated Group.

Often, managed care contracts are enforceable for a stated term, regardless of health care provider losses and may require health care providers to care for enrollees for a certain time period, regardless of whether the payer is able to pay the health care provider. Health care providers from time to time have disputes with Managed Care Organizations concerning payment and contract interpretation issues. Such disputes may result in mediation, arbitration or litigation.

Failure to maintain contracts could have the effect of reducing a health care provider's market share and net patient services revenues. Conversely, participation may result in lower net income if participating health care providers are unable to adequately contain their costs. In part to reduce costs, health plans are increasingly implementing, and offering to purchasing employers, tiered provider networks, which involve classification of a plan's network providers into different tiers based on care quality and cost. With tiered benefit designs, plan enrollees are generally encouraged, through incentives or reductions in copayments or deductibles, to seek care from providers in the top tier. Classification of a health care provider in a non-preferred or lower tier by a significant payer may result in a material loss of volume for such provider. Many private health plans and Managed Care Organizations are mirroring federal initiatives to encourage providers to be more accountable for patient care by tying reimbursement to the quality and value provided to beneficiaries. Managed Care Organizations are increasingly implementing "narrow networks" which limit the in-network providers available to enrollees in an effort to contain costs. Managed Care Organizations often look at quality performance and cost in selecting providers to participate in their narrow networks. A provider's exclusion from a narrow network may result in a material loss of volume. Managed Care Organizations may offer lower reimbursement for providers in their narrow network(s) in exchange for additional volume expected from being one of a select group of network providers. This reimbursement may be insufficient to cover a network provider's cost in providing the services. The new demands of dominant health plans and other shifts in the managed care industry may also reduce patient volume and revenue.

In addition, the current trend of consolidation in the health insurance industry is likely to increase the leverage of commercial insurers when negotiating rates with health care providers. Large health insurers that assume dominant positions in local markets threaten to increase health insurer concentration, reduce competition and decrease choice. If a Member of the Obligated Group were to terminate its agreement with any of the major managed care payers or not agree to terms proposed by such payers, or if the payers were to exit the regional marketplace in some or all of their product lines, it could have a significant material adverse impact on the financial condition of the Obligated Group.

Alternative Payment Models

It is generally expected that alternative payment models such as value-based purchasing programs that condition reimbursement on patient outcome measures, will become more common and involve a higher percentage of reimbursement amounts. As discussed below in "REGULATION OF THE HEALTH CARE INDUSTRY", the Affordable Care Act contains a number of health care delivery reform measures intended to promote value-based purchasing in the federal health care programs and commercial third-party payors are increasingly implementing value-based purchasing and other alternative payment models. This rapid volume-to-value reimbursement shift could present financial

challenges for the Obligated Group and the employed or contracted clinicians with whom the Obligated Group partners to deliver care, particularly to the extent they are unable to meet targeted measures.

To keep pace with industry trends, many hospitals and health systems are pursuing clinical integration strategies or other joint ventures with physician groups in order to offer an integrated package of health care services to patients and health care insurers. These integration strategies may take many forms, including (1) accountable care organizations - organizations typically composed of a hospital and certain other health care providers that coordinate patient care and tie payment for that care to the achievement of quality metrics, (2) management service organizations - organizations that provide physicians or physician groups with a combination of financial and managed care contracting services, office and equipment, office personnel and management information systems, (3) physician-hospital organizations - organizations which are typically jointly owned or controlled by a hospital and physician group for the purpose of managed care contracting, implementation and monitoring, and (4) hospital-based clinics or medical practice foundations, which may purchase and operate physician practices as well as provide all administrative services to physicians. Often the start-up capitalization for such structures, as well as operational deficits, are funded by the sponsoring hospital or health system. Depending on the size and organizational characteristics of a particular strategy, these capital requirements may be substantial. In some cases, the sponsoring hospital or health system may be asked to provide a financial guarantee for the debt of a related entity that is carrying out an integrated delivery strategy. In certain of these structures, the sponsoring hospital or health system may have an ongoing financial commitment to support operating deficits, which may be substantial on an annual or aggregate basis. In addition, participating physicians may seek their independence for a variety of reasons, thus putting the hospital or health system's investment at risk and potentially reducing its managed care leverage and/or overall utilization. If an integrated delivery system structure is not functionally successful, it may produce materially adverse results that are counterproductive to some or all of its goals.

Joint venture and integrated delivery strategies carry with them the potential for legal or regulatory risks in varying degrees. Such ventures or strategies may call into question compliance with the federal fraud and abuse laws, relevant antitrust laws and federal or state tax-exemption. Such risks will turn on the facts specific to the implementation, operation or future modification of any integrated delivery system. In addition, depending on the type of structure, a wide range of governmental billing and other issues may arise, including questions of the authorization of the entity to bill for or on behalf of the physicians involved. Other related legal and regulatory risks may arise, including employment, pension and benefits, requirements for risk-bearing organizations and corporate practice of medicine, particularly in the current atmosphere of frequent and often unpredictable changes in federal and state legal requirements regarding health care and medical practice. The ability of hospitals or health systems to conduct integrated physician operations may also be altered or eliminated in the future by legal or regulatory interpretation or changes or by health care fraud enforcement. The Corporation believes that current joint ventures and integrated care arrangements to which Obligated Group Members are a party are in material compliance with applicable state and federal health care regulatory laws. Nevertheless, there can be no assurance that the Obligated Group's joint ventures or integrated delivery models will not be subject to investigation or otherwise found to be in violation of applicable health care rules and regulations.

Federal Budget

The effect of future government health care funding or federal deficit policy changes on the Obligated Group's business or financial condition is unpredictable. If reimbursement rates paid by governmental payors are reduced or if the scope of services covered by governmental payors is limited, there could be a material adverse effect on the Obligated Group's business or financial condition. Past

federal legislation and policy aimed at federal deficit reduction have resulted in across the board federal program spending reductions, including yearly reductions in Medicare reimbursement rates. The CARES Act temporarily suspended the 2% Medicare sequester through 2020 but extended the sequestration policy through 2030. The American Rescue Plan further suspended the 2% Medicare sequester through December 31, 2021, but requires a \$36 billion reduction in Medicare spending in fiscal year 2022. As of December 10, 2021, the 2% Medicare sequester is suspended until April 2022. Congress could act to extend or increase Medicare and Medicaid spending reductions in the future.

Federal Debt Ceiling

The federal government is subject to a debt "ceiling" established by Congress. In the past several years political disputes concerning authorization of a federal debt ceiling increase have led to shutdowns of substantial portions of the federal government and other federal budget authorization delays have occurred. Federal budget delays and federal government shutdowns are unpredictable and may occur in the future. Failure by Congress to increase the federal debt ceiling, federal budget authorization delays, federal government shutdowns, or other political challenges may cause Medicare or Medicaid reimbursements to be further reduced or paid late, which effects may have a material adverse effect on the Obligated Group's business or financial condition.

State and Local Budgets

The Commonwealth of Pennsylvania, like the rest of the country, is continuing to recover from and address the effects of the COVID-19 pandemic. Financial challenges facing the Commonwealth, now or in the future, may negatively affect hospitals in a number of ways, including elimination or reduction of health care safety net programs (causing a greater number of indigent, uninsured or underinsured patients), reductions in Medicaid reimbursement rates or delays in Medicaid reimbursement payments. Any such financial challenges may also result in a greater number of indigent, uninsured or underinsured patients who are unable to pay for their care or access primary care facilities.

Pennsylvania has for a number of years instituted a "provider tax" on hospitals, as a result of which supplemental federal funds are made available to the state Medicaid program and, through state funding of the Medicaid program, to state hospitals. Any curtailment of federal funds related to the provider tax or any effort by Pennsylvania to maintain the provider tax without providing supplemental funding to state hospitals could have a material adverse effect on the Obligated Group.

Tax Reform

On December 22, 2017, then President Trump signed into law an act entitled, "H.R. 1: An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018," known as the Tax Cuts and Jobs Act (the "Tax Cuts and Jobs Act"). The Tax Cuts and Jobs Act lowered corporate and individual tax rates and eliminated certain tax preferences and other tax expenditures. The Tax Cuts and Jobs Act also effectively repealed (effective 2019) a key provision of the ACA known as the "individual mandate" or the "individual shared responsibility payment," which imposes a tax on individuals who do not obtain health care insurance. Such repeal of the individual mandate may result in a higher uninsured rate, which could have a materially adverse effect on the Obligated Group. In addition, the Tax Cuts and Jobs Act precludes the issuance of tax-exempt bonds to advance refund outstanding tax-exempt bonds. The Tax Cuts and Jobs Act could materially adversely affect the market price or marketability of the Bonds (and outstanding bonds of the Obligated Group Members) and/or availability of borrowed funds for the Obligated Group Members, particularly for

capital expenditures, as well as the operations, financial position and cash flows of the Obligated Group Members.

Licensing, Certification and Accreditation Requirements

The health care facilities of the Obligated Group Members are subject to numerous legal, regulatory, professional and private licensing, certification and accreditation requirements. These may be affected by regulatory action and policy changes by governmental and private agencies that administer Medicare, Medicaid and other third-party payment programs, as well as action by, among others, accrediting bodies such as The Joint Commission, and federal, state and local government agencies. Renewal and continuation of certain of these licenses, certifications and accreditations are based on inspections or other reviews generally conducted in the normal course of business of health care facilities. Actions in any of these areas could result in a reduction in utilization, revenues or both, or the inability of the Obligated Group Members (or future Obligated Group Members) to operate all or a portion of such facilities or to bill various third-party payers, and, consequently, could materially adversely affect the Obligated Group.

Malpractice and General Liability Insurance

In recent years, the number of malpractice and general liability suits and the dollar amount of damage recoveries have increased nationwide, resulting in substantial increases in insurance premiums. Actions alleging wrongful conduct and seeking punitive damages are often filed against hospitals. Litigation may also arise from the corporate and business activities of the Obligated Group Members, including employee-related matters, medical staff and provider network matters and denials of medical staff and provider network membership and privileges. As with professional liability, many of these risks are covered by insurance, but some are not. For example, some antitrust claims, business disputes and workers' compensation claims are not covered by insurance or other sources and, in whole or in part, may be a liability of the Obligated Group if determined or settled adversely. Claims for punitive damages may not be covered in all instances by insurance under certain state laws. Although the Obligated Group currently maintains self-insurance reserves and carries malpractice and general liability insurance that management considers adequate, management is unable to predict the availability, cost or adequacy of such insurance in the future.

Any judgments or settlements that exceed insurance coverages or self-insurance reserves could have a material adverse effect on the Obligated Group. Moreover, the Corporation is not able to predict the cost or availability of any such insurance in the future. The treatment of those with COVID-19 may result in an increased number of professional liability and other lawsuits related to such treatment and/or the spread of COVID-19 to facility employees or others.

Facility Damage

Hospitals are highly dependent on the condition and functionality of their physical facilities. Damage from natural causes, fire, deliberate acts of destruction, terrorism or various facility system failures may have a material adverse impact on hospital operations, financial conditions and results of operations, especially if insurance is inadequate to cover resulting property and business losses. The occurrences of natural disasters, including floods, earthquakes and fires may damage Obligated Group Member's facilities, interrupt utility service to facilities or otherwise impair the operation of some Obligated Group Member's facilities or the generation of revenues beyond existing insurance coverage.

Increased Competition

The health care business is highly competitive. The Obligated Group will likely face increased competition from other providers of health care that offer health care services to the population that the Obligated Group services. This could include the construction of new, or the renovation of existing, hospitals, specialty hospitals, ambulatory surgical centers and other ambulatory care facilities and private laboratory and radiological services. There are also some service lines that other types of providers or entities could begin to provide, which could decrease utilization of some of the revenue generating services offered by the Obligated Group Members.

Specialty hospital developments that attract away an important segment of an existing hospital's admitting specialists and/or services that generate a significant source of revenue may be particularly damaging. For example, some large hospitals may have significant dependence on heart surgery programs, as revenue streams from those programs may cover significant fixed overhead costs. If a large number of such a hospital's heart surgeons develop their own specialty heart hospital (alone or in conjunction with a growing number of specialty hospital operators and promoters), taking with them their patient base, the hospital could experience a rapid and dramatic decline in net revenues that is not proportionate to the number of patient admissions or patient days lost. It is also possible that the competing specialty hospital, as a for-profit venture, would not accept charity care patients or other payors and government programs, leaving low-pay patient populations in the full-service hospital. In certain cases, such an event could be materially adverse to the hospital. A provision contained in the ACA has all but eliminated the development and expansion of physician-owned specialty hospitals, nonetheless, specialty hospitals continue to represent a significant competitive challenge for full-service hospitals.

Likewise, freestanding ambulatory surgery centers may attract away significant commercial outpatient services traditionally performed at hospitals. Commercial outpatient services, currently among the most profitable for hospitals, may be lost to competitors who can provide these services in an alternative, less costly setting. Full-service hospitals also rely upon the revenues generated from commercial outpatient services to fund other less profitable services. Competing ambulatory surgery centers, more likely a for-profit business, may not accept charity care patients or low paying programs and would leave these populations to receive services in the hospital setting.

Quality measures and future trends toward clinical transparency may have an unanticipated impact on the Obligated Group's competitive position and patient volumes. Health care consumers are now able to access hospital performance data on quality measures and patient satisfaction, as well as standard charges for services, to compare competing providers. If any of the Obligated Group's health care facilities achieve poor results (or results that are lower than their competitors') on quality measures or patient satisfaction surveys, or if patients perceive the Obligated Group Members' standard charges as being higher than their competitors' charges, the Obligated Group may attract fewer patients. The CMS Price Transparency Rule, more fully described herein, requires the publication of hospital standard charges (including negotiated charges), and could also result in market distortion or changes to patient choice that may negatively impact the Obligated Group.

Future competition may arise from new sources not currently anticipated or prevalent. Additionally, scientific and technological advances, new procedures, drugs and devices, preventive medicine and outpatient health care delivery may reduce utilization and revenues of hospitals in the future or otherwise lead the way to new avenues of competition. In some cases, hospital investment in facilities and equipment for capital-intensive services may be lost as a result of rapid changes in diagnosis, treatment or clinical practice brought about by new technology or new pharmacology.

Uncompensated Care

Hospital providers across the country continue to see a rise in the overall cost of uncompensated care as a result of increased unemployment or other adverse economic conditions that further increase the proportion of patients who are unable to pay fully for their cost of care. The Tax Cuts and Jobs Act's effective repeal of the ACA's individual mandate is likely to increase the number of uninsured. Increases in contracted reimbursement rates may not be sufficient to fully offset the increased cost of uncompensated care.

Physician Relationships

The success of the Obligated Group Members' business depends in significant part on the number, quality, specialties, and admitting and scheduling practices of admitting physicians. Accordingly, it is essential to the Obligated Group Members' ongoing business that it attract an appropriate number of quality physicians in the specialties required to support its services and maintains good relationships with those physicians. A shortage of physicians, especially in primary care, could become a significant issue for health providers in the coming years. In addition, reductions in Medicare or Medicaid reimbursement could lead to physicians relocating their practices in communities with lower Medicare and Medicaid populations. The Obligated Group may be required to invest additional resources for recruiting and retaining physicians or may be required to increase the percentage of employed physicians in order to continue serving the growing population base and maintain market share.

In recruiting, retaining and otherwise contracting with physicians, the Obligated Group will be limited by rules promulgated by federal or state regulation. Failure to comply with such rules could result in substantial fines, penalties, or exclusion from the federal health care programs. Management of Temple University Health believes that the Obligated Group Members' physician arrangements are in material compliance with applicable laws and regulations, but no assurance can be given that regulatory authorities will not take a contrary position or that the Obligated Group Members will not be found to have violated applicable law. Additionally, future laws, regulations or policies may have a material adverse impact on the ability of the Obligated Group Members to recruit and retain physicians.

The primary relationship between a hospital and physicians who practice in the hospital is through the hospital's organized medical staff. Medical staff bylaws, rules and policies establish the criteria and procedures by which a physician may have his or her privileges or membership curtailed, denied or revoked. Physicians who are denied medical staff membership or certain clinical privileges, or who have membership or privileges curtailed, denied or revoked, often file legal actions against hospitals. Such action may include a wide variety of claims, some of which could result in substantial uninsured damages to a hospital. In addition, failure of the hospital governing body to adequately oversee and ensure compliance with policies and procedures governing care provided in the Obligated Group Member facilities, or failure of the medical staff to adequately oversee the professional conduct of physicians providing professional services in the Obligated Group Member facilities may result in hospital liability to third parties. All hospitals, including those owned and operated by the Obligated Group Members, are subject to such risk.

Possible Staffing Shortages

In recent years, the health care industry has suffered from a scarcity of physicians in certain specialties, nurses and other qualified health care technicians and personnel. Factors underlying this trend include increased demand for trained personnel combined with an insufficient number of qualified graduates to meet the growing need, and the aging of the workforce generally. Any of these factors may

continue and increase in the future, aggravating the shortage of physicians, nursing personnel or other qualified health care technicians and personnel. This trend could force the Obligated Group Members to pay higher than anticipated salaries to personnel as competition for such employees intensifies and, in an extreme situation, could lead to difficulty maintaining licenses to provide health care services for the facilities of the Obligated Group Members and, as a result, maintaining eligibility for reimbursement under Medicare and the various state Medicaid programs. The COVID-19 pandemic has amplified and exacerbated, this existing trend, with practitioners deciding to leave health care or retire early. In the event of a shortage or difficulty in the direct hire of health care personnel, the Obligated Group Members could be required to seek indirect hire of such professionals through an increased use of third-party staffing, at higher costs.

Labor Relations and Collective Bargaining

Hospitals are large employers with a wide diversity of employees. Increasingly, employees of hospitals are becoming unionized, and many hospitals have collective bargaining agreements with one or more labor organizations. Employees subject to collective bargaining agreements may include essential nursing and technical personnel, as well as food service, maintenance and other trade personnel. Renegotiation of such agreements upon expiration may result in significant cost increases to hospitals. Employee strikes or other adverse labor actions may have an adverse impact on operations, revenue and hospital reputation. For information on the Health System's unionized employees, *see* APPENDIX A – "INFORMATION CONCERNING THE HEALTH SYSTEM AND THE UNIVERSITY – OTHER INFORMATION – Employees."

Wage and Hour Class Actions and Litigation

Federal law and many states, including Pennsylvania, impose standards related to worker classification, payment of the minimum wage, eligibility and payment for overtime, liability for providing rest periods and similar requirements. Large employers with complex workforces, such as hospitals, are susceptible to actual and alleged violations of these standards. In recent years there has been a proliferation of lawsuits over these "wage and hour" issues, often in the form of large class actions. For large employers, such as the Obligated Group Members, such class actions can involve multi-million dollar claims, judgments and/or settlements. A major class action decided or settled adversely to the Obligated Group Members could have a material adverse effect.

Other Class Actions

Hospitals, health systems and other health care providers have long been subject to a wide variety of litigation risks, including liability for care outcomes, employer liability, property and premises liability, and peer review litigation with physicians, among others. In recent years, consumer class action litigation has emerged as a potentially significant source of litigation liability for hospitals, health systems and other health care providers. These class action suits have most recently focused on hospital billing and collections practices and breaches of privacy, and they may be used for a variety of currently unanticipated causes of action. Since the subject matter of class action suits may involve uninsured risks, and since such actions often involve alleged large classes of plaintiffs, they may have material adverse consequences on hospitals and health systems in the future. See "— Wage and Hour Class Actions and Litigation" above.

Action by Consumers and Purchasers of Health Care Services

Major purchasers of health care services also could take action to restrain hospital or other provider charges or charge increases. As a result of increased public scrutiny, it is also possible that the pricing strategies of hospitals may be perceived negatively by consumers, and hospitals may be forced to reduce fees for their services. Decreased utilization could result, and health care revenues may be negatively impacted. In addition, consumers and groups on behalf of consumers are increasing pressure for hospitals and other health care providers to be transparent and provide information about cost and quality of services that may affect future consumer choices about where to receive health care services. In fact, as of January 1, 2019, hospitals are required to publicize online a list of their standard changes for all items and services that the hospital provides.

Pension and Benefit Funds

As large employers, hospitals and health care providers may incur significant expenses to fund pension and benefit plans for employees and former employees, and to fund required workers' compensation benefits. Plans are often underfunded, or may become underfunded and funding obligations in some cases may be erratic or unanticipated and may require significant commitments of available cash needed for other purposes. In addition, to the extent investment returns are lower than anticipated or losses on investments occur, the Obligated Group Members may also be required to make additional deposits in connection with pension fund liabilities.

Audits, Exclusions, Fines, Withholds and Enforcement Actions

Health care providers participating in Medicare and Medicaid are subject to audits and retroactive audit adjustments by fiscal intermediaries under the Medicare and Medicaid programs. From an audit, a fiscal intermediary may conclude that services may not have been provided under the direct supervision of a physician (to the extent so required), that a patient should not have been characterized as an inpatient, that certain services provided prior to admission as an inpatient should not have been billed as outpatient services, or that certain required procedures or processes were not satisfied, or that certain costs were unreasonable, not allowable, not incurred or incorrectly classified. As a consequence, payments may be retroactively disallowed or recouped. Regulations also provide for withholding of payments in certain circumstances, and such withholdings could have a substantial adverse effect on the financial condition of the health care provider, including, the Obligated Group Members. Under certain circumstances, payments made may be determined to have been made as a consequence of improper claims subject to the federal and state statutes, subjecting the health care provider to civil or criminal sanctions. The Obligated Group Members, as health care providers, are subject to all such risks. See the information under the heading "REGULATION OF THE HEALTH CARE INDUSTRY."

Information Systems and Technology

The ability to adequately price and bill health care services and to accurately report financial results depends on the operability of a health care provider's electronic medical record ("EMR") and other information technology ("IT") systems and the integrity of the data stored within such systems. EMR and IT systems require an ongoing commitment of significant resources to maintain, protect and enhance existing systems and develop new systems to keep pace with continuing changes in information processing technology, evolving systems and regulatory standards. There can be no assurance that efforts to upgrade and expand information systems capabilities, protect and enhance these systems, and develop new systems to keep pace with continuing changes in information processing technology will be successful or that additional systems issues will not arise in the future. From time to time, providers may

need or choose to change or upgrade EMR systems. Such transfer can be costly and have the potential to disrupt operational issues and create regulatory issues such as data privacy issues, which in turn may have a material adverse effect on the Obligated Group's business or financial condition.

The reliance on EMR and IT for these purposes imposes expectations on physicians and other workforce members to be adept in using and managing such systems. It also introduces risks related to patient safety, and to the privacy, accessibility and preservation of health information. Technology malfunctions or failure to understand and use information systems properly could result in the dissemination of or reliance on inaccurate information, as well as in disputes with patients, physicians and other health care professionals. Health information systems may also be subject to different or higher standards or greater regulation than other information technology or the paper-based systems previously used by health care providers, which may increase the cost, complexity and risks of operations. All of these risks may have adverse consequences on hospitals and health care providers.

Technological advances in recent years have forced hospitals to acquire sophisticated and costly equipment to remain technologically current. Moreover, the growth of e-commerce may also result in a shift in the way that health care is delivered (i.e., from remote locations). For example, physicians are able to provide certain services over the internet and pharmaceuticals and other health services may be purchased online. If, due to financial constraints, the Obligated Group were less able to acquire new equipment required to remain technologically current, the operations and financial condition of the Obligated Group could be materially adversely affected.

Medical discoveries and advancements, including the development of new drugs, devices or procedures, may add significantly to the Obligated Group's cost of providing services, requiring costly new medical technology with no or little offsetting increase in federal reimbursement. Moreover, medical advancements also may render obsolete certain health care services, thereby either increasing expense or reducing revenues. The ability of the Obligated Group to purchase and offer new medical technology and equipment may be subject to the availability of such equipment, specialists trained in such equipment or technology, governmental approval, or the ability to finance such acquisitions or operations. The implementation of new medical technology cannot be predicted but may have a material adverse effect on the Obligated Group's business or financial condition.

Cyber-Attacks

The Obligated Group relies on IT systems, including EMRs, to operate its facilities and process, transmit and store sensitive and confidential data, including the protected health information and personally identifiable information of its patients and employees, and proprietary and confidential business performance data. Although the Obligated Group routinely monitors and tests the security of its IT systems and processes and implements appropriate security measures, IT systems are often subject to computer viruses, cyber-attacks by hackers (such as malware or ransomware attacks), or breaches due to employee error or malfeasance. Cyber-attacks specifically targeted at health systems have been occurring more frequently, and in some recent cases, have resulted in the disruption or temporary cessation of facility operations. On October 28, 2020, HHS, the Federal Bureau of Investigation, and the Cybersecurity and Infrastructure Agency issued an alert warning of an imminent cybercrime threat to U.S. hospitals and health care providers that could result in data theft and disruption of health care services.

Any breach or cyber-attack that limits a health facility's ability to access its IT systems or otherwise compromises patient data could result in the disruption or cessation of facility operations, patient safety issues, the loss of patient records, the payment of significant ransoms, negative press, and/or the imposition of substantial fines or penalties for violation of HIPAA (defined below) or

similar state privacy laws, any of which may adversely affect a health facility's business or financial condition. The Obligated Group's IT security measures may not be sufficient to prevent cyber-attacks in the future, and as cybersecurity threats continue to evolve, the Obligated Group may not be able to anticipate certain attack methods in order to implement effective protective measures, and may be required to expend significant additional resources to continue to modify and strengthen security measures, investigate and remediate any vulnerabilities, or invest in new technology designed to mitigate security risks. Additionally, the Obligated Group's IT systems routinely interface with and rely on third-party systems that are also subject to the risks outlined above and may not have or use appropriate controls to protect confidential information. A breach or attack affecting a third-party service provider could harm the Obligated Group's business or financial condition. Although the Obligated Group has insurance against some cyber risks and attacks, it may not be sufficient to offset the impact of a material loss event.

Big Data

Health care providers are increasingly analyzing or partnering or contracting with others to analyze health care "Big Data," i.e., datasets of such volume or breadth that cannot be analyzed using ordinary database software tools. In particular, large hospitals may analyze health care Big Data for operational purposes such as to measure value based performance. Hospitals may also enter into research collaborations with technology companies to analyze health care Big Data for research purposes. Although HIPAA permits the use and disclosure of individually identifiable health information held by covered entities for operational or research purposes, both the covered entity and its business associate must comply with stringent privacy and security requirements which, if not met, can lead to significant exposure both with respect to the government and civil litigants. For example, to share individually identifiable health information with a research partner, a hospital may choose to de-identify such information which would be a permissible use or disclosure under HIPAA. However, the failure to properly de-identify could result in significant financial exposure particularly due to the volume of patients affected. The Obligated Group Members may use or share health care Big Data for operational and research purposes and due to the complexity of HIPAA's requirements, non-compliance in this context in the future could result in a material adverse impact.

Antitrust

Antitrust liability may arise in a wide variety of circumstances, including medical staff privilege disputes, contracting with commercial insurers, Managed Care Organizations, and other third-party payors, physician relations, joint ventures, merger, affiliation and acquisition activities and certain pricing or salary setting activities, as well as other areas of activity. The application of the federal and state antitrust laws to health care is still evolving, and enforcement activity by federal and state agencies appears to be increasing. The health care industry is expected to experience increased pressure from the Federal Trade Commission ("FTC") after President Biden signed an executive order on July 9, 2021 aimed at encouraging economic competition. The executive order targets health care as one of the sectors that will receive increased FTC enforcement and scrutiny. A primary point of concern is consolidation among hospitals. The executive order calls on the Attorney General and the chair of the FTC to review and consider revising the current horizontal and vertical merger guidelines. Additionally, it reiterates that the FTC and Department of Justice ("DOJ") are allowed to challenge prior mergers that are already consummated. This remains an evolving issue and could have a materially adverse impact on the financial condition or operations of the Obligated Group.

Violators of the antitrust laws may be subject to criminal and/or civil enforcement by federal and state agencies, as well as by private litigants in certain instances. At various times, an Obligated Group

Member may be subject to an investigation or inquiry by a governmental agency charged with the enforcement of the antitrust laws, or may be subject to administrative or judicial action by a federal or state agency or a private party. Common areas of potential liability are joint action among providers with respect to third-party payor contracting and medical staff credentialing. With respect to third-party payor contracting, an Obligated Group Member may, from time to time, be involved in joint contracting activity with hospitals, physicians or other providers. The precise degree, if any, to which this or similar joint contracting activities may expose the participants to antitrust risk is dependent on a myriad of factual matters. Physicians who are subject to adverse peer review proceedings may file federal antitrust actions against hospitals and seek treble damages. Health care providers, including the Obligated Group Members, regularly have disputes regarding credentialing and peer review, and therefore may be subject to liability in this area. In addition, health care providers occasionally indemnify medical staff members who are involved in such credentialing or peer review activities, and may, therefore, also be liable with respect to such indemnity.

Affiliations, Merger, Acquisition and Divestiture

The Corporation evaluates and pursues potential acquisition, merger and affiliation candidates as part of the overall strategic planning and development process. As part of its ongoing planning and property management functions, the Corporation reviews the use, compatibility and business viability of many of the operations of the Obligated Group, and from time to time may pursue changes in the use of, or disposition of, its facilities. Likewise, the Corporation occasionally receives offers from, or conducts discussions with, third parties about the potential acquisition of operations and properties which may become subsidiaries or affiliates of the Obligated Group Members in the future, or about the potential sale of some of the operations or property which are currently conducted or owned by the Obligated Group. As a result, it is possible that the current organization and assets of the Obligated Group may change from time to time. Subject to the limitations contained in the Master Indenture, the operating assets of the Obligated Group could change from time to time, and it is possible that new entities could be added to the Obligated Group in the future. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1 – THE MASTER INDENTURE – Merger, Consolidation, Sale or Conveyance."

Market Risk and Interest Rate Swaps

The Health System has significant holdings in a broad range of investments. Market fluctuations have affected and will continue to affect the value of those investments and those fluctuations may be, and historically have been, material. Occasional market disruptions have exacerbated the market fluctuations and have negatively affected the investment performance over certain time periods and in some cases materially diminished the liquidity of those investments. Investment income (including both realized and unrealized gains on investments) has contributed significantly to the Health System's financial results over recent years. Any diminution of liquidity of the Health System's investments could also have a material adverse effect on the Obligated Group.

Market for the Bonds

Subject to prevailing market conditions, the Underwriters intend, but are not obligated, to make a market in the Bonds. There is presently no secondary market for the Bonds, and no assurance can be given that a secondary market will develop. Consequently, investors may not be able to resell the Bonds purchased should they need or wish to do so.

Ratings

There can be no assurance that the ratings assigned to the Bonds at the time of issuance will not be lowered or withdrawn at any time, the effect of which could adversely affect the market price for and marketability of the Bonds. See the information under the heading "RATINGS."

Future Legislation Regarding Limitations or Elimination of Tax-Exempt Status

Future tax legislation, administrative actions taken by tax authorities or court decisions, whether at the federal or state level, may adversely affect the tax-exempt status of interest on the Bonds under federal or state law or otherwise prevent beneficial owners of the Bonds from realizing the full current benefit of the tax status of such interest. In addition, such legislation, administrative actions and court decisions could affect the market price or marketability of the Bonds. Prospective investors should consult with their tax advisors on the foregoing matters as they consider an investment in the Bonds.

Risks Associated with LIBOR-Based Indebtedness or Swaps

The Obligated Group has previously incurred indebtedness that bears interest at rates that are determined based on a London Interbank Offered Rate ("LIBOR") index. In 2017, the U.K. Financial Conduct Authority (the "UK FCA"), the body that regulates and supervises the publication of LIBOR, announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR after 2021. It is not possible to predict the impact of the phase out of LIBOR or any future rule changes or benchmark rates adopted by the UK FCA or other regulatory body, if any, in replacement of LIBOR.

On November 30, 2020, the ICE Benchmark Administration Limited announced its plan to extend the date that most U.S. Dollar LIBOR values would cease being computed and published from December 31, 2021 to June 30, 2023. On March 5, 2021, the ICE Benchmark Administration Limited published a feedback statement that confirmed its intention to cease publication of one week and two month U.S. Dollar LIBOR tenors after December 31, 2021 and all other U.S. Dollar LIBOR tenors after June 30, 2023. This went into effect as anticipated, and publication of one week and two month U.S. Dollar LIBOR tenors has ceased as of December 31, 2021. If future uncertainty surrounding the calculation of LIBOR results in sudden changes in LIBOR rates, payments under the Obligated Group's LIBOR-based indebtedness or swaps, if any, may be materially adversely affected. Further, the phase out of LIBOR and the uncertainty as to the benchmark rate or mechanism that may succeed LIBOR may increase the costs and availability of financing or otherwise materially adversely affect the Obligated Group depending on the market levels of any such replacement rate or mechanism and the vulnerability to manipulation, if any, of any such replacement rate or mechanism. The Obligated Group in the future may pursue amendments to its LIBOR-based debt and interest rate swap transactions, if any, to provide for a transaction mechanism or other reference rate in anticipation of LIBOR's discontinuation, but it may not be able to reach agreements with its counterparties regarding any such amendments. The replacement of LIBOR with a comparable or successor rate could cause the amount of interest payable on the Obligated Group's long-term debt to be different or higher than expected.

Interest Rate Swaps

Certain Obligated Group Members may utilize interest rate hedges, or swap agreements, to manage exposure to interest rate fluctuations. Swap agreements are subject to periodic "mark-to-market" valuations and may, at any time, have a negative value (which could be substantial) to the applicable Obligated Group Member. Changes in the market value of such swap agreements could negatively or positively impact the operating results and financial condition of the applicable Obligated Group

Member, and such impact could be material. Any of the swap agreements to which an Obligated Group Member is a party may be subject to early termination upon the occurrence of certain specified events. If either the applicable Obligated Group Member or the counterparty terminates such an agreement when the agreement has a negative value to the applicable Obligated Group Member, the applicable Obligated Group Member could be obligated to make a termination payment to the applicable swap counterparty in the amount of such negative value, and such payment could be substantial and potentially materially adverse to the financial condition of the applicable Obligated Group Member. In the event of an early termination of a swap agreement, there can be no assurance that (i) the applicable Obligated Group Member will receive any termination payment payable to it by the respective swap provider, (ii) the applicable Obligated Group Member will not be obligated to or will have sufficient monies to make a termination payment payable by it to the applicable swap provider, or (iii) the applicable Obligated Group Member will be able to obtain a replacement swap agreement with comparable terms.

Environmental Laws and Regulations

Health care providers are subject to a wide variety of federal, state and local environmental and occupational health and safety laws and regulations which address, among other things, hospital operations, facilities and properties owned or operated by hospitals. Among the type of regulatory requirements faced by hospitals are (i) air and water quality control requirements, (ii) waste management requirements, (iii) specific regulatory requirements applicable to asbestos, polychlorinated biphenyls and radioactive substances, (iv) requirements for providing notice to employees and members of the public about hazardous materials handled by or located at hospitals and (v) requirements for training employees in the proper handling and management of hazardous materials and wastes.

As the owner and operator of properties and facilities, Obligated Group Members may be subject to liability for hazardous substances that may have migrated off its properties, including remediation thereof. Typical hospital operations include, but are not limited to, in various combinations, the handling, use, storage, transportation, disposal and discharge of hazardous, infectious, toxic, radioactive, flammable and other materials, wastes, pollutants or contaminants. As such, hospital operations are particularly susceptible to the practical, financial and legal risks associated with compliance with such laws and regulations.

Most recently, the Occupational Safety and Health Commission ("OSHA") announced the implementation of an Emergency Temporary Standard ("ETS") for COVID-19 that applies to health care providers with certain limited exceptions. In addition, OSHA announced that it would be focusing its inspection and enforcement efforts on industries with higher COVID-19 risk, such as health care facilities and assisted living facilities. Compliance with environmental and occupational health and safety laws, including the ETS, may increase operating costs. Further, environmental and occupational health and safety risks may result in (1) damage to individuals, property or the environment, (2) the interruption of operations and/or increased costs, (3) legal liability, damages, injunctions, citations, or fines and (4) investigations, administrative proceedings, civil litigation, criminal prosecution, penalties or other governmental agency actions. Such actions may not be covered by insurance. There is no assurance that the Obligated Group will not encounter such problems in the future and such problems may result in material adverse consequences to the Obligated Group's business or financial condition.

At the present time, management is not aware of any pending or threatened claim, investigation or enforcement action regarding such environmental issues that, if determined adversely to an Obligated Group Member, would have a material adverse effect on the results of operations or financial condition of the Obligated Group as a whole.

Additions to and Withdrawals from the Obligated Group

Upon satisfaction of certain conditions in the Master Indenture, other entities may become Obligated Group Members and any or all of the current Obligated Group Members may withdraw from the Obligated Group. If and when new Members are added to the Obligated Group or any Obligated Group Member withdraws from the Obligated Group, such changes to the Obligated Group membership could result in changes to the Obligated Group's financial situation and operations.

Replacement Master Indenture

Master Indenture Obligations may be replaced by payment obligations issued under a Replacement Master Indenture upon delivery of such Replacement Master Indenture to the Master Trustee upon the terms and conditions provided in the Master Indenture. The new obligated group may be different from the Obligated Group or Obligated Group under the Master Indenture, and the financial condition or results of operations of the new obligated group may be materially different. Further, the Replacement Master Indenture may contain covenants and security that are different from the Master Indenture.

Limitation on Mortgages from AOH and ICR

Reversionary clauses contained in the deeds to the two parcels which form the Fox Chase Cancer Center campus substantially limit the Bond Trustee's ability to realize value through a foreclosure sale of such mortgaged premises. The deed restrictions provide that upon any change in the ownership or use of the property for other than cancer research and treatment of cancer and other nervous and disabling conditions could permit the Friends Fiduciary Corporation to compel reconveyance of the land to it. Since any potential buyer at foreclosure would be at risk of losing its land to the Friends Fiduciary Corporation, the ability of the Bond Trustee to realize value through enforcement of the mortgage on the Fox Chase Cancer Center campus is limited.

Loan and Trust Agreement Covenant Restrictions

The Loan and Trust Agreement contains certain financial and operating covenants of the Obligated Group that either are not contained in the Master Indenture and the Loan Agreement or that are similar but vary in some respects from the covenants contained in the Master Indenture and the Loan Agreement. Thus, for so long as the Loan and Trust Agreement is in effect, although the Obligated Group may be in compliance with the provisions of the Master Indenture, it may nonetheless be in default under the terms of the Loan and Trust Agreement, which could lead to early acceleration and redemption for all bonds and obligations issued and/or secured under the Loan and Trust Agreement.

Bond Insurance Risk Factors

The Authority has applied for a bond insurance policy to guarantee the scheduled payment of principal and interest on the Bonds.

In the event of a failure of the Authority to make a scheduled payment of principal or interest with respect to the Bonds when all or some becomes due, the Trustee on behalf of any owner of the Bonds shall have a claim under the Policy for such payments. However, in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments are to be made in such amounts and at such times as such payments would have

been due had there not been any such acceleration. The Policy does not insure the payment of redemption premium, if any. The payment of principal and interest in connection with mandatory or optional prepayment of the Bonds by the Authority which is recovered by the Authority from the bond owner as a voidable preference under applicable bankruptcy law is insured by the Policy, however, such payments will be made by the Insurer at such time and in such amounts as would have been due absent such prepayment by the Authority unless the Insurer in its discretion chooses to pay such amounts at an earlier date.

Under most circumstances, default of payment of principal and interest does not obligate acceleration of the obligations of the Insurer without appropriate consent. The Insurer may direct and must consent to any remedies and the Insurer's consent may be required in connection with amendments to any applicable bond documents.

In the event the Insurer is unable to make payment of scheduled principal and interest as such payments become due under the Policy, the Bonds are payable solely from the moneys received pursuant to the applicable bond documents. In the event the Insurer becomes obligated to make payments with respect to the Bonds, no assurance is given that such event will not adversely affect the market price of the Bonds or the marketability (liquidity) of the Bonds.

The long-term ratings on the Bonds are dependent in part on the financial strength of the Insurer and its claim paying ability. The Insurer's financial strength and claims paying ability are predicated upon a number of factors which could change over time. No assurance is given that the long-term ratings of the Insurer and of the ratings on the Bonds insured by the Insurer will not be subject to downgrade and such event could adversely affect the market price of the Bonds or the marketability (liquidity) for the Bonds. See description of RATINGS herein.

The obligations of the Insurer are unsecured contractual obligations of the Insurer and in an event of a failure to pay by the Insurer, the remedies available may be limited by applicable bankruptcy or insurance law or other similar laws related to insolvency.

Neither the Authority, the Obligated Group nor the Underwriters have made independent investigation into the claims paying ability of the Insurer and no assurance or representation regarding the financial strength or projected financial strength of the Insurer is given. Thus, when making an investment decision, potential investors should carefully consider the ability of the Obligated Group to pay principal and interest on the Bonds and the claims paying ability of the Insurer, particularly over the life of the investment. See "BOND INSURANCE" herein for further information provided by the Insurer and the Policy, which includes further instructions for obtaining current financial information concerning the Insurer.

Other Bondholders' Risks

In the future, the following factors, among others, may adversely affect the operations of health care providers, including the Obligated Group Members, or the market value of the Bonds, to an extent that cannot be determined at this time:

1. Hospitals are major employers, combining a complex mix of professional, quasi-professional, technical, clerical, housekeeping, maintenance, dietary and other types of workers in a single operation. As with all large employers, the Obligated Group bears a wide variety of risks in connection with their employees. These risks include strikes and other related work actions, contract disputes, discrimination claims, personal tort actions, work-related injuries, exposure to

hazardous materials, interpersonal torts (such as between employees, between physicians or management and employees, or between employees and patients), and other risks that may flow from the relationships between employer and employee or between physicians, patients and employees. Many of these risks are not covered by insurance, and certain of them cannot be anticipated or prevented in advance. The Obligated Group Members are subject to all of the risks listed above, and such risks, alone or in combination, could have material adverse effects on the Obligated Group.

- 2. Scientific and technological advances, new procedures, drugs and appliances, preventive medicine, occupational health and safety and outpatient health care delivery may reduce utilization and revenues of the facilities. Technological advances in recent years have accelerated the trend toward the use by hospitals of sophisticated and costly equipment and services for diagnosis and treatment. The acquisition and operation of certain equipment or services may continue to be a significant factor in hospital utilization, but the ability of the Obligated Group Members to offer the equipment or services may be subject to the availability of equipment and specialists, governmental approval, and the ability to finance these acquisitions or operations.
- 3. Reduced demand for the services of the Obligated Group Members that might result from decreases in population in their service area or from increased competition by other health care providers.
- 4. Increased unemployment or other adverse economic conditions in the service area of the Obligated Group Members, which could increase the proportion of patients who are unable to pay fully, or at all, for the cost of their care.
- 5. Medical expense inflation, which may include increased costs for staff, supplies (including pharmaceuticals), utilities, or other necessary elements of care delivery that exceed payments available to the Obligated Group.
- 6. Any increase in the quantity or overall cost of indigent care provided that is mandated by law or required due to increased needs of the community in order to maintain the charitable status and real estate tax exemption of the Obligated Group Members.
- 7. The passage of climate change, defense, environmental, infrastructure and other laws, policies and regulations, or the imposition of additional environmental or other regulations that might limit the ability of the Obligated Group to undertake, or significantly increase costs of, capital improvements to their respective facilities or to develop new institutional health services.
- 8. The occurrence of a flood, earthquake, or other natural disaster, or a large-scale terrorist attack that disrupts operations of the Obligated Group's facilities or increases the proportion of patients who are unable to pay fully for the cost of their care.
- 9. Instability in the stock market, which may adversely affect both the principal value of, and income from, the investment portfolio of the Health System.
- 10. A national or localized outbreak of a highly contagious or epidemic disease.

REGULATION OF THE HEALTH CARE INDUSTRY

General Health Care Industry Factors

The Obligated Group, and the health care industry in general, are subject to regulation by a number of governmental agencies, including those which administer the Medicare and Medicaid programs, federal, state and local agencies responsible for administration of health planning programs and other federal, state and local governmental agencies. The health care industry is also affected by federal, state and local policies developed to regulate the manner in which health care is provided, administered and paid for nationally and locally. As a result, the health care industry is sensitive to legislative and regulatory changes in such programs and is affected by reductions and limitations in government spending for such programs as well as changing health care policies. The pressure to curb the rate of increase in federal spending in health care programs overall and on a per beneficiary basis is expected to increase as the U.S. population ages. Among other effects, this pressure may result in further reductions in reimbursement rates for hospital services and an intensified focus on shifting to value-based care (and transitioning away from fee-for service care) in the Medicare and Medicaid programs. In addition, Congress and other governmental agencies have focused on the provision of care to indigent and uninsured or underinsured patients, and the prevention of "dumping" such patients on other hospitals in order to avoid provision of unreimbursed care. Adoption of additional regulations in these areas could have an adverse effect on the operations and financial condition of the Obligated Group Members. Furthermore, laws promulgated by Congress and state legislatures, which regulate the manner in which health care services are provided and billed for, are increasing. As a result, the costs of complying with these laws and regulations are increasing. Some of the legislation and regulations affecting the health care industry are discussed in this section.

Federal and State Legislation; National Health Care Reform

General. A significant portion of the revenues of the Obligated Group is derived from Medicare, Medicaid and other third-party payers. For a breakdown of the sources of payment for services provided by the Health System, *see* APPENDIX A – "INFORMATION RELATING TO TEMPLE UNIVERSITY HEALTH – FINANCIAL AND OPERATING INFORMATION – Sources of Revenue" herein.

Medicare is a federal program administered by the CMS, through Medicare Administrative Contractors. Medicare provides certain health care benefits to beneficiaries who are 65 years of age or older and other classes of individuals. Medicare Part A generally covers health services provided by institutional entities, including hospital, home health, nursing home care, and certain other providers. Medicare Part B covers outpatient services, certain physician services, medical supplies and durable medical equipment.

Medicaid is a federally assisted, state administered program of medical assistance that provides reimbursement for a portion of the cost of caring for certain indigent persons including: parents and caretakers, relatives of children, children, pregnant women, former foster care individuals, non-citizens with medical emergencies, aged or disabled individuals not currently receiving Supplemental Security Income, and other individuals that qualify for a state's Medicaid program. Under the ACA, states have the option to expand Medicaid to cover individuals under the age of 65 with incomes up to 138% of the federal poverty level; the federal government pays 90% of the costs of Medicaid coverage for adults covered through this ACA expansions. Medical benefits are available under each participating state's Medicaid program, within prescribed limits, to persons meeting certain minimum income or other need requirements. The Medicaid program provides payments for medical items and services for any person who is determined to be eligible for Medicaid assistance on the date of service. Federal and state funds

support the Medicaid program. Medicaid benefits are available, within prescribed limits, to persons meeting certain minimum income or other need requirements. Payment for medical and health services is made to providers in amounts determined in accordance with procedures and standards established by state law under federal guidelines, and providers are eligible to receive Medicaid payments up to, but not in excess of, the cost of providing such care. However, because the state is required to contribute funding prior to federal investment, most states' Medicaid programs reimburse providers for significantly less than the amount that would cover costs for treating this population. Fiscal considerations of state governments in establishing their budgets will directly affect the funds available to the providers for payment of services rendered to Medicaid beneficiaries. Delays in appropriations and state budget deficits which may occur from time to time create a risk that payment for services to Medicaid patients will be withheld or delayed. CMS regulations can also impact services and facilities that are eligible for reimbursement. Payments under the Medicaid program represent a significant portion of the Obligated Group's gross patient service revenue.

Significant changes have been and will likely continue to be made in these programs, which changes could have an adverse impact on the financial condition of the Obligated Group. In addition, bills have in the past and may in the future be introduced in Congress which, if enacted, could adversely affect the operations of the Obligated Group by, for example, decreasing payment by Medicare and Medicaid and other third-party payers or limiting the ability of the physicians on the medical staff of the Obligated Group to provide services or increase services provided to patients.

Participation in any federal health care program is heavily regulated. Providers and suppliers that participate in the Medicare and Medicaid programs must agree to be bound by the terms and conditions of the programs, such as meeting quality standards for rendering covered services, adopting and enforcing policies to protect patients from certain discriminatory practices, and disclosing certain ownership interests and/or managing control information. If a health care entity fails to substantially comply with any applicable conditions of participation in the Medicare and Medicaid programs or performs certain prohibited acts, the entity's participation in these programs may be terminated, and civil and/or criminal penalties may be imposed.

The discussion herein describes risks associated with certain existing federal and state laws, regulations, rules, and governmental administrative policies and determinations to which the Obligated Group Members and the health care industry are subject. These are regularly subject to change. Additionally, because health care regulations are particularly complex, such regulations may be interpreted and enforced in a manner that is inconsistent with management's interpretation. The Obligated Group's business or financial condition could be harmed if it is alleged to have violated existing health care regulations or if it fails to comply with new or changed health care regulations. Furthermore, health care, as one of the largest industries in the United States, continues to attract much legislative interest and public attention. Further changes in the health care regulatory framework which increase the burdens on health care providers could have a material adverse effect on the Obligated Group's business or financial condition.

Also, there can be no assurances that any current health care laws and regulations, including the ACA, will remain in effect in their current form. There can be no assurances that any potential changes to the laws and regulations governing health care would not have a material adverse financial effect on the Obligated Group. Therefore, the following discussion should be read with the understanding that significant changes could occur in the foreseeable future in many of the statutory and regulatory matters discussed.

The Affordable Care Act ("ACA")

The ACA has significantly changed, and continues to change, how health care services are covered, delivered, and financed in the United States. The primary goal of the ACA—extending health coverage to millions of uninsured legal U.S. residents—has taken place through a combination of private sector health insurance reforms and Medicaid program expansion (discussed below). To fund Medicaid expansion, the ACA includes a broad array of quality improvement programs, cost-efficiency incentives, and enhanced fraud and abuse enforcement measures, each designed to generate savings within the Medicare and Medicaid programs. Additionally, the ACA created health insurance exchanges—competitive markets for individuals and small employers to purchase health insurance—and financial programs designed to encourage insurance companies to offer plans on the health insurance exchanges.

Due to the controversial nature of health care reform generally, implementation of the ACA has been, and remains, politically controversial. Previously, Republican leaders of Congress have repeatedly cited health care reform and particularly repeal and replacement of the ACA, as a key goal. These actions included introducing and voting on various bills aimed at repealing and replacing all or portions of the ACA. While no bills wholly repealing the ACA have passed both chambers of Congress, the Tax Cuts and Jobs Act effectively eliminated a key provision of the ACA – a tax penalty associated with failing to maintain health coverage (the "*Individual Mandate Tax Penalty*") by reducing the penalty to zero dollars effective 2019. In addition to actual and possible legislative changes, executive branch actions can also have a significant impact on the viability of the ACA. President Biden is expected to undertake executive actions that will strengthen and build on the ACA and may reverse certain policies of the prior administration that are seen as undermining the ACA.

Other efforts to weaken the ACA included the Trump administration's refusal to defend key parts of the ACA in a federal case filed in Texas (discussed below), where plaintiffs have argued that the ACA is unconstitutional as a result of the repeal of the Individual Mandate Tax Penalty. On December 14, 2018, a Texas Federal District Court judge, in the case of *Texas v. Azar* declared the ACA unconstitutional, reasoning that the Individual Mandate Tax Penalty was essential to, and inseverable from, the remainder of the ACA. The case was appealed to the U.S. Court of Appeals for the Fifth Circuit. On December 18, 2019, the U.S. Court of Appeals for the Fifth Circuit affirmed the Texas Federal District Court judge's ruling that the Individual Mandate Tax Penalty was unconstitutional but stopped short of invalidating the entirety of the ACA. The Fifth Circuit remanded the case to the Texas District Court to reconsider whether the remainder of the ACA is severable or must also be held unconstitutional. On March 2, 2020, the U.S. Supreme Court agreed to hear two consolidated cases, filed by the State of California and the United States House of Representative, asking the U.S. Supreme Court to review the severability issue. On June 17, 2021, the U.S. Supreme Court dismissed the case, finding that the plaintiffs lacked standing.

The Corporation cannot predict the effect of the elimination of the Individual Mandate Tax Penalty, the likelihood of any future ACA repeal bills or other health care reform bills becoming law, or the subsequent effects of any such laws or legal decisions, though such effects could materially impact the Obligated Group's business or financial condition. In particular, any legal, legislative or executive action that (1) reduces federal health care program spending, (2) increases the number of individuals without health insurance, (3) reduces the number of people seeking health care, or (4) otherwise significantly alters the health care delivery system or insurance markets could have a material adverse effect on the Obligated Group's business or financial condition.

Executive branch actions can also have a significant impact on the viability of the ACA. For example, the Trump administration issued broad executive orders aimed at de-regulation, including:

(1) requiring federal agencies to remove two previously implemented regulations for every new regulation added, and (2) directing each federal agency to set up a "regulatory reform task force" to review existing regulations and eliminate those that are costly or unnecessary. Additionally, the Trump administration took several executive actions directly aimed at the ACA, including actions: (1) requiring federal agencies with authorities and responsibilities under the ACA to "exercise all authority and discretion available to them to waive, defer, grant exemptions from, or delay" parts of the law that place "unwarranted economic and regulatory burdens" on states, individuals or health care providers, (2) instructing federal agencies to make new rules allowing the proliferation of "association health plans" and short-term health insurance, which plans have fewer benefit requirements than those sold through ACA insurance exchanges, (3) ordering the federal government to withhold ACA cost-sharing subsidies currently paid to insurance companies in order to reduce deductibles and co-pays for many low-income people, (4) enabling the formation of health plans exempt from ACA essential health benefits requirements, (5) expanding the availability of short-term, limited duration health insurance, (6) eliminating cost-sharing reduction payments to insurers that would otherwise offset deductibles and other out-of-pocket expenses for health plan enrollees at or below 250% of the poverty level, (7) relaxing requirements for state innovation waivers that could reduce enrollment in the individual and small group markets and lead to additional enrollment in short-term, limited duration insurance and association health plans, and (8) incentivizing the use of health reimbursement arrangements by employers to permit employees to purchase health insurance on the individual market. Although the Biden administration has repealed some of these executive actions, the uncertainty resulting from these executive actions likely contributed to reduced ACA exchange enrollment in 2018 with final CMS reported data for 2019 and 2020 indicating further decline, and with enrollment expected to further worsen the individual and small group market risk pools in future years. It is also anticipated that these and future policies may create additional cost and reimbursement pressures on hospitals.

These executive actions have the potential to significantly impact the insurance exchange market by causing a reduction in the number of healthy individuals in the ACA health insurance exchanges, a reduction in the number of plans available on the health insurance exchanges, and/or an increase in insurance premiums. Management cannot predict the likelihood or effect of any current or future executive actions on the Obligated Group's business or financial condition, though such effects could be material.

The majority of the ACA remains law. Certain key provisions of the law are briefly described below:

1. Private Health Insurance Coverage Expansion/Insurance Market Reforms. One key provision of the ACA was the Individual Mandate Tax Penalty (discussed above) which required most Americans to maintain "minimum essential" health insurance coverage or pay a yearly tax penalty to the federal government. Individuals who were not deemed exempt from the Individual Mandate Tax Penalty and otherwise did not obtain health insurance coverage through an employer or government program were expected to satisfy the mandate by purchasing insurance from a private company or through a "health insurance exchange." The health insurance exchanges are government-established organizations that provide competitive markets for buying health insurance by offering individuals and small employers a choice of different health plans, certifying plans that participate, and providing information to help consumers better understand their options. The Tax Cuts and Jobs Act effectively eliminated the Individual Mandate Tax Penalty by reducing the penalty to zero dollars effective January 1, 2019. While the effect of the elimination of the Individual Mandate Tax Penalty is uncertain, it has been predicted that it will result in fewer healthy individuals purchasing insurance (through the exchanges or otherwise) and increase the number of uninsured individuals.

The effect of the health insurance exchange market on the reimbursement rates paid by health insurers, and accordingly on health care providers' business or financial condition, cannot be predicted. The health insurance exchanges may have a positive impact for health care facilities to the extent they increase the number of individuals with health insurance. Conversely, health insurance exchanges may have a negative financial impact on health care providers to the extent (1) insurance plans purchased on the exchanges reimburse providers at lower rates or (2) high-deductible plans offered on the exchanges become more prevalent and lead to lower inpatient volumes as patients choose to forgo medical treatment. However, it is unclear whether the exchanges will continue to be a viable mechanism for the provision of health insurance. Many participating insurance companies have sustained financial losses and either ceased offering plans on the health insurance exchanges or increased their premiums.

The ACA also includes an "employer mandate." The "employer mandate" provisions require the imposition of penalties on employers having 50 or more employees that do not offer qualifying health insurance coverage to those working 30 or more hours per week. The ACA also established a number of other health insurance market reforms, including bans on lifetime limits and pre-existing condition exclusions, new benefit mandates, and increased dependent coverage (until the age of 26).

Management cannot predict the future of the health insurance markets or the effects of current and future health reform efforts on such markets, though such effects may materially affect the Obligated Group's business or financial condition.

- 2. <u>Medicaid Expansion</u>. Another key provision of the ACA is the expansion of Medicaid coverage. Prior to the passage of the ACA, the Medicaid program offered federal funding to states to assist limited categories of low-income individuals (including children, pregnant women, the blind and the disabled) in obtaining medical care. The ACA permits states to expand Medicaid program eligibility to virtually all individuals under 65-years old with incomes up to 138% of the federal poverty level, and provides enhanced federal funding to states that opt to expand such eligibility. There is no deadline for a state to undertake expansion and qualify for the enhanced federal funding available under the ACA. For states that choose not to participate in the federally funded Medicaid expansion, the net positive effect of ACA reforms has been significantly reduced. *See* "State Medicaid Program" below.
- 3. <u>Spending Reductions</u>. The ACA contains a number of provisions designed to significantly reduce Medicare and Medicaid program spending, including: (1) negative adjustments to the "market basket" updates for Medicare's inpatient, outpatient, long-term acute and inpatient rehabilitation prospective payment systems, and (2) reductions to Medicare and Medicaid disproportionate share hospital ("DSH") payments. Any reductions to reimbursement under the Medicare and Medicaid programs could have a material adverse impact on the Obligated Group's business or financial condition to the extent such reductions are not offset by increased revenues from providing care to previously uninsured individuals.
- 4. Quality Improvement and Clinical Integration Initiatives. The ACA mandated the creation of a number of payment reform measures designed to incentivize or penalize hospitals based on quality, efficiency and clinical integration measures and authorizes the Center for Medicare & Medicaid Innovation within CMS to develop and test new payment methodologies designed to improve quality of care and lower costs. Current programs include (1) the "Readmission Reduction Program," which reduces Medicare payments by specified percentages to hospitals with excess or preventable hospital admissions based on historical discharge data, (2) the "Hospital Value-Based Purchasing Program," which imposes an across-the-board reduction in inpatient reimbursement and then reallocates and redistributes those funds to hospitals based on quality, efficiency, and patient experience measures, and (3) the "Hospital-Acquired Condition Reduction Program," which negatively adjusts payments to

applicable hospitals that rank in the worst-performing quartile for risk-adjusted hospital-acquired condition measures. Management is not currently aware of any situation in which an ACA quality, efficiency, or clinical integration program is materially adversely affecting the business or financial condition of the Obligated Group. However, the Obligated Group's business or financial condition may be adversely affected by such programs in the future.

5. Fraud and Abuse Enforcement Enhancements. In an attempt to reduce unnecessary health care spending, the ACA includes a number of provisions aimed at combating fraud and abuse within the Medicare and Medicaid programs. Such provisions provide increased federal funding to fight health care fraud and abuse, provide government agencies with additional enforcement tools and investigation flexibility, facilitate cooperation between agencies by establishing mechanisms for information sharing, and enhance criminal and administrative penalties for non-compliance with the federal fraud and abuse laws (e.g., the Anti-Kickback Law, the Stark Law and the FCA, each as defined and discussed below). Management is not currently aware of any pending recovery audit which, if determined adversely to the Obligated Group, would materially adversely affect the business or financial condition of the Obligated Group.

To the extent the ACA remains law, it is difficult to predict the full impact of the ACA on the Obligated Group's future revenues and operations due to uncertainty regarding a number of material factors, including: (1) the number of uninsured individuals to ultimately obtain and retain insurance coverage as a result of the ACA, (2) the percentage of any newly insured patients covered by Medicaid versus a commercial plan, (3) the pace at which insurance coverage expands, (4) future changes in the reimbursement rates and methods, (5) the percentage of individuals in the exchanges who select the high-deductible plans, (6) the extent to which the enhanced program integrity and fraud and abuse provisions lead to a greater number of civil or criminal actions, (7) the extent to which the ACA tightens health insurers' profits, causing the plans to reduce reimbursement rates, (8) the extent of lost revenues, if any, resulting from ACA quality initiatives, and (9) the success of any clinical integration efforts or programs in which the Obligated Group participates.

Medicare Reimbursement

Hospitals generally are paid for inpatient and outpatient services provided to Medicare beneficiaries under a prospective payment system ("PPS"). Under PPS, a fixed payment is made to hospitals based on the average cost of care incurred in providing various kinds of services. Additionally, under PPS, the amount paid to the provider for an episode of care is established by federal regulation and is not directly related to the provider's charges or costs of providing that care. Presently, inpatient and outpatient services, skilled nursing care, and home health care are paid on the basis of PPS. Under inpatient PPS, fixed payment amounts per inpatient discharge are established based on the patient's assigned diagnosis related group, or DRG. The capital component of care is paid on a fully prospective basis. PPS-exempt hospitals and units are currently reimbursed for their reasonable costs, subject to a cost per discharge target. These limits are updated annually by an index generally based upon inflationary increases in costs of providing health care services.

From time to time, the factors used in calculating the prospective payments for units of service are modified by CMS, which may reduce revenues for particular services. In addition, as part of the federal budgetary process, Congress has regularly amended the Medicare law to reduce increases in payments that are otherwise scheduled to occur, or to provide for reductions in payments for particular services. These actions could adversely affect the revenues of the Obligated Group.

Under the ACA, additional payments may be made to individual providers. Hospitals that treat a disproportionately large number of low-income patients (Medicaid and Medicare patients eligible to receive supplemental Social Security income) currently receive additional payments in the form of DSH payments. Additional payments are made to hospitals that treat patients who are costlier to treat than the average patient; these additional payments are referred to as "outlier payments." Also, hospitals are paid for a portion of their direct and indirect medical education costs. These additional payments are also subject to reductions and modifications in otherwise scheduled increases as a result of amendments to relevant statutory provisions.

Current or new legislation that reduces Medicare payments could adversely affect the Obligated Group. There is no assurance that the Obligated Group will be paid amounts that will reflect adequately its costs incurred in providing inpatient hospital services to Medicare beneficiaries, as well as any changes in the cost of providing health care or in the cost of health care technology being made available to Medicare beneficiaries. The ultimate effect on the Obligated Group will depend on its ability to control costs involved in providing inpatient hospital services.

Hospital Inpatient Reimbursement

Under PPS, acute care hospitals generally are paid for inpatient services provided to Medicare beneficiaries based on established categories of treatments or conditions known as diagnosis related groups ("DRGs"). Hospitals are generally paid a fixed amount per inpatient discharged based on the DRG, regardless of how long the patient was admitted or the volume or specific services provided to the inpatient, though hospitals also may receive outlier payments for extraordinarily costly cases that exceed a federally established condition-based threshold. DRG rates and outlier thresholds are subject to adjustment by CMS. There is no guarantee that hospital inpatient reimbursement will cover actual costs of providing services to Medicare patients.

Hospital Outpatient Reimbursement

Hospitals generally are paid for outpatient services provided to Medicare beneficiaries based on established categories of treatments or conditions known as ambulatory payment classifications ("APC"). The actual cost of care, including capital costs, may be more or less than the reimbursements based on APCs. There is no guarantee that hospital outpatient reimbursement will cover actual costs of providing services to Medicare patients.

Site-Neutral Reimbursement

Medicare services performed at off-campus hospital outpatient departments ("HOPDs") have traditionally been reimbursed under the Medicare Hospital Outpatient Prospective Payment System ("OPPS"), while services performed in freestanding clinics (e.g. free standing ambulatory surgery centers or physician offices) have been reimbursed at the lower Medicare Physician Fee Schedule rate. In 2017, Congress mandated a "site-neutral" reimbursement policy to reduce payment discrepancies for identical services performed at HOPDs opened or acquired after November 2, 2015 and other facilities. Pursuant to the 2019 OPPS final rule, CMS implemented a policy expanding the site neutral payment policy to "grandfathered" HOPDs (HOPDs opened or acquired before November 2, 2015) as well. The American Hospital Association and others challenged the expansion of the site-neutral payment policy and in September 2019, a federal district court ruled that CMS had overstepped its statutory authority when it reduced OPPS reimbursement for grandfathered HOPDs. In December 2019, a federal district court declined to extend its earlier decision to strike the 2020 OPPS rule, stating that it did not have jurisdiction to review the agency decision until the hospitals exhausted all administrative remedies. However, in July

2020, the federal appeals court overturned the district court's decision and ruled that CMS could apply the site-neutral payment policy to the grandfathered HOPDs. On June 28, 2021, the U.S. Supreme Court declined to hear the American Hospital Association's appeal. While judicial remedies have been exhausted in this specific matter, any implementation of a site-neutral payment policy for grandfathered HOPDs is likely to have a significant financial impact on hospitals in the form of reduced OPPS payments. Cancer hospitals are currently excepted from the site-neutral payment policy, however, there can be no assurances that this will continue indefinitely.

Section 340B Drug Pricing Program

Certain hospitals that serve a high percentage of low income patients are eligible for reduced pricing on certain covered outpatient drugs through the 340B program ("340B Program").

Entities that participate in the prescription drug discount program established under Section 340B of the federal Public Health Service Act (the "340B Program") are able to purchase certain outpatient drugs for patients at a reduced cost. Effective January 1, 2018, CMS imposed large cuts on such discounts. Such cuts are currently being challenged in federal court and the U.S. Supreme Court, but the result of such lawsuit cannot be predicted. Congressional and administrative efforts have also been made, seeking to tighten 340B Program eligibility requirements and reduce the scope of the program. CMS has proposed to further increase 340B Program drug discounts in 2021. Future legal, legislative or administrative changes to the 340B Program which result in a loss of 340B eligibility, or further decreases in 340B Program drug discounts, could have a material adverse effect on the Obligated Group. In addition, the rules and regulations applicable to participation in the 340B Program are technical, complex, numerous and may not fully be understood or implemented by billing or reporting personnel. Failure to comply with the 340B Program requirements or rules could result in exclusion from the 340B Program thus significantly increasing costs for drugs as well as creating a repayment obligation, which in either case could have a material adverse effect on the operations or financial condition of the Obligated Group. A decrease in reimbursement for 340B Program drugs or loss of discount procurement opportunities could have an adverse effect on the Obligated Group. Congress is considering further changes to the 340B Program and the regulatory environment for the 340B Program remains uncertain. Any reduction in eligibility for, or other further changes to, the 340B Program generally could have a materially adverse effect on the Obligated Group.

Medical Education Payments

Medicare currently pays for a portion of the costs of medical education at hospitals that have teaching programs. These payments are vulnerable to reduction or elimination. The direct and indirect medical education reimbursement programs have repeatedly emerged as targets in the legislative efforts to reduce the federal budget deficit. There can be no assurance that medical education payments will remain at current levels.

Medicare DSH Payments

The Medicare and Medicaid programs provide additional payments to hospitals that serve a disproportionate share of Medicaid and uninsured individuals. While the ACA substantially reduces Medicare and Medicaid payments to disproportionate share hospitals, the 2021 Appropriations Act eliminates \$4 billion in Medicaid disproportionate share hospital payments cuts that were scheduled to go into effect in fiscal years 2021, 2022 and 2023, but added cuts for fiscal years 2024 through 2027. There can be no assurance that payments to disproportionate share hospitals will not be further decreased or

eliminated. Loss or reduction of funding for the DSH program could adversely affect the Obligated Group.

Value-Based Payments

The ACA has increased the use of value-based payments to incentivize providers to control costs and provide better quality care. These models can seek both vertical and longitudinal alignment of health care providers and payers and can require providers to share in upside and/or downside financial risk. Current models include bundled payment models and accountable care/population health models. To align incentives for providers across care settings, bundled payment models establish a budgeted payment to cover the entire cost of an episode of care (e.g., a hip or knee replacement). Examples of bundled payment models include, among others, Bundled Payments for Care Improvement ("BPCI") Initiative models 2, 3 and 4 (which expired September 30, 2018); BPCI-Advanced; Comprehensive Care for Joint Replacement; and the Oncology Care Model. Population health models incentivize providers to maintain or improve quality while reducing cost through shared savings or shared loss arrangements. Population health models usually involve a form of capitated payment, which is a per-patient payment for the cost of care over a set period of time. Population health models include the Medicare Shared Savings Program ("MSSP") and Next Generation Accountable Care Organization model.

CMS has encouraged the use of alternative payment models and it is generally anticipated that CMS will continue to experiment with additional alternative payment models. Additionally, private payers are moving toward value-based purchasing and alternative payment models. Value-based and other alternative payment model initiatives tying health care provider reimbursement to quality, efficiency, or patient outcome measures will increasingly affect health care provider operations and may negatively impact revenues if the provider is unable to meet targeted measures.

In 2015, CMS set a goal of tying 50% of traditional Medicare payments to quality or value through alternative payment models such as accountable care organizations, bundled payment arrangements or integrated care demonstrations by the end of 2018. While CMS has since stated that it is no longer aiming for these Obama-era goals, it continues to propose new payment models and evaluate the impact of existing ones, which has led to some confusion in the industry.

Physician Payments

Payment for physician fees is covered under Medicare Part B. Under Part B, physician services are reimbursed in an amount equal to the lesser of actual charges or the amount determined under a fee schedule known as the "resource-based relative value scale" ("RBRVS"). RBRVS sets a relative value for each physician service; that value is then multiplied by a geographic adjustment factor and a nationally-uniform conversion factor to determine the amount Medicare will pay for each service.

In April 2015, the Medicare Access and Chip Reauthorization Act of 2015 ("MACRA") established the Quality Payment Program ("QPP"), which repealed the sustainable growth rate methodology for updates to the Medicare Physician Fee Schedule ("PFS"), changed the way that Medicare rewards clinicians for services, streamlined existing quality and value programs, and provided for bonus payments to physicians and other clinicians for participating in certain payment models. The QPP provides incentive payments to eligible clinicians participating in Medicare Part B through two tracks: the Merit-based Incentive Payment System ("MIPS") and Advanced Alternative Payment Models ("Advanced APMs"). In 2016, CMS released final regulations implementing the QPP. The 2022 PFS final rule budget neutrality factor and the expiration of the 3.7% temporary payment increase provided by the Consolidated Appropriation Act, 2021, will adjust reimbursement levels downward by approximately

3.75 in 2022; otherwise PFS would then remain at the same reimbursement level (0.0% increase) through 2025. Beginning in 2026, the PFS will be increased either by (i) 0.25% annually for providers participating in MIPS, or (ii) 0.75% annually for providers participating in Advanced APMs.

MIPS, which is the "default track" under MACRA, provides eligible clinicians with an adjustment to their Medicare Part B reimbursement based on performance in four categories: Quality, Promoting Interoperability, Improvement Activities, and Cost. MIPS combines into a single program aspects of CMS's prior quality and value programs, including the Physician Quality Reporting System, Medicare Electronic Health Records Incentive Program, and the Physician Value-Based Payment Modifier. MIPS eligible clinicians include physicians, physician assistants, nurse practitioners, clinical nurse specialists and certified registered nurse anesthetists. 2017 was the first MIPS performance period. CMS scored and weighted the data reported for performance year 2017 and is applying a payment adjustment in the 2022 payment year based on 2022 data.

Advanced APMs are alternative payment models ("APMs") that use certified electronic health record technology, provide for payment for covered professional services based on quality measures comparable to those in the quality performance category under MIPS, and either require that participating APM entities bear risk for financial losses of more than a nominal amount under the APM or be a type of Medical Home Model. Eligible clinicians who meet threshold Medicare participation levels in their Advanced APMs may be entitled to incentive payments.

The QPP and other federal delivery reform initiatives evidence a rapid volume-value shift within Medicare and could present challenges for the Obligated Group and the employed or contracted clinicians with whom the Obligated Group Members partner to deliver care. The new quality reporting programs may negatively impact the reimbursement amounts received by the Obligated Group for the cost of providing physician services.

Current or new legislation that reduces Medicare payments could adversely affect the Obligated Group. There is no assurance that the Obligated Group will be paid amounts that will reflect adequately its costs incurred in providing inpatient hospital services to Medicare beneficiaries, as well as any changes in the cost of providing health care or in the cost of health care technology being made available to Medicare beneficiaries. The ultimate effect on the Obligated Group will depend on its ability to control costs involved in providing inpatient hospital services.

Medicare Trust Funds

Two trust funds are maintained as part of the Medicare Program. Hospital Insurance ("HI") or Medicare Part A, helps to pay for hospital, home health, skilled nursing facility, and hospice care for the aged and disabled and is financed primarily by payroll taxes paid by workers and employers. The Medicare Board of Trustees' annual report in April 2019 indicated that the HI Trust Fund is not financed adequately and is projected to be exhausted in 2026. The other trust fund and various other components of the Medicare Program also have significant funding challenges. The trustees recommended that Congress and the executive branch work together with a sense of urgency to address the depletion of the HI Trust Fund and the projected growth in hospital and other expenditures. Accordingly, it is likely that statutory and regulatory attempts to contain increases in Medicare costs will continue in the future.

Medicaid Reimbursement

Payments made to health care providers under the Medicaid program are subject to changes as a result of federal or state legislative and administrative actions, including further changes in the methods

for calculating payments, the amount of payments that will be made for covered services and the types of services that will be covered under the program. Such changes have occurred in the past and may continue to occur in the future, particularly in response to federal and state budgetary constraints coupled with increased costs for covered services.

Hospitals participating in the Medicaid program are subject to numerous requirements and regulations under the program. Failure to remain in compliance with any program requirements may subject the Medicaid provider to civil and/or criminal penalties, including fines and suspension or expulsion from the program, preventing the provider from receiving any funds under the Medicaid program. Noncompliance with Medicaid requirements, and suspension or exclusion from the Medicaid program, can also be a basis for mandatory or permissive suspension or exclusion from the Medicare program.

Significant changes have been and may be made in the Medicaid program which could have a material adverse effect on the financial condition of the Obligated Group. For example, under Medicaid, the federal government provides limited funding to states that have medical assistance programs that meet federal standards, and the ACA provides significantly enhanced federal funding for states to expand their Medicaid program to virtually all non-elderly, non-disabled adults with incomes up to 138% of the federal poverty level. Attempts to balance or reduce the federal and state budgets by decreasing funding of Medicaid may negatively impact spending for Medicaid and other state health care programs spending. Health care providers have been affected significantly in the last several years by changes to federal and state health care laws and regulations, particularly those pertaining to Medicaid. The purpose of much of this statutory and regulatory activity has been to contain the rate of increase in health care costs, particularly costs paid under the Medicaid program. Diverse and complex mechanisms to limit the amount of money paid to health care providers under the Medicaid program have been enacted, and may have a material adverse effect on the operations or financial condition of the Obligated Group.

State Medicaid Programs

While state Medicaid programs are rarely as important as the Medicare program to the operations, financial condition and financial performance of hospitals and other health care providers, state Medicaid programs nevertheless constitute an important payor source for many hospitals and other health care providers. These programs often pay hospitals and other health care providers at levels that are substantially below the actual cost of the care provided. Medicaid is jointly funded by states and the federal government, and adverse economic conditions that reduce state revenues or changes to the federal government's methodology for funding state Medicaid programs may result in lower funding levels and/or payment delays. This could have a material adverse effect on operations, financial condition and financial performance of hospitals and other health care providers, including the Obligated Group.

Pennsylvania Medicaid Program

The Pennsylvania Department of Human Services ("PADHS") administers the Medicaid program in the Commonwealth.

In July 2010, the Medical Assistance Payment Modernization Act (Act 49) ("Act 49") was enacted. Act 49 was designed to address the fact that Medical Assistance has historically paid low rates to Pennsylvania hospitals, about 75 cents for each dollar a hospital spent on inpatient care and about 54 cents for each dollar spent on outpatient care. Because Medical Assistance has not paid adequate rates, other health insurers were left to make up the shortfall left by Medical Assistance's lower payment rates, having the effect of creating a hidden tax on citizens through higher insurance premiums.

Act 49 modernized Pennsylvania's inpatient fee for service hospital payment system by establishing a uniform base rate for all hospitals using the then-current cost information, and makes adjustments for differences in regional labor costs, teaching programs, and Medical Assistance volume. Act 49 also establishes enhanced hospital payments through the state's Medical Assistance managed care program, and secures additional matching Medicaid funds through the establishment of the Quality Care Assessment ("QCA"). The QCA is a tax on hospital net patient revenues that allows the state to access additional federal dollars. Act 40 of 2018, enacted on June 22, 2018, reauthorized the QCA through June 30, 2023 and changed the single rate on net inpatient revenue to a bifurcated rate split between net inpatient revenue and net outpatient revenue. Act 49 also replaced the current clinical classification system with a new clinical classification system (APR-DRG) in which payments more accurately reflect the levels of service and patient needs unique to Medical Assistance patients. For the current year, the inpatient rates are 3.32% and 1.73% respectively.

Pennsylvania's Medicaid Managed Care Plan ("HealthChoices") requires Medicaid recipients in certain regions of the Commonwealth to enroll in managed care plans. Medicaid recipients receive physical health services through one managed care organization and behavioral health services through another managed care organization. HealthChoices' programs attempt to negotiate lower fee schedules with their contracted health care providers. There can be no assurance that the Obligated Group Members will continue to be successful in contracting with the assigned managed care organizations or that the reimbursements from these managed care organizations will be sufficient to cover the costs of delivering care to Pennsylvania's Medicaid recipients going forward. One of Highmark's affiliates is a Medicaid Managed Care Plan.

Children's Health Insurance Program

The Children's Health Insurance Program ("CHIP") is a federally funded insurance program for families that are financially ineligible for Medicaid, but cannot afford commercial health insurance. CMS administers CHIP, but each state creates its own program based upon minimum federal guidelines. CHIP insurance is provided through private health plans contracting with the state. Each state must periodically submit its CHIP plan to CMS for review to determine if it meets the federal requirements. If it does not meet the federal requirements, a state can lose its federal funding for the program.

From time to time, Congress and/or the President may seek to expand, reduce or fail to authorize CHIP. The ACA authorized an extension of the CHIP program through September 30, 2015. MACRA extended the CHIP program through September 30, 2017. Former President Trump signed a six-year reauthorization of CHIP into law on January 22, 2018. On February 9, 2018, Congress voted to extend CHIP for an additional four years, effectively extending CHIP through 2027.

Medicare/Medicaid Conditions of Participation

Certain health care facilities must comply with standards called "Conditions of Participation" in order to be eligible for Medicare and Medicaid reimbursement. Under Medicare rules, hospitals accredited by an approved accrediting organization (such as The Joint Commission) are deemed to meet most of the Conditions of Participation. However, CMS may request that the state agency responsible for licensing hospitals, on behalf of CMS, conduct a "sample validation survey" of a hospital to determine whether it is complying with the Medicare or Medicaid Conditions of Participation. Failure to maintain The Joint Commission accreditation or to otherwise comply with the Conditions of Participation could have a material adverse effect on the Obligated Group.

Surprise Billing

The 2021 Appropriations Act included legislation designed to address surprise medical bills that patients may incur as a result of receiving services from an out-of-network provider at an in-network facility or having to receive emergency medical care at an out-of-network facility (the "No Surprises Act"). Effective January 1, 2022, patients will be protected from surprise medical bills that could arise from out-of-network emergency care, certain ancillary services provided by out-of-network providers at in-network facilities, and for out-of-network care provided at in-network facilities without the patient's informed consent. Patients will be required to pay only the in-network cost-sharing amount, which will be determined through a formula established by the DHHS Secretary and will count toward the patient's health plan deductible and out-of-pocket cost-sharing limits. Providers will not be permitted to balance bill patients beyond this cost-sharing amount. Both providers and health plans will be required to inform patients about these protections. Violations could result in state enforcement action or federal civil monetary penalties of up to \$10,000. Although surprise billing laws are important for protecting patients, they can reduce the bargaining power of hospitals with payers and ultimately lead to lower revenues. The ultimate effect of the No Surprises Act on the Obligated Group's operations and financial condition cannot be predicted at this time.

Price Transparency Rule

On January 1, 2021, the CMS Price Transparency Rule went into effect, requiring hospitals to publish gross charges, discounted cash prices, payor-specific negotiated charges, and minimum and maximum negotiated charges for all items and services provided by the hospital. Hospitals are also required to publish a consumer-friendly list of standard charges for at least 200 shoppable services (generally, non-emergency services that patients can schedule in advance). Failure to comply with these requirements may result in daily monetary penalties to the hospital. This price transparency rule could result in further legislative or regulatory action to restrain hospital rates or charges. Additionally, the availability of competitively sensitive rate information among hospitals, insurers, and employer sponsors of group health plans could lead to market distortions and possible anti-competitive effects that could impact hospital rates and revenue. The publication of hospital standard charges, including negotiated charges, could also result in changes to patient choice that may negatively impact the Obligated Group. Accordingly, compliance with the price transparency requirements could have a material adverse effect upon the future financial condition and operations of the Obligated Group.

Fines, Withholds and Enforcement Actions

The Department of Justice ("DOJ"), the Federal Bureau of Investigation and the Office of the Inspector General ("OIG") of DHHS have been conducting investigations and audits of the billing practices of many health care providers in relation to Medicare conditions of payment set forth in federal regulations, as well as the federal False Claims Act, described below. Violations and alleged violations may be deliberate, but also frequently occur in circumstances where management is unaware of the conduct in question, as a result of mistake, or where the individual participants do not know that their conduct is in violation of law. Violations may occur and be prosecuted in circumstances that do not have the traditional elements of fraud, and enforcement actions may extend to conduct that occurred in the past. Violations carry significant sanctions. The government periodically conducts widespread investigations and audits, covering various categories of services, or certain accounting or billing practices. The Obligated Group may be required to undergo such audits by one or more of these agencies and may be required to make payments to resolve any such audits. It is possible that any such payments may be substantial and could have a material adverse effect on the Obligated Group.

In addition, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") includes provisions that prohibit certain types of manipulative Medicare billing practices. These include improperly coding services rendered as part of the billing process to claim a higher level of reimbursement and billing for the provision of services or items that were not medically necessary. HIPAA's requirements related to medical billing and coding and the processing of claims increase the legal risks associated with provider coding and billing and is another mechanism that can subject Medicare providers to government investigation.

The federal Medicaid Integrity Program was created by the Deficit Reduction Act in 2005. The Medicaid Integrity Program was the first federal program established to combat fraud and abuse in the state Medicaid programs. Congress determined a federal program was necessary due to the substantial variations in state Medicaid enforcement efforts. The Medicaid Integrity Program's enforcement efforts support existing state Medicaid Fraud Control Units. Federal Medicaid Integrity Contractors ("MICs") are classified into Review MICs, Audit MICs and Educational MICs. Review MICs perform review audits generally to determine trends and patterns of aberrant Medicaid billing practices through data mining. Audit MICs perform post-payment reviews of individual providers through desk and field audits. The Educational MICs are responsible for developing and carrying out a variety of education activities to increase and improve Medicaid enforcement efforts by state government. Once a Medicaid overpayment is identified, the state has one year to recover or attempt to recover the overpayment from the provider before adjustment is made in the federal payment to the state on account of such overpayment; provided, however, in the case of fraud, if the state is unable to recover the overpayment from the provider within the one year period because there has not been a final determination of the amount of the overpayment under an administrative or judicial process (as applicable), including as a result of judgment being under appeal, no adjustment shall be made in the federal payment to the state before the date that is 30 days after the final judgment is made.

Medicare and Medicaid audits may result in reduced reimbursement or repayment obligations related to past alleged overpayments and may also delay Medicare or Medicaid payments to providers pending resolution of the appeals process. The ACA explicitly gives DHHS the authority to suspend Medicare and Medicaid payments to a provider or supplier during a pending investigation of fraud. The ACA also amended certain provisions of the FCA (as defined below) to include retention of overpayments as a false claim. A provider or supplier must report and return an overpayment by the later of 60 days after the overpayment was identified, or the date the corresponding cost report is due, if applicable. The provider or supplier is also required to describe in writing the reason for the overpayment. Overpayments must be reported and returned if a provider or supplier identifies the overpayment within six years of the date the overpayment was received.

RAC Audits

CMS has implemented a Recovery Audit Contractor ("RAC") program on a nationwide basis pursuant to which CMS contracts with private contractors to conduct pre- and post-payment reviews to detect and correct improper payments in the fee-for service Medicare program. The RACs use their own software and independent knowledge of Medicare to determine areas to review. Once a RAC identifies a potentially improper claim as a result of an audit, it makes an assessment from the provider's Medicare reimbursement in an amount estimated to equal the overpayment from the provider pending resolution of the audit. The ACA expanded the RAC program's scope to include managed Medicare plans and Medicaid claims. CMS also employs contractors to perform post-payment audits of Medicaid claims and identify overpayments. These programs tend to result in retroactively reduced payment and higher administration costs to hospitals.

Exclusions from Medicare or Medicaid Participation

The government must exclude from Medicare/Medicaid program participation a health care provider that is convicted of a criminal offense relating to the delivery of any item or service reimbursed under Medicare or a state health care program, any criminal offense relating to patient neglect or abuse in connection with the delivery of health care, fraud against any federal, state or locally financed health care program or an offense relating to the illegal manufacture, distribution, prescription or dispensing of a controlled substance. The government also may exclude individuals or entities under certain other circumstances, such as an unrelated conviction of fraud or other financial misconduct relating either to the delivery of health care in general or to participation in a federal, state or local government program. Exclusion from the Medicare/Medicaid program means that a health care provider would be decertified and no program payments can be made. Any exclusion of an Obligated Group Member could be a materially adverse event, as well as exclusion of any employee or contracted party of an Obligated Group Member, given that federal law also prohibits a health care provider participating in Medicare from contracting with excluded individuals or entities. Substantial penalties and fines may be imposed in the event a Member of the Obligated Group employs or contracts with an excluded individual or entity.

Review of Outlier Payments

In certain cases where patient costs are extraordinarily high, Medicare-participating hospitals may be eligible to receive additional payments. In order to receive an "outlier" payment, costs must exceed a fixed-loss cost threshold amount. The OIG has reviewed Medicare contractor reviews of outlier payments and issued multiple reports regarding outlier payment reconciliation. OIG recommended that CMS ensure Medicare contractors are continuing to take corrective actions previously recommended by the OIG, such as collecting overpayments and returning funds to either Medicare or hospitals; determining whether any cost reports that exceeded the three-year reopening limit may be reopened as a result of hospital fault or fraud; and ensuring Medicare contractors review all cost reports submitted following earlier OIG audit periods and ensure that hospitals whose outlier payments qualified for reconciliation are correctly identified, referred, and reconciled. CMS is reviewing health care providers that are receiving large proportions of their Medicare revenues from outlier payments. Health care providers found to have obtained inappropriately high outlier payments will be subject to further investigation by the CMS Program Integrity Unit and potentially the OIG.

Patient Records and Confidentiality

HIPAA, as amended by the HITECH Act (defined and discussed below), protects the privacy and security of individually identifiable health information through regulations on Standards for Privacy of Individually Identifiable Health Information (the "Privacy Rule"), Security Standards for the Protection of Electronic Protected Health Information (the "Security Rule"), Standards for Notification in the Case of Breach of Unsecured Protected Health Information (the "Breach Notification Rule"), and Rules for Compliance and Investigations, Impositions of Civil Monetary Penalties, and Procedures for Hearings (the "Enforcement Rule"), (the Privacy Rule, the Security Rule, the Breach Notification Rule and the Enforcement Rule are collectively referred to as the "HIPAA Rules").

The HIPAA Rules, developed through successive waves of the administrative rulemaking process, are extensive and complex. Violations of HIPAA can result in civil monetary penalties and criminal penalties. Provisions of the Health Information Technology for Economic and Clinical Health Act (the "HITECH Act") amend HIPAA by (i) increasing the maximum civil monetary penalties for violations of HIPAA, (ii) granting limited enforcement authority of HIPAA to state attorneys general, (iii) extending the reach of HIPAA beyond "covered entities," to include "business associates" of covered

entities, (iv) imposing a breach notification requirement on HIPAA covered entities and business associates, (v) limiting certain uses and disclosures of individually identifiable health information, (vi) restricting covered entities' marketing communications, and (vii) permitting the imposition of civil monetary penalties for a HIPAA violation even if an entity did not know and would not, by exercising reasonable diligence, have known of a violation. Civil monetary penalties for violations of HIPAA now range to a maximum \$58,490 per violation and/or imprisonment, depending on the violator's degree of intent, the extent of the harm resulting from the violation, and whether the violation was timely corrected. The maximum civil monetary penalty for violations of the same HIPAA provision in a calendar year cannot exceed a certain dollar amount, depending on the level of culpability and whether the violation was timely corrected, capping out at \$1.71 million for instances of willful neglect where the violation is not corrected in a timely manner. A state attorney general may bring civil action to protect the interests of one or more residents of the state who have been or are threatened or adversely affected by any person who violates HIPAA. A state attorney general may enjoin further violations by a defendant or obtain potential damages of up to \$25,000, in addition to an award of attorney fees. The HITECH Act also requires the DHHS Office for Civil Rights ("OCR") to conduct periodic audits of covered entity and business associate compliance with the HIPAA Rules.

The Breach Notification Rule requires the notification of each individual whose unsecured protected health information has been, or is reasonably believed to have been accessed, acquired, used, or disclosed as a result of such breach. If a breach involves more than 500 residents, prominent media outlets must be notified. In addition, the Secretary of DHHS must be notified promptly following the discovery of a breach involving 500 or more individuals and annually for breaches involving fewer than 500 individuals. The reporting of such breaches may lead to an investigation by OCR during which OCR could discover other HIPAA violations that may result in potential fines.

In recent years, OCR has enhanced its enforcement efforts that include civil monetary penalties and settlement agreements with some related payments reaching into the multimillion dollar range. Further, OCR is initiating an auditing process to evaluate compliance with HIPAA. It is expected that the audits will expose many health care providers and their vendors to enforcement actions under HIPAA.

Security Breaches and Unauthorized Releases of Personal Information

Federal, state and local authorities are increasingly focused on the importance of protecting the confidentiality of individuals' personal information, including protected health information. In addition to the data breach disclosure requirements of HIPAA, many states have enacted laws requiring businesses to notify individuals of security breaches that result in the unauthorized release of personal information. In some states, notification requirements may be triggered even where information has not been used or disclosed, but rather has been inappropriately accessed. State consumer protection laws may also provide the basis for legal action for privacy and security breaches and frequently, unlike HIPAA, authorize a private right of action. In particular, the public nature of security breaches exposes health organizations to increased risk of individual or class action lawsuits from patients or other affected persons, in addition to government enforcement. Failure to comply with restrictions on patient privacy or to maintain robust information security safeguards, including taking steps to ensure that contractors who have access to sensitive patient information maintain the confidentiality of such information, could consequently damage a health care provider's reputation and materially adversely affect business operations.

Civil and Criminal Fraud and Abuse Laws and Enforcement

The federal Civil Monetary Penalties Law ("CMP Law") provides for administrative sanctions against health care providers for a broad range of billing and other abuses. For example, penalties may be

imposed for the knowing presentation of claims that are (i) incorrectly coded for payment, (ii) for services that are known to be medically unnecessary, (iii) for services furnished by an excluded party, or (iv) otherwise false. An entity that offers remuneration to an individual that the entity knows, or should know, is likely to induce the individual to receive care from a particular provider may also be fined under the CMP Law. Under the ACA, Congress amended the CMP Law to authorize civil monetary penalties for a number of additional activities, including (i) knowingly making or using a false record or statement material to a false or fraudulent claim for payment, (ii) failing to grant the OIG timely access for audits, investigations, or evaluations, and (iii) failing to report and return a known overpayment within statutory time limits. The CMP Law authorizes potential imposition of civil monetary penalties, adjusted yearly for inflation, currently ranging from \$20,000 to \$100,000 for each item or service improperly claimed and each instance of prohibited conduct. Health care providers may be found liable under the CMP Law even when they did not have actual knowledge of the impropriety of the claim. It is sufficient that the provider "should have known" that the claim was false, and ignorance of the Medicare regulations is not a defense.

False Claims Act

The federal False Claims Act ("FCA") makes it illegal to knowingly submit or present a false, fictitious or fraudulent claim to the federal government (e.g. the Medicare or Medicaid programs) for payment or approval for payment. Because the term "knowingly" is defined broadly under the law to include not only actual knowledge but also deliberate ignorance or reckless disregard of the facts, the FCA can be used to punish a wide range of conduct. Accordingly, FCA investigations and cases have become common in the health care industry and may cover a range of activity from intentionally inflated billings, to highly technical billing infractions, to allegations of unnecessary or inadequate care. Additionally, a claim connected to a Stark Law or Anti-Kickback Statute violation may be deemed a false claim in violation of the FCA. The ACA expanded the reach of the FCA to include, among other things, failure to report and return known overpayments within statutory limits. Filing false claims in violation of the FCA can result in civil fines, substantial per claim penalties plus monetary penalties up to three times the amount of damages sustained by government (e.g. the amount falsely billed to the Medicare or Medicaid program). These fines can add up quickly and result in multi-million-dollar judgments or settlements. Additionally, violation or alleged violation of the FCA can result in payment suspension pending investigation, the imposition of corporate integrity agreements, or exclusion from Medicare and Medicaid.

The *qui tam* or "whistleblower" provisions of the FCA allow a private individual to bring an FCA action on behalf of the government. As part of the resolution of a *qui tam* case, the whistleblower may share in a portion of any FCA settlement or judgment. *Qui tam* actions can also be filed under certain state false claims laws if the fraud involves Medicaid funds or funding from state and local agencies. In recent years, there has been a large increase in the number of FCA *qui tam* actions. Because *qui tam* lawsuits are kept under seal while the federal government evaluates whether the United States will join the lawsuit, it is difficult to determine whether any such actions are pending.

In June 2016, the U.S. Supreme Court in Universal Health Services, Inc. v. United States ex rel. Escobar held that the theory of "implied false certification" can be used as a basis for FCA liability when (1) a claim does more than merely request payment and makes specific representations about the nature of the goods or services provided; and (2) the failure to disclose noncompliance with material statutory, regulatory or contractual provisions makes the representations "misleading half-truths." The application of this new standard is unclear but could lead to an increase in FCA claims in the health care industry based on this theory of liability.

The Deficit Reduction Act provides financial incentives to states that pass similar false claims statutes or amend existing false claims statutes that track the FCA more closely with regard to penalties and rewards to *qui tam* relators. The Corporation is not currently aware of any overpayments or pending or threatened claims, investigations or enforcement actions under the FCA which, if determined adversely to an Obligated Group Member, would have a material adverse effect on the Obligated Group's business or financial condition. No assurance can be given that FCA actions will not be filed and a violation found. Sanctions imposed as a result of an FCA could have a material adverse effect on the Obligated Group's business or financial condition.

Medicare/Medicaid Anti-Kickback Laws

The federal "Anti-Kickback Law" is a criminal statute that prohibits anyone from knowingly and willfully soliciting, receiving, offering or paying any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for a referral of a patient or the ordering or recommending of the purchase (or lease) of any item or service that is paid by any federal or state health care program. The Anti-Kickback Law applies to many common health care transactions between persons and entities with which a hospital does business, including hospital-physician joint ventures, medical director agreements, physician recruitment agreements, physician office leases, purchases and leases from health care suppliers and vendors and other transactions. There are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions; however, the exceptions and safe harbors are drawn narrowly, and practices that do not fit squarely within an exception or safe harbor may be subject to scrutiny. The ACA amended the Anti-Kickback Law to provide explicitly that a claim that includes items or services resulting from a violation of the Anti-Kickback Law constitutes a false or fraudulent claim for purposes of the FCA. Another amendment provides that an Anti-Kickback Law violation may be established without showing that an individual knew of the statute's proscriptions or acted with specific intent to violate the Anti-Kickback Law, but only that the conduct was generally unlawful. The new standards have significantly expanded criminal and civil fraud exposure for transactions and arrangements.

The Anti-Kickback Law can be prosecuted either criminally or civilly. Violations of the AKS may result in substantial civil or criminal penalties, including criminal fines of up to \$100,000, imprisonment of up to ten years, civil penalties under the federal CMP Law of up to \$100,000 for each violation, plus three times the remuneration involved, civil penalties under the federal False Claims Act for each claim submitted, plus three times the amounts paid for such claims and exclusion from participation in the Medicare and Medicaid programs. However, under 18 U.S.C. Section 3571, the CMP fine may be increased to \$250,000 for individuals and \$500,000 for organizations. Accordingly, violations or alleged violations of the Anti-Kickback Law may result in settlements that require multimillion dollar payments and costly corporate integrity agreements.

Increasingly, the federal government and qui tam relators are prosecuting violations of the Anti-Kickback Law under the FCA, based on the argument that claims resulting from an illegal kickback arrangement are also false claims for FCA purposes. Any claims for items or services that violate the federal Anti-Kickback Statute are also considered false claims for purposes of the FCA. *See* the discussion under the subheading "False Claims Act" above.

Courts have interpreted this law broadly and held that the Anti-Kickback Law is violated if just one purpose of the remuneration is to generate or induce referrals, even if there are other lawful purposes. Federal regulations describe certain arrangements (i.e., safe harbors) that are exempt from prosecution under the federal Anti-Kickback Law. Because the law is broadly applied and safe harbors are narrowly drawn, it remains a potential risk that Obligated Group Members may be found in violation of the federal

Anti-Kickback Law in the future. The IRS has taken the position in a few narrow cases that hospitals that are in violation of the Anti-Kickback Law may also be subject to revocation of their tax-exempt status.

Medicare/Medicaid Anti-Referral Laws

The federal physician self-referral law (the "Stark Law"), prohibits the referral of Medicare patients for certain designated health services (including inpatient and outpatient hospital services, clinical laboratory services, and radiology and other imaging services) to entities with which the referring physician (or an immediate family member) has a financial relationship unless that relationship fits within an exception to the Stark Law. It also prohibits a hospital, or other provider, furnishing the designated health services from billing Medicare, or any other government health care program for services performed pursuant to a prohibited referral. The Stark Law is a strict liability statute, and as such, the government does not need to prove that the entity knew that the referral was prohibited to establish a Stark Law violation. If every substantive and technical requirement of an applicable Stark Law exception are not satisfied, an ordinary business arrangement or contract between hospitals and physicians can violate the Stark Law, thus triggering the prohibition on referrals and billing. All providers of designated health services with physician relationships have some exposure to liability under the Stark Law.

Penalties for violation of the Stark Law include denial of payment, recoupment, refunds of amounts paid in violation of the law, potential exclusion from the Medicare or Medicaid program, and potentially substantial civil monetary penalties. Violation of the Stark Law may also provide the basis for a claim under the FCA.

Medicare may deny payment for all services performed by a provider based on a prohibited referral, and a hospital that has billed for prohibited services is obligated to refund the amounts collected from the Medicare program or to make a self-disclosure to CMS under its Self-Referral Disclosure Protocol. As a result, even relatively minor, technical violations of the Stark Law may trigger substantial refund obligations. Moreover, where there are "knowing" violations of the Stark Law, the government may seek substantial civil monetary penalties under FCA, and in some cases, a hospital may be excluded from the Medicare and Medicaid programs. Potential repayments to CMS, settlements, fines or exclusion for a Stark Law violation or alleged violation could have a material adverse effect on a hospital and other health care providers. Increasingly, the federal government is prosecuting Stark Law violations under the FCA, based on the argument that claims resulting from an illegal referral arrangement are also false claims for FCA purposes. *See* the discussion under the subheading "False Claims Act" above. The DOJ and others have asserted that Medicaid referrals in which a non-excepted financial arrangement exists under the Stark Law also create FCA exposure, and have had some success with these arguments in certain courts.

State "Fraud" and "False Claims" Laws

Although the Stark Law only applies to Medicare, a number of states have passed similar statutes pursuant to which similar types of prohibitions are made applicable to all other health plans or third-party payers. Pennsylvania currently has a disclosure law, Act 1988-66, that requires an osteopathic physician referring a patient for health-related services (tests, pharmaceuticals, appliances or devices) to a facility or entity in which the physician has an ownership interest to disclose that interest prior to making the referral, and to notify the patient of the patient's freedom to choose an alternate provider. Ownership interests include proprietary or beneficial interests through which the physician earns or has the potential to earn income, or which produce a direct or indirect economic benefit. The Pennsylvania General Assembly has introduced a state self-referral law in various sessions but has not yet adopted such legislation. However, should the state legislature choose to enact a state self-referral law in the future, the

Obligated Group and its providers will be required to comply. Pennsylvania has enacted various statutory provisions prohibiting the payment of any remuneration, including any kickback, bribe or rebate in return for referring individuals to the Medicaid program.

EMTALA

The Emergency Medical Treatment and Labor Act ("EMTALA") is a federal civil statute that requires Medicare-participating hospitals with an emergency department to conduct a medical screening examination to determine the presence or absence of an emergency medical condition, and to provide treatment sufficient to stabilize such emergency medical condition before discharging or transferring the patient. A hospital that violates EMTALA is subject to civil penalties per offense and potential termination of its Medicare provider agreement. EMTALA also provides for a limited private right of action against hospitals, and as a result a hospital could be subject to claims for personal injury where an individual suffers harm as result of an EMTALA violation.

Over the last few years, the federal government has increased its enforcement of EMTALA. Failure to comply with the law can potentially result in exclusion from the Medicare and/or Medicaid programs, as well as civil and criminal penalties. In addition, a hospital may be held liable to a patient who suffered injuries as a result of a violation of EMTALA and may be liable to the receiving hospital for financial losses suffered as a result of a transfer in violation of EMTALA. Outpatient facilities that are included as part of a hospital by virtue of a provider-based status designation are required to adhere to EMTALA's requirements, regardless of whether they are located on or away from the hospital's main campus. Substantial failure of an Obligated Group Member to meet its responsibilities under EMTALA could have a materially adverse effect on the Obligated Group.

Any potential sanctions imposed as a result of an EMTALA violation could have a material adverse effect on the Obligated Group.

Administrative Enforcement

Administrative regulations may require less proof of a violation than do criminal laws and thus, health care providers may have a higher risk of imposition of monetary penalties as a result of an administrative enforcement action.

Enforcement Activity

Enforcement activity against health care providers has increased and enforcement authorities have adopted aggressive approaches. In the current regulatory climate, it is anticipated that many hospitals and physician groups could be subject to an audit, investigation or other enforcement action regarding the health care fraud laws mentioned above.

Enforcement actions may pertain to not only deliberate violations, but also frequently relate to violations resulting from actions of which management is unaware, from mistakes or from circumstances where the individual participants do not know that their conduct is in violation of law. Enforcement actions may extend to conduct that occurred in the past. The government may seek a wide array of penalties, including withholding essential payments under the Medicare or Medicaid programs or exclusion from those programs.

Enforcement authorities are often in a position to compel settlements by providers charged with or being investigated for false claims violations by withholding or threatening to withhold Medicare,

Medicaid and/or similar payments and/or by instituting criminal action. In addition, the cost of defending such an action, the time and management attention consumed, and the facts of a case may dictate settlement. Therefore, regardless of the merits of a particular case, a hospital could experience materially adverse settlement costs, as well as materially adverse costs associated with implementation of any settlement agreement. Prolonged and publicized investigations could be damaging to the reputation and business of a hospital, regardless of outcome.

Certain acts or transactions may result in a violation or alleged violation of a number of the federal health care fraud laws described above and, therefore, penalties or settlement amounts often are compounded. Generally, these risks are not covered by insurance. Enforcement actions may involve multiple hospitals in a health system, as the government often extends enforcement actions regarding health care fraud to other hospitals and other providers in the same organization. Therefore, Medicare fraud related risks identified as being materially adverse as to a hospital could potentially have materially adverse consequences to a health system taken as a whole.

Increased Enforcement Affecting Academic Research

In addition to increasing enforcement of laws governing payment and reimbursement, the federal government has also stepped up enforcement of laws and regulations governing the conduct of clinical trials at hospitals. DHHS elevated and strengthened its Office for Human Research Protections, one of the agencies with the responsibility for monitoring federally funded research. The Food and Drug Administration ("FDA") also has authority over the conduct of clinical trials performed in hospitals when these trials are conducted on behalf of sponsors seeking FDA approval to market the drug or device that is the subject of the research. These agencies' enforcement powers range from substantial fines and penalties to exclusion of researchers and suspension or termination of entire research programs.

Other Pennsylvania Department of Human Services Funding

As a result of the national class action tobacco settlement, PADHS has created an uncompensated care pool to provide grants to hospitals that meet certain levels of uncompensated care. PADHS began funding these grants in 2002. There can be no assurance that this resource will be available at current levels, if at all, in the future.

Additional State Regulation

Medical Care Availability and the Reduction of Error Act

In March 2002, the Commonwealth of Pennsylvania enacted the Medical Care Availability and Reduction of Error Act (the "Mcare Act"). The Mcare Act includes significant patient safety initiatives, professional liability tort reforms, professional liability insurance reforms, and administrative requirements that impose numerous burdens on health care providers in the Commonwealth.

Under the Mcare Act, hospitals are required to develop and implement patient safety plans, appoint patient safety officers, form patient safety committees, and engage in mandatory reporting of serious events, incidents, and infrastructure failures in the hospital. Furthermore, hospitals are required to provide written notice to patients affected by serious events. Hospitals, ambulatory surgical centers, and birth centers are subject to potential administrative fines of \$1,000 per day for failure to comply with the patient safety requirements of the Mcare Act. The administrative provisions under the Mcare Act require physicians in the Commonwealth to report to the appropriate licensing board each time they are named in

a lawsuit, and provide for potential additional civil penalties of up to \$10,000 for violations of the Mcare Act by licensees.

The Mcare Act also eliminated the Pennsylvania Medical Professional Liability Catastrophe Loss Fund (the "CAT Fund") and established the Medical Care Availability and Reduction of Error Fund (the "Mcare Fund"). The liabilities of the CAT Fund, which were estimated at over two billion dollars, were transferred into the Mcare Fund and were to be paid through the imposition of annual assessments on health care providers in the Commonwealth until all liabilities were satisfied. The Mcare Fund provides coverage for professional liability claims in excess of a basic limit of insurance, and participation in the Mcare Fund is mandatory for licensed health care providers. The administrative and financial burdens imposed on health care providers by the Mcare Act are significant. Continued funding of the Mcare program is uncertain.

LITIGATION

There is no litigation of any nature pending or threatened against the Authority, the Corporation or any member of the Obligated Group at the date of this Official Statement to restrain or enjoin the issuance, sale, execution or delivery of the Bonds, or in any way contesting or affecting the validity of the Bonds or any proceedings of the Authority, the Corporation or the other Obligated Group Members taken with respect to the issuance or sale thereof, or the pledge or application of any moneys or the security provided for the payment of the Bonds or the existence or powers of the Authority to issue and approve the Bonds, the Corporation or the other Obligated Group Members. For a discussion of pending self-disclosures affecting the Obligated Group Members, *see* APPENDIX A – "CERTAIN INFORMATION CONCERNING TEMPLE UNIVERSITY HEALTH SYSTEM – LITIGATION."

TAX EXEMPTION AND OTHER TAX MATTERS

Bond Counsel will deliver, concurrently with the issuance of the Bonds, its opinion in the form attached hereto as Appendix G to the effect that under existing statutes, regulations, rulings and court decisions, interest on the Bonds will not be includable in the gross income of the holders thereof for federal income tax purposes and is not a specific preference item for purposes of calculating federal alternative minimum taxable income on individuals. Interest on the Bonds may be included in a foreign corporation's effectively connected earnings and profits upon which certain foreign corporations are required to pay the foreign branch profits tax imposed under Section 884 of the Internal Revenue Code of 1986, as amended (the "Code").

Each of the maturities of the Bonds have been offered at a premium ("original issue premium") over their principal amount. For federal income tax purposes, original issue premium is amortizable periodically over the term of a Bond through reductions in the holder's tax basis for the Bond for determining taxable gain or loss from sale or from redemption prior to maturity. Amortizable premium is accounted for as reducing the tax-exempt interest on the Bond rather than creating a deductible expense or loss. Prospective purchasers of the Bonds should consult their tax advisers for an explanation of the treatment of original issue premium.

Ownership of the Bonds may result in collateral federal tax consequences to certain tax payers, including, without limitation, financial institutions, S corporations with excess net passive income, property and casualty companies, individual recipients of social security or railroad retirement benefits and taxpayers who may be deemed to have incurred indebtedness to purchase or carry the Bonds. Bond Counsel will express no opinion with respect to these or any other collateral tax consequences of the

ownership of the Bonds. The nature and extent of the tax benefit to a taxpayer of ownership of the Bonds will generally depend upon the particular nature of such taxpayer or such taxpayer's own particular circumstances, including other items of income or deduction. Accordingly, prospective purchasers of the Bonds should consult their own tax advisors.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Bonds. Ongoing requirements include, among other things, the provisions of Section 148 of the Code which prescribe yield and other limits within which the proceeds of the Bonds are to be invested and which may require that certain excess earnings on investments made with the proceeds of the Bonds be rebated on a periodic basis to the United States. The Corporation and the Authority will make certain representations and undertake certain agreements and covenants in the Indenture and the Loan Agreement, and the Corporation on behalf of itself and the other members of the Obligated Group will make certain representations and undertake certain covenants in the Tax Compliance Agreement to be delivered concurrently with the issuance of the Bonds, designed to ensure compliance with the applicable provisions of the Code. Any inaccuracy of these representations or the failure on the part of the Authority of the Corporation to comply with such covenants and agreements could result in the interest on the Bonds being included in the gross income of the holder for federal income tax purposes, in certain cases retroactive to the date of original issue of the Bonds.

The Corporation has represented that it and the other members of the Obligated Group are organizations described in Section 501(c)(3) of the Code exempt from federal income tax under Section 501(a) of the Code, except for unrelated business income subject to taxation under Section 511 of the Code, and are not "private foundations" within the meaning of Section 509(a) of the Code. In delivering its opinion as to the tax status of the Bonds for federal income tax purposes, Bond Counsel will rely upon representations of the Corporation and the other Obligated Group Members that they are charitable organizations described in Section 501(c)(3) of the Code. The failure of the Corporation and the other Obligated Group Members to be organized and to remain qualified as so-called "501(c)(3) organizations" and to conduct their activities (and particularly its activities with respect to the facilities financed or refinanced with proceeds of the Bonds) in a manner that is substantially related to their charitable purpose could also result in the interest on the Bonds being included in gross income for federal income tax purposes, in some cases retroactive to the date of their original issuance.

The opinion of Bond Counsel assumes the accuracy of these representations and the future compliance by the Authority and the Obligated Group Members with their covenants and agreements. Moreover, Bond Counsel has not undertaken to evaluate, determine or inform any person, including any holder of the Bonds, whether any actions taken or not taken, events occurring or not occurring, or other matters that might come to the attention of Bond Counsel, would adversely affect the value of, or tax status of the interest on, the Bonds.

There can be no assurance that currently existing or future legislative proposals by the United States Congress limiting or further qualifying the excludability of interest on tax-exempt bonds from gross income for federal tax purposes, or changes in federal tax policy generally, will not adversely affect the market for the Bonds.

Pennsylvania Tax Exemption

Bond Counsel will also deliver an opinion to the effect that under existing law as enacted and construed on the date of such opinion, interest on the Bonds is exempt from the Pennsylvania personal income tax and the Pennsylvania corporate net income tax. However, under the laws of the

Commonwealth as presently enacted and construed, any profits, gains or income derived from the sale, exchange or other disposition of obligations of the Authority, such as the Bonds, will be subject to Pennsylvania taxes within the Commonwealth.

The Bonds and the interest thereon may be subject to state or local taxes in jurisdictions other than the Commonwealth under applicable state or local tax laws.

Changes in Federal and State Tax Law

From time to time, there are Presidential proposals, proposals of various federal committees, and legislative proposals in the Congress and in the states that, if enacted, could alter or amend the federal and state tax matters referred to herein or adversely affect the marketability or market value of the Bonds or otherwise prevent holders of the Bonds from realizing the full benefit of the tax exemption of interest on the Bonds. Further, such proposals may impact the marketability or market value of the Bonds simply by being proposed. It cannot be predicted whether or in what form any such proposal might be enacted or whether if enacted it would apply to bonds issued prior to enactment. In addition, regulatory actions are from time to time announced or proposed and litigation is threatened or commenced which, if implemented or concluded in a particular manner, could adversely affect the market value, marketability or tax status of the Bonds. It cannot be predicted whether any such regulatory action will be implemented, how any particular litigation or judicial action will be resolved, or whether the Bonds would be impacted thereby.

The opinions expressed by Bond Counsel are based upon existing legislation and regulations as interpreted by relevant judicial and regulatory authorities as of the date of issuance and delivery of the Bonds, and Bond Counsel has expressed no opinion as of any date subsequent thereto or with respect to any proposed or pending legislation, regulatory initiatives or litigation.

PROSPECTIVE PURCHASERS OF THE BONDS SHOULD CONSULT THEIR OWN TAX ADVISORS WITH RESPECT TO THE FEDERAL, STATE AND LOCAL INCOME TAX CONSEQUENCES OF OWNERSHIP OF THE BONDS AND ANY CHANGES IN THE STATUS OF PENDING OR PROPOSED TAX LEGISLATION.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

Upon delivery of the Bonds, Samuel Klein and Company, Certified Public Accountants (the "Verification Agent") will deliver its verification report indicating that it has verified, in accordance with attestation standards established by the American Institute of Certified Public Accountants, the mathematical accuracy of the mathematical computations of the adequacy of the cash and the maturing principal of and interest on the cash or escrow securities to pay, when due, the maturing principal of, interest on and related call premium requirements, if any, of the Refunded Bonds, which computations will be used by Bond Counsel to support its opinion that interest on the Bonds will be excluded from gross income for federal income tax purposes. The examination performed by the Verification Agent will be solely based upon data, information and documents provided to the Verification Agent by the Corporation. The Verification Agent has restricted its procedures to recalculating the computations provided by the Corporation and has not evaluated or examined the assumptions or information used in the computations.

CONTINUING DISCLOSURE

In connection with the issuance of the Bonds, the Corporation, on behalf of the Obligated Group, will enter into a continuing disclosure agreement (the "Continuing Disclosure Agreement") with Digital Assurance Certification, L.L.C., acting as dissemination agent (the "Dissemination Agent"). Pursuant to the Continuing Disclosure Agreement, the Corporation, on behalf of the Obligated Group, for the benefit of Holders and Beneficial Owners of the Bonds, will agree to provide (1) certain financial information and operating data relating to the Health System not later than 120 days following the end of each Fiscal Year (the "Annual Report"), commencing with the Fiscal Year ending June 30, 2022, (2) not later than 60 days after the end of each of the Corporation's first three fiscal quarters and not later than 90 days after the end of the Corporation's fourth fiscal quarter, commencing with the report for the fiscal quarter ending June 30, 2022, the unaudited quarterly financial statements of the Health System for such fiscal quarter (a "Quarterly Report"), and (3) notices of the occurrence of certain enumerated events. The Annual Reports, the Quarterly Reports and the notices of enumerated events will be filed by the Dissemination Agent, on behalf of the Corporation, with the Electronic Municipal Market Access System ("EMMA") of the Municipal Securities Rulemaking Board. See APPENDIX H – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

The Corporation, on behalf of the Obligated Group, has undertaken all responsibilities for any continuing disclosure to Holders of the Bonds as required by Rule 15c2-12 promulgated under the Securities and Exchange Act of 1934, as amended (the "Rule"), as described above, and the Authority shall have no liability to the Holders of the Bonds or any other Person with respect to the Rule. Additionally, the covenants described above have been made in order to assist the Underwriters in complying with the Rule.

Failure by the Obligated Group to comply with the provisions of the Continuing Disclosure Agreement will not constitute an event of default under the Master Indenture, the Indenture or the Loan Agreement and Holders and beneficial owners of the Bonds are limited to the remedies described in APPENDIX H – "FORM OF CONTINUING DISCLOSURE AGREEMENT." Any failure by the Obligated Group to comply with the provisions of the Continuing Disclosure Agreement are required to be reported in accordance with the Rule and are required to be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the Bonds in the secondary market. Consequently, any such failure may adversely affect the transferability and liquidity of the Bonds and their market price. To the best of the Obligated Group's knowledge, in the last five years, the Obligated Group has not failed to comply with any of its continuing disclosure undertakings relating to its publicly issued bonds.

UNDERWRITING

RBC Capital Markets, LLC, for itself and as representative on behalf of J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC, PNC Capital Markets LLC, and Siebert Williams Shank & Co., LLC (collectively, the "*Underwriters*"), has agreed to purchase the Bonds at a price equal to \$187,949,203.21 (which is the aggregate principal amount of Bonds, plus original issue premium of \$22,952,686.75, less an Underwriters' discount of \$893,483.54) pursuant to a Bond Purchase Agreement entered into by and among the Authority, the Underwriters and the Corporation, on behalf of the Obligated Group (the "*Bond Purchase Agreement*"). The Bond Purchase Agreement provides that the Underwriters will purchase all of the Bonds, if any are purchased.

The Bonds are being offered for sale to the public at the initial offering prices shown on the inside cover page hereof. The Underwriters may offer and sell the Bonds to certain dealers (including dealers

depositing the Bonds into investment trusts) and others at prices lower than the initial public offering price or prices set forth on the inside cover of the Official Statement. The Underwriters reserve the right to join with dealers and other underwriters in offering the Bonds to the public. The obligation of the Underwriters to accept delivery of the Bonds is subject to the terms and conditions set forth in the Bond Purchase Agreement, the approval of legal matters by counsel and other conditions. The Underwriters may over-allot or effect transactions which stabilize or maintain the market price of the Bonds at levels above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage services. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the Authority or the Members of the Obligated Group, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities, which may include credit default swaps) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Authority or the Obligated Group. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

J.P. Morgan Securities LLC ("JPMS"), one of the underwriters of the Bonds, has entered into negotiated dealer agreements (each, a "Dealer Agreement") with each of Charles Schwab & Co., Inc. ("CS&Co.") and LPL Financial LLC ("LPL") for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer Agreement, each of CS&Co. and LPL may purchase Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any Bonds that such firm sells. In addition, JPMorgan Chase Bank, N.A. ("Chase") an affiliate of JPMS, has provided certain revolving lines of credit to the Corporation.

Morgan Stanley, parent company of Morgan Stanley & Co. LLC, one of the underwriters of the Bonds, has entered into a retail distribution arrangement with its affiliate Morgan Stanley Smith Barney LLC. As part of the distribution arrangement, Morgan Stanley & Co. LLC may distribute municipal securities to retail investors through the financial advisor network of Morgan Stanley Smith Barney LLC. As part of this arrangement, Morgan Stanley & Co. LLC may compensate Morgan Stanley Smith Barney LLC for its selling efforts with respect to the Bonds.

PNC Capital Markets LLC, an underwriter for the Bonds, may offer to sell to its affiliate, PNC Investments, LLC ("PNCI"), securities in PNC Capital Markets LLC's inventory for resale to PNCI's customers, including securities such as the Bonds.

PNC Capital Markets LLC and PNC Bank, National Association are both wholly-owned subsidiaries of The PNC Financial Services Group, Inc. PNC Capital Markets LLC is not a bank and is a distinct legal entity from PNC Bank, National Association. PNC Bank, National Association has other banking and financial relationships with the Obligated Group.

FINANCIAL ADVISOR

The Corporation has retained PFM Financial Advisors LLC ("PFM"), Philadelphia, Pennsylvania, a municipal advisory firm registered with the U.S. Securities and Exchange Commission and the Municipal Securities Rulemaking Board, as financial advisor in connection with the issuance of the Bonds. Although PFM has assisted in the preparation of this Official Statement, PFM was not and is not obligated to undertake, and has not undertaken to make, an independent verification and assumes no responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement.

INDEPENDENT AUDITOR

The consolidated financial statements of Temple University Health System as of and for the years ended June 30, 2021 and 2020, included as APPENDIX B to this Official Statement, have been audited by Deloitte & Touche LLP, independent auditor, as stated in their report appearing herein.

RATINGS

S&P has assigned the Bonds the rating of "AA", with a stable outlook, based upon the delivery of the Policy by the Insurer at the time of the issuance of the Bonds. Moody's has assigned the Bonds the rating of "A2" (positive outlook), based upon the delivery of the Policy by the Insurer at the time of the issuance of the Bonds.

The Bonds have been assigned an underlying long term rating of "BBB" (positive outlook) by S&P. Any explanation of such rating may only be obtained from S&P. The Bonds have been assigned an underlying long term rating of "Baa3" (positive outlook) by Moody's. Any explanation of such rating may only be obtained from Moody's. The Bonds have been assigned an underlying long term rating of "BBB" (stable outlook) by Fitch Ratings ("Fitch"). Any explanation of such rating may only be obtained from Fitch.

A rating is not a recommendation to buy, sell or hold the Bonds and any rating should be evaluated independently. Generally, rating agencies base their ratings on such information and materials and on investigations, studies and assumptions made by the rating agencies themselves. There is no assurance that any individual rating mentioned above will remain in effect for any given period of time or that any individual rating might not be lowered, suspended or withdrawn entirely by a rating agency, if in its judgment circumstances so warrant. Neither the Authority nor the Underwriters has undertaken any responsibility to bring to the attention of either the Holders or Beneficial Owners of the Bonds any proposed change in, suspension or withdrawal of any rating or to oppose any such proposed revision, suspension or withdrawal. The Corporation has not undertaken any responsibility to oppose any such proposed revision, suspension or withdrawal. Any such downward change in, suspension or withdrawal of any rating might have an adverse effect on the market price for or marketability of the Bonds.

LEGAL MATTERS

The validity of the Bonds and certain other legal matters are subject to the approving opinion of Dilworth Paxson LLP, Bond Counsel to the Authority. A complete copy of the proposed form of Bond Counsel opinion is contained in APPENDIX G hereto. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Certain legal matters will be passed upon for the Credit Group Members by John C. Ryan, Esquire, Chief Counsel of Temple University Health; for

the Underwriters by their counsel, Hawkins Delafield & Wood LLP; and for the Authority by its counsel, Austin J. McGreal, Esquire of Philadelphia, Pennsylvania.

OTHER MATTERS

The Corporation has furnished all information herein relating to the Health System. The Authority has furnished only the information included herein under the captions "INTRODUCTORY STATEMENT – The Authority," "THE AUTHORITY" and "LITIGATION" (insofar as such statement applies to the Authority). The Depository Trust Company has furnished only the information included in APPENDIX I – "INFORMATION REGARDING BOOK-ENTRY ONLY SYSTEM". Any statements herein involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact.

The foregoing descriptions of provisions of the Bonds, the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture, Obligation No. 1, the Loan and Trust Agreement and the Twentieth Supplemental Loan and Trust Agreement, the summaries of certain provisions of certain documents included in APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1," APPENDIX D -"SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT," and APPENDIX E - "SUMMARY OF LOAN AND TRUST AGREEMENT" hereto, and all references to other materials not purported to be quoted in full, are only brief outlines of some of the provisions thereof and do not purport to summarize or describe all other provisions thereof. The final version of the Twentieth Supplemental Loan and Trust Agreement will be substantially the same as the form provided in the attached APPENDIX F - "FORM OF TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT" with such additions, deletions, substitutions, and variations as deemed necessary. For a complete statement of the provisions of the Indenture, the Loan Agreement, the Master Indenture, the Supplemental Master Indenture, Obligation No. 1, the Loan and Trust Agreement and the Twentieth Supplemental Loan and Trust Agreement, reference is made to the documents in their entireties, copies of which, as executed and delivered, may be obtained from the Bond Trustee or the LTA Trustee.

The attached Appendices A through J are integral parts of this Official Statement and should be read in their entirety together with the foregoing.

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The circulation of this Official Statement has been duly authorized by the Authority and the execution, delivery and circulation of this Official Statement has been approved by the Corporation for itself and on behalf of the other Obligated Group Members.

TEMPLE UNIVERSITY HEALTH SYSTEM, INC.

By: /s/ Nicholas J. Barcellona

Name: Nicholas J. Barcellona
Title: Executive Vice President,
Chief Financial Officer, Treasurer



APPENDIX A

CERTAIN INFORMATION CONCERNING TEMPLE UNIVERSITY HEALTH SYSTEM

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OVERVIEW OF THE HEALTH SYSTEM

Temple University Health System, Inc. (the "Parent" or "TUHS") is a Pennsylvania non-profit corporation, the sole member of which is Temple University – Of The Commonwealth System of Higher Education ("Temple University" or the "University"). The University incorporated the Parent in August 1995 and under a Plan of Division effective June 30, 1996 (the "Plan of Division"), the Parent became the sole member of the University-affiliated entities that provide health care services. For certain information regarding the University, see "THE UNIVERSITY" herein. The Parent serves principally to coordinate the activities and plans of its operating subsidiaries and other affiliates as described herein. THE PARENT DOES NOT HAVE ANY SIGNIFICANT OPERATING ASSETS OR REVENUES OF ITS OWN.

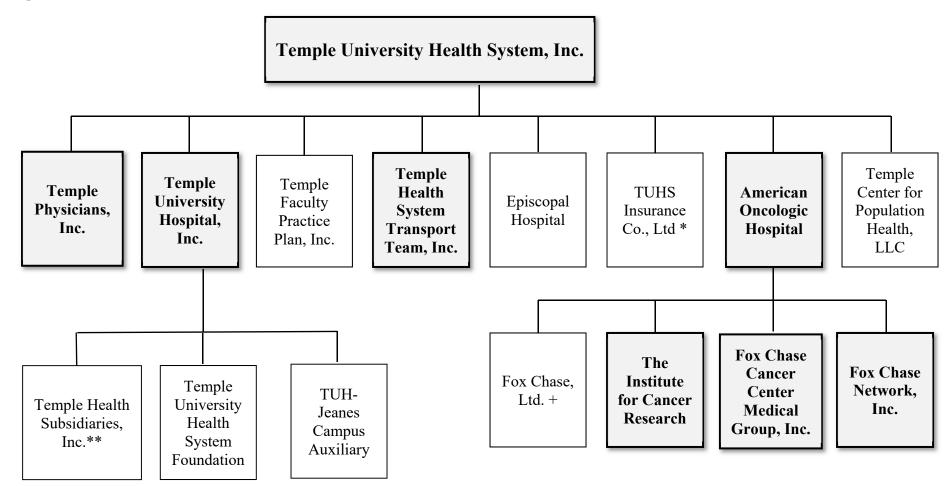
The Parent is the sole member of, and serves principally to coordinate the activities and plans for, Temple University Hospital, Inc. ("Temple University Hospital" or "TUH"), American Oncologic Hospital d/b/a Hospital of Fox Chase Cancer Center ("AOH"), Temple Health System Transport Team, Inc. ("Temple Transport"), Temple Physicians, Inc. ("Temple Physicians or "TPI"), and Temple Faculty Practice Plan ("TFPP") and various other TUHS affiliated entities that provide health care services. AOH is the sole member of The Institute for Cancer Research d/b/a The Research Institute of Fox Chase Cancer Center ("ICR", and ICR and AOH are referred to collectively as "Fox Chase Cancer Center"), Fox Chase Network, Inc. ("Network") and Fox Chase Cancer Center Medical Group, Inc. ("FCCCMG") and Fox Chase, Ltd. The Parent, with its affiliated entities, including those named here, are hereinafter referred to collectively as the "Health System."

THE PARENT, TEMPLE UNIVERSITY HOSPITAL, AOH, ICR, NETWORK, FCCCMG, TEMPLE TRANSPORT AND TEMPLE PHYSICIANS ARE THE ONLY MEMBERS OF THE OBLIGATED GROUP, WHICH WAS CREATED UNDER THE LOAN AND TRUST AGREEMENT REFERRED TO IN THE FOREPART OF THIS OFFICIAL STATEMENT AND THE ONLY MEMBERS OF THE OBLIGATED GROUP (IN EITHER CAPACITY, THE "OBLIGATED GROUP") CREATED UNDER THE MASTER TRUST INDENTURE, WHICH IS ALSO REFERRED TO IN THE FOREPART OF THIS OFFICIAL STATEMENT. THESE ENTITIES, AND ONLY THESE ENTITIES, ARE JOINTLY AND SEVERALLY LIABLE FOR ALL OBLIGATIONS ISSUED OR TO BE ISSUED UNDER THE LOAN AND TRUST AGREEMENT AND THE MASTER TRUST INDENTURE.

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CORPORATE ORGANIZATION

Corporate Structure



Note: Entities in BOLD TEXT and SHADED BOX denote members of the Obligated Group

- * Stock corporation whose shares are owned or beneficially owned by TUHS
- **Stock corporation whose shares are owned or beneficially owned by TUH
- + Stock corporation whose shares are owned by AOH

The Obligated Group

The following is a brief description of the activities and operations of the Obligated Group. The members of the Obligated Group are the only entities obligated to make payments on the 2022 Bonds.

Temple University Hospital

TUH is a Pennsylvania non-profit corporation that owns and operates an 879-bed teaching hospital operating inpatient locations on three campuses in North Philadelphia, one located at TUH-Main, 3401 North Broad Street, Philadelphia (Health Science Center campus); a second at TUH-Episcopal campus located at 100 East Lehigh Avenue, Philadelphia, and the third located at TUH-Jeanes campus, 7600 Central Avenue, Philadelphia. Founded in 1892, TUH provides a comprehensive range of medical services to a population residing in the surrounding areas of North Philadelphia and a broad spectrum of secondary, tertiary and quaternary care services to patients referred from throughout the East Coast of the United States. Temple University Hospital's physical facilities include inpatient units, diagnostic and therapeutic facilities and ambulatory care facilities. Temple University Hospital's Health Science Center campus serves as the site for much of the clinical training at the Lewis Katz School of Medicine at Temple University ("LKSOM" or the "School of Medicine").

The TUH-Episcopal campus is a behavioral health facility consisting of a 21-bed medical surgical unit, a 118-bed psychiatric unit, an emergency room and crisis response center. The TUH-Jeanes campus includes an acute care hospital facility licensed for 164 beds in the Fox Chase section of Northeast Philadelphia. The TUH-Jeanes campus provides a full range of clinical services including advanced cardiac care to its community. The land that TUH sits on is owned by the Friends Fiduciary Corporation, a Quaker organization, and is leased to TUH under a ground lease with a renewable term that currently expires on June 30, 2046. The lease is renewable in 10-year increments not to exceed a 50-year term so long as TUH is a tenant in good standing.

The mission of TUH is to provide access to the highest quality of health care in an academic setting, to support the highest quality teaching and training programs for health care students and professionals, and to support the highest quality research programs. From its founding until August 1995, TUH was an unincorporated operating division of the University. Pursuant to the Plan of Division, the University divided itself into three corporations: the University, Temple University Hospital and Temple University Children's Hospital, Inc. was subsequently merged into TUH in 2008 and the building operated by Temple University Children's Hospital, Inc. was closed and converted to additional bed capacity at TUH. Under the Plan of Division, all of the assets and liabilities related to the operations of the division which constituted Temple University Hospital were vested in and assumed by TUH. Members of the TUH medical staff who are also faculty of the LKSOM are dually employed by Temple University and TFPP. For a brief description of the University see "THE UNIVERSITY" herein. For a discussion of the physicians see "MEDICAL STAFF AND PHYSICIAN RELATIONS" herein.

The Commonwealth of Pennsylvania (the "Commonwealth") owns the land on which the main Temple University Hospital facilities and certain of the Temple University Hospital buildings are located, which it leases to the University for a term ending December 31, 2043 for a nominal rent. The University, in turn, subleases these facilities to Temple University Hospital for an identical term for a nominal rent.

Temple Physicians Inc.

TPI is a Pennsylvania non-profit corporation, the sole member of which is the Parent. TPI was formed by the Health System to develop a primary care physician network through acquiring and managing physician practices for the benefit of the communities served by the Health System. TPI employs

community-based primary care physicians and certain specialty and sub-specialty physician practices located in the service area of the Health System that provides services to the Health System. TPI operates practices in 46 locations, including four urgent care sites, located primarily in the Philadelphia market. As of June 30, 2021, TPI employed 77 core physicians and 67 advanced practice providers.

Temple Health System Transport Team

Temple Transport is a Pennsylvania non-profit corporation, the sole member of which is the Parent. Temple Transport is an air and ground intensive care transport system serving the hospitals within the Health System as well as surrounding health care providers. Temple Transport capabilities include specialty training in complex cardiac, pulmonary, neurologic, orthopedic, trauma care and helicopter transport. In the fiscal year ended June 30, 2021, Temple Transport transported 420 patients from non-TUHS hospitals to TUH.

American Oncologic Hospital d/b/a Hospital of Fox Chase Cancer Center

AOH is a Pennsylvania non-profit corporation, the sole member of which is the Parent. AOH is located immediately adjacent to the TUH-Jeanes campus. AOH owns and operates a 98 licensed bed specialty hospital that provides advanced inpatient and outpatient care to cancer patients. Founded in 1904 in West Philadelphia, AOH was among the first cancer hospitals in the nation. In 1967, AOH relocated to its present location on the Fox Chase campus. This move was prompted by the belief that the pace of medical progress in cancer treatment and cure would be quickened if medicine and science worked together. A portion of patients treated at AOH receive new drugs or new therapies under clinical trial agreements not generally available in its service area. As a specialty cancer hospital, AOH is exempt from the Medicare Prospective Payment System. AOH provides support funding to ICR.

The Institute for Cancer Research d/b/a The Research Institute of Fox Chase Cancer Center

ICR is a Delaware non-profit corporation, the sole member of which is AOH. ICR was founded in 1925 as part of the Lankenau Hospital Research Institute, and separately incorporated in 1944. In 1949, ICR moved to its present site on the AOH campus. ICR is the research entity at the Fox Chase campus and is primarily engaged in basic, clinical, and translational cancer research, including programs in cancer biology, molecular therapeutics, blood cell development and function, cancer epigenetics, and cancer prevention and control and maintains common research resources for the benefit of all Fox Chase research activities. ICR is one of 49 National Cancer Institute designated Comprehensive Cancer Centers.

Fox Chase Cancer Center Medical Group, Inc.

FCCCMG is a Pennsylvania non-profit corporation, the sole member of which is AOH. FCCCMG employs physicians that provide services to the Fox Chase family of organizations and its affiliates. As of June 30, 2021, FCCCMG employed 128 physicians.

Fox Chase Network, Inc.

The Network is a Pennsylvania non-profit corporation, the sole member of which is AOH. The Network provides cancer-related clinical and administrative services to cancer programs of community hospitals and physicians, as well as cancer-related consulting services to various entities in the United States and abroad.

Other Affiliated Entities

Certain members of the Obligated Group serve as a member or shareholder of a number of subsidiary entities and have entered into several joint ventures, none of which are members of the Obligated Group. These include the following:

Episcopal Hospital

Episcopal Hospital ("Episcopal Hospital") is a Pennsylvania non-profit corporation, the sole member of which is the Parent. Episcopal Hospital is the owner of the real property and improvements that previously comprised the Episcopal Hospital facility. Most of these assets are leased to TUH which provides clinical care under its license on the TUH-Episcopal campus.

Temple University Health System Foundation

The Temple University Health System Foundation (the 'TUHS Foundation") is a Pennsylvania non-profit corporation, the sole member of which is Temple University Hospital. The TUHS Foundation was formed to support the health-care-related activities of the Health System.

TUHS Insurance Company, Ltd.

TUHS Insurance Company, Ltd. ("TUHIC") is a foreign captive insurance company established to reinsure the professional liability claims of certain subsidiaries of the Health System.

Temple Center for Population Health, LLC

Temple Center for Population Health, LLC ("TCPH") is a Pennsylvania limited liability company whose sole member is the Parent. TCPH was formed on January 1, 2014. TCPH participates in accountable care, coordinated care, shared savings, and other similar programs or initiatives with or implemented by governmental payors, commercial payors or other parties.

Fox Chase, Ltd.

Fox Chase, Ltd. ("Limited") is a Pennsylvania business corporation, the sole shareholder of which is AOH.

Temple Health Subsidiaries, Inc.

Temple Health Subsidiaries, Inc. is a Pennsylvania business corporation, the sole shareholder of which is TUH.

Temple Faculty Practice Plan, Inc.

Temple Faculty Practice Plan, Inc. ("TFPP") is a Pennsylvania nonprofit corporation, the sole member of which is TUHS. TFPP provides teaching and physician services to the TUHS hospitals. Effective July 1, 2019, the University transferred the assets and liabilities of its former clinical practice plan physicians, known as TUP, to TFPP. As of that date, all activities related to physician practice were assumed by TFPP. As of June 30, 2021, TFPP employed 610 physicians and 52 advanced practice providers.

RECENT EVENTS

COVID-19 Pandemic

The Health System's monthly average COVID-19 census has experienced four waves. The first occurred at the start of the pandemic. In April 2020, TUH-Main had a monthly average COVID-19 patient count of 156. The census decreased to a monthly average of 40 patients or lower throughout summer 2020 and into early autumn. In December 2020, as the second wave hit the region, the monthly average census reached 156 across all TUH campuses, before declining to below 100 in January through March 2021. April 2021 saw a third wave, with the monthly average COVID-19 census for TUH rising to 125. The census declined from May through November 2021 to generally below 40 patients. Driven by the spread of the Omicron variant, a fourth wave peaked in January 2022. The monthly average census for TUH reached 246 for this period. As of February 15, 2022, TUH's month-to-date average COVID-19 census dropped to 112. The following paragraphs summarize the financial impact of the CARES Act on the Health System.

Through September 30, 2021, the CARES Act authorized \$178 billion in funding to hospitals and other health care providers to be distributed through the Public Health and Social Services Emergency Fund ("Provider Relief Funds"). Payments from Provider Relief Funds are intended to compensate health care providers for lost revenues and qualified expenses incurred in response to the COVID-19 pandemic and are not required to be repaid; provided that the recipients attest to and comply with certain terms and conditions, including limitations on balance billing and not using Provider Relief Funds to reimburse expenses or losses that other sources are obligated to reimburse. The Health System received \$212.5 million in Provider Relief Fund payments through December 31, 2021. For the years ended June 30, 2021 and June 30, 2020, \$70.5 million and \$90.1 million, respectively, in Provider Relief Funds were recognized in other revenue. For the six-month period ended December 31, 2021, the Health System recognized \$25.2 million in Provider Relief Funds in other revenue. As of December 31, 2021, \$26.5 million in Provider Relief Funds remain on the balance sheet in deferred revenue.

In April through June of 2020, the Health System received \$158.6 million in cash advances from accelerated Medicare payments requested under the CARES Act. This amount was reported in the consolidated balance sheet as of June 30, 2020. As of June 30, 2021, the Health System repaid \$33.2 million of Medicare advances. \$125.4 million remained on the consolidated balance sheet for the fiscal year ended June 30, 2021. Of this amount, \$95.0 million was reported within current portion of estimated settlements with third-party payers and \$30.4 million was within estimated settlements with third-party payers. For the six-month period ended December 31, 2021, the Health System repaid an additional \$41.5 million of Medicare advances. \$83.9 million remained on the consolidated balance sheet within current portion of estimated settlements with third-party payers. All remaining advances are expected to be repaid or recouped through future claims activity by September 30, 2022.

The CARES Act also provided for deferred payment of the employer portion of social security taxes between March 27, 2020 and December 31, 2020 with 50% of the deferred amount due no later than December 31, 2021 and the remaining 50% due no later than December 31, 2022. The Health System began deferring the employer portion of social security taxes in April 2020. Deferred payments of \$28.0 million and \$8.0 million were reported within accrued expenses on the consolidated balance sheet as of June 30, 2021 and June 30, 2020, respectively. In December 2021, the Health System repaid \$12.9 million of social security tax deferrals. As of December 31, 2021, \$15.1 million remained on the consolidated balance sheet within accrued expenses.

Health Partners Plans, Inc. Sale

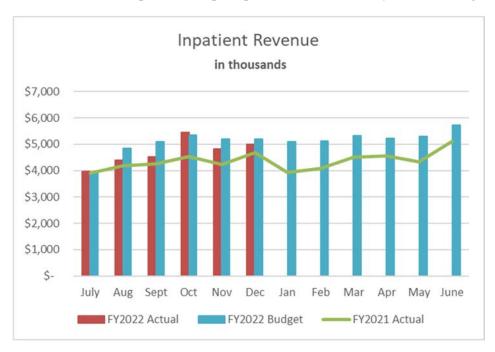
On November 1, 2021, Temple University Hospital and Episcopal Hospital completed the sale of their ownership interests in Health Partners Plans, Inc. ("HPP") for a purchase price of \$305 million. All TUHS affiliated providers will continue to participate with HPP. The parties entered into a seven-year agreement with an at-risk element.

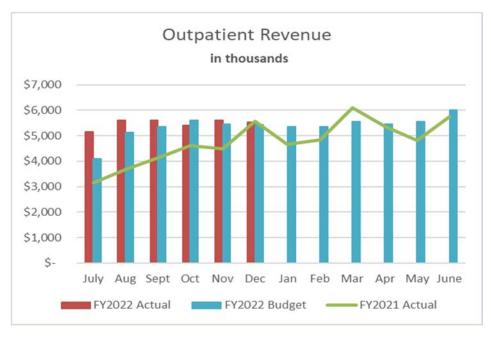
In the quarter ended December 31, 2021, TUHS recognized a one-time gain on sale of HPP of \$231 million. The receipt of the net sale proceeds of \$301.6 million has grown the TUHS balance sheet, adding approximately 50 days' cash on hand. This increase in cash facilitates strategic investment and growth of core operations. The Health System has developed a capital plan, balanced between growth and infrastructure, which is intended to reduce the average age over time.

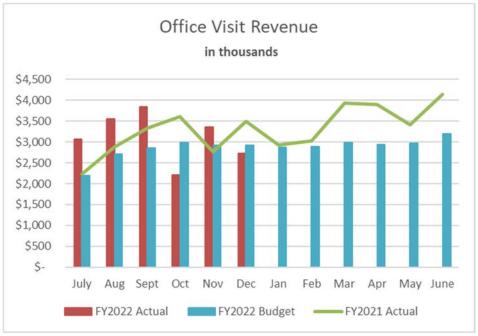
Practice Plan Growth and Recovery

For the six-month period ended December 31, 2021, TFPP outpatient services revenue increased by 28.2%, or \$7,237,000 as compared to the same period in the prior year. TFPP inpatient services revenue increased by 9.1%, or \$2,359,000, as compared to the same period in the prior year. Office visit revenue for TFPP also grew, increasing by 2.5%, or \$451,000 compared to the six-month period ended December 31, 2020. The Health System views this growth as an indicator of strong recovery in the specialty practice plan visits with increased access, in line with the Health System's strategic vision discussed herein under the caption "STRATEGY."

The below charts display TFPP's monthly inpatient and outpatient services revenue for the period ended December 31, 2021, as compared to the prior period and to the fiscal year 2022 budget.







Juniata Park Campus Acquisition

On June 28, 2021, TUH completed the purchase of buildings, equipment, and supplies located at 1331 E. Wyoming Avenue, the former Philadelphia campus of Cancer Treatment Centers of America. TUH purchased the assets for \$12 million. This new campus provides much-needed administrative service space to replace the Temple Administrative Services Building ("TASB"), which was lost in a fire in July 2020. Through December 31, 2021, TUH received insurance proceeds of \$15.3 million to cover the replacement cost of TASB. TUH anticipates the new administrative office space to become available for use in the fourth quarter of fiscal year 2022.

In November 2021, TUH announced that its newest campus will become a hospital for women's health, pending approval by the Pennsylvania Department of Health. TUH's new specialty campus will offer women and families modern patient areas and outdoor landscaped walking trails, creating a tranquil urban setting. Services are designed to ensure that patients have access to the highest quality care in a patient-centered environment, and are able to achieve the best outcomes regardless of their social and economic circumstances.

The campus is designed to offer myriad services focused on women's health needs. Key among those is maternity care. TUH delivered over 2,200 babies last year. Its maternal care services offer a comprehensive and coordinated approach to pre- and post-natal care and education. TUH's newest campus allows the expansion and improvement of these services, with private rooms for mothers and babies, clinical space for 14 labor and delivery/high risk antepartum beds, 32 postpartum beds, 36 NICU beds, 5 operating rooms, triage and stabilization area, over 60 exam rooms, plus interventional radiology, mammography, MRI, and CT.

In addition to OB/GYN, the new campus will offer specialty care for women to be established over the next several months in connection with the project development, including general surgery, breast surgery, vascular surgery, urology, internal medicine, cardiology, endocrinology, and behavioral health. The Percival Roberts, Jr. Trust has committed a significant amount to name the new 36-bed Neonatal Intensive Care Unit, the first gift in what is anticipated to be a significant fundraising campaign in support of the new campus. The Percival Roberts, Jr. Trust has a rich history of advocacy and generosity supporting children's health at TUH and across the Philadelphia region.

TUH aims to begin offering these services at the new campus in late 2022, and is engaging diverse groups of nurses, physicians, and support staff to work on the final plan.

AWARDS AND RECOGNITION

Temple University Hospital has been ranked the most racially inclusive hospital in Pennsylvania and the 13th most racially inclusive hospital in the United States by the Lown Institute, a nonpartisan healthcare think tank. The Lown Institute Hospitals Index examines the racial inclusivity of over 3,200 U.S. hospitals to assess their success at serving the people of color living in their communities. Earning the #1 ranking in the state and #13 in the nation highlights Temple University Hospital's role as a healthcare provider in one of the nation's most underserved communities.

In addition, the Lown Institute has recognized TUH with the following grades and rankings in the below categories:

- Patient Safety—National Grade: A
- Social Responsibility—National Grade: A
- Health Equity—National Grade: A; number two ranking in Pennsylvania and the top 4% in the United States (#141 out of 3,708 hospitals evaluated)
- Inclusivity—number 12 ranking in the Nation of 3,548 hospitals evaluated; number one ranking in Pennsylvania
- Racial Inclusivity—Top 100 ranking in the Nation; number one ranking in Pennsylvania
- Community Benefit—National Grade: A; number four ranking in Pennsylvania and the top 12% in the United States (#439 out of 3,642 hospitals evaluated)

Temple University Hospital has earned national recognition by the American Heart Association with the Gold Plus/Target Stroke Elite Honor Roll/Target Type 2 Diabetes Honor Roll Get with the Guidelines award:

- Recognizes TUH care teams' effective delivery of high-quality patient care through "Get With the Guidelines®"—the AHA's program of current evidence-based treatment guidelines to improve care for cardiac conditions and stroke.
- TUH's Stroke Center has consistently been awarded this recognition since 2012.
- Signifies 85% compliance with stroke core measures for a consecutive two-year period, and a door-to-needle time of less than forty-five minutes in over 50% of cases, administering IV tPA—which is the FDA-approved thrombolytic agent for acute ischemic stroke.

TUH-Main, TUH-Jeanes, TUH-Episcopal, and AOH have been recognized by Good Food, Healthy Hospitals:

- Joint venture of the Pennsylvania Department of Health, Philadelphia Department of Public Health, and The Common Market-Mid Atlantic.
- Only 37 hospitals in Pennsylvania earned this honor.
- Recognition of innovation and dedication to providing healthy food options for patients, visitors, and staff.
- Carefully chosen menu and ingredients, selectively chosen vendors, commitment to promoting wellness in dietary standards.
- Keeping people healthy is the Health System's business and it extends this mission beyond the clinical setting.

TUH–Jeanes Campus was awarded the NCDR Chest Pain – MI Registry Gold Performance Achievement Award for 2021 from the American College of Cardiology:

- Only 60 hospitals nationwide have received this award.
- Recognizes TUH–Jeanes Campus's achievement of the highest level of care for heart attack patients.
- Signifies achieving an aggressive goal of treating these patients to national standards of care as outlined by the American College of Cardiology/American Heart Association clinical guidelines and recommendations.

Temple University Hospital has been nationally recognized with Leapfrog 'A' Grade for the third consecutive time:

- TUH earned 'A' Grades on Leapfrog Hospital Safety Grade reports in fall 2021, spring 2021, and fall 2020.
- Recognition for delivering dependable care and protecting patients from infections, injuries, accidents and preventable errors.
- Peer-reviewed methodology uses more than 30 measures of publicly available hospital safety data, including for the first time, post-operative sepsis, blood leakage, and kidney injury, to assign grades to nearly 3,000 U.S. acute-care hospitals.
- Grades are advised by a panel of leading patient safety authorities from across the country and receives guidance from the Johns Hopkins Armstrong Institute for Patient Safety and Quality.

TUH was named by Leapfrog as a Top Teaching Hospital for Outstanding Quality and Safety:

- 2021 Leapfrog Top Hospital Award for Outstanding Quality and Safety, acknowledged as one of the most competitive awards that U.S. hospitals can receive. TUH was the only academic medical center in Philadelphia selected.
- Awarded to less than 7% of eligible hospitals; over 2,200 hospitals in the U.S. were considered and only 149 hospitals, including 72 teaching hospitals, were selected.

• To qualify, hospitals must rank near the top among peers on the Leapfrog Hospital Survey, which assesses hospital quality and patient safety performance. Leapfrog looked at the quality of patient care across many areas of performance, including surgery, maternity care, infection rates, and prevention of medical errors.

TUH Lung Transplant Program has achieved the following as measured by the Scientific Registry of Transplant Recipients (accumulated data January 2015-January 2022):

- TUH has performed more lung transplants over the past seven years than any other program in the U.S.
- TUH performed 138 lung transplants during the 12 month period from July 2020 to June 2021, this number compares to 119 at Cleveland Clinic, and 115 at Duke.
- TUH's Lung Transplant Program has better one-year outcomes than any other center in the region, and outperforms national averages.
- TUH also has the shortest time-to-lung transplant of any other center in the Delaware Valley region.

Temple University Hospital was recognized with the 2021 Gift of Life Award:

- Awarded by the Gift of Life Donor Program and the Hospital & Healthsystem Association of Pennsylvania (HAP) Southeast Connect, for superior performance in organ donation.
- Recognition for dramatically improved organ donation conversion rate, percentage of potential donors that became organ donors: 56%, up from 46% the previous year; and perfect 100% referral rate, percentage of potential donors that were referred by hospital staff to TUH's partnering organ-procurement organization, Gift of Life Donor Program.

AOH has been recognized with two Press Ganey Awards for Excellence in Patient Care:

- Guardian of Excellence Award, which recognizes organizations that have reached the 95th percentile for patient experience, employee or physician engagement, or clinical quality performance based on one year of data.
- Pinnacle of Excellence Award, which recognizes institutions that have maintained consistently high levels of excellence over three years in patient experience, employee engagement, physician engagement, or clinical quality performance.
- Fox Chase Cancer Center is among about a dozen National Cancer Institute-designated comprehensive cancer centers across the country to be recognized with Press Ganey Awards.

STRATEGY

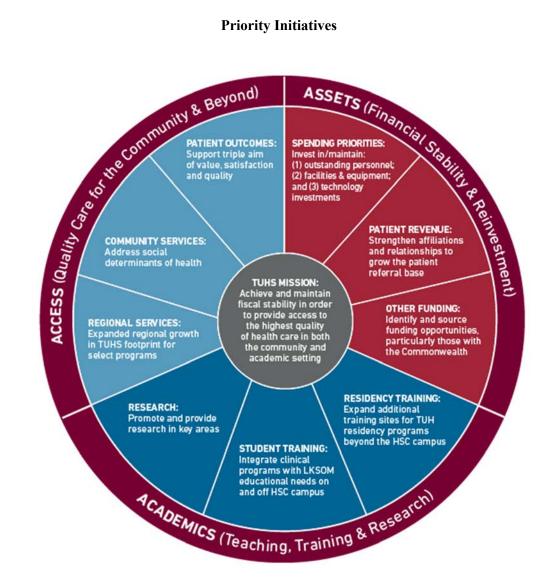
In 2021, the leadership team of TUHS developed and implemented a new strategic vision for the Health System. The TUHS Board has set three guiding strategies—"Access, Assets, and Academics"—to support TUHS' mission to achieve and maintain fiscal stability in order to provide access to the highest quality of health care in both the community and academic settings. This strategy is summarized below and is described in the following wheel chart.

"Access" to quality care delivers on the Health System's commitment to bring world-class academic medicine to its community and beyond. It supports the Triple Aim of value, satisfaction, and quality with superb patient outcomes. It addresses social determinants of health with wide-ranging and innovative community services. It promotes expansion and regional growth of select programs and services in the TUHS footprint.

Vigilant stewardship of "Assets" maintains TUHS's financial stability. It does so through strategic investments in facilities, equipment, technology, and personnel. It strengthens affiliations and relationships with other entities to expand the patient referral base and enable additional reinvestment of patient revenue. It identifies and secures new funding opportunities from the Commonwealth and other sources.

Outstanding "Academics" of Temple University fundamentally establishes the Health System's identity as a premier academic medical center. Promoting pioneering research in key areas, integrating clinical programs with the LKSOM's educational needs, and expanding training sites for Temple University Hospital's residency programs, empower TUHS to sustain its positive reputation as a sought-after destination among patients, basic science and clinical faculty, medical students, and residents & fellows from around the nation and world.

Priority Initiatives



A set of over 30 initiatives (outlined below) are designed to put into action the Strategic Direction of Access, Assets, and Academics. These initiatives were developed by key stakeholders throughout the Health System and represent TUHS's goals over the next three years.

Access (Quality Care for the Community & Beyond)

Integrate programs, improve processes, collaborate with community partners, and build TUHS's clinical enterprise to expand access to care while advancing the scope, reputation, and timeliness of that care. Ensure patient, public, and employee safety, while advancing the Triple Aim of quality, satisfaction, and cost, including performance measurements by national standards.

Patient Outcomes

- Achieve top quartile performance on Vizient's Quality & Accountability Scorecard.
- Maintain mortality index under 1.0 for all TUHS campuses.
- Reduce thirty (30) day re-admission rates for Temple Care Integrated Network members.
- Reduce elopement from all ED locations.
- Leverage clinical pathway tools (ex: Via) to reduce variation in care to drive standardization across the cancer enterprise.
- Continue the ongoing journey to Magnet status.
- Develop digital pathways for routine patient interactions.

Community Services

- Develop new programs and services to improve health outcome and reduce disparity of care to vulnerable communities served by Temple University Hospital.
- Enhance visibility, access, and capacity to support a comprehensive framework for cancer screening services across the enterprise.
- Streamline access and patient satisfaction to meet the needs of current and prospective patients who seek clinical care.
- Develop alternative care locations outside of hospital licenses to meet increased demand for lower cost sites of service.
- Identify and engage patients who may have early onset of high-risk diseases (cardiac, cancer, diabetes, etc.) through digital interactions.

Regional Services

- Activate clinical programming at the Juniata Park campus.
- Increase capabilities, capacity and sub-specialization of diagnostic testing services across the enterprise.
- Evolve use and application of telemedicine platform to expand organizational reach and patient engagement.

Assets (Financial Stability & Reinvestment)

Maintain facilities and operations without interruption beyond recognized standards, while sustaining financial stability, obligations, access to capital, and positive external ratings. Optimize and expand clinical service lines, clinical affiliations, and partnerships to offer more and higher-acuity services with broader geographic reach. Explore innovative approaches to patient revenue growth, payor contracting, alternate care delivery settings, and philanthropic growth.

Spending Priorities

- Hire and promote a high-quality workforce which successfully executes and achieves system strategic outcomes.
- Boost organizational productivity and effectiveness by promoting employee and physician engagement.
- Build a pipeline of clinical, research, academic, and administrative leaders with the skills necessary to thrive through greater interactions between AOH, TUH, LKSOM and TU.
- Maintain and enhance high quality, high impact and competitive employee benefit plans.
- Enhance internal communications and workforce engagement through a digital experience platform.

Patient Revenue

- Expand access to primary care services and affiliations & partnerships for high-CMI services with regional providers.
- Improve continuity of services within TUHS and reduce services being provided by outside providers.
- Promote TUHS reputation as a premier academic medical center among the general public, its community, providers, patients, vendors, investors, and governmental agencies.
- Transform Temple Lung Center into a nationally recognized leader in Pulmonary Medicine.
- Increase functionality, capabilities and adoption of Epic MyChart to improve engagement with providers and retention of patients.

Other Funding

- Grow philanthropic funding sources to support overall growth initiatives.
- Engage with state and federal partners to be active supporters of TUHS's mission and services.
- Develop financial tools and systems to compete for additional value-based agreements with payors that enable TUHS to expand the number of managed lives covered and types of value-based agreements.

Academics (Teaching, Training & Research)

Promote, develop and expand research in key areas, integrate clinical programs with LKSOM's educational needs on and off the Health Sciences Campus, and enhance TUH residency programs on and beyond the Health Sciences Campus.

Research

- Expand clinical research capabilities across the enterprise with focus on extending access to additional sites, growing early phase study efforts and developing intellectual property.
- Develop an integrated clinical research infrastructure to support clinical research at all campus locations.

Student Teaching

• Integrate clinical programs with LKSOM educational needs both on and off Temple University Health Science campus.

Residency Training

• Expand the number of LKSOM and Graduate Medical Education training sites for students.

Strategic Initiatives

Current Health System strategic initiatives, which align with its overall strategic vision, include the following:

- TUH acquired the Juniata Park campus in June 2021. In November 2021, TUHS announced its planned Women's Health services for this campus.
- The Temple Lung Center installed a new Chief of Thoracic Surgery to further expand its nationally recognized services.
- In order to reduce financial risk, the Health System shifted the asset allocation of its defined benefit plans to a Liability Driven Investment model during the quarter ended December 31, 2021. The Health System is currently evaluating opportunities to reduce total plan expenses.
- The Health System is currently on schedule for an October 1, 2022 Go-Live date for its EPIC Revenue Cycle system and corresponding Single Billing Office.
- TUH plans to open its own specialty pharmacy in the fourth quarter of fiscal year 2022. Anticipated benefits of this project include: access to previously inaccessible medications, maximizing script capture, and enhancing services to prescribing providers and patients.

Depth of Experience in Population Health

Centered around the patient, TCPH utilizes a wide array of programs and resources in order to best serve the community. A categorical itemization of these key components include but are not limited to the below listing:

- Care Management: Nurse Navigators, Community Health Workers, Licensed Social Workers, Diabetes Care (Education and Prevention), Palliative Care.
- Quality Management: Health Outcomes, Readmission Management, Utilization and Cost Management
- Community Partnerships: Housing Smart, Pennsylvania Coordinated Medication-Assisted Treatment, Long-term Care—Resiliency Quality Improvement, Frazier Coalition for Stroke Education and Prevention, Emergency Food Pantry, Post-Acute Care Collaborative/Preferred Providers.
- Payer Contracts whose members are attributed to Health System providers: Primary Care First, Approved Direct Contracting Entity Provider, Value Based Care Payor Agreements
- Provider Network: TFPP, TPI, Temple Clinically Integrated Network
- Data: EPIC, Optum (Data Warehouse internal and Payer claims data), Health Share Exchange
- In January 2022, TCPH on-boarded a Global and Professional Direct Contracting Model through the CMS Center for Medicare and Medicaid Innovation.

Vision for the Future

To achieve its strategic vision and to execute on each strategic initiative, the Health System deems the following pillars critical to its long-term success.

- Patient Always Comes First
- Partnership with Commonwealth and the Community
- Execute on Operational Performance while Strengthening Balance Sheet

- Drive Health System Integration
- Balance Capital Investment Infrastructure and Growth
- Partnership with Temple University

GOVERNANCE AND MANAGEMENT

Health System Board of Directors

The management of TUHS is governed by a Board of Directors (the "Board of Directors"), all of whom are elected by the Board of Trustees (except for Ex Officio Directors) of the University (the "University Trustees"). Certain members of the Board of Directors are nominated by subsidiaries of the Parent pursuant to agreements entered into at the time such subsidiaries joined the Health System. The table below lists the current members of the Board of Directors.

TABLE A-1: TUHS BOARD OF DIRECTORS								
<u>Name</u>	Occupation	Year <u>Appointed</u>	Current <u>Term Expires</u>					
Stephen G. Charles	Co-founder, immixGroup, Inc.	2018	October 2023					
Paul G. Curcillo, II, M.D.	Chief, Minimally Invasive Surgery, Fox Chase Cancer Center	2018	October 2024					
Edward A. Glickman	Executive Chairman, AIP Asset Management	2012	October 2024					
Amy L. Goldberg, M.D.	Interim Dean, Lewis Katz School of Medicine, Temple University	2021	Ex-officio					
Lewis F. Gould, Jr.	Of Counsel, Duane Morris LLP	2006	October 2022					
Lon R. Greenberg	Chairman Emeritus, UGI Corporation	2021	October 2023					
Sandra Harmon-Weiss, M.D.	Retired Family Physician	2016	October 2023					
Thomas W. Hoffman	Former Senior VP & CFO, Sunoco, Inc.	2015	October 2022					
Solomon C. Luo, M.D.	Partner, Progressive Vision Institute	2006	October 2023					
Joseph W. Marshall	Vice Chairman, Stevens & Lee PC	2018	October 2022					
Christopher W. McNichol	Managing Director, Citigroup Global Markets, Inc.	2018	October 2024					
Mitchell L. Morgan	Chairman, Board of Trustees, Temple University	2019	Ex-officio					
Martin L. Ogletree, Ph.D.	Owner, Points & Assists, LLC	2018	October 2024					
Bret S. Perkins	Senior VP, External & Government Affairs, Comcast Corporation	2018	October 2022					
Daniel H. Polett	President & CEO, Lexus of Chester Springs	1995	October 2024					
Eleanor R. Reinhardt	Retired Nurse Educator	2021	October 2023					
Jason Wingard, Ph.D.	President, Temple University	2021	Ex-Officio					

Health System Officers

TABLE A-2: TUHS OFFICERS

NameOfficeJoseph W. MarshallChairSandra Harmon-Weiss, M.D.Vice Chair

Michael A. Young President/Chief Executive Officer

John C. Ryan Secretary
Charna B. Wright Assistant Secretary
Nicholas J. Barcellona Chief Financial Officer/Treasurer
Lisa L. Corbin Assistant Treasurer

Michael DiFranco Assistant Treasurer

Health System Senior Leadership

Beginning in January of 2019, Michael A. Young was engaged by the Board of Trustees of the University to serve as CEO of TUHS and the President and CEO of Temple University Hospital. Mr. Young recruited Nicholas Barcellona to serve as Chief Financial Officer of TUHS and TUH. They bring to the organization a physician-focused strategic perspective allowing for greater alignment of strategic planning, recruiting, and operations. Biographies for key members of the TUHS leadership team are provided below.

Michael A. Young, MHA, FACHE, President and Chief Executive Officer of TUHS. Michael A. Young joined Temple University Health System in August 2018. He initially served as Chief Operating Officer of Temple University Hospital, Inc., prior to his appointment as President and CEO of TUHS in January 2019. Mr. Young began his career as a health system CEO at Lancaster General Hospital and Health System, where he served as President and CEO from 1988 to 2004. Mr. Young then served as President and CEO of Eric County Medical Center in Buffalo, New York from 2005 to 2008. In 2008, Mr. Young was named President and CEO of Grady Health System and Grady Memorial Hospital in Atlanta, Georgia where he served until 2011. In 2011, Mr. Young went on to become President and CEO of Pinnacle Health System in Harrisburg, Pennsylvania, a five-hospital system with thirty-five locations and 40,000 annual admissions. Mr. Young led the acquisition of four Community Health System hospitals in 2017, expanding Pinnacle's footprint to one million new potential covered lives, and completed a Letter of Intent with UPMC for a merger in the first quarter of fiscal year 2018. In December 2021, City & State Pennsylvania magazine ranked Mr. Young number 46 on its Philly Power 100 listing. He earned his Bachelor and Master of Health Administration degrees from the University of Pittsburgh and is a Fellow of the American College of Healthcare Executives.

Nicholas J. Barcellona, M.B.A. Senior Vice President, Chief Financial Officer, Treasurer of TUHS. Mr. Barcellona assumed the role of Chief Financial Officer of Temple University Health System in September 2020. Prior to joining TUHS, he served in various leadership capacities at UPMC Children's Hospital of Pittsburgh (CHP), including Vice President of Operations, Vice President of Pediatric and Academic Affairs, Executive Administrator for the Department of Pediatrics, and the CFO. He also served as the CFO for UPMC Children's Foundation. Mr. Barcellona joined UPMC in 2005 as a Senior Financial Analyst in the Corporate Finance Department, and in 2007 he became Staff Associate to the CFO of the Hospital and Community Services Division. In 2009, he became the CFO of UPMC Mercy and the UPMC Rehabilitation Network and worked in that capacity through 2013. Mr. Barcellona became the CFO for UPMC Children's in 2013, while also serving as the finance integration leader and interim CFO for UPMC Altoona from 2013 through 2015. Before coming to UPMC, he worked for General Electric (GE) where

he held the position of Auditor on the Corporate Audit Staff, and was a graduate of GE's two-year Financial Management Program. He holds a Bachelor of Science degree in Computer Engineering from the Pennsylvania State University, and a Master of Business Administration degree from the University of Pittsburgh Katz Graduate School of Business. Mr. Barcellona volunteers his time through a variety of local organizations including the United Way. He was the board chair at the Woodlands Foundation, the chair at Family Services of Western Pennsylvania, and a board member at Children's Community Pediatrics. Additionally, Mr. Barcellona was recognized in 2010 by Pittsburgh Magazine as one of Pittsburgh's 40 under 40. In 2021, the Philadelphia Business Journal named him as a 2021 CFO of the Year Rising Star Honoree.

Abhinav Rastogi, M.B.A, President and Chief Executive Officer, TUH. Mr. Rastogi was appointed President and CEO of Temple University Hospital in January 2022. Since July 2020, he served as Executive Vice President/Chief Operating Officer for TUH. Previously, he held positions of Senior Vice President, Professional Services and Associate Hospital Director, Pulmonary Services for the Temple Lung Center and Project Management Office. He has also worked as a pharmaco-economic data analyst at Temple University's School of Pharmacy, a consultant for IBM, and a project team leader at Tata Infotech. He has overseen Solid Organ Transplants, Cardiology, Neurology, Gastroenterology, Lab, Pharmacy and Supply Chain service lines. Mr. Rastogi earned his M.B.A. with a concentration in eBusiness and Healthcare Finance, and an M.S. degree in Information Systems from Temple University's Fox School of Business and Management. He graduated with a Bachelor's of Engineering degree in Electronics/Computers from Mumbai University. He is also a certified Project Management Professional and a Master Black Belt in Lean Six Sigma.

Tony S. Reed, MD, PhD, M.B.A., MPhil, CAQSM, CPE, FAAFP, FAAPL, EVP, Chief Medical Officer. Dr. Reed is responsible for the operationalization of safety, quality, experience, and engagement, as well as the transformation and integration of care delivery across the system. His background includes leadership in safety, quality, and information technology at a large integrated care delivery system with an ACO that participated in commercial payor agreements, the MSSP, and the bundled payment program. Dr. Reed has also served as a sports medicine service line and fellowship director and the head team physician of an NCAA Division One University. He is board-certified in family and sports medicine and is a certified physician executive. Dr. Reed received his medical degree from the Drexel University College of Medicine, he also earned an M.B.A. from Delaware State University in Information Technology and a PhD in Management with a concentration in Organizational & Change Leadership. Additionally, he leads Temple's COVID-19 response and recovery efforts, including the testing and vaccination programs. He has provided guidance on the COVID response to the City of Philadelphia and Commonwealth of Pennsylvania. Dr. Reed practices sports medicine with Temple University Athletics and teaches health system science in several of Temple's colleges. His clinical areas of interest include modern integrated care delivery models, provider communication, and collegiate sports medicine.

Robert G. Uzzo, M.D., M.B.A., FACS. Interim Chief Executive Officer, Hospital of Fox Chase Cancer Center. Dr. Robert G. Uzzo has served as the Interim CEO of AOH since November 2021. He is also the Chairman of the Department of Surgery. He has consistently ranked among Castle Conolly's and Philadelphia Magazine's "Top Docs" in urology and is a national principal investigator for a clinical trial by the Eastern Cooperative Oncology Group to evaluate new, targeted therapies for kidney cancers and immunotherapy. Dr. Uzzo is the author of more than 350 chapters, articles, books and abstracts on urologic tumors and has presented hundreds of regional, national and international lectures. In addition to his extensive clinical practice, Dr. Uzzo oversees research laboratory initiatives studying molecular mechanisms of genitourinary cancers. In 2003, he was promoted from Associate Professor to Professor with tenure in Fox Chase's division of medical science. Before joining the Fox Chase staff in 2000, Dr. Uzzo had been a fellow and clinical staff member of the urology department at the Cleveland Clinic Foundation since 1997. He was an American Foundation for Urologic Diseases scholar there until 1999

and held an additional fellowship in renal transplantation and renovascular surgery at the Cleveland Clinic from 1999 to 2000. Dr. Uzzo earned his bachelor's degree summa cum laude in biology and anthropology at Union College in Schenectady, NY, where he was the valedictorian and a New York State finalist for the Rhodes Scholarship. He then received his MD in 1991 at Cornell University Medical College in New York City. As a senior medical student at Cornell in 1990, he studied pediatric kidney problems at Guy's Hospital in London, England, and went on to spend two months in Russia studying at the Urologic Institute of Moscow. He was also a primary care physician for the National Public Health Service at Kayenta Navajo Indian Reservation in Arizona. Dr. Uzzo completed his internship and residency in surgery at the New York Hospital - Cornell University Medical Center. He continued his residency in urology there and at Memorial Sloan-Kettering Cancer Center from 1993 to 1997, serving as chief resident in New York Hospital's department of urology. He is a fellow of the American College of Surgeons.

Joel Helmke, MSHP, FACHE. Chief Operating Officer, Hospital of Fox Chase Cancer Center and Senior Vice President of Cancer Services, Temple University Health System. Mr. Helmke joined TUHS in February 2021. As chief operating officer of Fox Chase Cancer Center, he directs the clinical and business operations, bringing industry best practices and refining processes to enhance the facilities to match the talent and expertise of the faculty and staff. This includes propelling integration efforts between Fox Chase and Temple University Health System. Mr. Helmke joined Fox Chase after nearly five years as senior vice president of clinical operations at City of Hope National Medical Center in Duarte, Calif., a National Cancer Institute-designated comprehensive cancer center and 32-site cancer network. Previously, Mr. Helmke served as system vice president of WellStar Cancer Network, an affiliate of the Mayo Clinic Care Network. While there, he completed a total revamp of the oncology service line governance structure, commissioned a full review of the cancer program market strategy and brand strengths, and managed and supported the partnership between the WellStar Cancer Network and the Mayo Clinic Care Network. Prior to WellStar, Helmke spent 14 years at The University of Texas M.D. Anderson Cancer Center in Houston, where he refined his experience in a variety of roles. Earlier in his career, he served at The University of Texas Medical Branch in Galveston, Methodist Healthcare System in Houston, and St. David's HealthCare in Austin. Mr. Helmke earned his bachelor's degree in psychology from the University of Houston and a master's degree in health professions - healthcare administration from Texas State University. He is a fellow of the American College of Healthcare Executives, Six Sigma Executive Champion, and serves on the board of the Association of Cancer Executives.

John C. Ryan, J.D. Esquire, EVP, Chief Counsel Officer and Corporate Secretary. Mr. Ryan joined TUHS in January 2022. He brings over twenty-five years of experience providing counsel to CEOs, executive teams, and Boards of Directors and Trustees. Most recently, Mr. Ryan served as Senior Vice President, General Counsel and Chief Governance Officer at Dana-Farber Cancer Institute, in Boston, where he provided strategic advice on research and licensing agreements, hospital partnership and affiliation agreements, contracts and network alliances, patient care and reimbursement issues, corporate governance, regulatory matters, philanthropy, real estate facilities and supply chain issues, employment law, and a wide variety of legal and strategic issues. His previous positions include: General Counsel and Corporate Secretary for The Jackson Laboratory, in Bar Harbor, Maine and Farmington, Connecticut; President and CEO and Board Member of Unilife Corporation, a medical device company in King of Prussia; Partner, Trial Practice Group for Duane Morris LLP, in Philadelphia; SVP and Deputy General Counsel for Aramark Corporation, in Philadelphia; and Assistant District Attorney in the New York County District Attorney's Office. Mr. Ryan earned his law degree at Northwestern University School of Law, and his bachelor's degree at New York University. He is Chairman of the Board of Visitors for Temple University's Rome, Italy campus, Board Member of Northern Light Health in Bangor, ME; and was a founding Member of the Advisory Board to Temple University School of Law Center for Compliance and Ethics, Trustee of Friends Select School in Philadelphia, and Board Member of the Philadelphia Diversity Law Group. Mr. Ryan has begun leading and overseeing TUHS legal, compliance, and risk financing functions, including major contracts and transactions, regulatory compliance, tax-exempt status, finance,

litigation, research and intellectual property matters, health IT policy and systems, labor and employment issues, and medical staff and patient care matters.

Marc P. Hurowitz, D.O., M.B.A., FAAFP, Executive Director of Temple University Hospital - Jeanes Campus and Chief Executive Officer, Temple Physicians Inc., (TPI). Dr. Hurowitz was appointed Chief Executive Officer of Jeanes Hospital in March 2015. This appointment was simultaneous with his role as Chief Executive Officer of TPI (2013). Prior to this appointment at Jeanes and TPI, Dr. Hurowitz served in a variety of roles within the Health System, including Associate Chief Medical Officer /Patient Safety Officer at TUH from 2009 to 2012 and Chief Medical Officer of Northeastern Hospital, from 2003-2009. Before transitioning to healthcare administration, Dr. Hurowitz managed a large private practice. Trained as a family physician. Dr. Hurowitz is board-certified by the American Board of Family Practice and is a Fellow of the American Academy of Family Physicians. He continues to provide care to patients in the Fishtown / Port Richmond section of Philadelphia. Dr. Hurowitz is a graduate of the University of Pennsylvania (B.A. 1982), the Des Moines University, in Iowa (D.O. 1986), Fox School of Business, Temple University (Executive MBA 2006), and became board-certified in Family Practice in 1986. As Executive Director of the Jeanes Campus and Chief Executive Officer of TPI, Dr. Hurowitz is responsible for the clinical, financial, and strategic leadership of TUH's community-based hospital campus and physician group practice.

Claire Raab, M.D., President and Chief Executive Officer, TFPP. Dr. Claire Raab has served as the President and CEO of TFPP since July 2021. In this role, she is responsible for the quality of patient care, operational efficiencies, and the financial health of the practice plan, which includes both ambulatory and hospital-based services. Prior to this role, Dr. Raab was the Chief Clinical Officer and managed daily hospital operations and capacity management for the Health System. Dr. Raab has held other positions including, Physician Advisor and Associate CMO during her time at Temple over the past five years. She graduated medical school from Jefferson Medical College and completed her Internal Medicine Residency at Thomas Jefferson University Hospital. She is a board certified Hospitalist/Internist and continues to maintain clinical hours caring for patients. Dr. Raab is passionate about patient centered efficient medical care and population health management.

Deborah Cancilla, Executive Vice President, Data Strategy, Chief Information Officer. Deborah Cancilla joined TUHS in June 2020. At TUHS, she has driven the technological transformation of individual hospitals to an enterprise model, developed a digital strategic plan for patients, providers, and workforce, and evaluated technology processes and operations. Ms. Cancilla has previously served as Chief Information Officer for Atlantic Health System in Morristown, New Jersey (2017-2020), Pinnacle Health System in Harrisburg, Pennsylvania (2014-2017), Grady Health System in Atlanta, Georgia (2008-2014), and Erie County Medical Center, Corp. in Buffalo, New York (2001-2008). In 2018, she was named as the New Jersey CIO of the year for Non-Profits, and has been recognized by Becker's Hospital Review as one of the "Women in Health IT to Watch in 2022." Her extensive experience includes multiple successful EPIC installations, the transformation of Information Systems Departments and infrastructure, and the creation of sustainable project and data governance, fostering cultures of innovation and increased emphasis on Cyber Security and Technology with respective Boards of Directors and Trustees. Ms. Cancilla has also contributed to several speaker panels, including the STEM program, Women in Technology, and the New Jersey Technology Council. She holds a Bachelor of Science degree in Business Administration and a Master of Science degree in Global Business from Daemen College in Buffalo, New York, and is a graduate of the Harvard Business School's Healthcare Information Technology Leaders program.

John Lasky, Vice President/Chief Human Resources Officer for Temple University Health System. John Lasky has served as TUHS's Chief Human Resources Officer since 2013. In that role he leads the "people" strategy for System entities, including recruitment, learning & organizational development, compensation, human resources information systems, benefits, retirement, labor & employee

relations, and Human Resources operations. Prior to joining the Parent, John was the Senior Vice President/Chief Human Resources Officer of The Brooklyn Hospital Center in Brooklyn, NY; Vice President/Chief Human Resources Officer of West Penn Allegheny Health System in Pittsburgh, Pennsylvania; and Secretary and Chief Examiner of the Civil Service Commission of the City of Pittsburgh. As an attorney, he practiced at Reed Smith, LLP, an international firm where he provided strategic planning, consultation, litigation services and day-to-day counsel to corporate-level and in-facility clients regarding the full range of employment/labor law and issues. John graduated from Duquesne University with a Bachelor of Arts degree and a Juris Doctor. He has taught graduate-level coursework in human resources and labor relations at the University of Pittsburgh's Graduate School of Public and International Affairs and lectured at Carnegie Mellon University's Masters in Medical Management program. He has contributed to many organizations as a Board Member, including Philadelphia Works, Pittsburgh's Workforce Investment Board, Neighborhood Learning Alliance (president), the United Way of Allegheny County, and the 1199C Training & Development Fund, among others.

Conflict of Interest Policy

The "Conflicts of Interest Policy-Voting Directors/Governors, Officers, and Members of Decision-making Committees" applies to all transactions and arrangements between the Health System and its voting Directors and its Officers. Each voting Director and each Officer must execute an annual Disclosure Statement disclosing facts relating to any actual or potential financial interest or lack thereof. Financial interest is defined as directly or indirectly, through business, investment or family having: an ownership or investment interest in any entity with which the Health System has a transaction or agreement; or a potential ownership or investment interest in, or compensation agreement with, any entity or individual with whom the Health System is negotiating a transaction or arrangement. Disclosure of the existence and nature of any financial interest and all material facts must be made to the Governance, Nominating & Conflicts Committee prior to the consideration of a proposed transaction or arrangement by the Board. The Committee will determine if there is a conflict of interest, make recommendations to the Board regarding appropriate actions to be taken if a conflict exists, and recommend appropriate disciplinary or corrective action for a violation of the policy.

The "Conflict of Interest and Receipt of Gifts Policy-All Employees" is maintained for the purpose of avoiding any conflict, or appearance of conflict, between an employee's personal interest and the interest of the Health System in dealing with any organization or individual having, or seeking to have, any business relationship with the Health System or with any organization or individual whose objectives or interest may be adverse to Health System interests. Pursuant to this policy a conflict of interest may arise when an employee or an employee's family member accepts compensation or a substantial gift or favor from a vendor in exchange for access to, information about, or other business advantages related to the Health System. Specifically, no Health System employee may accept a gift which exceeds the value of \$100.00 from any firm or individual doing business with the Health System. The Chief Counsel Officer is responsible for making a determination of whether an action is appropriate and for consistently interpreting this policy.

The "Financial Conflicts of Interest in Research" policy addresses the complex relationships between research investigators, institutions, and the myriad Federal rules and regulations governing them. The purpose of the policy is to promote objectivity in research by establishing standards that provide a reasonable expectation that the design, conduct, and reporting of research occurring at the Health System is free from bias resulting from individual conflicts of interest.

Investment Policy

The Board of Directors of TUHS established the Finance & Investment Committee to oversee certain policies and procedures related to the Health System's budget, financing and investment related matters for the Health System. The combined funds are broadly segmented into the following investment categories: (i) Operating Portfolios includes bank accounts for the TUHS and certain Health System subsidiaries that are meant to provide an orderly cash flow for near-term operating needs (approximately 20 days of cash for each entity); (ii) Intermediate Portfolios represent a necessary bridge between near-term operating requirements and long-term capital needs of each entity; (iii) Long-Term Growth and Endowment Portfolios ("LTGE") primarily to support the long-term capital and operating needs of the entities; (iv) Defined Benefit Pension Portfolios to provide for long-term retirement benefits for Plan participants and their beneficiaries; and (v) Other Investment Portfolios to cover investments in which restrictions are imposed such as Defined Contribution Plans, Professional Liability Self-Insurance portfolios, applicable bond indentures and funding agencies. Such portfolios are governed by separate and distinct investment policy statements.

On January 24, 2008, the Finance & Investment Committee adopted the TUHS Master Investment Policy Statement, which is routinely reviewed. The last revision, approved on December 8, 2021, reflects the current target asset allocation and is set forth in the table below. Investment consultants are retained to assist in the strategy development for all of the investment pools. The consultants also monitor investment performance and compliance with the investment policies. For all pools of investments, professional external investment managers and pooled vehicles have been employed to manage within specific asset classes as defined by the investment policies. Each investment strategy utilizes the "total return" approach for calculating investment returns and a long-term target return goal has been established for each portfolio.

TABLE A-3: INVESTMENT POLICY								
Type of Target Return Goal	Operating 90 Day T-Bill	Intermediate Blmbrg US Agg Bond	LTGE <u>CPI + 4.0%</u>	Defined Benefit Actuarial ROR				
U.S. Equity	-	-	35.5%	0.0%				
International	-	-	33.5%	30.0%				
Fixed Income	-	100.0%	0.0%	69.0%				
Absolute Return	-	-	18.0%	0.0%				
Real Estate	-	-	12.0%	0.0%				
Private Equity	-	-	1.0%	0.0%				
Cash Equivalents	100.0%	-	0.0%	1.0%				

Source: The Health System.

The Cash Equivalents identified in the table above consist primarily of highly liquid investments, such as money market funds and debt instruments with original maturity dates of three months or less at the time of purchase. The intermediate portfolio must have an average credit quality of "A" or better, with no more than 20% of the total portfolio invested in sub-investment grade bonds. The majority of the equity securities within the LTGE and Defined Benefit portfolios are investments with readily determinable fair values. Only 1% of the LTGE portfolio is held in limited partnerships/private equity funds. Such investments are accounted for on the equity basis of accounting, which approximates fair value as determined by the fund managers. The investments of the Health System are diversified in structure in an effort to reduce market risk while striving to achieve target returns.

SERVICE AREA, DEMOGRAPHICS AND COMPETITION

Service Area

The Health System's service area consists of the Philadelphia Metropolitan Statistical Area ("MSA"), which is composed of Philadelphia, Bucks, Montgomery, Delaware, and Chester Counties in Pennsylvania. In addition to these counties, the Health System also provides services to Burlington, Camden, Gloucester and Mercer Counties in New Jersey. Within the MSA, Temple University Hospital's Primary Service Area comprises the following neighborhoods within the City of Philadelphia: Olney, Richmond, Fairmount North, North Philadelphia West, North Philadelphia East and Nicetown.

TABLE A-4 SERVICE AREA								
County	Population <u>2020</u>	% Change 2010 to 2020	Median <u>Household Income</u>	% Below Poverty Level				
Philadelphia	$1,\overline{603,797}$	5.1%	\$45,927	23.0%				
Bucks	646,538	3.4%	\$89,139	5.7%				
Chester	534,413	7.1%	\$100,214	5.9%				
Delaware	576,830	3.2%	\$74,477	9.9%				
Montgomery	856,553	7.1%	\$91,546	6.0%				
Pennsylvania Total	13,002,700	2.4%	\$61,744	12.0%				

Source: US Census Bureau: State and County Quickfacts.

The map below presents the location of the current major TUHS acute and ambulatory care facilities. As discussed in "CORPORATE ORGANIZATION – Obligated Group", the Fox Chase facilities are located on land adjacent to the Jeanes campus, and AOH is physically attached to Jeanes via an enclosed pedestrian bridge.



Map Locations:

(1)	Temple University Hospital	(10)	Temple ReadyCare—Jenkintown
(1)	Temple Oniversity Hospital	(10)	Temple Ready Care—Jenkintown
(2)	Temple University School of Medicine	(11)	Temple ReadyCare—NE Philadelphia
(3)	Fox Chase Cancer Center	(12)	Temple ReadyCare—Port Richmond
(4)	TUH—Jeanes Campus	(13)	Temple ReadyCare—Cottman Ave
(5)	Temple Health Oaks	(14)	TUH—Episcopal Campus
(6)	Temple Health Center City	(15)	TUH—Northeastern Campus
(7)	Temple Health Elkins Park	(16)	Fox Chase Cancer Center—Huntingdon
(8)	Temple Health Ft. Washington	(17)	Fox Chase Cancer Center—East Norriton
(9)	Fox Chase Cancer Center – Buckingham	(18)	Juniata Park Campus

Competition

The Health System includes two hospitals in Philadelphia County and serves patients in Philadelphia, Bucks, Delaware, Montgomery and Chester Counties all located in the southeastern corner of Pennsylvania with TUH and Fox Chase serving patients regionally and nationally for tertiary care programs.

Within the five county area, TUHS views the Health System's competition to be represented principally by other major stand-alone hospitals or multi-hospital systems. The organizations listed in the table below are viewed by TUHS to be significant competitors based on their having at least two of the following characteristics: (1) within 5 miles of any TUHS hospital, (2) an on-site medical school, (3) over 400 beds, and (4) tertiary services.

TABLE A-5: COMPETITION OF TUHS							
Distance Licensed Staffed COTH Medical from TUH Beds Beds Member* School (miles) County							
Name							
Albert Einstein Medical Center	738	738	Yes	No	3	Philadelphia	
Crozer-Chester Medical	473	343	Ves	No	3	Delaware	

Name	<u></u>					<u></u>
Albert Einstein Medical Center	738	738	Yes	No	3	Philadelphia
Crozer-Chester Medical	473	343	Yes	No	3	Delaware
Lankenau Medical Center	370	370	Yes	No	8	Philadelphia
Hospital of the University of PA (HUP)	807	807	Yes	Yes	5	Philadelphia
Thomas Jefferson University Hospital	926	898	Yes	Yes	3	Philadelphia
Jefferson Health-Northeast	464	443	No	No	5	Philadelphia &, Bucks
Abington – Jefferson Health	667	574	Yes	No	5	Montgomery
Other –Jefferson Health	454	385	No	No	Varies	Bucks& Montgomery
Cooper University Health Care	562	562	Yes	Yes	7.8	Camden (NJ)

Source: The Health System.

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^{* &}quot;The Association of American Medical Colleges, Council of Teaching Hospitals and Health Systems (COTH) is a group of individual leaders who represent approximately 400 of the nation's leading teaching hospitals and health systems. Membership is recognized throughout the world as a benchmark for excellence in patient care, research, and medical education."

TABLE A-6: PENNSYLVANIA FIVE COUNTY MARKET – INPATIENT MARKET SHARE ALL SERVICES Hospital **Bucks** Chester Delaware Montgomery Philadelphia **Total** Calendar Year 2020 Jefferson 24.7% 3.4% 4.4% 35.5% 28.1% 44.1%**UPHS** 4.1% 35.2% 11.0% 5.3% 17.9% 14.3% Main Line 0.4%27.1% 37.8% 11.8% 4.9% 12.2% **TUHS** 2.1% 0.4%0.8%2.2% 17.6% 8.7% 27.3% 0.1%7.1% 0.3% 7.3% 8.1% Trinity Tower 0.6% 26.7% 0.4%13.3% 4.0% 6.9% UHS 3.0% 2.0% 1.8% 2.7% 3.9% 3.1% CHoP 2.0% 1.4% 2.3% 1.9% 2.0% 2.0% 2.9% 0.0% 0.1% 2.0% 2.7% 2.0% Holy Redeemer Prime 4.6% 0.2% 0.1%2.4% 1.3% 1.7% Other 28.3% 3.5% 34.2% 14.0% 2.9% 12.9% **Totals** 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% Calendar Year 2019 26.9% Jefferson 23.8% 3.8% 4.6% 42.8% 33.4% **UPHS** 4.1% 35.0% 10.9% 5.5% 16.9% 13.9% Main Line 0.5% 27.5% 37.7% 11.9% 4.6% 12.1% Trinity 28.5% 0.1% 7.7% 0.4%8.2% 8.9% **TUHS** 2.1% 0.6% 0.8%2.1% 14.9% 7.4% Tower 0.7% 25.3% 0.4% 13.2% 4.8%7.1% Prospect 0.1% 0.5% 31.0% 0.2% 0.5% 4.6% UHS 3.6% 2.3% 2.2% 3.2% 4.9% 3.8% Doylestown 15.0% 0.0% 0.0%2.1% 0.1% 2.6% CHoP 2.1% 1.6% 2.6% 2.3% 2.6% 2.4% Other 19.5% 3.3% 2.1% 16.3% 9.1% 10.3% **Totals** 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%

Source: Pennsylvania Healthcare Cost Containment Council.

The following chart illustrates the Health System's patient origination from the five counties based on discharges.

TABLE A-7: PATIENT DISCHARGES							
Fiscal Year Ended June 30,							
County	<u>2019</u>	<u>2020</u>	<u>2021</u>				
Bucks	1,540	1,319	1,366				
Chester	262	208	225				
Delaware	479	443	544				
Montgomery	1,903	1,685	1,831				
Philadelphia	<u>28,827</u>	<u>30,817</u>	<u>34,683</u>				
5 County Totals	33,011	34,472	38,649				
All Other Areas	3,435	3,194	3,123				
Totals	<u>36,446</u>	<u>37,666</u>	<u>41,772</u>				

Source: The Health System.

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SERVICES

Services at TUH and AOH

Temple University Hospital

TUH provides a comprehensive range of inpatient and outpatient services, including secondary, tertiary and quaternary levels of care. As a regional referral center and teaching institution, Temple University Hospital provides sophisticated diagnostic, therapeutic, radiology and clinical services. Temple University Hospital offers advanced programs in Cardiovascular Disease, Cancer, Digestive Diseases, Emergency Medicine, Neurosciences, Obstetrics, Orthopedics, Pulmonary Medicine, Transplantation, and Bariatric Surgery. Programs at TUH include the heart transplant program, transplant programs for kidney, single and bilateral lung, liver, and bone marrow. TUH has one of the region's only burn centers and a Level 1 Trauma Center that is verified by the American Burn Association of the American College of Surgeons.

American Oncologic Hospital dba Hospital of Fox Chase Cancer Center

As an NCI-designated Comprehensive Cancer Center, AOH is focused on providing comprehensive clinical services to cancer patients through nine clinical departments offering neurosurgery, ophthalmology, vascular and orthopedic surgery. Care teams are focused on specialized treatment for specific cancer types and conditions.

Major Accreditations, Approvals and Memberships

On August 14, 2021, TUH received accreditation from The Joint Commission ("The Joint Commission") effective through August 14, 2024. TUH has provider agreements with The Centers for Medicare and Medicaid Services and the Pennsylvania Department of Human Services to participate in the Medicare and Medicaid programs. TUH is licensed by the Pennsylvania Department of Health, and its psychiatric and rehabilitation inpatient units are separately licensed by the Pennsylvania Department of Health ("DOH"). TUH was placed on a provisional license in January 2021 for failure to comply with certain DOH regulations. The provisional license was renewed in July 2021 and again on February 1, 2022, and is subject to a corrective action plan. Following surveys by the Pennsylvania Department of Health, expected in Spring 2022, DOH could determine that TUH is in full compliance with DOH regulations and a regular license would then be issued, the provisional license could be renewed for a third and final sixmonth period effective August 1, 2022, or DOH could decline to extend the current provisional license upon its expiration on July 31, 2022 and assume operation of TUH. Maintaining licensure is critical to the operations and financial condition of the Health System. Failure to do so will have a material adverse effect on the Health System. See the forepart of this Official Statement under the caption "BONDHOLDERS' RISKS – Licensing, Certification, and Accreditation Requirements."

On November 5, 2018, AOH received accreditation from The Joint Commission. Accreditation is usually valid for up to 36 months; however this effective time frame has been extended until the re-survey process is resumed. The re-survey cycle has been delayed in response to restrictions with the COVID pandemic. The Joint Commission re-surveyed AOH during the week of February 7, 2022, and AOH is currently awaiting renewal of its accreditation. AOH has provider agreements with The Centers for Medicare and Medicaid Services and the Pennsylvania Department of Human Services to participate in the Medicare and Medicaid programs. AOH is licensed by the Pennsylvania Department of Public Health.

MEDICAL STAFF AND PHYSICIAN RELATIONS

Temple University Hospital

As of December 31, 2021, the total medical staff numbered 1,218. The active medical staff of TUH consisted of 778 physicians, podiatric and dental specialists of which 93% were board-certified, and 5% were board eligible, for a total of 98% board-certified/board-eligible active medical staff, with an average age of 49. The active medical staff of TUH is divided into four categories: (1) those who are full-time salaried members of the faculty of the LKSOM and members of TFPP; (2) those who are non-salaried members of the volunteer faculty of the LKSOM and not members of TFPP; (3) physicians employed through TPI; and (4) practitioners from the Temple School of Dentistry, Temple School of Podiatry, as well as some Federally Qualified Health Centers. Members of the volunteer faculty group account for the balance of the admissions to TUH.

Temple University Hospital's strategy for maintaining and strengthening relationships with its medical staff and other physicians currently has three main elements: TFPP, TPI, and outreach to independent private practice physicians.

The physicians that are full time faculty of LKSOM and dual employees of the University and TFPP compose the majority of teachers and clinicians at TUHS affiliates. The University provides compensation for student teaching and research while TFPP provides compensation for all clinical activities and resident training. The University acts as the common paymaster. Employment terms are governed by a physician contract.

American Oncologic Hospital and Affiliates

Most of the practicing physicians at AOH are employed by FCCCMG, the physician practice of AOH. As of December 31, 2021, FCCCMG employed 129 physicians within seven clinical departments. Specifically, the number of active physicians in each of the seven clinical departments are as follows: Surgical Oncology (total 38), Medical Oncology (total 43), Medicine (total 23), Radiation Therapy (total 15), Radiology (total 8), Pathology (total 14), and Clinical Genetics (total 4). The average age of the physician group was 42; this group performs in excess of 90% of the clinical services performed at Fox Chase with the remainder of services being performed through voluntary or contracted medical staff. As of December 31, 2021, the total medical staff numbered 407. The active staff of AOH consisted of 145 physician members, of which 99% are board certified or board eligible.

The physician practice at AOH strives to recruit and retain highly qualified physicians within each subspecialty and nearly all have had additional oncologic fellowship training post-residency. In excess of 90% of Fox Chase physicians are board certified, as it is a condition of employment within their first three years on campus. Several faculty members serve in leadership positions on national and international oncologic specialty societies.

PERSONNEL

Employees

Many of the nurses and other employees of the Health System are currently members of various labor unions. Each of TUH, Jeanes, and the ICR has one or more separate collective bargaining agreements with various labor unions, which have different expiration dates. The failure to renew a collective bargaining agreement or a labor stoppage or similar action related to any of the unions could have a material

adverse effect on the operations of the hospital in question. The Health System believes its relationship with its labor force is satisfactory.

As of December 31, 2021, TUH had 5,355 full-time equivalent employees ("FTEs") excluding interns and residents. Nursing employees (registered and LPNs) comprised 1,821 of the 5,355 FTEs and approximately 99% of the nursing personnel were registered nurses. Approximately 73.1% of Temple University Hospital's employees are covered by collective bargaining agreements.

As of December 31, 2021, AOH had 1,814 FTE's. Nursing employees (registered and LPN's) comprise 399 of the 1,814 FTE's and approximately 99% of nursing personnel were registered nurses. IBEW Local 98 is the only collective bargaining agreement at AOH. Management of AOH believes that, overall relations with employees are satisfactory.

TABLE A-8: COLLECTIVE BARGAINING UNITS									
	Covered <u>Employees</u>	Number of Employees	Contract <u>Expiration</u>						
Temple University Hospital									
PASNAP	Nurses	1,357	9/30/22*						
PASNAP	Allied Health Professionals	820	9/30/22*						
District 1199C TUH	Service	676	6/30/24						
District 1199C TUH	Clerical	264	6/30/24						
International Union of Engineers Local 835	Engineers	21	11/14/23						
Health Professionals and Employees (HPAE)	Registered Nurses Unit	210	2/28/23						
District 1199C EHC	Service	102	11/8/24						
District 1199C EHC	Mental Health Unit	190	11/8/24						
	Jeanes Hospital								
PASNAP Jeanes	Nurses	276	11/8/23						
ı	Institute for Cancer Research								
IBEW Local 98	Maintenance	27	11/14/23						
Te	mple Faculty Physician Plan								
PASNAP	Registered Nurses Unit	77	9/30/23						
District 1199C TFPP	Clerical	118	6/30/25						
District 1199C TFPP	Professionals/Techs	135	6/30/25						
Temple Physicians Inc.									
PASNAP	CRNAs	31	TBD (Recently Certified*)						

Source: The Health System.

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^{*} See "Current Bargaining" below.

TABLE A-9: EMPLOYMENT AT TUH Fiscal Year Ended June 30. 2019 2021 2020 Full-Time Equivalents (FTEs) 5,283 5,109 5,333 Nursing Employees (Registered & LPNs FTEs) 1,860 1,801 1,824 Registered Nurses as a Percentage of Nursing Employees 99% 99% 99% FTEs per Adjusted Occupied Bed - TUH 5.04 4.29 4.81 FTEs per Adjusted Occupied Bed - Jeanes 4.85 5.09 N/A

Source: The Health System.

TABLE A-10:								
EMPLOYMENT AT AOH								
Fiscal Year Ended June 30,								
	<u>2019</u>	<u>2020</u>	<u>2021</u>					
Full-Time Equivalents (FTEs)	2,051	1,982	1,858					
Nursing Employees (Registered & LPNs FTEs)	424	413	392					
Registered Nurses as a Percentage of Nursing Employees	99%	99%	99%					
FTEs per Adjusted Occupied Bed – AOH*	3.33	3.49	6.12					

Source: The Health System.

* Excludes interns and residents.

Current Bargaining

During the months of December 2020 and January 2021, TFPP and Pennsylvania Association of Staff Nurses & Allied Professionals ("PASNAP") negotiated a collective bargaining agreement with PASNAP, the nurse employees that transferred from Temple University Physicians. TFPP and PASNAP successfully ratified a bargaining agreement that will expire September 30, 2023. During this time, TFPP had also successfully negotiated two collective bargaining agreements with the District 1199C union, an affiliate of the National Union of Hospital and Health Care Employees, AFSCME, AFL-CIO (the "1199C Union"), one with clerical employees and one with the Professional (PTEA) employees, both of which expire on June 30, 2025. TFPP and 1199C Union has maintained a professional relationship over the years.

Temple Physicians Inc., CRNA recently voted on December 13, 2021 to join the PASNAP union. The bargaining sessions have not commenced. While this will be a direct bargaining, overall, there is a good relationship with PASNAP and successful bargaining results are expected.

Benefits

TUHS sponsors a 401(a) defined contribution retirement plan (the Temple University Health System, Inc. Defined Contribution Retirement Plan) with 13,038 active participants as of December 31, 2021, a 403 (b) plan (the Temple University Health System, Inc. 403(b) Plan) with 14,613 active participants as of December 31, 2021, and a non-qualified 457(b) plan (Temple University Health System, Inc. 457(b) Deferred Compensation Plan) for the benefit of its eligible employees. The plans are intended to provide eligible employees with the opportunity for long-term accumulation of retirement savings through a combination of employee and employer contributions to individual participant accounts and the earnings thereon. The plans are employee benefit plans intended to comply with all applicable federal laws

and regulations, including the Code, and the Employee Retirement Income Security Act of 1974, as amended (ERISA).

The Health System continues to support various legacy defined benefit plans established at individual entities prior to benefits consolidation across the Health System. These plans are all completely frozen to new participants and future benefit accruals. Therefore, no participants are continuing to accrue benefits under the defined benefit plans. Based on market values as of July 1, 2021, the actuarial asset value of the combined plans was \$160,122,000 with a funding policy ratio of 98.2%. It is the internal policy of the Health System to maintain 80% or better funded level, therefore the Health System has budgeted \$0 in contributions over the next 5 years. Wells Fargo is the trustee for the Health System's defined benefit plans.

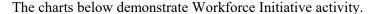
Certain employee groups were eligible to participate in the Retirement Plan for Employees of Temple University (4898 Plan). This plan was frozen to new Health System participants and future benefit accruals as of October 31, 2001. Certain employees hired before July 1, 2001 are eligible to participate in the post-retirement pre-funding plan administered by Temple University.

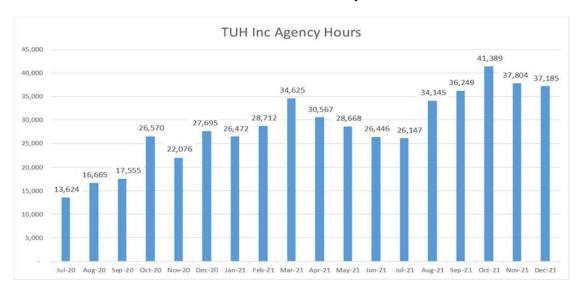
Workforce Initiatives

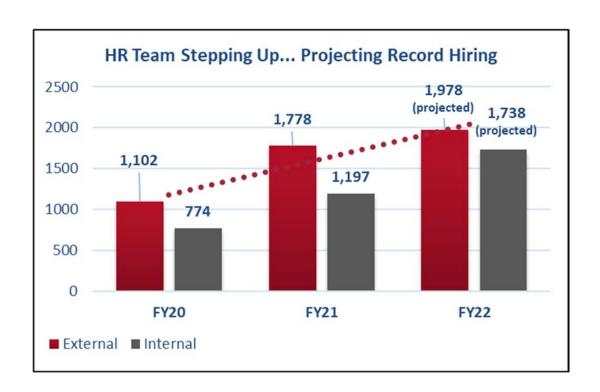
Since the start of the COVID-19 pandemic, the Health System has experienced an increase in nurse agency hours and has closely monitored its agency hourly rate. TUH agency hours reached a high of 41,389 for the month ended October 2021 and were 37,185 for the month ended December 2021.

The Health System made a \$5 million commitment to enhance nurse scheduling, staffing, and recruitment. As of December 31, 2021, the Health System hired over 300 nurses for the fiscal year-to-date period, and anticipates hiring over 550 by the end of the fiscal year. As of February 22, 2022, the Health System successfully on-boarded 131 new nurses and nurse support employees for the month-to-date period. Additionally, LKSOM created an accelerated three-year Bachelor of Science in Nursing program and established a scholarship program with the University.

In January 2022, the Commonwealth of Pennsylvania passed House Bill 253, appropriating \$225 million to support health care workforce development. The Health System received notification that it will receive approximately \$6 million of this commitment.







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HEALTH SYSTEM UTILIZATION

Utilization Statistics

Data for the Health System utilization for the fiscal years ended June 30, 2019, 2020 and 2021, and the six months ended December 31, 2020 and 2021, are presented in the following table:

TABLE A-11 UTILIZATION STATISTICS								
	Fisc	cal Year Ended	June 30,		Six Months Ended December 31,			
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2020</u>	<u>2021</u>			
Discharges	36,446	37,666	41,772	21,182	19,778			
Discharged Patient Days	242,585	243,867	253,271	128,671	137,498			
Census Patient Days	247,608	241,963	262,031	130,976	135,803			
Discharged Length of Stay	5.9	5.5	5.5	5.4	6.0			
Observation Discharges	12,835	11,986	8,704	4,164	5,275			
Emergency Department Visits	171,994	164,997	151,641	76,107	82,573			
Admissions from ED	21,078	23,758	28,850	14,783	13,104			
% Admissions from ED	57.8%	63.1%	69.1%	69.8%	66.3%			
Inpatient Surgeries	11,041	9,965	10,201	5,067	5,003			
Outpatient Surgeries	13,871	10,661	12,126	5,726	6,383			
Case Mix Index	1.89	1.89	1.90	1.88	1.95			
Births – Discharges	2,331	2,425	2,211	1,156	1,012			
Cardiology Procedures	6,202	5,799	7,347	3,842	3,111			
Total Transplants	355	319	298	156	178			
Total Outpatient Registrations	493,645	455,375	587,209	277,523	335,156			
MRI/CT Procedures	39,505	39,993	44,409	22,174	20,123			
Radiation Procedures	27,411	28,022	25,304	12,065	14,700			

Source: The Health System.

Sources of Revenue

Payments on behalf of the majority of patients are made to TUH and AOH by (i) the Federal Government under the Medicare program; (ii) the Commonwealth under the Medicaid program; (iii) Blue Cross; (iv) commercial insurance companies; (v) HMO and other types of managed care organizations ("MCOs"); and (vi) other sources.

The following tables summarize the Payor Mix by discharge for TUHS hospitals:

TABLE A-12: PAYOR MIX BY DISCHARGE									
	Fiscal Year Ended June 30,								
	<u>2019</u>								
Medicaid*	13,562	37%	14,589	39%	17,840	43%			
Medicare*	16,170	44%	16,349	43%	17,406	42%			
Blue Cross	3,887	11%	3,714	10%	3,900	9%			
Managed Care	2,278	6%	2,161	6%	2,181	5%			
Other	549	2%	853	2%	445	1%			
Totals	36,446	100.0%	37,666	100.0%	41,772	100.0%			

Source: Health System Records.
* Includes Managed Care.

For a discussion of the third-party payment programs mentioned above, reference should be made to "BONDHOLDERS' RISKS" in the forepart of this Official Statement.

The Parent has contracts in effect with all the major managed care organizations in the region.

SUMMARY FINANCIAL AND OPERATING INFORMATION

The summary of consolidated financial information presented below provides information for TUHS (unless otherwise noted) for each of the fiscal years in the three-year period ended June 30, 2021, and for the six-month periods ended December 31, 2021 and, 2020. The following summaries should be read in conjunction with data included herein under the subheading "Management's Discussion – Utilization and Financial Performance of the Consolidated Results of the Health System" and "Management's Discussion – Balance Sheet of the Consolidated Results of the Health System," as well as the audited consolidated financial statements and related notes for the years ended June 30, 2021 and 2020 provided in Appendix B to the Official Statement. The summary information for the six-month periods ended December 31, 2021 and 2020 was derived from unaudited financial statements prepared by the management of TUHS. The unaudited financial statements include all adjustments, consisting of normal recurring accruals, which management considers necessary for a fair presentation of the results of operations for those periods. These unaudited financial statements are incomplete in that they omit statements of cash flows and all footnotes required under accounting principles generally accepted in the United States of America. Operating results for the six-month period ended December 31, 2021 are not necessarily indicative of the results that may be expected for the entire fiscal year ending June 30, 2022.

Financial information for TUHS includes entities that are not members of the Obligated Group and therefore not obligated with respect to the 2022 Bonds, see "CORPORATE ORGANIZATION – The Obligated Group," above. For the fiscal year ended June 30, 2021, the Obligated Group generated 92% of the Total Operating Revenue of the Health System.

TABLE A-13: SUMMARY STATEMENT OF OPERATIONS (\$000s)

	Fiscal '	Year Ended June 3	Six Months Ended <u>December 31,</u>		
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2020</u>	<u>2021</u>
Total Net Patient Service Revenue*	\$2,058,173	\$2,007,180	\$2,210,042	\$1,024,133	\$1,143,325
Research Revenue	42,561	41,872	43,641	22,482	19,658
Investment Income	710	1,049	145	79	331
Other Revenue	85,897	214,449	143,748	39,792	56,241
Net Assets Released from Restrictions Used for Operations Total Revenue and Other Support without	<u>7,705</u>	<u>7,984</u>	<u>7,291</u>	<u>3,144</u>	<u>2,577</u>
Donor Restriction	\$2,195,046	\$2,272,534	\$2,404,867	\$1,089,630	\$1,222,132
Depreciation and Amortization	48,302	45,683	43,700	22,508	25,407
Interest	24,144	23,849	23,465	11,643	11,385
Other Operating Expenses	2,095,802	2,121,998	<u>2,242,855</u>	1,046,924	1,120,747
Total Expenses	\$2,168,248	\$2,191,530	\$2,310,020	\$1,081,075	<u>\$1,157,540</u>
Operating Income*	26,798	81,004	94,847	8,555	64,592
Investment Income	12,267	14,731	59,014	31,675	15,710
Other Net Non-Operating Gain Excess of Revenues and Other Support	2,710	1,719	11,180	2,418	239,271
over Expenses	<u>\$41,775</u>	<u>\$97,454</u>	<u>\$165,041</u>	<u>\$42,648</u>	<u>\$319,573</u>

Management's Discussion – Utilization and Financial Performance of the Consolidated Results of the Health System

Utilization and Financial Results – Fiscal Year 2019

For the fiscal year ended June 30, 2019, the Health System reported Excess of Revenue and Other Support over Expenses (referred to in this caption as "Net Income") of \$41,775,000. As noted above, the reported performance includes funds totaling \$6,266,000 received by TUH as revenue and transferred to Temple University as part of the Temple University Non Preferred Appropriation from the Commonwealth.

Year over year, total net patient service revenue increased by 16.9% or \$297,552,000; driven by increased outpatient revenue of \$213,508,000 and increased funding to TUH from the Commonwealth, partially offset by a decrease in inpatient revenue of \$13,209,000. The increase in outpatient revenue was due primarily to the transfer of the assets and liabilities of Temple University's physician practice plan known as TUP, formerly an unincorporated subdivision of Temple University School of Medicine, to Temple Faculty Practice Plan, Inc. This transfer, along with the transfer of the assets and liabilities of the professional liability insurance captive, Good Samaritan Insurance Co. Ltd. to TUHS Insurance Company, Ltd. was accounted for as a combination of businesses under common control in accordance with the Financial Accounting Standards Board Accounting Standards Codification Topic 805, Transactions Between Entities Under Common Control.

^{*}Included in the performance are proceeds of the approved Temple University Academic Health Center Non Preferred Appropriation from the Commonwealth of Pennsylvania, which are passed through to the University as an equity transfer. These funds totaled \$6,266,000, \$6,266,000 and \$6,259,000 for Fiscal Years 2019, 2020 and 2021 and \$3,105,000 and \$3,105,000 for the six-month periods ended December 31, 2020 and December 31, 2021, respectively.

Total operating expenses increased by 18.3% or \$334,852,000 compared to the prior year period. This increase was driven by rises in most categories, in line with the increase in inpatient revenue and the above-mentioned transfer of assets and liabilities from Temple University School of Medicine to TFPP. A decrease in professional fees of \$47,036,000, or 24.7% was the most significant offset to the increase in total operating expenses. This decrease was due to a change in the presentation of physician support payments to TFPP due to the transfer of TUP to TFPP.

Utilization and Financial Results – Fiscal Year 2020

For the fiscal year ended June 30, 2020, the Health System reported a Net Income of \$97,454,000. Included in the reported performance was \$6,266,000 of Temple University Non Preferred Appropriation from the Commonwealth, which was transferred to the University.

Year over year, total net patient service revenue decreased by 2.5% or \$50,993,000; driven by decreased outpatient revenue of \$65,171,000, partially offset by an increase in inpatient revenue of \$14,207,000, and increased funding to TUH from the Commonwealth. These results were significantly impacted by the COVID-19 Pandemic, which drove decreases in patient volumes across all Health System campuses as well as incremental expenses incurred to prepare for and treat COVID-19 patients. CARES Act Funding received from the government was used to offset revenue losses and expenses incurred. During the year ended June 30, 2020, \$90,102,000 of CARES Act funding was received and recognized in other revenue.

Total operating expenses increased by 1.1% or \$23,282,000 compared to the prior year period. This increase was driven by rises in the following categories: salaries and employee benefits, \$39,221,000, or 3.4%; purchased services, \$8,418,000, or 4.5%; insurance, \$6,013,000, or 11.6%; and asset impairment charges of \$13,636,000 related to the carrying value of the AOH trade name. Salaries increased due to incentive payments to clinical staff related to the pandemic. The insurance increase was due to the reduction in professional liability support that was received by TFPP in previous years from TU.

Offsets to the increase in total operating expenses included a reduction in professional fees of \$18,841,000, or 13.1%, and supplies and pharmaceuticals of \$23,360,000, or 4.8%. The professional fees decrease was due to a change in presentation of physician support payments to TFPP. Lower supplies and pharmaceuticals expense was primarily due to TUH outpatient pharmacy performance, which contributed to drug savings, along with reduced inpatient pharmacy costs associated with lost procedures caused by the pandemic.

Utilization and Financial Results – Fiscal Year 2021

For the fiscal year ended June 30, 2021, the Health System reported a Net Income of \$165,041,000. Included in the reported performance was \$6,259,000 of Temple University Non Preferred Appropriation from the Commonwealth, which was transferred to the University.

Year over year, total net patient service revenue increased by 10.1% or \$202,862,000; driven by higher inpatient revenue of \$133,735,000, higher outpatient revenue of \$38,325,000, and increased net funding from the Commonwealth. These results continued to be significantly impacted by the COVID-19 Pandemic, which drove decreases in outpatient volumes across all Health System campuses, as well as recognition of CARES Act Funding received from the government used to offset revenue losses and expenses incurred to prepare for and treat COVID-19 patients. During the year ended June 30, 2021, \$70,742,000 of CARES Act funding was received and recognized in other revenue.

Total operating expenses increased by 5.4% or \$118,490,000 compared to the prior year period. This increase was driven by upticks in the following categories: salaries and employee benefits, \$57,567,000, or 4.8%; supplies and pharmaceuticals, \$29,668,000, or 6.4%; insurance, \$30,659,000, or 53.0%; and professional fees, \$20,823,000, or 16.7%. Insurance increased due to professional liability claims development. The growth in salaries and benefits was driven by employee pay increases and higher nursing costs associated with increased inpatient volumes. Supplies and pharmaceuticals were higher primarily due to the outpatient pharmacy, which had ceased operations early in fiscal year 2020 based on findings in the audit of the 340B program. These audit findings were addressed in the third quarter of fiscal year 2020.

The most significant offset to the increase in total operating expenses was a reduction in the asset impairment charges of \$13,995,000.

Utilization and Financial Results - Six-Month Period Ended December 31, 2020

For the six-month period ended December 31, 2020, the Health System reported a Net Income of \$42,648,000. Included in the reported performance was \$3,105,000 of Temple University Non Preferred Appropriation from the Commonwealth, which was transferred to the University.

Year over year, total net patient service revenue increased by 4.5% or \$43,667,000; driven by higher inpatient revenue of \$68,028,000 and increased net funding from the Commonwealth, partially offset by lower outpatient revenue of \$41,078,000. These results continued to be significantly impacted by the COVID-19 Pandemic, which drove decreases in outpatient volumes across all Health System campuses, as well as CARES Act Funding received from the government used to offset revenue losses and expenses incurred to prepare for and treat COVID-19 patients. During the six-month period ended December 31, 2020, \$20,497,000 of CARES Act funding was received and recognized in other revenue.

Total operating expenses increased by 3.4% or \$35,219,000 compared to the prior year period. This increase was driven by rises in salaries and employee benefits of \$24,125,000, or 4.0% and supplies and pharmaceuticals of \$18,151,000, or 7.7%; partially offset by a decline in purchased services and other expenses of \$4,199,000, or 6.0%. The growth in salaries and benefits was driven by year-over-year employee pay increases. Supplies and pharmaceuticals increased primarily due to the outpatient pharmacy, which had ceased operations early in fiscal year 2020 based on findings in the audit of the 340B program. These audit findings were addressed in the third quarter of fiscal year 2020.

Utilization and Financial Results – Six-Month Period Ended December 31, 2021

For the six-month period ended December 31, 2021, the Health System reported a Net Income of \$319,573,000. Included in the reported performance was \$3,105,000 of Temple University Non Preferred Appropriation from the Commonwealth, which was transferred to the University, and \$231,191,000 proceeds from the sale of the Health System's share of Health Partners Plans, Inc. (HPP).

Year over year, total net patient service revenue increased by 11.6% or \$119,192,000; driven by higher outpatient revenue of \$88,041,000 and increased net funding from the Commonwealth. These results continued to be significantly impacted by the COVID-19 Pandemic driving significant incremental expenses incurred to prepare for and treat COVID-19 patients. During the six-month period ended December 31, 2021, \$25,202,000 of CARES Act funding was recognized in other revenue compared to \$20,497,000 in the prior year.

Total operating expenses increased by 7.1% or \$76,465,000 compared to the prior year period. This increase was primarily driven by rises in salaries and employee benefits of \$52,526,000, or 8.5%. The

growth in salaries and benefits was driven by increased use of agency nurses due to a national staffing crisis as well as year-over-year employee pay increases.

TABLE A-14: SUMMARY BALANCE SHEET (\$000s)

	Fiscal Year Ended June 30,			December 31,		
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2020</u>	<u>2021</u>	
Cash and Cash Equivalents plus Current Investments	\$429,646	\$725,144	\$904,558	\$776,051	\$1,094,203	
Patient Accounts Receivable, Net	228,971	211,786	258,505	274,222	277,349	
Other Current Assets	<u>262,155</u>	<u>194,738</u>	201,889	<u>217,532</u>	<u>259,304</u>	
Total Current Assets	920,772	1,131,668	<u>1,364,952</u>	1,267,805	1,630,856	
Property, Plant and Equipment, Net	285,421	260,039	285,293	247,577	288,121	
Investments	40,808	40,009	74,537	41,167	105,497	
Other Assets	417,267	406,120	487,173	424,743	402,969	
Total Assets	<u>\$1,664,268</u>	<u>\$1,837,836</u>	<u>\$2,211,955</u>	<u>\$1,981,292</u>	<u>\$2,427,443</u>	
Current Portion of Long-Term Debt	\$15,975	\$14,412	\$13,016	\$14,215	\$17,870	
Accounts Payable & Accrued Expenses	288,148	202,185	262,144	199,722	222,271	
Other Current Liabilities	119,937	271,989	270,526	376,695	253,640	
Total Current Liabilities	<u>424,060</u>	<u>488,586</u>	<u>545,686</u>	<u>590,632</u>	<u>493,781</u>	
Long-Term Debt	487,161	473,838	462,779	466,861	447,499	
Other Long-Term Liabilities	261,985	315,038	415,196	311,338	374,551	
Total Liabilities	1,173,206	1,277,462	1,423,661	1,368,831	1,315,831	
Net Assets	491,062	560,374	788,294	612,461	1,111,612	
Total Liabilities and Net Assets	<u>\$1,664,268</u>	<u>\$1,837,836</u>	<u>\$2,211,955</u>	\$1,981,292	\$2,427,443	

TABLE A-15: LIQUIDITY OF THE OBLIGATED GROUP (\$000s)					
	Fiscal Year Ended June 30,			December 31,	
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2020</u>	<u>2021</u>
Unrestricted Cash and Cash Equivalents plus Investments	\$429,646	\$725,144	\$904,558	\$776,051	\$1,094,203
Investments	40,808	40,009	74,537	41,167	105,497
Board Designated Unrestricted Investments	9,309	482	1,952	7,004	1,952
Less: Real Estate Investments	(670)	(320)	(320)	(320)	(320)
Less: Restricted Liquidity	(6,845)	(752)	(6,820)	<u>(752)</u>	(14,482)
Liquidity	472,248	764,563	973,907	823,150	\$1,186,850
Less: Non-Obligated Group Liquidity	(73,705)	(82,234)	(110,484)	(88,235)	(106,215)
Obligated Group Liquidity	<u>\$398,543</u>	<u>\$682,329</u>	<u>\$863,423</u>	<u>\$734,915</u>	\$1,080,635

Source: The Health System.

Management's Discussion - Balance Sheet of the Consolidated Results of the Health System

Balance Sheet – Fiscal Year 2019

As of June 30, 2019, total available liquidity in the Health System was \$472,248,000 (Liquidity in the Summary Balance Sheet above consists of: Cash and Cash Equivalents plus Investments and Unrestricted Investment, less Restricted Cash and Investments.) In a year over year comparison, the Health System experienced an increase in available liquidity of \$73,195,000. This increase of \$73,195,000 in available liquidity was primarily due to the transfer of assets and liabilities from Temple University School of Medicine to TFPP, the cash impact of the operating performance, and an increase in supplemental funding from the Commonwealth.

At June 30, 2019, Net Patient Accounts Receivable was \$228,971,000. In a year over year comparison, Net Patient Accounts Receivable increased by \$8,409,000. Days in accounts receivable was 47, which was consistent with the prior year.

Accounts Payable and Accrued Expenses were \$288,148,000 at June 30, 2019, or an increase of \$113,488,000 over the previous year primarily due to timing of receipt of supplemental funding from the Commonwealth, the timing of drug accruals, and the corresponding payment of strategic support to the University, which occurred subsequent to fiscal year-end. There were also legal accruals related to an external audit of the 340B program, which were reversed in subsequent periods.

At June 30, 2019, the long-term debt of the Health System was \$487,161,000. This was a reduction from the prior year of \$9,607,000 primarily due to scheduled principal payments.

Other long-term liabilities were \$261,985,000 as of June 30, 2019, an increase of \$92,441,000 over June 30, 2018. This increase was primarily related to the actuarial liability for the self-insurance program.

Balance Sheet – Fiscal Year 2020

As of June 30, 2020, total available liquidity in the Health System was \$764,563,000 (Liquidity in the Summary Balance Sheet above consists of: Cash and Cash Equivalents plus Investments and Unrestricted Investment, less Restricted Cash and Investments.) In a year over year comparison, the Health System experienced an increase in available liquidity of \$292,315,000. This increase of \$320,453,000 in available liquidity was primarily due to CARES Act Funding, receipt of Medicare Advances and payroll tax deferrals required to be paid back, and the cash impact of the operating performance.

At June 30, 2020, Net Patient Accounts Receivable was \$211,786,000. In a year over year comparison, Net Patient Accounts Receivable decreased by \$17,185,000. Days in accounts receivable was 48, which was consistent with the prior year.

Accounts Payable and Accrued Expenses were \$202,185,000 at June 30, 2020, or a decrease of \$85,963,000 from the previous year primarily due to timing of receipt of supplemental funding from the Commonwealth and the corresponding payment of strategic support to the University.

At June 30, 2020, the long-term debt of the Health System was \$473,838,000. This was a reduction from the prior year of \$13,323,000 primarily due to scheduled principal payments.

Other long-term liabilities were \$315,038,000 as of June 30, 2020, an increase of \$53,053,000 over June 30, 2019. This increase was primarily related to the actuarial valuation of the liability for retirement

benefits and an increase to the Medicaid DSH upper payment limit reserves, partially offset by a decrease in the actuarial liability for the self-insurance program.

Balance Sheet – Fiscal Year 2021

As of June 30, 2021, total available liquidity in the Health System was \$973,907,000 (Liquidity in the Summary Balance Sheet above consists of: Cash and Cash Equivalents plus Investments and Unrestricted Investment, less Restricted Cash and Investments.) In a year over year comparison, the Health System experienced an increase in available liquidity of \$209,344,000. This increase of \$209,344,000 in available liquidity was primarily due to CARES Act Funding, the cash impact of the operating performance, and an increase in supplemental funding from the Commonwealth.

At June 30, 2021, Net Patient Accounts Receivable was \$258,505,000. In a year over year comparison, Net Patient Accounts Receivable increased by \$46,719,000. Days in accounts receivable was 50, which was an increase from 48 in in the prior year.

Accounts Payable and Accrued Expenses were \$262,144,000 at June 30, 2021, or an increase of \$59,959,000 over the previous year primarily due to the timing of capital spending and overall increased drug usage impacting payables.

At June 30, 2021, the long-term debt of the Health System was \$462,779,000. This was a reduction from the prior year of \$11,059,000 primarily due to scheduled principal payments.

Other long-term liabilities were \$415,196,000 as of June 30, 2021, an increase of \$100,158,000 over June 30, 2020. This increase was primarily related to: the actuarial liability for the self-insurance program, the classification of a portion of the Medicare advances, which began being paid back in April 2021 to long-term liabilities, the increase to the Medicaid DSH upper payment limit reserves, and the July 1, 2020 adoption of ASU2016-02, Leases, partially offset by a decrease to the actuarial valuation of the liability for retirement benefits.

Balance Sheet – Six Months Period Ended December 31, 2021

As of December 31, 2021, total available liquidity in the Health System was \$1,186,850,000 (Liquidity in the Summary Balance Sheet above consists of: Cash and Cash Equivalents plus Investments and Unrestricted Investment, less Restricted Cash and Investments.) In a comparison to June 30, 2021, TUHS experienced an increase in available liquidity of \$212,943,000. This increase of \$212,903,000 in available liquidity was primarily due to proceeds from the sale of the Health System's share of HPP, partially offset by repayments of Medicare advances and social security tax deferrals related to the COVID-19 pandemic.

At December 31, 2021, Net Patient Accounts Receivable was \$277,348,000. In a year over year comparison, Net Patient Accounts Receivable increased by \$18,843,000. Days in accounts receivable was 51, which was consistent with June 30, 2021.

Accounts Payable and Accrued Expenses were \$222,271,000 at December 31, 2021, or a decrease of \$39,873,000 from June 30, 2021, primarily due to the payback of employer tax deferrals related to the COVID-19 pandemic and timing of overall spending, particularly in capital purchases and amounts due to the University.

At December 31, 2021, the long-term debt of the Health System was \$447,499,000. This was a reduction from the prior year of \$15,279,000 primarily due to scheduled principal payments.

Other long-term liabilities were \$374,551,000 as of December 31, 2021, a decrease of \$40,645,000. This decrease was primarily related to repayment of Medicare advances related to the COVID-19 pandemic.

SUPPLEMENTAL FINANCIAL INFORMATION

Historical and Pro Forma Debt Service Coverage

The following table sets forth the historical coverage of annual debt service on long-term debt of the Obligated Group. The pro forma coverage has been calculated reflecting the issuance of the 2022 Bonds and the refunding of the 2012 Bonds (as defined below). There can be no assurance that the Obligated Group will generate income available for debt service in future years comparable to historical performance.

DEBT	TABLE A-16 SERVICE COVER		
		Fiscal Year Ended June 3	30,
	<u>2019</u>	<u>2020</u>	<u>2021</u>
Excess of Revenues over Expenses	\$44,836	\$93,926	\$147,122
Add: Depreciation & Amortization	47,427	45,153	43,185
Add: Interest Expense	24,094	23,819	23,457
Add: (Gain) Loss on Disposal of Fixed Assets	(33)	573	(520)
Add: Gain on Lease Modification	-	-	(639)
Add: Asset Impairment	883	14,519	524
Add: Other Than Temporary Impairment	366	241	1,867
Income Available for Debt Service	117,573	178,231	214,996
Annual Debt Service	49,759	41,555	39,481
Annual Debt Service Coverage	2.36	4.29	5.45
Maximum Annual Debt Service	49,759	41,555	40,001
Maximum Annual Debt Service Coverage	2.36	4.29	5.37
Pro Forma Maximum Annual Debt Service Pro Forma Maximum Annual Debt Service	31,356	31,356	31,356
Coverage	3.75	5.68	6.68

Source: The Health System.

Long Term Debt

Outstanding Debt

The obligations issued or secured under the Loan and Trust Agreement (as defined in the forepart of the Official Statement) are as follows: \$219,210,000 original principal amount of Hospital Revenue Refunding Bonds, Series A of 2012 (Temple University Health System) (the "2012 Bonds"), of which \$219,210,000 was outstanding as of June 30, 2021 and \$235,240,000 original principal amount of Hospital Revenue Refunding Bonds, Series 2017 (Temple University Health System), of which \$223,295,000 was outstanding as of June 30, 2021. There is a mortgage obligation loan on AOH that is booked for \$8,163,000, which is not an obligation of the Obligated Group. The Obligated Group also has capital lease obligations and equipment financing arrangements totaling \$16,400,000. All outstanding long-term debt of TUHS entities bear interest at fixed rates.

Plan of Finance – 2022 Bonds

The proceeds of the 2022 Bonds, together with a contribution of funds by certain Obligated Group members, will be used to provide financing for the: (i) current refunding of the 2012 Bonds; and (ii) paying the costs of issuance of the 2022 Bonds (the "Series 2022 Plan of Finance"). Subject to market conditions, the Obligated Group members intend to currently refund the portions of the 2012 Bonds that remain outstanding in the spring of 2022.

Debt to Capitalization

The table below provides historic debt to capitalization for the Obligated Group. The Health System is currently not a party to any swap or derivative transactions.

TABLE A-17:
DEBT TO CAPITALIZATION (\$000s)
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Fiscal Year Ended June 30,

	<u>2019</u>	<u>2020</u>	<u>2021</u>
Principal Outstanding of Long-Term Debt	\$502,018	\$487,836	\$475,722
Unrestricted Net Assets	287,846	371,239	546,540
Combined Debt to Capitalization Ratio	63.56%	56.79%	46.54%

Source: The Health System.

Revolving Line of Credit

TUH has a short-term revolving line of credit arrangement with a financial institution allowing for outstanding borrowings not to exceed \$75,000,000 and expiring in October 2022. The line of credit is an obligation of the Obligated Group under the Loan and Trust Agreement, and bears interest based on a spread over a floating base rate. There were no outstanding borrowings in each of the fiscal years ended June 30, 2019, 2020, and 2021, and no outstanding borrowings for the periods ended December 31, 2020 and 2021, respectively.

Funding Member Companies

Various Obligated Group Members have working capital needs that are funded through the Parent. Since the creation of the unified Obligated Group in June of 2005, the Parent has been funded by TUH, Jeanes, and since 2012, AOH. For the fiscal year ended June 30, 2021, the Parent transferred \$6.9 million to TPI and \$3.1 million to Temple Transport. For fiscal year 2022, the Parent has board approval to transfer an amount not to exceed \$5.5 million to TPI and \$2.5 million to Temple Transport. TUH transfers funds to affiliates under certain circumstances and conditioned upon meeting certain tests. See "BONDHOLDERS' RISKS – Factors that Could Affect the Future Financial Condition of the Obligated Group – Advances and Transfers to Affiliates and Other Obligations" in the forepart of this Official Statement.

Capital Expenditures

The table below sets forth capital expenditures for the past four fiscal years and the budgeted amount for the fiscal year ending June 30, 2022:

Fiscal Year Ended June 30,

<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	Fiscal Year Ending June 30, 2022
\$22,153,000	\$17,680,000	\$26,400,000	\$67,416,000	\$80,000,000

The Board of Directors approved a \$20 million increase in the fiscal year 2022 capital budget, bringing the total to \$80 million.

INSURANCE

For a discussion of medical professional liability insurance, see "BONDHOLDERS' RISKS – Medical Professional Liability Insurance Market" in the forepart of this Official Statement.

During 2009, TUHS moved its medical and prescription benefits from fully-insured programs to self-insured arrangements. TUHS entities provide these benefits to all eligible participating employees and dependents through self-insurance arrangements with IBC (medical) and Aon/CVS Caremark pharmacy coalition (prescription). Beginning July 1, 2020 these self-insured arrangements are supported by purchased stop-loss insurance using a \$400,000 excess of the \$600,000 per person attachment point in the TUHIC captive with commercial insurance above a \$1,000,000 per person attachment point. While there remains claims volatility from month to month, actual claims experience has tracked with fully-insured trend projections.

As of June 30, 2021, the TUHS medical and prescription plans are self-insured and covered 7,869 employees and 8,885 dependents for a total of 16,754 people. As of June 30, 2021, TUHS incurred \$79,156,000 and \$18,162,000 in medical and prescription expenses, respectively. These expenses do not include any point-of-service costs such as doctor's copays, deductibles, or coinsurance. TUHS' plans are self-funded. As of June 30, 2021, TUHS had a stop-loss policy in place that reimbursed any claims using a \$400,000 excess of the \$600,000 attachment with commercial insurance above a \$1,000,000 attachment per plan year per covered individual.

The Health System also provides coverage for workers' compensation as part of its self-insured workers' compensation program. The program is funded as required under the laws of the Commonwealth. The Health System has guaranteed the payment of workers' compensation claims for all Health System affiliates participating in the program. As of June 30, 2021 all participating affiliates have funded their estimated workers' compensation claim liabilities incurred under the program.

Various other coverages, such as property, umbrella and general liability insurance, are maintained by the University on behalf of the TUHS Affiliates.

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE STANDARDS

As a socially responsible corporate citizen, the Health System is accountable to and inclusive of people of all races, ethnicities, cultures and socio-economic status. This commitment spans all aspects of the business model, including decisions around care access and delivery, operations, employment, and workforce training from the entry level worker through the entire spectrum of health professions.

The Health System is committed to ensuring that all members of its communities have access to high value and equitable care regardless of social or economic advantage or disadvantage. Thus, the Health System is investing in clinical programs, capital equipment, health professions education, and human resources to ensure that it has the infrastructure to provide access for all to the finest medical professionals, leading-edge technology, and first-class care.

In fiscal year 2020, TUHS hospitals funded \$189 million in community benefit programs, including charity care, community health improvement initiatives, health professions education support, subsidized health services, workforce and community building programs, and other community benefits. These activities include comprehensive programs reaching about 180,000 community members addressing homelessness, hunger, violence prevention and intervention, opioid epidemic response, maternal and child health needs, healthcare and cultural literacy challenges, LGBTQ concerns, and local workforce needs.

In joining with the American Hospital Association's National Call to Action to Eliminate Health Disparities, TUHS hospitals pledged to ensure quality and equitable care for all. Our efforts include:

- Increasing the collection, stratification and use of race, ethnicity, language preference and other sociodemographic data to improve health and quality;
- Increasing training to ensure culturally responsive care;
- Advancing diversity in leadership to reflect communities served; and,
- Improving the strengths of community partnerships through the development of community advisory committees and patient-family advisory councils.

As described herein under the caption "AWARDS AND RECOGNITION", TUH has been ranked the #1 most racially inclusive hospital in Pennsylvania and the 13th most racially inclusive hospital in the United States by the Lown Institute which examined the racial inclusivity of over 3,200 hospitals to assess their success serving people of color living in their communities. Among Pennsylvania hospitals, the Lown Institute also ranked TUH #1 in Inclusivity; #2 in Health Equity; and #4 in Community Benefit.

Throughout the COVID-19 pandemic, the Health System worked to ensure that its vulnerable and medically complex patients received the best medical care available with outcomes that exceed those of many less challenged communities. During the early stage of the pandemic, TUH was seeing more COVID patients than any hospital in Philadelphia and mortality rates were 33% better than hospitals across the nation, despite the vulnerability of the patient population. The Health System's efforts include extensive community vaccination, testing, and education and engagement programs connecting with underserved populations to address health inequities.

Through the Temple Center for Population Health, the Health System offers a number of programs specifically customized for at-risk population, including diabetes self-management, and stroke education and prevention. The Healthy Together mobile outreach unit offers free vaccinations, food distribution, health assessments, blood pressure screenings, and health education on diverse subjects. The Center is also a key participant in the Commonwealth's Long Term Care Resiliency, Infrastructure and Empowerment Team.

LITIGATION

From time to time in the ordinary course of business, the members of the Obligated Group are the subject of lawsuits of various kinds, including suits alleging professional liability by physicians or employees of the hospitals. As of the date hereof, management to the best of its knowledge is not aware of any litigation, whether pending or threatened, in which an adverse outcome is probable and in which such outcome would be material with respect to the Obligated Group's financial position taken as a whole.

In addition, the Obligated Group is involved in litigation and regulatory investigations arising in the course of business. After consultation with legal counsel, management estimates that these matters will be resolved without a material adverse effect on the Obligated Group's financial position taken as a whole.

FUNDRAISING

The Health System partners through philanthropy with former patients and families, colleagues, foundations, corporations, and leaders in the community to support the work at Temple University Hospital-Main Campus, Temple University Hospital-Episcopal Campus, Temple University Hospital-Jeanes Campus, and Fox Chase Cancer Center. Fundraising is focused on identifying donors and securing financial support for much needed equipment, facility upgrades, patient needs, research, education, and the needs of the community. Strategies used for securing donations include direct mail and digital campaigns, events, sponsorship, third party fundraising and major and planned gift solicitations. Fundraising progress for TUH-Main for fiscal year 2019, fiscal year 2020 and fiscal year 2021 was \$1,733,000, \$2,479,000, and \$8,686,000 respectively.

As of June 30, 2021, Episcopal Healthcare Foundation had approximately \$32,489,000 in permanently restricted assets held in beneficial interest for the TUH-Episcopal Campus. Over the last three fiscal years, fundraising progress for TUH-Episcopal Campus in fiscal year 2021, fiscal year 2020 and fiscal year 2019 was \$1,439,000, \$963,000, and \$961,000, respectively. Over the last three fiscal years, distributions to TUH-Episcopal Campus were \$1,425,000 for 2021, \$940,000 for 2020 and \$960,000 for 2019. EHF is required to distribute to TUH-Episcopal Campus annually the highest percentage permitted by Pennsylvania law that is consistent with the long term preservation of real value of the assets determined by the Foundation Board.

TUH-Jeanes Campus was founded through a provision in the will of Anna T. Jeanes who created an endowment for the establishment of a hospital for "Cancerous, Nervous, and Disabling Ailments." In the mid-1940s the Board of Directors voted to expand this vision and Jeanes Hospital began to operate as a general medical surgical hospital. Fundraising progress for Temple University Hospital-Jeanes Campus totaled \$122,000 in fiscal year 2019, \$75,000 in fiscal year 2020, and \$104,000 in fiscal year 2021.

Traditional sources of philanthropy at Fox Chase include members of the Board of Directors, charitable foundations, individuals and groups, former patients and their families. Fundraising progress for the Fox Chase Entities from philanthropy for the fiscal years ended June 30, 2019 through June 30, 2021 were \$14,806,000, \$17,167,000, and \$16,800,000 respectively. As of June 30, 2021, the Foundation held \$63,333,000 in permanently restricted and other charitable assets which were previously donated to, or raised by, the Fox Chase Entities. The Foundation is required to distribute income from these assets exclusively to the Fox Chase Entities affiliated with TUHS. The Foundation is permitted to receive additional gifts and, as of fiscal year 2022, will actively engage in fundraising and solicitation of gifts. The Affiliation Agreement specifies that all fundraising activities on behalf of TUHS, including the Fox Chase Entities who affiliate with TUHS, are overseen by the TUHS Office of Institutional Advancement. Funds received are required to go to the Fox Chase Entities. In addition to grant funding and clinical trials, philanthropy represents a significant component of revenue to support research.

As of December 31, 2021, the Health System raised \$49,513,000 in fundraising for fiscal year 2022, exceeding its goal for the fiscal year of \$45,050,000.

THE UNIVERSITY

General Description of Business and Operations

Temple University was founded in 1884 and organized as a nonsectarian college in 1888 under the nonprofit corporation laws of the Commonwealth. The University became a state-related university in 1965. Today, Temple University is one of the largest 4-year fully accredited higher education institutions in the United States.

The University is the sole member of TUHS, which in turn is the sole member of TUH and other separately incorporated health care related enterprises. Prior to June 30, 1996, the University operated TUH as an unincorporated division. TUHS' subsidiaries and affiliates include a network of hospitals and outpatient centers, a comprehensive physician network of primary care and specialty practices, ambulatory services, various research entities, a foundation to support the health-care related activities of the Health System, and a captive insurance company established to reinsure the professional liability claims of certain subsidiaries of TUHS.

The University has four other subsidiaries, (i) Good Samaritan Insurance Co. Ltd. ("GSIC"), an captive insurance company domiciled in Bermuda that has been inactive since July 1, 2019, (ii) Temple Educational Support Services Ltd. ("TESS"), a Japanese for-profit corporation established to operate the University's programs in Tokyo, Japan, (iii) Temple University School of Podiatric Medicine, Inc. ("TUSPM"), a Pennsylvania nonprofit corporation that holds the real estate for the University's School of Podiatric Medicine, and (iv) TUMP Offices, Inc. ("TUMP"), a Pennsylvania nonprofit corporation that was created to hold title to certain assets for the benefit of the University and was a partner in a physicians medical office building on the Campus of Jeanes Hospital. Effective November 12, 2019, TUMP assigned its rights, title, interest, obligations, and duties in the physicians medical office building to Temple Faculty Practice Plan, Inc., a subsidiary of TUHS. As of November 12, 2019, TUMP is inactive. With the exception of approximately \$3 million of debt at TESS, these four subsidiaries do not have any debt obligations, nor do they anticipate incurring debt.

The University is not obligated on any debt of TUHS or any of its subsidiaries. None of the subsidiaries of the University has any liability or any other obligation with respect to the 2022 Bonds. It is the University's current policy that its revenue will be used for the University's academic mission and will not be used to support TUHS or its subsidiaries.

Overview of Campuses

The University is situated on six campuses in Pennsylvania and includes 17 academic schools and colleges. In addition, the University has campuses in Tokyo, Japan, and Rome, Italy. The Main Campus, the academic center of the University, is situated along North Broad Street between Girard Avenue and Susquehanna Avenue in North Philadelphia. The Main Campus encompasses approximately 164 acres of land on which 76 buildings, open green space, and athletic fields exist to support the University's academic and research mission. Additionally, the Main Campus supports numerous community-based programs and hosts visitors and families of students from the greater Philadelphia area, from all 50 states, the United States Virgin Islands, Puerto Rico, Washington D.C., and from more than 118 foreign countries.

The Health Sciences Center ("HSC") is situated on 20 acres at Broad and Ontario Streets, approximately two miles north of the Main Campus, and has approximately 1,800,000 total gross square feet of space. The Lewis Katz School of Medicine, Schools of Dentistry and Pharmacy, and certain programs in the College of Public Health are located on this campus. HSC is also the site of TUH. Over 2,800 students are enrolled at this campus.

In addition to the many off-campus programs and academic courses offered at numerous locations throughout Pennsylvania, the University also offers 28 online degree programs and 31 online certificate programs.

Educational Programs

The University offers undergraduate degrees at both the baccalaureate (176 programs) and associate (2 programs) levels in 178 fields of study. Masters degrees are offered in 182 areas of study and doctorates are offered in 67 specialties.

Payments to and from Certain Affiliates

The University makes payments to TUHS and its subsidiaries for a number of purposes, including facilities rent, and services purchased by the University on behalf of TUHS entities.

As reflected in the table below, as well as Footnote 11 in the Health System's audited financial statements contained in this Official Statement with respect to fiscal year 2021 and fiscal year 2020, certain of these payments are accrued and reflected on the Health System's expenses on the income statement in each fiscal year. This includes amounts due from the Health System to the University to support the shared mission of the Health System and LKSOM, shown below in the line "TFPP Salaries and Employee Benefits" in the table.

TABLE A-18:				
TUHS INTER-COMPANY TRANSFERS WITH TEMPLE UNIVERSITY (\$000s)				

		Fiscal Year Ended June 3	30,
	<u>2019</u>	<u>2020</u>	<u>2021</u>
TFPP Salaries and Employee Benefits	\$210,632	\$230,872	\$215,012
Strategic Support Assessment	60,700	71,603	82,563
Medical school clinical physicians	35,167	-	-
Maintenance	9,563	8,722	9,794
Telecommunications	5,873	5,283	4,707
Institutional Support	6,013	5,552	4,178
Security	2,293	2,314	2,261
Employee Tuition	2,271	2,019	2,237
Other Administrative Support	2,086	2,350	2,513
Total	\$334,598	\$328,715	\$323,265

Source: Audited Financial Statements of the Health System.



APPENDIX B

AUDITED CONSOLIDATED FINANCIAL STATEMENTS OF TEMPLE UNIVERSITY HEALTH SYSTEM AS OF AND FOR THE YEARS ENDED JUNE 30, 2021 AND 2020



Temple University Health System

Consolidated Financial Statements as of and for the Years Ended June 30, 2021 and 2020, Supplemental Schedules as of and for the Year Ended June 30, 2021, and Independent Auditors' Report

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors of Temple University Health System, Inc. Philadelphia, Pennsylvania

We have audited the accompanying consolidated financial statements of Temple University Health System (a wholly owned subsidiary of Temple University—Of the Commonwealth System of Higher Education) and its subsidiaries (the "Health System"), which comprise the consolidated balance sheets as of June 30, 2021 and 2020, and the related consolidated statements of operations and changes in net assets, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Health System's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Health System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Health System as of June 30, 2021 and 2020, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 2 to the consolidated financial statements, effective July 1, 2020, the Health System adopted Accounting Standards Codification 842, Leases, as amended, using the modified retrospective approach. Our opinion is not modified with respect to this matter.

Report on Supplemental Consolidating Schedules

Our audits were conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The supplemental consolidating schedules listed in the table of contents are presented for the purpose of additional analysis and are not a required part of the consolidated financial statements. These schedules are the responsibility of the Health System's management and were derived from and relate directly to the underlying accounting and other records used to prepare the consolidated financial statements. Such schedules have been subjected to the auditing procedures applied in our audits of the consolidated financial statements and certain additional procedures, including comparing and reconciling such schedules directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, such schedules are fairly stated in all material respects in relation to the consolidated financial statements as a whole.

October 27, 2021

Delatte & Trucho LLP

CONSOLIDATED BALANCE SHEETS AS OF JUNE 30, 2021 AND 2020

	2021	2020
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 533,231	\$ 595,267
Patient accounts receivable—net of allowance for		
doubtful accounts	258,505	211,786
Other receivables—net of allowance for doubtful	00.274	07.701
accounts of \$967 and \$1,248 in 2021 and 2020, respectively Inventories and other current assets	99,354	97,781 54,540
Current portion of assets limited as to use	56,062 27,735	54,549 20,774
Investments	371,327	129,877
Current portion of workers' compensation fund	6,070	6,288
Current portion of self-insurance program receivables	2,000	6,291
Expenditures reimbursable by research grants	ŕ	,
and awards	10,668	9,055
Total current assets	1,364,952	1,131,668
PROPERTY, PLANT AND EQUIPMENT:		
Land and land improvements	13,808	12,212
Buildings	499,026	503,034
Fixed and movable equipment	578,851	541,330
Construction-in-progress	3,784	5,001
	1,095,469	1,061,577
Less accumulated depreciation	810,176	801,538
Net property, plant and equipment	285,293	260,039
OPERATING LEASE RIGHT-OF-USE ASSETS	21,382	-
ASSETS LIMITED AS TO USE	174,580	171,148
INVESTMENTS	74,537	40,009
WORKERS' COMPENSATION FUND	2,601	2,219
SELF-INSURANCE PROGRAM RECEIVABLES	40,423	25,135
GOODWILL AND OTHER INTANGIBLES	2,768	3,574
BENEFICIAL INTEREST IN ASSETS HELD BY OTHERS	142,011	122,476
OTHER ASSETS	103,408	81,568
TOTAL ASSETS	\$ 2,211,955	\$1,837,836
		(Continued)

CONSOLIDATED BALANCE SHEETS AS OF JUNE 30, 2021 AND 2020

LIABILITIES AND NET ASSETS	2021	2020
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES:		
Current portion of long-term debt	\$ 13,016	\$ 14,412
Current portion of operating lease liabilities	4,389	-
Accounts payable	102,460	57,140
Accrued expenses	159,684	145,045
Current portion of estimated settlements with third-party payers	00.794	177 222
Current portion of self-insurance program liabilities	99,784 55,350	177,223 40,684
Unexpended research grants and awards	4,198	4,664
Other current liabilities	106,805	49,418
Other current manners	100,003	15,110
Total current liabilities	545,686	488,586
LONG-TERM DEBT	462,779	473,838
OPERATING LEASE LIABILITIES	17,974	-
ESTIMATED SETTLEMENTS WITH THIRD-PARTY PAYERS	30,356	-
SELF-INSURANCE PROGRAM LIABILITIES	243,754	193,842
ACCRUED POSTRETIREMENT BENEFITS	10,982	51,500
OTHER LONG-TERM LIABILITIES	112,130	69,696
Total liabilities	1,423,661	1,277,462
NET ASSETS:		
Without donor restrictions	603,239	398,086
With donor restrictions	185,055	162,288
		
Total net assets	788,294	560,374
TOTAL LIABILITIES AND NET ASSETS	\$ 2,211,955	\$ 1,837,836
See notes to consolidated financial statements.		(Concluded)

CONSOLIDATED STATEMENTS OF OPERATIONS AND CHANGES IN NET ASSETS FOR THE YEARS ENDED JUNE 30, 2021 AND 2020

		2021		2020
NET ASSETS WITHOUT DONOR RESTRICTIONS:				
Revenues and other support without donor restrictions:	Φ.	2 200 777	Φ.	2007126
Net patient service revenue before allowance for doubtful accounts	\$	2,209,775	\$	2,005,126
Allowance for doubtful accounts		267	-	2,054
Total net patient service revenue		2,210,042		2,007,180
Research revenue		43,641		41,872
Contribution revenue		4,226		4,704
Other revenue		139,522		209,745
Investment income		145		1,049
Net assets released from restrictions used				
for operations		7,291		7,984
Revenues and other support without donor restrictions		2,404,867		2,272,534
Expenses:				
Salaries		1,010,564		965,464
Employee benefits		254,996		242,529
Professional fees		145,525		124,702
Supplies and pharmaceuticals		489,828		460,160
Purchased services and other		197,806		194,758
Maintenance		20,440		19,419
Utilities		19,125		22,359
Leases		16,737		19,705
Insurance		88,469		57,810
Depreciation and amortization		43,700		45,683
Interest		23,465		23,849
Asset impairment		524		14,519
(Gain) loss on disposal of fixed assets		(520)		573
Gain on lease modification		(639)		
Expenses		2,310,020		2,191,530
Operating income		94,847		81,004
Other income—net:				
Investment income		59,014		14,731
Other—net		11,180		1,719
Other income—net		70,194		16,450
Other income—net		70,194		10,430
Excess of revenues and other support over expenses		165,041		97,454
			(0	Continued)

CONSOLIDATED STATEMENTS OF OPERATIONS AND CHANGES IN NET ASSETS FOR THE YEARS ENDED JUNE 30, 2021 AND 2020

	2021		2020
Excess of revenues and other support over expenses	\$ 165,041	\$	97,454
Other changes in net assets without donor restrictions:			
Net transfers to the University	(6,259)		(6,266)
Net assets released from restrictions used for			
purchase of property, plant and equipment	2,499		1,212
Net change in fair value of investments	(2,787)		888
Adjustment to funded status of pension and			
postretirement liabilities	47,260		(20,008)
Adjustment to funded status of long-term			
disability liabilities	-		(1,021)
Other change in net assets	 (601)		
Increase in net assets without donor restrictions	 205,153		72,259
NET ASSETS WITH DONOR RESTRICTIONS:			
Contribution income	6,344		9,171
Net assets released from restrictions	(9,790)		(9,196)
Net change in fair value of investments	3,494		139
Investment income	3,184		2,657
Change in beneficial interest in assets held by others	 19,535		(5,718)
Increase (decrease) in net assets with donor restrictions	 22,767		(2,947)
INCREASE IN NET ASSETS	227,920		69,312
NET ASSETS—Beginning of year	 560,374		491,062
NET ASSETS—End of year	\$ 788,294	\$	560,374
See notes to consolidated financial statements.		(C	oncluded)

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED JUNE 30, 2021 AND 2020

	2021	2020
OPERATING ACTIVITIES:		
Increase in net assets	\$ 227,920	\$ 69,312
Adjustments to reconcile increase in net assets to		
net cash provided by operating activities:		
Net realized and unrealized gains on investments	(54,505)	(5,894)
Net realized and unrealized (gains) losses on beneficial interests		
in assets held by others	(19,535)	5,718
Depreciation, amortization and accretion	43,418	45,352
Intangible amortization	282	331
Impairment on intangibles	524	13,071
Amortization of bond premium, discount, debt issuance		
costs and underwriter's discount	(1,704)	(1,757)
Allowance for doubtful accounts	(267)	(2,054)
Adjustment to funded status of pension and		
postretirement liabilities	(47,260)	20,008
Adjustment to funded status of long-term		
disability liabilities	(159)	1,021
Asset impairment	-	1,448
Net assets released from restrictions used for purchase of		
property, plant and equipment	(2,499)	(1,212)
(Gain) loss on disposal of fixed assets	(520)	573
Gain on lease modification	(639)	-
Perpetually restricted gifts and donations received	516	(2,651)
Net transfers to the University	6,259	6,266
Gain on insurance recovery	(5,880)	-
Changes in operating assets and liabilities:		
Patient accounts receivable	(46,452)	19,239
Other receivables	(2,295)	63,627
Pledges receivable—net	83	342
Inventories and other current assets	(1,513)	(8,394)
Expenditures reimbursable by research grants and awards	(1,613)	129
Other assets	(21,201)	(19,692)
Accounts payable	31,919	(103,041)
Accrued expenses	14,639	15,199
Estimated settlements with third-party payors	(47,083)	164,071
Self-insurance program receivables and liabilities	53,581	(2,016)
Unexpended research grants and awards	(466)	305
Net change in operating lease right-of-use assets and liabilities	(664)	-
Other liabilities	108,580	36,975
Net cash provided by operating activities	233,466	316,276
		(Continued)

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED JUNE 30, 2021 AND 2020 (In thousands)

	2021	2020
INVESTING ACTIVITIES:		
(Increase) decrease in assets limited as to use and	4.44400	4 2 3 3 3
workers' compensation fund	\$ (14,189)	\$ 3,098
Purchases of property, plant and equipment Purchases of investments	(53,808)	(17,760)
Proceeds from sales of investments	(363,948) 142,755	(169,605) 222,872
Proceeds from sales of property, plant and equipment	1,509	595
Proceeds from insurance recovery	8,134	
Net cash (used in) provided by investing activities	(279,547)	39,200
FINANCING ACTIVITIES:		
Proceeds from contributions and investments restricted to		
property, plant and equipment and endowments	2,499	1,212
Repayment of long-term debt	(10,605)	(11,879)
Repayment of capital lease obligations	(4,426)	(4,160)
Proceeds from line of credit	-	80,000
Repayment of line of credit Perpetually restricted gifts and donations received	(516)	(80,000) 2,651
Net transfers to the University	(6,259)	(6,266)
Net cash used in financing activities	(0,237) $(19,307)$	(18,442)
<u> </u>	(15,501)	(10,112)
NET (DECREASE) INCREASE IN CASH, CASH EQUIVALENTS, AND RESTRICTED CASH	(65,388)	337,034
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH—		
Beginning of year	612,821	275,787
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH—		
End of year	\$ 547,433	\$ 612,821
Cash and cash equivalents	\$ 533,231	\$ 595,267
Restricted cash included in assets limited as to use	14,202	17,554
Total cash, cash equivalents, and restricted cash	\$ 547,433	\$ 612,821
SUPPLEMENTAL DISCLOSURE OF CASH FLOW		
INFORMATION—Cash paid for interest	\$ 25,299	\$ 25,608
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITY: Amounts recorded for purchases of property and equipment		
	¢ 17.707	¢ 2.207
in excess of amounts paid	<u>\$ 16,687</u>	\$ 3,286
Cost of assets acquired through finance leases	\$ 4,280	\$ 2,910
See notes to consolidated financial statements.		(Concluded)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED JUNE 30, 2021 AND 2020

1. ORGANIZATION AND DESCRIPTION OF BUSINESS

Temple University Health System, Inc. ("TUHS") is a Pennsylvania nonprofit corporation of which Temple University—Of The Commonwealth System of Higher Education (the "University" or "TU") is its sole member. TUHS was incorporated in August 1995 and serves principally to coordinate the activities and plans of its health care subsidiaries and affiliates in Philadelphia and the surrounding area. The subsidiaries and affiliates (herein referred to as "corporate members") of TUHS (collectively, with TUHS, referred to as the "Health System"), all of which operate in Philadelphia and the surrounding area, include the following:

- Temple University Hospital, Inc. ("TUH"), a nonprofit corporation, operating an 879-bed acute care teaching hospital at three inpatient campuses and additional outpatient locations in Philadelphia and Montgomery Counties, with TUHS as its sole member;
- Temple University Health System Foundation ("TUHSF"), a nonprofit corporation formed to support the health-care-related activities of TUHS, with TUH as its sole member;
- Episcopal Hospital ("Episcopal"), a nonprofit corporation, providing clinical outpatient health care services, with TUHS as its sole member;
- Temple Health System Transport Team, Inc. ("T3"), a nonprofit corporation, is a critical care air and ground ambulance company, with TUHS as its sole member;
- Temple Physicians, Inc. ("TPI"), a nonprofit corporation formed to develop and acquire community-based primary care practices located in the service area of TUHS, with TUHS as its sole member;
- TUHS Insurance Company, Ltd. ("TUHIC"), a captive insurance company established to reinsure the professional liability claims of certain subsidiaries of TUHS. TUHS is the beneficial owner of TUHIC which is domiciled in Bermuda;
- American Oncologic Hospital d/b/a The Hospital of Fox Chase Cancer Center ("AOH"), a nonprofit corporation, is a 100 licensed bed specialty hospital that provides advanced inpatient and outpatient care to cancer patients, with TUHS as its sole member;
- Institute for Cancer Research d/b/a the Research Institute of Fox Chase Cancer Center ("ICR"), a nonprofit corporation, is primarily engaged in basic research, including programs in cancer biology, developmental therapeutics, immune cell development and host disease, cancer epigenetics, and cancer prevention and control and is a National Cancer Institute designated Comprehensive Cancer Center, with AOH as its sole member;
- Fox Chase Cancer Center Medical Group, Inc. ("MGI"), a nonprofit corporation, employs and provides physician services to the Fox Chase family of organizations, with AOH as its sole member:

- Fox Chase Network, Inc. ("Network"), a nonprofit corporation, provides cancer related clinical and administrative services to cancer programs of community hospitals and physicians, with AOH as its sole member;
- Fox Chase, Ltd. ("Limited"), a business corporation that holds minority interests in joint ventures with area hospitals, with AOH as its sole stockholder;
- Temple Center for Population Health, LLC ("TCPH"), a Pennsylvania limited liability company, participating in accountable care, coordinated care, shared savings, bundled payment programs and other similar programs or initiatives with or implemented by governmental payers, commercial payers and other parties, with TUHS as its sole member; and
- Temple Faculty Practice Plan, Inc. ("TFPP"), a nonprofit corporation, provides teaching and physician services to the TUHS hospitals, with TUHS as its sole member.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation—The accompanying consolidated financial statements have been prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America ("GAAP") and include the accounts of the Health System. All significant intercompany transactions and balances are eliminated in consolidation.

Cash, Cash Equivalents, and Restricted Cash—Cash, cash equivalents, and restricted cash consist primarily of highly liquid investments, such as money market funds and debt instruments with original maturities of three months or less at the time of purchase. At June 30, 2021 and 2020, the Health System had cash balances in financial institutions, which exceed federal depository insurance limits. Management believes that credit risks related to these deposits are minimal. Cash, cash equivalents, and restricted cash are carried at cost, which approximates fair value.

Investments—Investments in equity securities with readily determinable fair values and all investments in debt securities are reported at fair value. Investment income or loss (including realized gains and losses, interest, and dividends) is included in other income unless the income is restricted by donor or law, except for investment income on borrowed funds held by trustees as collateral on outstanding debt. This investment income is included in revenues and other support without donor restrictions. Unrealized gains and losses on equity securities are included within other income. Unrealized gains and losses on debt securities are included within other changes in net assets unless the amount was recorded as part of an other-than-temporary impairment adjustment as disclosed in Note 6.

The Health System also invests in various limited partnerships and hedge funds. Such investments are accounted for using a net asset value ("NAV") equivalent, which approximates fair value as determined by the fund managers and financial information provided by the funds. This financial information includes assumptions and methods that were reviewed by the Health System. The Health System believes that the estimated fair value is reasonable as of June 30, 2021 and 2020. Because these investments are not readily marketable, the estimated fair values are subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market existed, and such differences could be material. These investments vary as to their level of liquidity, with differing requirements for notice prior to redemption or withdrawal. Investment gains and losses on these funds are included in other income.

Investments, in general, are exposed to various risks such as interest rate, credit and overall market volatility. As such, it is reasonably possible that changes in the value of investments will occur in the

near term and that such changes could materially affect the amounts reported in the consolidated financial statements.

The Health System reviews its debt securities to identify those for which market value is below cost. The Health System then makes a determination as to whether investments are other-than-temporarily impaired based on guidelines established in FASB ASC Topic 320.

Assets Limited as to Use—Assets limited as to use primarily include assets held by trustees under indenture and insurance agreements, designated assets set aside by the Board primarily for future capital improvements, over which the Board retains control and may at its discretion subsequently use for other purposes, and donor restricted assets. Amounts required to meet current liabilities of the Health System have been classified as current assets in the consolidated balance sheets.

Property, Plant and Equipment—Property, plant and equipment are stated at cost. Depreciation is provided over the estimated useful life of each class of depreciable asset and is computed using the straight-line method. Depreciation expense was \$42,993,000 and \$45,314,000 for the years ended June 30, 2021 and 2020, respectively. Expenditures for maintenance and repairs necessary to maintain property, plant and equipment are charged to operations. Costs of renewals and betterments are capitalized.

Costs associated with the development and installation of internal-use software are accounted for in accordance with FASB ASC Subtopic 350-40 *Intangibles – Goodwill and Other, Internal-Use Software*. Internal-use software costs are expensed or capitalized and amortized according to the provisions of the accounting standard. The total cost of capitalized software was \$66,595,000 and 58,232,000 at June 30, 2021 and 2020, respectively. Total accumulated amortization was \$30,189,000 and \$22,814,000 at June 30, 2021 and 2020, respectively. These amounts are included within property, plant and equipment in the consolidated balance sheet.

Leases—The Health System determines if an arrangement is a lease at inception. A contract is or contains a lease if the contract conveys the right to control and obtain substantially all of the economic benefits from an identified asset, and provides the Health System with the right to direct the use of the identified asset for a period of time in exchange for consideration.

Effective July 1, 2020, operating leases are included in operating lease right-of-use assets, current portion of operating lease liabilities, and operating lease liabilities in the consolidated balance sheet. Finance leases are included in net property, plant, and equipment, current portion of long-term debt, and long-term debt in the consolidated balance sheet.

Right-of-use assets and lease liabilities are recognized at the commencement date, based on the present value of lease payments over the lease term. If a lease agreement does not provide an implicit rate, based on the information available at the commencement date, the Health System uses its incremental borrowing rate in determining the present value of lease payments. The Health System determines its incremental borrowing rate based on the approximate rate at which the Health System would borrow, on a collateralized basis, over a similar term. This determination involves numerous assumptions such as credit standing, lease term, amount of borrowing, and location of leased assets. The lease term includes periods covered by options to extend the lease when it is reasonably certain the Health System will exercise the option, as well as periods covered by options to terminate the lease when it is reasonably certain that the Health System will not exercise the option.

Expense for operating lease payments is recognized on a straight-line basis over the lease term and is presented within leases expense in the consolidated statement of operations. Finance lease assets are

amortized on a straight-line basis over the term of the lease and presented within depreciation and amortization in the consolidated statement of operations. Interest expense on finance lease liabilities is recognized using the effective interest method and is presented within interest expense in the consolidated statement of operations.

The Health System has elected the practical expedient that allows lessees to choose not to separate lease and non-lease components and is applying this expedient to all real estate leases and all embedded equipment leases related to consumable purchase agreements.

A short-term lease is a lease with a term of twelve months or less and that does not include purchase options that are reasonably certain to be exercised. ASC 842 includes a recognition exemption specific to short-term leases that, if elected, would allow a lessee to not recognize on the balance sheet right-of-use assets and lease liabilities related to such leases, but rather expense the payments related to the short-term lease on a straight-line basis over the lease term. The Health System has elected this recognition exemption for all asset classes.

Variable lease payments are defined as payments made by a lessee to a lessor that vary because of changes in facts and circumstances occurring after lease commencement. Certain lease agreements for real estate include payments based on actual common area maintenance and expenses. These variable lease payments are recognized within operating expenses but are not included in the calculation of right-of-use asset or liability balances.

Long-Lived Assets Review—The Health System reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the carrying value of a long-lived asset is considered impaired, a loss is recognized by which the carrying value exceeds the fair value (less any costs related to disposal or abandonment, if applicable). The impairment amounts recognized on long-lived assets for the years ended June 30, 2021 and 2020 were \$2,254,000 and \$1,448,000, respectively. The fiscal year 2021 amount is recognized within other income – net, as it related to a non-operating casualty loss.

Goodwill and Other Intangibles—Goodwill and other intangible assets are accounted for in accordance with the accounting guidance in FASB ASC Topic 350 for *Intangibles—Goodwill and Other*. Goodwill and indefinite-lived intangible assets are not amortized, but are evaluated for impairment annually or when indicators of a potential impairment are present. The Health System's annual impairment date is June 30th. The annual evaluation for impairment of goodwill and indefinite-lived intangibles is based on valuation models that incorporate assumptions and internal projections of expected future cash flows and operating plans. Any resulting impairment losses are recognized in the results of operations. Subsequent to the latest review, there have been no events or circumstances that indicate any additional impairment of the Health System's indefinite-lived intangible asset balance.

The cost of intangible assets with determinable useful lives is amortized to reflect the pattern of economic benefits consumed on a straight-line basis over the estimated periods benefited. Patents, technology and other intangibles with contractual terms are generally amortized over their respective legal or contractual lives. When certain events or changes in operating conditions occur, an impairment assessment is performed and lives of intangible assets with determinable lives may be adjusted and impairment charges recorded.

Refer to Note 8 for impairment charges recorded during fiscal years 2021 and 2020.

Asset Retirement Obligations—The Health System recognizes the fair value of a liability for legal obligations associated with asset retirements in the period in which it is incurred, in accordance with FASB ASC Topic 410, if a reasonable estimate of the fair value of the obligation can be made. When the liability is initially recorded, the Health System capitalizes the cost of the asset retirement obligation by increasing the carrying amount of the related long-lived asset. The value of the asset, when established in 2006, was \$1,144,000. Over time, the liability is accreted to its present value each period using a discount rate between 5% and 7%, and the capitalized cost associated with the retirement obligation is depreciated over the useful life of the related asset. Upon settlement of the obligation, any difference between the cost to settle the asset retirement obligation and the liability recorded is recognized as a gain or loss in the consolidated statements of operations and changes in net assets. Effective June 30, 2018, the Health System determined that the anticipated timing of settlement for the obligation had changed and also revised its cost estimates. An estimated increase in future cash flows of \$1,409,000 was recognized as an additional asset retirement obligation and asset retirement cost on the balance sheet. At June 30, 2021 and 2020, the recorded asset retirement obligation was \$7,695,000 and \$7,269,000, respectively. Accretion costs for the years ended June 30, 2021 and 2020 were \$468,000 and \$432,000, respectively.

Deferred Financing Costs—Deferred financing costs are amortized over the term of the related debt. Gross deferred financing costs were \$7,136,000 as of June 30, 2021 and 2020. Accumulated amortization of deferred financing costs was \$2,394,000 and \$1,937,000 as of June 30, 2021 and 2020, respectively. Deferred financing costs are presented on the balance sheets as a direct deduction from the carrying value of long-term debt.

Net Assets—Net assets are categorized according to externally (donor) imposed restrictions. A description of the two net asset categories follows:

Net Assets Without Donor Restrictions—are those assets that are available for the support of operations and whose use is not externally restricted, although their use may be limited by other factors such as by contract or board designation. Included in net assets without donor restrictions are board-designated assets of \$2,055,000 and \$568,000 at June 30, 2021 and 2020, respectively.

Net Assets With Donor Restrictions—are those assets subject to stipulations imposed by donors. Some donor restrictions are temporary in nature and limit the use of assets to a specific time period or purpose. Other donor restrictions are perpetual in nature and require that the corpus of the related gifts, trusts, or pledges be invested in perpetuity, with only the income available for operations or in accordance with donor restrictions (See Note 15).

Beneficial Interest in Perpetual Trusts—The Health System is the irrevocable beneficiary of the income from certain perpetual trusts administered by third parties. The Health System's beneficial interest is reported at the fair value of the underlying trust assets. Because the trusts are perpetual and the original corpus cannot be used, these funds are reported as net assets with donor restrictions.

Contributions, Grants and Awards, and Research Contracts—The Health System records unconditional promises to give (pledges) as receivables and revenues, and distinguishes between contributions received for each net asset category in accordance with donor-imposed restrictions. Upon expiration of donor restrictions, that is, when a stipulated time restriction ends and/or purpose restriction is accomplished, amounts are reclassified as net assets without donor restriction and reported as net assets released from restriction. Conditional promises to give are recognized once the Health System overcomes the barrier to be entitled to the resources and the grantor is released from its obligation to transfer the resources.

Donor restricted contributions whose restrictions are met within the same year they are received are reported as net assets without donor restrictions as either research revenue or contribution revenue depending on the purpose of the contribution.

Income from research contracts and grants and awards that are considered exchange transactions are recognized as research revenue over time by measuring progress toward complete satisfaction of the performance obligations. Overhead allowances are recorded as the related direct expenses are incurred. Indirect cost revenues on agency grants and contracts are subject to audit and possible adjustment by governmental payers. Appropriate allowances are made currently for estimated adjustments to governmental arrangements.

Performance Indicator—In the accompanying consolidated statements of operations and changes in net assets, the primary indicator of the Health System's results is "Excess of revenues and other support over expenses". Changes in net assets without donor restrictions which are excluded from the excess of revenues and other support over expenses, consistent with industry practice, include unrealized gains and losses on debt securities, permanent transfers of assets to and from affiliates for other than goods or services, contributions of long-lived assets and certain adjustments to pension, postretirement and long-term disability liabilities.

Net Patient Service Revenue, Patient Accounts Receivable, and Estimated Settlements with Third-Party Payers—The Health System reports net patient service revenue at the amount that reflects the consideration to which the Health System expects to be entitled in exchange for providing patient care. These amounts are due from Medicare and Medicaid, managed health care plans, commercial payers, patients and others. Reimbursement is primarily based on the payment terms of contractual arrangements, such as predetermined rates per diagnosis, per diem rates or discounted fee-for-service rates. Generally, the Health System bills the patients and third-party payers several days after the services are performed and/or the patient is discharged. In addition, the Health System receives medical assistance payments for the reimbursement of services for charity and uncompensated care services. The federal funding of such costs is subject to an upper payment limit and retrospective settlement.

Revenue is recognized as performance obligations are satisfied. Performance obligations are determined based on the nature of the services provided. The Health System recognizes revenues for performance obligations satisfied over a period of time based on actual charges incurred in relation to total expected (or actual) charges. The Health System believes that this method provides a reasonable representation of the transfer of services over the term of the performance obligation based on the inputs needed to satisfy the obligation. Generally, performance obligations satisfied over time relate to patients in the Health System receiving inpatient acute care services. The Health System measures performance obligations from admission to the point where there are no further services required for the patient, which is generally the time of discharge. The Health System recognizes revenues for performance obligations satisfied at a point in time, which generally relates to patients receiving outpatient services, when:

(a) services are provided; and (b) the Health System does not believe the patient requires additional services.

The Health System estimates the transaction price for patients based on gross charges for services provided, reduced by explicit price concessions which include contractual adjustments provided to third-party payers and discounts provided to uninsured patients in accordance with the Health System's policy. The Health System determines its estimates of contractual adjustments and discounts based on contractual agreements, its discount policies and historical collection experience. Revenues are also adjusted for implicit price concessions. Implicit price concessions are determined based on historical collection experience. The implicit price concessions included in estimating the transaction price represent the difference between amounts remaining to be paid and the amounts the Health System

generally expects to collect based on its historical experience. Subsequent changes to the estimate of transaction price are generally recorded as adjustments to patient service revenue in the period of change and are accrued on an estimated basis in the period the related services are rendered. Adjustments may also occur in future periods as final settlements are determined.

Because the Health System's patient service obligations generally relate to contracts with duration of less than one year, the Health System has elected to apply the optional exemption and, therefore, is not required to disclose the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period. The performance obligations for these contracts are generally completed when the patients are discharged, which generally occurs within days or weeks of the end of the reporting period.

Generally, patients who are covered by third-party payers are responsible for related co-pays, coinsurance and deductibles, which vary in amount. The Health System also provides services to uninsured patients and offers uninsured patients a discount from standard charges. The Health System estimates the transaction price for patients with co-pays, co-insurance and deductibles and for those who are uninsured based on historical collection experience and current market conditions. Under the Health System's uninsured discount programs, the discount offered to certain uninsured patients is recognized as a contractual discount, which reduces net operating revenues at the time the self-pay accounts are recorded. The uninsured patient accounts, net of contractual discounts recorded, are further reduced to their net realizable value at the time they are recorded through implicit price concessions based on historical collection trends for self-pay accounts and other factors that affect the estimation process. Subsequent changes to the estimate of the transaction price are generally recorded as adjustments to net patient service revenues in the period of the change.

Consistent with the Health System's mission, care is provided to patients regardless of their ability to pay. The Health System provides care without charge, or at a standard rate discounted for uninsured patients that is not related to published charges, to patients who meet certain criteria under the Health System's charity care policy. Some patients qualify for charity care based on federal poverty guidelines or their financial condition being such that requiring payment would impose a hardship on the patient. Because the Health System does not pursue collection of amounts determined to qualify as charity care, they are not reported as net patient service revenue. The Health System has determined that it has provided sufficient explicit price concessions for these accounts.

In assessing collectability, the Health System uses a combination of contract specific adjustments (such as high dollar and long length-of-stay accounts) as well as a portfolio approach as a practical expedient to account for patient contracts as collective groups rather than individually. This portfolio approach is being used as the Health System has a large volume of similar contracts with similar classes of customers. The Health System reasonably expects that the effect of applying a portfolio approach would not differ materially from considering each contract separately. Management's judgment to group the contracts by portfolio is based on the payment behavior expected in each portfolio category. As a result, aggregating all of the contracts (which are at the patient level) by the particular payer or group of payers will result in the recognition of the same amount of revenue as applying the analysis at the individual patient level.

Amounts received under Medicare and Medicaid programs are subject to review and final determination by program intermediaries or their agents and the contracts the Health System has with commercial payers typically provide for retroactive audit and review of claims. Revenue includes an estimate of variable consideration for retroactive revenue adjustments due to settlements of audits, reviews and investigations. Retroactive adjustments are accrued on an estimated basis in the period the related services are rendered or when known by the Health System and adjusted in future periods as final

settlements or changes in estimates are determined. As a result, there is at least a reasonable possibility that recorded estimates could change by a material amount in the near term (see Note 3).

Accelerated Medicare payments requested by the Health System were received in April through June of 2020 and were provided through the Coronavirus Aid Relief and Economic Security Act ("CARES Act"). Medicare began to recoup these cash advances through subsequent claims for services during fiscal year 2021.

The Health System engages in various contracts with insurance companies where the Health System is at risk for the total cost of care to an attributed patient population as well as contracts that provide for payfor-performance incentives. The value of these agreements is estimated and included in net patient service revenue.

Other Revenue—Other revenue includes amounts earned from cafeteria operations, parking garage operations, transport services provided by T3, and other non-patient care services. Revenue is recognized as performance obligations are satisfied.

The CARES Act authorized \$175 billion in funding to hospitals and other health care providers to be distributed through the Public Health and Social Services Emergency Fund ("Provider Relief Funds"). Payments from Provider Relief Funds are intended to compensate health care providers for lost revenues and qualified expenses incurred in response to the COVID-19 pandemic and are not required to be repaid; provided that the recipients attest to and comply with certain terms and conditions, including limitations on balance billing and not using Provider Relief Funds to reimburse expenses or losses that other sources are obligated to reimburse. The Health System received \$204,490,000 in Provider Relief Fund payments through June 30, 2021, of which \$43,845,000 and \$1,105,000 was recorded as deferred revenue in the consolidated balance sheet at June 30, 2021 and 2020, respectively. For the years ended June 30, 2021 and 2020, the consolidated statement of operations and changes in net assets includes \$70,543,000 and \$90,102,000, respectively, in Provider Relief Funds recognized in other revenue.

Income Taxes—Substantially all of the individual members of the Health System are nonprofit corporations and have been recognized as tax-exempt pursuant to Section 501(c)(3) of the Internal Revenue Code. Limited, a wholly owned subsidiary in which the Health System exercises control, is a for-profit corporation that is subject to federal and state income tax. Such taxes are immaterial and have been reported with other expenses in the accompanying consolidated financial statements.

The Health System's federal Exempt Organization Business Income Tax Returns for 2020, 2019, 2018, and 2017 remain subject to examination by the Internal Revenue Service ("IRS").

Use of Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates comprise explicit and implicit price concessions on patient service revenue and patient accounts receivable, estimated settlements with third-party payers, state Medicaid audit settlements, self-insurance program assets and liabilities, accrued postretirement benefits, estimated asset retirement obligations and the valuation of alternative investments.

Recently Issued Accounting Pronouncements—In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. Subsequently, the FASB issued ASU 2018-01, *Leases (Topic 842)*, *Land Easement Practical Expedient for Transition to Topic 842*, ASU 2018-10, *Codification Improvements to Topic*

842, Leases, ASU 2018-11, Leases (Topic 842), Targeted Improvements, ASU 2018-20, Leases (Topic 842), Narrow-Scope Improvements for Lessors, and ASU 2019-01, Leases (Topic 842), Codification Improvements. All ASUs are jointly referred to as Topic 842 throughout. The new guidance affects any entity that enters into a lease, as that term is defined in Topic 842, with some specified scope exceptions. The main difference between the guidance in Topic 842 and previous GAAP is the recognition of lease assets and liabilities by lessees for those leases classified as operating leases under previous GAAP. The Health System adopted the new standard on July 1, 2020 using a modified retrospective approach without restating prior comparative periods. The Health System elected to utilize the practical expedients package to not reassess at adoption the definition of a lease, lease classification, and initial direct costs for existing leases during transition. At adoption, \$28,435,000 of operating lease right-of-use assets and \$30,080,000 of operating lease liabilities were recognized on the Health System's consolidated balance sheet. Any previously recognized capital leases under Topic 840 were recharacterized with no changes as finance leases at transition. No cumulative-effect adjustment to the opening balance of net assets was required at adoption. The new standard did not have a material impact on the Health System's consolidated statement of operations or its consolidated statement of cash flows.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820), Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement. The new guidance changes the disclosure requirements for fair value measurement. The Health System adopted the new guidance on July 1, 2020 and modified the fair value disclosures in Notes 13 and 18 accordingly.

3. NET PATIENT SERVICE REVENUE AND ACCOUNTS RECEIVABLE

Net patient accounts receivable includes the allowance for doubtful accounts of \$3,256,000 and \$4,059,000 at June 30, 2021 and 2020, respectively, pertaining to patient balances recorded on or before June 30, 2018. The allowance for doubtful accounts is estimated based on the Health System's belief that a patient has the ability to pay for services but payment is not expected to be received.

Accounts receivable recorded on or before June 30, 2018 are written off against the allowance for doubtful accounts when management determines that recovery is unlikely and the Health System ceases collection efforts. After adoption of the new accounting standard these amounts are considered in the transaction price and implicit price concessions and any subsequent changes are adjustments to net patient service revenue.

Net patient service revenue before allowance for doubtful accounts from these major payer sources based on primary insurance designation is as follows for the years ended June 30, 2021 and 2020 (in thousands):

	2021					
		Inpatient Outpatient		Outpatient	Total	
Medicare Managed Medicare Medicaid Managed Medicaid Commercial and managed care Self-pay Other	\$	213,426 186,117 28,745 269,741 215,115 1,014 276,470	\$	160,849 127,382 3,311 147,928 366,241 8,050 205,386	\$	374,275 313,499 32,056 417,669 581,356 9,064 481,856
Net patient service revenue before allowance for doubtful accounts	\$	1,190,628	\$	1,019,147	<u>\$ 2</u>	2,209,775

	2020					
		Inpatient Outpatient		Total		
Medicare Managed Medicare Medicaid Managed Medicaid Commercial and managed care Self-pay Other	\$	203,959 145,652 26,548 217,877 187,361 1,593 236,737	\$	160,828 121,810 2,719 148,484 351,700 10,461 189,397	\$	364,787 267,462 29,267 366,361 539,061 12,054 426,134
Net patient service revenue before allowance for doubtful accounts	<u>\$</u>	1,019,727	<u>\$</u>	985,399	<u>\$ 2</u>	<u>2,005,126</u>

Physician revenue is included in outpatient revenue in the above schedules.

Net patient service revenue also includes estimates of reimbursement from third-party payers. For the years ended June 30, 2021 and 2020, net patient service revenue increased by \$2,199,000 and decreased by \$12,732,000, respectively, as a result of settlements related to prior years or changes in estimates associated with Medicare cost reports and state Medicaid audits. Audits pertaining to fiscal years through 2017 have been closed.

4. BUSINESS AND CREDIT CONCENTRATION

The Health System provides diversified health care services primarily to area residents through its inpatient and outpatient care facilities in the Greater Philadelphia Metropolitan Area. As a function of its mission and location, the Health System serves a disproportionately high number of poor or indigent patients; consequently, the Health System derives a substantial portion of its revenue from the Medicare (federal government) and the Medical Assistance (Commonwealth of Pennsylvania, Department of Human Services [DHS]) programs.

The distribution of inpatient services provided from continuing operations (TUH and AOH) based upon patient discharges (excluding newborns) by class of payer for the years ended June 30, 2021 and 2020, is as follows (unaudited):

	202	1	2020		
	Discharges	%	Discharges	%	
Continuing operations:					
Medical assistance:					
Fee for service	2,200	5.3 %	2,042	5.4 %	
Managed care	15,640	37.4	12,547	33.3	
Total medical assistance	17,840	42.7	14,589	38.7	
Medicare:					
Fee for service	7,835	18.8	8,277	22.0	
Managed care	9,571	22.9	8,072	21.4	
Total Medicare	17,406	41.7	16,349	43.4	
Commercial and managed care	6,081	14.6	5,875	15.6	
Other	445	1.0	853	2.3	
	41,772	100.0 %	37,666	100.0 %	

Prior year amounts in the above schedule have been reclassified to conform to current year presentation.

Health Choices is a DHS program that requires all medical assistance recipients in the Philadelphia five-county area to join a Medicaid Health Maintenance Organization ("HMO"). Under Health Choices, DHS has entered into capitation arrangements with five Medicaid HMOs, four of which the Health System contracts with, which in turn negotiate separate payment rates with health care providers. The medical assistance-managed care category above includes the four Medicaid HMOs under the Health Choices program with which the Health System contracts. The Health System grants credit without collateral to its patients, most of whom are local residents and are insured under third-party payer agreements.

The mix of net receivables from third-party payers and patients at June 30, 2021 and 2020 is as follows:

	2021	2020
Medical assistance:		
Fee for service (FFS)	3.6 %	4.5 %
Managed care	23.3	18.2
Medicare		
Fee for service (FFS)	10.4	11.6
Managed care	16.6	21.1
Commercial and managed care	40.1	38.2
Other	6.0	6.4
	100.0 %	100.0 %

Prior year amounts in the above schedule have been reclassified to conform to current year presentation.

5. CHARITY CARE

The Health System maintains detailed records to identify and monitor the level of charity care it provides to its patients. Charity care costs are estimated by applying an overall cost to charge ratio to charity care charges. The estimated costs and expenses incurred to provide charity care, including the estimated unreimbursed cost of services in excess of specific payments for services rendered to Medical Assistance recipients, were \$247,396,000 and \$231,200,000 for the years ended June 30, 2021 and 2020, respectively (see Note 17).

6. INVESTMENTS

Assets Limited as to Use—The composition of assets limited as to use at June 30, 2021 and 2020, is set forth in the following table (in thousands):

	2021	2020
Under indenture agreements-held by trustee:		
Debt service funds	\$ 17,428	\$ 17,390
Debt service reserve funds	51,515	51,609
	68,943	68,999
Under debt agreements	231	231
Under insurance arrangements (TUHIC)	93,812	91,404
Board designated	2,055	568
Donor restricted	36,242	29,688
Workers' and unemployment compensation	1,032	1,032
	202,315	191,922
Less amounts required for current liabilities	27,735	20,774
	\$ 174,580	\$ 171,148
By security classification (in thousands):		
	2021	2020
U.S. government securities	\$ 110,210	\$ 81,362
Fixed income mutual funds	3,168	1,437
Corporate bonds, notes, and other debt securities	23,938	28,919
Cash, money market funds, and certificates of deposit	50,080	69,144
Equity securities and mutual funds	13,637	9,804
Limited partnerships	1,282	1,256
	¢ 202 215	¢ 101 022
	\$ 202,315	\$ 191,922

Workers' Compensation Fund—Workers' compensation fund at June 30, 2021 and 2020, consisted of (in thousands):

	2021	2020
U.S. government securities	\$ -	\$ 6,253
Corporate bonds, notes, and other debt securities	-	2,046
Cash, money market funds, and certificates of deposit	 8,671	 208
	\$ 8,671	\$ 8,507

Investments—Investments at June 30, 2021 and 2020, consisted of (in thousands):

	2021	2020
U.S. government securities	\$ 73,968	\$ -
Fixed income mutual funds	30,137	14,326
Corporate bonds, notes, and other debt securities	27,530	-
Equity securities and mutual funds	239,859	115,614
Real estate	320	320
Hedge funds	30,567	16,548
Limited partnerships	42,081	21,491
Limited liability corporations	946	1,131
Other	456	456
	<u>\$ 445,864</u>	\$ 169,886

Investment Income—Investment income and gains (losses) from investments, including assets limited as to use and cash and cash equivalents, are comprised of the following for the years ended June 30, 2021 and 2020 (in thousands):

	2021	2020
Interest and dividend income	\$ 10,875	\$ 14,344
Net realized gains on sales of investments	958	5,269
Net change in fair value of alternative investments	5,231	432
Recognition of other-than-temporary impairment	(1,867)	(366)
Investment management fees	(463)	(409)
Net unrealized gains on equity securities	48,316	193
	\$ 63,050	\$ 19,463

Interest, dividends, realized and unrealized gains (losses) for the years ended June 30, 2021 and 2020 are reported as follows (in thousands):

	2021	2020
Consolidated statements of operations and changes in net assets:		
Revenues without donor restrictions—investment income	\$ 145	\$ 1,049
Other income without donor restrictions—investment income	59,014	14,731
Other changes in net assets without donor restrictions—		
net change in fair value	(2,787)	888
Net assets with donor restrictions—investment income	3,184	2,657
Net assets with donor restrictions—net change in fair value	3,494	138
	\$ 63,050	\$ 19,463

Unless their use was restricted by the donor, unrealized gains (losses) on equity investments are included within other income and unrealized gains (losses) on debt securities are reported as a component of other changes in net assets without donor restrictions.

The following tables provide information on the gross unrealized losses and fair market value of the Health System's investments with unrealized losses that are not deemed to be other-than-temporarily impaired, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position at June 30, 2021 and 2020 (in thousands):

			At June	30, 2021		
	Less Than	12 Months	12 Month	s or Longer	1	Total
		Unrealized		Unrealized		Unrealized
	Fair Value	Losses	Fair Value	Losses	Fair Value	Losses
U.S. government securities	\$ 16,420	\$ (2)	\$ -	\$ -	\$ 16,420	\$ (2)
Fixed income mutual funds	-	-	-	-	-	-
Corporate bonds, notes, and other debt securities	21,048	(32)			21,048	(32)
Total temporarily impaired securities	\$ 37,468	\$ (34)	<u>\$</u> -	<u>\$</u> -	\$ 37,468	\$ (34)
				30, 2020		
	Less Than	12 Months	12 Month	s or Longer		Total
		Unrealized		Unrealized		Unrealized
	Fair Value	Losses	Fair Value	Losses	Fair Value	Losses
U.S. government securities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed income mutual funds	5,878	(622)	-	-	5,878	(622)
Corporate bonds, notes, and other debt securities	-	-	-	-	-	-
Equity securities and mutual funds	23,963	(4,403)	435	(101)	24,398	(4,504)
Total temporarily impaired securities	\$ 29,841	\$ (5,025)	\$ 435	\$ (101)	\$ 30,276	\$ (5,126)

With respect to the debt securities in an unrealized loss position as of June 30, 2021 and 2020, the Health System has determined it is not more likely than not that the Health System may be required to sell its available-for-sale securities before their anticipated recoveries. In assessing the likelihood that the Health System will be required to sell a security before its anticipated recovery, the Health System considers various factors including its future cash flow requirements, legal and regulatory requirements, the level of its cash, cash equivalents, short-term investments and fixed maturity investments available-for-sale in an unrealized gain position, and other relevant factors.

In evaluating credit losses, the Health System considers a variety of factors in the assessment of a security including: (1) the time period during which there has been a significant decline below cost; (2) the extent of the decline below cost and par; (3) the potential for the security to recover in value; (4) an analysis of the financial condition of the issuer; (5) the rating of the issuer; and (6) failure of the issuer of the security to make scheduled interest or principal payments.

During fiscal years 2021 and 2020, the Health System recorded other-than-temporary impairment charges of \$1,867,000 and \$366,000, respectively, on certain investments in debt securities.

TUHIC Debt Securities—At June 30, 2021 and 2020, TUHIC held investments in debt securities which are included as assets limited as to use in the Health System's consolidated balance sheets. The amortized cost of debt securities at June 30, 2021 and 2020, by contractual maturity, is shown below (in thousands). Expected maturities may differ from contractual maturities because borrowers may have the right to call or repay obligations with or without call or prepayment penalties. Gross unrealized holding gains on these securities aggregated \$1,696,000 and \$4,421,000 at June 30, 2021 and 2020, respectively. Gross unrealized holding losses on these securities aggregated \$676,000 and \$1,000 at June 30, 2021 and 2020, respectively.

	Amortized Cost		
	2021	2020	
Due within one year Due after one year through five years	\$ 285 46,206	\$ 373 41,970	
Due after five years through ten years	38,231	40,553	
	84,722	82,896	
Mortgage and asset-backed securities	1,621	2,927	
	\$ 86,343	\$ 85,823	

7. PLEDGES

As of June 30, 2021 and 2020, pledges are included in the consolidated financial statements at their net present value, less estimated uncollectible amounts, as follows (in thousands):

	2021	2020
Total value of pledges Unamortized discount for gross pledges Reserve for uncollectible pledges	\$ 4,096 (10)	, ,
Reported value for pledges	\$ 4,086	\$ 4,169

The discount rates applied to pledges were between 0.07% to 0.87% for 2021 and 0.16% to 0.28% for 2020.

Based upon payment schedules that are either specified by donors or estimated by the Health System, payments on pledges are due as follows (in thousands):

	2021	:	2020
Amounts due within one year Amounts due in two to five years	\$ 2,052 2,034	\$	2,774 1,395
Reported value for pledges	\$ 4,086	\$	4,169

The current and long-term portion of pledges receivable are presented within other receivables and other assets, respectively, on the consolidated balance sheets.

8. GOODWILL AND OTHER INTANGIBLES

At June 30, 2020 the Health System had \$3,574,000 of goodwill and other intangibles related to the affiliation with AOH and acquisitions of community-based primary care practices by TPI. There were no new intangible assets acquired during 2021.

Goodwill and other intangibles at June 30, 2021 and 2020 are summarized as follows (in thousands):

		Other Intangible		
	Goodwill	Assets	Total	
Balance at June 30, 2020 Adjustments: Intangible assets acquired	\$ 524	\$ 3,050	\$ 3,574	
Impairment Amortization	(524)	(282)	(524) (282)	
Balance at June 30, 2021	<u>\$</u>	\$ 2,768	\$ 2,768	
	Goodwill	Other Intangible Assets	Total	
Balance at July 1, 2019 Adjustments:	\$ 524	\$ 16,452	\$ 16,976	
Intangible assets acquired Impairment Amortization	- - <u>-</u>	(13,071) (331)	(13,071) (331)	
Balance at June 30, 2020	\$ 524	\$ 3,050	\$ 3,574	

The following table summarizes intangible assets with indefinite lives at June 30, 2021 and 2020 (in thousands):

		2021	
	Gross	Impairment	Net
Research and development of intellectual property	\$ 1,564	<u>\$</u>	\$ 1,564
Total intangibles with indefinite lives	\$ 1,564	\$ -	\$ 1,564
		2020	
	Gross	Impairment	Net
AOH trade name Research and development of	\$ 13,000	\$ (13,000)	\$ -
intellectual property	1,564	<u>-</u>	1,564
Total intangibles with indefinite lives	\$ 14,564	\$ (13,000)	\$ 1,564

The following table summarizes amortizing intangible assets at June 30, 2021 and 2020 (in thousands):

				20	21		
			Acc	umulated			
	(Gross	Amo	ortization	lmp	airment	Net
Intellectual property	\$	4,342	\$	(3,049)	\$	(797)	\$ 496
Contracts and agreements		1,860		(1,226)		-	634
Physician contracts		2,346		(2,238)		(108)	-
Other		619		(545)			 74
Total amortizing intangibles	\$	9,167	\$	(7,058)	\$	(905)	\$ 1,204
				20:	20		
			Acc	20: umulated	20		
		Gross				airment	Net
Intellectual property	\$	Gross 4,342		umulated		airment (797)	\$ Net 623
Intellectual property Contracts and agreements			Amo	umulated ortization	lmp		\$
Contracts and agreements Physician contracts		4,342	Amo	umulated ortization (2,922)	lmp		\$ 623
Contracts and agreements		4,342 1,860	Amo	umulated ortization (2,922) (1,120)	lmp	(797) -	\$ 623

Aggregate amortization expense was \$282,000 and \$331,000 for the years ended June 30, 2021 and 2020, respectively. Amortization expense for the next five years and thereafter is expected to be as follows (in thousands):

2022	\$ 278
2023	266
2024	234
2025	214
2026	106
Thereafter	106
Total	\$ 1,204

9. LONG-TERM DEBT AND LINE OF CREDIT

Long-term debt at June 30, 2021 and 2020, was as follows (in thousands):

	2021	2020
2017 TUHS Hospital Revenue Bonds issued by the Hospitals and Higher Education Facilities Authority of Philadelphia (the "Authority") at a fixed interest rate of 5.0% due in installments through 2035		
Principal amount	\$ 223,295	\$ 228,800
Unamortized premium, debt issuance costs, and underwriter's discount	15,731	17,829
Long-term debt net of unamortized premium, debt issuance costs, and underwriter's discount	239,026	246,629
2012 TUHS Series A Hospital Revenue Bonds issued by the Authority at a fixed interest rate of 5.625% and due in installments through 2043 Principal amount Unamortized discount, debt issuance costs, and underwriter's discount	219,210 (7,000)	219,210 (7,393)
Long-term debt net of unamortized discount, debt issuance costs, and underwriter's discount	212,210	211,817
Loan payable to Episcopal Healthcare Foundation due in December 2020 at a fixed interest rate of 4.0%	-	330
Various finance lease obligations due in installments through 2027 at varied fixed interest rates ranging from 2.45% to 5.67% Equipment financing arrangements due in installments through 2024 at	9,172	9,322
varied fixed interest rates ranging from 4.0% to 5.88%	7,224	11,743
Mortgage obligation due in installments through December 2031 at a fixed interest rate of 4.18%	8,163	8,409
	475,795	488,250
Less current portion of long-term debt	13,016	14,412
	\$ 462,779	\$ 473,838

The bond issues and notes payable are generally collateralized by the assets and gross revenues of the TUHS Obligated Group and are subject to various financial covenants. The TUHS Obligated Group includes TUHS, TUH, TPI, T3, AOH, ICR, MGI and Network. The Health System is in compliance with its debt covenants for 2021 and 2020.

At June 30, 2021, total aggregate principal payments under long-term debt and finance lease obligations for the next five years and thereafter are (in thousands):

	Long-Term Debt	Finance Leases	
2022	\$ 9,932	\$ 3,079	
2023	15,698	2,278	
2024	11,869	1,691	
2025	14,487	1,146	
2026	14,920	776	
Thereafter	390,986	202	
Total	\$ 457,892	\$ 9,172	

The Health System has a revolving line of credit arrangement with a financial institution allowing for outstanding borrowings not to exceed \$75,000,000 and expiring in November 2021. Interest is calculated at one month LIBOR plus 1.55%. There were no outstanding borrowings at June 30, 2021 and 2020.

10. LEASES

Leases for the year ended June 30, 2021 are presented in accordance with FASB ASC Topic 842, which the Health System adopted on July 1, 2020. Presentation for fiscal year 2020 follows the guidance in effect at June 30, 2020, FASB ASC Topic 840.

The Health System has operating leases primarily for real estate, including medical office buildings, corporate and other administrative offices, as well as medical equipment, with terms expiring through 2046. Finance leases are primarily for medical equipment, with terms expiring through 2027.

2024

Total lease costs for the year ended June 30, 2021 consist of the following (in thousands):

	2021
Operating lease cost Variable lease cost	\$ 6,446 2,413
Short-term lease cost	7,878
Finance lease cost:	
Amortization of lease assets	3,848
Interest on lease liabilities	 371
Total finance lease cost	 4,219
Sublease income	 (552)
Total lease cost	\$ 20,404

Supplemental consolidated balance sheet information related to leases as of June 30, 2021 is as follows (in thousands):

	2021
Operating leases:	
Operating lease right-of-use assets	\$ 21,382
Current portion of operating lease liabilities	4,389
Operating lease liabilities	 17,974
Total operating lease liabilities	\$ 22,363
Finance leases:	
Property, plant and equipment, net	\$ 8,818
Current portion of long-term debt	3,079
Long-term debt	 6,093
Total finance lease liabilities	\$ 9,172

Supplemental consolidated cash flow information related to leases for the year ended June 30, 2021 is as follows (in thousands):

	20	21
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases \$	6	5,471
Operating cash flows for finance leases		371
Financing cash flows for finance leases	4	1,426
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases \$	4	1,182
Finance leases	4	1,280

The weighted-average remaining lease terms and discount rates for operating and finance leases as of June 30, 2021 are as follows:

	2021
Weighted-average remaining lease term (in years):	
Operating leases	7.74
Finance leases	3.72
Weighted-average discount rate:	
Operating leases	3.66%
Finance leases	3.67%

A maturity analysis of future lease payments under operating and finance leases as of June 30, 2021 is as follows (in thousands):

	Operating	Finance
2022	\$ 5,113	\$ 3,354
2023	3,969	2,448
2024	3,219	1,790
2025	2,792	1,196
2026	2,313	795
Thereafter	8,796	205
Total lease payments	26,202	9,788
Less: Amount representing interest	3,839	616
Total lease liabilities	\$ 22,363	\$ 9,172

The Health System also has certain consumable agreements in which a vendor provides a piece of equipment at no additional cost in exchange for the Health System's commitment to purchase a minimum quantity of consumable products. These agreements are considered embedded finance leases. Therefore, the Health System recognizes right-of-use assets and lease liabilities on the consolidated balance sheet related to these agreements. There are \$5,658,000 of such assets included within net property, plant, and equipment at June 30, 2021. There are \$2,112,000 and \$3,614,000 included within other current liabilities and other long-term liabilities, respectively. Amortization of the lease assets and interest on the lease liabilities for the year ended June 30, 2021 were \$2,130,000 and \$168,000, respectively. Operating cash flows and financing cash flows for the year ended June 30, 2021 were \$2,061,000 and \$168,000, respectively. A maturity analysis of future lease payments under these agreements as of June 30, 2021 is as follows:

2022	\$	2,229
2023		2,094
2024		1,374
2025		233
2026		-
Thereafter	-	
Total minimum payments	_	5,930
Less: Amount representing interest	_	204
Total liabilities	\$	5,726

Operating lease expenses for the year ended June 30, 2020 were \$19,705,000. At June 30, 2020, future minimum payments by year and in the aggregate under non-cancelable operating leases with initial or remaining terms of more than one year were as follows (in thousands):

2021	\$ 8,848
2022	5,905
2023	2,426
2024	1,999
2025	1,226
Thereafter	
Total	\$ 23,148

11. RELATED PARTY TRANSACTIONS

Temple University—The Health System has made various transfers of net assets without donor restrictions to the University to be used for health-related programs and initiatives. In fiscal years 2021 and 2020, \$6,259,000 and \$6,266,000, respectively, in net asset transfers were recognized.

The Health System and University allocate certain costs for services provided to each other. Costs billed to the Health System by the University in 2021 and 2020 include (in thousands):

	Health System Expense		
	2021	2020	
TFPP salaries and employee benefits	\$ 215,012	\$ 230,872	
Strategic support assessment	82,563	71,603	
Maintenance	9,794	8,722	
Telecommunications	4,707	5,283	
Institutional support	4,178	5,552	
Security	2,261	2,314	
Employee tuition	2,237	2,019	
Other administrative support	2,513	2,350	
Total expenses billed	\$ 323,265	\$ 328,715	

The University also billed the Health System for capital projects in the amount of \$360,000 and \$455,000 for the years ended June 30, 2021 and 2020, respectively.

TUH is the teaching hospital for Temple University's Lewis Katz School of Medicine ("LKSOM") and its former clinical practice plan physicians, known as TUP. Effective July 1, 2019, the University transferred the assets and liabilities of TUP to TFPP, a newly-formed subsidiary of the Health System. As of that date, all activities related to the physician practice plan were assumed by TFPP.

During the year ended June 30, 2020, the University continued to administer all payroll and employee benefits for TFPP employees. Effective January 1, 2021, payroll and benefits for TFPP non-faculty employees transitioned to the Health System. The University continues to administer payroll and benefits for dually-employed LKSOM faculty physicians. The Health System reimburses the University for the associated expenses.

The Health System charges the University for the cost of services provided to the University. Amounts billed to the University in 2021 and 2020 include (in thousands):

	2021	2020
Salaries and fringe benefits	\$ 875	\$ 418
Rent	945	3,670
Other	2,616	2,424
Total expenses billed to the University	\$ 4,436	\$ 6,512

Such amounts are included as other revenue or a reduction of expenses reported in the consolidated statements of operations and changes in net assets.

At June 30, 2021 and 2020, \$24,720,000 and \$16,147,000, respectively, are due to the University for transactions during those years and are included in accounts payable. At June 30, 2021 and 2020, \$1,564,000 and \$1,124,000, respectively, are due from the University for transactions during those years and are included in other receivables.

Health Partners Plans — TUH and Episcopal are participants and governing members in a Medicaid, Medicare, and Children's Health Insurance Program ("CHIP") HMO known as Health Partners Plans ("HPP"). In December 2019, the University and the Health System entered into an agreement with Thomas Jefferson University that includes the sale of the Health System's interest in HPP. The sale is expected to be completed no later than December 2021.

Under certain of its contracts with HPP, the Health System is the beneficiary of, or is responsible for, allocated HPP gains and losses that are based primarily on the number of HPP members enrolled in the Health System's primary care physicians' network and other factors as approved by the HPP board. The Health System accounts for its joint venture interest using the equity method of accounting whereby it records its share of gains (losses) and net assets. The Health System's total revenues from HPP are included in the accompanying consolidated statements of operations and changes in net assets as a component of other revenue. The revenues recorded in the years ended June 30, 2021 and 2020 were \$44,125,000 and \$91,102,000, respectively. The Health System's share of HPP net assets was \$58,192,000 and \$47,795,000, as of June 30, 2021 and 2020, respectively, and is included in other non-current assets. As of June 30, 2021 and 2020, the Health System had a receivable due from HPP in the amount of \$28,085,000 and \$54,903,000, respectively, which is included in other receivables.

HPP's annual premium revenues for Medicaid were \$1,375,058,000 and \$1,296,704,000 for fiscal years 2021 and 2020. For fiscal years 2021 and 2020, the Health System recognized gains of \$30,596,000 and \$71,534,000, respectively, for Medicaid in net patient service revenue from HPP members.

HPP's annual premium revenues for Medicare were \$246,705,000 and \$253,713,000 for fiscal years 2021 and 2020. For fiscal years 2021 and 2020, the Health System recognized gains of \$862,000 and \$18,165,000, respectively, for Medicare in net patient service revenue from HPP members.

HPP's annual premium revenues for CHIP were \$16,285,000 and \$21,923,000 for fiscal years 2021 and 2020. For fiscal years 2021 and 2020, the Health System recognized gains of \$199,000 and \$1,403,000, respectively, for CHIP in net patient service revenue from HPP members.

In fiscal year 2018, the Health System obtained a letter of credit in the amount of \$17,200,000, of which HPP is the beneficiary. The line of credit automatically extends for four consecutive years. No amounts were drawn on the letter of credit during fiscal year 2021 or 2020.

12. MEDICAL PROFESSIONAL LIABILITY AND WORKERS' COMPENSATION INSURANCE

The Health System members participate in the Health System's insurance programs for medical professional liability claims. Primary coverage is provided by an insurance company and reinsured to TUHIC.

Because primary losses are reinsured through TUHIC, primary losses are essentially self-insured up to certain limits, which are coordinated with statutory excess coverage provided through the Pennsylvania Medical Care Availability and Reduction of Error Fund ("MCare Fund"). Also, additional excess liability coverage has been obtained through a commercial insurance carrier.

The Health System accrues liabilities for the estimated losses on asserted and unasserted claims. The discount rate used in determining the liability at June 30, 2021 and 2020, was 0.00%. The liabilities are comprised of asserted claims for self-insured components of the program and accruals for unasserted claims. Asserted claims are specifically identified, with actuarial determination of the ultimate liability on asserted and unasserted claims based on claims settlement history. The estimated discounted liability accrued for asserted and unasserted claims for the Health System was \$276,997,000 and \$208,894,000 at June 30, 2021 and 2020, respectively. The estimated liability accrued for asserted and unasserted claims for TUHIC was \$57,911,000 and \$48,778,000 at June 30, 2021 and 2020, respectively. The Health System incurred net medical professional liability insurance expense of \$84,687,000 and \$54,692,000 in 2021 and 2020, respectively. These costs are recorded in the consolidated statements of operations and changes in net assets as insurance expense.

The activity in the liability for claims reported and claims incurred but not reported for TUHIC for the years ended June 30, 2021 and 2020, is summarized as follows (in thousands):

	2021		2020
Outstanding Incurred but not reported	\$ 30,930 26,981	\$	21,130 27,648
	\$ 57,911	\$	48,778
Balance—July 1	\$ 48,778	\$	50,478
Incurred related to current year Incurred related to prior year	 17,537 (1,559)		18,657 (3,744)
	 15,978		14,913
Paid related to current year Paid related to prior year	270 6,575		304 16,309
	 6,845	_	16,613
Net balance—June 30	\$ 57,911	\$	48,778

As a result of changes in estimates of insured events in prior years, loss and loss adjustment expenses relating to prior years decreased by \$1,559,000 and \$3,744,000 for the years ended June 30, 2021 and 2020, respectively.

TUHIC is registered under the Bermuda Insurance Act of 1978, amendments thereto and the Related Regulations (the "Insurance Act") and is obliged to comply with various provisions of the Insurance Act regarding solvency and liquidity. The minimum required statutory capital and surplus at June 30, 2021 and 2020, was \$5,795,000 and \$6,215,000, respectively, and the actual statutory capital and surplus was \$38,176,000 and \$43,447,000, respectively. The minimum required level of liquid assets was \$46,843,000 and \$39,501,000 and actual liquid assets were \$108,358,000 and \$96,116,000 at June 30, 2021 and 2020, respectively.

The Health System is primarily self-insured for workers' compensation. Program assets at June 30, 2021 and 2020, were \$8,671,000 and \$8,507,000, respectively. Program liabilities were determined using a discount rate of 0.75% and 0.50% for fiscal years 2021 and 2020, respectively. The estimated discounted liability accrued at June 30, 2021 and 2020, was \$22,067,000 and \$25,632,000, respectively. Workers' compensation expense was \$4,567,000 and \$9,704,000 for fiscal years 2021 and 2020, respectively. These costs are recorded in the consolidated statements of operations and changes in net assets as employee benefits expense.

The Health System follows ASU 2010-24, which clarifies that a health care entity should not net insurance recoveries against a related claim liability. The ASU requires that the ultimate costs of claims or similar contingent liabilities shall be accrued when the incidents that give rise to the claims occur. This guidance also requires recognition of additional offsetting assets and liabilities on the balance sheet relating to workers' compensation and medical professional liability recoveries and claims. The current and long-term asset balances recorded due to this guidance are reflected on the consolidated balance sheets as current portion of self-insurance program receivables and self-insurance program receivables, while the offsetting liabilities are reflected within current portion of self-insurance liabilities and self-insurance liabilities. The amounts below are also included in the disclosure of liabilities within this footnote above. The balances recorded for the years ended June 30, 2021 and 2020 are summarized as follows (in thousands):

	2021				2020					
	Curre	nt L	ong-Term		Total	Cı	ırrent	Lor	ng-Term	Total
Workers' compensation:										
Open reserves in excess of retention	\$	- \$	365	\$	365	\$	-	\$	487	\$ 487
Incurred but not recorded reserves in										
excess of retention		-	243		243		-		333	333
Professional liability:										
Claims settled within the MCare Layer	2	,000	-		2,000		6,291		-	6,291
Open reserves within the MCare Layer		-	13,650		13,650		-		9,000	9,000
Incurred but not recorded reserves in										
excess of the MCare Layer		-	12,261		12,261		-		12,076	12,076
Incurred but not recorded reserves in										
excess of the Buffer Layer			13,904		13,904		_		3,239	 3,239
	\$ 2	,000 \$	40,423	\$	42,423	\$	6,291	\$	25,135	\$ 31,426

13. PENSION AND OTHER POSTRETIREMENT BENEFITS

The Health System sponsors various defined benefit plans at the individual affiliate level based on prescribed eligibility requirements and certain Health System employees participate in the University's defined benefit plan. In addition, certain Health System members participate in the defined contribution retirement plans and defined benefit retirement plans for eligible employees that provide benefits through contributions made by the Health System and its employees. Beginning January 1, 2007, the Health System established new defined contribution plans for its employees and no longer actively participated in the University's defined contribution plans. Also, on November 1, 2007, the last of the TUHS defined benefit retirement plans was closed to new participants; only certain grandfathered employees are eligible to participate in the defined benefit pension plans. These employees are not eligible to participate in the Health System's defined contribution plans.

The Health System makes contributions to participants' accounts under the Health System's defined contribution plans based on a defined percentage of the employee's base wages and length of service. The Health System contributions to the plans for fiscal years 2021 and 2020 were \$36,289,000 and \$33,589,000, respectively. Contributions to the plans for fiscal year 2022 are expected to be \$41,530,000.

Multiemployer Plans—Also, certain Health System employees participate in multiemployer pension plans based on collective-bargaining agreements. The Health System contributes to two multiemployer pension plans under the terms of collective-bargaining agreements that cover these union-represented employees. The risks of participating in these multiemployer plans are different from a single-employer plan in the following aspects:

- a. Assets contributed to the multiemployer plan by one employer may be used to provide benefits to employees of other participating employers.
- b. If a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- c. If the Health System chooses to stop participating in one or both of its multiemployer plans, the Company may be required to pay that plan(s) an amount based on the underfunded status of the plan(s), referred to as a withdrawal liability.

The Health System's participation in these plans for the annual period ended June 30, 2021, is outlined in the table below. The "EIN/Pension Plan Number" column provides the Employer Identification Number (EIN) and the three-digit plan number, if applicable. The most recent Pension Protection Act (PPA) zone status available in 2021 and 2020 is also noted below. The zone status is based on information that the Health System received from the plan and is certified by the plan's actuary. Among other factors, plans in the red zone are generally less than 65% funded, plans in the yellow zone are less than 80% funded, and plans in the green zone are at least 80% funded. The "FIP/RP Status Pending/Implemented" column indicates plans for which a financial improvement plan (FIP) or a

rehabilitation plan (RP) is either pending or has been implemented. The last column lists the expiration date(s) of the collective-bargaining agreement(s) to which the plans are subject.

	EIN/Pension	Protec	nsion tion Act Status	FIP/RP Status Pending/		Contributi	ons of TUHS	Surcharge	Expiration Date of Collective Bargaining
Pension Fund	Plan Number	2021	2020	Implemented		2021	2020	Imposed	Agreement
The Pension Fund for Hospital and Health Care Employees Philadelphia and Vicinity (1)	23-2627428/001	Red	Red	Yes	\$	8,200,000	\$ 8,165,000	Yes	Various up to 2024
Central Pension Fund of the International Union of Operating Engineers and Participating Employers (2)	36-6052390/001	Green	Green	No	_	108,000	100,000	No	November 2023
(1) Plan years began 1/1/21 and 1/120			Total cont	ributions	\$	8,308,000	\$ 8,265,000		

⁽¹⁾ Plan years began 1/1/21 and 1/120(2) Plan years began 2/1/21 and 2/1/20

The Health System was listed in its plan's Form 5500 as providing more than 5% of the total contributions for the following plan and plan year:

Year Contributions to the Plan Exceeded More Than 5% of Total Contributions (as of December 31 of the Plan's Year End)

Pension Fund

The Pension Fund for Hospital and Health Care Employees — Philadelphia and Vicinity

2020

At the date these consolidated financial statements were issued, Forms 5500 were not available for the plan year ending in 2021.

Certain Health System employees participate in the University's postretirement health and life insurance plan. Benefits begin for eligible employees at age 62, and upon the accumulation of 10 years' service.

Postretirement Health Care Plan Trends—For measurement purposes, 8.2% and 7.6% annual rates of increase in the per-capita cost of postretirement benefits were assumed for 2021 for the shared plan of the Health System and University and the AOH and Affiliates plan, respectively, compared to the rates of 7.8% and 8.6% for 2020. For 2021, these rates are assumed to decrease gradually to 4.4% in 2029 and 4.5% in 2030, respectively, and to remain at those levels thereafter. Assumed health care cost trend rates have a significant effect on the amounts reported for the postretirement benefit plan. A one-percentage-point change in assumed health care cost trend rates would have the following effects on the year ended June 30, 2021 (in thousands) for all Health System and University participants:

	1% Increase	1% (Decrease)
Incremental effect on total of service and interest cost components Incremental effect on postretirement benefit obligation	\$ 2,542 43,486	

Defined Benefit Pension, Defined Contribution and Postretirement Benefit Plans—Total defined benefit pension, defined contribution, and other postretirement benefit plans expense under all Health System programs amounted to \$44,597,000 and \$44,936,000 for the years ended June 30, 2021 and 2020, respectively.

The following table sets forth the activity of the pension and other postretirement benefit plans (which includes the joint Health System and University plans) as of and for the years ended June 30, 2021 and 2020 (in thousands). A measurement date of June 30th is used for the plans.

	Pensions					Other Postretirement Benefit Plan			
		2021		2020	_	2021		2020	
Change in benefit obligation:									
Benefit obligation—beginning of year	\$	229,922	\$	214,320	\$	363,424	\$	338,846	
Service cost		2,554		2,229		12,155		11,650	
Interest cost		5,050		6,641		8,103		10,400	
Plan participant contributions		228		190		1,563		1,749	
Actuarial loss (gain)		2,619		18,057		(4,733)		15,895	
Benefits paid		(9,310)		(9,886)		(13,707)		(15,116)	
Administrative expenses paid		(1,759)		(1,544)		-		-	
Settlement		(8)	_	(85)			_		
Benefit obligation—end of year		229,296		229,922		366,805		363,424	
Change in plan assets:									
Fair value of plan assets—beginning of year		186,957		183,948		315,838		320,954	
Actual return on plan assets		37,711		11,681		83,182		4,960	
Employer contributions		3,250		2,568		3,079		3,290	
Plan participant contributions		228		190		1,563		1,750	
Plan expenses		(1,759)		(1,544)		-		-	
Benefits paid		(9,310)		(9,886)		(13,707)	_	(15,116)	
Fair value of plan assets—end of year		217,077		186,957		389,955		315,838	
Funded status		(12,219)		(42,965)		23,150		(47,586)	
Less University prepaid (accrued) cost		(4,435)		(3,480)		15,986		(35,121)	
Net amount recognized—TUHS Only	<u>\$</u>	(7,784)	\$	(39,485)	\$	7,164	\$	(12,465)	
Amount recognized in the balance sheets, include:									
Other noncurrent assets	\$	14	\$	_	\$	10,802	\$	_	
Other current liabilities	*	-	•	_	•	(454)	•	(450)	
Accrued postretirement benefits—noncurrent		(7,798)		(39,485)		(3,184)		(12,015)	
-					_		_		
Net amount recognized—TUHS Only	\$	(7,784)	\$	(39,485)	\$	7,164	\$	(12,465)	

	Pensions				Other Postretirement Benefit Plan			
		2021		2020		2021		2020
Amounts recognized in unrestricted net assets: Prior service cost (credit) Net actuarial loss (gain)	\$	66,306	\$	94,880	\$	(15,969)	\$	2,597
Net amount recognized in unrestricted net assets	\$	66,306	\$	94,880	\$	(15,969)	\$	2,597
Weighted-average assumptions to determine benefit obligation: Discount rate Rate of compensation increase		%-3.04% %-3.00%		5%-3.02% 0%-3.00%	1.1	0%-2.88% N/A	1.3	0%-2.88% N/A
Weighted-average assumptions to determine net periodic cost: Discount rate Rate of compensation increase Expected return on plan assets	2.50	%-3.03% %-3.00% %-6.50%	2.50	0%-3.75% 0%-3.00% 0%-6.50%	1.3	0%-2.87% N/A 7.00%	2.6	0%-3.62% N/A 7.00%
Components of net periodic cost (benefit): Service cost Interest cost Expected return on plan assets Recognized net actuarial loss Settlement	\$	2,554 5,050 (10,884) 4,682 44	\$	2,229 6,641 (11,253) 5,968 172	\$	12,155 8,103 (21,551) 201	\$	11,650 10,400 (21,925) (392)
Net periodic cost		1,446		3,757		(1,092)		(267)
Less: University net periodic cost		(1,323)		(814)		969		406
TUHS net periodic cost	\$	123	\$	2,943	\$	(123)	\$	139

The service cost component of net period pension and postretirement benefit cost is included within employee benefits expenses in the consolidated statements of operations and changes in net assets. All other components are included within other income outside the subtotal of income from operations.

The estimated net actuarial loss for the defined benefit plans that will be amortized from net assets without donor restrictions into net periodic benefit cost in fiscal year 2022 is \$3,941,000. The estimated net actuarial gain for the postretirement health and life insurance plan that will be amortized from net assets without donor restrictions into net periodic benefit cost in fiscal year 2022 is \$7,123,000.

Assets Allocations—The following details the Health System's defined benefit plans asset allocations:

Pension Plans	Target Allocation Fiscal Year Ending	Percentage of	Plan Assets at
Assets	June 30, 2021	June 30, 2021	June 30, 2020
Equity funds and alternative funds	81 %	77 %	72 %
Cash and fixed income	19 %	23	28
Total		100 %	100 %

The following details the University-sponsored pension and other postretirement defined benefit plan asset allocations:

Pension and Other	Target Allocation Fiscal Year Ending	Percentage of	Plan Assets at
Postretirement Benefit Plan Assets	June 30, 2021	June 30, 2021	June 30, 2020
Equity funds and alternative funds	25 - 77%	72 %	71 %
Cash and fixed income	23 - 75%	28	
Total		100 %	100 %

Investment Strategy—The long-term investment strategy for pension and other postretirement benefit plans assets is to: meet present and future benefit obligations to all participants and beneficiaries; cover reasonable expenses incurred to provide such benefits; and provide a total return that maximizes the ratio of assets to liabilities by maximizing investment return at the appropriate level of risk.

The pension plans assets of the joint Health System and Temple University plans were \$217,077,000 and \$186,957,000 at June 30, 2021 and 2020, respectively. The fair values of the pension plan assets at June 30, 2021, by asset category are as follows (in thousands):

Assets	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Cash and cash equivalents	\$ 6,079	\$ -	\$ -	\$ -	\$ 6,079
U.S. government securities	14,825	-	-	-	14,825
Corporate bonds, notes,					
and other debt securities	-	21,063	-	-	21,063
Equity funds and securities	107,346	-	-	22,587	129,933
Alternative funds	-	-	-	3,184	3,184
Fixed income mutual funds	36,003	-	-		36,003
Limited partnerships				5,990	5,990
Total market value	\$ 164,253	\$ 21,063	<u>\$</u> -	\$ 31,761	\$ 217,077

The fair values of the pension plan assets at June 30, 2020, by asset category are as follows (in thousands):

Assets	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Cash and cash equivalents	\$ 3,958	\$ -	\$ -	\$ -	\$ 3,958
U.S. government securities	11,963	-	-	-	11,963
Corporate bonds, notes,					
and other debt securities	-	26,554	-	-	26,554
Equity funds and securities	79,452	-	-	18,786	98,238
Alternative funds	-	-	-	5,632	5,632
Fixed income mutual funds	35,100	-	-	-	35,100
Limited partnerships				5,512	5,512
Total market value	\$ 130,473	\$ 26,554	<u>\$ - </u>	\$ 29,930	\$ 186,957

During the years ended June 30, 2021 and 2020, there were no transfers into or out of Level 3, nor were there any purchases or sales of Level 3 assets.

The fair values of the following investments have been estimated using an NAV equivalent (e.g. ownership interest in partners' capital to which a proportionate share of net assets is attributable) as of June 30, 2021 and 2020.

		Unfunded	Redemption Frequency	Redemption Notice	
	Fair Value	Commitments	(If Currently	Period	
	(In Thousands)	(In Thousands)	Eligible)	(If Applicable)	
As of June 30, 2021:					
Multi-Strategy Hedge Funds (a)	\$ 13,883	\$ -	Daily, Quarterly	60-90 days	
Real Estate Funds (b)	9,174	-	Quarterly	45-90 days	
Fixed Income Funds (c)	1,860	-	Daily, Monthly	1 - 45 days	
Equity Funds (d)	6,844	<u> </u>	Daily, Monthly	1 - 30 days	
	\$ 31,761	<u>\$</u>			
			Redemption	Redemption	
		Unfunded	Frequency	Notice	
	Fair Value	Commitments	(If Currently	Period	
	(In Thousands)	(In Thousands)	Eligible)	(If Applicable)	
As of June 30, 2020:					
Multi-Strategy Hedge Funds (a)	\$ 11,820	\$ -	Daily, Quarterly	60-90 days	
Real Estate Funds (b)	11,144	-	Quarterly	45-90 days	
Equity Funds (d)	6,966		Daily, Monthly	1 - 30 days	
	\$ 29,930	\$ -			

- (a) This category includes investments that seek to earn above-average, risk adjusted, long-term returns that have a low correlation to traditional equity and fixed income markets. The investments include futures contracts, call options, warrants and structured products all of which are referenced as derivative instruments.
- (b) This category includes investments that maintain exposure to real estate through public and private investments whose value is strongly controlled by real estate and may act as a hedge against unanticipated inflation.
- (c) This category includes investments in intermediate and long term U.S. government securities and credit securities and U.S. fixed income index funds and commingled funds.
- (d) This category includes investments in U.S., International Developed Markets and Emerging Markets equities via commingled funds and index funds. The funds seek to balance the long term growth of capital with income and high total return.

The postretirement plan assets of the joint Health System and Temple University were \$389,955,000 and \$315,837,000 at June 30, 2021 and 2020, respectively, of which only a portion of this pool of assets belongs to the Health System. The fair values of the postretirement plan assets at June 30, 2021, by asset category are as follows (in thousands):

							stments sured at	
Assets	Level 1	L	evel 2	L	evel 3		NAV	Total
Cash and cash equivalents	\$ 9,865	\$	-	\$	-	\$	-	\$ 9,865
U.S. government securities	34,481		-		-		-	34,481
Fixed income funds	-		-		-		48,849	48,849
Equity funds and securities	9,311		-		-	1.	58,241	167,552
Commodity funds	-		-		-		7,869	7,869
Private equity funds	-		-		-		14,153	14,153
Real estate funds	-		-		-		14,033	14,033
Multi-strategy hedge funds	-		-		-		84,427	84,427
Opportunistic funds	 						8,726	 8,726
Total market value	\$ 53,657	\$		\$		\$ 3	36,298	\$ 389,955

The fair values of the postretirement plan assets at June 30, 2020, by asset category are as follows (in thousands):

Assets	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Cash and cash equivalents	\$ 408	3 \$ -	\$ -	\$ -	\$ 408
U.S. government securities	34,566	5 -	-	-	34,566
Fixed income funds	-	-	-	32,687	32,687
Equity funds and securities	18,442	2 -	-	133,904	152,346
Commodity funds	-	-	-	6,226	6,226
Private equity funds	-	-	-	5,693	5,693
Real estate funds	-	-	-	13,429	13,429
Multi-strategy hedge funds	-	-	-	67,684	67,684
Opportunistic funds				2,798	2,798
Total market value	\$ 53,416	<u> </u>	<u>\$ -</u>	\$ 262,421	\$ 315,837

The fair values of the following investments have been estimated using an NAV equivalent (e.g. ownership interest in partners' capital to which a proportionate share of net assets is attributable) as of June 30, 2021 and 2020.

	Fair Value (In Thousands)	Unfunded Commitments (In Thousands)	Redemption Frequency (If Currently Eligible)	Redemption Notice Period (If Applicable)
As of June 30, 2021:				
Commodity funds (a)	\$ 7,869	\$ -	Daily, Monthly	1-2 days
Multi-Strategy Hedge Funds (b)	84,427	-	Quarterly	90 days
Private Equity Funds (c)	14,153	24,516	Illiquid	N/A
Real Estate Funds (d)	14,033	-	Quarterly	30-90 days
Fixed Income Funds (e)	48,849	-	Daily, Monthly	1-45 days
Equity Funds (f)	158,241	-	Daily, Monthly	1-30 days
Opportunistic Funds (g)	8,726	5,781	Illiquid	N/A
	\$ 336,298	\$ 30,297		
		Unfunded	Redemption Frequency	Redemption Notice
	Fair Value	Commitments	(If Currently	Period
	(In Thousands)	(In Thousands)	Eligible)	(If Applicable)
As of June 30, 2020:				
Commodity funds (a)	\$ 6,226	\$ -	Daily, Monthly	1–2 days
Multi-Strategy Hedge Funds (b)	67,684	-	Quarterly	90 days
Private Equity Funds (c)	5,693	28,940	Illiquid	N/A
Real Estate Funds (d)	13,429	-	Quarterly	30-90 days
Fixed Income Funds (e)	32,687	-	Daily, Monthly	1-30 days
Equity Funds (f)	133,904	-	Daily, Monthly	1–30 days
Opportunistic Funds (g)	2,798	2,856	Illiquid	N/A
	\$ 262,421	\$ 31,796		

- (a) This category includes investments in both long and short commodities derivatives in a unitized fund structure.
- (b) This category includes investments that seek to earn above-average, risk adjusted, long-term returns that have a low correlation to traditional equity and fixed income markets. The investments include futures contracts, call options, warrants and structured products all of which are referenced as derivative instruments.
- (c) This category includes real estate loans and non-public company equity and debt securities.
- (d) This category includes investments that maintain exposure to real estate through public and private investments whose value is strongly controlled by real estate and may act as a hedge against unanticipated inflation.
- (e) This category includes investments in intermediate and long term U.S. government securities and credit securities and U.S. fixed income index funds and commingled funds.
- (f) This category includes investments in U.S., International Developed Markets and Emerging Markets equities via commingled funds and index funds. The funds seek to balance the long term growth of capital with income and high total return.
- (g) This category includes investments with attractive risk/return characteristics based on a particular market environment. These investments include strategies such as private credit, distressed debt, and direct lending.

Expected Return on Plan Assets—The expected long-term rate of return of 5.1% for the plans' total assets is based on the expected return of each of the above investment categories, weighted based on the median of the target allocation for each class.

Expected Cash Flows—The following table shows expected cash flows related to the defined benefit pension and other postretirement benefit plans (in thousands):

	Pens Plai TU Health S	ns I/	Bene	etirement efit Plan TU/ h System
Expected Health System contributions for fiscal year				
ending June 30, 2022:	¢.		¢.	450
Expected employer contributions	\$	-	\$	452
Expected employee contributions		-		1,602
Estimated future benefit payments from plan assets reflecting				
expected future service for the fiscal year ending June 30:				
2022		10,900		20,093
2023		11,382		20,689
2024		11,530		21,410
2025		12,002		21,827
2026		12,243		22,152
2027 to 2031		64,036		110,026

14. ENDOWMENT

The Health System's endowment consists of several funds established for a variety of purposes. As required by FASB ASC Topic 958, net assets associated with endowment funds are classified and reported based on the existence or absence of donor-imposed restrictions.

Interpretation of Relevant Law—The Health System classifies as net assets with donor restrictions (a) the original value of the gifts donated to the permanent endowment when explicit donor stipulations requiring permanent maintenance of the historical fair value are present, and (b) the original value of the subsequent gifts to the permanent endowment when explicit donor stipulations requiring permanent maintenance of the historical fair value are present. The remaining portion of the donor-restricted endowment fund comprised of accumulated investment earnings not required to be maintained in perpetuity is classified as net assets with donor restrictions until those amounts are appropriated for expenditure by the Health System in a manner consistent with the donor's stipulations. The Health System considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds: duration and preservation of the fund, purposes of the donor-restricted endowment funds, general economic conditions, the possible effect of inflation and deflation, the expected total return from income and the appreciation of investments, other resources of the Health System, and the investment policies of the Health System.

Changes in endowment net assets for the years ended June 30, 2021 and 2020 (in thousands):

	With Donor Restrictions
Endowment net assets—June 30, 2019	\$ 19,043
Contributions Investment return—investment income Appropriations of endowment assets	2,652 2,796
for expenditure	(4,097)
Endowment net assets—June 30, 2020	20,394
Contributions Investment return—investment income Appropriations of endowment assets	(516) 6,678
for expenditure	(4,080)
Endowment net assets—June 30, 2021	\$ 22,476

Underwater Endowments—From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level that the donor requires the Health System to retain as a fund of perpetual duration. The Heath System's policy allows spending from funds with such deficiencies unless otherwise precluded by donor intent or relevant laws and regulations. There were no material deficiencies of this nature at June 30, 2021 and 2020.

Investment Return Objectives and Spending Policy—The Health System has adopted investment and spending policies for endowment assets that attempt to provide a predictable stream of funding to the programs supported by its endowment while seeking to maintain the purchasing power of the endowment assets. Under this policy, as approved by the Board of Directors, the endowment assets are invested in a manner to generate returns at least equal to and preferably greater than the consumer price index plus 4.5%. To satisfy its long-term rate-of-return objectives, the Health System targets a diversified asset allocation that places a greater emphasis on equity based investments within prudent risk constraints.

The Health System has a policy of appropriating for distribution each year 2% to 7% of its endowment fund's average fair value over the prior three years. The Board of Directors approved an appropriation of 4.5% for each of the years ended June 30, 2021 and 2020.

15. NET ASSETS WITH DONOR RESTRICTIONS

Net assets with donor restrictions were held for the following purposes at June 30, 2021 and 2020 (in thousands):

	2021	2020
Subject to expenditure for specified purpose:		
Property and equipment additions	\$ 2,690	\$ 1,320
Research	12,059	10,727
Specific health care programs	8,324	10,074
	23,073	22,121
Beneficial interest in perpetual trusts, income from which is		
expendable for:	14021	14.624
Research	14,931	14,624
Specific health care programs	31,254	26,141
	46,185	40,765
Beneficial interest in assets held by Episcopal Foundation	32,489	26,892
Beneficial interest in assets held by Fox Chase Cancer Center Foundation	63,337	54,819
Perpetual endowment funds, income from which is expendable for:		
Research	11,681	10,351
Specific health care programs	8,290	7,340
	19,971	17,691
Total net assets with donor restrictions	\$ 185,055	\$ 162,288

The Episcopal Healthcare Foundation (the "EH Foundation") controls certain investments that, according to its organizational structure, are held for the benefit of TUH's Episcopal campus operations. TUH has recognized the fair market value of investments held by the EH Foundation as an asset (beneficial interest in the assets held by Episcopal Foundation) and net assets with donor restrictions of \$32,489,000 and \$26,892,000 at June 30, 2021 and 2020, respectively.

The Fox Chase Cancer Center Foundation (the "FCCC Foundation") controls certain investments that, according to its organizational structure, are held for the benefit of ICR's research operations and AOH's clinical operations. ICR and AOH have recognized the fair market value of investments held by the FCCC Foundation as an asset (beneficial interest in the assets held by Fox Chase Cancer Center Foundation) and net assets with donor restrictions of \$63,337,000 and \$54,819,000 at June 30, 2021 and 2020, respectively.

As reported by the respective trustees, the composition of the above funds in which the Health System has a beneficial interest is approximately 85% and 65% marketable equity securities and 15% and 35% fixed income securities at June 30, 2021 and 2020, respectively.

16. COMMITMENTS AND CONTINGENCIES

The Commonwealth of Pennsylvania owns the land on which certain TUH facilities are located. The land is leased to the University for a term ending December 31, 2043, for a nominal rent. The University subleases these facilities to TUH.

The Friends Fiduciary Corporation owns the land upon which the TUH Jeanes campus facilities are located. The land is leased to TUH for a term ending June 30, 2046, for a nominal rent.

There are reversionary rights held by the land grantor, Friends Fiduciary Corporation, in certain deeds to the properties that make up the main campus of Fox Chase Cancer Center. The grantor may exercise its reversionary rights if ICR or AOH, respectively, no longer manage, operate and control the premises or if the premises are no longer used for permitted purposes.

As of June 30, 2021, TUH has committed to making investments of \$51,000 into a partnership (a real estate fund), which may be requested through capital calls from the partnership. Detail regarding the unfunded commitments is disclosed in Note 18.

TUHIC holds cash and investments in debt securities in the amount of \$101,537,000 and \$91,404,000 as of June 30, 2021 and 2020, respectively, which are being held in trust in order to secure TUHIC's liabilities under certain reinsurance contracts.

The Health System is involved in litigation and regulatory investigations arising in the course of business. After consultation with legal counsel, management estimates that these matters will be resolved without material adverse effect on the Health System's financial position, results of operations, or cash flows.

The health care industry is subject to numerous and complex laws and regulations of federal, state, and local governments. These laws and regulations include, but are not limited to, matters such as licensure, accreditation, privacy, government health care program participation, government reimbursement for patient services, and fraud and abuse requirements. The CARES Act Terms and Conditions require attestation to accept related funding. Requirements to earn the funds are numerous and guidance has been continually updated, and continues to be updated, by the Department of Health and Human Services ("HHS"). Laws and regulations concerning government programs, including Medicare, Medicaid and the CARES Act, are subject to varying interpretations. Compliance with such laws and regulations is complex and can be subject to future government review and interpretation as well as significant regulatory enforcement actions, including fines, penalties, and potential exclusion from government health care programs, such as Medicare and Medicaid. There can be no assurance that regulatory authorities will not challenge the Health System's compliance with these laws and regulations. In addition, the contracts the Health System has with commercial payers also provide for retroactive audit and review of claims. The health care industry in general is experiencing an increase in these activities as federal and state governments increase their enforcement activities and institute new programs designed to identify potential irregularities in reimbursement or quality of patient care. Based on the information received to date, management is not aware of any undisclosed matters that will have a material adverse effect on the Health System's future consolidated financial position, results of operations, or cash flows.

17. COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF HUMAN SERVICES SUPPORT

The Health System receives support primarily related to providing access to health care services, including care for the uninsured and indigent population (see Note 5). These support payments are included in net patient service revenue in the accompanying consolidated statements of operations and changes in net assets. To the extent that these support payments are dependent on a provider tax from the hospitals, those expenses are included in purchased services and other in the accompanying consolidated statements of operations and changes in net assets. There is no guarantee that this funding will continue in future years. Under certain circumstances, the Health System could be required to repay certain support payments received from the Commonwealth.

Support received from the Commonwealth for the years ended June 30, 2021 and 2020, including any provider tax expenses, are as follows (in thousands):

	2021	2020
Base supplemental revenues	\$ 248,819	\$ 244,957
State and local hospital assessment revenues State and local hospital assessment expenses	105,962 (56,255)	92,219 (58,846)
Net state and local hospital assessment program	49,707	33,373
Academic Health Center	6,259	6,266
Subtotal supplemental funding, net of taxes	304,785	284,596
Strategic support assessment	(82,563)	(71,603)
Total net supplemental funding	\$ 222,222	\$ 212,993

The Academic Health Center support of \$6,259,000 and \$6,266,000 for the years ended June 30, 2021 and 2020, respectively, were passed through to the University as an equity transfer.

For the years ended June 30, 2021 and 2020, supplemental funding was received and provided as support to LKSOM to further the mission of TUH and the medical school in the amounts of \$82,563,000 and \$71,603,000, respectively.

18. FAIR VALUE MEASUREMENTS

FASB ASC Topic 820, which defines fair value, provides a framework for measuring fair value, and expands disclosures required for fair value measurements.

FASB ASC Topic 820 emphasizes that fair value is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing the asset or liability. As a basis for considering market participant assumptions in fair value measurements, FASB ASC Topic 820 establishes a fair value hierarchy that distinguishes between market participant assumptions based on market data obtained from sources independent of the reporting entity (observable inputs that are classified within Levels 1 and 2 of the hierarchy) and the reporting entity's own assumption about market participant assumptions (unobservable inputs classified within Level 3 of the hierarchy).

FASB ASC Topic 820 classifies the inputs used to measure fair value into the following hierarchy:

Level 1—Level 1 inputs are quoted prices in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2—Level 2 inputs include the following:

- Quoted prices in active markets for similar assets or liabilities.
- Quoted prices in markets that are not active for identical or similar assets or liabilities.
- Inputs other than quoted prices, that are observable for the asset or liability.
- Inputs that are derived primarily from or corroborated by observable market data by correlation or other means.

Level 3—Level 3 inputs are unobservable inputs for the asset or liability.

The following table sets forth, by level within the fair value hierarchy, the financial assets and liabilities recorded at fair value on a recurring basis as of June 30, 2021 (in thousands):

Assets	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Assets limited as to use:					
U.S. government securities	\$ 78,247	\$ 31,963	\$ -	\$ -	\$ 110,210
Fixed income mutual funds	3,168	-	-	-	3,168
Corporate bonds, notes, and other debt securities	-	23,938	-	-	23,938
Cash, money market funds, and certificates of deposit	48,925	1,155	-	-	50,080
Equity securities and mutual funds	13,637	-	-	-	13,637
Alternative funds				1,282	1,282
	143,977	57,056		1,282	202,315
Workers' Compensation Fund:					
Cash, money market funds, and certificates of deposit	8,671				8,671
	8,671				8,671
Investments:					
U.S. government securities	70,930	3,038	_	_	73,968
Fixed income mutual funds	30,137	-	_	-	30,137
Corporate bonds, notes, and other debt securities	-	27,530	-	-	27,530
Equity securities and mutual funds	239,859	-	-	-	239,859
Real estate	-	320	-	-	320
Alternative funds	-	-	-	30,567	30,567
Limited partnerships				40,741	40,741
	340,926	30,888		71,308	443,122
Beneficial interest in perpetual trusts			46,185		46,185
Beneficial interest in the assets held by Episcopal Foundation			32,489		32,489
Beneficial interest in the Fox Chase Cancer Center Foundation			63,337		63,337
Total	\$ 493,574	\$ 87,944	\$ 142,011	\$ 72,590	\$ 796,119

The following table sets forth, by level within the fair value hierarchy, the financial assets and liabilities recorded at fair value on a recurring basis as of June 30, 2020 (in thousands):

Assets	Level 1	Level 2	Level 3	Investments Measured at NAV	Total
Assets limited as to use:					
U.S. government securities	\$ 64,718	\$ 16,644	\$ -	\$ -	\$ 81,362
Fixed income mutual funds	1,437	-	-	-	1,437
Corporate bonds, notes, and other debt securities	-	28,919	-	-	28,919
Cash, money market funds, and certificates of deposit	68,112	1,032	-	-	69,144
Equity securities and mutual funds	9,804	-	-	-	9,804
Alternative funds				1,256	1,256
	144,071	46,595		1,256	191,922
Workers' Compensation Fund:					
U.S. government securities	4,699	1,554	-	-	6,253
Corporate bonds, notes, and other debt securities	-	2,046	-	-	2,046
Cash, money market funds, and certificates of deposit	208				208
	4,907	3,600			8,507
Investments:					
Fixed income mutual funds	14,326	-	-	-	14,326
Corporate bonds, notes, and other debt securities	-	-	-	-	-
Equity securities and mutual funds	115,614	-	-	-	115,614
Real estate	-	320	-	-	320
Alternative funds	-	-	-	16,548	16,548
Limited partnerships				20,180	20,180
	129,940	320		36,728	166,988
Beneficial interest in perpetual trusts			40,765		40,765
Beneficial interest in the assets held by Episcopal Foundation			26,892		26,892
Beneficial interest in the Fox Chase Cancer Center Foundation			54,819		54,819
Total	\$ 278,918	\$ 50,515	\$ 122,476	\$ 37,984	\$ 489,893

U.S. government securities, money market funds, equity securities and mutual funds classified as Level 1 are measured using quoted market prices.

Marketable debt securities classified as Level 1 were classified as such due to the usage of observable market prices for identical securities that are traded in active markets. These debt securities primarily include US Treasury Bonds.

The marketable debt securities classified as Level 2 were classified as such due to the usage of observable market prices for similar securities that are traded in less active markets or when observable market prices for identical securities are not available, marketable debt instruments are priced using: non-binding market consensus prices that are corroborated with observable market data; quoted market prices for similar instruments; or pricing models, such as a discounted cash flow model, with all significant inputs derived from or corroborated with observable market data. These debt securities primarily include government bonds, corporate bonds, notes and other debt securities.

The estimated fair values of the Health System's beneficial interest in perpetual trusts, in the assets held by Episcopal Foundation, and in the assets held by Fox Chase Cancer Center Foundation are classified as Level 3 due to lack of observable market data. Currently there is no market in which beneficial interest in trusts are traded and as such, no observable exit price exists for these assets. The fair values are determined based on information provided by the trustees.

During the years ended June 30, 2021 and 2020, there were no transfers into or out of Level 3, nor were there any purchases or sales of Level 3 assets.

The fair values of the following investments have been estimated using an NAV equivalent (e.g. ownership interest in partners' capital to which a proportionate share of net assets is attributable) as of June 30, 2021 and 2020.

	Fair Value (In thousands)	Unfunded Commitments (In thousands)	Redemption Frequency (if Currently Eligible)	Redemption Notice Period (if Applicable)
As of June 30, 2021:				
Multi-Strategy Hedge Funds (a)	\$ 30,646	\$ -	Annual,	45-60 days
Real Estate Funds (b)	41,944	51	Quarterly	90 days
	\$ 72,590	\$ 51		
As of June 30, 2020:				
Multi-Strategy Hedge Funds (a)	\$ 16,629	\$ -	Annual,	45-60 days
Real Estate Funds (b)	21,355	51_	Quarterly	90 days
	\$ 37,984	\$ 51		

- (a) This category includes investments in hedge funds that use a variety of strategies. These strategies may include long/short equity, long/short credit, event-driven, capital structure arbitrage, fixed income arbitrage, credit of distressed companies, and restructuring and underpriced companies. The remaining restriction period for these investments ranged from three to twelve months.
- (b) This category includes investments that maintain exposure to real estate and natural resources through public and private investments whose value is strongly controlled by commodities and real estate and may act as a hedge against unanticipated inflation.

The fair value of the Health System's pension assets is disclosed in Note 13.

The following methods and assumptions were used by the Health System in estimating fair value for disclosures in the consolidated financial statements:

Long-Term Debt—The fair value of long-term debt is based on quoted market prices or is estimated using discounted cash flow analyses for similar types of borrowing arrangements based on incremental borrowing rates. The carrying and fair values of long-term debt, excluding finance lease obligations, the Episcopal Healthcare Foundation debt, equipment financing arrangements, and the mortgage obligation at June 30, 2021, are \$451,236,000 and \$485,560,000 respectively. The carrying and fair values of long-term debt, excluding finance lease obligations, the Episcopal Healthcare Foundation debt, equipment financing arrangements, and the mortgage obligation at June 30, 2020, are \$458,446,000 and \$487,691,000, respectively.

Other—Cash and cash equivalents, patient and other accounts receivable, and all other current assets and liabilities are reported at amounts that approximate fair value due to the relatively short period to maturity.

19. FUNCTIONAL EXPENSES

The Health System provides general health care services to residents within its geographic location. Expenses related to providing these services for the years ended June 30, 2021 and 2020 are as follows (in thousands):

						2021				
	Health Care Services		Research		General and Administrative		Institutional Support		Total Expenses	
Salaries	\$	859,717	\$	27,581	\$	121,822	\$	1,444	\$	1,010,564
Employee benefits		213,931		8,170		32,466		429		254,996
Professional fees		114,310		894		30,321		-		145,525
Supplies and pharmaceuticals		470,073		5,701		13,937		117		489,828
Purchased services and other		112,284		4,095		78,905		2,522		197,806
Maintenance		14,326		-		6,114		-		20,440
Utilities		6,167		2,314		10,644		-		19,125
Leases		7,944		-		8,793		-		16,737
Insurance		85,131		-		3,338		-		88,469
Depreciation and amortization		26,907		2,383		14,410		-		43,700
Interest		21,805		1,031		629		-		23,465
Asset impairment		-		-		524		-		524
Gain on disposal of fixed assets		-		-		(520)		-		(520)
Gain on lease modification			_			(639)	_			(639)
Total expenses	\$	1,932,595	\$	52,169	\$	320,744	\$	4,512	\$	2,310,020

						2020				
	ŀ	lealth Care Services	F	Research	General and Administrative		Institutional Support		Total Expenses	
Salaries	\$	822,749	\$	28,283	\$	113,021	\$	1,411	\$	965,464
Employee benefits		204,983		7,927		29,224		395		242,529
Professional fees		101,336		820		22,508		38		124,702
Supplies and pharmaceuticals		442,779		6,118		10,243		1,020		460,160
Purchased services and other		94,965		2,658		94,753		2,382		194,758
Maintenance		14,521		-		4,898		-		19,419
Utilities		14,196		2,237		5,926		-		22,359
Leases		9,246		-		10,459		-		19,705
Insurance		54,832		-		2,978		-		57,810
Depreciation and amortization		28,360		2,466		14,857		-		45,683
Interest		22,023		1,043		783		-		23,849
Asset impairment		4		71		14,444		-		14,519
Loss on disposal of fixed assets		-				573				573
Total expenses	\$	1,809,994	\$	51,623	\$	324,667	\$	5,246	\$	2,191,530

The financial statements report certain expense categories that are attributable to more than one program or supporting function. Therefore, these expenses require an allocation on a reasonable basis that is consistently applied. Costs not directly attributable to a function, including depreciation, amortization, and other occupancy costs, are allocated on a square-footage basis. Other expenses are directly assigned to the related programs or supporting functions according to the functional department for which they

are incurred. Departmental expenses may include allocations of costs based on direct assignment or other methods.

20. LIQUIDITY AND AVAILABILITY OF RESOURCES

The Health System's financial assets available to meet cash needs for general expenditures within one year, as of June 30, 2021 and 2020, were as follows (in thousands):

	2021	2020
Cash and cash equivalents	\$ 533,231	\$ 595,267
Patient accounts receivable—net of allowance for		
doubtful accounts	258,505	211,786
Other receivables—net of allowance for doubtful accounts	99,354	97,781
Assets limited as to use—board-designated	1,952	482
Short-term investments	371,327	129,877
Expenditures reimbursable by research grants and awards	10,668	9,055
	\$ 1,275,037	\$1,044,248

Current financial assets not available for general use as of June 30, 2021 and 2020 were \$33,853,000 and \$32,871,000, respectively. Amounts not available for general use include debt service funds held by trustee, workers' compensation funds, and self-insurance assets.

As part of its liquidity management plan, the Health System invests cash in excess of planned requirements in short-term investments. The Health System also has long-term investments which could be liquidated in the event of an unanticipated cash need. Long-term investments as of June 30, 2021 and 2020 were \$74,537,000 and \$40,009,000, respectively.

The Health System maintains a revolving line of credit arrangement with a financial institution, as described in Note 9. As of June 30, 2021 and 2020, unused borrowings of \$75,000,000 and \$40,000,000, respectively, remained available on this line of credit.

In April through June of 2020, the Health System received \$158,593,000 in cash advances from accelerated Medicare payments requested under the CARES Act. In addition, \$8,224,000 in cash advances were received from other payers. Both amounts were reported within current portion of estimated settlements with third-party payers in the consolidated balance sheet as of June 30, 2020. As of June 30, 2021, the expected repayment timing for the Medicare advances had changed and \$125,391,000 remained on the consolidated balance sheet. Of this amount, \$95,035,000 is reported within current portion of estimated settlements with third-party payers and \$30,356,000 is within estimated settlements with third-party payers. All remaining advances are expected to be repaid or recouped through future claims activity by September 30, 2022.

The CARES Act also provides for deferred payment of the employer portion of social security taxes between March 27, 2020 and December 31, 2020 with 50% of the deferred amount due no later than December 31, 2021 and the remaining 50% due no later than December 31, 2022. The Health System began deferring the employer portion of social security taxes in April 2020. Deferred payments of \$28,066,000 and \$7,955,000 are reported within accrued expenses on the consolidated balance sheet as of June 30, 2021 and June 30, 2020, respectively.

21. SUBSEQUENT EVENTS

The Health System has evaluated subsequent events through October 27, 2021, the date the financial statements were issued. There were no subsequent events requiring recording or disclosure in the consolidated financial statements.

* * * * * *

SUPPLEMENTAL SCHEDULES

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING BALANCE SHEET INFORMATION AS OF JUNE 30, 2021

(In thousands)

ASSETS	Temple University Hospital, Inc.	Institute for Cancer Research	American Oncologic Hospital	FCCC Medical Group, Inc.	Fox Chase Network, Inc.	Temple Physicians Inc.	Temple Health System Transport Team, Inc.	TUHS Parent Company (1)	Obligated Group Eliminations	Obligated Group Consolidated
CURRENT ASSETS:										
Cash and cash equivalents	\$ 307,426	\$ 2,430	\$ 62,376	\$ 22,866	\$ 750	\$ 11,636	\$ 875	\$ 47,402	\$ -	\$ 455,761
Patient accounts receivable—net of allowance for										
doubtful accounts	216,688	-	21,850	5,341	-	2,853	-	-	-	246,732
Other receivables—net of allowance for doubtful accounts	78,676	1,191	1,184	1,171	653	35	393	2,262	-	85,565
Inventories and other current assets	42,214	922	7,532	6	-	289	2	4,557	-	55,522
Current portion of assets limited as to use Investments	15 266,679	1,135 7,554	465 49,375	-	-	-	-	19,380 15,323	-	20,995 338,931
Current portion of workers' compensation fund	5,743	50	237	3	_	28	3	6	_	6,070
Current portion of self-insurance program receivables	-	-	-	-	_	-	-	2,000	_	2,000
Expenditures reimbursable by research grants and awards	-	9,685	972	-	11	-	-	· -	-	10,668
Due from affiliates—current portion	29,549	1,821	6,824	3,285	14	3,638	135	71,965	(82,792)	34,439
Total current assets	946,990	24,788	150,815	32,672	1,428	18,479	1,408	162,895	(82,792)	1,256,683
PROPERTY, PLANT AND EQUIPMENT:										
Land and land improvements	8,954	1,221	3,394	-	_	-	-	8	-	13,577
Buildings	419,171	23,632	28,423	-	-	4,966	-	8,055	-	484,247
Fixed and movable equipment	411,973	21,750	45,221	168	-	4,806	1,864	78,511	-	564,293
Construction-in-progress	2,850	453	123					358		3,784
	842,948	47,056	77,161	168	-	9,772	1,864	86,932	-	1,065,901
Less accumulated depreciation	638,665	24,817	42,378	136		8,895	1,301	67,025		783,217
Net property, plant and equipment	204,283	22,239	34,783	32	-	877	563	19,907	-	282,684
OPERATING LEASE RIGHT-OF USE ASSETS	2,428	-	3,174	4	-	2,489	5	12,728	-	20,828
ASSETS LIMITED AS TO USE	7,873	18,494	9,404	28	-	62	-	51,585	-	87,446
INVESTMENTS	55,577	320	6,607	-	-	-	-	4,594	-	67,098
WORKERS' COMPENSATION FUND	-	557	1,536	79	-	-	167	262	-	2,601
SELF-INSURANCE PROGRAM RECEIVABLES	13,610	-	724	4,996	-	10,778	-	40,422	(30,108)	40,422
INVESTMENT IN TUHIC	-	-	-	-	-	-	-	38,461	-	38,461
GOODWILL AND OTHER INTANGIBLES	-	2,061	73	-	634	-	-	-	-	2,768
BENEFICIAL INTEREST IN ASSETS HELD BY OTHERS	63,743	71,096	7,172	-	-	-	-	-	-	142,011
DUE FROM AFFILIATES	1,874	-	-	-	-	-	-	329,634	(331,508)	-
OTHER ASSETS	85,550	8,582	859	138	1	142		4,557		99,829
TOTAL ASSETS	\$ 1,381,928	\$ 148,137	\$ 215,147	\$ 37,949	\$ 2,063	\$ 32,827	\$ 2,143	\$ 665,045	\$ (444,408)	\$ 2,040,831

⁽¹⁾ TUHS Parent Company accounts for its investment in TUHIC under the equity method. The remaining entities are accounted for at cost.

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING BALANCE SHEET INFORMATION AS OF JUNE 30, 2021

(In thousands)

ASSETS	Episcopal Hospital	TUHS Insurance Company, Ltd.	TUHS Foundation	Fox Chase Limited	Temple Center for Population Health	Temple Faculty Practice Plan, Inc.	Non-Obligated Group Eliminations	Non-Obligated Group Consolidated	Remaining Eliminations	Temple University Health System Consolidated
CURRENT ASSETS:										
Cash and cash equivalents	\$ 4,476	\$ 6,821	\$ 14,279	\$	- \$ 206	\$ 51,688	\$ -	\$ 77,470	\$ -	\$ 533,231
Patient accounts receivable—net of allowance for								44.550		250 505
doubtful accounts Other receivables net of allowance for doubtful accounts	2,234	269	209		1,608	11,773 9,469	-	11,773 13,789	-	258,505 99,354
Inventories and other current assets	2,234	16	209		- 1,008	335	-	540	-	56,062
Current portion of assets limited as to use	-	6,740	-			-	-	6,740	-	27,735
Investments	3,137	-	29,259	-		-	-	32,396	-	371,327
Current portion of workers' compensation fund	-	-	-	-	-	-	-	-	-	6,070
Current portion of self-insurance program receivables	-	-	-	-		-	-	-	-	2,000
Expenditures reimbursable by research grants and awards Due from affiliates—current portion	1,115			4	3,550	34,981	(317)	39,333	(73,772)	10,668
Total current assets	10,962	13,846	43,747	4	5,553	108,246	(317)	182,041	(73,772)	1,364,952
PROPERTY, PLANT AND EQUIPMENT:										
Land and land improvements	231	-	-			-	-	231	-	13,808
Buildings	12,868	-	-			1,911	-	14,779	-	499,026
Fixed and movable equipment	533	-	-	-	-	14,025	-	14,558	-	578,851
Construction-in-progress					<u> </u>		<u>-</u>		<u>-</u>	3,784
	13,632	-	-			15,936	-	29,568	-	1,095,469
Less accumulated depreciation	12,081				<u> </u>	14,878		26,959		810,176
Net property, plant and equipment	1,551	-	-			1,058	-	2,609	-	285,293
OPERATING LEASE RIGHT-OF-USE ASSETS	-	-	-			554	-	554	-	21,382
ASSETS LIMITED AS TO USE	-	87,072	-			62	-	87,134	-	174,580
INVESTMENTS	820	-	6,559	60	-	-	-	7,439	-	74,537
WORKERS' COMPENSATION FUND	-	-	-			-	-	-	-	2,601
SELF-INSURANCE PROGRAM RECEIVABLES	-	-	-			7,543	-	7,543	(7,542)	40,423
INVESTMENT IN TUHIC	-	-	-			-	-	-	(38,461)	-
GOODWILL AND OTHER INTANGIBLES	-	-	-			-	-	-	-	2,768
BENEFICIAL INTEREST IN ASSETS HELD BY OTHERS	32,489	-	-			-	-	32,489	(32,489)	142,011
DUE FROM AFFILIATES	-	-	-			-	-	-	-	-
OTHER ASSETS	3,581				<u> </u>	(2)	<u> </u>	3,579	<u>-</u>	103,408
TOTAL ASSETS	\$ 49,403	\$ 100,918	\$ 50,306	\$ 64	\$ 5,553	\$ 117,461	\$ (317)	\$ 323,388	\$ (152,264)	\$ 2,211,955

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING BALANCE SHEET INFORMATION AS OF JUNE 30, 2021

(In thousands)

LIABILITIES AND NET ASSETS	Temple University Hospital, Inc.	Institute for Cancer Research	American Oncologic Hospital	FCCC Medical Group, Inc.	Fox Chase Network, Inc.	Temple Physicians Inc.	Temple Health System Transport Team, Inc.	TUHS Parent Company (1)	Obligated Group Eliminations	Obligated Group Consolidated
CURRENT LIABILITIES:										
Current portion of long-term debt	\$ 5,417	\$ 368	\$ 1,163	\$ -	\$ -	\$ 10	\$ -	\$ 6,016	\$ -	\$ 12,974
Current portion of operating lease liabilities	458	-	1,118	4	-	1,052	5	1,489	-	4,126
Accounts payable	76,492	2,552	12,163	615	5	128	17	8,476	-	100,448
Accrued expenses	73,397	8,132	13,838	10,696	319	6,198	222	66,350	(30,108)	149,044
Current portion of estimated settlements									-	
with third-party payers	73,608	-	26,176	-	-	-	-	-	-	99,784
Current portion of self-insurance program liabilities	19,390	50	459	1,168	-	747	3	2,007	-	23,824
Unexpended research grants and awards	-	3,664	528	6	-	-	-	-	-	4,198
Due to affiliates—current portion	59,078	8,097	9,533	3,397	57	3,559	459	38,261	(82,792)	39,649
Other current liabilities	85,913	155	2,298	526		647		16,200		105,739
Total current liabilities	393,753	23,018	67,276	16,412	381	12,341	706	138,799	(112,900)	539,786
LONG-TERM DEBT	7,501	245	8,773	-	-	39	-	446,190	-	462,748
OPERATING LEASE LIABILITIES	1,982	-	2,260	-	-	1,489	-	11,944	-	17,675
ESTIMATED SETTLEMENTS WITH THIRD-PARTY PAYERS	-	-	30,356	-	-	-	-	-	-	30,356
SELF-INSURANCE PROGRAM LIABILITIES	81,883	141	3,334	5,079	-	9,190	121	40,491	-	140,239
ACCRUED POSTRETIREMENT BENEFITS	6,031	944	1,749	485	-	-	-	-	-	9,209
DUE TO AFFILIATES	244,677	19,703	65,255	-	-	-	-	1,873	(331,508)	-
OTHER LONG-TERM LIABILITIES	104,866	1,339	1,676	552		403		387		109,223
Total liabilities	840,693	45,390	180,679	22,528	381	23,462	827	639,684	(444,408)	1,309,236
NET ASSETS (DEFICIT):										
Without donor restrictions	468,811	7,911	16,673	15,421	1,682	9,365	1,316	25,361	_	546,540
With donor restrictions	72,424	94,836	17,795							185,055
Total net assets (deficit)	541,235	102,747	34,468	15,421	1,682	9,365	1,316	25,361		731,595
TOTAL LIABILITIES AND NET ASSETS	\$ 1,381,928	\$ 148,137	\$ 215,147	\$ 37,949	\$ 2,063	\$ 32,827	\$ 2,143	\$ 665,045	\$ (444,408)	\$ 2,040,831

⁽¹⁾ TUHS Parent Company accounts for its investment in TUHIC under the equity method. The remaining entities are accounted for at cost.

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING BALANCE SHEET INFORMATION AS OF JUNE 30, 2021

(In thousands)

LIABILITIES AND NET ASSETS	Episcopal Hospital	TUHS Insurance Company, Ltd.	TUHS Foundation	Fox Chase Limited	Temple Center for Population Health	Temple Faculty Practice Plan, Inc.	Non-Obligated Group Eliminations	Non-Obligated Group Consolidated	Remaining Eliminations	Temple University Health System Consolidated
CURRENT LIABILITIES: Current portion of long-term debt Current portion of operating lease liabilities Accounts payable Accrued expenses	\$ - - -	\$ - - - 106	\$ - - -	\$ - - - -	\$ - - - 99	\$ 42 263 2,012 15,561	\$ - - - -	\$ 42 263 2,012 15,766	\$ - - (5,126)	\$ 13,016 4,389 102,460 159,684
Current portion of estimated settlements with third-party payers Current portion of self-insurance program liabilities Unexpended research grants and awards Due to affiliates—current portion Other current liabilities	- - - 646 2	23,689 - 4,400	- - - 24	- - - 67	3,983	7,837 - 25,320 1,064	(317)	31,526 - 34,123 1,066	(73,772)	99,784 55,350 4,198 - 106,805
Total current liabilities	648	28,195	24	67	4,082	52,099	(317)	84,798	(78,898)	545,686
LONG-TERM DEBT	-	-	-	-	-	31	-	31	-	462,779
OPERATING LEASE LIABILITIES	-	-	-	-	-	299	-	299	-	17,974
ESTIMATED SETTLEMENTS WITH THIRD-PARTY PAYERS	-	-	-	-	-	-	-	-	-	30,356
SELF-INSURANCE PROGRAM LIABILITIES	2,416	34,262	-	-	-	69,253	-	105,931	(2,416)	243,754
ACCRUED POSTRETIREMENT BENEFITS	1,773	-	-	-	-	-	-	1,773	-	10,982
DUE TO AFFILIATES	-	-	-	-	-	-	-	-	-	-
OTHER LONG-TERM LIABILITIES	35,407					(11)		35,396	(32,489)	112,130
Total liabilities	40,244	62,457	24	67	4,082	121,671	(317)	228,228	(113,803)	1,423,661
NET ASSETS (DEFICIT): Without donor restrictions With donor restrictions	9,159	38,461	50,282	(3)	1,471	(4,210)		95,160	(38,461)	603,239 185,055
Total net assets (deficit)	9,159	38,461	50,282	(3)	1,471	(4,210)		95,160	(38,461)	788,294
TOTAL LIABILITIES AND NET ASSETS	\$ 49,403	\$ 100,918	\$ 50,306	\$ 64	\$ 5,553	\$ 117,461	\$ (317)	\$ 323,388	\$ (152,264)	\$ 2,211,955

(Concluded)

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING STATEMENT OF OPERATIONS AND CHANGES IN NET ASSETS INFORMATION FOR THE YEAR ENDED JUNE 30, 2021

(In thousands)

	Temple University Hospital, Inc.	Institute for Cancer Research	American Oncologic Hospital	FCCC Medical Group, Inc.	Fox Chase Network, Inc.	Temple Physicians Inc.	Temple Health System Transport Team, Inc.	TUHS Parent Company (1)	TUHS Obligated Group Eliminations	Obligated Group Consolidated
NET ASSETS WITHOUT DONOR RESTRICTIONS:										
Revenues and other support without donor restrictions:										
Net patient service revenue before allowance for										
doubtful accounts	\$ 1,718,540	\$ -	\$ 212,260	\$ 33,939	\$ -	\$ 51,783	\$ -	\$ -	\$ -	\$ 2,016,522
Allowance for doubtful accounts	34		223	10						267
Total net patient service revenue	1,718,574	-	212,483	33,949	-	51,783	-	-	-	2,016,789
Research revenue	-	45,667	-	-	-	-	-	-	(2,026)	43,641
Contribution revenue	1,440	1,764	1,022	-	-	-	-	-	-	4,226
Other revenue	105,268	1,076	11,587	37,426	199	21,496	3,413	110,258	(152,913)	137,810
Investment income	-	-	-	-	-	-	-	145	-	145
Net assets released from restrictions used for operations	1,404	4,778	1,109							7,291
Revenues and other support without donor restrictions	1,826,686	53,285	226,201	71,375	199	73,279	3,413	110,403	(154,939)	2,209,902
Expenses:										
Salaries	516,755	45,798	88,674	60,229	559	42,364	3,595	33,780	1	791,755
Employee benefits	149,900	13,579	24,121	8,305	143	10,065	1,069	7,276	_	214,458
Professional fees	205,385	1,727	17,342	250	16	8,481	103	23,332	(41,764)	214,872
Supplies and pharmaceuticals	414,671	8,684	49,885	173	3	2,692	123	6,124	32	482,387
Purchased services and other	264,118	5,259	37,844	(1,957)	10	5,090	626	12,888	(88,707)	235,171
Maintenance	18,832				_	258	43	876	89	20,098
Utilities	10,167	2,679	2,388	_	_	821	51	766	50	16,922
Leases	10,368	434	2,454	6	_	2,928	124	3,640	(2,187)	17,767
Insurance	51,099	61	803	3,361	_	5,288	29	198	-	60,839
Depreciation and amortization	29,398	2,758	4,533	13	106	418	185	5,774	-	43,185
Interest	18,501	1,070	3,934	_	_	142	5	22,258	(22,453)	23,457
Asset impairment	· -	-	· -	-	524	-	-	· <u>-</u>	` · · -	524
(Gain) loss on disposal of fixed assets	(517)	-	2	_	-	(5)	-	-	_	(520)
Gain on lease modification		- _						(639)		(639)
Expenses	1,688,677	82,049	231,980	70,380	1,361	78,542	5,953	116,273	(154,939)	2,120,276
Operating income (loss)	138,009	(28,764)	(5,779)	995	(1,162)	(5,263)	(2,540)	(5,870)		89,626
Other income—net:										
Investment income (loss)	40,419	982	5,929	284	_	260	5	102	_	47,981
Other income (loss)	3,693	(77)	(150)	(29)				6,078		9,515
Other income—net	44,112	905	5,779	255		260	5	6,180		57,496
Excess (deficiency) of revenues and other support over										
expenses from continuing operations	182,121	(27,859)		1,250	(1,162)	(5,003)	(2,535)	310		147,122

⁽¹⁾ TUHS Parent Company accounts for its investment in TUHIC under the equity method. The remaining entities are accounted for at cost.

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING STATEMENT OF OPERATIONS AND CHANGES IN NET ASSETS INFORMATION FOR THE YEAR ENDED JUNE 30, 2021

(In thousands)

	Episcopal Hospital	TUHS Insurance Company, Ltd.	TUHS Foundation	Fox Chase Limited	Temple Center for Population Health	Temple Faculty Practice Plan, Inc.	Non-Obligated Group Eliminations	Non-Obligated Group Consolidated	Remaining Eliminations	Temple University Health System Consolidated
NET ASSETS WITHOUT DONOR RESTRICTIONS:										
Revenues and other support without donor restrictions:										
Net patient service revenue before allowance for										
doubtful accounts	\$ -	\$ -	\$ -	\$ -	\$ 4,486	\$ 192,024	\$ (720) 5	\$ 195,790	\$ (2,537)	\$ 2,209,775
Allowance for doubtful accounts								<u> </u>		267
Total net patient service revenue	-	-	-	-	4,486	192,024	(720)	195,790	(2,537)	2,210,042
Research revenue	-	-	-	-	-	-	_	-	_	43,641
Contribution revenue	-	-	-	-	-	-	-	-	-	4,226
Other revenue	4,936	16,567	-	_	427	69,596	(20)	91,506	(89,794)	139,522
Investment income	· -	_	-	_	-	_	-	· -		145
Net assets released from restrictions used for operations								_		7,291
Revenues and other support without donor restrictions	4,936	16,567			4,913	261,620	(740)	287,296	(92,331)	2,404,867
Expenses:										
Salaries	879	_	_	_	2,700	216,421	_	220,000	(1,191)	1,010,564
Employee benefits	904	440	_	_	877	38,863	_	41,084	(546)	254,996
Professional fees	1	-	_	_	90	(60,243)	(20)	(60,172)	(9,175)	145,525
Supplies and pharmaceuticals	115				65	7,261	(20)	7,441	(2,173)	489,828
Purchased services and other	108	346	_	_	1,177	21,088	(720)	21,999	(59,364)	197,806
Maintenance	214	340	-	-	1,1//	127	(720)	342	(39,304)	20,440
Utilities	322	-	-	-	3	1,878	-	2,203	-	19,125
Leases	322	-	-	-	3	5,244	-	5,244	(6,274)	16,737
Insurance	190	16,228	-	-	-	27,440	-	43,858	(16,228)	88,469
		10,228	-	-	-	262	-		(10,228)	
Depreciation and amortization	253 2	-	-	-	-	6	-	515 8	-	43,700
Interest	2	-	-	-	-	6	-	8	-	23,465
Asset impairment	-	-	-	-	-	-	-	-	-	524
(Gain) loss on disposal of fixed assets Gain on lease modification										(520) (639)
Expenses	2,988	17,014			4,913	258,347	(740)	282,522	(92,778)	2,310,020
Operating income (loss)	1,948	(447)				3,273		4,774	447	94,847
Other income—net:										
Investment income (loss)	951	1,634	8,581	_	_	1,501	_	12,667	(1,634)	59,014
Other income (loss)	440					1,225		1,665		11,180
Other income—net	1,391	1,634	8,581			2,726	<u>-</u> .	14,332	(1,634)	70,194
Excess (deficiency) of revenues and other support over expenses										
from continuing operations	3,339	1,187	8,581	_	-	5,999	_	19,106	(1,187)	165,041
5 1								. ,- ,-		

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING STATEMENT OF OPERATIONS AND CHANGES IN NET ASSETS INFORMATION FOR THE YEAR ENDED JUNE 30, 2021

(In thousands)

	Temple University Hospital, In		Institute for Cancer Research	American Oncologic Hospital	FCCC Medical Group, Inc.	Fox Chase Network, Inc.	Temple Physicians, Inc.	Temple Health System Transport Team, Inc.	TUHS Parent Company (1)	Obligated Group Eliminations	Obligated Group Consolidated
Excess (deficiency) of revenues and other support											
over expenses	\$ 182,	121	\$ (27,859)	\$ -	\$ 1,250	\$ (1,162) \$ (5,003)	\$ (2,535)	\$ 310	\$ -	\$ 147,122
Other changes in net assets without donor restrictions:											
Transfers (to) from affiliates/the University	(51,	478)	25,642	5,075	661	1,001	6,850	3,050	1,470	-	(7,729)
Net assets released from restrictions used for											
purchase of property and equipment		234	206	59	-	-	-	-	-	-	2,499
Net change in fair value of investments	(184)	(9)	87	(2)	-	(1)	(5)	(2,673)	-	(2,787)
Adjustment to funded status of pension and											
postretirement liabilities	36,	434	110	212	46	-	-	-	-	-	36,802
Other change in net assets	-	79			11		(45)		(645)		(600)
Increase (decrease) in net assets without donor restrictions	169,	206	(1,910)	5,433	1,966	(161	1,801	510	(1,538)		175,307
NET ASSETS WITH DONOR RESTRICTIONS:											
Transfers (to) from affiliates		-	_	_	_	-	_	_	_	_	_
Contribution income	2.	889	3,148	307	_	-	_	_	_	_	6,344
Net assets released from restrictions		659)	(4,982)	(1,149)	_	-	_	_	_	_	(9,790)
Net change in fair value of investments		548	1,992	954	_	-	_	_	_	_	3,494
Investment income (loss)		272	2,504	408	_	-	_	_	_	_	3,184
Change in beneficial interest in assets held by others		710	7,861	964			<u> </u>				19,535
Increase (decrease) in net assets with donor restrictions	10,	760	10,523	1,484			<u>-</u>				22,767
INCREASE (DECREASE) IN NET ASSETS	179,	966	8,613	6,917	1,966	(161	1,801	510	(1,538)	-	198,074
NET ASSETS (DEFICIT)—Beginning of year	361,	269	94,134	27,551	13,455	1,843	7,564	806	26,899		533,521
NET ASSETS (DEFICIT)—End of year	\$ 541,	235	\$ 102,747	\$ 34,468	\$ 15,421	\$ 1,682	\$ 9,365	\$ 1,316	\$ 25,361	<u>\$</u> -	\$ 731,595

⁽¹⁾ TUHS Parent Company accounts for its investment in TUHIC under the equity method. The remaining entities are accounted for at cost.

SUPPLEMENTAL SCHEDULE OF CONSOLIDATING STATEMENT OF OPERATIONS AND CHANGES IN NET ASSETS INFORMATION FOR THE YEAR ENDED JUNE 30, 2021

(In thousands)

	Episcopal Hospital	TUHS Insurance Company, Ltd.	TUHS Foundation	Fox Chase Limited	Temple Center for Population Health	Temple Faculty Practice Plan, Inc.	Non-Obligated Group Consolidated	Remaining Eliminations	Temple University Health System Consolidated
Excess (deficiency) of revenues and other support									
over expenses	\$ 3,339	9 \$ 1,187	\$ 8,581	\$ -	\$ -	\$ 5,999	\$ 19,106	\$ (1,187)	\$ 165,041
Other changes in net assets without donor restrictions:									
Transfers (to) from affiliates/the University		- (4,000)	-	-	-	1,470	(2,530)	4,000	(6,259)
Net assets released from restrictions used for									
purchase of property and equipment			-	-	-	-	-	-	2,499
Net change in fair value of investments		- (2,456)	-	-	-	-	(2,456)	2,456	(2,787)
Adjustment to funded status of pension and	10.45	0					10.450		47.260
postretirement liabilities Other change in net assets	10,45	8 -				(1)	10,458	-	47,260 (601)
other change in her assess	-					(1)	(1)		(001)
Increase (decrease) in net assets without donor restrictions	13,79	(5,269)	8,581			7,468	24,577	5,269	205,153
NET ASSETS WITH DONOR RESTRICTIONS:									
Transfers (to) from affiliates			-	-	-	-	_	_	_
Contribution income			-	-	_	-	-	-	6,344
Net assets released from restrictions			-	-	-	-	-	-	(9,790)
Net change in fair value of investments			-	-	-	-	-	-	3,494
Investment income (loss)			-	-	-	-	-	-	3,184
Change in beneficial interest in assets held by others		<u> </u>					-		19,535
Increase (decrease) in net assets with donor restrictions		<u> </u>							22,767
INCREASE (DECREASE) IN NET ASSETS	13,79	7 (5,269)	8,581	-	-	7,468	24,577	5,269	227,920
NET ASSETS (DEFICIT)—Beginning of year	(4,63	8) 43,730	41,701	(3)	1,471	(11,678)	70,583	(43,730)	560,374
NET ASSETS (DEFICIT)—End of year	\$ 9,159	9 \$ 38,461	\$ 50,282	\$ (3)	\$ 1,471	\$ (4,210)	\$ 95,160	\$ (38,461)	\$ 788,294

(Concluded)

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1



APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND SUPPLEMENTAL MASTER INDENTURE NO. 1

The following is a summary of certain provisions of the Master Indenture and Supplemental Master Indenture No. 1 (also referred to as "Supplement No. 1") that are not described elsewhere in this Official Statement. These summaries do not purport to be comprehensive and reference should be made to the Master Indenture and Supplemental Master Indenture No. 1 for a full and complete statement of their provisions.

DEFINITIONS OF CERTAIN TERMS

Unless the context otherwise requires, the terms defined in this summary shall, for all purposes of this summary, have the meanings herein specified, to be equally applicable to both singular and plural forms of any of the terms herein defined. Unless otherwise defined in this summary, all terms used herein or elsewhere in the Official Statement shall have the meanings assigned to such terms in the Master Indenture or Supplemental Master Indenture No. 1, as applicable.

"Accountant" means any independent certified public accountant or firm of such accountants selected by the Credit Group Representative.

"Additional Indebtedness" means any Indebtedness (including all Master Indenture Obligations) incurred subsequent to the execution and delivery of Master Indenture Obligation No. 1, relating to the Hospitals and Higher Education Facilities Authority of Philadelphia Revenue Bonds (Temple University Health System Obligated Group), Series 2022.

"Authorized Representative" means with respect to each Credit Group Member, its chair or vice chair of the board, president, chief executive officer, chief financial officer, or any other person designated as an Authorized Representative of such Credit Group Member by a Certificate of that Credit Group Member signed by its chair or vice chair of the board, president, chief executive officer, or chief financial officer and filed with the Master Trustee.

"Balloon Indebtedness" means (1) Long-Term Indebtedness, 25% or more of the original principal of which (calculated as of the date of issuance) becomes due or, at the option of the payee, could become due or payable in connection with any required purchase of such Long-Term Indebtedness during any period of 12 consecutive months if such maturing principal amount is not required to be amortized below such percentage by mandatory redemption prior to such 12-month period or (2) any portion of an issue of Indebtedness which, if treated as a separate issue of Long-Term Indebtedness, would meet the test set forth in clause (1) of this definition and which Indebtedness is designated as Balloon Indebtedness in an Officer's Certificate stating that such portion shall be deemed to constitute a separate issue of Balloon Indebtedness.

"Book Value" means, when used in connection with Property, Plant and Equipment or other Property of any Credit Group member, the value of such property, net of accumulated depreciation, as it is carried on the books of the Credit Group Member and in conformity with GAAP, and when used in connection with Property, Plant and Equipment or other Property of the Credit Group, means the aggregate of the values so determined with respect to such Property of each Credit Group Member determined in such a way that no portion of such value of Property of any Credit Group Member is included more than once. For purposes of performing certain calculations under the Master Indenture, the Credit Group Representative may treat "total assets" as shown on the Credit Group's Financial Statements as the Book Value of the Credit Group's Property.

"Capitalization" means the sum of the aggregate Long-Term Indebtedness of any Person or group of Persons, plus the aggregate unrestricted net assets of any such Person or group of Persons, all as calculated in conformity with GAAP.

"Capitalized Interest" means that portion of the proceeds of any Indebtedness or any other funds (other than any bond fund or debt service reserve fund securing Indebtedness) that are held in trust and are restricted to be used to pay interest due or to become due on Indebtedness, including funds held in connection with an advance refunding.

"Certificate," "Statement," "Request," "Consent" or "Order" of any Credit Group Member or of the Master Trustee means, respectively, a written certificate, statement, request, consent or order signed in the name of such Credit Group Member by its Authorized Representative or in the name of the Master Trustee by its Responsible Officer. Any such instrument and supporting opinions or certificates, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or certificate and the two or more so combined shall be read and construed as a single instrument.

"Code" means the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

"Commonwealth" means the Commonwealth of Pennsylvania.

"Completion Indebtedness" means any Long-Term Indebtedness incurred for the purpose of fmancing the completion of construction or equipping of any project for which Long-Term Indebtedness or Interim Indebtedness has theretofore been incurred in accordance with the provisions of the Master Indenture, to the extent necessary to provide a completed and fully equipped facility of the type and scope contemplated at the time said Long-Term Indebtedness or Interim Indebtedness was incurred, and in accordance with the general plans and specifications for such facility as originally prepared in connection with said Long-Term Indebtedness or Interim Indebtedness as certified by an Officer's Certificate.

"Controlling Member" means, as applicable, (i) the Obligated Group Member designated by the Credit Group Representative to establish and maintain control over a Designated Affiliate or (ii) the Obligated Group Member or Designated Affiliate that maintains a contract or agreement with an Unlimited Credit Group Participant or a Limited Credit Group Participant.

"Corporation" means Temple University Health System, Inc., a nonprofit corporation duly organized and existing under the laws of the Commonwealth, or any corporation which is the surviving, resulting or transferee corporation in any merger, consolidation or transfer of all or substantially all assets permitted under the Master Indenture.

"Credit Group" means, collectively, the Credit Group Members.

"Credit Group Financial Statements" means, at the option of the Credit Group Representative, (a) any special purpose financial statements prepared in accordance with GAAP and including only the Credit Group or (b) the financial information related solely to the Credit Group, as shown on the consolidating or combining schedule contained in any System Financial Statements; provided, however, in each case, the Credit Group Financial Statements may include, at the option of the Credit Group Representative, the results of operations and financial position of Immaterial Affiliates.

"Credit Group Member" means each Obligated Group Member, each Designated Affiliate, each Limited Credit Group Participant, and each Unlimited Credit Group Participant.

"Credit Group Representative" means the Corporation or such other Obligated Group Member (or Obligated Group Members acting jointly) as may have been designated pursuant to written notice to the Master Trustee executed by the Corporation or a successor Credit Group Representative.

"Current Assets" means cash and cash equivalent deposits, marketable securities, accounts receivable, accrued interest receivable, funds permitted to be designated by the Governing Body of any Obligated Group Member for any specific purpose and any other assets of any Obligated Group Member ordinarily considered current assets under generally accepted accounting principles.

"Debt Service Requirements" means, subject to the provisions of the Master Indenture summarized in the section captioned "THE MASTER INDENTURE—Certain Considerations with Respect to Computation of Debt Service Requirements", with respect to the period of time for which calculated, the sum (without duplication) of the aggregate amount of principal and interest scheduled to become due and payable on all Long-Term Indebtedness of the Credit Group then Outstanding (by scheduled maturity, acceleration, mandatory redemption or otherwise, but not including purchase price becoming due as a result of mandatory or optional tender or put), less (1) any amounts of such principal or interest to be paid during such period from (a) the proceeds of Indebtedness (including, where appropriate, the earnings or other increment to accrue thereon), (b) moneys or Government Obligations deposited in trust as an Irrevocable Deposit for the purpose of paying such principal or interest (including, where appropriate, the earnings or other increment to accrue thereon) or (c) the amount of principal and related interest to be paid during such period of time to the extent such principal and related interest payment is reasonably expected to be paid from moneys available in a debt service reserve fund and such debt service reserve fund is fully-funded but only if such principal and the related interest to be paid is the last installment of principal of such Long-Term Indebtedness, and (2) any Debt Service Subsidy payable for such period of time; provided that if an Identified Financial Product Agreement has been entered into by any Credit Group Member with respect to Long-Term Indebtedness, interest on such Long-Term Indebtedness shall be included in the calculation of Debt Service Requirements by including for such period of time an amount equal to the amount of interest payable on such Long-Term Indebtedness during such period of time at the rate or rates stated in such Long-Term Indebtedness plus any Financial Product Payments under an Identified Financial Product Agreement payable for such period of time minus any Financial Product Receipts under an Identified Financial Product Agreement receivable for such period of time; provided that in no event shall any calculation made pursuant to this clause result in a number less than zero being included in the calculation of Debt Service Requirements.

"Debt Service Subsidy" means direct subsidy payments payable to a Credit Group Member (or a Related Bond Issuer on behalf of a Credit Group Member) with respect to Indebtedness of such Credit Group Member or Related Bonds, pursuant to any federal or state program providing for payment to a Credit Group Member (or a Related Bond Issuer on behalf of a Credit Group Member) of all or a portion of debt service on Indebtedness of a Credit Group Member.

"Default" means an event that, with the passage of time or the giving of notice or both, would become an Event of Default.

"Designated Affiliate" means any Person which has been so designated by the Credit Group Representative in accordance with the provisions of the Master Indenture, summarized in the section captioned "THE MASTER INDENTURE—Credit Group Membership", so long as such Person has not been further designated by the Credit Group Representative as no longer being a Designated Affiliate in accordance with such provisions.

"Event of Default" means any of the events specified as such in the Master Indenture, as described in the section captioned "THE MASTER INDENTURE—Events of Default."

"Excluded Property" means (a) any assets of "employee pension benefit plans" as defined in the Employee Retirement Income Security Act of 1974, as amended, and (b) the real estate described in the Master Indenture, as amended as provided therein from time to time, and all improvements, fixtures, tangible personal property, and equipment located thereon and used in connection therewith.

"Fair Market Value," when used in connection with Property, means the fair market value of such Property as determined by either:

- (a) an appraisal of the portion of such Property which is real property made within five years of the date of determination by a "Member of the Appraisal Institute" and by an appraisal of the portion of such Property which is not real property made within five years of the date of determination by any expert qualified in relation to the subject matter, provided that any such appraisal shall be performed by an Independent Consultant, adjusted for the period, not in excess of five years, from the date of the last such appraisal for changes in the implicit price deflator for the gross national product as reported by the United States Department of Commerce or its successor agency, or if such index is no longer published, such other index certified to be comparable and appropriate in an Officer's Certificate delivered to the Master Trustee;
- (b) a bona fide offer for the purchase of such Property made on an arm's-length basis within six months of the date of determination, as established by an Officer's Certificate; or
- (c) an officer of the Credit Group Representative (whose determination shall be made in good faith and set forth in an Officer's Certificate filed with the Master Trustee) if the fair market value of such Property as set forth in such Officer's Certificate is less than or equal to the greater of \$5,000,000 or 2.5% of cash and equivalents as shown on the most recent Credit Group Financial Statements.

"Financial Product Agreement" means any interest rate exchange agreement, hedge or similar arrangement, including, inter alia, an interest rate swap, asset swap, a constant maturity swap, a forward or futures contract, cap, collar, option, floor, forward or other hedging agreement, arrangement or security, direct funding transaction or other derivative, however denominated and whether entered into on a current or forward basis.

"Financial Product Extraordinary Payments" means any payments required to be paid to a counterparty by a Credit Group Member pursuant to a Financial Product Agreement in connection with the termination thereof, tax gross-up payments, expenses, default interest, and any other payments or indemnification obligations to be paid to a counterparty by a Credit Group Member under a Financial Product Agreement, which payments are not Financial Product Payments.

"Financial Product Payments" means regularly scheduled payments required to be paid to a counterparty by a Credit Group Member pursuant to a Financial Product Agreement and excluding Financial Product Extraordinary Payments.

"Financial Product Receipts" means regularly scheduled payments required to be paid to a Credit Group Member by a counterparty pursuant to a Financial Product Agreement.

"Fiscal Year" means the period beginning on July 1 of each year and ending on the next succeeding June 30, or any other twelve-month period hereafter designated by the Credit Group Representative as the fiscal year of the Credit Group; for purposes of making historical calculations or determinations set forth in this Master Indenture on a Fiscal Year basis, or for purposes of combinations or consolidation of accounting information, with respect to any Credit Group member whose actual fiscal year is different from that designated above, the actual fiscal year of such Credit Group Member which ended within the Fiscal Year designated above shall be used.

"Force Majeure Event" means any of the following: acts of God, acts of public enemies; validly issued orders of any kind of the government of the United States of America, the state or states in which the relevant

Credit Group Member is doing business, or any of their departments, agencies, political subdivisions or officials, or any civil or military authority, imposed due to factors not within the control of such Credit Group Member and having a material effect on its ability to carry out its agreements hereunder; insurrections; riots; epidemics; pandemics; landslides; lightning; earthquakes; fires; hurricanes; storms; floods; washouts; droughts; civil disturbances; explosions; breakage or accident due to machinery, transmission pipes or canals; partial or entire failure of utilities; or similar acts or events (other than financial inability) not within the control of such Credit Group Member.

"Future Test Period" means the two full Fiscal Years immediately following the computation then being made, or, if such computation is then being made in connection with the provision of funds for capital improvements, following completion of the capital improvements then being financed.

"GAAP" means accounting principles generally accepted in the United States of America, consistently applied.

"Governing Body" means, when used with respect to any Credit Group Member, its board of directors, board of trustees, board of managers or other board or group of individuals in which all of the powers of such Credit Group Member are vested, except for those powers reserved to the member(s) of such Credit Group Member by the articles of incorporation, bylaws or other comparable governing documents of such Credit Group Member.

"Government Issuer" means any municipal corporation, political subdivision, state, territory or possession of the United States, or any constituted authority or agency or instrumentality of any of the foregoing empowered to issue obligations on behalf thereof, which obligations would constitute Related Bonds under the Master Indenture.

"Government Obligations" means: (1) direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States of America) or obligations the timely payment of the principal of and interest on which are fully and unconditionally guaranteed by the United States of America; (2) obligations issued or guaranteed by any agency, department or instrumentality of the United States of America if the obligations issued or guaranteed by such entity are rated in one of the two highest Rating Categories of a Rating Agency; (3) certificates which evidence ownership of the right to the payment of the principal of and interest on obligations described in clauses (1) and/or (2) of this definition, provided that such obligations are held in the custody of a bank or trust company in a special account separate from the general assets of such custodian; and (4) obligations the interest on which is excluded from gross income for purposes of federal income taxation pursuant to Section 103 of the Internal Revenue Code of 1986, and the timely payment of the principal of and interest on which is fully provided for by the deposit in trust of cash and/or obligations described in clauses (1), (2) and/or (3) of this definition.

"Government and Industry Restrictions" means federal, state or other applicable governmental laws or regulations affecting any Credit Group Member and its health care facilities or other licensed facilities, including conditions imposed specifically on the Credit Group Members or the Credit Group Members' facilities, or general industry standards or general industry conditions, in each case, placing restrictions and limitations on the (i) rates, fees and charges to be fixed, charged and collected by any Credit Group Member or (ii) the timing of the receipt of such revenues.

"Gross Receipts" means all of the following property (whether or not subject to Article 9 of the UCC) and whether now owned or acquired after the effective date of the Master Indenture: all accounts, all chattel paper, all instruments, all payment intangibles, all proceeds of and collection on any of the foregoing, receipts, revenues, income and other moneys, including, without limitation, revenues derived from all land, leasehold interests and buildings and all fixtures and equipment (as defined in the UCC or equivalent statute in effect in the state where such fixtures or equipment are located) of an Obligated Group Member, and all rights to receive or be paid any of

the foregoing, whether in the form of accounts, health-care-insurance receivables, contract rights, chattel paper, instruments or other rights, and the proceeds thereof, and any insurance on any of the foregoing, in every case whether cash or not cash, provided, however, "Gross Receipts" shall not include Restricted Moneys.

"Guaranty" means any obligation of any Credit Group Member guaranteeing, directly or indirectly, any obligation of any other Person which would, if such other Person were a Credit Group Member, constitute Indebtedness.

"Historic Test Period" means, at the option of the Credit Group Representative, either (i) any twelve (12) consecutive calendar months out of the most recent period of eighteen (18) full calendar months, or (ii) the most recent period of twelve (12) full consecutive calendar months for which Credit Group Financial Statements are available, or (iii) the most recent Fiscal Year of the Credit Group.

"Holder" means the registered owner of any Master Indenture Obligation in registered form or the bearer of any Master Indenture Obligation in coupon form which is not registered or is registered to bearer or the party or parties to any contractual obligation designated to be a Master Indenture Obligation set forth in a Related Supplement and identified therein as the party to whom payment is due thereunder or the "holder" thereof.

"Identified Financial Product Agreement" means a Financial Product Agreement identified to the Master Trustee in a Certificate of the Credit Group Representative as having been entered into by a Credit Group Member with a Qualified Provider with respect to Indebtedness (which is either then-Outstanding or to be issued after the date of such Certificate) identified in such Certificate.

"Immaterial Affiliates" means Persons that are not Credit Group Members and whose combined or consolidated operating revenues, as shown on their financial statements for their most recently completed fiscal year for which financial statements are available, were less than 20% of the combined or consolidated unrestricted net assets of the Credit Group as shown on the Credit Group Financial Statements, plus the operating revenues of such Persons as if they were Credit Group Members for such period, for the most recently completed Fiscal Year of the Credit Group, provided that a single Person who is not a Credit Group Member but whose operating revenues would be more than 15% of the combined or consolidated operating revenues of the Credit Group as shown on the Credit Group Financial Statements and calculated in the above manner may not be an Immaterial Affiliate..

"Income Available for Debt Service" means, unless the context provides otherwise, with respect to the Credit Group as to any period of time, net income, or excess of revenues over expenses (excluding income from all Irrevocable Deposits), plus depreciation, amortization, and interest expense (including Financial Product Payments and Financial Product Receipts on Identified Financial Product Agreements), as determined in accordance with GAAP and as shown or as would be shown on the Credit Group Financial Statements; provided, that no determination thereof shall take into account:

- (a) any revenue or expense of the University other than revenue or expense of TUH as reflected on TUH's financial statement, unless the University shall be a Credit Group Member hereunder;
- (b) except as permitted by the provisions of the Master Indenture described in paragraph (c) of the section captioned "THE MASTER INDENTURE—Filing of Financial Statements, Certificate of No Default, Other Information", any revenue or expense of a Person which is not a Credit Group Member;
- (c) gifts, grants, bequests, donations or contributions, to the extent specifically restricted by the donor to a particular purpose inconsistent with their use for the payment of Required Payments or the payment of operating expenses;

- (d) the net proceeds of insurance (other than business interruption insurance) and condemnation awards:
 - (e) any gain or loss resulting from the extinguishment of Indebtedness;
- (f) any gain or loss resulting from the sale, exchange or other disposition of capital assets not in the ordinary course of business;
 - (g) any gain or loss resulting from any discontinued operations;
 - (h) any gain or loss resulting from pension terminations, settlements or curtailments;
 - (i) any unusual charges for employee severance;
 - (j) any loss from impairment of the value of an asset;
 - (k) adjustments to the value of assets or liabilities resulting from changes in GAAP;
- (l) unrealized gains or losses on investments, including "other than temporary" declines in Book Value;
- (m) gains or losses resulting from changes in valuation of any hedging, derivative, interest rate exchange or similar contract;
- (n) any Financial Product Extraordinary Payments or similar payments on any hedging, derivative, interest rate exchange or similar contract that does not constitute a Financial Product Agreement;
 - (o) unrealized gains or losses from the write-down, reappraisal or revaluation of assets;
- (p) any revenues or expenses resulting from a forgiveness of, or the establishment of reserves against, Indebtedness;
- (q) any gains or losses, revenues or expenses, or changes in assets or liabilities that represent the cumulative effect of accounting changes attributable primarily either to changes in GAAP, the System's or the Credit Group's adoption of different accounting methods permitted under GAAP or that result from or are required by any correction, adjustment or restatement of or the retrospective application of accounting standards;
- (r) other nonrecurring items of any extraordinary nature which do not involve the receipt, expenditure or transfer of assets; or
- (s) any gains or losses or revenues or expenses attributable to transactions between any Credit Group Member and any other Credit Group Member.

For the purposes of calculating Income Available for Debt Service, with respect to realized gains or losses, the Credit Group Representative may, at its option, calculate such realized gains or losses as the average of the most recent three Fiscal Years.

"Indebtedness" means any Guaranty (other than any Guaranty by any Credit Group Member or System Affiliate of Indebtedness of any other Credit Group Member or System Affiliate) and any obligation of any Credit Group Member (a) for repayment of borrowed money other than intercompany loans between Credit Group Members, (b) with respect to finance leases or (c) under installment sale agreements; provided, however, that (1) if more than one Credit Group Member shall have incurred or assumed a Guaranty of a Person other than a Credit Group Member, or if more than one Credit Group Member shall be obligated to pay any obligation, for purposes of

any computations or calculations under the Master Indenture such Guaranty or obligation shall be included only one time, (2) Indebtedness shall not include Indebtedness of any Credit Group Member or System Affiliate to another Credit Group Member or System Affiliate, and (3) Indebtedness shall not include any obligation to repay moneys deposited by patients or others with a Credit Group Member or System Affiliate as security for or as prepayment of the cost of patient care, Financial Product Agreements, trade payables, accrued expenses in the normal course of business, physician income guaranties or any obligation of any Credit Group Member with respect to operating leases.

"Independent Consultant" means a firm (but not an individual) which (1) is in fact independent, (2) does not have any direct financial interest or any material indirect financial interest in any Credit Group Member (other than the agreement pursuant to which such firm is retained), (3) is not connected with any Credit Group Member as an officer, employee, promoter, trustee, partner, director or person performing similar functions and (4) is qualified to pass upon questions relating to the financial affairs of organizations similar to the Credit Group or facilities of the type or types operated by the Credit Group and having the skill and experience necessary to render the particular opinion or report required by the provision of the Master Indenture in which such requirement appears.

"Interim Indebtedness" means Indebtedness with an original maturity not in excess of one year, the proceeds of which are to be used to provide interim financing for capital improvements in anticipation of the issuance of Long-Term Indebtedness. Interim Indebtedness shall be considered Long-Term Indebtedness for purposes of the Master Indenture.

"Irrevocable Deposit" means the irrevocable deposit in trust of cash in an amount, or Government Obligations, or other securities permitted for such purpose pursuant to the terms of the documents governing the payment of or discharge of Indebtedness, the principal of and interest on which will be an amount together with uninvested cash, and under terms sufficient to pay all or a portion of the principal of, premium, if any, and interest on, as the same shall become due, any such Indebtedness which would otherwise be considered Outstanding. The trustee of such deposit may be the Master Trustee, a Related Bond Trustee or any other trustee or escrow agent authorized to act in such capacity.

"Lien" means any mortgage or pledge of, or security interest in, or lien or encumbrance on any Property of a Credit Group Member (i) which secures any Indebtedness or any other obligation of such Credit Group Member or (ii) which secures any obligation of any Person other than a Credit Group Member, and excluding liens applicable to Property in which a Credit Group Member has only a leasehold interest unless the lien secures Indebtedness of that Credit Group Member.

"Limited Credit Group Participant" means a Person designated by the Credit Group Representative to the Master Trustee, with whom an Obligated Group Member or a Designated Affiliate has entered into a contract or other agreement, under which such Person is obligated to make such portion of those payments required by the provisions of the Master Indenture summarized in the section captioned "THE MASTER INDENTURE—Payment of Required Payments", (i) in the amount specified in such contract or other agreement or (ii) subject to such limitations as described therein, perform all of the other obligations of a Credit Group Member under the Master Indenture, and do all things necessary to permit the Obligated Group to perform its obligations and covenants under the Master Indenture; provided that together with such designation there shall be delivered to the Master Trustee (a) a fully executed copy of such contract or other agreement and (b) an Opinion of Counsel to the effect that such contract or other agreement is a valid and binding obligation of such Person enforceable in accordance with its terms, except as enforcement may be limited by customary exceptions for bankruptcy, insolvency and other laws generally affecting enforcement of creditors' rights and application of general principles of equity.

"Long-Term Debt Service Coverage Ratio" means for any period of time, the ratio determined by dividing Income Available for Debt Service for that period of time by the Debt Service Requirements for such period of time; provided that when such calculation is being made with respect to the Credit Group, Income Available for

Debt Service and Debt Service Requirements shall be determined only with respect to those Persons who are Credit Group Members at the close of such period.

"Long-Term Indebtedness" means Indebtedness other than Short-Term Indebtedness.

"Master Indenture" means the Master Trust Indenture among the Corporation, Temple University Hospital, Inc., Temple Physicians, Inc., Temple Health System Transport Team, Inc., The American Oncologic Hospital, The Institute For Cancer Research, Fox Chase Cancer Center Medical Group, Inc., Fox Chase Network, Inc., and the Master Trustee, dated as of April 1, 2022, as originally executed and as it may from time to time be supplemented, modified or amended in accordance with the terms thereof.

"Master Indenture Obligation" means any obligation of the Obligated Group issued pursuant to the Master Indenture, as a joint and several obligation of each Obligated Group Member, which may be in any form set forth in a Related Supplement, including, but not limited to, bonds, notes, obligations, debentures, reimbursement agreements, loan agreements, Financial Product Agreements or leases. Reference to a Series of Master Indenture Obligations or to Master Indenture Obligations of a Series means Master Indenture Obligations or Series of Master Indenture Obligations issued pursuant to a single Related Supplement.

"Master Trustee" means U.S. Bank Trust Company, National Association, a national banking association organized under the laws of the United States of America, and, subject to certain limitations contained in the Master Indenture, any other corporation or association that may be co-trustee with the Master Trustee, and any successor or successors to said trustee or co-trustee in the trusts created under the Master Indenture.

"Maximum Annual Debt Service" means, at the time of computation, the greatest Debt Service Requirements on Long-Term Indebtedness for the then current or any future Fiscal Year; provided that for the purpose of any future financial analyses prepared on a pro-forma basis, the Maximum Annual Debt Service shall be assumed to be zero on any Indebtedness during any Fiscal Year (or portion thereof) in which the interest on such obligation is paid from Capitalized Interest.

"Merger Transaction" has the meaning set forth in the Master Indenture, as summarized in the section captioned "THE MASTER INDENTURE—Merger, Consolidation, Sale or Conveyance."

"Mortgages" shall mean (1) the Open-End Mortgage and Security Agreement dated as of June 29, 2012 and effective as of July 1, 2012 by the Institute for Cancer Research, as mortgagor, as amended by an Amendment to Open-End Mortgage and Security Agreement dated as of the date of Supplemental Master Indenture No. 1; (2) Open-End Leasehold Mortgage and Security Agreement dated as of June 20, 2005 by Temple University Hospital Inc., as successor to Jeanes Hospital, as mortgagor, as amended by an Amendment to Open-End Leasehold Mortgage and Security Agreement dated as of the date of Supplemental Master Indenture No. 1; (3) the Open-End Sub-Leasehold Mortgage and Security Agreement dated as of June 20, 2005 by Temple University Hospital, Inc., as mortgagor, as amended by an Amendment to Open-End Sub-Leasehold Mortgage and Security Agreement dated as of June 29, 2012 by American Oncologic Hospital, as mortgagor, as amended by an Amendment to Open-End Mortgage and Security Agreement dated as of June 29, 2012 by American Oncologic Hospital, as mortgagor, as amended by an Amendment to Open-End Mortgage and Security Agreement dated as of the date of Supplemental Master Indenture No. 1.

"Net Assets" means (i) for a Person that is a Tax-Exempt Organization, the aggregate net assets of such Person, and (ii) for a Person that is not a Tax-Exempt Organization, the shareholders' equity or member's equity of such Person, in each case as determined in accordance with GAAP.

"Nonrecourse Indebtedness" means any Indebtedness which is secured by a Lien on Property, Plant and Equipment acquired or constructed with the proceeds of such Indebtedness, liability for which is effectively limited to the Property, Plant and Equipment subject to such Lien with no recourse, directly or indirectly, to any other Property of any Credit Group Member.

"Obligated Group" means all Obligated Group Members identified as such in the Master Indenture, as described in the section captioned "INTRODUCTORY STATEMENT—Temple University Health System and the Obligated Group" of the forepart of this Official Statement.

"Obligated Group Member" or "Member" means each Person that is obligated under the Master Indenture from and after the date upon which such Person joins the Obligated Group, but excluding any Person which withdraws from the Obligated Group to the extent and in accordance with the provisions of the Master Indenture, as summarized in the section captioned "THE MASTER INDENTURE—Withdrawal from Obligated Group", from and after the date of such withdrawal.

"Officer's Certificate" means a certificate signed by an Authorized Representative of the Credit Group Representative.

"Opinion of Bond Counsel" means a written opinion, subject to customary qualifications and exceptions, signed by an attorney or firm of attorneys experienced in the field of public finance whose opinions are generally accepted by purchasers of bonds issued by or on behalf of a Government Issuer.

"Opinion of Counsel" means a written opinion, subject to customary qualifications and exceptions, signed by a reputable and qualified attorney or firm of attorneys who may be counsel for the Credit Group Representative.

"Outstanding," when used with reference to Indebtedness or Master Indenture Obligations, means, as of any date of determination, all Indebtedness or Master Indenture Obligations theretofore issued or incurred and not paid and discharged other than (1) Master Indenture Obligations theretofore cancelled by the Master Trustee or delivered to the Master Trustee for cancellation or otherwise deemed paid in accordance with the terms of the Master Indenture, (2) Master Indenture Obligations in lieu of which other Master Indenture Obligations have been authenticated and delivered or which have been paid pursuant to the provisions of a Related Supplement regarding mutilated, destroyed, lost or stolen Master Indenture Obligations unless proof satisfactory to the Master Trustee has been received that any such Master Indenture Obligation is held by a bona fide purchaser, (3) any Master Indenture Obligation held by any Credit Group Member and (4) Indebtedness deemed paid and no longer outstanding pursuant to the terms thereof; provided, however, that if two or more obligations which constitute Indebtedness represent the same underlying obligation (as when a Master Indenture Obligation secures an issue of Related Bonds and another Master Indenture Obligation secures repayment obligations to a bank under a letter of credit which secures such Related Bonds) for purposes of calculating compliance with the various financial covenants contained in the Master Indenture, and for purposes of calculating the majority in aggregate principal amount of Outstanding Master Indenture Obligations in connection with an Event of Default under the Master Indenture, only one of such Master Indenture Obligations shall be deemed Outstanding and the Master Indenture Obligation so deemed to be Outstanding shall be that Master Indenture Obligation which produces the greatest amount of Debt Service Requirements to be included in the calculation of the financial covenants.

"Parity Financial Product Extraordinary Payments" means Financial Product Extraordinary Payments that (1) are with respect to a Financial Product Agreement secured or evidenced by a Master Indenture Obligation and (2) have been specified to be payable on a parity with Financial Product Payments in the Related Supplement authorizing the issuance of such Master Indenture Obligation.

"Permitted Liens" mean and include:

(a) Liens arising by reason of good faith deposits with any Credit Group Member in connection with leases of real estate, bids or contracts (other than contracts for the payment of money), deposits by any Credit Group Member to secure public or statutory obligations or to secure, or in lieu of, surety, stay or appeal bonds, and deposits as security for the payment of taxes or assessments or other similar charges;

- (b) Any Lien arising by reason of deposits with, or the giving of any form of security to, any governmental agency or any body created or approved by law or governmental regulation for any purpose at any time as required by law or governmental regulation as a condition to the transaction of any business or the exercise of any privilege or license, or to enable any Credit Group Member to maintain self-insurance or to participate in any funds established to cover any insurance risks or in connection with workmen's compensation, unemployment insurance, pension or profit sharing plans or other social security, or to share in the privileges or benefits required for companies participating in such arrangements;
- (c) Any judgment lien against any Credit Group Member so long as such judgment is being contested and execution thereon is stayed or, in the absence of such contest and stay, such judgment lien will not materially impair the Property, Current Assets, or Gross Receipts or subject the Property, Current Assets, or Gross Receipts to material loss or forfeiture;
- (A) Rights reserved to or vested in any municipality or public authority by the terms of any right, power, franchise, grant, license, permit or provision of law, affecting any Property, Gross Receipts or Current Assets, to (1) terminate such right, power, franchise, grant, license or permit, provided that, the exercise of such right would not materially alter the use of such Property, Gross Receipts or Current Assets or materially and adversely affect the value thereof, or (2) purchase, condemn, appropriate or recapture, or designate a purchaser of, such Property, Gross Receipts or Current Assets; (B) any liens on any Property, Gross Receipts or Current Assets for taxes, assessments, levies, fees, water and sewer rents, and other governmental and similar charges and any liens of mechanics, materialmen, laborers, suppliers or vendors for work or services performed or materials furnished in connection with such Property, Gross Receipts of Current Assets, which are not due and payable or which are not delinquent or the amount or validity of which are being contested and execution thereon is stayed or the existence of which will not subject the Property, Current Assets or Gross Receipts to material loss or forfeiture; (C) easements, rights-of-way, servitudes, restrictions and other minor defects, encumbrances, and irregularities in the title to any Property, Gross Receipts or Current Assets which do not materially impair the use of such Property, Gross Receipts or Current Assets or materially and adversely affect the value thereof; (D) rights reserved to or vested in any municipality or public authority to control or regulate any Property, Gross Receipts or Current Assets or to use such Property, Gross Receipts or Current Assets in any manner, which rights do not materially impair the use of such Property, Gross Receipts or Current Assets materially and adversely affect the value thereof, and (E) to the extent that it affects title to any Gross Receipts, the Agreement;
- (e) Any Lien described in Appendix A to this Master Indenture which is existing on the date of execution hereof or as Appendix A may be supplemented upon addition of a Credit Group Member with respect to Liens existing on the Property of such additional Credit Group Member, provided that no such Lien (or the amount of Indebtedness or other obligations secured thereby) may be increased, extended, renewed or modified to apply to any Property of any Credit Group Member not subject to such Lien on such date, unless such Lien as so extended, renewed or modified otherwise qualifies as a Permitted Lien;
- (f) Any lease of Property which, in the judgment of the Credit Group Member, the Property of which is subject thereto, is reasonably necessary or appropriate for or incidental to the use of such Property or, in the case of TUH, to the operation of TUH, taking into account the nature and terms of the lease and the nature and purposes of the Property;
- (g) Any Lien on Property, Gross Receipts or Current Assets of a person that becomes a Credit Group Member pursuant to a consolidation, merger, sale or conveyance in accordance with this Master Indenture and that is not incurred in contemplation of such consolidation, merger, sale or conveyance; provided that no such Lien may be extended or modified to apply to any Property, Gross Receipts or Current Assets of any Credit Group Member not subject to such Lien on such date, unless such Lien if so extended or modified otherwise, qualifies as a Permitted Lien;

- (h) Any Lien on Property which Lien secures Indebtedness incurred in compliance with the provisions of this Master Indenture, if, after giving effect to the Lien, the Book Value of the Property which is encumbered in accordance with this clause (h) will not exceed fifteen percent (15%) of the Book Value of the Property of the Obligated Group as of the end of the Historic Test Period;
- (i) Any parity Lien on all or a portion of Gross Receipts to secure any Long-Term Indebtedness or Short-Term Indebtedness incurred pursuant to this Master Indenture. Any supplements or other agreement for the repayment of such Additional Indebtedness and instruments evidencing or securing the same may provide, among other things, for notices from or to the Master Trustee regarding defaults by the Obligated Group, the duties and limitations of the Master Trustee to pursue remedies upon the receipt of such notice, and the sharing of the rights of the Holders of the Master Indenture Obligations to control the exercise of remedies with the holders of such Additional Indebtedness and/or with the issuer of any Credit Facility with respect to such Additional Indebtedness:
- (j) Any Lien subordinated to the Lien securing the Master Indenture Obligations on all or a portion of Gross Receipts to secure any Long-Term Indebtedness or Short-Term Indebtedness incurred pursuant to this Master Indenture;
- (k) Any Lien on accounts receivable securing or deemed to secure any Indebtedness incurred or deemed incurred by virtue of any recourse obligation associated with any assignment, sale or pledge of accounts receivable;
- (l) Any Lien on Property securing Indebtedness incurred to provide such Property, including Liens incurred as described under the heading "Limitations on Additional Indebtedness" hereof;
- (m) Any Lien to the issuer of a Credit Facility to secure a debt service reserve fund pursuant to a Related Bond Indenture;
- (n) Rights of set-off or banker's lien with respect to funds on deposit with a financial institution in the ordinary course of business;
- (o) Any pledge or lien of assets for purposes of meeting collateral posting requirements for derivative transactions;
- (p) Any Lien upon Property or Current Assets granted by any Credit Group Member, in favor of the holder of any Indebtedness, with prior notice to the Master Trustee but without the consent of the Master Trustee or of the Holders of any Obligations, so long as such Lien, or a Lien at least on a parity therewith, is effectively granted in favor of the Holders of all Obligations then Outstanding;
- (q) Rights of the United States of America, including, without limitation, the Federal Emergency Management Agency ("FEMA"), or the Commonwealth, by reason of FEMA and other federal and Commonwealth funds made available to any Credit Group Member under federal or Commonwealth statutes;
- (r) Any Lien arising by reason of any escrow or reserve fund established to pay debt service or the redemption price or purchase price with respect to Indebtedness;
- (s) Liens consisting of purchase money security interests (as defined in the UCC) and lessors' interest in finance leases;
- (t) Liens on Property received by any Credit Group Member through gifts, grants, bequests or research grants, such Liens being due to restrictions on such gifts, grants, bequests or research grants or the income thereon, up to the Fair Market Value of such Property;

- (u) Liens on the Credit Group Members' accounts receivable securing Short-Term Indebtedness in an amount not to exceed 20% of the aggregate amount of the Credit Group Members' pledged accounts; and
- (v) Liens on moneys deposited by patients or others with any Credit Group Member as security for or as prepayment for the cost of patient care.

"Person" means an individual, corporation, limited liability company, firm, association, partnership, trust or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.

"Property" means any and all rights, titles and interests in and to any and all assets of any Credit Group Member, whether real or personal, tangible or intangible and wherever situated, other than donor restricted funds and Excluded Property. For purposes of performing certain calculations under the Master Indenture, the Credit Group Representative may treat "total assets" as shown on the Credit Group Financial Statements as the Book Value of the Credit Group's Property.

"Property, Plant and Equipment" means all Property of any Credit Group Member which is considered property, plant and equipment of such Credit Group Member under GAAP.

"Qualified Provider" means any financial institution or insurance company or corporation which is a party to a Financial Product Agreement if (i) the unsecured long-term debt obligations of such provider (or of the parent or a subsidiary of such provider if such parent or subsidiary guarantees or otherwise assures the performance of such provider under such Financial Product Agreement), or (ii) obligations secured or supported by a letter of credit, contract, guarantee, agreement, insurance policy or surety bond issued by such provider (or such guarantor or assuring parent or subsidiary), are rated in one of the three highest Rating Categories of a Rating Agency at the time of the execution and delivery of the Financial Product Agreement.

"Rating Agency" means Fitch Ratings Inc., Moody's Investors Service, S&P Global Ratings and any other nationally recognized statistical rating organization then rating Master Indenture Obligations or Related Bonds.

"Rating Category" means a generic securities rating category, without regard to any refinement or gradation of such rating category by a numerical modifier, outlook or otherwise.

"Related Bond Indenture" means any indenture, bond resolution, trust agreement or other comparable instrument pursuant to which a series of Related Bonds are issued.

"Related Bond Issuer" means the Government Issuer or Credit Group Member of any issue of Related Bonds.

"Related Bond Trustee" means the trustee and its successors in the trusts created under any Related Bond Indenture, and if there is no such trustee, means the Related Bond Issuer.

"Related Bonds" means the revenue bonds or other obligations (including, without limitation, installment sale or lease obligations evidenced by certificates of participation) issued by any Government Issuer, the proceeds of which are loaned or otherwise made available to a Credit Group Member in consideration of the execution, authentication and delivery of a Master Indenture Obligation or Master Indenture Obligations to or for the order of such Government Issuer and any revenue bonds or other obligations (including, without limitation, installment sale or lease obligations evidenced by certificates of participation) directly issued by a Credit Group Member and secured by a Master Indenture Obligation.

"Related Supplement" means an indenture supplemental to, and authorized and executed pursuant to the terms of, the Master Indenture.

"Required Payment" means any payment, whether at maturity, by acceleration, upon proceeding for redemption or otherwise, including without limitation, Financial Product Payments, Financial Product Extraordinary Payments and the purchase price of Related Bonds tendered or deemed tendered for purchase pursuant to the terms of a Related Bond Indenture, required to be made by any Obligated Group Member pursuant to any Related Supplement or any Master Indenture Obligation.

"Responsible Officer" means, with respect to the Master Trustee, any vice president, any assistant vice president or any other officer of the Master Trustee customarily performing functions similar to those performed by the persons above designated or to whom any corporate trust matter is referred because of such person's knowledge of and familiarity with the particular subject and having direct responsibility for the administration of the Master Indenture.

"Restricted Moneys" means: (i) the proceeds of gifts, grants, bequests, donations, contributions and pledges and the income and gains derived therefrom, which are specifically restricted by the donor or grantor to a particular purpose inconsistent with their use for Required Payments or the payment of operating expenses; (ii) revenue received pursuant to grants and contracts for sponsored programs of research or instruction; (iii) any property that a Person is prohibited from granting a lien on or a security interest in as a result of any organizational, legal or contractual obligations of such Person; (iv) proceeds of any borrowing or any funds held in trust by a trustee as security for such borrowing; and (v) revenues, income receipts and money received by a Person or Persons as agent for and on behalf of someone other than the Person or Persons.

"Short-Term Indebtedness" means all Indebtedness (other than Interim Indebtedness) having an original maturity less than or equal to one year and not renewable at the option of a Credit Group Member for a term greater than one year from the date of original incurrence or issuance, or Indebtedness with a maturity greater than one year or renewable at the option of a Credit Group Member for a term greater than one year, if by the terms of such Indebtedness, for a period of at least 20 consecutive days during each calendar year no Indebtedness is permitted to be Outstanding thereunder. For purposes of this definition, (i) only the stated maturity of Indebtedness (and not any tender or put right of the holder of such Indebtedness) shall be taken into account in determining if such Indebtedness constitutes Short-Term Indebtedness under the Master Indenture and (ii) classification of Indebtedness as current or short-term under GAAP shall not be controlling. Interim Indebtedness shall not constitute Short-Term Indebtedness for any purpose under the Master Indenture.

"Subordinated Indebtedness" means Long-Term Indebtedness specifically subordinated as to payment and security to the payment of all Required Payments and other obligations of the Credit Group Members under the Master Indenture.

"Surviving Entity" has the meaning set forth in the Master Indenture, as summarized in the section captioned "THE MASTER INDENTURE—Merger, Consolidation, Sale or Conveyance."

"System" means the Corporation and the System Affiliates.

"System Affiliates" means any Person that is a wholly or partially owned subsidiary of a Credit Group Member, the financial information of which is required by GAAP to be consolidated with the financial information of the Credit Group.

"System Financial Statements" means the consolidated financial statements prepared in accordance with GAAP, which include the financial information of the Credit Group and all System Affiliates.

"Tax-Exempt Organization" means a Person organized under the laws of the United States of America or any state thereof which is an organization described in Section 501(c)(3) of the Code and exempt from federal income taxes under Section 501(a) of the Code (other than the tax on unrelated business income under Section 511 of the Code), or corresponding provisions of federal income tax laws from time to time in effect.

"Total Revenues" means, for the period of calculation in question, the sum of operating revenue (including net patient service revenue, premium revenue and other revenue and nonoperating gains (losses)), as shown on the Credit Group Financial Statements for the most recent Fiscal Year for which Credit Group Financial Statements have been delivered.

"Transaction Test" means, with respect to any specified transaction, that (i) no Event of Default or Default then exists and (ii) if such transaction had occurred as of the first day of the most recent full Fiscal Year preceding such transaction for which audited Credit Group Financial Statements are available, the Credit Group would be able to satisfy the conditions for the issuance of \$1.00 of additional Long-Term Indebtedness set forth in the Master Indenture, as summarized in subparagraph (a) of the section captioned "THE MASTER INDENTURE—Limitation on Additional Indebtedness", as of the final day of such full Fiscal Year taking into account the Income Available for Debt Service generated for such Fiscal Year.

"UCC" means the Uniform Commercial Code of the Commonwealth, as amended from time to time.

"University" means Temple University – Of The Commonwealth System of Higher Education, a state-related institution and instrumentality of the Commonwealth subject to the nonprofit corporation laws of the Commonwealth, which is the sole member of the Corporation but is not a Credit Group Member.

"Unlimited Credit Group Participant" means a Person designated by the Credit Group Representative to the Master Trustee, with whom an Obligated Group Member or a Designated Affiliate has entered into a contract or other agreement, under which such Person is obligated to make all of the transfers required by the provisions of the Master Indenture, as summarized in the section captioned "THE MASTER INDENTURE—Payment of Required Payments", perform all of the other obligations of a Credit Group Member under the Master Indenture, and do all things necessary to permit the Obligated Group to perform its obligations and covenants under the Master Indenture, provided that together with such designation there be delivered to the Master Trustee (a) a fully executed copy of such contract or other agreement and (b) an Opinion of Counsel to the effect that such contract or other agreement is a valid and binding obligation of such Person enforceable in accordance with its terms, except as enforcement may be limited by customary exceptions for bankruptcy, insolvency and other laws generally affecting enforcement of creditors' rights and application of general principles of equity.

"Value," when used with respect to Property, means the aggregate value of all such Property, with each component of such Property valued, at the option of the Credit Group Representative, at either its Fair Market Value or its Book Value.

THE MASTER INDENTURE

Authorization of Master Indenture Obligations.

Each Obligated Group Member authorizes to be issued from time to time Master Indenture Obligations or Series of Master Indenture Obligations, without limitation as to amount, except as provided in the Master Indenture or as may be limited by law, and subject to the terms, conditions and limitations established in the Master Indenture and in any Related Supplement.

Issuance of Master Indenture Obligations.

From time to time when authorized by the Master Indenture and subject to the terms, limitations and conditions established in the Master Indenture or in a Related Supplement, the Credit Group Representative may authorize the issuance of a Master Indenture Obligation or a Series of Master Indenture Obligations by entering into a Related Supplement.

Each Related Supplement authorizing the issuance of a Master Indenture Obligation or a Series of Master Indenture Obligations shall specify, among other things, the purposes for which such Master Indenture Obligation or Series of Master Indenture Obligations are being issued. Each Related Supplement authorizing the issuance of a Master Indenture Obligation shall also specify and determine the principal amount of such Master Indenture Obligation (if any) for purposes of calculating the percentage of Holders of Master Indenture Obligations required to take actions or give consents pursuant to the Master Indenture. If such Master Indenture Obligation does not evidence or secure Indebtedness, the principal amount shall be determined to be equal to zero. If two or more obligations which constitute Indebtedness represent the same underlying obligation, as when a Master Indenture Obligation secures an issue of Related Bonds and another Master Indenture Obligation secures repayment obligations to a bank under a letter of credit which secures such Related Bonds, the principal amount shall only be counted once in calculating the majority of the principal amount as provided in the definition of Outstanding herein. Any action which requires the consent of all of the Holders of Master Indenture Obligations shall require the consent of all Holders, including the Holders of Master Indenture Obligations for which the principal amount is considered zero. The designation of zero as a principal amount of a Master Indenture Obligation shall not in any manner affect the obligation of the Members to make Required Payments with respect to such Master Indenture Obligation.

Conditions to the Issuance of Master Indenture Obligations.

The issuance, authentication and delivery of any Master Indenture Obligation or Series of Master Indenture Obligations shall be subject to the following specific conditions:

- (a) The Credit Group Representative and the Master Trustee shall have entered into a Related Supplement providing for the terms and conditions of such Master Indenture Obligations and the repayment thereof; and
 - (b) The Master Trustee receives an Officer's Certificate to the effect that:
 - (i) each Obligated Group Member is in full compliance with all warranties, covenants and agreements set forth in the Master Indenture and in any Related Supplement; and
 - (ii) neither an Event of Default nor a Default has occurred and is continuing or would occur upon issuance of such Master Indenture Obligations under the Master Indenture or any Related Supplement; and
 - (iii) all requirements and conditions, if any, to the issuance of such Master Indenture Obligations set forth in the Related Supplement have been satisfied; and
 - (c) The Master Trustee receives an Opinion of Counsel to the effect that:
 - (i) such Master Indenture Obligations and Related Supplement have been duly authorized, executed and delivered by the Credit Group Representative on behalf of the Obligated Group and constitute valid and binding obligations of the Obligated Group, enforceable in accordance with their terms; and

- (ii) such Master Indenture Obligations are not subject to registration under federal securities laws and such Related Supplement is not subject to qualification under the Trust Indenture Act of 1939, as amended (or that such qualification, if required, has occurred); and
- (d) The Credit Group Representative shall have delivered or caused to be delivered to the Master Trustee such opinions (subject to customary exceptions and qualifications), certificates, proceedings, instruments and other documents as the Master Trustee may (but is not obligated to) reasonably request; and
- (e) If such Master Indenture Obligation constitutes or secures Indebtedness, the requirements in the Master Indenture, as described in the section captioned "Limitation on Additional Indebtedness", are satisfied.

Payment of Required Payments.

(a) Each Obligated Group Member jointly and severally covenants to promptly pay, or cause to be paid, all Required Payments at the place, on or before the dates and in the manner provided in the Master Indenture or in any Related Supplement or Master Indenture Obligation. Each Obligated Group Member acknowledges that the time of such payment and performance of the Master Indenture Obligations under the Master Indenture is of the essence. Each Obligated Group Member further covenants to faithfully observe and perform all of the conditions, covenants and requirements of the Master Indenture, any Related Supplement and any Master Indenture Obligation.

The obligation of each Obligated Group Member with respect to Required Payments shall not be abrogated, prejudiced or affected by:

- (i) the granting of any extension, waiver or other concession given to any Obligated Group Member by the Master Trustee or any Holder or by any compromise, release, abandonment, variation, relinquishment or renewal of any of the rights of the Master Trustee or any Holder or anything done or omitted or neglected to be done by the Master Trustee or any Holder in exercise of the authority, power and discretion vested in them by the Master Indenture, or by any other dealing or thing which, but for this provision, might operate to abrogate, prejudice or affect such obligation; or
- (ii) the liability of any other Obligated Group Member under the Master Indenture ceasing for any cause whatsoever, including the release of any other Obligated Group Member pursuant to the provisions of the Master Indenture or any Related Supplement; or
- (iii) any Obligated Group Member's failing to become liable as, or losing eligibility to become, an Obligated Group Member with respect to a Master Indenture Obligation; or
- (iv) the validity or sufficiency (or any contest with respect thereto) of the consideration given to support the obligations of the Obligated Group Members under the Master Indenture.

Subject to the provisions of the Master Indenture permitting withdrawal from the Obligated Group, as described in the section captioned "Withdrawal from Obligated Group", the obligation of each Obligated Group Member to make Required Payments is a continuing one and is to remain in effect until all Required Payments have been paid or deemed paid in full in accordance with the provisions of the Master Indenture, as summarized in the sections captioned "Satisfaction and Discharge of Master Indenture" and "Payment of Master Indenture Obligations After Discharge of Lien." All moneys from time to time received by the Credit Group Representative or the Master Trustee to reduce liability on Master Indenture Obligations, whether from or on account of the Obligated Group Members or otherwise, shall be regarded as payments in gross without any right on the part of any one or more of the Obligated Group Members to claim the benefit of any moneys so received until the whole

of the amounts owing on Master Indenture Obligations has been paid or satisfied and so that in the event of any such Obligated Group Member's filing bankruptcy, the Credit Group Representative or the Master Trustee shall be entitled to prove up the total indebtedness or other liability on Master Indenture Obligations Outstanding as to which the liability of such Obligated Group Member has become fixed.

Each Master Indenture Obligation shall be a primary obligation of the Obligated Group Members and shall not be treated as ancillary to or collateral with any other obligation and shall be independent of any other security so that the covenants and agreements of each Obligated Group Member under the Master Indenture shall be enforceable without first having recourse to any such security or source of payment and without first taking any steps or proceedings against any other Person. The Credit Group Representative and the Master Trustee are each empowered to enforce each covenant and agreement of each Obligated Group Member under the Master Indenture and to enforce the making of Required Payments. Each Obligated Group Member authorizes each of the Credit Group Representative and the Master Trustee to enforce or refrain from enforcing any covenant or agreement of the Obligated Group Members under the Master Indenture and to make any arrangement or compromise with any Obligated Group Member or Obligated Group Members as the Credit Group Representative or the Master Trustee may deem appropriate, consistent with the Master Indenture and any Related Supplement. Each Obligated Group Member waives in favor of the Credit Group Representative and the Master Trustee all rights against the Credit Group Representative, the Master Trustee and any other Obligated Group Member, insofar as is necessary to give effect to any of these provisions.

Credit Group Membership.

The Credit Group Representative by resolution of its Governing Body may from time to time designate any Person (i) as a Designated Affiliate, (ii) that meets the requirements of the definition of "Unlimited Credit Group Participant" as an Unlimited Credit Group Participant, or (iii) that meets the requirements of the definition of "Limited Credit Group Participant" as a Limited Credit Group Participant. In connection with any designation of a Designated Affiliate, the Credit Group Representative shall designate for such Designated Affiliate an Obligated Group Member to serve as the Controlling Member for such Designated Affiliate. The Controlling Member for any Unlimited Credit Group Participant or Limited Credit Group Participant shall be the Obligated Group Member or Designated Affiliate that maintains a contract or agreement with such Unlimited Credit Group Participant or such Limited Credit Group Participant, as applicable.

So long as any Person is designated as a Designated Affiliate, the Controlling Member of such Designated Affiliate shall either (i) maintain, directly or indirectly, control of such Designated Affiliate to the extent necessary to cause such Designated Affiliate to comply with the terms of the Master Indenture, whether through the ownership of voting securities, by contract, corporate membership, reserved powers or the power to appoint corporate members, trustees or directors, or otherwise or (ii) execute and have in effect such contracts or other agreements which the Credit Group Representative and the Controlling Member, in the judgment of their respective Governing Bodies, deem sufficient for the Controlling Member to cause such Designated Affiliate to comply with the terms of the Master Indenture.

Each Controlling Member covenants and agrees that it will cause each of its Designated Affiliates, Unlimited Credit Group Participants and Limited Credit Group Participants to comply with any and all directives of the Controlling Member given pursuant to the provisions of the Master Indenture.

Any Designated Affiliate, Unlimited Credit Group Participant or Limited Credit Group Participant may cease to be a Credit Group Member (and thus not subject to the terms of the Master Indenture) provided that prior to such Person ceasing to be a Credit Group Member the Master Trustee receives (i) a resolution of the Governing Body of the Credit Group Representative declaring such Person no longer a Credit Group Member; and (ii)an Officer's Certificate to the effect that immediately following such Person ceasing to be a Credit Group Member neither a Default nor an Event of Default would exist.

Transfers from Credit Group Members.

Each Controlling Member covenants and agrees that it shall cause each Designated Affiliate it controls and each Unlimited Credit Group Participant and Limited Credit Group Participant with which it has entered into a contract or agreement to pay or otherwise transfer to such Obligated Group Member such amounts as are necessary (subject with respect to each Limited Credit Group Participant, the limitations in the applicable contract or agreement entered into with its Controlling Member) to enable the Obligated Group Members to comply with the provisions of the Master Indenture including without limitation the provisions of the Master Indenture, as summarized in the section captioned "Payment of Required Payments"; provided, however, that nothing in the Master Indenture shall be construed to require any Controlling Member to cause any Designated Affiliate it controls or any Unlimited Credit Group Participant or Limited Credit Group Participant with which it has entered into a contract or agreement to pay, loan or otherwise transfer to such Controlling Member any amounts that constitute Restricted Moneys.

Notwithstanding any other provisions of the Master Indenture, it is expressly agreed by the parties thereto that no Credit Group Member, other than Obligated Group Members, shall be directly obligated to make any payment under the Master Indenture.

Covenants of Corporate Existence, Maintenance of Properties, Etc.

Each Obligated Group Member agrees, and each Controlling Member agrees to cause each of the Designated Affiliates it controls and each Unlimited Credit Group Participant and Limited Credit Group Participant with which it has entered into a contract or agreement:

- (a) Except as otherwise expressly provided in the Master Indenture, to preserve its corporate or other legal existence and all its rights and licenses to the extent necessary or desirable in the operation of its business and affairs and to be qualified to do business in each jurisdiction where its ownership of Property or the conduct of its business requires such qualification; provided, however, that nothing in the Master Indenture shall be construed to obligate it to retain or preserve any of its rights or licenses no longer used or useful in the conduct of its business or affairs.
- (b) At all times to cause its Property, Plant and Equipment to be maintained, preserved and kept in good repair, working order and condition, reasonable wear and tear excepted, and all needed and proper repairs, renewals and replacements thereof to be made; provided, however, that nothing contained in this paragraph shall be construed to (i) prevent it from ceasing to operate any immaterial portion of its Property, Plant and Equipment, (ii) prevent it from ceasing to operate any material portion of its Property, Plant and Equipment if in its judgment it is advisable not to operate the same, and within a reasonable time endeavors to effect disposition of such material portion of its Property, Plant and Equipment, or (iii) obligate it to retain, preserve, repair, renew or replace any Property, Plant and Equipment no longer used or useful in the conduct of its business.
- (c) To procure and maintain all material licenses and permits necessary, in the judgment of its Governing Body, to the operation of its health care Property and the status of its health care Property (other than that not currently having such status or not having such status on the date a Person becomes a Credit Group Member) as providers of health care services eligible for payment under those third party payment programs which its Governing Body determines are appropriate; provided, however, that it need not comply with this subsection if and to the extent that its Governing Body shall have determined in good faith, evidenced by a resolution of the Governing Body, that such compliance is not in its best interests and that lack of such compliance would not materially impair its ability to pay its Indebtedness when due.
- (d) In the case of any Credit Group Member that is a Tax Exempt Organization, not to take any action, including any action which would result in the alteration or loss of its status as a Tax Exempt Organization, which, or fail to take any action which failure, in the Opinion of Bond Counsel, would result in the inclusion of interest on

any Related Bond in gross income for purposes of federal income taxation. The foregoing notwithstanding, any Credit Group Member that is a Tax-Exempt Organization may take actions which could result in the alteration or loss of its status as a Tax Exempt Organization if (i) prior thereto there is delivered to the Master Trustee an Opinion of Bond Counsel to the effect that such action would not adversely affect the validity of any Related Bond and would not, in and of itself, result in the inclusion of interest on any Related Bond that are tax-exempt obligations in gross income for purposes of federal income taxation and (ii) prior thereto there is delivered to the Master Trustee an Opinion of Counsel to the effect that such action would not adversely affect the enforceability in accordance with its terms of the Master Indenture or any Master Indenture Obligation against any Credit Group Member and either (A) an Opinion of Counsel for such Credit Group Member to the effect that such actions would not subject any Related Bond or any Master Indenture Obligation to registration under the Securities Act of 1933, as amended, or require the qualification of any Related Bond Indenture, loan document or the Master Indenture or any Supplement under the Trust Indenture Act of 1939, as amended, or (B) an Opinion of Counsel that such Related Bond or Master Indenture Obligation has been so registered and such Related Bond Indenture, loan document or Master Indenture or Supplement has been so qualified.

For the purposes of the Master Indenture described in this section, the terms Property, Plant and Equipment shall be deemed to include Excluded Property.

Gross Receipts Pledge.

To secure their obligation to make Required Payments under the Master Indenture and their other obligations, agreements and covenants to be performed and observed under the Master Indenture, each Obligated Group Member pledges and assigns to the Master Trustee and grants to the Master Trustee a security interest in all of its right, title and interest, whether now owned or later acquired, in and to its Gross Receipts.

The Master Trustee's security interest in the Gross Receipts shall be perfected, to the extent that such security interest may be so perfected, by the filing by the Obligated Group Members of financing statements which comply with the requirements of the UCC. Each Obligated Group Member shall execute and cause to be filed, in accordance with the requirements of the UCC, initial financing statements. From time to time thereafter, each Obligated Group Member shall execute and deliver such documents (including, but not limited to, continuation statements as required by the UCC) as necessary in order to maintain such security interests or give public notice thereof; provided that, notwithstanding anything to the contrary contained in the Master Indenture, the Master Trustee shall not be responsible for any initial filings of any financing statements or the information contained therein (including the exhibits thereto) other than the correct name and address of the Master Trustee, the perfection of any such security interests or the accuracy or sufficiency of any description of collateral in such initial filings or for filing any notifications or amendments to the initial filing required by any amendments to Article 9 of the UCC or for filing any continuation statement filings. The Credit Group Representative shall provide the Master Trustee with copies of all such filed UCC financing statements.

Notwithstanding the foregoing, nothing in the Master Indenture shall give any party other than the licensed provider of services any right in or to any deposit account, bank account (or the funds on deposit therein) or other account into which funds received directly from Medicare, Medicaid or other governmental payor sources are deposited, or to give any party the right to collect payments directly from such payor sources, except in strict accordance with applicable law, including, without limitation, the so-called anti-assignment provisions of the Medicare and Medicaid regulations and accompanying operations manuals.

Upon written request from the Credit Group Representative, the Master Trustee shall take all procedural steps directed by the Credit Group Representative or its counsel to effect the subordination of its security interest in the Gross Receipts granted in the Master Indenture to security interests constituting Permitted Liens.

Against Encumbrances.

Each Obligated Group Member agrees that it will not and each Controlling Member covenants that it will not permit any Designated Affiliate it controls or any Unlimited Credit Group Participant or Limited Credit Group Participant (subject with respect to each Limited Credit Group Participant, the limitations in the applicable contract or agreement entered into with its Controlling Member) with which it has a contract or agreement to create or suffer to be created or permit the existence of any Lien upon Property now owned or later acquired by it other than Permitted Liens.

Upon written request of the Credit Group Representative, the Master Trustee shall execute and deliver such releases, subordinations, requests for reconveyance, termination statements or other instruments as may be reasonably requested by the Credit Group Representative and prepared by or on behalf of the Credit Group Representative in connection with (1) the disposition of Property in accordance with the provisions of the Master Indenture, as summarized in the section captioned "Limitation on Disposition of Assets", and the applicable provisions of any Related Supplement, (2) the withdrawal of a Member pursuant to the provisions of the Master Indenture summarized in the section captioned "Withdrawal from Obligated Group" and the applicable provisions of any Related Supplement and (3) the granting by a Credit Group Member of any Lien which constitutes a Permitted Lien under the Master Indenture, as certified to the Master Trustee in writing by the Credit Group Representative.

Long-Term Debt Service Coverage Ratio.

- (a) Each Obligated Group Member agrees to manage its business, and each Controlling Member agrees to cause each Designated Affiliate it controls and each Unlimited Credit Group Participant and each Limited Credit Group Participant with which it has a contract or agreement to manage its business, such that the Long-Term Debt Service Coverage Ratio of the Credit Group for each Fiscal Year, commencing with the Fiscal Year during which the execution and delivery of the Master Indenture occurs, will not be less than 1.1 to 1.0, as set forth in the Officer's Certificate delivered pursuant to the Master Indenture, as referenced in subparagraph (b)(iv) of the section captioned "Filing of Financial Statements, Certificate of No Default, Other Information", except as specifically provided in this section.
- (b) If for any Fiscal Year the Long-Term Debt Service Coverage Ratio of the Credit Group as set forth in the Officer's Certificate referenced in paragraph (a) above is less than 1.1 to 1.0, the Credit Group Representative covenants to retain an Independent Consultant with 60 days of such calculation to make recommendations to increase Income Available for Debt Service in the following Fiscal Year to the level required or, if in the opinion of the Independent Consultant the attainment of such level is impracticable, to the highest level attainable. The Credit Group Representative agrees to transmit a copy thereof to the Master Trustee within 20 days of the receipt of such recommendations. Each Obligated Group Member shall, promptly upon its receipt of such recommendations, subject to applicable requirements or restrictions imposed by law or existing contracts and to a good faith determination by the Governing Body of the Credit Group Representative that such recommendations are in the best interest of the Credit Group, take such action as shall be in substantial conformity with such recommendations, as certified by the Independent Consultant in writing.
- (c) If the Credit Group substantially complies, to the extent not prevented by law or existing contracts, with the recommendations of the Independent Consultant, the Credit Group will be deemed to have complied with the covenants set forth in this section for such Fiscal Year, notwithstanding that the Long-Term Debt Service Coverage Ratio is less than 1.1 to 1.0; except as provided in paragraph (h) below.
- (d) If a report of an Independent Consultant is delivered to the Master Trustee, which report shall state that Government and Industry Restrictions have been imposed which make it impossible for the Long-Term Debt Service Coverage Ratio to be at least 1.1 to 1.0, then the required amount of Income Available for Debt Service

shall be reduced to the maximum coverage permitted by such Government and Industry Restrictions, as certified by the Independent Consultant in writing; except as provided in paragraph (h) below.

- (e) Notwithstanding the foregoing, an Obligated Group Member may permit the rendering of services or the use of its Property without charge or at reduced charges, at the discretion of the Governing Body of such Obligated Group Member, to the extent necessary for maintaining its tax-exempt status or the tax-exempt status of its Property, Plant and Equipment or its eligibility for grants, loans, subsidies or payments from governmental entities, or in compliance with any recommendation for free services that may be made by an Independent Consultant; except as provided in paragraph (f) below.
- (f) Notwithstanding the foregoing, the Credit Group shall be required to retain an Independent Consultant no more frequently than once every two years.
- Ratio of 1.1 to 1.0 is a direct or indirect result of a Force Majeure Event, as determined in the sole discretion of the Credit Group Representative, then the Credit Group Representative shall not be required to retain an Independent Consultant for the purposes described in this Section; provided that if such failure is a direct or indirect result of a Force Majeure Event, then the Credit Group Representative shall deliver an Officer's Certificate to the Master Trustee stating the nature of the Force Majeure Event and describing the steps the Credit Group is taking with respect to the rates, fees and charges or expenses of the Credit Group and the Credit Group's methods of operation and other factors affecting its financial condition in order to improve the Long-Term Debt Service Coverage Ratio for the then current Fiscal Year.
- (h) An Event of Default shall exist if the Long-Term Debt Service Coverage Ratio of the Credit Group as set forth in the Officer's Certificate, referred to in paragraph (a) above, for any two consecutive Fiscal Years shall be less than 1.0:1.0. Notwithstanding the foregoing, the Credit Group Members shall not be excused from taking any action or performing any duty required under the Master Indenture and no other Event of Default shall be waived by the operation of these provisions.

Merger, Consolidation, Sale or Conveyance.

or

Each Obligated Group Member covenants that it will not merge or consolidate with any other Person that is not an Obligated Group Member or sell or convey all or substantially all of its assets to any Person that is not an Obligated Group Member (a "Merger Transaction") unless:

- (a) After giving effect to the Merger Transaction,
 - (i) the successor or surviving entity (the "Surviving Entity") is an Obligated Group Member,
 - (ii) the Surviving Entity shall:
 - (A) be a corporation or other entity organized and existing under the laws of the United States of America or any state thereof;
 - (B) become an Obligated Group Member pursuant to the provisions of the Master Indenture summarized in the section captioned "Membership in Obligated Group" and, pursuant to the required Related Supplement, shall expressly assume in writing the due and punctual payment of all Required Payments of the disappearing Obligated Group Member under the Master Indenture; and

- (C) become a Controlling Member of the related Designated Affiliates that the previous Obligated Group Member was a Controlling Member of or another Obligated Group Member shall become the Controlling Member of such Designated Affiliate;
- (b) The Master Trustee receives: (1) an Officer's Certificate to the effect that the Transaction Test is satisfied in connection with the Merger Transaction; (2) a certificate of an Independent Consultant to the effect that, on a pro-forma basis adjusted for the impacts of the Merger Transaction, the Long-Term Debt Service Coverage Ratio for the first Fiscal Year of the Credit Group after the Merger Transaction will be at least 1.10 to 1.0, or an Officer's Certificate to the effect that, on a pro-forma basis adjusted for the impacts of the Merger Transaction, the Long-Term Debt Service Coverage Ratio for the first Fiscal Year of the Credit Group after the Merger Transaction will be at least 1.25 to 1.0; and (3) an Officer's Certificate demonstrating that, on a pro-forma basis adjusted for the impacts of the Merger Transaction, that all Long-Term Indebtedness of the Credit Group after the Merger Transaction will not exceed sixty percent of the Capitalization of the Credit Group following the Merger Transaction, based on the most recently completed Fiscal Year for which audited Financial Statements are available;
- (c) So long as any Related Bonds that are tax-exempt obligations are Outstanding, the Master Trustee receives an Opinion of Bond Counsel to the effect that, under then existing law, the consummation of the Merger Transaction would not, in and of itself, result in the inclusion of interest on such Related Bonds in gross income for purposes of federal income taxation;
- (d) The Master Trustee receives an Opinion of Counsel to the effect that (i) all conditions in the Master Indenture relating to the Merger Transaction have been complied with and the Master Trustee is authorized to join in the execution of any instrument required to be executed and delivered; (ii) the Surviving Entity meets the conditions set forth in the Master Indenture as summarized in this section and all Master Indenture Obligations then Outstanding; (iii) the Merger Transaction will not adversely affect the validity of any Master Indenture Obligations then Outstanding and such Master Indenture Obligations then Outstanding are enforceable against the Surviving Entity in accordance with their respective terms; and (iv) the Merger Transaction will not cause the Master Indenture or any Master Indenture Obligations to be subject to registration under federal securities laws or qualification under the Trust Indenture Act of 1939, as amended (or, that any such registration or qualification, if required, has occurred);
- (e) The Surviving Entity shall be substituted for its predecessor in interest in all Master Indenture Obligations and agreements then in effect which affect or relate to any Master Indenture Obligation, and the Surviving Entity shall execute and deliver to the Master Trustee appropriate documents in order to effect the substitution;
- (f) In case of any such consolidation, merger, sale or conveyance, such changes in phraseology and form (but not in substance) may be made in Master Indenture Obligations thereafter to be issued under the Master Indenture as may be appropriate; and

From and after the effective date of such substitution, the Surviving Entity shall be treated as an Obligated Group Member and shall thereafter have the right to participate in transactions under the Master Indenture relating to Master Indenture Obligations to the same extent as the other Obligated Group Members. All Master Indenture Obligations issued under the Master Indenture on behalf of a Surviving Entity shall have the same legal rank and benefit under the Master Indenture as Master Indenture Obligations issued on behalf of any other Obligated Group Member.

Membership in Obligated Group.

Additional Obligated Group Members may be added to the Obligated Group from time to time, provided that prior to such addition the Master Trustee receives:

- (a) a copy of a resolution of the Governing Body of the proposed new Obligated Group Member which authorizes the execution and delivery of a Related Supplement and compliance with the terms of the Master Indenture and take any actions on its behalf that are specified in the Master Indenture; and
- (b) a Related Supplement executed by the Credit Group Representative, the new Obligated Group Member and the Master Trustee pursuant to which the proposed new Obligated Group Member (i) agrees to become an Obligated Group Member, and (ii) agrees to be bound by the terms of the Master Indenture, the Related Supplements and the Master Indenture Obligations, and (iii) pursuant to the Master Indenture, irrevocably appoints the Credit Group Representative as its agent and attorney-in-fact and grants to the Credit Group Representative the full power and authority to execute (1) Related Supplements authorizing the issuance of Master Indenture Obligations or Series of Master Indenture Obligations, (2) Master Indenture Obligations and (3) all Certificates, Statements, Requests, Consents or Orders; and
- (c) an Opinion of Counsel to the effect that (i) the proposed new Obligated Group Member has taken all necessary action to become an Obligated Group Member, and upon execution of the Related Supplement, such proposed new Obligated Group Member will be bound by the terms of the Master Indenture, (ii) the addition of such Obligated Group Member would not adversely affect the validity of any Master Indenture Obligation then Outstanding and (iii) the addition of such Obligated Group Member will not cause the Master Indenture or any Master Indenture Obligations to be subject to registration under federal securities laws or qualification under the Trust Indenture Act of 1939, as amended (or, that any such registration or qualification, if required, has occurred); and
- (d) an Officer's Certificate to the effect that immediately after the addition of the proposed new Obligated Group Member, either (i) the Transaction Test would be satisfied; or (ii) the Long-Term Debt Service Coverage Ratio of the Credit Group, calculated on a pro-forma basis for the immediately following Fiscal Year and adjusted for the impacts of the proposed entry of the new Obligated Group Member, would increase from the previous Fiscal Year; and
- (e) so long as any Related Bonds that are tax-exempt obligations are Outstanding, an Opinion of Bond Counsel to the effect that the addition of the proposed new Obligated Group Member will not, in and of itself, result in the inclusion of interest on any Related Bonds in gross income for purposes of federal income taxation; and
- (f) the Master Indenture is amended to include a description of the Property of the Person becoming a Member that is to be considered Excluded Property (provided that such Property may be treated as Excluded Property only if such Property is real or tangible personal property and the primary operations of such Person are not conducted upon such real property), and the Master Indenture is amended to include the new Obligated Group Member.

Withdrawal from Obligated Group.

Any Obligated Group Member may withdraw from the Obligated Group and be released from further liability or obligation under the provisions of the Master Indenture, and any Obligated Group Member may be redesignated as a Designated Affiliate, provided that prior to such withdrawal or redesignation the Master Trustee receives (a) an Officer's Certificate to the effect that the Credit Group Representative has approved the withdrawal of such Obligated Group Member (and, if applicable, redesignation of such Obligated Group Member as a Designated Affiliate); (b) an Officer's Certificate to the effect that (i) immediately after the withdrawal of such Obligated Group Member, the Transaction Test would be satisfied; and (ii) either (A) the Long-Term Debt Service Coverage Ratio of the Credit Group for the immediately prior Fiscal Year would not have been reduced if the withdrawing Obligated Group for the immediately prior Fiscal Year would not have been reduced to less than 1.25 to 1.0 if the withdrawing Obligated Group Member had not been in the Obligated Group; (c) an Opinion of

Counsel to the effect that (i) the withdrawal (or redesignation) of such Obligated Group Member would not adversely affect the validity of any Master Indenture Obligation then Outstanding and (ii) the withdrawal (or redesignation) of such Obligated Group Member will not cause the Master Indenture or any Master Indenture Obligations to be subject to registration under federal securities laws or qualification under the Trust Indenture Act of 1939, as amended (or, that any such registration or qualification, if required, has occurred); (d) an Opinion of Bond Counsel to the effect that under then-existing law such Obligated Group Member's withdrawal from the Obligated Group would not adversely affect the validity of the Obligations or the tax-exempt status of interest payable on any related Bonds; and (e) the Master Indenture is amended to delete the withdrawn Obligated Group Member.

Upon compliance with the conditions summarized above, the Master Trustee shall execute any documents reasonably requested by the withdrawing Obligated Group Member to evidence the termination of such Obligated Group Member's obligations under the Master Indenture, under all Related Supplements and under all Master Indenture Obligations.

Limitation on Disposition of Assets.

The Credit Group Members, will not, in the aggregate, in any Fiscal Year sell, lease or otherwise dispose of Property the Book Value of which would cause the aggregate Book Value of Property so transferred in such Fiscal Year to exceed the greater of \$10,000,000 or 10% of the total Property, Plant and Equipment of the Credit Group as shown on the Credit Group Financial Statements for the Historic Test Period, except for the following transfers, sales or leases, which shall be permitted in any period during which an Event of Default has occurred and is continuing:

- (a) Property, Plant and Equipment that is transferred, sold or leased in connection with a merger, consolidation, sale or conveyance permitted under this Master Indenture;
- (b) Property, Plant and Equipment that is retired, replaced, obsolete or otherwise disposed of in the ordinary course of business;
- (c) Property, Plant and Equipment for which ownership or operation resulted in no operating revenues during the preceding twelve months;
- (d) Property, Plant and Equipment for which the Obligated Group receives fair market value therefor:
- (e) Property, Plant and Equipment or any Current Assets that are transferred, sold, or leased to another member of the Obligated Group;
- (f) Property, Plant and Equipment in an amount not in excess of 20% of the aggregate amount of accounts receivable;
 - (g) Property, Plant and Equipment specifically excluded in Appendix B hereof;
 - (h) Restricted Moneys; and
- (i) Accounts in an amount not to exceed the difference between the account lien amount and the amount of accounts that have been and are pledged to secure Outstanding Indebtedness.

Limitation on Additional Indebtedness.

Each Obligated Group Member covenants that it will not, and each Controlling Member covenants that it will not permit Designated Affiliates it controls to, incur any Additional Indebtedness except that the Obligated Group Members and Designated Affiliates may incur the following Additional Indebtedness:

- Long-Term Indebtedness, if prior to the date of incurrence of the Long-Term Indebtedness there is delivered to the Master Trustee an Officer's Certificate to the effect that: The ratio of Income Available to Debt Service to Maximum Annual Debt Service for the prior Fiscal Year, adjusting to include any debt incurred after the prior Fiscal Year and assuming that the proposed additional Long-Term Indebtedness had been incurred at the beginning of the prior Fiscal Year, is equal to at least 1.20 to 1.00; or immediately after the proposed transaction, the aggregate principal amount of all Outstanding Long-Term Indebtedness of the Credit Group (excluding any Guaranty) will not exceed 10% of the Total Revenues of the Credit Group for the prior Fiscal Year; or (iii) the Long-Term Debt Service Coverage Ratio for the prior Fiscal Year, not taking into account the proposed additional Long-Term Indebtedness, is not less than 1.1 to 1.0; and the forecasted average Long-Term Debt Service Coverage Ratio for the first Fiscal Year commencing after the incurrence of the proposed additional Long-Term Debt Service Coverage Ratio for the first Fiscal Year commencing after the incurrence of the proposed additional Long-Term Indebtedness may be not less than 1.10 to 1.0 if the forecast is provided by an Independent Consultant.
- (b) Long-Term Indebtedness incurred for the purpose of refunding or refinancing outstanding Indebtedness, provided that the refunding of Long-Term Indebtedness will not increase Maximum Annual Debt Service in any year (calculated for the period during which the Indebtedness to be refunded would have been Outstanding but for such proposed refunding) by more than 15%.
- (c) Completion Indebtedness, provided that an Officer's Certificate is delivered to the Master Trustee (A) stating that the Credit Group Representative reasonably expected the aggregate principal amount of Long-Term Indebtedness or Interim Indebtedness originally issued to finance the construction or equipping of the project for which such Completion Indebtedness is being incurred, together with other funds reasonably anticipated to be available for such purposes, to be fully sufficient to provide a completed and fully equipped facility of the type and scope contemplated at the time said Long-Term Indebtedness or Interim Indebtedness was originally incurred, (B) describing why such Completion Indebtedness is necessary, and (C) certifying as to the amount needed for completion of the project.
- (d) Short-Term Indebtedness provided that an Officer's Certificate is delivered to the Master Trustee stating that the total amount of such Short-Term Indebtedness shall not exceed 15% of Total Revenues for the Historic Test Period and the amount of such Indebtedness is reduced to no more than 75% of the aggregate accounts receivable of the Obligated Group for a period of at least 20 consecutive days in each Fiscal Year. Any Short Term-Indebtedness that is not so reduced and exceeds 5% of Total Revenues for the Historic Test Period is permitted only if the provisions described in subsection (a) above are satisfied, treating such Short-Term Indebtedness as if it were Long-Term Indebtedness.
 - (e) Nonrecourse Indebtedness, without limitation.
 - (f) Subordinated Indebtedness, without limitation.
- (g) Long-Term Indebtedness in the form of installment purchase contracts, capitalized leases, purchase money mortgages, loans, sale agreements or other typical borrowing instruments and Guarantees of such Indebtedness; provided that the aggregate Annual Debt Service on the Indebtedness permitted under this paragraph (f) shall not in any Fiscal Year exceed two percent (2%) of Total Revenues for the most recent completed Fiscal Year, provided further that such Indebtedness may exceed two percent (2%) of Total Revenues for the most recent

completed Fiscal Year if it could have been incurred under paragraph (a) above assuming such Indebtedness were Long-Term Indebtedness; or

- (h) Any Indebtedness represented by a letter of credit reimbursement agreement or other similar reimbursement agreement entered into by an Obligated Group Member and an institution providing a Credit Facility with respect to any other Debt incurred in accordance with any other provision described under this heading; or
- (i) Indebtedness incurred or deemed incurred by virtue of any recourse obligation associated with any sale or assignment of accounts receivable or any securitization of accounts receivable; or
- (j) Advances to TUH from the University, which advances shall be effected as liabilities on the financial statements of TUH and shall be evidenced by a written obligation to repay such advances; or
- (k) Interest rate swaps, caps, floors, futures contracts and similar financial products (collectively, "Swaps"). No financial tests shall be required solely by reason of the incurrence of a Swap, but in the case of a Swap which is being incurred for the purpose of limiting interest rate risk with respect to specific Debt which is proposed to be incurred, or which is then outstanding, the Long-Term Debt Service Requirements of the Obligated Group shall be adjusted for the related Indebtedness to give effect to the Swap in such manner, and to such extent, if any, as may be required by generally accepted accounting principles or, in the absence of any such requirements under generally accepted accounting principles, as may be stated in a certificate of an Authorized Officer (which certificate shall be delivered concurrently with any Forecast or Authorized Officer's certificate required in connection with the incurrence of the related Indebtedness) as necessary to present fairly the reasonably expected Debt Service Requirements of the Obligated Group after the incurrence of the Swap.

Filing of Financial Statements, Certificate of No Default, Other Information.

- (a) Each Obligated Group Member covenants and agrees that it will, and each Controlling Member covenants and agrees that it will cause each Designated Affiliate it controls and each Unlimited Credit Group Participant and each Limited Credit Group Participant with which it maintains a contract or agreement to, keep adequate records and books of accounts in which complete and correct entries shall be made (said records and books (excluding any information the disclosure of which is limited by applicable law) shall be subject to the inspection of the Master Trustee during regular business hours after reasonable notice and under reasonable circumstances, provided the Master Trustee shall have no duty to so inspect).
- (b) The Credit Group Representative covenants and agrees that it will furnish to the Master Trustee and, upon written request, any Related Bond Issuer (that is not a Credit Group Member):
 - (i) As soon as practicable, but in no event more than 150 days after the last day of each Fiscal Year beginning with the Fiscal Year during which the execution and delivery of the Master Indenture occurs, one or more financial statements which (A) shall consist of the Credit Group Financial Statements; (B) shall be audited by an Accountant (or, in the case of System Financial Statements, the System Financial Statements shall be audited by an Accountant) having been prepared in accordance with GAAP (except, in the case of special purpose financial statements, for required consolidations); and (C) shall include a consolidated or combined balance sheet, statement of operations and changes in net assets.
 - (ii) Within 60 days after the close of each fiscal quarter, copies of the Credit Group's unaudited quarterly financial statements or report presented on a consolidated basis for such fiscal quarter.
 - (iii) (A) If a single financial statement containing information solely related to the Credit Group Members (which may, but need not, include any Immaterial Affiliates) is delivered pursuant to the

Master Indenture as summarized in (b)(i) above, such financial statement shall constitute the "Credit Group Financial Statements."

- (B) If a single financial statement containing information related solely to the Credit Group Members and, at the option of the Credit Group Representative, any Immaterial Affiliates is not delivered within 150 days after the last day of a Fiscal Year pursuant to the Master Indenture as summarized in (b)(i) above, the Credit Group Representative shall prepare an unaudited balance sheet and statement of operations for such Fiscal Year. The unaudited financial statements shall be prepared as soon as practicable, but in no event more than 150 days after the last day of each Fiscal Year beginning with the Fiscal Year during which the execution and delivery of the Master Indenture occurs, and shall be based on the accompanying unaudited combining or consolidating schedules delivered with the Credit Group Financial Statements delivered for the immediately preceding Fiscal Year. The unaudited financial statements prepared in accordance with this paragraph shall constitute the "Credit Group Financial Statements."
- (iv) At the time of the delivery of the Credit Group Financial Statements, an Officer's Certificate (A) setting forth the calculations based upon the Credit Group Financial Statements for such Fiscal Year of the Long-Term Debt Service Coverage Ratio for such Fiscal Year and (B) stating that no event which constitutes an Event of Default has occurred and is continuing as of the end of such Fiscal Year, or specifying the nature of such event and the actions taken and proposed to be taken by the Members to cure such Event of Default.
- (c) Notwithstanding the foregoing, the results of operation and financial position of Immaterial Affiliates need not be excluded from financial statements delivered to the Master Trustee pursuant to this section, and such results of operation and financial position of Immaterial Affiliates may be considered as if they were a portion of the results of operation and financial position of the Credit Group Members for all purposes of the Master Indenture. The Master Trustee shall have no duty to review, verify or analyze such financial statements and shall hold such financial statements solely as a repository for the benefit of the Holders. The Master Trustee shall not be deemed to have notice of any information contained in such financial statements or Default or Event of Default which may be disclosed therein in any manner.

Replacement of Master Indenture Obligations.

At the option of the Credit Group Representative and without the consent of any Holders, Master Indenture Obligations may be surrendered by their Holders and delivered to the Master Trustee for cancellation upon receipt by the Master Trustee and the Holders of the Master Indenture Obligations of the following:

- (a) a Request of the Credit Group Representative requesting such surrender and delivery and stating that the Credit Group Representative (and each other Member of the Obligated Group) has become a member of an obligated group (the "New Obligated Group") under a master indenture (other than the Master Indenture) and that an obligation or obligations are being issued to the Holder under such replacement master indenture (the "Replacement Master Indenture");
- (b) a properly executed obligation (the "Replacement Obligation") for each Master Indenture Obligation issued under the Replacement Master Indenture and registered in the name of the Holder with the same tenor and effect as the previous Master Indenture Obligation of such Holder, duly authenticated by the master trustee under the Replacement Master Indenture;
- (c) an Opinion of Counsel to the effect that each Replacement Obligation has been validly issued under the Replacement Master Indenture and constitutes a valid and binding obligation of the Credit Group

Representative (and each other Member of the Obligated Group) and each other member of the obligated group under the Replacement Master Indenture;

- (d) a copy of the Replacement Master Indenture, certified as a true and accurate copy by the master trustee under the Replacement Master Indenture; and
- (e) written evidence from any Rating Agency then rating any Related Bonds or Master Indenture Obligations that immediately following the delivery of the Replacement Obligations the Rating Category on any Related Bonds or the Replacement Obligations shall not be less than "A" or its equivalent, provided, however, if the then-current Rating Category on any Related Bonds or the Master Indenture Obligations is less than "A" or its equivalent that immediately following the delivery of the Replacement Obligations the Rating Category on any Related Bonds or the Master Indenture Obligations shall not be withdrawn or reduced as compared to such Rating Category immediately prior to the delivery of the Replacement Obligations; and
- (f) an Opinion of Bond Counsel to the effect that the replacement of the Master Indenture Obligation with the Replacement Obligations will not, in and of itself, result in the inclusion of the interest on any Related Bonds in gross income for purposes of federal income taxation.

Additions to Excluded Property.

The list of Excluded Property attached to the Master Indenture may be amended, without consent of any Holders of Master Indenture Obligations, to include: (a) additional real property acquired by a Credit Group Member subsequent to the date of execution and delivery of the Master Indenture and all improvements, fixtures, tangible personal property, and equipment located thereon and used in connection therewith, upon the receipt by the Master Trustee of an Officer's Certificate stating that (i) such Property does not constitute a portion of the Property financed or refinanced with proceeds of Outstanding Related Bonds, and (ii) the total value of all such Property so added to such list does not exceed 10% of the total value of Property of the Credit Group (calculated on the basis of the Book Value of the assets of the Credit Group shown on the Credit Group Financial Statements for the Fiscal Year next preceding the date of the amendment of such list), or (b) unimproved real property upon receipt by the Master Trustee of an Officer's Certificate stating that such real property is not an integral part of the operation of such Member's activities; provided that in any consecutive 12-month period the total value of the Property of the Credit Group disposed of and classified as Excluded Property under this section shall not exceed 10% of the total value of the Property of the Credit Group (so calculated on the basis of such Book Value).

Certain Considerations with Respect to Computation of Debt Service Requirements.

For purposes of the computation of Debt Service Requirements, whether historic or projected:

- (a) With respect to a Guaranty, (A) if any Credit Group Member has made a payment pursuant to such Guaranty, 100% of the Debt Service Requirements (calculated as if such Person were a Credit Group Member) guaranteed by any Credit Group Member under the Guaranty shall be included in the calculation of Debt Service Requirements in the year in which such payment was made and for a period of twenty-four months thereafter and (B) otherwise, the aggregate annual principal and interest payments on, and the principal amount of, any indebtedness of a person which is not an Credit Group Member which is the subject of a Guaranty and which would, if such obligation were incurred by a Credit Group Member, constitute Long-Term Indebtedness, shall be deemed equivalent to twenty percent (20%) of the actual Annual Debt Service on, and principal amount of, such indebtedness, for so long as such Guaranty constitutes a contingent liability under generally accepted accounting principles.
- (b) If interest on Long-Term Indebtedness is payable pursuant to a variable interest rate formula, the interest rate on such Long-Term Indebtedness for periods when the actual interest rate cannot yet be determined

(projected for a Future Test Period) shall be assumed to be equal to (A) if such Long-Term Indebtedness was Outstanding during the 12 calendar months immediately preceding the date of calculation, an average of the interest rates per annum which were in effect, and (B) if such Long-Term Indebtedness was not Outstanding during the 12 calendar months immediately preceding the date of calculation, at the election of the Credit Group Representative, either (1) an average of the rates in effect during the 12 calendar months immediately preceding the date of calculation for a comparable variable rate interest index selected by the Credit Group Representative, with the advice of an investment banking or financial services firm knowledgeable in health care matters, or (2) an average of the interest rates per annum which would have been in effect for any 12 consecutive calendar months during the 18 calendar months immediately preceding the date of calculation, as specified in a Certificate of the Credit Group Representative or (3) such interest rate as shall be specified in a written statement from an investment banking or financial advisory firm selected by the Credit Group Representative.

- (c) With respect to Balloon Indebtedness or Interim Indebtedness, such Balloon Indebtedness, at the sole option of the Credit Group Representative, and such Interim Indebtedness shall be treated as Long-Term Indebtedness bearing interest at (A) if such Indebtedness bears interest at a variable interest rate formula, to the extent such interest rate is unknown, a rate determined in accordance with the immediately preceding paragraph or (B) a fixed rate equal to a rate reasonably available to the Obligated Group as set forth in a certificate delivered by a financial advisory firm selected by the Credit Group Representative, in each case with substantially level debt service over a term of up to 25 years (which period shall be designated by the Credit Group Representative).
- (d) If arrangements have been made for the redemption or payment of any amount of principal of and interest and other debt service charges on any Long-Term Indebtedness that is then outstanding or treated as outstanding under this section with proceeds of other firmly committed Indebtedness or other committed sources of money (including any commitment by any Person to make payments under a Financial Product Agreement), then the principal of and interest and other debt service charges to be refinanced or paid by such firmly committed Indebtedness or by such other committed money shall be ignored for purposes of computing the Debt Service Requirements, and any such firmly committed Indebtedness shall be treated as outstanding Indebtedness with terms as set forth in the related loan commitment.

Events of Default.

Each of the following events shall be an Event of Default under the Master Indenture:

- (a) Failure on the part of the Obligated Group Members to make due and punctual payment of the principal of, redemption premium, if any, interest on or any other Required Payment on any Master Indenture Obligation (giving effect to any grace period provided in the Related Supplement pursuant to which such Master Indenture Obligation was issued).
- (b) The occurrence of an Event of Default described in subparagraph (h) of the section captioned "Long-Term Debt Service Coverage Ratio."
- (c) Any Obligated Group Member shall fail to observe or perform any other covenant or agreement under the Master Indenture (including covenants or agreements contained in any Related Supplement or Master Indenture Obligation) and shall not have cured such failure within 60 days after the date on which written notice of such failure, requiring the failure to be remedied, shall have been given to the Credit Group Representative by the Master Trustee or to the Credit Group Representative and the Master Trustee by the Holders of a majority in aggregate principal amount of Outstanding Master Indenture Obligations (provided that if such failure can be remedied but not within such 60 day period, such failure shall not become an Event of Default for so long as the Credit Group Representative shall diligently proceed to remedy the failure and provides the Master Trustee with a certification to such effect within 60 days of the delivery of written notice of such failure).

- (d) A court having jurisdiction shall enter a decree or order for relief in respect of any Credit Group Member in an involuntary case under any applicable federal or state bankruptcy, insolvency or other similar law, or appointing a receiver, liquidator, assignee, custodian, trustee, sequestrator (or similar official) of any Credit Group Member or for any substantial part of the Property of any Credit Group Member, or ordering the winding up or liquidation of its affairs, and such decree or order shall remain unstayed and in effect for a period of 60 consecutive days.
- (e) Any Credit Group Member shall commence a voluntary case under any applicable federal or state bankruptcy, insolvency or other similar law, or shall consent to the entry of an order for relief in an involuntary case under any such law, or shall consent to the appointment of or taking possession by a receiver, liquidator, assignee, trustee, custodian, sequestrator (or similar official) of any Credit Group Member or for any substantial part of its Property, or shall make any general assignment for the benefit of creditors, or shall fail generally to pay its debts as they become due or shall take any corporate action in furtherance of the foregoing.

The Credit Group Representative agrees that, as soon as practicable, and in any event within ten (10) days after such event, the Credit Group Representative shall notify the Master Trustee of any event which is an Event of Default under the Master Indenture which has occurred and is continuing, which notice shall state the nature of such event and the action which the Obligated Group Members propose to take with respect thereto.

Acceleration; Annulment of Acceleration.

Upon the occurrence and during the continuation of an Event of Default, the Master Trustee may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of Outstanding Master Indenture Obligations shall, by notice to the Credit Group Representative, declare all Outstanding Master Indenture Obligations immediately due and payable. Upon such declaration of acceleration, all Outstanding Master Indenture Obligations shall be immediately due and payable. If the terms of any Related Supplement give a Person the right to consent to acceleration of the Master Indenture Obligations issued pursuant to such Related Supplement, the Master Indenture Obligations issued pursuant to such Related Supplement may not be accelerated by the Master Trustee unless such consent is properly obtained pursuant to the terms of such Related Supplement. In the event of acceleration, an amount equal to the aggregate principal amount of all Outstanding Master Indenture Obligations, plus all interest accrued thereon and, to the extent permitted by applicable law, which accrues on such principal and interest to the date of payment, and all other amounts due thereunder, shall be due and payable on the Master Indenture Obligations.

At any time after the Master Indenture Obligations have been declared to be due and payable, and before the entry of a final judgment or decree in any proceeding instituted with respect to the Event of Default that resulted in the declaration of acceleration, the Master Trustee may annul such declaration and its consequences if (i) the Obligated Group Members have paid (or caused to be paid or deposited with the Master Trustee moneys sufficient to pay) all payments then due on all Outstanding Master Indenture Obligations (other than payments then due only because of such declaration); and (ii) the Obligated Group Members have paid (or caused to be paid or deposited with the Master Trustee moneys sufficient to pay) all fees and expenses of the Master Trustee then due; and (iii) the Obligated Group Members have paid (or caused to be paid or deposited with the Master Trustee moneys sufficient to pay) all other amounts no described in (i) and (ii) above then payable by the Obligated Group under the Master Indenture; and (iv) every Event of Default (other than a default in the payment of the principal or other payments of such Master Indenture Obligations then due only because of such declaration) has been remedied.

No such annulment shall extend to or affect any subsequent Event of Default or impair any right with respect to any subsequent Event of Default.

Additional Remedies and Enforcement of Remedies.

Upon the occurrence and continuance of any Event of Default, the Master Trustee may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of the Outstanding Master Indenture Obligations (and upon indemnification of the Master Trustee to its satisfaction by the Credit Group or such Holders for any such request), shall, proceed to protect and enforce its rights and the rights of the Holders under the Master Indenture by such proceedings as may be deemed expedient, including but not limited to (i) Enforcement of the right of the Holders to collect amounts due or becoming due under the Master Indenture Obligations; (ii) Civil action to require any Person holding moneys, documents or other property pledged to secure payment of amounts due or to become due on the Master Indenture Obligations to account as if it were the trustee of an express trust for the Holders of Master Indenture Obligations; (iv) Civil action to enjoin any acts which may be unlawful or in violation of the rights of the Holders of Master Indenture Obligations; (v) Civil action to obtain a writ of mandate against any Obligated Group Member or Controlling Member, or against any officer or member of the Governing Body of any Obligated Group Member or Controlling Member to compel performance of any act specifically required by the Master Indenture or any Master Indenture Obligation; and (vi) Enforcement of any other right or remedy of the Holders conferred by law or by the Master Indenture.

Regardless of the occurrence of an Event of Default, if requested in writing by the Holders of not less than a majority in aggregate principal amount of the Outstanding Master Indenture Obligations (and upon indemnification of the Master Trustee to its satisfaction for such request), the Master Trustee shall institute and maintain such proceedings as it may be advised shall be necessary or expedient (i) to prevent any impairment of the security under the Master Indenture by any acts which may be unlawful or in violation thereof, or (ii) to preserve or protect the interests of the Holders. However, the Master Trustee shall not comply with any such request or institute and maintain any such proceeding that is in conflict with any applicable law or the provisions of the Master Indenture. Nothing in the Master Indenture shall be deemed to authorize the Master Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment, or composition affecting the Master Indenture Obligations or the rights of any Holder thereof, or to authorize the Master Trustee to vote in respect of the claim of any Holder in any such proceeding without the approval of the Holders so affected.

Application of Moneys After Default.

During the continuance of an Event of Default, all moneys received by the Master Trustee pursuant to any right given or action taken under the provisions of the Master Indenture, including as summarized in the sections captioned "Events of Default," "Acceleration; Annulment of Acceleration," "Additional Remedies and Enforcement of Remedies," Remedies Vested in the Master Trustee," "Holders Control of Proceedings," "Waiver of Event of Default," and "Notice of Default", (after payment of the costs of the proceedings resulting in the collection of such moneys and payment of all fees, expenses and other amounts owed to the Master Trustee) shall be applied as follows:

First: To the payment of all Required Payments then due on the Master Indenture Obligations (including (i) Financial Product Payments to the extent made pursuant to a Financial Product Agreement secured or evidenced by a Master Indenture Obligation and (ii) Parity Financial Product Extraordinary Payments), and, if the amount available is not sufficient to pay in full the whole amount then due and unpaid, then to the payment thereof ratably, without preference or priority, according to the amounts due respectively, without any discrimination or preference; and

Second: To the payment of all Financial Product Extraordinary Payments made pursuant to a Financial Product Agreement secured or evidenced by a Master Indenture Obligation (other than Parity Financial Product Extraordinary Payments), and, if the amount available is not sufficient to pay in full all

such Financial Product Extraordinary Payments, then to the payment thereof ratably, without any discrimination or preference.

Such moneys shall be applied at such times, and from time to time, as the Master Trustee shall determine, having due regard for the amount of moneys available and the likelihood of additional moneys becoming available in the future. Upon any date fixed by the Master Trustee for the application of such moneys to the payment of principal, interest on the amounts of principal to be paid on such date shall cease to accrue. The Master Trustee shall give such notices as it may deem appropriate of the deposit with it of such moneys or of the fixing of such dates. The Master Trustee shall not be required to make payment to the Holder of any unpaid Master Indenture Obligation until such Master Indenture Obligation (and all unmatured interest coupons, if any) is presented to the Master Trustee for appropriate endorsement of any partial payment or for cancellation if fully paid.

Whenever all Master Indenture Obligations have been paid under the terms of the Master Indenture as summarized in this section and all fees and expenses of the Master Trustee have been paid, any balance remaining shall be paid to the Person entitled to receive such balance. If no other Person is entitled thereto, then the balance shall be paid to the Members of the Obligated Group or such Person as a court of competent jurisdiction may direct.

Remedies Vested in the Master Trustee.

All rights of action (including the right to file proof of claims) under the Master Indenture or under any of the Master Indenture Obligations may be enforced by the Master Trustee without the possession of any of the Master Indenture Obligations or the production thereof in any proceeding relating thereto. Any proceeding instituted by the Master Trustee may be brought in its name as the Master Trustee without the necessity of joining any Holders as plaintiffs or defendants. Subject to the provisions of the Master Indenture, as summarized in the section captioned "Application of Monies After Default", any recovery or judgment shall be for the equal benefit of the Holders of the Outstanding Master Indenture Obligations.

Holders' Control of Proceedings.

If an Event of Default has occurred and is continuing, notwithstanding anything in the Master Indenture to the contrary, the Holders of at least a majority in aggregate principal amount of Outstanding Master Indenture Obligations shall have the right (upon the indemnification of the Master Trustee to its satisfaction) to direct the method and/or place of conducting any proceeding to be taken in connection with the enforcement of the terms of the Master Indenture. Such direction must be in writing, signed by such Holders and delivered to the Master Trustee. However, the Master Trustee shall not follow any such direction that is in conflict with any applicable law or the provisions of the Master Indenture. Nothing in the Master Indenture as summarized in this section shall impair the right of the Master Trustee to take any other action authorized by the Master Indenture which it may deem proper and which is not inconsistent with such direction by Holders.

Waiver of Event of Default.

No delay or omission of the Master Trustee or of any Holder to exercise any right with respect to any Event of Default shall impair such right or shall be construed to be a waiver of or acquiescence to such Event of Default. Every right and remedy given by the Master Indenture to the Master Trustee and the Holders, as summarized in this section, may be exercised from time to time and as often as may be deemed expedient by them.

The Master Trustee may waive any Event of Default which in its opinion has been remedied before the entry of a final judgment or decree in any proceeding instituted by it under the Master Indenture, or before the completion of the enforcement of any other remedy under the Master Indenture.

Upon the written request of the Holders of at least a majority in aggregate principal amount of Outstanding Master Indenture Obligations, the Master Trustee shall waive any Event of Default under the Master Indenture and its consequences; provided, however, that, except under the circumstances set forth in the provisions of the Master Indenture, as summarized in the second paragraph of the section captioned "Acceleration; Annulment of Acceleration", the failure to pay the principal of, premium, if any, or interest on any Master Indenture Obligation when due may not be waived without the written consent of the Holders of all Outstanding Master Indenture Obligations.

In case of any waiver by the Master Trustee of an Event of Default, the Obligated Group Members, the Master Trustee and the Holders shall be restored to their former positions and rights. No waiver shall extend to, or impair any right with respect to, any other Event of Default.

Notice of Default.

Upon the occurrence of an Event of Default under Section 4.01(c) of the Master Indenture, or a Default under Section 4.01(a), (b), (d) or (e), in each case of which the Master Trustee is deemed to have notice in accordance with Section 5.02(i), the Master Trustee shall within 10 Business Days mail notice of such Default or Event of Default to all Holders, unless such Default or Event of Default has been cured before the giving of such notice. Except in the case of default in the payment of the principal of or premium, if any, or interest on any of the Master Indenture Obligations and the Events of Default specified in subsections (d) and (e) of Section 4.01 of the Master Indenture, the Master Trustee shall be protected in withholding such notice if and so long as the Master Trustee in good faith determines that the withholding of such notice is in the best interest of the Holders.

Supplements Not Requiring Consent of Holders.

The Credit Group Representative (acting for itself and as agent for each Obligated Group Member) and the Master Trustee may, without the consent of or notice to any of the Holders, enter into one or more Related Supplements for any of the following purposes (a) to correct any ambiguity or formal defect or omission in the Master Indenture; (b) to correct or supplement any provision which may be inconsistent with any other provision, or to make any other provision with respect to matters or questions arising under the Master Indenture and which does not materially and adversely affect the interests of the Holders, as evidenced by an Opinion of Counsel; (c) to grant or confer ratably upon all of the Holders any additional rights, remedies, powers or authority, or to add to the covenants of and restrictions on the Obligated Group Members; (d) to qualify the Master Indenture under the Trust Indenture Act of 1939, as amended, or corresponding provisions of federal law from time to time in effect; to create and provide for the issuance of a Master Indenture Obligation or Series of Master Indenture Obligations as permitted under the Master Indenture; (f) to obligate a successor to any Obligated Group Member as provided in the Master Indenture and summarized in the section captioned "Merger, Consolidation, Sale or Conveyance"; (g) to add a new Obligated Group Member or provide for withdrawal of an Obligated Group Member as provided in the Master Indenture and summarized in the sections captioned "Membership in Obligated Group" and "Withdrawal from Obligated Group"; or (h) to make any other change which does not materially and adversely affect the interests of the Holders, as evidenced by an Opinion of Counsel.

Supplements Requiring Consent of Holders.

Other than Related Supplements not requiring consent of Holders described in the section captioned "Supplements Not Requiring Consent of Holders" and subject to the terms contained in the Master Indenture, the Holders of not less than a majority in aggregate principal amount of the Outstanding Master Indenture Obligations shall have the right to consent to and approve the execution by the Credit Group Representative (acting for itself and as agent for each Obligated Group Member) and the Master Trustee of such Related Supplements as shall be deemed necessary or desirable for the purpose of modifying, altering, amending, adding to or rescinding any of the terms contained in the Master Indenture; provided, however, that in the Master Indenture shall permit or be construed as permitting a Related Supplement which would (i) extend the stated maturity of or time for paying

principal of or interest on any Master Indenture Obligation or reduce the principal amount of or the redemption premium or rate of interest or change the method of calculating interest payable on or reduce any other Required Payment on any Master Indenture Obligation without the consent of the Holder of such Master Indenture Obligation; (ii) modify, alter, amend, add to or rescind any of the terms or provisions related to Required Payments or Events of Default so as to affect the right of the Holders of any Master Indenture Obligations in default to compel the Master Trustee to declare the principal of all Master Indenture Obligations to be due and payable, without the consent of the Holders of all Outstanding Master Indenture Obligations; (iii) reduce the aggregate principal amount of Outstanding Master Indenture Obligations the consent of the Holders of which is required to authorize such Related Supplement without the consent of the Holders of all Master Indenture Obligations then Outstanding; or (iv) create any lien or security interest (other than permitted pursuant to the Master Indenture as summarized in the section captioned "Against Encumbrances") prior to or on parity with the lien and security interest of the Master Indenture or deprive any Holders of the lien created by the Master Indenture (other than permitted pursuant to the Master Indenture as summarized in the section captioned "Replacement of Master Indenture Obligations"), without the consent of the Holders of all the Master Indenture Obligations at the time Outstanding that would be affected by the action to be taken.

The Master Trustee may execute a Related Supplement (in substantially the form delivered to it as described below) without liability or responsibility to any Holder (whether or not such Holder has consented to the execution of such Related Supplement) if the Master Trustee receives (i) a Request of the Credit Group Representative to enter into such Related Supplement; and (ii) a certified copy of the resolution of the Governing Body of the Credit Group Representative approving the execution of such Related Supplement; and (iii) the proposed Related Supplement; and (iv) an instrument or instruments executed by the Holders of not less than the aggregate principal amount or number of Master Indenture Obligations specified in the immediately preceding paragraph for the Related Supplement in question which instrument or instruments shall refer to the proposed Related Supplement and shall specifically consent to and approve the execution thereof in substantially the form of the copy thereof as on file with the Master Trustee. The written consent of a Holder of a Master Indenture Obligation may be effected through a provision in a Related Bond Indenture that deems the purchase of Related Bonds by the beneficial owners thereof to be consent by the Holder of the related Master Indenture Obligation for purposes of this section.

Any such consent shall be binding upon the Holder of the Master Indenture Obligation giving such consent and upon any subsequent Holder of such Master Indenture Obligation and of any Master Indenture Obligation issued in exchange therefor (whether or not such subsequent Holder thereof has notice thereof), unless such consent is revoked in writing by the Holder of such Master Indenture Obligation giving such consent or by a subsequent Holder thereof by filing with the Master Trustee, prior to the execution by the Master Trustee of such Related Supplement, such revocation and, if such Master Indenture Obligation or Master Indenture Obligations are transferable by delivery, proof that such Master Indenture Obligations are held by the signer of such revocation. At any time after the Holders of the required principal amount (such amount as of any given date to be computed by the Credit Group Representative and provided to the Master Trustee upon request) or number of Master Indenture Obligations shall have filed their consents to the Related Supplement, the Master Trustee shall file a written statement to that effect with the Credit Group Representative. Such written statement shall be conclusive evidence that such consents have been so filed.

If the Holders of the required principal amount or number of the Outstanding Master Indenture Obligations have consented to the execution of such Related Supplement, no Holder shall have any right to object to the execution thereof, to object to any of the terms and provisions contained therein or the operation thereof, to question the propriety of the execution thereof or to enjoin or restrain the Master Trustee or the Credit Group Representative from executing such Related Supplement or from taking any action pursuant to the provisions thereof.

Satisfaction and Discharge of Master Indenture.

The Master Indenture shall cease to be of further effect (except for the provisions of the Master Indenture relating to fees, expenses, reimbursements or other charges to which the Master Trustee may be entitled, which shall survive) if (a) all Master Indenture Obligations previously authenticated (other than any Master Indenture Obligations which have been mutilated, destroyed, lost or stolen and which have been replaced or paid as provided in any Related Supplement) and not cancelled are delivered to the Master Trustee for cancellation; or (b) all Master Indenture Obligations not previously cancelled or delivered to the Master Trustee for cancellation are paid; or (c) a deposit is made in trust with the Master Trustee (or with one or more banks, national banking associations or trust companies pursuant to one or more agreements between an Obligated Group Member and such national banking associations or trust companies) in cash or Government Obligations or both, sufficient to pay at maturity or upon redemption all Master Indenture Obligations not previously cancelled or delivered to the Master Trustee for cancellation, including principal and interest or other payments (including Financial Product Payments and Financial Product Extraordinary Payments) due or to become due to such date of maturity, redemption date or payment date, as the case may be; and all other sums payable under the Master Indenture by the Obligated Group Members are also paid (or have been caused to be paid or there has been deposited with the Master Trustee moneys in sufficient amounts to pay such sums).

The Master Trustee, on demand of the Credit Group Representative and at the cost and expense of the Obligated Group Members, shall execute proper instruments acknowledging satisfaction of and discharging the Master Indenture and authorizing the Credit Group Representative to file such terminations and releases as may be necessary to evidence the termination of the Master Trustee's security interest in the Gross Receipts. Unless the deposit(s) pursuant to clause (c) in the paragraph above is made solely with cash, the Credit Group Representative shall cause a report to be prepared by a firm nationally recognized for providing verification services regarding the sufficiency of funds for such discharge and satisfaction provided pursuant to clause (c) in the paragraph above, upon which report the Master Trustee may rely.

The Obligated Group Members shall pay and indemnify the Master Trustee against any tax, fee or other charge imposed on or assessed against the Government Obligations deposited pursuant to the Master Indenture as summarized in this section or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of Outstanding Master Indenture Obligations.

Payment of Master Indenture Obligations After Discharge of Lien.

Notwithstanding the discharge of the lien of the Master Indenture as provided below, the Master Trustee shall retain such rights, powers and duties as may be necessary and convenient for the payment of amounts due or to become due on the Master Indenture Obligations and for the registration, transfer, exchange and replacement of Master Indenture Obligations. Any moneys held by the Master Trustee for the payment of the principal of, premium, if any, or interest or other Required Payment on any Master Indenture Obligation remaining unclaimed for one year after the principal of all Master Indenture Obligations has become due and payable, whether at maturity, upon proceedings for redemption or by declaration as provided in the Master Indenture, shall then be paid to the Obligated Group Members. The Holders of any Master Indenture Obligations or coupons not previously presented for payment shall thereafter be entitled to look only to the Obligated Group Members for payment thereof as unsecured creditors and all liability of the Master Trustee with respect to such moneys shall thereupon cease.

SUPPLEMENTAL MASTER INDENTURE

General

The Master Indenture authorizes and empowers the Credit Group Representative to issue and execute Master Indenture Obligations and to enter into an indenture supplemental to the Master Indenture in order to provide for the issuance of Master Indenture Obligations. The Corporation, as Credit Group Representative, intends to issue Obligation No. 1 under Supplemental Master Indenture No. 1 to evidence and secure the obligations of the Corporation arising under the Loan Agreement, in relation to the Bonds. Obligation No. 1 is to be issued as a single note and executed, authenticated and delivered in accordance with the Master Indenture. Obligation No. 1 is also an obligation constituting Parity Debt under the Loan and Trust Agreement so long as the Loan and Trust Agreement remains in full force and effect.

Payments on Obligation No. 1; Credits.

Except as provided below with respect to credits and prepayment, payments of the principal of and premium, if any, and interest on Obligation No. 1 shall be payable by depositing or causing to be deposited the same in immediately available funds with or to the account of the Bond Trustee at its designated office at or prior to the opening of business on (i) each date on which a Sinking Fund Installment is due and on the Maturity Date (with respect to payments of principal and Sinking Fund Installments) and (ii) each Interest Payment Date (with respect to payments of interest) in an amount equal to the amount necessary for the Bond Trustee to make the transfers and deposits required by the Bond Indenture and the Loan Agreement, each as summarized in APPENDIX D—"SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT" in the sections captioned "THE BOND INDENTURE—Interest Fund," "THE BOND INDENTURE—Bond Sinking Fund" and "THE LOAN AGREEMENT—Loan of Bond Proceeds; Loan Repayments." Additional Payments shall be payable in the amounts and at the times provided in the Loan Agreement. Subject to receipt by the Master Trustee from the Holder of Obligation No. 1 of notice to the contrary, the Master Trustee may conclusively assume that such payment has been made when due.

The Obligated Group shall receive, as a credit for all payments due on Obligation No. 1 any credits resulting from payment or prepayment from other sources, as follows: (i) on installments of interest on Obligation No. 1 in an amount equal to the moneys deposited in the Interest Fund created under the Bond Indenture, which amounts are available to pay the interest then coming due on the Bonds, to the extent such amounts have not previously been credited against payments on Obligation No. 1; (ii) on installments of principal of Obligation No. 1 in an amount equal to the moneys deposited in the Bond Sinking Fund, which amounts are available to pay Sinking Fund Installments then coming due on the Bonds, to the extent such amounts have not previously been credited against payments on Obligation No. 1; (iii) on installments of principal and interest, respectively, on Obligation No. 1 in an amount equal to the principal amount of Bonds for the payment at maturity or redemption of which sufficient amounts (as determined by the Bond Indenture and as summarized in APPENDIX D-"SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT" in the section captioned "THE BOND INDENTURE—Deposit of Money or Securities with Bond Trustee") in cash or United States Government Obligations (as defined in the Bond Indenture) are on deposit as provided in the Bond Indenture to the extent such amounts have not previously been credited against such payments, and the interest on such Bonds from and after the date fixed for payment at maturity or redemption thereof. Such credits shall be made against the installments of principal and interest which would have been used, but for such call for redemption, to pay principal of and interest on such Bonds when due at maturity; and (iv) on installments of principal and interest, respectively, on Obligation No. 1, in an amount equal to the principal amount of Bonds acquired by the Corporation or any other Obligated Group Member and delivered to the Bond Trustee for cancellation or purchased by the Bond Trustee and cancelled, and the interest on such Bonds from and after the date interest thereon has been paid prior to cancellation. Such credits shall be made against the installments of principal and interest which would have been used, but for such cancellation, to pay principal of and interest on such Bonds when due, and with

respect to Bonds called for mandatory redemption, against principal installments which would have been used to pay Bonds of the same date.

Prepayment of Obligation No. 1.

So long as all amounts that have become due under Obligation No. 1 have been paid, the Obligated Group shall have the right, at any time and from time to time, to pay in advance and in any order of due dates all or part of the amounts to become due under Obligation No. 1. Prepayments may be made by payments of cash and deposit of United State Government Obligations or surrender of Bonds, as contemplated by Supplemental Master Indenture No. 1 as described in subparagraphs (iii) and (iv) of the second paragraph in the immediately preceding section. All such prepayments (and the additional payment of any amount necessary to pay the Redemption Price (as defined in the Bond Indenture) upon the redemption of Bonds) of Obligation No. 1 shall be deposited upon receipt at the Corporation's direction in (i) the Bond Sinking Fund or (ii) the Optional Redemption Fund created under the Bond Indenture (or in such other Bond Trustee escrow account as may be specified by the Corporation) and, at the request of and as determined by the Corporation, credited against payments due under Obligation No. 1 or used for the redemption or purchase of Outstanding (as defined in the Bond Indenture) Bonds in the manner and subject to the terms and conditions set forth in the Master Indenture and the Bond Indenture. Notwithstanding any such redemption or surrender of Bonds, as long as any Bonds remain outstanding or any additional payments required to be made under Supplemental Master Indenture No. 1 remain unpaid, the Obligated Group shall not be relieved of its obligations under Supplemental Master Indenture No. 1.

Such prepayments referred to above shall be credited against amounts to become due on Obligation No. 1, as provided in Supplemental Master Indenture No. 1, as summarized in the section captioned "Payments on Obligation No. 1; Credits." The Obligated Group also may prepay all of its indebtedness under Obligation No. 1 by providing for the payment of the Bonds in accordance with the Loan Agreement, as summarized in APPENDIX D "SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT" in the section captioned "THE LOAN AGREEMENT—Prepayment.

Right to Redeem.

Obligation No. 1 shall be subject to redemption, in whole or in part, prior to maturity at the times and in the amounts applicable to redemption of the Bonds as specified in the Bond Indenture and in the manner provided in Supplemental Master Indenture No. 1; provided that in no event shall Obligation No. 1 be redeemed unless a corresponding amount of Bonds is also redeemed in accordance with the terms and subject to the limitations contained in the Bond Indenture.

Effect of Call for Redemption of Obligation No. 1.

On the date designated for redemption by notice given as provided in Supplemental Master Indenture No. 1, Obligation No. 1, or the part thereof called for redemption, shall become and be due and payable at the redemption price provided for redemption of Obligation No. 1 or the part thereof called for redemption on such date. If, on the date fixed for redemption, moneys for the payment of the redemption price and accrued interest are held by the Master Trustee, interest on Obligation No. 1, or the part thereof called for redemption, shall cease to accrue and Obligation No. 1, or the part thereof called for redemption, shall cease to be entitled to any benefit or security under the Master Indenture except the right to receive payment from the moneys held by the Master Trustee or the paying agents for such payment and the amount of Obligation No. 1 so called for redemption shall be deemed paid and no longer Outstanding.

Intercreditor Agreement.

The Master Trustee is directed by the Obligated Group to enter into the Intercreditor Agreement. The exercise by the Master Trustee of the remedies with respect to the Gross Receipts and the Mortgages under the Master Indenture shall be subject to the terms of the Intercreditor Agreement.

Security Covenant and Conditions for Release.

As long as the Bonds are Outstanding, Obligation No. 1 shall remain secured by the Mortgages and the Gross Receipts, except as provided as follows: (a) so long as Assured Guaranty Municipal Corp. (the "Insurer"), as the issuer of a Municipal Bond Insurance Policy (the "Policy") insuring the Bonds, has not defaulted in its obligations under the Policy and the Policy remains in full force and effect, the pledge of the Gross Receipts can only be released under the Master Indenture with the consent of the Insurer, and (b) the Corporation shall not request the Master Trustee to release the lien of the Mortgages unless the following conditions are met: (i) so long as the Insurer has not defaulted in its obligations under the Policy and the Policy remains in full force and effect, the consent of the Insurer"), is obtained; or (ii) a Replacement Obligation is issued to replace Obligation No. 1 pursuant to the Master Indenture and all ratings on Related Bonds that had ratings in place prior to the issuance of the Replacement Obligation are confirmed by the relevant Rating Agency to be at least "A" or its equivalent. Upon the receipt of (i) the request of the Corporation, and (ii) an Officer's Certificate that the conditions set forth in the Master Indenture have been satisfied, the Master Trustee agrees to release the lien of the Mortgages. The provisions of this section of the Master Indenture are solely for the benefit of the Insurer and may be waived or amended by the Insurer without the consent of the Master Trustee, the Bond Trustee, the holders of the Bonds or any other party; provided that any amendment to this section of the Master Indenture shall be subject to the consent of the Corporation.



APPENDIX D

SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT



APPENDIX D

SUMMARY OF CERTAIN PROVISIONS OF THE BOND INDENTURE AND THE LOAN AGREEMENT

The following is a summary of certain provisions of the Indenture (also referred to herein as the "Bond Indenture") and the Loan Agreement that are not described elsewhere in this Official Statement. These summaries do not purport to be comprehensive and reference should be made to the Bond Indenture and the Loan Agreement for a full and complete statement of their provisions. So long as the Insurance Policy is in place, the provisions summarized herein may be modified to meet the requirements of the Insurance Policy as described in the forepart and in the section captioned "Bond Insurance" herein.

DEFINITIONS OF CERTAIN TERMS

Unless the context otherwise requires, the terms defined in this summary shall, for all purposes of this summary, have the meanings herein specified, to be equally applicable to both singular and plural forms of any of the terms herein defined. Unless otherwise defined in this summary, all terms used herein or elsewhere in the Official Statement shall have the meanings assigned to such terms in the Bond Indenture or the Loan Agreement, as applicable.

"Act" means the Municipality Authorities Act, 53 Pa. Cons. Stat., § 5601 et seq., as now in effect and as from time to time hereafter amended or supplemented.

"Additional Payments" means the payments so designated and required to be made by the Corporation pursuant to the Loan Agreement.

"Administrative Fees and Expenses" means any application, commitment, financing or similar fee charged, or reimbursement for administrative or other expenses incurred, by the Authority or the Bond Trustee.

"Authority" means The Hospitals and Higher Education Facilities Authority of Philadelphia, a body corporate and politic organized and existing under the laws of the Commonwealth of Pennsylvania.

"Authorized Denominations" means \$5,000 and any integral multiple thereof.

"Authorized Representative" means, (a) with respect to the Authority, the Chairman or Vice-Chairman of the Authority, or any other person at the time designated to act on behalf of the Authority by written certificate furnished to the Bond Trustee and signed on behalf of the Authority by one of its authorized signatories, which certificate may designate an alternate or alternates, and, when used with reference to the performance of any act, the discharge of any duty or the execution of any certificate or other document, any officer, employee or other person authorized to perform such act, discharge such duty or execute such certificate or other document, and (b) with respect to the Corporation, the president, chief executive officer, chief financial officer or any other person designated as an Authorized Representative of the Corporation by an Officer's Certificate signed by the chair of its Governing Body, chief executive officer or chief financial officer and filed with the Bond Trustee.

"Beneficial Owner" means any Person which (a) has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any of the Bonds (including any Person holding Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Bond for federal income tax purposes.

"Bond Counsel" means a firm of attorneys, of nationally recognized standing in matters pertaining to the tax-exempt nature of interest on obligations issued by states and their political subdivisions and duly admitted to practice law before the highest court of any state of the United States of America.

"Bond Indenture" means the Bond Indenture, dated as of April 1, 2022 between the Authority and the Bond Trustee, relating to the Bonds, as originally executed or as it may from time to time be supplemented, modified or amended by any Supplemental Bond Indenture or otherwise in accordance with the terms thereof.

"Bond Sinking Fund" means the fund by that name established pursuant to the Bond Indenture, as more particularly described in the section captioned "THE BOND INDENTURE—Bond Sinking Fund."

"Bond Trustee" means U.S. Bank Trust Company, National Association, a national banking association organized under the laws of the United States of America, and, subject to certain limitations contained in the Bond Indenture, any successor or successors to said trustee in the trusts created under the Bond Indenture.

"Bonds" means The Hospitals and Higher Education Facilities Authority of Philadelphia Hospital Revenue Bonds (Temple University Health System Obligated Group), Series 2022, authorized by, and at any time Outstanding pursuant to, the Bond Indenture.

"Business Day" means any day on which banks located in the city in which the Corporate Trust Office of the Bond Trustee is located are not required or authorized to be closed and on which The New York Stock Exchange or the Federal Reserve Bank is open.

"Certificate," "Statement," "Request," "Requisition," and "Direction" of the Authority or the Corporation means, respectively, a written certificate, statement, request, requisition, or direction signed in the name of the Authority or the Corporation by an Authorized Representative. Any such instrument and supporting opinions or representations, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or representation, and the two or more so combined shall be read and construed as a single instrument.

"Code" means the Internal Revenue Code of 1986, as amended from time to time. Each reference to a section of the Code shall be deemed to include the United States Treasury Regulations relating to such section, including temporary and proposed regulations, relating to such section which are applicable to the Bonds or the use of the proceeds thereof.

"Commonwealth" means the Commonwealth of Pennsylvania.

"Continuing Disclosure Agreement" means any continuing disclosure agreement or certificate executed by the Corporation with respect to the Bonds and which complies with Securities and Exchange Commission Rule 15c2-12.

"Corporate Trust Office" means the office of the Bond Trustee at which its corporate trust business is conducted, which at the date of this Official Statement is located at 50 S. 16th Street, Suite 2000, Philadelphia, PA 19103 Attention: Global Corporate Trust, provided, however, that for purposes of the surrender or presentation of Bonds for payment, transfer or exchange, the Corporate Trust Office shall be the designated corporate trust company or operations office of the Bond Trustee.

"Corporation" means Temple University Health System, Inc., a nonprofit corporation organized under the law of the Commonwealth, or any corporation that is the surviving, resulting, or transferee corporation in any merger, consolidation or transfer of all or substantially all assets permitted under the Master Indenture.

"Date of Issuance" means the date of delivery of the Bonds.

"Electronic Means" means the following communications methods: e-mail, facsimile transmission, secure electronic transmission containing applicable authorization codes, passwords and/or authentication keys issued by the Bond Trustee, or another method or system specified by the Bond Trustee as available for use in connection with its services under the Bond Indenture.

"Electronic Notice" means a notice transmitted through Electronic Means.

"Event of Default" means any of the events specified as such in the Bond Indenture, described in the section captioned "THE BOND INDENTURE—Events of Default."

"Favorable Opinion of Bond Counsel" means an opinion of Bond Counsel, addressed to the Authority, the Corporation and the Bond Trustee, to the effect that the action proposed to be taken is authorized or permitted or not prohibited by or in contravention of the Bond Indenture and will not, in and of itself, result in the inclusion of interest on the Bonds in gross income of the Holders thereof for federal income tax purposes.

"Fitch" means Fitch Ratings, a corporation organized and existing under the laws of the State of New York, its successors and their assigns, or, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Corporation by notice in writing to the Authority and the Bond Trustee.

"Governing Body" means, with respect to the Corporation, the board of directors or similar group in which the right to exercise the powers of corporate directors is vested.

"Government Obligations" means (a) noncallable United States Government Obligations or (b) evidences of a direct ownership of a proportionate or individual interest in future interest or principal payments on noncallable United States Government Obligations, which United States Government Obligations are held in a custodial account by a custodian on behalf of the Bond Trustee pursuant to the terms of a custody agreement; provided, however, that if such Government Obligations consist of obligations for which the principal and interest payments have been "stripped" into separate securities, such custodian shall be a Federal Reserve Bank.

"Holder," "Bondholder," "Owner," "Registered Owner" or "holder" whenever used with respect to a Bond, means the Person in whose name such Bond is registered.

"Insurance Policy" means the insurance policy issued by the Insurer guaranteeing the scheduled payment of principal of and interest on the insured Bonds when due.

"Insurer" means Assured Guaranty Municipal Corp., a New York stock insurance company, or any successor thereto or assignee thereof.

"Interest Fund" means the fund by that name established pursuant to the Bond Indenture, as described in the section captioned, "THE BOND INDENTURE—Interest Fund."

"Interest Payment Date" means such dates as described in the forepart of this Official Statement.

"Loan" means the loan made by the Authority to the Corporation under the Loan Agreement.

"Loan Agreement" means the Loan Agreement dated as of April 1, 2022 between the Authority and the Corporation, as it may from time to time be amended in accordance with its terms or the Bond Indenture, initially providing for the loan to the Corporation of the proceeds of the Bonds.

"Loan Default Event" means any of the events described as such in the section captioned "THE LOAN AGREEMENT—Loan Default Events."

"Loan Repayments" means the payments of principal of and interest on the Loan referred to in the Loan Agreement.

"Master Indenture" means the Master Trust Indenture, dated as of April 1, 2022, among the Members of the Obligated Group identified therein and the Master Trustee, as it may from time to time be amended or supplemented in accordance with its terms.

"Master Trustee" means U.S. Bank Trust Company, National Association, a national banking association, as Master Trustee under the Master Indenture, or its successor.

"Maturity Date" means the maturities set forth on the inside cover of this Official Statement.

"Member," "Member of the Obligated Group" or "Obligated Group Member" has the meaning set forth in the Master Indenture.

"Moody's" means Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, or, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Corporation by notice in writing to the Authority and the Bond Trustee.

"Obligated Group" means the Obligated Group created by the Master Indenture.

"Obligation No. 1" means the Master Indenture Obligation No. 1 issued, authenticated and delivered under Supplement No. 1, which secures the obligations of the Corporation under the Loan Agreement.

"Officer's Certificate" means a written certificate of the Corporation signed by the Corporation's Authorized Representative, with certificate shall be deemed to constitute a representation of and shall be binding upon the Corporation with respect to matters set forth therein.

"Opinion of Bond Counsel" means a written Opinion of Counsel, which shall be Bond Counsel.

"Opinion of Counsel" means a written opinion of counsel (who may be Bond Counsel or counsel for the Corporation or the Authority) selected by the Corporation and not objected to by the Authority.

"Optional Redemption Fund" means the account by that name established pursuant to the Bond Indenture.

"Outstanding" when used as of any particular time with reference to Bonds, means (subject to the provisions of the Bond Indenture described in the section captioned "THE BOND INDENTURE—Disqualified Bonds") all Bonds theretofore, or thereupon being, authenticated and delivered by the Bond Trustee under the Bond Indenture except (a) Bonds theretofore canceled by the Bond Trustee or surrendered to the Bond Trustee for cancellation; (b) certain Bonds with respect to which all liability of the Authority shall have been discharged in accordance with the Bond Indenture; (c) Bonds for the transfer or exchange of or in lieu of or in substitution for which other Bonds shall have been authenticated and delivered by the Bond Trustee pursuant to the Bond Indenture; (d) Bonds alleged to have been mutilated, destroyed, lost or stolen and for which security or indemnity has been provided, as provided in the Bond Indenture; and (e) any Undelivered Bond.

"Person" means an individual, corporation, firm, association, partnership, trust or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.

"Qualified Investments" subject to the Tax Agreement, means investments in any of the following:

- (a) United States Government Obligations and bonds or securities issued or guaranteed as to principal and interest by a commission, board or other instrumentality of the federal government;
 - (b) short-term discount obligations of the Federal National Mortgage Association;

- (c) certificates of deposit (including those placed by a third party pursuant to an agreement between the Corporation and the Bond Trustee), demand deposits, interest bearing money market accounts, trust funds, trust accounts, overnight bank deposits, interest bearing deposits, other bank deposit products, bankers acceptances or time deposits constituting direct obligations of any bank, including the Bond Trustee or any of its affiliates;
- (d) time deposits in any credit union, bank, savings bank, trust company or savings and loan association that is authorized to transact business in the Commonwealth if the time deposits mature in not more than three years;
- (e) bonds or securities of any county, city, drainage district, technical college district, village, town or school district of the Commonwealth;
- (f) any security that matures or that may be tendered for purchase at the option of the holder within not more than seven years of the date on which it is acquired, if that security has a rating at the time of purchase that is the highest or second highest rating category assigned by S&P, Moody's or other similar nationally recognized rating agency or if that security is senior to, or on a parity with, a security of the same issuer that has such a rating;
- (g) any money market mutual funds having a rating at the time of investment in the highest investment category granted thereby from S&P or Moody's, including those for which the Bond Trustee or an affiliate receives and retains a fee for services provided to the fund, whether as a custodian, transfer agent, investment advisor or otherwise; and
- (h) commercial paper having, at the time of investment or contractual commitment to invest therein, a rating of A-1 or better from S&P or P-1 from Moody's.

"Rating Agency" means S&P, Moody's or Fitch.

"Rating Category" means a generic securities rating category, without regard, in the case of a long term rating category, to any refinement or gradation of such long term rating category by a numerical modifier or otherwise.

"Rebate Amount" means the Rebate Requirement (as defined in the Tax Agreement) with respect to the Bonds determined in accordance with the Bond Indenture and the Tax Agreement.

"Rebate Analyst" means an independent certified public accountant, financial analyst or Bond Counsel, or any firm of the foregoing, or financial institution, experienced in making the arbitrage and rebate calculations required pursuant to Section 148(f) of the Code, selected and compensated by the Corporation to make the computations and give the directions required by the Bond Indenture and the Tax Agreement.

"Rebate Fund" means the fund by that name created under the Bond Indenture.

"Record Date" means, with respect to any Interest Payment Date, the fifteenth day of the month preceding the month in which such Interest Payment Date occurs, whether or not such day is a Business Day.

"Redemption Price" means, with respect to any Bond (or portion thereof), the principal amount of such Bond (or portion) plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bond and the Bond Indenture.

"Registration Books" means books maintained by the Bond Trustee on behalf of the Authority at the Corporate Trust Office of the Bond Trustee for the purpose of recording the registration, transfer, exchange or replacement of any of the Bonds.

"Responsible Officer" means any officer within the corporate trust department of the Bond Trustee, including any vice president, assistant vice president, or any other officer of the Bond Trustee who customarily performs functions similar to those performed by the persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of such person's knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of the Bond Indenture.

"Revenue Fund" means the fund by that name established pursuant to the Bond Indenture.

"Revenues" means all amounts received by the Authority or the Bond Trustee pursuant or with respect to the Loan Agreement or Obligation No. 1, including, without limiting the generality of the foregoing, Loan Repayments (including both timely and delinquent payments and any late charges, and whether paid from any source), prepayments, insurance proceeds, condemnation proceeds, and all interest, profits or other income derived from the investment of amounts in any fund or account established pursuant to the Bond Indenture (other than the Rebate Fund, but not including the Authority's Unassigned Rights, any Administrative Fees and Expenses, Additional Payments, any moneys required to be deposited in the Rebate Fund or any interest, profits or other income required to be retained in the Rebate Fund).

"S&P" means S&P Global Ratings, its successors and their assigns, or, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Corporation by notice in writing to the Authority and the Bond Trustee.

"Securities Act" means the Securities Act of 1933, as amended.

"Sinking Fund Installment" means the amount required by the Bond Indenture to be paid on any single date for the retirement of Bonds.

"Supplement No. 1" or the "Supplemental Master Indenture" means the Supplemental Master Indenture No. 1, dated as of April 1, 2022, supplementing the Master Indenture, entered into pursuant to the Master Indenture.

"Supplemental Bond Indenture" means any indenture hereafter duly authorized and entered into between the Authority and the Bond Trustee, supplementing, modifying or amending the Bond Indenture; but only if and to the extent that such Supplemental Bond Indenture is specifically authorized thereunder.

"Tax Agreement" means the Tax Certificate and Agreement, dated as of the Date of Issuance, between the Authority and the Corporation with respect to the Bonds.

"Unassigned Rights" means the rights of the Authority expressly granted to the Authority in the Bond Indenture or in the Loan Agreement to (a) inspect books and records, (b) give or receive notices, approvals, consents, requests, and other communications, (c) receive payment or reimbursement for expenses or fees, (d) the benefit of all provisions providing the Authority immunity from and limitation of liability, (e) indemnification from liability by the Corporation and (f) security for the Corporation's indemnification obligation.

"United States Government Obligations" means obligations that are direct, full faith and credit obligations of the United States of America or are obligations with respect to which the United States of America has fully and unconditionally guaranteed the timely payment of all principal or interest or both, but only to the extent of the principal or interest so guaranteed.

"Written Request" means with reference to the Authority, a request in writing signed by an Authorized Representative of the Authority and, with reference to the Corporation, means a request in writing signed by an Authorized Representative of the Corporation.

THE BOND INDENTURE

General

The Bond Indenture, among other matters, sets forth the terms of the Bonds, the nature and extent of security, the various rights of the Holders of the Bonds, the rights, duties and immunities of the Bond Trustee and the rights and obligations of the Authority. Certain provisions of the Bond Indenture are summarized below. Other provisions are summarized in this Official Statement under the captions "THE BONDS" and "SOURCE OF PAYMENT AND SECURITY FOR THE BONDS."

The following is a summary of certain provisions of the Bond Indenture not described elsewhere in this Official Statement. This summary does not purport to be complete or definitive and reference is made to the Bond Indenture for the complete terms thereof

Registration, Transfer and Exchange.

The Bond Trustee is, pursuant to the Bond Indenture, appointed "bond registrar" for the purpose of registering Bonds and transfers of Bonds as provided in the Bond Indenture. The Bond Trustee shall cause to be kept at its Corporate Trust Office the Registration Books, in which, subject to such reasonable regulations as it may prescribe, the Bond Trustee shall provide for the registration, transfer and exchange of Bonds as provided in the Bond Indenture.

Bonds may be transferred or exchanged only upon the Registration Books maintained by the Bond Trustee as provided in the Bond Indenture. Upon surrender for transfer or exchange of any Bond at the Corporate Trust Office of the Bond Trustee, the Authority shall execute, and the Bond Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Bonds of the same maturity and of any Authorized Denominations and of a like aggregate principal amount.

Every Bond presented or surrendered for transfer or exchange shall (if so required by the Bond Trustee, as bond registrar) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Bond Trustee, as bond registrar, duly executed by the Owner thereof or his attorney or legal representative duly authorized in writing.

All Bonds issued upon any transfer or exchange of Bonds shall be the valid special limited obligations of the Authority, evidencing the same debt, and entitled to the same security and benefits under the Bond Indenture, as the Bonds surrendered upon such transfer or exchange.

No service charge shall be made for any registration, transfer or exchange of Bonds, but the Bond Trustee may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any transfer or exchange of Bonds, and such charge shall be paid before any such new Bond shall be delivered. The fees and charges of the Bond Trustee for making any transfer or exchange and the expense of any bond printing necessary to affect any such transfer or exchange shall be paid by the Corporation. In the event any Registered Owner fails to provide a certified taxpayer identification number to the Bond Trustee, the Bond Trustee may impose a charge against such Registered Owner sufficient to pay any governmental charge required to be paid as a result of such failure. In compliance with Section 3406 of the Code, such amount may be deducted by the Bond Trustee from amounts otherwise payable to such Registered Owner under the Bond Indenture or under the Bonds.

The Bond Trustee shall not be required to (a) transfer or exchange any Bond during a period beginning 15 days before the day of the mailing of a notice of redemption of such Bond and ending at the close of business on the day of such mailing, or (b) transfer or exchange any Bond so selected for redemption in whole or in part, during a period beginning at the opening of business on any Record Date for such Bonds and ending at the close of business on the relevant Interest Payment Date therefor.

The Person in whose name any Bond is registered on the Registration Books shall be deemed and regarded as the absolute Owner thereof for all purposes, except as otherwise provided in the Bond Indenture when a bookentry system is in effect for the Bonds, and payment of or on account of the principal and Redemption Price of and interest on any such Bond shall be made only to or upon the order of the Registered Owner thereof or his legal representative, but such registration may be changed as provided in the Bond Indenture. All such payments shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid.

The Bond Trustee will keep the Registration Books on file at its Corporate Trust Office, which shall include a list of the names and addresses of the last known Owners of all Bonds and the serial numbers of such Bonds held by each of such Owners. At reasonable times and under reasonable regulations established by the Bond Trustee, the list may be inspected and copied by the Authority, the Corporation, or the Owners of 10% in Outstanding principal amount of the Bonds or the authorized representative thereof, provided that the ownership of such Owner and the authority of any such designated representative shall be evidenced to the satisfaction of the Bond Trustee.

The transferor of a Bond shall also provide or cause to be provided to the Bond Trustee all information necessary to allow the Bond Trustee to comply with any applicable tax reporting obligations, including without limitation any cost basis reporting obligations under Internal Revenue Code Section 6045. The Bond Trustee may rely on the information provided to it and shall have no responsibility to verify or ensure the accuracy of such information.

Pledge and Assignment.

- (a) Subject only to the provisions of the Bond Indenture permitting the application thereof for the purposes and on the terms and conditions set forth in the Bond Indenture, the Authority, under the Bond Indenture, pledges and assigns to the Bond Trustee all of the Revenues and any other amounts (including proceeds of the sale of the Bonds) held in any fund or account established pursuant to the Bond Indenture (except the Rebate Fund) to secure the payment of the principal, Redemption Price of and interest on the Bonds in accordance with their terms and the provisions of the Bond Indenture.
- (b) The Authority, under the Bond Indenture, transfers in trust, grants a security interest in and assigns to the Bond Trustee, for the benefit of the Owners from time to time of the Bonds, all of the Revenues and other assets described in paragraph (a) above and pledged under the Bond Indenture and all of the right, title and interest of the Authority in the Loan Agreement (except for the right to receive any Administrative Fees and Expenses to the extent payable to the Authority and the Unassigned Rights) and Obligation No. 1. The Authority will also cause Obligation No. 1 to be registered in the name of the Bond Trustee. The Bond Trustee shall be entitled to and shall collect and receive all of the Revenues, and any Revenues collected or received by the Authority shall be deemed to be held, and to have been collected or received, by the Authority as the agent of the Bond Trustee and shall forthwith be paid by the Authority to the Bond Trustee. The Bond Trustee also shall be entitled to and may take all steps, actions and proceedings reasonably necessary in its judgment to enforce all of the rights of the Authority and all of the obligations of the Corporation under the Loan Agreement and Obligation No. 1.
- (c) The Authority shall cause to be filed a Uniform Commercial Code financing statement but no Person, including but not limited to the Authority and the Bond Trustee, is taking responsibility that such initial Uniform Commercial Code financing statement is sufficient to perfect or maintain the perfection and the priority of the security interest granted pursuant to the Bond Indenture and summarized in subparagraph (b) above (or the accuracy or sufficiency of any description of collateral in such initial filing). The Authority irrevocably authorizes the Corporation, and the Corporation agrees, to cause to be filed a continuation statement with respect to each Uniform Commercial Code financing statement relating to such security interest and naming the Bond Trustee as the secured party, in such manner and in such places as the initial filings (copies of which shall be provided to the Bond Trustee by the Authority) were made. The Corporation shall be responsible for the reasonable costs incurred

by the Authority and the Bond Trustee in the preparation and filing of the initial Uniform Commercial Code financing statement and all such continuation statements under the Bond Indenture. No Person (other than the Corporation) shall be responsible for filing continuation statements. Notwithstanding anything to the contrary contained in the Bond Indenture, no Person shall be responsible for taking any other actions with respect to the perfection or the maintenance of the perfection or the priority of any security interest granted pursuant to the Bond Indenture and summarized in subparagraph (b) above. Notwithstanding anything to the contrary contained in the Bond Indenture, the Bond Trustee shall not be responsible for filing any modifications or amendments to or continuation statements for the initial filings required by any amendments to Article 9 of the Uniform Commercial Code.

Revenue Fund.

- (a) All Revenues shall be promptly deposited by the Bond Trustee upon receipt thereof in a special fund designated as the "Revenue Fund," which the Bond Trustee shall establish, maintain and hold in trust. All Revenues deposited with the Bond Trustee shall be held, disbursed, allocated and applied by the Bond Trustee only as provided in the Bond Indenture.
- (b) If, on the date any Loan Repayment or payment upon Obligation No. 1 is due, the Bond Trustee does not receive such payment, the Bond Trustee immediately shall request the Master Trustee to give immediate Electronic Notice or telephonic notice promptly confirmed in writing to the Corporation (with a copy to the Insurer) of the nonpayment.

Interest Fund.

- (a) The Bond Trustee shall establish and maintain so long as any of the Bonds are outstanding a fund to be known as the "Interest Fund Temple University Health System Series 2022" (the "Interest Fund").
- (b) On each Interest Payment Date, the Bond Trustee shall deposit in the Interest Fund from the Revenue Fund moneys in an amount which, together with the amounts already on deposit therein and available to make such payment, is not less than the interest becoming due on the Bonds on such date.
- (c) In connection with any partial redemption or defeasance prior to maturity of the Bonds, the Bond Trustee may, at the written request of the Corporation, use any amounts on deposit in the Interest Fund in excess of the amount needed to pay the interest on the Bonds remaining outstanding on the first Interest Payment Date occurring on or after the date of such redemption or defeasance to pay or provide for the payment of the principal of and interest on the Bonds to be redeemed or defeased or as otherwise directed by the Corporation if the Bond Trustee shall have received a Favorable Opinion of Bond Counsel.

Bond Sinking Fund.

- (a) The Bond Trustee shall establish and maintain so long as any of the Bonds are outstanding a fund to be known as the "Bond Sinking Fund Temple University Health System Series 2022" (the "Bond Sinking Fund").
- (b) On each mandatory redemption date established pursuant to the Bond Indenture and each Maturity Date, after making the relevant deposit required by the Bond Indenture and described in the section captioned "THE BOND INDENTURE—Interest Fund", the Bond Trustee shall deposit in the Bond Sinking Fund from the Revenue Fund moneys in an amount which, together with any moneys already on deposit in the Bond Sinking Fund and available to make such payment is not less than the principal becoming due on the Bonds on such dates.
- (c) In lieu of the mandatory Bond Sinking Fund redemption described in the forepart to this Official Statement in the section captioned "THE BONDS—Redemption and Purchase—Mandatory Bond Sinking Fund Redemption", the Bond Trustee shall, at the Written Request of the Corporation, purchase for cancellation an

equal principal amount of Bonds of the maturity to be redeemed in the open market identified by the Corporation at prices specified by the Corporation not exceeding the principal amount of the Bonds being purchased plus accrued interest with such interest portion of the purchase price to be paid from the Interest Fund and the principal portion of such purchase price to be paid from the Bond Sinking Fund. In addition, the amount of Bonds to be redeemed on any date pursuant to the mandatory Bond Sinking Fund redemption schedule shall be reduced by the principal amount of Bonds of the maturity required to be redeemed which are acquired by the Corporation or any other Member and delivered to the Bond Trustee for cancellation.

(d) In connection with any partial redemption or defeasance prior to maturity of the Bonds, the Bond Trustee may, at the written request of the Corporation, use any amounts on deposit in the Bond Sinking Fund in excess of the amount needed to pay principal on the Bonds remaining outstanding on the first principal or Sinking Fund Installment date occurring on or after the date of such redemption or defeasance to pay or provide for the payment of the principal or Redemption Price of and interest on the Bonds to be redeemed or defeased or as otherwise directed by the Corporation if the Bond Trustee shall have received a Favorable Opinion of Bond Counsel.

Optional Redemption Fund.

There is established with the Bond Trustee and maintained so long as any of the Bonds are outstanding a separate fund to be known as the "Optional Redemption Fund — Temple University Health System — Series 2022" (the "Optional Redemption Fund"). In the event of (i) prepayment by or on behalf of the Corporation or any other Member of Loan Prepayments or amounts payable on Obligation No 1, including prepayment with condemnation or insurance proceeds or proceeds of a sale consummated under threat of condemnation, or (ii) deposit with the Bond Trustee by the Corporation, any other Member or the Authority of moneys from any other source for redeeming Bonds or purchasing Bonds for cancellation, such moneys shall, except as otherwise provided in the Bond Indenture, be deposited in the Optional Redemption Fund. Moneys on deposit in the Optional Redemption Fund shall be used, first, to make up any deficiencies existing in the Interest Fund and the Bond Sinking Fund (in the order listed) and, second, for the redemption or purchase of Bonds in accordance with the provisions of the Bond Indenture.

Investment of Funds.

- (a) Upon a Written Request of the Corporation to the Bond Trustee, moneys in the Revenue Fund, the Interest Fund, the Bond Sinking Fund, the Optional Redemption Fund and the Rebate Fund shall be invested in Qualified Investments specified by the Corporation.
- (b) Unless otherwise specifically provided in the Bond Indenture, all interest, profits and other income received from the investment of moneys in any fund or account established pursuant to the Bond Indenture shall be deposited when received in such fund or account.
 - (c) All income from investments on deposit in the Rebate Fund shall be retained herein.

Trust Funds.

All moneys received by the Bond Trustee under the provisions of the Bond Indenture shall be trust funds for the benefit of all Bonds outstanding under the Bond Indenture (except as otherwise provided) and shall not be subject to lien or attachment of any creditor of the Authority or the Corporation. Such moneys shall be held in trust and applied in accordance with the provisions of the Bond Indenture. The Bond Trustee is authorized under the Bond Indenture to establish such additional funds, accounts or subaccounts as are necessary or advisable to carry out its duties thereunder.

Rebate Fund.

- (a) The Bond Trustee shall establish and maintain a separate account to be known as the "Rebate Fund Temple University Health System Series 2022" (the "Rebate Fund"). The Bond Trustee shall make information regarding the Bonds and investments under the Bond Indenture available to the Corporation and shall maintain records for each investment relating to the purchase price thereof.
- (b) If a deposit to the Rebate Fund is required as a result of the computations made by the Corporation pursuant to the Tax Agreement, the Bond Trustee shall, upon receipt of written direction from the Corporation, accept such payment and deposit such payment in the Rebate Fund for the benefit of the Corporation.
- (c) If at any time the Corporation is required to retain the Rebate Analyst to calculate the Rebate Amount but fails to deliver a report to the Bond Trustee in a timely manner, then the Authority shall retain a Rebate Analyst, at the expense of the Corporation, to calculate the Rebate Amount.

Tax Covenants.

The Authority shall at all times do and perform all acts and things reasonably within its control which are necessary or desirable in order to assure that interest paid on the Bonds will be excluded from gross income for federal income tax purposes and shall take no action reasonably within its control that would result in such interest not being so excluded. Without limiting the generality of the foregoing, the Authority agrees to comply with the provisions of the Tax Agreement. This covenant shall survive payment in full or defeasance of the Bonds.

Amendment of Loan Agreement; Other Covenants.

- (a) The Authority shall not amend, modify or terminate any of the terms of the Loan Agreement or consent to any such amendment, modification or termination without the written consent of the Bond Trustee. The Bond Trustee shall give such written consent only if (i) in the opinion of Bond Counsel, such amendment is necessary to preserve the exclusion of interest on the Bonds from gross income for purposes of federal income taxation or the exemption of interest on the Bonds from State income taxation; (ii) in the Opinion of Counsel, such amendment, modification or termination will not materially adversely affect the interests of the Bondholders or result in any material impairment of the security given under the Bond Indenture for the payment of the Bonds; or (iii) the Owners of a majority in principal amount of the Bonds then Outstanding consent in writing to such amendment, modification or termination. No amendment, modification or termination of the Loan Agreement shall reduce the amount of Loan Repayments to be made to the Authority or the Bond Trustee by the Corporation pursuant to the Loan Agreement, or extend the time for making such payments, without the written consent of all of the Owners of Bonds then Outstanding. The Bond Trustee shall be entitled to receive, and shall be fully protected in relying upon an Opinion of Counsel to the effect that the amendment is authorized and permitted by the terms of the Loan Agreement and complies with the terms of the Bond Indenture.
- (b) The Bond Trustee shall promptly collect all amounts due from the Corporation pursuant to the Loan Agreement and Obligation No. 1, and may diligently enforce, and take all steps, actions, and proceedings reasonably necessary for the enforcement of all of the rights of the Authority (except for Unassigned Rights) and all of the obligations of the Corporation under the Loan Agreement and Obligation No. 1, subject in each case to the provisions of the Bond Indenture,.

Continuing Disclosure.

Pursuant to the Loan Agreement, the Corporation has undertaken all responsibility for compliance with continuing disclosure requirements, and the Authority shall have no liability to the Holders of the Bonds or any other Person with respect to S.E.C. Rule 15c2 12. Notwithstanding any other provision of the Bond Indenture, failure of the Corporation or the Dissemination Agent (as defined in the Continuing Disclosure Agreement) to comply with the Continuing Disclosure Agreement shall not be considered an Event of Default; however, the

Bond Trustee may (and, at the request of any Participating Underwriter (as defined in the Continuing Disclosure Agreement) or the Holders of at least 25% aggregate principal amount of Outstanding Bonds and being provided indemnification satisfactory to it, shall) or any Bondholder or Beneficial Owner may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Corporation to comply with its obligations under the Loan Agreement or to cause the Bond Trustee to comply with its obligations thereunder.

Release and Substitution of Obligation No. 1 upon Delivery of Replacement Master Indenture.

- (a) At the option of the Corporation and without the consent of any Holders, Obligation No. 1 shall be surrendered by the Bond Trustee and delivered to the Master Trustee for cancellation upon the terms and conditions set forth in the Master Indenture.
- (b) Upon satisfaction of such conditions, references in the Bond Indenture, the Loan Agreement and the Bonds to (i) Obligation No. 1 shall become references to the Replacement Obligation (as defined in the Master Indenture), (ii) the Master Indenture shall become references to the Replacement Master Indenture (as defined in the Master Indenture), (iii) the Master Trustee shall become references to the master trustee under the Replacement Master Indenture, (iv) the Obligated Group and the Members shall become references to the obligated group and the members of the obligated group under the Replacement Master Indenture and (v) Supplement No. 1 shall become references to the supplemental master indenture, if any, pursuant to which the Replacement Obligation shall be issued.

Events of Default.

The following events, among others, shall be Events of Default:

- (a) default in the due and punctual payment of the principal or Redemption Price of any Bond when and as the same shall become due and payable, whether at maturity as therein expressed, by proceedings for redemption, by acceleration or otherwise, or default in the redemption of any Bonds from Sinking Fund Installments in the amount and at the times provided therefor;
- (b) default in the due and punctual payment of any installment of interest on any Bond when and as such interest installment shall become due and payable;
 - (c) a Loan Default Event;
- (d) the Authority shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Bonds or in the Bond Indenture or any agreement supplemental thereto to be performed on the part of the Authority, and such default shall continue for the period of 60 days after written notice specifying such default and requiring the same to be remedied shall have been given to the Authority and the Corporation by the Bond Trustee which notice the Bond Trustee may give in its discretion and must give at the written request of the owners of not less than a majority in aggregate principal amount of the Bonds then Outstanding thereunder exclusive of Bonds then owned by the Authority or any Member; provided that, if such default cannot with due diligence and dispatch be cured within 60 days but can be cured, the failure of the Authority to remedy such default within such 60 day period shall not constitute a default under the Bond Indenture if the Bond Trustee is provided with a certification from the Authority or the Corporation, as the case may be, to the effect that such default cannot with due diligence and dispatch be cured within 60 days but can be cured and the Authority or the Corporation, as the case may be, shall immediately upon receipt of such notice commence with due diligence and dispatch the curing of such default and, having so commenced the curing of such default, shall thereafter prosecute and complete the same with due diligence and dispatch within 180 days of the delivery of such default notice;

- (e) an Event of Default under and as defined in the Master Indenture if such Event of Default arises as a result of the failure on the part of the Obligated Group Members to make due and punctual payment on any Master Indenture Obligation after any applicable grace period; or
- (f) the acceleration of all Outstanding Master Indenture Obligations under and as defined in the Master Indenture.

Acceleration; Annulment of Acceleration.

- (a) If an Event of Default, described in paragraphs (a), (b), (e) or (f) in the section captioned "THE BOND INDENTURE—Events of Default", shall occur, then the Bond Trustee may, and at the direction of the Holders of at least 25% in aggregate principal amount of Outstanding Bonds, shall declare the principal of all the Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately. If the Bond Trustee declares the principal of all the Bonds then Outstanding, and the interest accrued thereon, to be immediately due and payable, the Bond Trustee also, in its capacity as the holder of Obligation No. 1, shall request the Master Trustee to declare the aggregate principal amount of Obligation No. 1 and the interest accrued thereon to be immediately due and payable in accordance with the Master Indenture.
- (b) If an Event of Default described in paragraph (c) above shall occur, the Bond Trustee may take whatever action the Authority would be required to take pursuant to the Loan Agreement in order to remedy the Loan Default Event. If the Bond Trustee declares the principal of all the Bonds then Outstanding, and the interest accrued thereon, to be immediately due and payable, the Bond Trustee also, in its capacity as the holder of Obligation No. 1, shall request the Master Trustee to declare the aggregate principal amount of Obligation No. 1 and the interest accrued thereon to be immediately due and payable in accordance with the Master Indenture.
- (c) If an Event of Default, described in paragraph (d) in the section captioned "THE BOND INDENTURE—Events of Default", shall occur, the Bond Trustee may take whatever action at law or in equity is necessary or desirable to enforce the performance, observance or compliance by the Authority with any covenant, agreement or condition by the Authority under the Bond Indenture. If the Bond Trustee declares the principal of all the Bonds then Outstanding, and the interest accrued thereon, to be immediately due and payable, the Bond Trustee also, in its capacity as the holder of Obligation No. 1, shall request the Master Trustee to declare the aggregate principal amount of Obligation No. 1 and the interest accrued thereon to be immediately due and payable in accordance with the Master Indenture.
- Upon the declaration by the Bond Trustee of the principal of all Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately, the principal of all the Bonds then Outstanding, and the interest accrued thereon, shall become and shall be immediately due and payable, anything in the Bond Indenture to the contrary notwithstanding. The Bond Trustee shall give or cause to be given notice of acceleration of the Bonds by first class mail to the Bondholders and of such date for payment upon acceleration at least eight days before such date for payment. Notice of such declaration having been given as aforesaid, anything to the contrary contained in the Bond Indenture or in the Bonds, interest shall cease to accrue on such Bonds from and after the date funds are deposited with the Bond Trustee for such payment. The Bond Trustee shall not be required to make payment to any Bondholder until the Bonds shall be presented to the Bond Trustee for appropriate endorsement or for cancellation if fully paid. Any such declaration, however, is subject to the condition that if, at any time after such declaration and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the Authority (but only out of Revenues received from or on behalf of the Corporation) or the Corporation shall deposit with the Bond Trustee a sum sufficient to pay all the principal or Redemption Price of and installments of interest on the Bonds payment of which is overdue, with interest on such overdue principal at the rate borne by the respective Bonds, and the reasonable charges and expenses of the Bond Trustee, and if the Bond Trustee has received notification from the Master Trustee that the declaration of acceleration of Obligation No. 1 has been annulled pursuant to the Master Indenture and any and all other defaults known to the Bond Trustee (other than in the payment of principal of and interest on the Bonds due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the

Bond Trustee or provision deemed by the Bond Trustee to be adequate shall have been made therefor, then the Bond Trustee shall, by written notice to the Authority, the Corporation and the Bond Trustee, on behalf of the Owners of all of the Bonds, rescind and annul such declaration and its consequences and waive such default; but no such rescission and annulment shall extend to or shall affect any subsequent default, or shall impair or exhaust any right or power consequent thereon.

(e) In the event that the Master Trustee has accelerated Obligation No. 1 and is pursuing its available remedies under the Master Indenture, the Bond Trustee, without waiving any Event of Default under the Bond Indenture, agrees not to pursue its available remedies under the Bond Indenture or the Loan Agreement in a manner that would hinder or frustrate the pursuit by the Master Trustee of its remedies under the Master Indenture provided that the Bond Trustee may take any action permitted of an Obligation holder under the Master Indenture.

Rights of the Bond Trustee and the Authority Concerning the Obligation.

The Bond Trustee, as pledgee and assignee of certain of the right, title and interest of the Authority in and to the Loan Agreement and all of its right, title and interest as assignee of Obligation No. 1 shall, upon compliance with applicable requirements of law and except as otherwise set forth in the Bond Indenture, be the real party in interest with standing to enforce each and every right granted to the Authority under the Loan Agreement (other than with respect to its Unassigned Rights) and under Obligation No. 1 which have been assigned to the Bond Trustee by the Bond Indenture. The Authority and the Bond Trustee agree, under the Bond Indenture, without in any way limiting the effect and scope thereof, that the pledge and assignment thereunder to the Bond Trustee of rights of the Authority in and to Obligation No. 1 and certain rights of the Authority under the Loan Agreement shall constitute an agency appointment coupled with an interest on the part of the Bond Trustee which, for all purposes of the Bond Indenture, shall be irrevocable and shall survive and continue in full force and effect notwithstanding the bankruptcy or insolvency of the Authority or its default under the Bond Indenture or on the Bonds. In exercising such rights and the rights given the Bond Trustee under the Bond Indenture, the Bond Trustee shall take such action as, in the judgment of the Bond Trustee, would best serve the interests of the Bondholders, taking into account the provisions of the Master Indenture, together with the security and remedies afforded to Holders of Obligations thereunder.

Additional Remedies and Enforcement of Remedies.

- (a) Upon the occurrence and continuance of any Event of Default, the Bond Trustee may, upon the written request of the Holders of a majority in principal amount of the Bonds Outstanding, together with indemnification of the Bond Trustee to its satisfaction therefor, proceed forthwith to protect and enforce its rights and the rights of the Bondholders under the Bond Indenture and under the Act and the Bonds by such suits, actions or proceedings as the Bond Trustee, being advised by counsel, shall deem expedient, including but not limited to: (i) civil action to recover money or damages due and owing; (ii) civil action to enjoin any acts or things, which may be unlawful or in violation of the rights of the Holders of Bonds; (iii) enforcement of any other right of the Authority and the Bondholders conferred by law or by the Bond Indenture; and (iv) enforcement of any other right conferred by the Loan Agreement, Obligation No. 1 or the Master Indenture.
- (b) Regardless of the happening of an Event of Default, the Bond Trustee, if requested in writing by the Holders of a majority in aggregate principal amount of the Bonds then Outstanding, shall, upon being indemnified to its satisfaction therefor, institute and maintain such suits and proceedings as it may be advised shall be necessary or expedient (i) to prevent any impairment of the security under the Bond Indenture by any acts which may be unlawful or in violation thereof, or (ii) to preserve or protect the interests of the Holders; provided that such request is in accordance with law and the provisions of the Bond Indenture.

Application of Revenues and Other Funds After Default.

If an Event of Default shall occur and be continuing, all moneys received by the Bond Trustee pursuant to any right given or action taken under the provisions of the Bond Indenture, after payment of Administrative Fees and Expenses payable to the Bond Trustee, and the cost and expenses of the proceedings resulting in the collection of such moneys and of the outstanding fees, expenses, liabilities and advances incurred or made by the Bond Trustee (subject to the trust provisions in the Bond Indenture relating to monies held by the Bond Trustee for the benefit of certain Holders of particular Bonds) shall be applied by the Bond Trustee as follows and in the following order:

- (a) To the payment of any expenses necessary in the opinion of the Bond Trustee to protect the interests of the Holders of the Bonds and payment of reasonable fees and expenses of the Bond Trustee (including reasonable fees and disbursements of its counsel) incurred in and about the performance of its powers and duties under the Bond Indenture and the creation of a reasonable reserve for anticipated fees, costs and expenses; and
- (b) To the payment of the principal or Redemption Price of and interest then due on the Bonds (upon presentation of the Bonds to be paid, and stamping thereon of the payment if only partially paid, or surrender thereof if fully paid) subject to the provisions of the Bond Indenture, as follows:
 - (i) Unless the principal of all of the Bonds shall have become or have been declared due and payable,

FIRST: To the payment to the Persons entitled thereto of all installments of interest then due in the order of the maturity of such installments, and, if the amount available shall not be sufficient to pay in full any installment or installments maturing on the same date, then to the payment thereof ratably, according to the amounts due thereon, to the Persons entitled thereto, without any discrimination or preference; and

SECOND: To the payment to the Persons entitled thereto of the unpaid principal (including Sinking Fund Installments) or Redemption Price of any Bonds which shall have become due, whether at maturity or by call for redemption or purchase, in the order of their due dates with interest on the overdue principal at the rate borne by the respective Bonds, and, if the amount available shall not be sufficient to pay in full all the Bonds due on any date, together with such interest, then to the payment thereof ratably, according to the amounts of principal or Redemption Price due on such date to the Persons entitled thereto, without any discrimination or preference.

(ii) If the principal of all of the Bonds shall have become or have been declared due and payable to the payment of the principal and interest then due and unpaid upon the Bonds, with interest on the overdue principal at the rate borne by the respective Bonds and, if the amount available shall not be sufficient to pay in full the whole amount so due and unpaid, then to the payment thereof ratably, without preference or priority of principal over interest, or of interest over principal, or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, according to the amounts due respectively for principal and interest, to the Persons entitled thereto without any discrimination or preference.

Remedies Not Exclusive.

No remedy by the terms of the Bond Indenture conferred upon or reserved to the Bond Trustee or the Bondholders is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given thereunder or existing at law or in equity or by statute (including the Act) on or after the date thereof.

Remedies Vested in Bond Trustee.

All rights of action (including the right to file proof of claims) under the Bond Indenture or under any of the Bonds may be enforced by the Bond Trustee, without the possession of any of the Bonds or the production thereof in any trial or other proceedings relating thereto. Any such suit or proceeding may be brought without the necessity of joining as plaintiffs or defendants any Holders of the Bonds. Subject to the provisions of the section captioned "THE BOND INDENTURE—Application of Revenues and Other Funds After Default", any recovery or judgment shall be for the equal benefit of the Holders of the Outstanding Bonds. Nothing in the Bond Indenture shall be deemed to authorize the Bond Trustee to authorize or consent to or accept or adopt on behalf of any Owner any plan of reorganization, arrangement, adjustment, or composition affecting the Bonds or the rights of any Owner thereof, or to authorize the Bond Trustee to vote in respect of the claim of any Owner in any such proceeding without the approval of the Owner so affected.

Bondholders' Control of Proceedings.

If an Event of Default shall have occurred and be continuing, the Holders of a majority in principal amount of all Bonds then Outstanding shall have the right, at any time, by an instrument or instruments in writing executed and delivered to the Bond Trustee, to direct the method and place of conducting any proceeding to be taken in connection with the enforcement of the terms and conditions of the Bond Indenture, provided that such direction is in accordance with law and the provisions of the Bond Indenture (including indemnity to the Bond Trustee as provided in the Bond Indenture). Nothing in this paragraph shall impair the right of the Bond Trustee in its discretion to take any other action under the Bond Indenture which it may deem proper and which is not inconsistent with such direction by Bondholders.

Individual Bondholder Action Restricted.

- (a) No Holder of any Bond shall have any right to institute any suit, action or proceeding in equity or at law for the enforcement of the Bond Indenture or for the execution of any trust under the Bond Indenture or for any remedy thereunder except upon the occurrence of all of the following events:
 - (i) the Holders of at least a majority in aggregate principal amount of Bonds Outstanding shall have made written request to the Bond Trustee to proceed to exercise the powers granted in the Bond Indenture; and
 - (ii) such Bondholders shall have offered the Bond Trustee indemnity as provided in the Bond Indenture; and
 - (iii) the Bond Trustee shall have failed or refused to exercise the duties or powers granted in the Bond Indenture for a period of 60 days after receipt by it of such request and offer of indemnity; and
 - (iv) during such 60 day period no direction inconsistent with such written request has been delivered to the Bond Trustee by the Holders of a majority in principal amount of Bonds then Outstanding.
- (b) No one or more Holders of Bonds shall have any right in any manner whatsoever to affect, disturb or prejudice the security of the Bond Indenture or to enforce any right under the Bond Indenture except in the manner therein provided and for the equal benefit of the Holders of all Bonds Outstanding.
- (c) Nothing contained in the Bond Indenture shall affect or impair, or be construed to affect or impair, the right of the Holder of any Bond (i) to receive payment of the principal of or interest on such Bond, as the case may be, on or after the due date thereof or (ii) to institute suit for the enforcement of any such payment on or after such due date; provided, however, no Holder of any Bond may institute or prosecute any such suit or enter judgment therein if, and to the extent that, the judgment therein would, under applicable law, result in the

surrender, impairment, waiver or loss of the lien of the Bond Indenture on the money, funds and properties pledged under the Bond Indenture for the equal and ratable benefit of all Holders of Bonds.

Waiver of Event of Default.

- (a) No delay or omission of the Bond Trustee or of any Holder of the Bonds to exercise any right or power accruing upon any Event of Default shall impair any such right or power or shall be construed to be a waiver of any such Event of Default or in acquiescence therein.
- (b) The Bond Trustee may waive any Event of Default which in its opinion shall have been remedied before the entry of final judgment or decree in any suit, action or proceeding instituted by it under the applicable provisions of the Bond Indenture, on or before the completion of the enforcement of any other remedy thereunder.
- (c) The Bond Trustee, upon the written request of the Holders of a majority in principal amount of the Bonds then Outstanding, shall waive any Event of Default under the Bond Indenture and its consequences; provided, however, that a default in the payment of the principal or Redemption Price of or interest on any Bond, when the same shall become due and payable by the terms thereof or upon call for redemption, may not be waived without the written consent of the Holders of all the Bonds at the time Outstanding, for which payment of the principal or Redemption Price of or interest on has not been made.
- (d) In case of any waiver by the Bond Trustee of an Event of Default under the Bond Indenture, the Authority, the Bond Trustee and the Bondholders shall be restored to their former positions and rights thereunder, respectively, but no such waiver shall extend to any subsequent or other Event of Default or impair any right consequent thereon. The Bond Trustee shall not be responsible to anyone for waiving or refraining from waiving any Event of Default described in this section.

Limitations on Remedies.

It is the purpose and intention of the Bond Indenture to provide rights and remedies to the Bond Trustee and Bondholders which may be lawfully granted, but should any right or remedy therein granted be held to be unlawful, the Bond Trustee and the Bondholders shall be entitled, as above set forth, to every other right and remedy provided in the Bond Indenture and by law.

Amendments to Bond Indenture.

The Bond Indenture and the rights and obligations of the Authority and of the Holders of the Bonds and of the Bond Trustee may be modified or amended from time to time and at any time by an indenture or indentures supplemental thereto, which, the Authority and the Bond Trustee may enter into with the written consent of the Holders of a majority in aggregate principal amount of the Bonds then Outstanding and the Corporation, which consent shall have been filed with the Bond Trustee. No such modification or amendment shall (1) extend the Maturity Date of any Bond, or reduce the amount of principal thereof, or extend the time of payment or change the method of computing the rate of interest thereon, or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, without the consent of the Holder of each Bond so affected, or (2) reduce the aforesaid percentage of Bonds, the consent of the Holders of which is required to effect any such modification or amendment, or permit the creation of any lien prior to or on a parity with the lien created by the Bond Indenture, or deprive the Holders of the Bonds of the lien created by the Bond Indenture (except as expressly provided in the Bond Indenture), without the consent of the Holders of all Bonds then Outstanding. It shall not be necessary for the consent of the Bondholders to approve the particular form of any Supplemental Bond Indenture, but it shall be sufficient if such consent shall approve the substance thereof. Promptly after the execution by the Authority and the Bond Trustee of any Supplemental Bond Indenture pursuant to the provisions of the Bond Indenture described in this paragraph (a), the Bond Trustee shall mail a notice, setting forth in general terms the substance of such Supplemental Bond Indenture to the Bondholders at the addresses shown on the registration books maintained by the Bond Trustee. Any failure to give such notice, or

any defect therein, shall not, however, in any way impair or affect the validity of any such Supplemental Bond Indenture.

- (b) The Bond Indenture and the rights and obligations of the Authority, of the Bond Trustee and of the Holders of the Bonds may also be modified or amended from time to time and at any time by an indenture or indentures supplemental thereto, which the Authority and the Bond Trustee may enter into with the consent of the Corporation, but without the necessity of obtaining the consent of any Bondholders, only to the extent permitted by law and only for any one or more of the following purposes:
 - (i) to add to the covenants and agreements of the Authority contained in the Bond Indenture other covenants and agreements thereafter to be observed, to pledge or assign additional security for the Bonds (or any portion thereof), or to surrender any right or power therein reserved to or conferred upon the Authority; provided, that no such covenant, agreement, pledge, assignment or surrender shall materially adversely affect the interests of the Holders of the Bonds, as evidenced by an Opinion of Counsel;
 - (ii) to make such provisions for the purpose of curing any ambiguity, inconsistency or omission, or of curing or correcting any defective provision, contained in the Bond Indenture, or in regard to matters or questions arising under the Bond Indenture, as the Authority or the Bond Trustee may deem necessary or desirable and not inconsistent with the Bond Indenture, and which shall not materially adversely affect the interests of the Holders of the Bonds;
 - (iii) to modify, amend or supplement the Bond Indenture in such manner as to permit the qualification thereof under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect, and to add such other terms, conditions and provisions as may be permitted by said act or similar federal statute, and which shall not materially adversely affect the interests of the Holders of the Bonds, as evidenced by an Opinion of Counsel;
 - (iv) to facilitate and implement any book-entry system (or any termination of a book-entry system) with respect to the Bonds in accordance with the terms of the Bond Indenture;
 - (v) to maintain the exclusion from gross income of interest payable with respect to the Bonds;
 - (vi) to provide for the appointment of a successor bond trustee or co-trustee pursuant to the Bond Indenture; or
 - (vii) to make any modification or amendment to the Bond Indenture which shall not materially adversely affect the interests of the Holders of the Bonds, as evidenced by an Opinion of Counsel.
- (c) The Bond Trustee may in its discretion, but shall not be obligated to, enter into any such Supplemental Bond Indenture authorized by paragraphs (a) or (b) above which materially adversely affects the Bond Trustee's own rights, duties or immunities under the Bond Indenture or otherwise.
- (d) In executing, or accepting the additional trusts created by, any Supplemental Bond Indenture permitted by the Bond Indenture or the modification thereby of the trusts created by the Bond Indenture, the Bond Trustee shall be entitled to receive, and shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such Supplemental Bond Indenture is authorized or permitted by the Bond Indenture and complies with the terms thereof.

Effect of Supplemental Bond Indenture.

Upon the execution of any Supplemental Bond Indenture pursuant to the Bond Indenture, the Bond Indenture shall be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under the Bond Indenture of the Authority, the Bond Trustee and all Holders of Bonds Outstanding shall thereafter be determined, exercised and enforced under the Bond Indenture subject in all respects to such modification and amendment, and all the terms and conditions of any such Supplemental Bond Indenture shall be deemed to be part of the terms and conditions of the Bond Indenture for any and all purposes.

Amendment of Particular Bonds.

The foregoing provisions shall not prevent any Bondholder from accepting any amendment as to the particular Bonds held by such Bondholder; provided that due notation thereof is made on such Bonds and the Insurer has consented thereto.

Discharge of Bond Indenture.

Bonds may be paid in any of the following ways, provided that the Corporation also pays or causes to be paid any other sums payable under the Bond Indenture and related to such Bonds:

- (a) by paying or causing to be paid the principal or Redemption Price of and interest on Outstanding Bonds, as and when the same become due and payable;
- (b) by depositing with the Bond Trustee, in trust, at or before maturity, money or United States Government Obligations in the amount necessary (as provided in the section captioned "THE BOND INDENTURE—Deposit of Money or Securities with Bond Trustee") to pay or redeem all Bonds Outstanding; or
 - (c) by delivering to the Bond Trustee, for cancellation by it, Outstanding Bonds.

If the Authority, the Corporation or the Bond Trustee shall also pay or cause to be paid all other sums payable under the Bond Indenture by the Authority, and if the Corporation shall have paid all expenses payable to the Authority and the Bond Trustee, and any indemnification owed to the Authority, and all amounts payable to the Insurer shall have been paid in full, then and in that case, at the election of the Corporation (evidenced by a Certificate of the Corporation, filed with the Bond Trustee, signifying the intention of the Corporation to discharge all such indebtedness and the Bond Indenture), and notwithstanding that any Bonds shall not have been surrendered for payment, the Bond Indenture and the pledge of Revenues and other assets made under the Bond Indenture and all covenants, agreements and other obligations of the Authority under the Bond Indenture shall cease, terminate, become void and be completely discharged and satisfied (except with respect to the transfer or exchange of Bonds provided for in the Bond Indenture or Bonds, the payment of principal of and interest on the Bonds when due, the redemption of Bonds provided for in the Bond Indenture and the payment of or the provision for any rebate payments then due and payable to the United States Treasury as specified in the Tax Agreement). In such event, upon Written Request of the Corporation, the Bond Trustee shall execute and deliver to the Authority and the Corporation all such instruments as may be necessary or desirable (and prepared by or on behalf of the Authority or the Corporation) to evidence such discharge and satisfaction, and the Bond Trustee shall pay over, transfer, assign or deliver to the Corporation all moneys or securities or other property held by it pursuant to the Bond Indenture which are not required for the payment or redemption of Bonds not theretofore surrendered for such payment or redemption. The release of the obligations of the Authority under the Bond Indenture shall be without prejudice to the right of the Bond Trustee to be paid reasonable compensation for all services rendered thereunder by it and all reasonable expenses, charges and other disbursements (from any money in its possession under the provisions of the Bond Indenture, subject only to the prior lien of the Bonds for the payment of the principal thereof and the interest thereon) incurred on or about the administration of the trust created by the Bond Indenture and the performance of its duties under the Bond Indenture, nor its right to indemnification thereunder and under the Loan Agreement.

Effect of Defeasance.

Upon the deposit with the Bond Trustee, in trust, at or before maturity, of money or securities in the amount necessary (as provided in the section captioned "THE BOND INDENTURE—Deposit of Money or Securities with Bond Trustee") to pay or redeem any Outstanding Bond (whether upon or prior to its maturity or the redemption date of such Bond) and, if such Bond is to be redeemed prior to maturity, notice of such redemption shall have been given in accordance with the applicable provisions of the Bond Indenture, the Bond Indenture may be released and discharged in accordance with the relevant provisions thereof, but the liability of the Authority in respect of such Bonds shall continue but only to the extent that the Holder thereof shall thereafter be entitled only to payment out of such money or securities deposited with the Bond Trustee as aforesaid for their payment; and, provided, further, that the provisions of the Bond Indenture described in the section captioned "THE BOND INDENTURE—Payment of Bonds After Discharge of Bond Indenture" shall apply in any event.

Deposit of Money or Securities with Bond Trustee.

Whenever in the Bond Indenture it is provided or permitted that there be deposited with or held in trust by the Bond Trustee money or securities in the amount necessary to pay or redeem any Bonds, the money or securities so to be deposited or held may include money or securities held by the Bond Trustee in the funds and accounts established pursuant to the Bond Indenture and shall be:

- (a) lawful money of the United States of America in an amount equal to the principal amount of such Bonds and all unpaid interest thereon to maturity, except that, in the case of Bonds which are to be redeemed prior to maturity and in respect of which notice of such redemption shall have been given in accordance with the applicable provisions of the Bond Indenture, the amount to be deposited or held shall be the principal amount or Redemption Price of such Bonds and all unpaid interest thereon to the redemption date; or
- (b) United States Government Obligations (not callable by the issuer thereof prior to maturity), the principal of and interest on which when due will provide money sufficient, without regard to any reinvestment thereof, to pay the principal or Redemption Price of and all unpaid interest to maturity or to the redemption date, as the case may be, on the Bonds to be paid or redeemed, as such principal or Redemption Price and interest become due; provided that, in the case of Bonds which are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given in accordance with the applicable provisions of the Bond Indenture; and, provided further, in each case, that the Bond Trustee shall have been irrevocably instructed (by the terms of the Bond Indenture or by Written Request of the Corporation or the Authority) to apply such money to the payment of such principal or Redemption Price and interest with respect to such Bonds.

Prior to any defeasance becoming effective as described in this section, the Corporation shall deliver, or caused to be delivered, to the Bond Trustee and the Authority (a) if United States Government Obligations comprise all or part of the defeasance deposit, a copy of a certificate of an independent certified public accountant or firm of such accountants or financial institution experienced in delivering verification reports indicating the sufficiency of the maturing principal and the interest income on such United States Government Obligations to pay when due the principal or Redemption Price of and interest on such Bonds and (b) a Favorable Opinion of Bond Counsel, addressed to the Authority, to the effect that the Bonds have been paid as described in this section and are no longer Outstanding under the terms of the Bond Indenture.

Payment of Bonds After Discharge of Bond Indenture.

Notwithstanding the discharge of the lien as provided below, the Bond Trustee shall nevertheless retain such rights, powers and duties under the Bond Indenture as may be necessary and convenient for the payment of amounts due or to become due on the Bonds and the registration, transfer, exchange and replacement of Bonds as provided therein. Subject to any applicable escheat law, any money held by the Bond Trustee for the payment of the principal, Redemption Price of or interest on any Bond remaining unclaimed for three years after the principal of all Bonds has become due and payable, whether at maturity or proceedings for redemption or by declaration as

provided in the Bond Indenture, shall then be paid to the Corporation and the Holders of any Bonds not theretofore presented for payment shall thereafter be entitled to look only to the Corporation for payment thereof and all liability of the Bond Trustee and the Authority with respect to such moneys shall thereupon cease.

Redemption after Satisfaction of Bond Indenture.

Notwithstanding anything to the contrary in the Bond Indenture, upon the provision for payment of the Bonds or a portion thereof through a date subsequent to any optional redemption date as specified in subparagraph (b) of the section captioned "THE BOND INDENTURE—Discharge of Bond Indenture", the optional redemption provisions of the Bond Indenture allowing such Bonds to be called prior to maturity upon proper notice (notwithstanding provision for the payment of such Bonds having been made through a date subsequent to the first optional redemption date) shall remain available to the Authority, upon direction of the Corporation, unless, in connection with making such deposit, the Authority, at the direction of the Corporation, shall have irrevocably elected in writing to waive any future right to call the Bonds or portions thereof for redemption prior to maturity. Notwithstanding anything to the contrary in the Bond Indenture, upon the provision for payment of the Bonds or a portion thereof prior to the maturity thereof as specified in sub-paragraph (b) of the section captioned "THE BOND INDENTURE—Discharge of Bond Indenture", the Authority, upon direction of the Corporation, may elect to pay such Bonds on the respective maturity dates therefor unless, in connection with making such deposits, the Authority, at the direction of the Corporation, shall have irrevocably elected in writing to waive such right to provide for the payment thereof on the Maturity Date. No such redemption or restructuring shall occur, however, unless the Corporation shall deliver on behalf of the Authority to the Bond Trustee, (a) United States Government Obligations and/or cash sufficient to discharge such Bonds (or portion thereof) on the redemption or maturity date or dates selected, (b) an opinion of an independent certified public accountant verifying that such United States Government Obligations, together with the expected earnings thereon, and/or cash will be sufficient to provide for the payment of such Bonds to the redemption or maturity dates, and (c) a Favorable Opinion of Bond Counsel addressed to the Bond Trustee and the Authority. The Bond Trustee will give written notice of any such redemption or restructuring to the owners of the Bonds affected thereby.

Disqualified Bonds.

In determining whether the Holders of the requisite aggregate principal amount of Bonds have concurred in any demand, request, direction, consent or waiver under the Bond Indenture, Bonds which are owned or held by or for the account of the Authority, the Corporation, or by any other obligor on the Bonds, or by any person directly or indirectly controlling or controlled by, or under direct or indirect common control with, the Authority, the Corporation or any other obligor on the Bonds, shall be disregarded and deemed not to be Outstanding for the purpose of any such determination; except that in determining whether the Bond Trustee shall be protected in relying upon any such demand, request, direction, consent or waiver of an Owner, only Bonds which a Responsible Officer of the Bond Trustee actually knows to be owned or held by or for the account of the Authority or the Corporation, or by any other obligor on the Bonds, or by any person directly or indirectly controlling or controlled by, or under direct or indirect common control with, the Authority or the Corporation or any other obligor on the Bonds, shall be disregarded unless all Bonds are so owned or held, in which case such Bonds shall be considered Outstanding for the purpose of such determination. Bonds so owned which have been pledged in good faith may be regarded as Outstanding if the pledgee shall establish to the satisfaction of the Bond Trustee the pledgee's right to vote such Bonds and that the pledgee is not a person directly or indirectly controlling or controlled by, or under direct or indirect common control with, the Authority, the Corporation or any other obligor on the Bonds. In case of a dispute as to such right, any decision by the Bond Trustee taken upon the advice of counsel shall be full protection to the Bond Trustee. Upon request of the Bond Trustee, the Authority and the Corporation shall specify in a certificate to the Bond Trustee those Bonds thus disqualified and the Bond Trustee may conclusively rely on any such certificate.

Money Held for Particular Bonds.

The money held by the Bond Trustee for the payment of the interest, principal or Redemption Price due on any date with respect to particular Bonds (or portions of Bonds in the case of Bonds redeemed in part only) shall, on and after such date and pending such payment, be set aside on its books and held in trust by it for the Holders of the Bonds entitled thereto, subject, however, to the provisions of the section captioned "THE BOND INDENTURE—Payment of Bonds After Discharge of Bond Indenture."

Certain Provisions Regarding Bond Insurance

So long as the Bonds are covered by an Insurance Policy, and notwithstanding anything to the contrary herein or in the Bond Indenture, the following shall apply:

a) The Insurer shall be deemed to be the sole holder of the insured Bonds for the purpose of exercising any voting right or privilege or giving any consent or direction or taking any other action that the holders of the insured Bonds insured by it are entitled to take pursuant to the section or article of the Bond Indenture, including without limitation actions pertaining to (i) defaults and remedies and (ii) the duties and obligations of the Trustee. In furtherance thereof and as a term of the Bond Indenture and each insured Bond, each insured Bondholder appoints the Insurer as their agent and attorney-in-fact and agree that the Insurer may at any time during the continuation of any proceeding by or against the Issuer or Corporation under the United States Bankruptcy Code or any other applicable bankruptcy, insolvency, receivership, rehabilitation or similar law (an Insolvency Proceeding") direct all matters relating to such Insolvency Proceeding, including without limitation, (A) all matters relating to any claim or enforcement proceeding in connection with an Insolvency Proceeding (a "Claim"), (B) the direction of any appeal of any order relating to any Claim, (C) the posting of any surety, supersedeas or performance bond pending any such appeal, and (D) the right to vote to accept or reject any plan of adjustment. In addition, each insured Bondholder delegates and assigns to the Insurer, to the fullest extent permitted by law, the rights of each insured Bondholder in the conduct of any Insolvency Proceeding, including, without limitation, all rights of any party to an adversary proceeding or action with respect to any court order issued in connection with any such Insolvency Proceeding. The Trustee acknowledges such appointment, delegation and assignment by each Bondholder for the Insurer's benefit and agrees to cooperate with the Insurer in taking any action reasonable necessary or appropriate in connection with such appointment, delegation and assignment.

In addition, the Trustee acknowledges and agrees that the Insurer shall be entitled, with respect to the insured Bonds, to direct the Trustee as holder of Obligation No. 1 with respect to all matters relating to Obligation No. 1, including in connection with any required consents or approvals and with respect to all actions, notices and directives taken under the remedies article of the Master Trust Indenture or the Loan and Trust Agreement, including such rights as the holder of Obligation No. 1 may have regarding declaring or noticing a breach to become an event of default.

- b) The maturity of insured Bonds insured by the Insurer shall not be accelerated without the consent of the Insurer and in the event the maturity of the insured Bonds is accelerated, the Insurer may elect, in its sole discretion, to pay accelerated principal and interest accrued, on such principal to the date of acceleration (to the extent unpaid by the Issuer) and the Trustee shall be required to accept such amounts. Upon payment of such accelerated principal and interest accrued to the acceleration date as provided above, the Insurer's obligations under the Insurance Policy with respect to such insured Bonds shall be fully discharged.
- c) No grace period for a covenant default shall exceed 30 days or be extended for more than 60 days, without the prior written consent of the Insurer. No grace period shall be permitted for payment defaults.
- d) The Insurer shall be included as a third party beneficiary to the Bond Indenture and the Loan Agreement.

- e) Upon the occurrence of an extraordinary optional, special or extraordinary mandatory redemption in part, the selection of insured Bonds to be redeemed shall be subject to the approval of the Insurer. The exercise of any provision of the Bond Indenture which permits the purchase of insured Bonds in lieu of redemption shall require the prior written approval of the Insurer if any Bond so purchased is not cancelled upon purchase.
- f) Any amendment, supplement, modification to, or waiver of, the Bond Indenture, Loan Agreement, the Master Trust Indenture or Supplemental Master Indenture No. 1 (each a "Related Document"), that requires the consent of Bondholders or adversely affects the rights and interests of the Insurer shall be subject to the prior written consent of the Insurer.
- g) Upon the occurrence of an event of default under the Indenture or a Related Document, the Insurer may direct the Trustee not to disburse amounts from the Project Fund and may direct that amounts therein be applied to the payment of debt service on the Bonds.
- h) The rights granted to the Insurer under the Bond Indenture or any other Related Document to request, consent to or direct any action are rights granted to the Insurer in consideration of its issuance of the Insurance Policy. Any exercise by the Insurer of such rights is merely an exercise of the Insurer's contractual rights and shall not be construed or deemed to be taken for the benefit, or on behalf, of the Bondholders and such action does not evidence any position of the Insurer, affirmative or negative, as to whether the consent of the Bondholders or any other person is required in addition to the consent of the Insurer.
- i) Only (1) cash, (2) non-callable direct obligations of the United States of America ("Treasuries"), (3) evidences of ownership of proportionate interests in future interest and principal payments on Treasuries held by a bank or trust company as custodian, under which the owner of the investment is the real party in interest and has the right to proceed directly and individually against the obligor and the underlying Treasuries are not available to any person claiming through the custodian or to whom the custodian may be obligated, (4) subject to the prior written consent of the Insurer, pre-refunded municipal obligations rated "AAA" and "Aaa" by S&P and Moody's, respectively, or (5) subject to the prior written consent of the Insurer, securities eligible for "AAA" defeasance under then existing criteria of S & P or any combination thereof, shall be used to effect defeasance of the insured Bonds unless the Insurer otherwise approves.

To accomplish defeasance of the insured Bonds, the Issuer shall cause to be delivered (i) a report of an independent firm of nationally recognized certified public accountants or such other accountant as shall be acceptable to the Insurer ("Accountant") verifying the sufficiency of the escrow established to pay the insured Bonds in full on the maturity or redemption date ("Verification"), (ii) an Escrow Deposit Agreement (which shall be acceptable in form and substance to the Insurer), (iii) an opinion of nationally recognized bond counsel to the effect that the insured Bonds are no longer "Outstanding" under the Bond Indenture and (iv) a certificate of discharge of the Trustee with respect to the insured Bonds; each Verification and defeasance opinion shall be acceptable in form and substance, and addressed, to the Issuer, Trustee and Insurer. The Insurer shall be provided with final drafts of the above-referenced documentation not less than five business days prior to the funding of the escrow.

Insured Bonds shall be deemed "Outstanding" under the Bond Indenture unless and until they are in fact paid and retired or the above criteria are met.

Amounts paid by the Insurer under the Insurance Policy shall not be deemed paid for purposes of the Bond Indenture and the insured Bonds relating to such payments shall remain Outstanding and continue to be due and owing until paid by the Issuer in accordance with the Bond Indenture. The Bond Indenture shall not be discharged unless all amounts due or to become due to the Insurer have been paid in full or duly provided for.

Each of the Issuer and Trustee covenant and agree to take such action (including, as applicable, filing of UCC financing statements and continuations thereof) as is necessary from time to time to preserve the priority of the pledge of the Trust Estate under applicable law.

Claims Upon the Insurance Policy and Payments by and to the Insurer.

- a) If, on the third Business Day prior to the related scheduled interest payment date or principal payment date ("Payment Date") there is not on deposit with the Trustee, after making all transfers and deposits required under the Bond Indenture, moneys sufficient to pay the principal of and interest on the insured Bonds due on such Payment Date, the Trustee shall give notice to the Insurer and to its designated agent (if any) (the "Insurer's Fiscal Agent") by telephone or telecopy of the amount of such deficiency by 12:00 noon, New York City time, on such Business Day. If, on the second Business Day prior to the related Payment Date, there continues to be a deficiency in the amount available to pay the principal of and interest on the insured Bonds due on such Payment Date, the Trustee shall make a claim under the Insurance Policy and give notice to the Insurer and the Insurer's Fiscal Agent (if any) by telephone of the amount of such deficiency, and the allocation of such deficiency between the amount required to pay interest on the insured Bonds and the amount required to pay principal of the insured Bonds, confirmed in writing to the Insurer and the Insurer's Fiscal Agent by 12:00 noon, New York City time, on such second Business Day by filling in the form of Notice of Claim and Certificate delivered with the Insurance Policy.
- b) The Trustee shall designate any portion of payment of principal on insured Bonds paid by the Insurer, whether by virtue of mandatory sinking fund redemption, maturity or other advancement of maturity, on its books as a reduction in the principal amount of insured Bonds registered to the then current Bondholder, whether DTC or its nominee or otherwise, and shall issue a replacement Bond to the Insurer, registered in the name of Assured Guaranty Municipal Corp., in a principal amount equal to the amount of principal so paid (without regard to authorized denominations); provided that the Trustee's failure to so designate any payment or issue any replacement Bond shall have no effect on the amount of principal or interest payable by the Issuer on any Bond or the subrogation rights of the Insurer.
- c) The Trustee shall keep a complete and accurate record of all funds deposited by the Insurer into the Policy Payments Account (defined below) and the allocation of such funds to payment of interest on and principal of any insured Bond. The Insurer shall have the right to inspect such records at reasonable times upon reasonable notice to the Trustee.
- Upon payment of a claim under the Insurance Policy, the Trustee shall establish a separate special d) purpose trust account for the benefit of insured Bondholders referred to herein as the "Policy Payments Account" and over which the Trustee shall have exclusive control and sole right of withdrawal. The Trustee shall receive any amount paid under the Insurance Policy in trust on behalf of Bondholders and shall deposit any such amount in the Policy Payments Account and distribute such amount only for purposes of making the payments for which a claim was made. Such amounts shall be disbursed by the Trustee to insured Bondholders in the same manner as principal and interest payments are to be made with respect to the insured Bonds under the sections hereof regarding payment of insured Bonds. It shall not be necessary for such payments to be made by checks or wire transfers separate from the check or wire transfer used to pay debt service with other funds available to make such payments. Notwithstanding anything herein to the contrary, the Corporation agrees to pay to the Insurer (i) a sum equal to the total of all amounts paid by the Insurer under the Insurance Policy (the "Insurer Advances"); and (ii) interest on such Insurer Advances from the date paid by the Insurer until payment thereof in full, payable to the Insurer at the Late Payment Rate per annum (collectively, the "Insurer Reimbursement Amounts"). "Late Payment Rate" means the lesser of (a) the greater of (i) the per annum rate of interest, publicly announced from time to time by JPMorgan Chase Bank at its principal office in The City of New York, as its prime or base lending rate (any change in such rate of interest to be effective on the date such change is announced by JPMorgan Chase Bank) plus 3%, and (ii) the then applicable highest rate of interest on the insured Bonds and (b) the maximum rate permissible under applicable usury or similar laws limiting interest rates. The Late Payment Rate shall be computed on the basis of the actual number of days elapsed over a year of 360 days. The Issuer and the Corporation each hereby covenants and agrees that the Insurer Reimbursement Amounts are secured by a lien on and pledge of the Trust Estate and payable from such Trust Estate on a parity with debt service due on the Bonds.

- e) Funds held in the Policy Payments Account shall not be invested by the Trustee and may not be applied to satisfy any costs, expenses or liabilities of the Trustee. Any funds remaining in the Policy Payments Account following a Bond payment date shall promptly be remitted to the Insurer.
- f) The Insurer shall, to the extent it makes any payment of principal of or interest on the insured Bonds, become subrogated to the rights of the recipients of such payments in accordance with the terms of the Insurance Policy (which subrogation rights shall also include the rights of any such recipients in connection with any Insolvency Proceeding). Each obligation of the Issuer to the Insurer under the Related Documents shall survive discharge or termination of such Related Documents.
- g) The Corporation shall pay or reimburse the Insurer any and all charges, fees, costs and expenses that the Insurer may reasonably pay or incur in connection with (i) the administration, enforcement, defense or preservation of any rights or security in any Related Document; (ii) the pursuit of any remedies under the Bond Indenture or any other Related Document or otherwise afforded by law or equity, (iii) any amendment, waiver or other action with respect to, or related to, the Bond Indenture or any other Related Document whether or not executed or completed, or (iv) any litigation or other dispute in connection with the Bond Indenture or any other Related Document or the transactions contemplated thereby, other than costs resulting from the failure of the Insurer to honor its obligations under the Insurance Policy. The Insurer reserves the right to charge a reasonable fee as a condition to executing any amendment, waiver or consent proposed in respect of the Bond Indenture or any other Related Document.
- h) After payment of reasonable expenses of the Trustee, the application of funds realized upon default shall be applied to the payment of expenses of the Issuer or rebate only after the payment of past due and current debt service on the Bonds.
- i) The Insurer shall be entitled to pay principal or interest on the insured Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer (as such terms are defined in the Insurance Policy) and any amounts due on the insured Bonds as a result of acceleration of the maturity thereof in accordance with the Bond Indenture, whether or not the Insurer has received a Notice of Nonpayment (as such terms are defined in the Insurance Policy) or a claim upon the Insurance Policy.
- j) The notice address of the Insurer is: Assured Guaranty Municipal Corp., 1633 Broadway, New York, New York 10019, Attention: Managing Director Surveillance, Re: Policy No., Telephone: (212) 974-0100; Email:munihealthcare@agltd.com. In each case in which notice or other communication refers to an Event of Default, then a copy of such notice or other communication shall also be sent to the attention of the General Counsel and shall be marked to indicate "URGENT MATERIAL ENCLOSED."
- k) The Insurer shall be provided with the following information by the Issuer, Corporation or Trustee, as the case may be:
 - (i) Notice of any default known to the Trustee, Corporation or Issuer within five Business Days after knowledge thereof;
 - (ii) Prior notice of the advance refunding or redemption of any of the Bonds, including the principal amount, maturities and CUSIP numbers thereof;
 - (iii) Notice of the resignation or removal of the Trustee and Bond Registrar and the appointment of, and acceptance of duties by, any successor thereto;
 - (iv) Notice of the commencement of any proceeding by or against the Issuer or Corporation commenced under the United States Bankruptcy Code or any other applicable bankruptcy, insolvency, receivership, rehabilitation or similar law (an "Insolvency Proceeding");

- (v) Notice of the making of any claim in connection with any Insolvency Proceeding seeking the avoidance as a preferential transfer of any payment of principal of, or interest on, the Bonds;
- (vi) A full original transcript of all proceedings relating to the execution of any amendment, supplement, or waiver to the Related Documents;
- (vii) All reports, notices and correspondence to be delivered to Bondholders under the terms of the Related Documents:
- (viii) Copies of any financial statements, reports, notices or other documents delivered to the Master Trustee or the holders of Obligations pursuant to the Master Trust Indenture or the Loan and Trust Agreement; and
- (ix) Such additional information as the Insurer may reasonably request, including construction progress reports.

THE LOAN AGREEMENT

General

The Loan Agreement, among other matters, provides the terms of a loan of all or a portion of the proceeds of the Bonds by the Authority to the Corporation and the repayment of such loan by the Corporation. Certain provisions of the Loan Agreement are summarized below.

The following is a summary of certain provisions of the Loan Agreement not described elsewhere in this Official Statement. This summary does not purport to be complete or definitive and reference is made to the Loan Agreement for the complete terms thereof

Issuance of the Bonds; Application of Proceeds of Bonds; Issuance of Obligation No. 1

- (a) Pursuant to the Bond Indenture, the Authority has authorized the issuance of the Bonds. The proceeds of the Bonds shall be applied under the terms and conditions of the Loan Agreement and the Bond Indenture. The Corporation pursuant to the Loan Agreement approves the Bond Indenture and the issuance of the Bonds thereunder by the Authority, and the assignment thereunder to the Bond Trustee of the right, title and interest (but none of the obligations) of the Authority in the Loan Agreement (except for the Authority's Unassigned Rights) and Obligation No. 1.
- (b) In consideration of the issuance of the Bonds by the Authority and the application of the proceeds thereof as provided in the Bond Indenture, the Corporation agrees to issue, or cause to be issued, and to cause to be authenticated and delivered to the Authority or its designee, pursuant to the Master Indenture and Supplement No. 1, concurrently with the issuance and delivery of the Bonds, Obligation No. 1 in substantially the form set forth in Supplement No. 1. The Authority agrees that Obligation No. 1 shall be registered in the name of the Bond Trustee. The Corporation agrees that the aggregate principal amount of Obligation No. 1 shall be limited to the principal amount of the Bonds except for any Obligation authenticated and delivered in lieu of another Obligation as provided in Supplement No. 1 with respect to the mutilation, destruction, loss or theft of Obligation No. 1 or, subject to the provisions described in subsection (c) below, upon registration of transfer of Obligation No. 1. Issuance and delivery of the Bonds by the Authority shall be a condition of the issuance and delivery of Obligation No. 1.
- (c) The Corporation agrees that, except as described in subsection (d) below, so long as any Bond remains Outstanding, Obligation No. 1 shall be issuable only as a single obligation without coupons, registered as

to principal and interest in the name of the Bond Trustee, and no transfer of Obligation No. 1 shall be registered under the Master Indenture or be recognized by the Corporation except for transfers to a successor Bond Trustee.

(d) Upon the principal of all Master Indenture Obligations Outstanding (within the meaning of that term as used in the Master Indenture) being declared immediately due and payable, Obligation No. 1 may be transferred if and to the extent that the Bond Trustee requests that the restrictions described in subsection (c) above on transfers be terminated.

Loan of Bond Proceeds; Loan Repayments

- (a) Pursuant to the Bond Indenture, the Authority has authorized the issuance of the Bonds and pursuant to the Loan Agreement loans and advances to the Corporation, and the Corporation pursuant to the Loan Agreement borrows and accepts from the Authority (solely from the proceeds of the sale of such Bonds), the proceeds of the Bonds to be applied under the terms and conditions of the Loan Agreement and the Bond Indenture. In consideration of the loan of such proceeds to the Corporation, the Corporation agrees to pay, or cause to be paid, "Loan Repayments" in an amount sufficient to enable the Bond Trustee to make the transfers and deposits required at the times and in the amounts pursuant to the Bond Indenture. Each Loan Repayment shall be made in immediately available funds. Notwithstanding the foregoing, the Corporation agrees to make payments, or cause payments to be made, at the times and in the amounts required to be paid as principal or Redemption Price of and interest on the Bonds from time to time Outstanding under the Bond Indenture and other amounts required to be paid under the Bond Indenture, as the same shall become due whether at maturity, upon redemption, by declaration of acceleration or otherwise.
- (b) Except as otherwise expressly provided in the Loan Agreement, all amounts payable under the Loan Agreement by the Corporation to the Authority shall be paid to the Bond Trustee as assignee of the Authority and the Loan Agreement and all right, title and interest of the Authority in any such payments are assigned and pledged pursuant to the Loan Agreement to the Bond Trustee so long as any Bonds remain Outstanding.

Additional Payments

In addition to Loan Repayments, the Corporation shall also pay to the Authority, the Insurer, the Bond Trustee, or the designated agent of either of them, as the case may be, "Additional Payments," as follows:

- (a) All taxes and assessments of any type or character charged to the Authority or to the Bond Trustee affecting the amount available to the Authority or the Bond Trustee from payments to be received under the Loan Agreement or in any way arising due to the transactions contemplated thereby (including taxes and assessments assessed or levied by any public agency or governmental authority of whatsoever character having power to levy taxes or assessments) but excluding franchise taxes based upon the capital and/or income of the Bond Trustee and taxes based upon or measured by the net income of the Bond Trustee; provided, however, that the Corporation shall have the right to protest any such taxes or assessments and to require the Authority or the Bond Trustee, at the Corporation's expense, to protest and contest any such taxes or assessments levied upon them and that the Corporation shall have the right to withhold payment of any such taxes or assessments pending disposition of any such protest or contest unless such withholding, protest or contest would adversely affect the rights or interests of the Authority or the Bond Trustee;
- (b) All reasonable fees, charges and expenses of the Bond Trustee under Loan Agreement and under the Bond Indenture, as and when the same become due and payable;
- (c) The reasonable fees and expenses of such accountants, consultants, attorneys and other experts as may be engaged by the Authority or the Bond Trustee to prepare audits, financial statements, reports, opinions or provide such other services required under the Corporation Documents, the Bonds or the Bond Indenture; and

- (d) The Administrative Fees and Expenses (as defined in the Bond Indenture) and the reasonable fees and expenses of the Authority or any agent or attorney selected by the Authority to act on its behalf in connection with the Corporation Documents, the Bonds or the Bond Indenture, including, without limitation, any and all reasonable expenses incurred in connection with the authorization, issuance, sale and delivery of any such Bonds or in connection with any litigation, investigation, inquiry or other proceeding which may at any time be instituted involving the Corporation Documents, the Bonds or the Bond Indenture or any of the other documents contemplated thereby, or in connection with the reasonable supervision or inspection of the Corporation, its properties, assets or operations or otherwise in connection with the administration of the Corporation Documents;
- (e) All amounts required to be paid pursuant to the provisions of the Loan Agreement relating to the indemnification by Corporation and expenses on default; and
 - (f) All amounts payable to the Insurer pursuant to Article XI of the Indenture.

Credits for Payments

The Corporation shall receive credit against its payments required to be made under the Loan Agreement, in addition to any credits resulting from payment or repayment from other sources, as follows:

- (a) on installments of interest in an amount equal to moneys deposited in the Interest Fund, which amounts are available to pay interest on the Bonds, to the extent such amounts have not previously been credited against such payments;
- (b) on installments of principal in an amount equal to moneys deposited in the Bond Sinking Fund, which amounts are available to pay principal of the Bonds, to the extent such amounts have not previously been credited against such payments;
- (c) on installments of principal and interest in an amount equal to the principal amount of Bonds which have been called by the Bond Trustee for redemption prior to maturity and for the redemption of which sufficient amounts (as determined by the provisions of the Bond Indenture described in the section captioned "THE BOND INDENTURE—Deposit of Money or Securities with Bond Trustee") in cash or United States Government Obligations are on deposit as provided in the provisions of the Bond Indenture described in the section captioned "THE BOND INDENTURE—Deposit of Money or Securities with Bond Trustee", to the extent such amounts have not previously been credited against such payments, and the interest on such Bonds from and after the date fixed for redemption thereof. Such credits shall be made against the installments of principal and interest which would have been used, but for such call for redemption, to pay principal of and interest on such Bonds when due or called for mandatory redemption; and
- (d) on installments of principal and interest in an amount equal to the principal amount of Bonds acquired by the Corporation and delivered to the Bond Trustee for cancellation or purchased by the Bond Trustee and cancelled, and the interest on such Bonds from and after the date interest thereon has been paid prior to cancellation. Such credits shall be made against the installments of principal and interest which would have been used, but for such cancellation, to pay principal of and interest on such Bonds when due, and with respect to Bonds called for mandatory redemption, against principal installments which would have been used to pay Bonds of the same date. In no event shall the Corporation receive a credit for amounts paid for by the Insurer.

Prepayment

The Corporation shall have the right at any time or from time to time to prepay all or any part of the Loan Repayments and the Authority agrees that the Bond Trustee shall accept such prepayments when the same are tendered by the Corporation, and the Bond Trustee shall call for redemption Bonds as directed by the Corporation. The Corporation shall be required to prepay Loan Repayments in the amounts and at the times that Bonds are subject to optional or mandatory redemption pursuant to the Bond Indenture. All such prepayments (and the

additional payment of any amount necessary to pay the Redemption Price payable upon the redemption of Bonds) shall be deposited upon receipt at the Corporation's direction in (i) the Bond Sinking Fund or (ii) the Optional Redemption Fund if the Bonds are to be redeemed pursuant to the optional or extraordinary optional redemption provisions of the Bond Indenture (or in such other Bond Trustee escrow account as may be specified by the Corporation) and, at the request of and as determined by the Corporation, credited against payments due under the Loan Agreement or used for the redemption or purchase of Outstanding Bonds in the manner and subject to the terms and conditions set forth in the Bond Indenture.

Obligations of the Corporation Unconditional; Net Contract

The obligations of the Corporation to make the Loan Repayments, Additional Payments required and other payments under the Loan Agreement and to perform and observe the other agreements on its part contained in the Loan Agreement shall be absolute and unconditional, and shall not be abated, rebated, setoff, reduced, abrogated, terminated, waived, diminished, postponed or otherwise modified in any manner or to any extent whatsoever, while any Bonds remain Outstanding or any Additional Payments or other payments remain unpaid, regardless of any contingency, event or cause whatsoever, including, without limiting the generality of the foregoing, any natural disaster, acts or circumstances that may constitute failure of consideration, eviction or constructive eviction, the taking by eminent domain or destruction of or damage to its facilities, commercial frustration of purpose, any changes in the laws of the United States of America or of the Commonwealth or any political subdivision of the Commonwealth or in the rules or regulations of any governmental authority, or any failure of the Authority or the Bond Trustee to perform and observe any agreement, whether express or implied, or any duty, liability or obligation arising out of or connected with the Loan Agreement or the Bond Indenture. The Loan Agreement shall be deemed and construed to be a "net contract," and the Corporation shall pay absolutely net the Loan Repayments, Additional Payments and all other payments required under the Loan Agreement, regardless of any rights of setoff, recoupment, abatement or counterclaim that the Corporation might otherwise have against the Authority or the Bond Trustee or any other party or parties.

Tax Covenant

The Corporation covenants and agrees that it will at all times do and perform all acts and things permitted by law and the Loan Agreement which are necessary in order to assure that interest paid on the Bonds will be excluded from gross income for federal income tax purposes and will take no action that would result in such interest not being so excluded. Without limiting the generality of the foregoing, the Corporation agrees to comply with the provisions of the Tax Agreement. This covenant shall survive payment in full or defeasance of the Bonds.

Continuing Disclosure

The Corporation pursuant to the Loan Agreement covenants and agrees that it will enter into, comply with and carry out all of the provisions of a disclosure agreement with respect to the Bonds that complies with the provisions of Rule 15c2-12, in form and substance satisfactory to the Participating Underwriter (as defined in Rule 15c2-12). Notwithstanding any other provision of the Loan Agreement or the Bond Indenture, failure of the Corporation to enter into and comply with such a disclosure agreement shall not be considered a Loan Default Event or an Event of Default; however, the Bond Trustee may, and, at the request of any Participating Underwriter (as defined in such Continuing Disclosure Agreement) or the Holders of at least 25% in aggregate principal amount of Outstanding Bonds after receiving indemnification to its satisfaction, shall or any Bondholder or Beneficial Owner may, take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Corporation to comply with its obligations under this section.

Loan Default Events

The following events shall be "Loan Default Events:"

- (a) Failure by the Corporation to pay in full any payment required under the Loan Agreement or under Obligation No. 1 when due, whether on an interest payment date, at maturity, upon a date fixed for prepayment, by declaration, or otherwise pursuant to the terms of the Loan Agreement or thereof;
- (b) Failure by the Corporation to observe and perform any other covenant, condition or agreement on its part to be observed or performed in the Loan Agreement for a period of sixty (60) days after written notice, specifying such failure and requesting that it be remedied, shall have been given to the Corporation by the Authority or the Bond Trustee; provided, however, that if the failure is such that it can be corrected but not within such 60-day period, and corrective action is instituted by the Corporation within such period and diligently pursued until such failure is corrected, then such period shall be increased to 180 days after the delivery of such notice of default;
- (c) Any representation or warranty made by the Corporation in any document delivered by the Corporation to the Bond Trustee or the Authority in connection with the sale and delivery of the Bonds or Obligation No. 1 proves to be untrue when made in any material respect;
- (d) An Event of Default under the Bond Indenture or a payment default or acceleration of Master Indenture Obligations under the Master Indenture; or
- (e) The Corporation (i) shall admit in writing its inability to pay its debts generally, (ii) shall make a general assignment for the benefit of creditors, (iii) shall institute any proceeding or voluntary case (A) seeking to adjudicate it a bankrupt or insolvent or (B) seeking liquidation, winding up, reorganization, arrangement, adjustment, protection, relief or composition of it or its debts under any law relating to bankruptcy, insolvency or reorganization or relief or protection of debtors or (C) seeking the entry of an order for relief or the appointment of a receiver, trustee, custodian or other similar official for it or for any substantial part of its property, (iv) shall take any action to authorize any of the actions described above in this subsection (e), or (v) shall have instituted against it any proceeding (A) seeking to adjudicate it a bankrupt or insolvent or (B) seeking liquidation, winding up, reorganization, arrangement, adjustment, protection, relief or composition of it or its debts under any law relating to bankruptcy, insolvency or reorganization or relief or protection of debtors or (C) seeking the entry of an order for relief or the appointment of a receiver, trustee, custodian or other similar official for it or for any substantial part of its property, and, if such proceeding is being contested by the Corporation in good faith, such proceeding shall remain undismissed or unstayed for a period of 60 days.

Upon having actual knowledge or written notice of the existence of a Loan Default Event, the Bond Trustee shall give written notice thereof to the Corporation unless the Corporation has expressly acknowledged the existence of such Loan Default Event in a writing delivered by the Corporation to the Bond Trustee or filed by the Corporation in any court.

Remedies on Default

If a Loan Default Event shall occur, then, and in each and every such case during the continuance of such Loan Default Event, the Bond Trustee on behalf of the Authority, subject to the limitations and its protections in the Bond Indenture as to the enforcement of remedies (including the rights of the Insurer under Article XI of the Bond Indenture), may take such action as it deems necessary or appropriate to collect amounts due under the Loan Agreement, to enforce performance and observance of any obligation or agreement of the Corporation under the Loan Agreement or to protect the interests securing the same, and may, without limiting the generality of the foregoing:

(a) Exercise any or all rights and remedies given thereby or available under the Loan Agreement or given by or available under any other instrument of any kind securing the Corporation's performance under the Loan Agreement (including, without limitation, Obligation No. 1 and the Master Indenture);

- (b) By written notice to the Corporation, declare an amount equal to all amounts then due and payable on the Bonds, whether by acceleration of maturity or otherwise, to be immediately due and payable under the Loan Agreement, whereupon the same shall become immediately due and payable; and
- (c) Take any action at law or in equity to collect the payment required under the Loan Agreement then due, whether on the stated due date or by declaration of acceleration or otherwise, for damages or for specific performance or otherwise to enforce performance and observance of any obligation, agreement or covenant of the Corporation under the Loan Agreement.

Notwithstanding any other provision of the Loan Agreement or any right, power or remedy existing at law or in equity or by statute, the Bond Trustee shall not under any circumstances declare the entire unpaid aggregate amount of the payment due under the Loan Agreement to be immediately due and payable except in accordance with the directions of the Master Trustee if the Master Trustee shall have declared the aggregate principal amount of Obligation No. 1 and all interest thereon immediately due and payable in accordance with the Master Indenture.

Remedies Not Exclusive; No Waiver of Rights

No remedy in the Loan Agreement conferred upon or reserved to the Authority or the Bond Trustee is intended to be exclusive of any other available remedy or remedies, but each and every such remedy, to the extent permitted by law, shall be cumulative and shall be in addition to every other remedy given under the Loan Agreement or now or hereafter existing at law or in equity or otherwise. In order to entitle the Authority or the Bond Trustee to exercise any remedy, to the extent permitted by law, reserved to it contained in the Loan Agreement, it shall not be necessary to give any notice, other than such notice as may be expressly required in the Loan Agreement. Such rights and remedies as are given to the Authority under the Loan Agreement shall also extend to the Bond Trustee, and the Bond Trustee may exercise any rights of the Authority under the Loan Agreement, and the Bond Trustee and the Holders of the Bonds shall be deemed third-party beneficiaries of all covenants and conditions in the Loan Agreement contained.

No delay in exercising or omitting to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

Expenses on Default

In the event the Corporation should default under any of the provisions of the Loan Agreement and the Authority or the Bond Trustee should employ attorneys or incur other expenses for the collection of the payments due under the Loan Agreement, the Corporation agrees that it will on demand therefor pay to the Authority or the Bond Trustee the fees and expenses of such attorneys and such other expenses so incurred by the Authority or the Bond Trustee.

Notice of Default

The Corporation agrees that, as soon as is practicable, and in any event within ten (10) days of a Loan Default Event, the Corporation will furnish the Bond Trustee and the Insurer notice of any event which is a Loan Default Event pursuant to the Loan Agreement which has occurred and is continuing on the date of such notice, which notice shall set forth the nature of such event and the action which the Corporation proposes to take with respect thereto; provided, however, that with respect to a Loan Default Event pursuant to subsection (a) of the provisions of the Loan Agreement summarized in the section captioned "THE LOAN AGREEMENT—Loan Default Events", the Bond Trustee shall give the Corporation telephonic notice on the date such default occurs.

Assignment by Authority or Bond Trustee

The Loan Agreement, including the right to receive payments required to be made by the Corporation under the Loan Agreement and to compel or otherwise enforce performance by the Corporation of its other obligations under the Loan Agreement and thereunder, may be assigned and reassigned in whole or in part to one or more assignees or subassignees by the Authority or the Bond Trustee at any time subsequent to its execution without the necessity of obtaining the consent of the Corporation. Unless such assignment or reassignment is to a successor Bond Trustee appointed in accordance with the terms of the Bond Indenture (in which case no consent is needed), such assignment may be made only with the consent of the Insurer. The Authority expressly acknowledges that all right, title and interest of the Authority in and to the Loan Agreement (excluding Unassigned Rights) have been assigned to the Bond Trustee, as security for the Bonds under and as provided in the Bond Indenture, and that if any Loan Default Event shall occur, the Bond Trustee shall be entitled to act under the Loan Agreement in the place and stead of the Authority.

Application of Moneys Collected

Any amounts collected pursuant to action taken under the provisions of the Loan Agreement summarized in the sections captioned "THE LOAN AGREEMENT—Loan Default Events," "—Remedies on Default," "—Remedies Not Exclusive," "—No Waiver of Rights," "—Expenses on Default" and "—Notice of Default" shall be applied in accordance with such provisions of the Bond Indenture, and to the extent applied to the payment of amounts due on the Bonds shall be credited against amounts due on Obligation No. 1.

APPENDIX E SUMMARY OF LOAN AND TRUST AGREEMENT



DEFINITIONS OF CERTAIN TERMS

The following are the definitions of certain terms used in the Loan and Trust Agreement, as amended and supplemented, without giving effect to the LTA Modifications set forth in the Twentieth Supplemental Agreement, the form of which is attached hereto as Appendix F, unless otherwise specified below. All capitalized terms used in this Appendix E and not defined below shall have the same meanings given to such terms in the forepart of this Official Statement.

"Accountant" means a firm of independent certified public accountants (which may be the external auditing firm of the Obligated Group or of any Obligated Group Member) not unsatisfactory to the Issuer.

"Additional Debt" means any Debt incurred by any Obligated Group Member subsequent to the issuance of the 1993 Bonds.

"Affiliate" of any specified corporation or other entity means any other entity directly or indirectly controlling or controlled by or under direct or indirect common control with such specified entity. For purposes of this definition, "control" when used with respect to any specified entity means the power to direct the management and policies of such entity, directly or indirectly, whether through ownership of voting securities, by contract, membership or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

"Agreement" means the Original Agreement as amended by an Amendment dated as of August 1, 1993, an Amendment dated as of June 27, 1996, the First Supplemental Agreement, the Second Supplemental Agreement, the Third Supplemental Agreement, an Amendment dated as of April 22, 1999, the Fourth Supplemental Agreement (including the Amendment dated June 1, 1999 to Second Supplemental Loan and Trust Agreement), the Fifth Supplemental Agreement, the Sixth Supplemental Agreement, the Seventh Supplemental Agreement, the Eighth Supplemental Agreement, the Ninth Supplemental Agreement, the Tenth Supplemental Agreement, the Thirteenth Supplemental Agreement, the Fourteenth Supplemental Agreement, the Fifteenth Supplemental Agreement, the Sixteenth Supplemental Agreement, the Seventeenth Supplemental Agreement, the Eighteenth Supplemental Agreement, the Nineteenth Supplemental Agreement, the Twentieth Supplemental Agreement, the Nineteenth Supplemental Agreement, the Twentieth Supplemental Agreement, the Joinder Agreements dated June 30, 1996, the Release Agreement dated as of May 15, 1997, the Joinder Agreements dated as of June 20, 2005, the Termination Agreement and the Joinder Agreement dated as of July 1, 2012.

"Annual Debt Service" means the Long-Term Debt Service Requirements for the Fiscal Year in question.

"Architect" means a person or firm, not unsatisfactory to the Issuer, which is not, and no member, stockholder, director, officer or employee of which is, an officer or employee of any Obligated Group Member and which is retained for the purpose of passing on questions relating to the design and construction of any particular facility, has all licenses and certifications necessary for the performance of such services, and has a favorable reputation for skill and experience in performing similar services in respect of facilities of a comparable size and nature.

"Authorized Officer" means (i) in the case of the Issuer, the Chairman or Vice-Chairman of the Issuer, and when used with reference to an act or document of the Issuer also means any other person authorized to perform the act or execute the document, and (ii) in the case of the Institution, the Obligated Group Agent or any other Obligated Group Member, the Chairman of the Board of Trustees, the President, the Vice President, Chief Financial Officer and Treasurer, or the Associate Vice President and Assistant Treasurer of the Institution, and when used with reference to an act or document of the Obligated Group Agent or any other Obligated Group Member, also means any other person or persons authorized by a resolution of the Board of Trustees to perform the act or execute the document.

"Bond" or "Bonds" means, (i) the 2017 Bonds; (ii) except as otherwise expressly excepted by the terms of any specific section under the Agreement, all Parity Bonds, and (iii) except as otherwise provided in the Agreement, any Bond or Bonds duly issued in exchange or replacement therefor and, where appropriate with respect to redemption and required purchase, portions thereof in authorized denominations.

"Bond Index" means the index or interest rate as may be submitted in writing to the Trustee by a firm which provides municipal investment banking or financial advisory services selected by the Obligated Group Agent, as the index or interest rate reasonably reflecting the terms and provisions of the Debt in question, as having the same frequency of interest rate adjustment and, where applicable, secured or backed by an entity having a credit rating in the same category as the proposed Debt.

"<u>Capitalization Ratio</u>" means, as of any date of calculation, the ratio of Long-Term Debt of the Obligated Group to the sum of such Long-Term Debt and the general fund balance of the Obligated Group.

"Code" means the Internal Revenue Code of 1986, as amended from time to time. References to the Code and Sections of the Code include the relevant regulations, temporary regulations and proposed regulations thereunder and under the Internal Revenue Code of 1954, as amended, and any successor provisions to those Sections, regulations, temporary regulations or proposed regulations.

"Completion Debt" means any Debt incurred by any Obligated Group Member for the purpose of financing the completion of the constructing or equipping of facilities for which Debt has theretofore been incurred in accordance with the provisions of the Agreement, to the extent necessary to provide a completed and equipped facility of the type and scope contemplated at the time of the initial funding of the facilities.

"Consultant" means a person or firm which is not, and no member, stockholder, director, officer or employee of which is, an officer or employee of any Obligated Group Member, and which is a financial consulting firm or an Accountant having a favorable reputation for skill and experience in preparing or reviewing financial forecasts for hospitals, appointed by an Authorized Officer of the Obligated Group Agent and not unsatisfactory to the Trustee or the Issuer.

"Continuing Disclosure Agreement" means the continuing disclosure agreement entered into by the Obligated Group in connection with any series of Bonds.

"Costs of Issuance" means underwriter's discount or fees, counsel fees (including bond counsel, Issuer's counsel, counsel to an Obligated Group Member, Trustee's counsel, or any other specialized counsel fees incurred in connection with the issuance of the Bonds or any other Obligations), any bond insurance premium, financial advisor fees, rating agency fees, Trustee's fee incurred in connection with the issuance of the Bonds and any other Obligations and the Trustee's acceptance fee and first year administration fee, Accountant fees related to the issuance of the Bonds or any other Obligations, printing costs, costs incurred in connection with the public approval process for the Bonds or any other Obligations, costs of engineering and feasibility studies necessary to the issuance of the Obligations, the application fee of the Issuer and any other fees or costs which, in the Opinion of Bond Counsel, in the case of Bonds, are deemed costs of issuance for purposes of Section 147(g) of the Code.

"Counsel" means an attorney or firm of attorneys, not unsatisfactory to the Issuer or the Trustee, selected by the Obligated Group Agent and (except as otherwise provided in the Agreement) may either be counsel (including inside counsel) for an Obligated Group Member or for the Trustee.

"Current Assets" means cash and cash equivalent deposits, marketable securities, accounts receivable, accrued interest receivable, funds permitted to be designated by the Governing Body of any Obligated Group Member for any specific purpose and any other assets of any Obligated Group Member ordinarily considered current assets under generally accepted accounting principles.

"Days-Cash-On-Hand" shall mean, for each Fiscal Year, Unrestricted Cash and Investments (as defined herein), divided by total operating expenses, net of Depreciation, Amortization, Restructuring Costs, Asset Impairment, Gain or Losses (as such terms are defined in accordance with GAAP) on the sale of fixed assets, bad debt expense and other non cash expense items, divided by 365. For purposes of this definition, "total operating expenses," "bad debt expense" and "non cash expense items" shall mean such line items as reported on the consolidated statements of operations and changes in net assets of the audited financial statements of the Obligated Group delivered pursuant to the Agreement.

"Debt" means all obligations for payments of principal and interest with respect to money borrowed, incurred or assumed by one or more Obligated Group Members, including without limitation, all Obligations issued under the Agreement, guarantees, purchase money mortgages, finance lease obligations, installment purchase contracts or other similar instruments in the nature of a borrowing by which the Obligated Group Member will be unconditionally obligated to pay, except obligations of one Obligated Group Member to another Obligated Group Member. Debt shall not include operating leases. Nothing in this definition or otherwise shall be construed to count Debt more than once, and Debt incurred as described in clause (g) under the heading "Limitations on Incurrence of Additional Debt" hereof shall be counted only to the extent the reimbursement obligation on amounts drawn or, in the reasonable judgment of the Obligated Group Agent, likely to be drawn on, the Credit Facility exceeds the obligation on the Debt for which such Credit Facility is provided.

"<u>Debt Service Reserve Fund Bonds</u>" means Bonds for which a deposit to the Debt Service Reserve Fund was funded at the time of the issuance thereof under the Agreement or any Supplement to the Agreement.

"<u>Electronic Notice</u>" means notice transmitted electronically ("E-mail") or in writing, by facsimile transmission or by telephone (promptly confirmed in writing or by facsimile transmission).

"Event of Bankruptcy" means (i) any Obligated Group Member shall commence a voluntary case under the federal bankruptcy laws, or shall become insolvent or unable to pay its debts as they become due, or shall make an assignment for the benefit of creditors, or shall apply for, consent to or acquiesce in the appointment of, or taking possession by, a trustee, receiver, custodian or similar official or agent for itself or any substantial part of its Property, Current Assets or Gross Receipts; (ii) a trustee, receiver, custodian or similar official or agent shall be appointed for any Obligated Group Member or for any substantial part of its Property, Current Assets or Gross Receipts and either such trustee or receiver shall not be discharged, or such Obligated Group Member shall not withdraw from the Obligated Group under the Agreement, in either case, within ninety (90) days; or (iii) any Obligated Group Member shall have an order or decree for relief in an involuntary case under the federal bankruptcy laws entered against it, or a petition seeking reorganization, readjustment, arrangement, composition, or other similar relief as to it under the federal bankruptcy laws or any similar law for the relief of debtors shall be brought against it and either such order or decree for relief is not discharged or vacated or such Obligated Group Member shall not withdraw from the Obligated Group under the Agreement, in either case within ninety (90) days.

"Event of Default" means any one of the events set forth herein under the heading "Default by the Obligated Group."

"Favorable Opinion of Bond Counsel" means an opinion of nationally recognized bond counsel acceptable to the Issuer and the Obligated Group Agent, addressed to the Issuer, the Obligated Group Agent and the Trustee, as appropriate, to the effect that the action proposed to be taken is authorized or permitted by the Loan and Trust Agreement and will not adversely affect the exclusion of interest on any outstanding tax-exempt Bonds from gross income for purposes of federal income taxation under Section 103 of the Code.

"Fiscal Year" means the fiscal year ending June 30 or any other fiscal year designated from time to time in writing by the Obligated Group Agent to the Trustee; for purposes of making historical calculations or determinations set forth in the Agreement on a Fiscal Year basis, or for purposes of combinations or consolidation of accounting information, with respect to any Obligated Group Member whose actual fiscal year is different from that designated above, the actual fiscal year of such Obligated Group member which ended within the Fiscal Year designated above shall be used.

"Forecast" means prospective financial statements with respect to the Obligated Group which represent the expected financial position, results of operations and changes in financial position of the Obligated Group, based upon assumptions which in the opinion of the preparer, or as set forth in a certificate of an Authorized Officer, provide a reasonable basis for the Forecast.

As used in the Agreement, an Officer's Forecast shall mean a forecast prepared and signed by an Authorized Officer of the Obligated Group Agent, and a Consultant's Forecast shall mean a forecast which is compiled, reviewed, or examined by a Consultant in accordance with standards established by the American Institute of Certified Public Accountants for the compilation, review or examination of a financial forecast.

"Governing Body" means, with respect to any Obligated Group Member, its board of directors, board of trustees, or other board or group of individuals, including the Board of Governors of the Hospital, in which the power to direct the management and policies of the Obligated Group Member are vested.

"Government Obligations" means direct obligations of the United States of America, including obligations issued or held in book-entry form on the books of the Department of the Treasury or any Federal Reserve Bank.

"Government Restriction" means the occurrence of the following: (i) changes in applicable laws, governmental regulations, third-party reimbursement methods or private or governmental insurance programs shall have occurred which prevent, have prevented or will prevent the Obligated Group from generating sufficient Income Available for Debt Service to comply with the particular requirement of the financing document in question, (ii) the effect upon the Obligated Group of the circumstances set forth in clause (i) above shall have been confirmed by a signed Consultant's opinion or report delivered to the Trustee, and (iii) an officer's Certificate shall have been delivered to the Trustee stating that the Obligated Group has generated the highest level of Income Available for Debt Service which, in the opinion of such officer, could reasonably be generated given the circumstances set forth in clause (i) above; provided that there shall have been delivered to the Trustee an Opinion of Counsel, but only at the request of the Trustee, as to any conclusions of law supporting the opinion or report of the Consultant.

"Gross Receipts" means, with respect to any Obligated Group Member, all receipts, revenues, income and other moneys received by or on behalf of such Obligated Group Member; including, but without limiting the generality of the foregoing, revenues derived from the ownership or operation of Property, including insurance and condemnation proceeds with respect to such Property or any portion thereof, and all rights to receive the same, whether in the form of accounts, accounts receivable, contract rights or other rights, and the proceeds of such rights, whether now owned or held or hereafter coming into existence; provided, however, that there shall be excluded from Gross Receipts (A) gifts, grants (including Hill-Burton grants), bequests, donations and contributions heretofore or hereafter made and designated or specified by the granting authority, donor or maker thereof as being for specified purposes (inconsistent with the payment of debt service on Debt) and the income derived therefrom to the extent required by such designation or specification, (B) revenues, receipts and income derived from the ownership and operation of Property which secures Non-Recourse Debt, and (C) any cash or investments held by any Obligated Group Member on the date of issuance and initial delivery of the 1993 Bonds, or with respect to any Obligated Group Member which joined or may join the Obligated Group after such date, any cash or investment held by such Obligated Group Member on the date such Obligated Group Member joined or joins the Obligated Group.

"Guaranty" means all obligations of any Obligated Group Member guaranteeing in any manner, whether directly or indirectly, any obligation of any other person which would, if such other person were an Obligated Group Member, constitute Debt under the Agreement. Nothing in this definition or otherwise shall be construed to count a Guaranty more than once and for purposes of all covenants and computations provided for in the Agreement, the aggregate annual principal and interest payments on, and the principal amount of, any indebtedness of the type described in the Agreement incurred by any person which is not an Obligated Group Member and which is the subject of a Guaranty under the Agreement shall be calculated in the manner provided in the Agreement based on the actual Annual Debt Service on, and the principal amount of, the underlying obligation on account of which a Guaranty has been issued.

"Health System" means Temple University Health System, Inc.

"<u>Historical Test Period</u>" means (i) the most recent Fiscal Year of the Obligated Group, if audited financial statements with respect to such Fiscal Year are available for the Obligated Group or for each Obligated Group Member or (ii) if such audited financial statements are not available, the most recent twelve month period for which such audited financial statements are available.

"Holder" or "Owner" means the registered owner of any of the Obligations from time to time as shown in the books kept by the Trustee as registrar and transfer agent.

"Hospital" means Temple University Hospital, Inc.

"Income Available for Debt Service" means, with respect to the Obligated Group, as to any period of time, the aggregate amount of net income, or excess of revenue over expenses (including investment income, gifts and bequests, but excluding donor restricted funds and the income thereon to the extent restricted by the donor thereof to other than operating expenses or debt service requirements) before depreciation, amortization, interest and other similar non-cash charges, as determined in accordance with generally accepted accounting principles, consistently applied; provided that no determination thereof shall take into account (i) any revenue or expense of the University other than revenue or expense of the Hospital as reflected on the Hospital's financial statements prepared in accordance with generally accepted accounting principles, unless the University shall be an Obligated Group Member other than the Institution hereunder, (ii) any revenue or expense of any person which is not an Obligated Group member, (iii) any extraordinary gain or loss resulting from either the extinguishment of Debt, or the sale, exchange or other disposition of capital assets not in the ordinary course of business to the extent otherwise included in the foregoing calculations of revenues and expenses, (iv) any other gains or losses resulting from changes in accounting principles not requiring the expenditure of cash, (v) the net proceeds of insurance (other than business interruption insurance) and condemnation awards, (vi) operating and nonoperating revenues and expenses attributable to the ownership and operation of Property securing Non-Recourse Debt but only in an amount equal to the actual debt service requirements for such period of time on outstanding Non-Recourse Debt, (vii) any non-recurring cash charge relating to financial or operational restructuring involving one or more members of the Obligated Group, or (viii) any non-cash adjustments resulting from market to market valuations of securities at current prices.

"Institution" means the Hospital.

"Insurance Consultant" shall mean an independent firm of insurance agents, brokers or consultants which is appointed by the Obligated Group Agent and is not unsatisfactory to the Trustee or the Issuer, for the purpose of reviewing and recommending insurance coverages for the facilities and operations of the Obligated Group, and has a favorable reputation for skill and experience in performing such services in respect of facilities and operations of a comparable size and nature.

"Interest Payment Date" means, with respect to the 2017 Bonds, each January 1 and July 1 commencing January 1, 2018. In any case, the final Interest Payment Date shall be the maturity date for the 2017 Bonds.

"<u>Issuer</u>" or "<u>Authority</u>" means The Hospitals and Higher Education Facilities Authority of Philadelphia.

"Lien" means any mortgage, pledge, security interest, lien, judgment lien, easement, or other encumbrance on title, including, but not limited to, any mortgage or pledge of, security interest in or lien or encumbrance on any Property, Current Assets or Gross Receipts of any Obligated Group Member which secures any Debt or any other obligation of any Obligated Group Member, or which secures any obligation of any person other than an obligation to any Obligated Group Member, excluding liens applicable to Property in which any Obligated Group Member has only a leasehold interest unless the lien secures Debt of any Obligated Group Member or an obligation of any person other than an obligation to any obligated Group Member.

"<u>Long-Term Debt</u>" means all Debt, other than Short-Term Debt and Non-Recourse Debt, including the following:

- (i) Debt with respect to money borrowed for an original term, or renewable at the option of the borrower for a period from the date originally incurred, longer than one year;
- (ii) Debt with respect to leases which are capitalized in accordance with generally accepted accounting principles having an original term, or renewable at the option of the lessee for a period from the date originally incurred, longer than one year; and
- (iii) Debt with respect to installment purchase contracts having an original term in excess of one year.

"Long-Term Debt Service Coverage Ratio" means, for any period of time, the ratio of Income Available for Debt Service of each Obligated Group Member to Maximum Annual Debt Service.

"Long-Term Debt Service Requirements" means, for any period of time, the aggregate of the scheduled payments to be made (other than from amounts irrevocably deposited with the Trustee or otherwise held for the benefit of a lender under terms sufficient to pay all or a portion of the principal of, premium, if any, and interest on, as the same shall become due or payable upon redemption, any Debt which would otherwise be considered Outstanding, including funds held in connection with an advance refunding or a cross-over refunding) in respect of principal

of and interest on Long-Term Debt of the Obligated Group during such period, also taking into account (i) with respect to Variable Rate Debt, the provisions, set forth in the Agreement pertaining to debt service on Variable Rate Debt, (ii) with respect to Capitalized Interest, the provisions set forth in the Agreement pertaining to credit for Capitalized Interest, (iii) with respect to Debt represented by a Guaranty of obligations of a person, the provisions set forth in the Agreement to restrictions on Guaranties.

"<u>Maximum Annual Debt Service</u>" means the highest Long-Term Debt Service Requirement for the then current or any future Fiscal Year over the remaining term of any Outstanding Obligations; provided that for the purposes of any Forecast the Maximum Annual Debt Service shall be assumed to be zero on any Debt during any Fiscal Year (or portion thereof) in which the interest on such Obligation is paid from Capitalized Interest.

"Non-Recourse Debt" means any Debt secured by a Lien on any Property, which Debt is not a general obligation of the Obligated Group or any Obligated Group Member, and the liability for which Debt is effectively limited to the Property subject to such Lien (and the revenues derived therefrom), with no recourse, directly or indirectly, to any other Property.

"Obligated Group" means the Institution, the Health System, Jeanes, Temple Physicians, Temple Transport, American Oncological Hospital, the Institute for Cancer Research, Fox Chase Cancer Center Medical Group, Inc. and Fox Chase Network, Inc.

"Obligated Group Agent" Temple University Health System, Inc. or such other Obligated Group Member as the Obligated Group Agent shall designate as a successor by an Officer's Certificate delivered to the Trustee and the Issuer.

"Obligated Group Member" means any corporation that is a constituent of the Obligated Group.

"Obligation No. 1" means the Master Trust Indenture Obligation No. 1, issued pursuant to a Master Trust Indenture dated as of April 1, 2022 between U.S. Bank Trust Company, National Association, as master trustee and the Obligated Group and deemed an Obligation constituting Parity Debt under the Agreement by the Twentieth Supplemental Agreement.

"Obligations" means collectively all Bonds and Parity Debt issued under the Agreement.

"Officer's Certificate" means a certificate signed by an Authorized Officer of the Obligated Group Agent.

"Opinion of Bond Counsel" means a written opinion of nationally recognized bond counsel not unsatisfactory to the Trustee or the Issuer.

"Opinion of Counsel" means a written opinion of Counsel.

"Outstanding," when used to modify Obligations, refers to the 2017 Bonds, Obligation No. 1, and all other Parity Bonds and Parity Debt issued under or secured by the Agreement, excluding: (i) Obligations which have been exchanged or replaced, or delivered to the Trustee for credit against a sinking fund installment; (ii) Obligations which have been paid; (iii)

Obligations which have become due and for the payment of which moneys have been duly provided to the Trustee; and (iv) Obligations for which there have been irrevocably set aside with the Trustee sufficient funds, or obligations described under the Agreement bearing interest at such rates and with such maturities as will provide, in the determination of the Trustee based solely upon the verification of an Accountant, sufficient funds to pay the principal of, premium, if any, and interest on such Obligations; provided, however, that if any such Obligations are to be redeemed prior to maturity, the Issuer shall have taken all action necessary to redeem such Obligations and notice of such redemption shall have been duly mailed in accordance with the Agreement or irrevocable instructions so to mail shall have been given to the Trustee. When used to modify other Debt, Outstanding refers to Debt which as of such date remains unpaid except Debt for the payment or redemption of which sufficient moneys have been deposited prior to such date in trust for the holders of such Debt (whether upon or prior to the maturity or redemption date of any such Debt), or which is certified by the Obligated Group's Accountant to have been paid pursuant to the provisions for the documents securing such Debt; provided that if such Debt is to be redeemed prior to the maturity thereof, notice of such redemption shall have been given or irrevocable arrangements shall have been made therefor.

"<u>Parity Bonds</u>" means any bonds issued by the Issuer pursuant to the Agreement secured, on a parity basis with the 2017 Bonds and Parity Debt, by pledge of Gross Receipts of the Obligated Group and one or more of the funds established under the Agreement (excluding the Rebate Fund, the 2017 Bonds Debt Service Reserve Fund, and the Bonds Debt Service Reserve Fund), as provided therein.

"Parity Debt" means any Debt of, the Obligated Group or any Obligated Group Member issued pursuant to the Agreement secured by a pledge of Gross Receipts of the Obligated Group or any Obligated Group Member and one or more of the funds established under the Agreement (excluding the Rebate Fund and the 2017 Bonds Debt Service Reserve Fund) on a parity basis with the 2017 Bonds and any issue of Parity Bonds. Parity Debt includes Obligation No. 1.

"Paying Agent" or "Co-Paying Agent" means any national banking association, bank, bank and trust company or trust company appointed by the Trustee with the consent of the Obligated Group pursuant hereto. "Principal Office" and "Delivery Office" of any Paying Agent shall mean the office thereof designated in writing by the Paying Agent.

"Payment Office" means: (1) in the case of the Trustee or any Paying Agent, the office from which payments of principal, premium (if any) and interest are made and where Bonds may be surrendered for payment upon redemption, purchase, acceleration, or at maturity and (2) in the case of the Trustee or the Bond Registrar, the office, where Bonds may be delivered for transfer or exchange, is in each such case as follows:

If by email, hand or overnight mail:

U S Bank Global Corporate Trust Services Attention: Bondholders Services EP-MN-WS2N 111 Fillmore Avenue, East St. Paul. Minnesota 55107

Customer Service Number for notice is: 1-800-934-6802

"<u>Permitted Encumbrances</u>" means a Permitted Encumbrance as described herein under the heading "Limitations on Creation of Liens."

"<u>Permitted Investments</u>" means any of the following to the extent permitted by applicable law with respect to the moneys proposed to be invested therein:

- (a) Government Obligations;
- (b) Government Obligations which have been stripped of their unmatured interest coupons, interest coupons which have been stripped from Government Obligations or receipts or certificates evidencing an undivided proportionate interest in payments a pool of such Government Obligations or stripped interest coupons;
- (c) Bonds, debentures, notes or other evidences of indebtedness issued by any agency or other governmental or government sponsored agency which may be hereafter created by the United States, provided, however, that the full and timely payment of the securities issued by each such agency or government-sponsored agency is secured by the full faith and credit of the United States;
- (d) Direct obligations of, or obligations guaranteed as to timely payment of principal and interest in, any of the following federal agencies which obligations are not fully guaranteed by the full credit of the United States;
- (i) Senior debt obligations rated in the highest long-term rating category by at least two nationally recognized rating agencies issued by Fannie Mae Federal Home Loan Mortgage Corporation or the Federal Farm Credit System.
 - (ii) Senior debt obligations of the Federal Home Loan Bank System, or
- (iii) Senior debt obligations of other United States government sponsored agencies;
- (e) U.S. dollar denominated deposit accounts, federal funds and banker's acceptances with domestic commercial banks which banks (for this purpose, a bank holding company shall not constitute a bank) have a rating on their short term certificates of deposit an the date of purchase in one of the two highest rating categories by at least two nationally recognized rating agencies and maturing no more than 360 days after the date of purchase;
- (f) trust funds and certificates of deposit of, or time, trust or demand deposits in, any bank (including the Trustee and any of its affiliates) or savings and loan association having securities rated at the time of purchase in one of the three highest rating categories (without regard to modifiers) of at least two nationally recognized rating agencies;
- (g) commercial paper which is rated at the time of purchase in one of the two highest rating categories by one nationally recognized rating agency and which matures not more than 270 days after the date of purchase;

- (h) shares of an open-end, diversified investment company which is registered under the Investment Company Act of 1940, as amended, and which (i) invests its assets primarily (as such term is used by the Securities and Exchange Commission in regulating the use of the title "Government Fund") in any of the foregoing securities; and (ii) has aggregate net assets of not less than \$100,000,000 and the date or purchase of such shares;
- (i) any bonds or other obligations of any state of the United States or of any agency, instrumentality or local governmental unit of any such state which are not callable at the option of the obligor prior to maturity or as to which irrevocable instructions have been given by the obligor to call on the date specified in the notice; and (A) which, at the time of purchase of such obligations, are rated, based on an irrevocable escrow account or fund (the "escrow"), in the highest rating category of at least two nationally recognized rating agencies; or (B) (i) which are fully secured as to principal and interest and redemption premium, if any, by an escrow consisting only of cash or Government Obligations, which escrow may be applied only to the payment of such principal of and interest and redemption premium, if any, an such bonds or other obligations on the maturity date or dates thereof or the specified redemption date or dates pursuant to such irrevocable instructions, as appropriate, and (ii) which escrow is sufficient, as verified by a nationally recognized independent certified public accountant, to pay principal of and interest and redemption premium, if any, on the bonds or other obligations described in this paragraph (i) on the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to above, as appropriate;
- (j) units of a money market fund which invests solely in Government obligations or repurchase agreements backed by Government obligations, including money market funds, for which the Trustee or any of its affiliates or subsidiaries provide investment advisory or management services, or units of taxable money market funds which funds are regulated investment companies and seek to maintain a constant net asset value per share and have been rated in one of the two highest categories by at least two nationally recognized rating agencies, including if so rated any fund which the Trustee serves as an investment advisor;
- (k) investment agreements, guaranteed investment contracts, repurchase agreements and similar investment instruments the issuer or guarantor of which is rated at the time of purchase in one of the two highest rating categories by at least two nationally-recognized rating agencies or which investment agreements are collateralized by Permitted Investments rated in one of the two highest rating categories by at least two nationally-recognized rating agencies in a principal amount equal to 102% of the principal amount invested under the investment agreements; and
 - (l) General obligations of states with a short-term rating in one of the two highest rating categories of at least two nationally recognized rating agencies. In the event such obligations are variable rate obligations, the interest rate on such obligations must be reset not less frequently than annually.

"Project" means, as the context requires, the Project described in the Original Agreement and any other project financed with the proceeds of Obligations, as described in the Supplemental Agreement pursuant to which such Obligations are or were issued.

"Project Costs" means the costs of a Project and other costs permitted by the Act.

"Property" means any and all land, leasehold interests, building, machinery, equipment, hardware, and inventory of any Obligated Group Member or the Obligated Group, wherever located and whether now or hereafter acquired, and any and all rights, titles and interest in and to any and all tangible property of any Obligated Group Member or the Obligated Group, whether real or personal, and wherever situated and whether now or hereafter acquired.

"Rating Agency" means individually or collectively, as applicable, (i) Standard & Poor's Ratings Group and any successor thereto, if it has assigned a rating to any series of Outstanding Obligations, (ii) Moody's Investors Service and any successor thereto, if it has assigned a rating to any series of Outstanding Obligations, and (iii) Fitch Ratings Ltd, and any successor thereto, if it has assigned a rating to any series of Outstanding Obligations. With respect to any reference throughout the Fourteenth Supplemental Agreement to any rating assigned by a Rating Agency, such referenced rating shall include any rating within an applicable rating category without regard to gradations or sub-categories howsoever designated.

"Rebate Fund" means the fund by that name established pursuant to the Agreement.

"Record Date" means, as the case may be, the applicable Regular or Special Record Date.

"Regular Record Date" or "Record Date" means the December 15 and June 15 (whether or not a Business Day) next preceding each Interest Payment Date for such Interest Period.

"Series" means one or more Bonds issued at the same time or sharing some other common term or characteristic and designated as a separate series of Bonds.

"Series Issue Date" means the date of delivery of the Bonds.

"Short-Term Debt" means all Debt, other than Long-Term Debt and Non-Recourse Debt, including the following:

- (i) Debt with respect to money borrowed payable on demand or for an original term, or renewable at the option of the borrower for a period from the date originally incurred, of one year or less; and
- (ii) Debt with respect to installment purchase contracts having an original term of one year or less (other than contracts entered into in the ordinary course of business).

"Subordinated Debt" means any Debt incurred or assumed by one or more Obligated Group Members, the payment of which is by its terms specifically subordinated to payments on the Obligations, or the principal of and interest on which would not be paid (whether by the terms of such Debt or by agreement of the obligee) when the Obligations are in default or while bankruptcy, insolvency, receivership or other similar proceedings are instituted and implemented.

"Supplemental Agreement" means any indenture, loan agreement, financing document or other agreement amending or supplementing the terms of the Agreement or providing for the issuance or securing of Parity Bonds or Parity Debt.

"<u>Total Revenues</u>" means the aggregate of all patient service and other operating revenues and non-operating revenues of the Obligated Group (but before deduction of operating expenses) as determined in accordance with generally accepted accounting principles consistently applied and also less any operating and non-operating revenues attributable to the ownership and operation of properties securing Non-Recourse Debt

"<u>Trustee</u>" means U.S. Bank National Association or any successor appointed under the Agreement.

"Twentieth Supplemental Agreement" means the Twentieth Supplemental Loan and Trust Agreement dated as of April 1, 2022 by and among the Authority, the Obligated Group, and the Trustee.

"<u>University</u>" means Temple University - Of The Commonwealth System of Higher Education.

"Value" means, when used in connection with Property, Current Assets or accounts receivable of any Obligated Group Member, the cost basis of such property, net of accumulate depreciation, as it is carried on the books of such member and in conformity with generally accepted accounting principles consistently applied, and when used, in connection with Property, Current Assets or accounts receivable of the Obligated Group, means the aggregate of the cost basis so determined with respect to such Property, Current Assets or accounts receivable of each Obligated Group Member determined in such a manner that no portion of such cost basis of Property, Current Assets or accounts receivable of any Obligated Group Member is included more than once.

SUMMARY OF CERTAIN PROVISIONS OF LOAN AND TRUST AGREEMENT

The following is a summary of certain provisions of the Loan and Trust Agreement, as amended and supplemented, without giving effect to the LTA Modifications set forth in the Twentieth Supplemental Agreement, the form of which is attached hereto as Appendix F, unless otherwise specified below. These summaries should not be regarded as full statements of the document itself, or of the portions summarized. Reference is made to the document in its entirety, copies of which are on file at the principal corporate trust office of the Trustee, for the complete statements of the provisions thereof.

Assignment and Pledge of Security

Under the Agreement, the Issuer assigns, pledges and grants to the Trustee a continuing security interest in (a) the rights, title and interest of the Issuer under the Agreement, (b) all of the Issuer's rights, whether currently existing or hereafter acquired, to enforce any loan or loans of proceeds of Bonds made by the Issuer to the Obligated Group pursuant to the terms of the Agreement and (c) all revenues to be received from the Obligated Group and all funds and investments held from time to time in the Funds established under the Agreement; but not including funds received by the Issuer for its own use, whether as administrative fees, reimbursement or indemnification, and the rights thereto. The Obligated Group joins in the pledge of, and grant of a security interest in, such funds and investments to the extent of its interest therein. The assignment, pledge and security interest described in the Agreement is for the benefit of the Holders of the Obligations and the Trustee and, in the case of the Issuer's interest under the Agreement in the Gross Receipts, for the ratable benefit, until defeased, of the Holders of the Bonds, Parity Bonds and Parity Debt and the Trustee; provided, however, that funds and investments held (i) in the Rebate Fund established under the Agreement shall not be pledged to the Obligations and shall be applied solely as provided in the Agreement, and (ii) in the 2017 Bonds Debt Service Reserve Fund shall be held and applied as provided in the Agreement solely for the security and benefit of the Holders of the 2017 Bonds.

Security Interest in Gross Receipts

As additional security for the obligation of the Obligated Group to make payments to the Debt Service Fund and the Rebate Fund and to make all other payments due under the Agreement, and for the benefit and security of all Bonds and Parity Debt issued under the Agreement, the Obligated Group grants to the Trustee a security interest in the Gross Receipts and upon any rights to receive such Gross Receipts, provided that the existence of such security interest shall not prevent the expenditure, deposit or commingling of Gross Receipts by the Obligated Group so long as all required payments under the Agreement are made when due. If any required payment is not made when due, any Gross Receipts shall be transferred or paid over immediately to the Trustee without being commingled with other funds (unless already so commingled) and any Gross Receipts thereafter received shall upon receipt be transferred to the Trustee in the form received (with necessary endorsement if necessary for negotiability or good delivery) to the extent necessary to cure the deficiency. The Obligated Group represents and warranties that the lien granted with respect to its Gross Receipts is and at all times will be a first lien, subject only to Permitted Encumbrances.

The parties acknowledge that under Section 1815(c) of the Social Security Act (42 U.S. C. § 1395(g)), as added by the Medicare-Medicaid Anti-Fraud and Abuse Amendments of 1977 (Publ. L. 95-142), the Regulations of the Health Care Financing Administration of the United States Department of Health and Human Services thereunder, the provision of 62 P.S. § 1402, 1980, P.L. 493 and the regulations of the Commonwealth of Pennsylvania promulgated thereunder, a provider of health care services, such as the Hospital, Jeanes and the other hospitals included as part of the Obligated Group, may not assign, or grant a power of attorney to collect, payments due under the Medicare or Medicaid programs under any arrangements contemplating that the assignee or attorney-in-fact will receive the payment directly. The parties further acknowledge that such statutes and regulations do not prohibit the Issuer or the Trustee from

obtaining from a provider of services, such as the Hospital, Jeanes and the other hospitals included as part of the Obligated Group, a non-possessory security interest in the provider's Medicare or Medicaid accounts receivable. Accordingly, any provision of the Agreement to the contrary notwithstanding, the parties agree that no action shall be taken under the Agreement by the Trustee with respect to any of the accounts receivable of such hospitals which constitute claims for Medicare or Medicaid reimbursement or payments unless and until all applicable requirements of such statutes and regulations have been fully satisfied and there have been obtained such orders or authorizations from such court or other authority, if any, as may be required. It is the intention of the parties to the Agreement that the security interest of the Trustee in such accounts receivable shall in all relevant respects be subject to whether proper orders or authorizations have been obtained.

Deposit of Funds For Payment of Obligations: Defeasance

When the Obligations have been paid or redeemed in full as provided in the Agreement, or after there have been deposited with the Trustee sufficient cash, or cash invested in Permitted Investments rated at the time of purchase in the highest rating category by the Rating Agencies ("Defeasance Investments") in such principal amounts, bearing interest at such rates and with such maturities as will provide, in the determination of the Trustee solely in reliance on an Accountant's verification, sufficient funds to pay the principal of, premium, if any, whether at maturity or upon earlier redemption, and interest on the Obligations as the same shall become due and payable, and when all the rights under the Agreement of the Issuer, the Holders of the Obligations and Trustee have been provided for, and all other obligations secured by the Agreement have been paid in full, upon written notice from the Obligated Group Agent to the Issuer and the Trustee, the Holders of the Obligations shall cease to be entitled to any benefit or security under the Agreement except the right to receive payment of the cash deposited and held for payment and other rights which by their nature cannot be satisfied prior to or simultaneously with termination of the lien of the Agreement, the security interests created by the Agreement (except in such funds and investments) shall terminate, and the Issuer and the Trustee shall execute and deliver such instruments as may be necessary to discharge the lien and security interests created by the Agreement, provided, however, that if any such Obligations are to be redeemed prior to the maturity thereof, the Obligated Group Agent shall have taken all action necessary to redeem such Obligations and notice of such redemption shall have been duly given in accordance with the Agreement or irrevocable instructions shall have been given to the Trustee and provided further that the lien and security interests created under the Agreement for the benefit of Holders of Parity Bonds and Parity Debt remaining Outstanding shall survive such defeasance (but shall terminate with respect to any series of Parity Bonds or Parity Debt on the date on which the same is no longer Outstanding). Upon such defeasance, the cash and Defeasance Investments required to pay or redeem the Obligations in full shall be irrevocably set aside for the purpose and moneys held for defeasance shall be invested only as provided above, provided that other Defeasance Investments (to the extent permitted by the Act) may be substituted for all or any portion of the Defeasance Investments deposited with the Trustee if the Trustee receives (i) verification from an Accountant in a form satisfactory to the Trustee that the principal and interest becoming due on investments held by the Trustee after such transaction and any other moneys available therefor will provide the Trustee with moneys which at all times will be sufficient to pay the principal of, premium, if any, and interest on the Obligations as the same shall become due and payable and all other amounts due under the Agreement, and (ii) in

the case of Bonds, an Opinion of Bond Counsel to the effect that such transaction is in compliance with applicable law and will not adversely affect the exclusion from gross income under Section 103 of the Code of interest paid on the Bonds. Any funds or property held by the Trustee and not required for payment or redemption of the Obligations in full or for payment of rebate obligations pursuant to the Agreement shall, after satisfaction of all the rights of the Issuer, the Holders and the Trustee, be distributed pursuant to the instructions of the Obligated Group Agent upon such notification, if any, as the Trustee (or the Issuer in the case of Bonds) may reasonably require and upon receipt by the Trustee of an Opinion of Bond Counsel that such distribution will not adversely affect the exclusion from gross income under Section 103 of the Code of interest paid on the Bonds.

If the Issuer or an Obligated Group Member deposits with the Trustee money or Defeasance Investments sufficient to pay the principal or redemption price of any particular Obligation or Obligations becoming due, either at maturity or by call for redemption or otherwise, together with all interest accruing thereon to the due date, interest on such Obligation or Obligations shall cease to accrue on the due date and all liability of the Issuer or the Obligated Group, as the case may be, shall cease to accrue on the due date and all liability of the Issuer or the Obligated Group, as the case may be, with respect to such Obligation or Obligations shall likewise cease. Thereafter, such Obligation or Obligations shall be deemed not to be Outstanding under the Agreement and the Holder or Holders of such Obligations shall be restricted exclusively to the cash or Defeasance Investments so deposited for any claim of whatsoever nature with respect to such Obligation or Obligations, and the Trustee shall hold such funds in trust for such Holder or Holders.

Rebate Fund

A Rebate Fund shall be maintained by the Trustee as a fund separate from any other fund established and maintained under the Agreement. Except as may be otherwise provided in the Agreement, so long as any 2017 Bonds are outstanding, amounts deposited in the Rebate Fund will be applied to the payment of all amounts required to be rebated to the United States Government pursuant to the Code.

Issuance of Parity Bonds and Parity Debt

One or more series of Parity Bonds subject to the Agreement may be issued by the Issuer and one or more series of Parity Debt subject to the Agreement may be issued by the Obligated Group for the purpose of financing or refinancing projects to be owned or used by the Institution or any other Obligated Group Member, for refunding of Obligations previously issued, whether by the Issuer or another entity, or for any other lawful corporate purpose of any Obligated Member insofar as permitted by applicable law. Parity Bonds and Parity Debt (collectively, "Parity Obligations") shall bear such date or dates, interest rate or rates, maturities, redemption dates, redemption prices and other terms as shall be specified in the resolution authorizing the issuance thereof adopted by the Issuer or the Obligated Group, or as provided in a Supplemental Agreement. Such Parity Obligations shall be authenticated and delivered upon the conditions set forth in said resolution or Supplemental Agreement. Parity Obligations may be issued only if the Debt incurred by the Obligated Group or any Obligated Group Member in connection with such Parity Obligations does not violate the covenants with respect to Long-Term Debt described

under the heading "Limitations on Incurrence of Additional Debt" hereof and the Trustee receives certain required items, including, among other things, certificates and certified resolutions and opinions of counsel, the contents of which are fully described in the Agreement.

Except as otherwise provided in any Supplemental Agreement relating to any series of Parity Obligations, each series of Parity Obligations issued in compliance with the preceding paragraph shall be equally and ratably secured with, until defeased, the 2017 Bonds (excluding the 2017 Bonds Debt Service Reserve Fund) all other series of Parity Bonds and all Parity Debt if any, theretofore issued or incurred in compliance with the Agreement, without preference, priority or distinction, of any Bonds or Parity Debt over any other thereof.

The Obligated Group or one or more Obligated Group Members may, but shall not be obligated to, provide a Credit Facility for one or more issues of Parity Obligations or one or more maturities within one or more issues of Parity Obligations. A Credit Facility provided for one or more issues of Parity Obligations may but need not extend to other Obligations or a maturity thereof or to any other issue, or maturity within any other issue of Obligations.

Parity Obligations may, but need not, be issued in a manner that the interest thereon will be excludable from gross income for federal income tax purposes.

Application of Moneys

If available moneys in the Debt Service Fund after any required transfers to the appropriate account in the Debt Service Fund from any debt service reserve fund (with respect to Obligations secured by a debt service reserve fund) are not sufficient on any day to pay the principal of, premium, if any, and interest on the Outstanding Obligations then due or overdue, such moneys (other than any sum irrevocably set aside for the redemption of particular Obligations and amounts required to be paid to the Rebate Fund) shall, after payment of all charges and disbursements of the Issuer and the Trustee in accordance with the Agreement, be applied first to the payment of interest, including interest on overdue principal, in the order in which the same became due (pro rata with respect to interest which became due at the same time) and second to the payment of principal (including sinking fund installments) of and premium, if any, in the order in which the same became due (pro rata with respect to principal which became due at the same time) in each case, pro rata among Holders of Obligations. Whenever moneys are to be applied as described in this paragraph, the Trustee shall fix the date upon which such application is to be made, and upon such date interest on the amounts of principal paid on such date shall cease to accrue. The Trustee shall give or cause to be given notice of such date at least 10 days before such date. The Trustee shall not be required to make payment to the Holder of any Obligations until such Obligations shall be presented to the Trustee for appropriate endorsement or for cancellation if fully paid.

Notwithstanding any other provisions of the Agreement, if at any time the amounts held for the Obligations in the Debt Service Fund and any debt service reserve fund (with respect to Obligations secured by the applicable debt service reserve fund) are sufficient to pay the principal or redemption price of all Outstanding Obligations and the interest accruing to such Obligations to maturity or the next date of redemption when such Obligations are redeemable pursuant to the Agreement, the Trustee shall so notify the Issuer and the Obligated Group Agent.

Upon receipt of such notice, the Obligated Group Agent may request the Trustee to apply such amounts to pay or redeem all such Outstanding Obligations, as the case may be, on the next date when such Obligations are redeemable pursuant to the Agreement. The Trustee shall, upon receipt of such notice, proceed to pay or redeem all such Outstanding Obligations in the manner provided by the Agreement, and shall transfer to the appropriate account in the Debt Service Fund from the applicable debt service reserve fund (with respect to Obligations secured by a debt service reserve fund) such amounts as are needed in connection therewith.

Payments by the Obligated Group

The payments made by the Obligated Group shall be applied in the following order of priority:

- (i) The Obligated Group shall pay to the Trustee for deposit in the Rebate Fund the amounts required by the Agreement at the times required thereby;
- (ii) The Obligated Group shall pay or cause to be paid in immediately available funds to the Trustee the required sums at the required times in accordance with the Agreement. :
- (iii) The Obligated Group shall pay the principal of, premium if any, and interest on all other Obligations in accordance with the terms thereof, including the making of such deposits into the Debt Service Fund at such times and in such amounts as may be specified in the Supplemental Agreement authorizing the issuance of such Obligations.
- (iv) The Obligated Group shall pay to the Trustee for deposit in the 2007 Bonds Debt Service Reserve Fund, the 2012 Bonds Debt Service Reserve Fund, and the 2017 Bonds Debt Service Reserve Fund the amounts required by the Agreement at the times required thereby.
- (v) At any time when any principal of the Obligations is overdue, the Obligated Group shall also have a continuing obligation to pay to the Trustee for deposit in the Debt Service Fund an amount equal to interest on the overdue principal (including sinking fund installments) at a per annum rate equal to the actual rate or rates of interest payable on the Obligations. Redemption premiums shall not bear interest.
- (vi) Payments by the Obligated Group to the Trustee for deposit in the Debt Service Fund, the 2007 Bonds Debt Service Reserve Fund, the 2012 Bonds Debt Service Reserve Fund, the 2017 Bonds Debt Service Reserve Fund or the Rebate Fund shall discharge the obligation of the Obligated Group with respect to such payments to the extent thereof, provided, that if any moneys are invested in accordance with the Agreement and a loss results therefrom so that there are insufficient interest on the Obligations when due, the Obligated Group shall immediately supply the deficiency.

The Obligated Group shall make the following payments:

(i) To the Issuer, payment of its annual administrative fee;

- (ii) Upon demand to the Issuer, payment of, or reimbursement for, any and all costs, expenses and liabilities paid or incurred by the Issuer, including reasonable fees of counsel and disbursements thereof, in satisfaction of any obligations of the Obligated Group to the Issuer under the Agreement which are not performed in accordance with the terms of the Agreement by the Obligated Group;
- (iii) Upon demand to the Issuer, reimbursement for or prepayment of any and all costs, expenses, and liabilities paid or incurred or to be paid or incurred by the Issuer or any of its directors, officers, employees and agents, including reasonable fees of counsel and disbursements thereof, and requested by the Obligated Group or required by the Agreement or the Act;
- (iv) Upon demand to the Trustee and the Paying Agent, the reasonable fees, charges and expenses of the Trustee and Paying Agent under the Agreement, as well as reimbursement for any and all costs, expenses (including, without limitation, reasonable attorneys' fees) and liabilities paid or incurred by the Trustee or Paying Agent in satisfaction of any obligations of the Obligated Group under the Agreement which are not performed in accordance with the terms of the Agreement by the Obligated Group; and
- (v) Upon demand to the Trustee and the Paying Agent, all reasonable costs and expenses (including, without limitation, reasonable attorneys' fees) incurred in the preparation, negotiation, execution, interpretation and administration of the Agreement, any amendments to any of the foregoing, as well as all costs and expenses (including, without limitation, reasonable attorneys' fees) related to or in respect of the Trustee's efforts to collect and/or enforce any of the Trustee's rights and remedies (whether or not legal action is instituted in connection with such efforts).
- (vi) Upon demand, to the Issuer, the Trustee, bond counsel, their reasonable fees, charges and expenses (including, without limitation, reasonable attorneys' fees) in connection with or related to the 2017 Bonds.

Joint and Several Obligation

To the extent permitted by law, the obligation of the Obligated Group to make payments to the Issuer and the Trustee and Paying Agent under the Agreement shall be absolute and unconditional, shall be binding and enforceable in all circumstances whatsoever as provided in the Act, shall not be subject to setoff, recoupment or counterclaim and shall be a joint and several general obligation of each Obligated Group Member to which the full faith and credit of each Obligated Group Member are pledged.

No Recourse Against Governing Body Members

No recourse under or upon my obligation, covenant or agreement contained in the Agreement, or in any Bonds secured by the Agreement, or in any indebtedness secured by the Agreement, shall be had against any past, present or future member of the Governing Body of any Obligated Group Member or officer of any Obligated Group Member under any rule of law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceedings or otherwise; it being expressly agreed and understood that the

Agreement, and the obligations secured thereby, are solely corporate obligations of the Obligated Group Members, and that no personal liability whatsoever shall attach to, or be incurred by, such members of the Governing Body of any Obligated Group Member or officers of any Obliged Group Member, or any of them, because of the incurring of the indebtedness authorized by the Agreement, or under or by reason of any of the obligations, covenants or agreements contained or implied from the Agreement or any of the 2017 Bonds secured thereby.

Interest on any Bond on each Interest Payment Date in respect thereof shall be payable by check mailed on the applicable Interest Payment Date to the address of the person entitled thereto as such address shall appear in the Bond Register; provided that, at the written request of the registered owner of at least \$1,000,000 in aggregate principal amount, received by the Bond Registrar at least one Business Day prior to any Record Date, interest payable on any Bond, shall be payable to the registered owner on the applicable Interest Payment Date and thereafter in immediately available funds by wire transfer within the United States or by deposit into a bank account maintained with a Paying Agent, in either case, to the bank account number of such Holder specified and entered by the Bond Registrar on the Bond Register.

Investments

Pending their use under the Agreement, moneys in all Funds held by the Trustee may, subject to applicable federal tax laws, be invested by the Trustee at the direction of the Obligated Group Agent in Permitted Investments maturing or redeemable at the option of the holder at or before the time when such moneys are expected to be needed and shall be so invested pursuant to an Officer's Certificate of the Obligated Group Agent if there is not then an Event of Default known to the Trustee. Moneys in all Funds held by the Trustee shall be held in trust solely for Holders of the Obligations and the Trustee (or the federal government in the case of the Rebate Fund) and may not be attached or subject to lien upon the occurrence of an Event of Bankruptcy. Any investments described under this heading shall be held by the Trustee as a part of the applicable Fund and shall be sold or redeemed to the extent necessary to make payments or transfers or anticipated payments or transfers from such Fund.

Except as set forth below, any interest realized on investments in any Fund and any profit realized upon the sale or other disposition thereof shall be credited to the Fund with respect to which they were earned and any loss shall be charged thereto. Earnings (which for such purposes include net profit and are after deduction of net loss) on moneys deposited in the Debt Service Fund or Project Fund shall be retained in the Debt Service Fund or Project Fund, as the case may be.

The Trustee may hold undivided interests in Permitted Investments for more than one Fund (for which they are eligible) and may make interfund transfers in kind.

Investments in all Funds other than the Rebate Fund shall be valued by the Trustee as of the end of each April and October, as follows: (i) as established by a nationally recognized pricing service; or (ii) (a) as to investments the bid and asked prices of which are published on a regular basis in The Wall Street Journal (or, if not there, then in The New York Times), the average of the bid and asked prices for such investments so published on or most recently prior to such time of determination; (b) as to investments the bid and asked prices of which are not

published on a regular basis in The Wall Street Journal or The New York Times, the average bid price at such time of determination for such investments by any two nationally recognized government securities dealers (selected by the Trustee in its absolute discretion) at the time of making a market in such investments or the bid price published by a nationally recognized pricing service; (c) as to certificates of deposit, bankers acceptances and investments described in clause (h) of the definition of Permitted Investments set forth in this appendix under the heading "DEFINITION OF CERTAIN TERMS," the face amount thereof, plus accrued interest; and (d) as to any investment not specified above, the value thereof established by prior agreement among the Issuer. the Institution and the Trustee. Investments it the Rebate Fund shall be valued at amortized cost or market value, whichever is less. Valuations of all Funds shall be made at such other times as shall be requested by the Obligated Group Agent or the Issuer and at the expense of the Obligated Group.

If at any time the Trustee holds any uninvested cash (other than *de minimis* amounts which may be retained uninvested) and the Obligated Group Agent fails to direct the investment thereof, the Trustee is authorized by the Obligated Group Agent, without need of any further directions, to invest such cash in any available Government Obligations having a maturity not in excess of thirty days.

Corporate Reorganization

Any Obligated Group Member may establish separate divisions and may cause such divisions to be separately incorporated or otherwise organized or reorganized, but all such divisions, whether separately incorporated or not, shall remain bound by the Agreement and shall be jointly and severally liable with respect thereto; provided, however, that prior to affecting any such reorganization, such Obligated Group Member shall deliver to the Issuer and the Trustee (i) an Opinion of Counsel to the effect that, after such reorganization all separately incorporated divisions will be jointly and severally liable under the Agreement and (ii) an Opinion of Bond Counsel that such reorganization will not affect the validity of the Bonds or the exclusion from gross income under Section 103 of the Code of interest paid on the Bonds. Each Obligated Group Member shall preserve all its rights and licenses to the extent necessary or desirable in the operation of its business affairs, provided that no Obligated Group Member shall be obligated to retain or preserve any rights or, licenses no longer used or, in the judgment of its Governing Board, useful in the conduct of its business.

Financial Reports and Other Current Information

Within 120 days after the close of each Fiscal Year, the Obligated Group Agent shall furnish to the Trustee and the Issuer, and to each Holder of Obligations who so requests in writing, copies of the Obligated Group's audited financial statements presented on a consolidated basis for all members of the Obligated Group. The Obligated Group Agent shall furnish to the Trustee and the Issuer within 120 days after the close of each Fiscal Year, a certificate signed by its President or Vice President and by an Authorized Officer of each other Obligated Group Member stating that the Obligated Group has caused its operations for the year to be reviewed and that in the course of that review, no default under the Agreement has come to its attention or, if such a default has appeared, a description of the default. Such certificate shall also specifically demonstrate and conclude that the Obligated Group has (or has not) been in compliance with the

provisions described below under "Rate Covenant" and shall include a calculation of the Cushion Ratio for such Fiscal Year.

Within 90 days after the close of each fiscal quarter, the Obligated Group Agent shall furnish to the Trustee and the Issuer, and to each Holder of Obligations who so requests in writing, copies of the Obligated Group's unaudited quarterly financial statements or report presented on a consolidated basis for such fiscal quarter.

Rate Covenant

The Obligated Group shall use its best efforts to maintain for each Fiscal Year a ratio of Income Available for Debt Service to Annual Debt Service of at least 1.10 and shall furnish the Trustee with an Officer's Certificate to that effect promptly after the audited financial statements for such Fiscal Year shall have become available. If such ratio, as calculated based on the audited financial statements for such Fiscal Year, is below 1.10, the Obligated Group Agent shall notify the Trustee to that effect and the Obligated Group covenants to retain a Consultant within sixty (60) days of such calculation to make recommendations to increase such ratio for subsequent Fiscal Years of the Obligated Group at least to the level required or, if in the opinion of the Consultant the attainment of such level is impracticable, to the highest practicable level. The Obligated Group agrees that the Obligated Group will, to the extent practicable and not prevented by law or existing contracts, follow the recommendations of the Consultant. The Obligated Group shall promptly notify the Trustee in each case in which a Consultant is retained and of the recommendations of the Consultant. So long as the Obligated Group shall retain a Consultant and shall follow such Consultant's recommendations to the extent not prevented by law or existing contracts, this paragraph shall be deemed to have been complied with even if such ratio for any subsequent Fiscal Year of the Obligated Group is below 1.10, provided that such ratio shall not be below 1.00.

If Government Restrictions exist which prevent compliance with the 1.10 coverage ratio set forth in the immediately preceding paragraph, that requirement shall be deemed satisfied as long as a Consultant's report is received by the Trustee at least once during each year that Government Restrictions exist, which Consultant's report confirms the continued existence of the factual circumstances giving rise to the Government Restrictions.

So long as the 2012 Bonds are outstanding, within thirty (30) days of receipt of the Consultant's report referred to in the immediately preceding paragraph, the Obligated Group will retain a second Consultant acceptable to the Trustee (the "Additional Consultant"), to verify the first Consultant's confirmation of the continued existence of the factual circumstances giving rise to the Government Restrictions. If the Additional Consultant agrees with the findings of the Consultant, the Obligated Group may rely on the provisions of the immediately preceding paragraph. However, if the Additional Consultant finds that the factual circumstances giving rise to the Government Restrictions do not or no longer exist, then the Additional Consultant shall prepare recommendations consistent with Section 515(a) of the Agreement and the Obligated Group shall follow the Additional Consultant's recommendations.

Liquidity Covenant

For so long as either the 2012 Bonds or the 2017 Bonds remain outstanding, the Obligated Group covenants that it shall maintain Days-Cash-On-Hand of at least forty-five (45) days. Compliance shall be tested annually, commencing with the Fiscal Year ending June 30, 2013, on the basis of the annual audited financial statements required pursuant to Section 504 of the Original Agreement for the preceding Fiscal Year.

The Obligated Group Agent shall furnish to the Trustee and the Issuer within one hundred twenty (120) days after the close of each Fiscal Year, a certificate signed by its President or Vice President demonstrating and concluding that the Obligated Group has (or has not) been in compliance with the provisions of Section 527(a) of the Agreement. Such certificate may, at the option of the Obligated Group Agent, be combined with the certificate delivered pursuant to Section 504 of the Agreement.

In the event the certificate delivered pursuant to Section 527(b) of the Agreement indicates that Days-Cash-On-Hand of the Obligated Group is less than sixty (60) days as of any annual testing period, then the Obligated Group shall, within fifteen (15) days of the delivery of annual audited financial statements for such Fiscal Year, retain a Consultant. Such Consultant shall, within ninety (90) days of such appointment, deliver to the Obligated Group and the Trustee a report setting forth in detail the reason that the Obligated Group has less than sixty (60) Days-Cash-On-Hand and making recommendations with respect to the operation and management of the Obligated Group which in such Consultant's judgment will enable the Obligated Group to achieve sixty (60) Days-Cash-On-Hand (unless such Consultant reasonably concludes that the reason the Obligated Group has less than sixty (60) Days-Cash-On-Hand is principally due to factors wholly outside the control of the Obligated Group). Notwithstanding anything to the contrary in Section 527 of the Agreement, the failure to comply with Section 527(a) of the Agreement shall constitute an Event of Default under the Agreement.

Limitations on Incurrence of Additional Debt

The Obligated Group agrees that no Obligated Group Member will incur any Additional Debt other than Additional Debt meeting the requirements of any one or more of the provisions described below in subsections (a), (b), (c), (d), (e), (f), (g), (h), (i), or (j) as follows:

- (a) Long-Term Debt including Parity Bonds, Parity Debt and Guarantees, if:
- (i) prior to incurrence of the Long-Term Debt, there is delivered to the Trustee an Officer's Certificate certifying that the Long-Term Debt Service Coverage Ratio for the Historical Test Period of the Obligated Group, taking into account the current aggregate Outstanding principal amount of all Long-Term Debt during such Historical Test Period and the proposed additional Long-Term Debt as if it had been incurred at the beginning of such Historical Test Period, is not less than 1.20 (provided that such certificate shall in all instances be based upon the most recent financial statements of the Obligated Group; or
- (ii) prior to incurrence of the Long-Term Debt, there is delivered to the Trustee (1) an Officer's Certificate certifying that the Long-Term Debt Service Coverage Ratio for the Historical Test Period, not taking the proposed additional Long-Term Debt into account,

is not less than 1.10 (or 1.00 if a Consultant determines that Government Restrictions prevented the realization of 1.10), and (2) a Consultant's Forecast stating that the forecasted Long-Term Debt Service Coverage Ratio for each of the next two full Fiscal Years following the incurrence of such Long-Term Debt or, in the case of the incurrence of such Long-Term Debt for capital improvements, following the completion of the facilities being financed, taking the proposed additional Long-Term Debt into account, is not less than 1.25 (or an Officer's Forecast that such ratio for such period is forecasted to be at least 1.50). The requirements described in this clause (ii) shall be deemed satisfied if Government Restrictions exist, and if there is delivered to the Trustee a signed Consultant's Forecast to the effect that the forecasted Long-Term Debt Service Coverage Ratio for each of the next two full Fiscal Years following the borrowing in question or, in the case of the incurrence of such Long Term Debt for capital improvements, following the completion of the facilities being financed, taking the proposed Long Term Debt into account, is not less than 1.00; or

- (iii) prior to incurrence of the Long-Term Debt there is delivered to the Trustee an Officer's Certificate certifying that all Long-Term Debt incurred pursuant to this clause (iii) does not exceed 10% of Total Operating Revenues for the Historical Test Period. Any Long-Term Debt or portion thereof incurred under this clause (iii) which is Outstanding at any time shall be deemed to have been incurred under another clause of this paragraph (a) if at any time subsequent to the incurrence thereof there shall be filed with the Trustee an Officer's Certificate to the effect that such outstanding Debt or portion thereof would satisfy such other provision and specifying such other provision, and thereupon the amount deemed to have been incurred and to be Outstanding under this clause (iii) shall be deemed to have been reduced by such amount and to have been incurred under such other provision. If the terms of such other provision require a Consultant's Forecast, such Forecast shall also be obtained and filed with the Trustee; or
- (iv) prior to the incurrence of the Long-Term Debt there is delivered to the Trustee an Officer's Certificate certifying that after incurrence of such Long-Term Debt the Capitalization Ratio will be not more than 0.67.
- (b) Completion Debt, without limitation, provided that (A) at the time of incurrence of the original Debt relating to the facilities to be completed with the proceeds of such Completion Debt, there had been delivered to the Trustee an Officer's Certificate certifying that the proceeds of such original Debt and other moneys expected to be available were expected to be sufficient to pay the costs of constructing and equipping such facilities, and (B) there is delivered to the Trustee an Officer's Certificate (i) specifying the estimated cost of completing the construction or equipping of the facilities to be completed, (ii) explaining the necessity for the Completion Debt and concluding that such necessity arose out of factors outside the control of the Obligated Group and (iii) demonstrating that the proceeds of such Completion Debt and other available moneys will be sufficient to finance the cost of completion; or
- (c) Long-Term Debt incurred for the purpose of refunding or refinancing, including advance refunding or crossover refunding, any Outstanding Long-Term Debt; or
- (d) Short-Term Debt, provided that immediately after the incurrence of such Debt the aggregate Outstanding principal amount of all such Short-Term Debt does not exceed

the greater of fifteen percent (15%) of the Total Revenues for the Historical Test Period or 50% of the accounts receivable of the Obligated Group for the Historical Test Period. Short-Term Debt may also be incurred if such Short-Term Debt could be incurred under paragraph (a) above assuming it were Long-Term Debt; or

- (e) Non-Recourse Debt or Subordinated Debt without limitation, or
- (f) Long-Term Debt in the form of installment purchase contracts, capitalized leases, purchase money mortgages, loans, sale agreements or other typical borrowing instruments and Guarantees of such Debt; provided that the aggregate Annual Debt Service on the Debt permitted under this paragraph (f) shall not in any Fiscal Year exceed two percent (2%) of Total Revenues for the most recent completed Fiscal Year, provided further that such Debt may exceed two percent (2%) of Total Revenues for the most recent completed Fiscal Year if it could have been incurred under paragraph (a) above assuming such Debt were Long-Term Debt; or
- (g) Any Debt represented by a letter of credit reimbursement agreement or other similar reimbursement agreement entered into by an Obligated Group Member and an institution providing a Credit Facility with respect to any other Debt incurred in accordance with any other provision described under this heading; or
- (h) Debt incurred or deemed incurred by virtue of any recourse obligation associated with any sale or assignment of accounts receivable or any securitization of accounts receivable; or
- (i) Advances to the Hospital from the University, which advances shall be effected as liabilities on the financial statements of the Hospital and shall be evidenced by a written obligation to repay such advances; or
- (j) Interest rate swaps, caps, floors, futures contracts and similar financial products (collectively, "Swaps"). No financial tests shall be required solely by reason of the incurrence of a Swap, but in the case of a Swap which is being incurred for the purpose of limiting interest rate risk with respect to specific Debt which is proposed td be incurred, or which is then outstanding, the Long-Term Debt Service Requirements of the Obligated Group shall be adjusted for the related Debt to give effect to the Swap in such manner, and to such extent, if any, as may be required by generally accepted accounting principles or, in the absence of any such requirements under generally accepted accounting principles, as may be stated in a certificate of an Authorized Officer (which certificate shall be delivered concurrently with any Forecast or Authorized Officer's certificate required in connection with the incurrence of the related Debt) as necessary to present fairly the reasonably expected Debt Service Requirements of the Obligated Group after the incurrence of the Swap.

Sale, Lease or Other Disposition of Property or Current Assets

The Obligated Group agrees that the Obligated Group Members will not, in the aggregate, in any Fiscal Year sell, lease or otherwise dispose of Property the Value of which would cause the aggregate Value of Property so transferred in such Fiscal Year to exceed 5% of the net property, plant and equipment of the Obligated Group as shown on the financial statements for the Historical Test Period, except for the following transfers, sales or leases of

Property, provided that transfers, sales or leases described under this heading shall not be permitted in any period during which an Event of Default has occurred and is continuing:

- (i) to any person if, in the judgment of the Obligated Group Agent, such Property is, or within the next succeeding twenty-four (24) calendar months, reasonably expected to become, inadequate, obsolete, worn out, or not suitable, profitable, desirable or necessary to the proper and efficient operation of the Property of the Obligated Group and the sale, lease, removal or other disposition thereof will not impair the structural soundness, efficiency or economic value of the remaining Property; or
- (ii) to another Obligated Group Member, with or without consideration; or
 - (iii) in the ordinary course of business; or
- (iv) if the Obligated Group receives fair market value therefor or if the Obligated Group is the sole shareholder or sole member of the transferee; or
- (v) to a person which is not an Obligated Group Member provided that either (A) for the two most recent Fiscal Years of the Obligated Group for which audited financial statements of the Obligated Group are available prior to the sale, lease or other disposition, an Officer's Certificate shall demonstrate that the Long-Term Debt Service Coverage Ratio, taking into consideration such sale, lease, or other disposition, was at least 1.15 for each of such Fiscal Years; or (B) (1) for the most recent Fiscal Year of the Obligated Group for which audited financial statements of the Obligated Group are available prior to the sale, lease or other disposition, an Officer's Certificate shall demonstrate that the Long-Term Debt Service Coverage Ratio was at least 1.10 for such Fiscal Year and (2) for the two full Fiscal Years immediately following such sale, lease or disposition, (a) a Consultant's Forecast shall demonstrate that the Long-Term Debt Service Coverage Ratio, taking into consideration the proposed sale, lease or disposition, will be at least 1.25 for each of such Fiscal Years or (b) an Officer's Forecast shall demonstrate that the Long-Term Debt Service Coverage Ratio, taking into consideration the proposed sale, lease or disposition will be at least 1.50 for each of such Fiscal Years; provided that any transfers of Property made to an Affiliate at any time during the Fiscal Year in which it becomes an Obligated Group Member during such Fiscal Year (other than transfers of Property which have been, or are intended to be transferred by such Affiliate to a third party) shall be disregarded for the purposes of any calculation pursuant to this paragraph (v) after the date such Affiliate becomes an Obligated Group Member.

The Obligated Group agrees that the Obligated Group Members will not sell, lease or otherwise dispose of Current Assets in any manner which would result in the removal of such Current Assets from the balance sheet of the Obligated Group, except for the following transfers, sales or leases of Current Assets, provided that transfers, sales or leases described under this heading shall not be permitted in any period during which an Event of Default has occurred and is continuing:

- (i) to any person if such transfer, sale or lease is for consideration (including for purchase of real property, tangible or intangible personal property or services) made in an arm's length transaction; or
- (ii) to any person if made as an investment in marketable securities or in the Temple University Investment Liquidity Pool, the Temple University Investment Intermediate Pool or the Temple University Investment Endowment Pool or any similar pooled investment funds hereafter established by the University, or
- (iii) to the University by the Hospital as advances reflected as an asset on the financial statements of the Hospital, which advances shall be evidenced by a written obligation to repay such advances and shall bear interest at a rate at least equal to the 90-day United States Treasury Bill rate, or
- (iv) to another Obligated Group Member, with or without consideration; or
- (v) with respect to donor-restricted gifts and bequests and the income therefrom (but only to the extent excluded from the definition of Gross Revenues), to any person if the purpose of such transfer, as stated in a resolution adopted by the Governing Body of the transferor, is to support, sponsor or develop health care related activities; or
- (vi) to any person, if an Officer's Certificate is delivered to the Trustee at the time such transfer is made demonstrating that the Long-Term Debt Service Coverage Ratio for the Historical Test Period, calculated after deducting the amount of such transfer from Income Available for Debt Service, would have been at least 1.10 or would not have been reduced by more than 10% as a result of such transfer and if the purpose of such transfer, as stated in a resolution adopted by the Governing Body of the transferor, is to support, sponsor or develop health care related activities.
- (vii) to the University, grant funds or similar payments received by an Obligated Group Member from, and designated by, the Commonwealth or other payors or grantors for purposes related to medical academics.

Consolidation, Merger, Sale or Conveyance

Each Obligated Group Member may merge or consolidate with any other Obligated Group Member and may sell or convey all or substantially all of its assets to any Obligated Group Member, provided that any merger or consolidation pursuant to which the Institution would cease to exist as a separate corporate entity, or any sale or conveyance of all or substantially all of the assets of the Institution shall be subject to an Opinion of Bond Counsel that such merger, consolidation, sale or conveyance will not adversely affect the validity of the Bonds or the exclusion from gross income under Section 103 of the Code of interest paid on the Bonds. The Obligated Group covenants that no Obligated Group Member will merge or consolidate with any other corporation which is not an Obligated Group Member or sell or convey all or substantially all of its assets to any person not an Obligated Group Member unless the following conditions shall have been satisfied:

- (a) either it will be the continuing corporation, or the successor corporation (if other than an Obligated Group Member) shall be a corporation organized and existing under the laws of the United States of America or a state thereof and such corporation shall become an Obligated Group Member or shall otherwise expressly assume in writing the due and punctual payment of the principal of and premium, if any, and interest on all Outstanding Obligations issued under the Agreement according to their tenor, and the due and punctual performance and observance of all of the covenants and conditions of the Agreement, which document shall be executed and delivered to the Trustee by such corporation; and
- (b) there shall have been delivered to the Trustee and the Issuer an Opinion of Bond Counsel to the effect that under then existing law the consummation of such merger, consolidation, sale or conveyance would not adversely affect the validity of the Obligations or the exclusion from gross income under Section 103 of the Code of interest paid on the Bonds; and
- that if the proposed transaction had been completed on the first day of the two most recent Historical Test Periods, the Long-Term Debt Service Coverage Ratio for each of such Historical Test Periods would have been at least 1.20, or (B) an Officer's Forecast showing that the Long-Term Debt Service Coverage Ratio for the two Fiscal Years following the proposed transaction would be at least 1.50, or (C) a Consultant's Forecast showing that the Long-Term Debt Service overage Ratio for the two Fiscal Years following the proposed transaction would be at least 1.25, or (D) an Officer's Certificate showing that if the proposed transaction had been completed on the first day of the two most recent Historical Test Periods, the Long-Term Debt Service Coverage Ratio for each of such Historical Test Periods would have been at least equal to the actual Long-Term Debt Service Coverage Ratio for each of such Historical Test Periods; provided that the required Debt Service Coverage Ratio shall be 1.0 if Governmental Restrictions are in effect; and
- (d) there is delivered to the Trustee copies of all required governmental approvals.

Restrictions on Guarantees

The Obligated Group agrees that no Obligated Group Member will enter into, or become liable after the date of the Agreement in respect of, any Guaranty unless (i) such Guaranty is of Debt of another Obligated Group Member, or (ii) such Guaranty is of obligations of a person which is not an Obligated Group Member, and such Guaranty could then be incurred as Debt under the Agreement. For purposes of any covenants or computations, provided for in the Agreement, including determination of the ability of any Obligated Group Member to enter into or become liable under a Guaranty pursuant to the Agreement, the aggregate annual principal and interest payments on, and the principal amount of, any indebtedness of a person which is not an Obligated Group Member which is the subject of a Guaranty under the Agreement and which would, if such obligation were incurred by an Obligated Group Member, constitute Long-Term Debt, shall be deemed equivalent to twenty percent (20%) of the actual Annual Debt Service on, and principal amount of, such indebtedness, for so long as such Guaranty constitutes a contingent liability under generally accepted accounting principles, provided, however, that (A) the Annual

Debt Service on the indebtedness which is subject to the Guaranty shall be disregarded if the Long-Term Debt Service Coverage Ratio of the obligor on such Debt, calculated in the same manner as for the Obligated Group, was at least 1.50 for the Historical Test Period or is forecasted in an Officer's Forecast to be at least 1.50 for the next two fiscal years following the incurrence of the Guaranty and (B) the Annual Debt Service on, and principal amount of, any Long-Term Debt represented by a Guaranty shall be deemed equivalent to all of the actual Annual Debt Service on, and principal amount of, such indebtedness, for so long as payments have been and continue to be required to be made by any Obligated Group Member on such Guaranty (or for so on as the obligor on the guaranteed Debt has insufficient funds for the payment of debt service and receiving transfers of operating funds from the Obligated Group) and for a period of twelve months thereafter.

Limitations on Creation of Liens

The Obligated Group agrees that no Obligated Group Member will create or suffer to be created or exist any Lien upon Property, Gross Receipts or Current Assets now owned or hereafter acquired by the Obligated Group or any Obligated Group Member other than Permitted Encumbrances. Permitted Encumbrances shall consist of the following:

- (i) Liens arising by reason of good faith deposits with any Obligated Group Member in connection with leases of real estate, bids or contracts (other than contracts for the payment of money), deposits by an Obligated Group Member to secure public or statutory obligations or to secure, or in lieu of, surety, stay or appeal bonds, and deposits as security for the payment of taxes or assessments or other similar charges;
- (ii) Any Lien arising by reason of deposits with, or the giving of any form of security to, any governmental agency or any body created or approved by law or governmental regulation for any purpose at any time as required by law or governmental regulation as a condition to the transaction of any business or the exercise of any privilege or license, or to enable any Obligated Group Member to maintain self-insurance or to participate in any funds established to cover any insurance risks or in connection with workmen's compensation, unemployment insurance, pension or profit sharing plans or other social security, or to share in the privileges or benefits required for companies participating in such arrangements;
- (iii) Any judgment lien against any Obligated Group Member so long as such judgment is being contested and execution thereon is stayed or, in the absence of such contest and stay, such judgment lien will not materially impair the Property, Current Assets or Gross Receipts or subject the Property, Current Assets or Gross Receipts to material loss or forfeiture;
- (iv) (A) Rights reserved to or vested in any municipality or public authority by the terms of any right, power, franchise, grant, license, permit or provision of law, affecting any Property, Gross Receipts or Current Assets, to (1) terminate such right, power, franchise, grant, license or permit, provided that, the exercise of such right would not materially alter the use of such Property, Gross Receipts or Current Assets or materially and adversely affect the value thereof, or (2) purchase, condemn, appropriate or recapture, or designate a

purchaser of, such Property, Gross Receipts or Current Assets; (B) any liens on any Property, Gross Receipts or Current Assets for taxes, assessments, levies, fees, water and sewer rents, and other governmental and similar charges and any liens of mechanics, materialmen, laborers, suppliers or vendors for work or services performed or materials furnished in connection with such Property, Gross Receipts of Current Assets, which are not due and payable or which are not delinquent or the amount or validity of which are being contested and execution thereon is stayed or the existence of which will not subject the Property, Current Assets or Gross Receipts to material loss or forfeiture; (C) easements, rights-of-way, servitudes, restrictions and other minor defects, encumbrances, and irregularities in the title to any Property, Gross Receipts or Current Assets which do not materially impair the use of such Property, Gross Receipts or Current Assets or materially and adversely affect the value thereof; (D) rights reserved to or vested in any municipality or public authority to control or regulate any Property, Gross Receipts or Current Assets or to use such Property, Gross Receipts or Current Assets in any manner, which rights do not materially impair the use of such Property, Gross Receipts or Current Assets materially and adversely affect the value thereof, and (E) to the extent that it affects title to any Gross Receipts, the Agreement;

- (v) Any Lien on Property, Gross Receipts or Current Assets which was existing on the date of authentication and delivery of the 1993 Bonds, including renewals thereof, provided that no such Lien may be extended or modified to apply to any Property, Gross Receipts or Current Assets of any Obligated Group Member not subject to such Lien on such date, unless such Lien as so extended or modified otherwise qualifies as a Permitted Encumbrance;
- (vi) Any lease of Property which, in the judgment of the Obligated Group Member, the Property of which is subject thereto, is reasonably necessary or appropriate for or incidental to the use of such Property or, in the case of the Hospital, to the operation of the Hospital, taking into account the nature and terms of the lease and the nature and purposes of the Property;
- (vii) Any Lien on Property, Gross Receipts or Current Assets of a person that becomes an Obligated Group Member pursuant to a consolidation, merger, sale or conveyance in accordance with the Agreement and that is not incurred in contemplation of such consolidation, merger, sale or conveyance; provided that no such Lien may be extended or modified to apply to any Property, Gross Receipts or Current Assets of any Obligated Group Member not subject to such Lien on such date, unless such Lien if so extended or modified otherwise, qualifies as a Permitted Encumbrance;
- (viii) Any Lien on Property which Lien secures Debt incurred in compliance with the provisions of the Agreement, if, after giving effect to the Lien, the Value of the Property which is encumbered in accordance with this clause (viii) will not exceed fifteen percent (15%) of the Value of the Property of the Obligated Group as of the end of the Historical Test Period;
- (ix) Any parity Lien on all or a portion of Gross Receipts to secure any Long-Term Debt or Short-Term Debt incurred pursuant to the Agreement. Any Supplemental Agreement or other agreement for the repayment of such Additional Debt and instruments

evidencing or securing the same may provide, among other things, for notices from or to the Trustee regarding defaults by the Obligated Group, the duties and limitations of the Trustee to pursue remedies upon the receipt of such notice, and the sharing of the rights of the Holders of the Obligations to control the exercise of remedies with the holders of such Additional Debt and/or with the issuer of any Credit Facility with respect to such Additional Debt;

- (x) Any Lien subordinated to the Lien securing the Obligations on all or a portion of Gross Receipts to secure any Long-Term Debt or Short-Term Debt incurred pursuant to the Agreement;
- (xi) Any Lien on accounts receivable securing or deemed to secure any Debt incurred or deemed incurred by virtue of any recourse obligation associated with any assignment, sale or pledge of accounts receivable;
- (xii) Any Lien on Property securing Debt incurred to provide such Property, including Liens incurred as described under the heading "Limitations on Incurrence of Additional Debt" hereof;
- (xiii) Any Lien to the issuer of a Credit Facility as described under the heading "Debt Service Reserve Fund" hereof, and
- (xiv) Rights of set-off or banker's lien with respect to funds on deposit with a financial institution in the ordinary course of business; and
- (xv) Any pledge or lien of assets for purposes of meeting collateral posting requirements for derivative transactions.

Notwithstanding the provisions described under this heading, each Obligated Group Member may create or suffer to be created or exist a Lien upon Property or Current Assets, in favor of the holder of any Debt, with prior notice to the Trustee but without the consent of the Trustee or of the Holders of any Obligations, so long as such Lien, or a Lien at least on a parity therewith, is effectively granted in favor of the Holders of all Obligations then Outstanding.

Debt Service on Variable Rate Debt

For purposes of the computation of the interest component of any (but not historical) Long-Term Debt Service Requirement, Annual Debt Service or Maximum Annual Debt Service, Variable Rate Debt shall, at the election of the Obligated Group Agent, be deemed Debt which bears interest at a rate equal to that derived from the Bond Index, as determined by an Officer's Certificate.

Credit for Accrued and Capitalized Interest

For purposes of the computation of the Long-Term Debt Service Requirement, Annual Debt Service or Maximum Annual Debt Service, whether historic or projected, the Obligated Group may, at the election of the Obligated Group Agent, subtract from interest due on Debt any accrued interest and Capitalized Interest which is available and is to be applied to make such interest payment in the year such interest comes due.

Insurance

The Obligated Group agrees that each Obligated Group Member will maintain, or cause to be maintained, the following insurance: (i) insurance against loss and/or damage to the Property under a policy or policies in form and amount covering such risks as are ordinarily insured against by similar institutions, including without limiting the generality of the foregoing, fire and uniform standard extended coverage endorsements, limited only as may be provided in the standard form of extended coverage endorsements at the time in use in the Commonwealth of Pennsylvania; (ii) public liability insurance, landlord's liability insurance and comprehensive automobile liability insurance protecting the Issuer and such Obligated Group Member, as their interests may appear, against liability for injuries to persons and/or property, in the minimum amount of \$1,000,000 liability to any one person for personal injury, \$1,000,000 liability for personal injury for each occurrence and in the aggregate, and \$1,000,000 liability for property damage for each occurrence and in an aggregate of not less than \$1,000,000; (iii) fidelity bonds (or equivalent coverage) on all officers and employees of such Obligated Group Member who collect or have custody of or access to revenues, receipts or income from the Property, or any funds of such Obligated Group Member, such bonds to be in such amounts as are customarily carried by like organizations engaged in like activities of comparable size and having comparable income; (iv) worker's compensation and employer's liability insurance meeting such Obligated Group Member's statutory obligations, or equivalent self-insurance; (v) boiler and machinery coverage (direct damage and use and occupancy), on a replacement-cost basis when required by ordinance or law; (vi) excess liability coverage, either straight excess or umbrella excess, covering excess of clauses (ii) and (iv) above, if any, to be maintained in force so that the total coverage available under the aforementioned clauses is equal to that carried by comparable institutions of like size; and (vii) hospital professional liability insurance meeting such Obligated Group Member's statutory obligations, or equivalent self-insurance.

All policies of insurance and fidelity bonds shall be issued by responsible insurance or fidelity bonding companies qualified to do business in the Commonwealth of Pennsylvania and, qualified under the laws of the Commonwealth of Pennsylvania to assume risks covered by such policy or policies or bond or bonds and shall be non-assessable. All policies of insurance may contain loss deductible clauses specifying such sum or sums as such Obligated Group Member may determine as the sum or sums to be deducted from the amount of loss resulting from the particular perils insured against.

Any Obligated Group Member may make modifications to the insurance coverage hereinabove described, including self-insurance or use of a captive insurance company in whole or in part for any such coverage, but only upon the following terms and conditions. In making its decision whether to make such modifications such Obligated Group Member shall consider the availability of commercial insurance, the terms upon which such insurance is available, the cost of such available insurance and the effect of such terms and such costs upon such Obligated Group Member's costs and charges for its services. No such modification shall be made unless (i) such Obligated Group Member has received a written recommendation with respect to such modification from an Insurance Consultant, (ii) the Insurance Consultant shall report that insurance is not available at a comparable cost to satisfy the applicable insurance requirements stated above and that such modification shall not disqualify such Obligated Group Member for reimbursement under Medicare or Medicaid programs or any governmental programs providing

similar benefits, and (iii) adequate reserves for any self-insurance program or use of a captive insurance company are deposited and maintained with an independent corporate trustee, unless the Insurance Consultant shall report that such deposits are not necessary. Such Obligated Group Member shall give written notice to the Issuer and the Trustee of any such modifications, indicating in such notice the effective date of such modification.

Not later than February 1 of each year, the Obligated Group Agent shall file with the Issuer and the Trustee a certificate of an Authorized Officer to the effect that each Obligated Group Member is in compliance with the provisions described under this heading. Such certificate shall be accompanied biennially by a certificate of an Insurance Consultant verifying that each Obligated Group Member is in compliance with the provisions described under this heading; provided, however, that such certificate of an Insurance Consultant shall be filed annually with respect to any self-insurance programs permitted as described under this heading.

Recovery of Insurance Proceeds

In the event of damage to or destruction of all or any part of the Property of the Obligated Group with a value in excess of two percent (2%) of the full insurable value of all Property of the Obligated Group, the Obligated Group shall exercise its best efforts to recover any applicable insurance proceeds. Such proceeds shall be paid to the Obligated Group Agent. From such proceeds the Obligated Group Agent shall provide for the payment or reimbursement of reasonable expenses of obtaining the recovery. The Obligated Group Agent shall then give notice to the Trustee of such expenses and of the amount of the remaining proceeds (the "Net Proceeds").

Subject to the provisions of any financing document pertaining to a Permitted Encumbrance and to the requirements of the Code, the Obligated Group shall apply the Net Proceeds for any lawful corporate purpose as the Obligated Group Agent determines, if the Obligated Group Agent shall first have delivered to the Issuer and to the Trustee an Officer's Forecast stating that the forecasted Long Term Debt Coverage Ratio for each of the next two full succeeding Fiscal Years immediately following the date of such certificate(s), taking into account such damage or destruction and the proposed use of the Net Proceeds, would not be less than 1.10. If the Obligated Group Agent is unable to deliver the foregoing officer's Forecast, the Obligated Group Agent shall apply the Net Proceeds or so much thereof as may be needed for the repair, replacement, restoration or reconstruction of the affected Property or, at the option of the Obligated Group Agent, for any other capital project of equivalent value and utility, provided that any use of the Net Proceeds of damage or destruction to the Project or any other Property financed with tax-exempt Obligations shall be conditioned on the delivery to the Trustee of an Opinion of Bond Counsel that such use will not adversely affect the exclusion from gross income under Section 103 of the Code of interest paid on the Bonds or any other tax exempt obligations issued to finance or refinance the Property. The obligation created as described in this paragraph shall not be limited by the amount of Net Proceeds available.

Any Net Proceeds remaining after compliance by the Obligated Group, with the preceding paragraph shall be transferred by the Obligated Group Agent to the Trustee and deposited in the Debt Service Fund to redeem Obligations.

Eminent Domain

In the event of a taking by eminent domain of all or any part of Property of the Obligated Group with a value in excess of two percent (2%) of the full insurable value of all Property, the Obligated Group shall exercise their best efforts to recover any applicable proceeds. Such proceeds shall be paid to the Obligated Group Agent. The Obligated Group Agent shall make appropriate deductions from such proceeds as in the case of insurance proceeds and shall give notice to the Trustee of such deductions and of the amount of the Net Proceeds. The Net Proceeds shall be dealt with and described under the heading "Recovery of Insurance Proceeds" hereof. In the event of an election to repair, replace, restore or reconstruct, the foregoing provisions as to insurance proceeds shall apply, and the Obligated Group shall be obligated to repair, replace, restore or reconstruct the remaining property to the extent necessary to restore the operational utility lost by the taking, and this obligation shall not be limited by the amount of Net Proceeds available.

Option to Redeem Obligations

The Obligated Group may be relieved of its obligation as described under the headings "Recovery of Insurance Proceeds" and "Eminent Domain" hereof with respect to any casualty to the extent that Net Proceeds of insurance or condemnation awards exceed twenty-five percent (25%) of the then full insurable value of the Property, as determined by an Officer's Certificate, by electing to use such Net Proceeds (or a portion thereof exceeding twenty-five percent (25%) of such insurable value) to redeem Obligations.

Additional Obligated Group Members

If at any time the Obligated Group Agent and any Affiliate shall determine that such Affiliate should become an Obligated Group Member, the Obligated Group Agent and the person may execute and deliver to the Trustee an instrument containing the agreement of such person (A) to become an Obligated Group Member under the Agreement and thereby become subject to compliance with all provisions of the Agreement pertaining to an Obligated Group Member, including the performance and observance of all covenants and obligations of an Obligated Group Member thereunder, and (B) confirming to the Trustee and each other Obligated Group Member that all Obligations issued and then Outstanding under the Agreement will be paid in accordance with the terms thereof and the Agreement, when due. Each instrument executed and delivered to the Trustee in accordance with this paragraph shall be accompanied by an Opinion of Counsel, addressed to the Trustee, to the effect that such instrument has been duly authorized, executed and delivered by the Obligated Group Agent and such person and constitutes a valid and binding obligation enforceable in accordance with its terms, except that such Opinion of Counsel may state that enforceability may be limited by bankruptcy laws, insolvency laws and other laws affecting creditor's rights generally, and may contain such other qualifications as shall be satisfactory to the Trustee.

It shall be a condition precedent to the consummation of any transaction involving an instrument to be executed and delivered to the Trustee in accordance with the preceding paragraph that the Trustee shall also have received (i) Officer's Certificate which demonstrates that, as a result of any person becoming an Obligated Group Member as part of such transaction,

the Obligated Group would not be in default in the performance or observance of any covenant or condition to be performed or observed by it under the Agreement, the Obligated Group would meet the conditions described under the heading "Limitations on Incurrence of Additional Debt" for the incurrence of one dollar of additional Long-Term Debt or under clause (iii) under the heading "Withdrawal From the Obligated Group" hereof for the withdrawal of a member of the Obligated Group and (ii) an Opinion of Bond Counsel to the effect that under then existing law the consummation of such transaction would not adversely affect the validity of the Bonds or the exclusion from gross income under Section 103 of the Code of interest paid on the Bonds.

Upon any person becoming an Obligated Group Member, all of the provisions, terms, applicable covenants and representations set forth in the Agreement shall apply to such person from the time that such person become an Obligated Group Member.

Obligated Group Covenants and Warranties.

Certain covenants and warranties made by the Institution are made by each Obligated Group Member and the provisions of each such covenant and warranty thereof shall apply respectively to each Obligated Group Member.

Withdrawal From the Obligated Group

No Obligated Group Member may withdraw from the Obligated Group unless:

- (i) the Obligated Group Agent consents to such withdrawal;
- (ii) the Trustee shall have received an Opinion of Bond Counsel to the effect that under then existing law such Obligated Group Member's withdrawal from the Obligated Group would not adversely affect the validity of the Obligations or the tax-exempt status of interest payable on the Bonds;
- (iii) either (A) for the two most recent Historical Test Periods prior to such withdrawal, an Officer's Certificate shall demonstrate that the Long-Term Debt Service Coverage Ratio, taking into consideration the proposed withdrawal, (1) would have been equal to at least 1.20 for each such Historical Test Period or (2) would have been equal to the actual Long-Term Debt Service Ratio for each such Historical Test Period; or (B) for the two Fiscal Years following such withdrawal, (1) an Officer's Forecast shall demonstrate that the Long-Term Debt Service Coverage Ratio would be at least 1.50 or (2) a Consultant's Forecast shall demonstrate that the Long-Term Debt Service Coverage Ratio would be at least 1.25; provided, however, that the requirements of this clause (iii) shall be deemed satisfied if Government Restrictions exist, and if there is delivered to the Trustee a signed Consultant's opinion to the effect that the projected Long-Term Debt Service Coverage Ratio for each of the next two full Fiscal Years following the transaction in question will not be less than 1.00; and
- (iv) the Trustee shall have received an Officer's Certificate to the effect that, as a result of the withdrawal of such Obligated Group Member, the Obligated Group will not be in default in the performance or observance of any covenant or condition to be performed under the Agreement.

Notwithstanding the foregoing, the Hospital may not withdraw from the Obligated Group while any of the Obligations are Outstanding.

Default by the Obligated Group

"Event of Default" means any one of the events set forth below and "Default" means any Event of Default without regard to any lapse of time or notice:

- (i) Any principal (including sinking fund installments) of, premium, if any, or interest on any Obligation shall not be paid when due, whether at maturity, by acceleration, upon mandatory sinking fund redemption or otherwise.
- (ii) The Obligated Group shall fail to make any payment required of it with respect to the principal and interest coming due with respect to the 2007 Bonds, the 2012 Bonds, or the 2017 Bonds within five (5) days following any applicable date upon which the same becomes due and payable.
- (iii) Any rebate amounts owed to the United States pursuant to the Agreement shall not be paid when due.
- (iv) The Obligated Group shall fail to make any other required payment to the Trustee or the Issuer under the Agreement, and such failure is not remedied within thirty (30) days after written notice thereof is given by the Issuer or the Trustee to the Obligated Group Agent; or the Obligated Group shall fail to observe or perform any of its other agreements, covenants or obligations under the Agreement or any related bond document and such failure is not remedied within sixty (60) days after written notice thereof is given by the Issuer or the Trustee to the Obligated Group Agent, provided, however, that if such observance or performance requires work to be done, actions to be taken or conditions to be remedied, which by their nature cannot reasonably be done, taken or remedied as the case may be, within such sixty (60) day period, no Event of Default shall be deemed to have occurred or to exist if and so long as the Obligated Group shall commence such observance or performance within such sixty (60) day period and shall diligently and continuously prosecute the same to completion.
- (v) There shall be a material breach of warranty made in the Agreement by the Obligated Group as of the date it was intended to be effective and the breach is not cured within sixty (60) days after written notice thereof is given by the Issuer or the Trustee to the Obligated Group Agent unless the breach is not curable within sixty (60) days and the Obligated Group Agent notifies the Issuer and the Trustee within such sixty (60) days that it is proceeding diligently in its efforts to cure said breach, in which event it shall be an Event of Default if said breach is not cured within one hundred twenty (120) days after such notice is given by the Obligated Group Agent to the Issuer and the Trustee.
- (vi) An Event of Bankruptcy shall occur, provided that, in the event of a filing of an involuntary case in bankruptcy under the United States Bankruptcy Code or the commencement of a proceeding under any other applicable law concerning bankruptcy, insolvency or reorganization against any Obligated Group Member, such event shall not be an Event of Default unless such petition or proceeding remains undismissed for a period of ninety (90) days.

(vii) An event of default shall occur with respect to any agreement securing Parity Bonds or Parity Debt.

(viii) A breach shall occur (and continue beyond any applicable grace period) with respect to the performance of an agreement securing Additional Debt or other Debt of the Obligated Group for borrowed money in an amount at least equal to \$5,000,000 or pursuant to which the same was issued or incurred, or an event shall occur with respect to provisions of any such agreement, as a result of which a holder or holders of such Debt or a trustee or trustees under any such agreement accelerates such Debt; but an Event of Default shall not be deemed to be in existence or to be continuing under this clause (viii) if (A) the Obligated Group is in good faith contesting the existence of such breach or event and if such acceleration is being stayed by judicial proceedings or by agreement of the parties or (B) such breach or event is remedied and the acceleration, if any, is wholly annulled. The Obligated Group shall notify the Issuer and the Trustee of any such breach or event immediately upon the Obligated Group becoming aware of its occurrence and shall from time to time furnish such information as the Issuer or the Trustee may reasonably request for the purpose of determining whether a breach or event described in this clause (viii) has occurred and whether such power of acceleration has been exercised or continues to be in effect.

If the Trustee determines that a Default, other than a Default in the payment principal (including sinking fund installments) of, premium, if any, or interest on the Obligations, has been cured before the entry of any final judgment or decree with respect to it, the Trustee may waive the Default and its consequences by written notice to the Obligated Group Agent and shall do so upon written instruction of the Holders of at least a majority in principal amount of the Outstanding Obligations, provided, however, that if the Obligations have been declared immediately due and payable as a result of such Default, the Trustee may waive such acceleration only upon receipt of written instructions of the Holders of at least a majority in principal amount of the Outstanding Obligations.

Remedies Upon Events of Default

If an Event of Default occurs and is continuing, the Trustee may, upon receipt of written direction from the Holders of the percentage in principal amount of the Obligations specified in the Agreement, by written notice to the Obligated Group Agent, the Issuer and the Holders of the Obligations, declare immediately due and payable the principal amount of the Outstanding Obligations and the payments to be made by the Obligated Group therefor, and accrued interest on the foregoing, whereupon the same shall become immediately due and payable without any further action or notice.

If an Event of Default occurs and is continuing, the Trustee may exercise all of the rights and remedies of a secured party under the Uniform Commercial Code or otherwise with respect to the lien on Gross Receipts created by the Agreement. Without limiting the generality of the foregoing, to the extent permitted by law, the Trustee may realize upon such lien by any one or more of the following actions: (i) enter the Property and take possession of the financial books and records of the Obligated Group relating to the Gross Receipts and all checks or other orders for payment of money and cash in the possession of the Obligated Group representing Gross Receipts or proceeds thereof; (ii) notify account debtors obligated on any Gross Receipts to make

payment directly to the order of the Trustee (except to the extent prohibited by the laws and provisions referenced in the Agreement); (iii) collect, compromise, settle, compound or extend Gross Receipts which are in the form of accounts receivable or contract rights from the Obligated Group's account debtors by suit or other means and give a full acquittance therefor and receipt therefor in the name of the Obligated Group, whether or not the full amount of any such account receivable or contract right owing shall be paid to the Trustee; (iv) require the Obligated Group to deposit all cash, money and checks or other orders for the payment of money which represents Gross Receipts within five (5) Business Days after receipt of written notice of such requirement, and thereafter as received, into a fund or account to be established for such purpose by the Trustee, provided, however, that the requirement to make such deposits shall cease, and the balance of such fund or account shall be paid to the Obligated Group, when all Events of Default have been cured; (v) forbid the Obligated Group to extend, compromise, compound or settle any accounts receivable or contract rights which represent Gross Receipts, or release, wholly or partly, any person liable for the payment thereof (except upon receipt of the full amount due) or allow any credit or discount thereon; and (vi) endorse in the name of the Obligated Group any checks or other orders for the payment of money representing Gross Receipts or the proceeds thereof.

The Trustee may enforce the provisions of the Agreement by legal proceedings for the specific performance of any covenant, obligation or agreement contained herein, whether or not an Event of Default exists, or for the enforcement of any other appropriate legal or equitable remedy, and may recover damages caused by any breach by the Obligated Group or the Issuer of the provisions of the Agreement, including (to the extent the Agreement may lawfully provide) court costs, reasonable attorneys' fees and other costs and expenses incurred in enforcing the obligations of the Issuer and the Obligated Group hereunder.

Application of Gross Receipts after Default

Proceeds from the exercise of the rights and remedies of the Trustee as described in the second paragraph under the heading "Remedies Upon Events of Default" hereof with respect to the lien on Gross Receipts, after payment or reimbursement of the reasonable expenses and fees of the Trustee and the Issuer due and unpaid in connection therewith, shall be allocated pro rata to make payments due but unpaid on or with respect to the Obligations. The portion allocable to the Obligations shall be applied to the remaining obligations of the Obligated Group under the Agreement as described under the heading "Application of Moneys" hereof. Any surplus thereof shall be paid to the Obligated Group as directed by an Officer's Certificate.

Proceedings by Holders of Obligations

No Holder of Obligations shall have any right to institute any legal proceedings for the enforcement of the obligations of the obligated Group under the Agreement or any applicable remedy thereunder, unless the Holders of Obligations have directed the Issuer and the Trustee to act and furnished the Issuer and the Trustee indemnity as provided in the Agreement and have afforded the Issuer and the Trustee reasonable opportunity to proceed, and the Issuer and the Trustee shall thereafter fail or refuse to take such action. Subject to the foregoing, any Holder of Obligations may by any available legal proceedings enforce and protect its rights under the Agreement and under the laws of the Commonwealth of Pennsylvania.

Amendment

The Agreement may be amended by the parties without Holder consent for any of the following purposes: (a) to add to the covenants and agreements of the Obligated Group or to surrender or limit any right or power of the Obligated Group; (b) to cure any ambiguity or defect, or to amend or supplement the Agreement in a manner which does not materially impair the security for the Obligations; (c) to provide for the issuance and establish the terms and provisions of Obligations and provide for all other matters in connection with the issuance of Obligations, including, without limitation, provisions relating to, or required by the issuer of, any Credit Facility applicable to Obligations, provided that no such amendment shall have a material adverse effect upon the security for the Obligations other than that implicit in the authorization of Obligations; (d) to provide for the sharing of control of, or notices with respect to, the exercise of remedies, with the Holders of Obligations and other provisions incident to securing of Obligations described in clause (ix) under the heading "Limitations on Creation of Liens" hereof; or (e) to amend the provisions of the Agreement relating to payment of rebatable amounts. The Issuer shall not be required to be a party to an amendment entered into pursuant to clause (c) above in connection with the issuance of Parity Debt not constituting Bonds.

Except as provided in the foregoing paragraph, the Agreement may be amended only with the written consent of the Holders of a majority in principal amount of the Outstanding Obligations delivered to the Trustee subsequent to the receipt by such Holders of notice of the principal terms of any such amendment; provided, however, that no amendment of the Agreement may be made without the unanimous written consent of the Holders of affected Obligations for any of the following purposes: (1) to extend the maturity of any Obligation; (2) to reduce the principal amount or interest rate of any Obligation, (3) to make any Obligation redeemable other than in accordance with its terms; (4) to create a preference or priority of any Obligation or Obligations over any other Obligation or Obligations; or (5) to reduce the percentage of the Obligations required to be represented by the Holders of Obligations giving their consent to any amendment. Written consent of a holder of 2017 Bonds or other Obligations hereafter issued shall be satisfied either by a written instrument signed by such holder or by a deemed consent by such holder upon purchase or receipt of such Bonds or other Obligations for which deemed consent written notice has been furnished to such holder by disclosure in an official statement or other disclosure document.

When the Trustee determines that the requisite number of consents has been obtained for an amendment which requires Holder consent, it shall, within ninety (90) days, file a certificate to that effect in its records and mail or cause to be mailed notice to the Holders of Obligations stating that the Agreement has been amended as of the date that the requisite number of consents have been received and setting forth a summary of the principal terms of such amendment. No action or proceeding to invalidate the amendment shall be instituted or maintained unless it is commenced within sixty (60) days after such mailing. The Trustee will promptly certify to the Issuer that it has mailed or caused to be mailed such notice in the manner required by the Agreement. A consent to an amendment may be revoked by a notice given by the Holder and received by the Trustee prior to the Trustee's certification that the requisite consents have been obtained.

Substitution of Security

- (a) In connection with any merger, consolidation, member substitution or similar transaction involving an affiliation of the Obligated Group with an entity or entities subject to an existing master trust indenture or similar financing document, the pledge of Gross Receipts securing the Obligations shall be terminated upon presentation to the Trustee of the following:
 - (i) a direction by the Obligated Group Agent that a substitution of security as contemplated by Section 5.02(a) of the Fourteenth Supplemental Agreement will take effect and setting forth the effective date of such change;
 - (ii) master indenture notes or similar obligations (the "Substitute Security") issued by the Obligated Group or a surviving, resulting or transferee entity meeting the requirements of Section 525 of the Agreement (the "Substitute Obligated Group") under and pursuant to and secured by a master trust indenture or similar financing document (the "Substitute Security Document") executed by the Obligated Group or any Substitute Obligated Group, and any other parties named therein (collectively, the "New Group") and an independent corporate trustee (the "New Trustee") (which may be the Trustee) meeting the eligibility requirements of the Trustee as set forth in Section 704 of the Agreement, which Substitute Security has been duly authenticated by the New Trustee;
 - (iii) the Substitute Security Document, which shall contain the agreement of each member of the New Group (i) to become a member of the New Group and thereby to become subject to compliance with all provisions of the Substitute Security Document and the Agreement, and (ii) unconditionally and irrevocably (subject to the right of such Person to cease its status as a member of the New Group pursuant to the terms and conditions of the Substitute Security Document and the Agreement) to jointly and severally make payments upon each Obligation, including the Substitute Security, issued under the Substitute Security Document at the times and in the amount provided in each such obligation;
 - (iv) evidence that the ratings, if any, on Obligations following the substitution of the Substitute Security for the pledge of Gross Receipts will be the same as or better than the ratings on such Obligations prior to the substitution of the Substitute Security;
 - (v) an Opinion of Bond Counsel that the replacement of the pledge of Gross Receipts with the pledge of the Substitute Security to secure the Obligations will not, in and of itself, adversely affect the validity of any Obligations or any exemption for the purposes of federal income taxation to which interest on such Obligations would otherwise be entitled;
 - (vi) an Opinion of Counsel to the Obligated Group that the conditions in this Section 5.02 for the termination of the pledge of Gross Receipts and the substitution of the Substitute Security to secure the Obligations have been met and that, as of the date of such termination and substitution, no Event of Default shall have occurred and be continuing under the Agreement or the Substitute Security Document;

- (vii) so long as the Bonds are Outstanding, an Officer's Certificate stating that, upon delivery of the Substitute Security and the Substitute Security Document, either:
 - (A) each rating agency then maintaining a rating on the 2017 Bonds provides written confirmation to the effect that the most recent or next long-term rating assigned to the 2017 Bonds by each such rating agency is or will be no less than "BBB+" or its equivalent; or
 - (B) the Substitute Security Document contains a pledge of Gross Receipts of the current Members of the Obligated Group substantially similar in scope to the pledge of Gross Receipts established under the Agreement; and
- (viii) such other opinions and certificates as the Trustee may reasonably require, together with such reasonable indemnities as the Trustee may request.
- (b) In connection with any merger, consolidation, member substitution or similar transaction involving an affiliation of the Obligated Group with an entity or entities subject to an existing master trust indenture or similar financing document as described in Section 5.02(a) of the Fourteenth Supplemental Agreement, the provisions of Section 525 of the Agreement regarding requirements for the addition of an Obligated Group Member shall be deemed inapplicable.
- (c) Upon the effectiveness of the Substitute Security Document, the definition of Parity Debt in Section 102 is hereby deleted in its entirety and replaced with the following:
 - "Parity Debt" means any Debt of the Obligated Group or any Obligated Group Member issued pursuant to Section 3.08 secured by a pledge of the Substitute Security and one or more of the funds established under this Agreement (excluding the Rebate Fund and the 1993 Bonds Debt Service Reserve Fund) on a parity basis with the 1993 Bonds and any issue of Parity Bonds.
- (d) Upon the effectiveness of the Substitute Security Document, Section 202 of the Agreement is deleted in its entirety and replaced with the following:

Section 202. Security Interest.

As additional security for the obligation of the Obligated Group to make payments to the Debt Service Fund, the Project Fund, the 1993 Bonds Debt Service Reserve Fund and the Rebate Fund and to make all other payments due under this Agreement, and for the benefit and security of all Bonds and Parity Debt issued hereunder, a security interest is granted in the Substitute Security and all other master indenture notes or similar obligations issued under the Substitute Security Document to secure the Obligations.

(e) Upon the effectiveness of the Substitute Security Document, Section 515 – Rate Covenant, Section 516 – Limitations on Incurrence of Additional Debt, Section 517 – Sale, Lease or other Disposition of Property or Current Assets, Section 518(c) relating to requirements in the case of Consolidation, Merger, Sale or Conveyance, Section 519 – Restrictions on

Guarantees, Section 520 – Limitations on Creation of Liens, Section 521 – Debt Service on Balloon Debt, Section 522 – Debt Service on Variable Rate Debt, Section 523 – Credit for Accrued and Capitalized Interest, and Section 527 – Obligated Group Covenants and Warranties are deleted from the Agreement.

(f) In connection with the delivery of a Substitute Security Document, the Obligated Group Agent may, at its option, deliver to the Trustee a termination of one or more of the Mortgages.

APPENDIX F

FORM OF TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT



TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT

DATED AS OF APRIL 1, 2022

BY AND AMONG

THE HOSPITALS AND HIGHER EDUCATION FACILITIES AUTHORITY OF PHILADELPHIA

AND

TEMPLE UNIVERSITY HOSPITAL, INC.
TEMPLE UNIVERSITY HEALTH SYSTEM, INC.
TEMPLE PHYSICIANS, INC.
TEMPLE HEALTH SYSTEM TRANSPORT TEAM, INC.
AMERICAN ONCOLOGIC HOSPITAL
THE INSTITUTE FOR CANCER RESEARCH
FOX CHASE CANCER CENTER MEDICAL GROUP, INC.
FOX CHASE NETWORK, INC.

AND

U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, AS TRUSTEE

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TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT

THIS TWENTIETH SUPPLEMENTAL LOAN AND TRUST AGREEMENT dated as of April 1, 2022 (the "Twentieth Supplemental Agreement") by and among The Hospitals and Higher Education Facilities Authority of Philadelphia (the "Issuer"), a body corporate and politic organized and existing under the laws of the Commonwealth of Pennsylvania (the "Commonwealth"), Temple University Hospital, Inc., a nonprofit corporation organized under the laws of the Commonwealth (the "Institution"), Temple University Health System, Inc., a nonprofit corporation organized under the laws of the Commonwealth (the "Health System"), Temple Physicians, Inc., a nonprofit corporation organized under the laws of the Commonwealth ("Temple Physicians"), Temple Health System Transport Team, Inc., a nonprofit corporation organized under the laws of the Commonwealth ("Temple Transport"), American Oncologic Hospital d/b/a Hospital of the Fox Chase Cancer Center, a nonprofit corporation organized under the laws of the Commonwealth ("AOH"), The Institute for Cancer Research, d/b/a The Research Institute of Fox Chase Cancer Center, a nonprofit corporation organized under the laws of the State of Delaware ("ICR"), Fox Chase Cancer Center Medical Group, Inc., a nonprofit corporation organized under the laws of the Commonwealth ("FC Medical Group"), Fox Chase Network, Inc., a nonprofit corporation organized under the laws of the Commonwealth ("Network") and U.S. Bank Trust Company, National Association (as successor-in-interest to U.S. Bank National Association, successor trustee to Wachovia Bank, National Association) (the "LTA Trustee").

WITNESSETH:

WHEREAS, the Institution, the Health System, Temple Physicians, Temple Transport, AOH, ICR, FC Medical Group and the Network (collectively, the "Obligated Group") are currently the members of the "Obligated Group" established pursuant to a Loan and Trust Agreement dated as of January 15, 1993, as previously amended and supplemented, (the "Original Agreement") among the Issuer, the Trustee and the members of the Obligated Group;

WHEREAS, this Twentieth Supplemental Agreement amends and supplements the Original Agreement (the Original Agreement as amended and supplemented to date and as amended and supplemented by this Twentieth Supplemental Agreement, the "Agreement");

WHEREAS, the Issuer has previously issued on behalf of the Obligated Group its Hospital Revenue Refunding Bonds (Temple University Health System Obligated Group) Series A of 2012, maturing on July 1, 2042, currently outstanding in the aggregate principal amount of \$219,210,000 (the "Refunded Bonds");

WHEREAS, at the request of the Obligated Group, the Issuer has determined to issue \$165,890,000 aggregate principal amount of its Hospital Revenue Bonds (Temple Health System Obligated Group), Series of 2022 (the "2022 Bonds") for the purpose of financing, together with other available funds (i) the refunding of the Refunded Bonds, and (ii) paying the costs of issuance of the 2022 Bonds (collectively, the "2022 Refunding Project"); and

WHEREAS, the 2022 Bonds are being issued pursuant to a Bond Indenture between the Issuer and U.S. Bank Trust Company, National Association, as bond trustee (the "Bond Trustee"); and

WHEREAS, the Obligated Group Members are also Members of an Obligated Group under a Master Trust Indenture dated as of April 1, 2022 (the "Master Indenture") between the Obligated Group Members and U.S. Bank Trust Company, National Association, as Master Trustee (the "Master Trustee"); and

WHEREAS, the 2022 Bonds shall be secured by a Master Indenture Obligation No. 1 ("Obligation No. 1") issued pursuant to the Master Indenture and a Supplemental Master Indenture No. 1 between the Master Trustee and the Obligated Group; and

WHEREAS, Obligation No. 1 shall also be issued as an Obligation under the Agreement and constitute Parity Debt pursuant to the Agreement and this Twentieth Supplemental Agreement, and shall remain as Parity Debt secured by the Agreement so long as the Loan and Trust Agreement shall remain in full force and effect; and

WHEREAS, the LTA Trustee, the Master Trustee, the Obligated Group and the Authority shall enter into an Intercreditor Agreement (the "Intercreditor Agreement") for so long as the Agreement remains in full force and effect to provide for the orderly sharing among the LTA Trustee and the Master Trustee of the proceeds of the assets and properties of the Obligated Group pledged to secure Obligations pursuant to the Agreement and Master Indenture Obligations pursuant to the Master Indenture in the circumstances set forth in the Intercreditor Agreement and related matters; and

WHEREAS, Section 1001 of the Original Agreement permits the Agreement to be amended by the parties thereto without Holder consent to provide for the issuance and establish the terms and provisions of Obligations and provide for all other matters in connection with the issuance of Obligations, provided that no such amendment shall have a material adverse effect upon the security for the Obligations other than that implicit in the authorization of Obligations, and to add to the covenants and agreements of the Obligated Group, and to cure any ambiguity or defect; and

WHEREAS, Section 1001 of the Original Agreement also permits certain amendments to the Agreement with the written consent of the Holders of a majority in principal amount of the Outstanding Obligations, and the Holders of the 2022 Bonds, by their acceptance of a 2022 Bond, are deemed to have consented to the amendments in Section 3.02 and Section 3.03 hereof; and

NOW, THEREFORE, the parties hereto intending to be legally bound hereby, agree as follows:

ARTICLE I DEFINITIONS; PLEDGE OF SECURITY

Section 1.01 <u>General</u>. Except as otherwise provided in this Article I of this Twentieth Supplemental Agreement, all terms used in the Agreement (including the recitals hereto or

thereto) shall have the meanings set forth in the Agreement, unless the context clearly otherwise requires.

Section 1.02 <u>Pledge of Security</u>.

- (a) The Issuer hereby assigns and pledges to the Trustee in trust and grants to the Trustee a continuing security interest in, and hereby grants and confirms its prior assignment and pledge and security interest in, the rights, revenues and other property set forth in Article II of the Original Agreement, provided however that the Holders of Obligation No. 1 shall have no rights to the Debt Service Reserve Funds.
- (b) As security for its obligations under the Agreement, each member of the Obligated Group hereby grants to the Trustee, subject to Section 1.03(a) hereof, a security interest in, and confirms the prior grant of a security interest in, the Gross Receipts and other rights and property as set forth in Article II of the Original Agreement, and confirms the grants pursuant to existing mortgages to the Trustee.

ARTICLE II CONCERNING OBLIGATION NO. 1

Section 2.01 Delivery of Obligation No. 1.

- (a) Upon the execution and delivery of this Twentieth Supplemental Agreement, the Obligated Group shall execute and deliver Obligation No. 1, a copy of which shall be delivered to the Master Trustee, which shall hold Obligation No. 1 on behalf of itself and the LTA Trustee as set forth in the Intercreditor Agreement.
- (b) Prior to the delivery of Obligation No. 1, there shall be filed with the LTA Trustee:
- (i) an executed counterpart of this Twentieth Supplemental Agreement;
- (ii) an opinion of Counsel in form and substance acceptable to the LTA Trustee to the effect that this Twentieth Supplemental Agreement has been properly authorized and constitutes a valid, binding obligation of the Obligated Group; and
- (iii) an opinion of Counsel substantially to the effect that Obligation No. 1 has been properly authorized and constitutes a legal, valid and binding obligation of the Obligated Group and that this Twentieth Supplemental Agreement and the issuance of Obligation No. 1 is in compliance with the terms of the Agreement.
- Section 2.02 <u>Details of Obligation No. 1</u>. Obligation No. 1 shall be issued in the principal amount of up to \$165,890,000 and shall be issued in substantially the form set forth in Exhibit A to the Supplemental Master Indenture No. 1. All payments due under Obligation No. 1 shall be made on the dates and in the amounts set forth therein. Obligation No. 1 constitutes Parity Debt under the Agreement and is entitled to the benefit and security of the Agreement on

parity with all other Obligated issued and outstanding under the Agreement. Obligation No. 1 is also a Master Obligation under the Master Indenture.

Section 2.03 Obligation No. 1 as Security. Obligation No. 1 shall secure the 2022 Bonds.

Section 2.04 <u>Intercreditor Agreement.</u> The Obligated Group hereby directs the LTA Trustee to enter into the Intercreditor Agreement. The exercise by the LTA Trustee of the remedies with respect to the Gross Receipts and the Mortgages under the Agreement shall be subject to the terms of the Intercreditor Agreement.

ARTICLE III AMENDMENTS

Section 3.01 Amendments to the Agreement. The Holders of Obligation No. 1, by their acceptance of Obligation No. 1, on behalf of themselves and all subsequent Holders of Obligation No. 1, (i) irrevocably consent to the amendments to the Agreement contained in Section 3.02 and Section 3.03 of this Twentieth Supplement (collectively, the "Amendments"), (ii) direct the holder of Obligation No. 1 to consent to the Amendments, and (iii) irrevocably waive and consent to the waiver by the holder of Obligation No. 1 of any and all formal notice, implementation, execution or timing requirements that may otherwise be required by this Agreement in order to implement the Amendments. The Amendments will take effect upon delivery to the Trustee of evidence that a majority in principal amount of Outstanding Obligations (including Holders of the Obligation No. 1, who are deemed to have irrevocably consented) have consented to the Amendments.

Section 3.02 Amended Definitions.

(a) Upon the receipt of consent of the Holders of a majority in principal amount of outstanding Obligations under the Agreement, the following definitions are hereby added:

"Debt Service Subsidy" means direct subsidy payments payable to an Obligated Group Member (or the Issuer on behalf of an Obligated Group Member) with respect to Debt of such Obligated Group Member or related Bonds, pursuant to any federal or state program providing for payment to an Obligated Group Member (or the Issuer on behalf of an Obligated Group Member) of all or a portion of debt service on Debt of an Obligated Group Member.

"Financial Product Agreement" means any interest rate exchange agreement, hedge or similar arrangement, including, *inter alia*, an interest rate swap, asset swap, a constant maturity swap, a forward or futures contract, cap, collar, option, floor, forward or other hedging agreement, arrangement or security, direct funding transaction or other derivative, however denominated and whether entered into on a current or forward basis.

"Financial Product Extraordinary Payments" means any payments required to be paid to a counterparty by an Obligated Group Member pursuant to a Financial Product Agreement in connection with the termination thereof, tax gross-up payments, expenses, default interest, and any other payments or indemnification obligations to be paid to a counterparty by an Obligated Group Member under a Financial Product Agreement, which payments are not Financial Product Payments.

"Financial Product Payments" means regularly scheduled payments required to be paid to a counterparty by an Obligated Group Member pursuant to a Financial Product Agreement and excluding Financial Product Extraordinary Payments.

"<u>Financial Product Receipts</u>" means regularly scheduled payments required to be paid to an Obligated Group Member by a counterparty pursuant to a Financial Product Agreement.

"Force Majeure Event" means any of the following: acts of God, acts of public enemies; validly issued orders of any kind of the government of the United States of America, the state or states in which the relevant Obligated Group Member is doing business, or any of their departments, agencies, political subdivisions or officials, or any civil or military authority, imposed due to factors not within the control of such Obligated Group Member and having a material effect on its ability to carry out its agreements hereunder; insurrections; riots; epidemics; pandemics; landslides; lightning; earthquakes; fires; hurricanes; storms; floods; washouts; droughts; civil disturbances; explosions; breakage or accident due to machinery, transmission pipes or canals; partial or entire failure of utilities; or similar acts or events (other than financial inability) not within the control of such Obligated Group Member.

"Identified Financial Product Agreement" means a Financial Product Agreement identified to the Trustee in a Certificate of the Obligated Group Agent as having been entered into by an Obligated Group Member with a Qualified Provider with respect to Debt (which is either then-Outstanding or to be issued after the date of such Certificate) identified in such Certificate.

"Irrevocable Deposit" means the irrevocable deposit in trust of cash in an amount, or Government Obligations, or other securities permitted for such purpose pursuant to the terms of the documents governing the payment of or discharge of Debt, the principal of and interest on which will be an amount together with uninvested cash, and under terms sufficient to pay all or a portion of the principal of, premium, if any, and interest on, as the same shall become due, any such Debt which would otherwise be considered Outstanding. The trustee of such deposit may be any other trustee or escrow agent authorized to act in such capacity.

"Long-Term Debt Service Coverage Ratio" means for any period of time, the ratio determined by dividing Income Available for Debt Service for that period of time by the Long-Term Debt Service Requirements for such period of time; provided that when such calculation is being made with respect to the Obligated Group, Income Available for Debt Service and Long-Term Debt Service Requirements shall be determined only with respect to those Persons who are Obligated Group Members at the close of such period.

"Obligated Group Financial Statements" means (a) any special purpose financial statements prepared in accordance with GAAP and including only the Obligated Group or (b) the financial information related solely to the Obligated Group, as shown on the consolidating or combining schedule contained in any System Financial Statements.

"Qualified Provider" means any financial institution or insurance company or corporation which is a party to a Financial Product Agreement if (i) the unsecured long-term debt obligations of such provider (or of the parent or a subsidiary of such provider if such parent or subsidiary guarantees or otherwise assures the performance of such provider under such Financial Product Agreement), or (ii) obligations secured or supported by a letter of credit, contract, guarantee, agreement, insurance policy or surety bond issued by such provider (or such guarantor or assuring parent or subsidiary), are rated in one of the three highest rating Categories of a Rating Agency at the time of the execution and delivery of the Financial Product Agreement.

(c) The definition of "Debt" in Section 101 of the Original Agreement is hereby amended and restated in its entirety as follows:

"'<u>Debt</u>' means any Guaranty (other than any Guaranty by any Obligated Group Member of Debt of any other Obligated Group Member) and any obligation of any Obligated Group Member (a) for repayment of borrowed money other than intercompany loans between Obligated Group Members, (b) with respect to finance leases or (c) under installment sale agreements; provided, however, that (1) if more than one Obligated Group Member shall have incurred or assumed a Guaranty of a Person other than an Obligated Group Member, or if more than one Obligated Group Member shall be obligated to pay any obligation, for purposes of any computations or calculations under this Agreement such Guaranty or obligation shall be included only one time, (2) Debt shall not include Debt of any Obligated Group Member to another Obligated Group Member, and (3) Debt shall not include any obligation to repay moneys deposited by patients or others with an Obligated Group Member as security for or as prepayment of the cost of patient care, Financial Product Agreements, trade payables, accrued expenses in the normal course of business, physician income guaranties or any obligation of any Obligated Group Member with respect to operating leases."

(d) The definition of "Guaranty" in Section 101 of the Original Agreement is hereby amended and restated in its entirety as follows:

"'<u>Guaranty</u>' means any obligation of any Obligated Group Member guaranteeing, directly or indirectly, any obligation of any other Person which would, if such other Person were an Obligated Group Member, constitute Debt."

(e) The definition of "Income Available for Debt Service" in Section 101 of the Original Agreement is hereby amended and restated in its entirety as follows:

"Income Available for Debt Service' means, unless the context provides otherwise, with respect to the Obligated Group as to any period of time, net income, or excess of revenues over expenses (excluding income from all Irrevocable Deposits), plus

depreciation, amortization, and interest expense (including Financial Product Payments and Financial Product Receipts on Identified Financial Product Agreements), as determined in accordance with GAAP and as shown or as would be shown on the Obligated Group Financial Statements; provided, that no determination thereof shall take into account:

- (i) any revenue or expense of the University other than revenue or expense of the Institution as reflected on the Institution's financial statement, unless the University shall be an Obligated Group Member hereunder;
- (ii) except as otherwise permitted herein, any revenue or expense of a Person which is not an Obligated Group Member;
- (iii) gifts, grants, bequests, donations or contributions, to the extent specifically restricted by the donor to a particular purpose inconsistent with their use for the payment of Required Payments or the payment of operating expenses;
- (iv) the net proceeds of insurance (other than business interruption insurance) and condemnation awards;
 - (v) any gain or loss resulting from the extinguishment of Debt;
- (vi) any gain or loss resulting from the sale, exchange or other disposition of capital assets not in the ordinary course of business;
 - (vii) any gain or loss resulting from any discontinued operations;
- (viii) any gain or loss resulting from pension terminations, settlements or curtailments;
 - (ix) any unusual charges for employee severance;
 - (x) any loss from impairment of the value of an asset;
- (xi) adjustments to the value of assets or liabilities resulting from changes in GAAP;
- (xii) unrealized gains or losses on investments, including "other than temporary" declines in Book Value;
- (xiii) gains or losses resulting from changes in valuation of any hedging, derivative, interest rate exchange or similar contract;
- (xiv) any Financial Product Extraordinary Payments or similar payments on any hedging, derivative, interest rate exchange or similar contract that does not constitute a Financial Product Agreement;

- (xv) unrealized gains or losses from the write-down, reappraisal or revaluation of assets;
- (xvi) any revenues or expenses resulting from a forgiveness of, or the establishment of reserves against, Debt;
- (xvii) any gains or losses, revenues or expenses, or changes in assets or liabilities that represent the cumulative effect of accounting changes attributable primarily either to changes in GAAP, the System's or the Obligated Group's adoption of different accounting methods permitted under GAAP or that result from or are required by any correction, adjustment or restatement of or the retrospective application of accounting standards;
- (xviii) other nonrecurring items of any extraordinary nature which do not involve the receipt, expenditure or transfer of assets; or
- (xix) any gains or losses or revenues or expenses attributable to transactions between any Obligated Group Member and any other Obligated Group Member.

For the purposes of calculating Income Available for Debt Service, with respect to realized gains or losses, the Obligated Group Agent may, at its option, calculate such realized gains or losses as the average of the most recent three Fiscal Years.'

(f) The definition of "Long-Term Debt Service Requirements" in Section 101 of the Original Agreement is hereby amended and restated in its entirety as follows:

"Long-Term Debt Service Requirements' means, subject to Section 528, with respect to the period of time for which calculated, the sum (without duplication) of the aggregate amount of principal and interest scheduled to become due and payable on all Long-Term Debt of the Obligated Group then Outstanding (by scheduled maturity, acceleration, mandatory redemption or otherwise, but not including purchase price becoming due as a result of mandatory or optional tender or put), less (1) any amounts of such principal or interest to be paid during such period from (a) the proceeds of Debt (including, where appropriate, the earnings or other increment to accrue thereon), (b) moneys or Government Obligations deposited in trust as an Irrevocable Deposit for the purpose of paying such principal or interest (including, where appropriate, the earnings or other increment to accrue thereon) or (c) the amount of principal and related interest to be paid during such period of time to the extent such principal and related interest payment is reasonably expected to be paid from moneys available in a debt service reserve fund and such debt service reserve fund is fully-funded but only if such principal and the related interest to be paid is the last installment of principal of such Long-Term Debt, and (2) any Debt Service Subsidy payable for such period of time; provided that if an Identified Financial Product Agreement has been entered into by any Obligated Group Member with respect to Long-Term Debt, interest on such Long-Term Debt shall be included in the calculation of Long-Term Debt Service Requirements by including for such period of time an amount equal to the amount of interest payable on such Long-Term Debt during such period of time at the rate or rates stated in such Long-Term Debt plus any Financial Product Payments under an Identified Financial Product Agreement payable for such period of time minus any Financial Product Receipts under an Identified Financial Product Agreement receivable for such period of time; provided that in no event shall any calculation made pursuant to this clause result in a number less than zero being included in the calculation of Long-Term Debt Service Requirements."

(g) The definition of "Historical Test Period" in Section 101 of the Original Agreement is hereby amended and restated in its entirety as follows:

"Historical Test Period' means, at the option of the Obligated Group Agent, either (i) any twelve (12) consecutive calendar months out of the most recent period of eighteen (18) full calendar months, or (ii) the most recent period of twelve (12) full consecutive calendar months for which Obligated Group Financial Statements are available, or (iii) the most recent Fiscal Year of the Obligated Group."

- (h) The definition of "Balloon Debt" in Section 101 of the Original Agreement is hereby amended and restated in its entirety as follows:
 - "Balloon Debt' means (1) Long-Term Debt, 25% or more of the original principal of which (calculated as of the date of issuance) becomes due or, at the option of the payee, could become due or payable in connection with any required purchase of such Long-Term Debt during any period of 12 consecutive months if such maturing principal amount is not required to be amortized below such percentage by mandatory redemption prior to such 12-month period or (2) any portion of an issue of Debt which, if treated as a separate issue of Long-Term Debt, would meet the test set forth in clause (1) of this definition and which Debt is designated as Balloon Debt in an Officer's Certificate stating that such portion shall be deemed to constitute a separate issue of Balloon Debt."
- (i) The definition of "Permitted Encumbrances" in Section 101 of the Original Agreement is hereby amended and restated in its entirety as follows:

"Permitted Encumbrances' mean and include:

- (a) Liens arising by reason of good faith deposits with any Obligated Group Member in connection with leases of real estate, bids or contracts (other than contracts for the payment of money), deposits by any Obligated Group Member to secure public or statutory obligations or to secure, or in lieu of, surety, stay or appeal bonds, and deposits as security for the payment of taxes or assessments or other similar charges;
- (b) Any Lien arising by reason of deposits with, or the giving of any form of security to, any governmental agency or any body created or approved by law or governmental regulation for any purpose at any time as required by law or governmental regulation as a condition to the transaction of any business or the exercise of any privilege or license, or to enable any Obligated Group Member to

maintain self-insurance or to participate in any funds established to cover any insurance risks or in connection with workmen's compensation, unemployment insurance, pension or profit sharing plans or other social security, or to share in the privileges or benefits required for companies participating in such arrangements;

- (c) Any judgment lien against any Obligated Group Member so long as such judgment is being contested and execution thereon is stayed or, in the absence of such contest and stay, such judgment lien will not materially impair the Property, Current Assets, or Gross Receipts or subject the Property, Current Assets, or Gross Receipts to material loss or forfeiture;
- (d) (A) Rights reserved to or vested in any municipality or public authority by the terms of any right, power, franchise, grant, license, permit or provision of law, affecting any Property, Gross Receipts or Current Assets, to (1) terminate such right, power, franchise, grant, license or permit, provided that, the exercise of such right would not materially alter the use of such Property, Gross Receipts or Current Assets or materially and adversely affect the value thereof, or (2) purchase, condemn, appropriate or recapture, or designate a purchaser of, such Property, Gross Receipts or Current Assets; (B) any liens on any Property, Gross Receipts or Current Assets for taxes, assessments, levies, fees, water and sewer rents, and other governmental and similar charges and any liens of mechanics, materialmen, laborers, suppliers or vendors for work or services performed or materials furnished in connection with such Property, Gross Receipts of Current Assets, which are not due and payable or which are not delinquent or the amount or validity of which are being contested and execution thereon is stayed or the existence of which will not subject the Property, Current Assets or Gross Receipts to material loss or forfeiture; (C) easements, rights-of-way, servitudes, restrictions and other minor defects, encumbrances, and irregularities in the title to any Property, Gross Receipts or Current Assets which do not materially impair the use of such Property, Gross Receipts or Current Assets or materially and adversely affect the value thereof; (D) rights reserved to or vested in any municipality or public authority to control or regulate any Property, Gross Receipts or Current Assets or to use such Property, Gross Receipts or Current Assets in any manner, which rights do not materially impair the use of such Property, Gross Receipts or Current Assets materially and adversely affect the value thereof, and (E) to the extent that it affects title to any Gross Receipts, the Agreement;
- (e) Any Lien described in Schedule A to this Agreement which is existing on the date of execution hereof or as Schedule A may be supplemented upon addition of an Obligated Group Member with respect to Liens existing on the Property of such additional Obligated Group Member, provided that no such Lien (or the amount of Debt or other obligations secured thereby) may be increased, extended, renewed or modified to apply to any Property of any Obligated Group Member not subject to such Lien on such date, unless such Lien as so extended, renewed or modified otherwise qualifies as a Permitted Encumbrance;

- (f) Any lease of Property which, in the judgment of the Obligated Group Member, the Property of which is subject thereto, is reasonably necessary or appropriate for or incidental to the use of such Property or, in the case of the Institution, to the operation of the Institution, taking into account the nature and terms of the lease and the nature and purposes of the Property;
- (g) Any Lien on Property, Gross Receipts or Current Assets of a person that becomes an Obligated Group Member pursuant to a consolidation, merger, sale or conveyance in accordance with this Agreement and that is not incurred in contemplation of such consolidation, merger, sale or conveyance; provided that no such Lien may be extended or modified to apply to any Property, Gross Receipts or Current Assets of any Obligated Group Member not subject to such Lien on such date, unless such Lien if so extended or modified otherwise, qualifies as a Permitted Encumbrance;
- (h) Any Lien on Property which Lien secures Debt incurred in compliance with the provisions of this Agreement, if, after giving effect to the Lien, the Book Value of the Property which is encumbered in accordance with this clause (h) will not exceed fifteen percent (15%) of the Book Value of the Property of the Obligated Group as of the end of the Historical Test Period;
- (i) Any parity Lien on all or a portion of Gross Receipts to secure any Long-Term Debt or Short-Term Debt incurred pursuant to this Agreement. Any supplements or other agreement for the repayment of such Additional Debt and instruments evidencing or securing the same may provide, among other things, for notices from or to the Trustee regarding defaults by the Obligated Group, the duties and limitations of the Trustee to pursue remedies upon the receipt of such notice, and the sharing of the rights of the Holders of the Obligations to control the exercise of remedies with the holders of such Additional Debt and/or with the issuer of any Credit Facility with respect to such Additional Debt;
- (j) Any Lien subordinated to the Lien securing the Master Indenture Obligations on all or a portion of Gross Receipts to secure any Long-Term Debt or Short-Term Debt incurred pursuant to this Agreement;
- (k) Any Lien on accounts receivable securing or deemed to secure any Debt incurred or deemed incurred by virtue of any recourse obligation associated with any assignment, sale or pledge of accounts receivable;
- (1) Any Lien on Property securing Debt incurred to provide such Property, including Liens incurred as described under the heading "Limitations on Additional Debt" hereof;
- (m) Any Lien to the issuer of a Credit Facility to secure a debt service reserve fund pursuant to a supplemental agreement;

- (n) Rights of set-off or banker's lien with respect to funds on deposit with a financial institution in the ordinary course of business;
- (o) Any pledge or lien of assets for purposes of meeting collateral posting requirements for derivative transactions;
- (p) Any Lien upon Property or Current Assets granted by any Obligated Group Member, in favor of the holder of any Debt, with prior notice to the Trustee but without the consent of the Trustee or of the Holders of any Obligations, so long as such Lien, or a Lien at least on a parity therewith, is effectively granted in favor of the Holders of all Obligations then Outstanding;
- (q) Rights of the United States of America, including, without limitation, the Federal Emergency Management Agency ("FEMA"), or the Commonwealth, by reason of FEMA and other federal and Commonwealth funds made available to any Obligated Group Member under federal or Commonwealth statutes;
- (r) Any Lien arising by reason of any escrow or reserve fund established to pay debt service or the redemption price or purchase price with respect to Debt;
- (s) Liens consisting of purchase money security interests (as defined in the UCC) and lessors' interest in finance leases;
- (t) Liens on Property received by any Obligated Group Member through gifts, grants, bequests or research grants, such Liens being due to restrictions on such gifts, grants, bequests or research grants or the income thereon, up to the Fair Market Value of such Property;
- (u) Liens on the Obligated Group Members' accounts receivable securing Short-Term Debt in an amount not to exceed 20% of the aggregate amount of the Obligated Group Members' pledged accounts; and
- (v) Liens on moneys deposited by patients or others with any Obligated Group Member as security for or as prepayment for the cost of patient care."

Section 3.03 Further Amendments to the Agreement.

(a) Upon the receipt of consent of the Holders of a majority in principal amount of outstanding Obligations under the Agreement, Section 515 of the Agreement is deleted in its entirety and replaced with the following:

"Section 515. Rate Covenant.

(a) Each Obligated Group Member agrees to manage its business such that the Long-Term Debt Service Coverage Ratio of the Obligated Group for each Fiscal Year, commencing with the Fiscal Year during which the consent of the

Holders of a majority in principal amount of Outstanding Obligations under the Agreement is achieved, will not be less than 1.1 to 1.0, as set forth in the Officer's Certificate delivered pursuant to subsection (i), except as specifically provided in this Section 515.

- If for any Fiscal Year the Long-Term Debt Service Coverage Ratio (b) of the Obligated Group as set forth in the Officer's Certificate delivered pursuant to subsection (i) is less than 1.1 to 1.0, the Obligated Group Representative covenants to retain an Independent Consultant within sixty days of such calculation to make recommendations to increase Income Available for Debt Service in the following Fiscal Year to the level required or, if in the opinion of the Independent Consultant the attainment of such level is impracticable, to the highest level attainable. The Obligated Group Representative agrees to transmit a copy thereof to the Master Trustee within 20 days of the receipt of such recommendations. Each Obligated Group Member shall, promptly upon its receipt of such recommendations, subject to applicable requirements or restrictions imposed by law or existing contracts and to a good faith determination by the Governing Body of the Obligated Group Representative that such recommendations are in the best interest of the Obligated Group, take such action as shall be in substantial conformity with such recommendations, as certified by the Independent Consultant in writing.
- (c) If the Obligated Group substantially complies, to the extent not prevented by law or existing contracts, with the recommendations of the Consultant, the Obligated Group will be deemed to have complied with the covenants set forth in this Section for such Fiscal Year, notwithstanding that the Long-Term Debt Service Coverage Ratio is less than 1.1 to 1.0; except as provided in subsection (h) hereof.
- (d) If a report of a Consultant is delivered to the Trustee, which report shall state that Government Restrictions have been imposed which make it impossible for the Long-Term Debt Service Coverage Ratio to be at least 1.1 to 1.0, then the required amount of Income Available for Debt Service shall be reduced to the maximum coverage permitted by such Government Restrictions, as certified by the Consultant in writing; except as provided in subsection (h) hereof.
- (e) Notwithstanding the foregoing, an Obligated Group Member may permit the rendering of services or the use of its Property without charge or at reduced charges, at the discretion of the Governing Body of such Obligated Group Member, to the extent necessary for maintaining its tax-exempt status or the tax-exempt status of its Property, or its eligibility for grants, loans, subsidies or payments from governmental entities, or in compliance with any recommendation for free services that may be made by a Consultant; except as provided in subsection (h) hereof.
- (f) Notwithstanding the foregoing, the Obligated Group shall be required to retain a Consultant no more frequently than once every two years.

- (g) Notwithstanding the foregoing, if such failure to maintain a Long-Term Debt Service Coverage Ratio of 1.1 to 1.0 is a direct or indirect result of a Force Majeure Event, as determined in the sole discretion of the Obligated Group Agent, then the Obligated Group Agent shall not be required to retain a Consultant for the purposes described in this Section; provided that if such failure is a direct or indirect result of a Force Majeure Event, then the Obligated Group Representative shall deliver an Officer's Certificate to the Trustee stating the nature of the Force Majeure Event and describing the steps the Obligated Group is taking with respect to the rates, fees and charges or expenses of the Obligated Group and the Obligated Group's methods of operation and other factors affecting its financial condition in order to improve the Long-Term Debt Service Coverage Ratio for the then-current Fiscal Year.
- (h) An Event of Default shall exist if the Long-Term Debt Service Coverage Ratio of the Obligated Group as set forth in the Officer's Certificate delivered pursuant to subsection (i) for any two consecutive Fiscal Years shall be less than 1.0 to 1.0. Notwithstanding the foregoing, the Obligated Group Members shall not be excused from taking any action or performing any duty required under this Agreement and no other Event of Default shall be waived by the operation of the provisions of this subsection (h).
- (i) The Obligated Group Agent covenants and agrees that it will furnish to the Trustee and, upon written request, the Issuer, at the time of the delivery of the Obligated Group Financial Statements, an Officer's Certificate (A) setting forth the calculations based upon the Obligated Group Financial Statements for such Fiscal Year of the Long-Term Debt Service Coverage Ratio for such Fiscal Year and (B) stating that no event which constitutes an Event of Default has occurred and is continuing as of the end of such Fiscal Year, or specifying the nature of such event and the actions taken and proposed to be taken by the Members to cure such Event of Default."
- (b) Upon the receipt of consent of the Holders of a majority in principal amount of outstanding Obligations under the Agreement, Section 516 of the Agreement is deleted in its entirety and replaced with the following:
 - "Section 516. <u>Limitations on Incurrence of Additional Debt</u>. Each Obligated Group Member covenants that it will not incur any Additional Debt except that the Obligated Group Members may incur the following Additional Debt:
 - (a) Long-Term Debt, if prior to the date of incurrence of the Long-Term Debt there is delivered to the Trustee an Officer's Certificate to the effect that:
 - (i) The ratio of Income Available to Debt Service to Maximum Annual Debt Service for the prior Fiscal Year, adjusting to include any debt incurred after the prior Fiscal Year and assuming that the proposed additional

Long-Term Debt had been incurred at the beginning of the prior Fiscal Year, is equal to at least 1.20 to 1.00; or

- (ii) immediately after the proposed transaction, the aggregate principal amount of all Outstanding Long-Term Debt of the Obligated Group (excluding any Guaranty) will not exceed 10% of the Total Operating Revenues of the Obligated Group for the prior Fiscal Year; or
- (iii) the Long-Term Debt Service Coverage Ratio for the prior Fiscal Year, not taking into account the proposed additional Long-Term Debt, is not less than 1.1 to 1.0; and the forecasted average Long-Term Debt Service Coverage Ratio for the first Fiscal Year commencing after the incurrence of the proposed additional Long-Term Debt is not less than 1.25 to 1.0; provided that the forecasted average Long-Term Debt Service Coverage Ratio for the first Fiscal Year commencing after the incurrence of the proposed additional Long-Term Debt may be not less than 1.10 to 1.0 if the forecast is provided by a Consultant.
- (b) Long-Term Debt incurred for the purpose of refunding or refinancing outstanding Debt, provided that the refunding of Long-Term Debt will not increase Maximum Annual Debt Service in any year (calculated for the period during which the Debt to be refunded would have been Outstanding but for such proposed refunding) by more than 15%.
- (c) Completion Debt, provided that an Officer's Certificate is delivered to the Trustee (A) stating that the Obligated Group Agent reasonably expected the aggregate principal amount of Long-Term Debt or Interim Debt originally issued to finance the construction or equipping of the project for which such Completion Debt is being incurred, together with other funds reasonably anticipated to be available for such purposes, to be fully sufficient to provide a completed and fully equipped facility of the type and scope contemplated at the time said Long-Term Debt or Interim Debt was originally incurred, (B) describing why such Completion Debt is necessary, and (C) certifying as to the amount needed for completion of the project.
- (d) Short-Term Debt provided that an Officer's Certificate is delivered to the Trustee stating that the total amount of such Short-Term Debt shall not exceed 15% of Total Revenues for the Historical Test Period and the amount of such Debt is reduced to no more than 75% of the aggregate accounts receivable of the Obligated Group for a period of at least 20 consecutive days in each Fiscal Year. Any Short Term-Debt that is not so reduced and exceeds 5% of Total Revenues for the Historical Test Period is permitted only if the provisions described in subsection (a) above are satisfied, treating such Short-Term Debt as if it were Long-Term Debt.
 - (e) Non-Recourse Debt, without limitation.

- (f) Debt specifically subordinated as to payment and security to the payment of all required payments and other obligations of the Obligated Group Members under this Agreement, without limitation. "
- (c) Upon the receipt of consent of the Holders of a majority in principal amount of outstanding Obligations under the Agreement, Section 517 of the Agreement is deleted in its entirety and replaced with the following:

"Section 517. Sale, Lease or other Disposition of Property or Current Assets.

- (a) The Obligated Group Agent covenants that the Obligated Group Members, will not, in the aggregate, in any Fiscal Year sell, lease or otherwise dispose of Property the Book Value of which would cause the aggregate Book Value of Property so transferred in such Fiscal Year to exceed the greater of \$10,000,000 or 10% of the total Property of the Obligated Group as shown on the Obligated Group Financial Statements for the Historical Test Period, except for the following transfers, sales or leases, which shall be permitted in any period during which an Event of Default has occurred and is continuing:
- (b) Property, plant, or equipment that is transferred, sold or leased in connection with a merger, consolidation, sale or conveyance permitted under this Master Indenture;
- (c) Property, plant, or equipment that is retired, replaced, obsolete or otherwise disposed of in the ordinary course of business;
- (d) Property, plant, or equipment for which ownership or operation resulted in no operating revenues during the preceding twelve months;
- (e) Property, plant, or equipment for which the Obligated Group receives fair market value therefor;
- (f) Property, plant, or equipment or any Current Assets that are transferred, sold, or leased to another member of the Obligated Group;
- (g) Property, plant, or equipment in an amount not in excess of 20% of the aggregate amount of accounts receivable;
- (h) Property, plant, or equipment specifically excluded in Appendix B hereof;
 - (i) Restricted Moneys; and

- (j) Accounts in an amount not to exceed the difference between the account lien amount and the amount of accounts that have been and are pledged to secure Outstanding Debt."
- (d) Upon the receipt of consent of the Holders of a majority in principal amount of outstanding Obligations under the Agreement, Section 520 of the Agreement is deleted in its entirety and replaced with the following:

"Section 520. <u>Limitations on Creation of Liens</u>.

- (a) Each Obligated Group Member agrees that it will not create or suffer to be created or permit the existence of any Lien upon Property now owned or hereafter acquired by it other than Permitted Encumbrances.
- (b) Upon written request of the Obligated Group Agent, the Trustee shall execute and deliver such releases, subordinations, requests for reconveyance, termination statements or other instruments as may be reasonably requested by the Obligated Group Agent and prepared by or on behalf of the Obligated Group Agent in connection with (1) the disposition of Property in accordance with the provisions of Section 517 and the applicable provisions of any related Supplemental Agreement, (2) the withdrawal of a Member pursuant to Section 526 and the applicable provisions of any related Supplemental Agreement and (3) the granting by an Obligated Group Member of any Lien which constitutes a Permitted Encumbrance hereunder, as certified to the Trustee in writing by the Obligated Group Agent."
- (e) Upon the receipt of consent of the Holders of a majority in principal amount of outstanding Obligations under the Agreement, Article V is hereby amended with the addition of a Section 528 as follows:
 - "Section 528. <u>Certain Considerations with Respect to Computation of Long-Term Debt Service Requirements</u>. For purposes of the computation of Long-Term Debt Service Requirements, whether historic or projected:
 - (a) With respect to a Guaranty, (A) if any Obligated Group Member has made a payment pursuant to such Guaranty, 100% of the Long-Term Debt Service Requirements (calculated as if such person were an Obligated Group Member) guaranteed by any Obligated Group Member under the Guaranty shall be included in the calculation of Long-Term Debt Service Requirements in the year in which such payment was made and for a period of twenty-four months thereafter and (B) otherwise, the aggregate annual principal and interest payments on, and the principal amount of, any Debt of a person which is not an Obligated Group Member which is the subject of a Guaranty and which would, if such obligation were incurred by an Obligated Group Member, constitute Long-Term Debt, shall be deemed equivalent to twenty percent (20%) of the actual Annual Debt Service

on, and principal amount of, such Debt, for so long as such Guaranty constitutes a contingent liability under generally accepted accounting principles.

- If interest on Long-Term Debt is payable pursuant to a variable interest rate formula, the interest rate on such Long-Term Debt for periods when the actual interest rate cannot yet be determined (projected for a Future Test Period) shall be assumed to be equal to (A) if such Long-Term Debt was Outstanding during the 12 calendar months immediately preceding the date of calculation, an average of the interest rates per annum which were in effect, and (B) if such Long-Term Debt was not Outstanding during the 12 calendar months immediately preceding the date of calculation, at the election of the Obligated Group Agent, either (1) an average of the rates in effect during the 12 calendar months immediately preceding the date of calculation for a comparable variable rate interest index selected by the Obligated Group Agent, with the advice of an investment banking or financial services firm knowledgeable in health care matters, or (2) an average of the interest rates per annum which would have been in effect for any 12 consecutive calendar months during the 18 calendar months immediately preceding the date of calculation, as specified in a certificate of the Obligated Group Agent or (3) such interest rate as shall be specified in a written statement from an investment banking or financial advisory firm selected by the Obligated Group Agent.
- (c) With respect to Balloon Debt or Interim Debt, such Balloon Debt, at the sole option of the Obligated Group Agent, and such Interim Debt shall be treated as Long-Term Debt bearing interest at (A) if such Debt bears interest at a variable interest rate formula, to the extent such interest rate is unknown, a rate determined in accordance with the immediately preceding paragraph or (B) a fixed rate equal to a rate reasonably available to the Obligated Group as set forth in a certificate delivered by a financial advisory firm selected by the Obligated Group Agent, in each case with substantially level debt service over a term of up to 25 years (which period shall be designated by the Obligated Group Agent).

If arrangements have been made for the redemption or payment of any amount of principal of and interest and other debt service charges on any Long-Term Debt that is then outstanding or treated as outstanding under this Section 3.16 with proceeds of other firmly committed Debt or other committed sources of money (including any commitment by any Person to make payments under a Financial Product Agreement), then the principal of and interest and other debt service charges to be refinanced or paid by such firmly committed Debt or by such other committed money shall be ignored for purposes of computing the Debt Service Requirements, and any such firmly committed Debt shall be treated as outstanding Debt with terms as set forth in the related loan commitment."

(f) Upon the receipt of consent of the Holders of a majority in principal amount of outstanding Obligations under the Agreement, Sections 519, 521, 522, 523 and 527 are deleted from the Agreement.

ARTICLE IV MISCELLANEOUS

- Section 4.01 <u>Confirmation of Agreement</u>. The Agreement and this Twentieth Supplemental Agreement shall be read, taken and construed as one and the same instrument. Except as amended and supplemented hereby, the provisions of the Agreement shall remain in full force and effect.
- Section 4.02 <u>Counterparts</u>. This Twentieth Supplemental Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be an original; but such counterparts shall together constitute but one and the same instrument.
- Section 4.03 <u>Governing Law</u>. This Twentieth Supplemental Agreement shall be governed by the laws of the Commonwealth without regard to choice of law doctrine.

IN WITNESS WHEREOF, the parties hereto have caused this Twentieth Supplemental Agreement to be duly executed all as of the date first above written.

[SEAL]	THE HOSPITALS AND HIGHER EDUCATION FACILITIES AUTHORITY OF PHILADELPHIA	
Attest:		
	By:	
Secretary	President	
	TEMPLE UNIVERSITY HOSPITAL, INC.	
Attest:		
	By:	
Secretary	Authorized Officer	
	TEMPLE UNIVERSITY HEALTH SYSTEM, INC	
Attest:		
	By:	
Secretary	Authorized Officer	
	TEMPLE PHYSICIANS, INC.	
Attest:		
	By:	
Secretary	Authorized Officer	
	TEMPLE HEALTH SYSTEM TRANSPORT TEAM, INC.	
Attest:	TEMM, INC.	
	By:	
Secretary	Authorized Officer	
	AMERICAN ONCOLOGIC HOSPITAL	
Attest:		
	By:	
Secretary	Authorized Officer	

THE INSTITUTE FOR CANCER RESEARCH

Attest:		
	By:	
Secretary	Authorized Officer	
	FOX CHASE CANCER CENTER MEDICAL GROUP, INC.	
	By:	
Secretary	Authorized Officer	
	FOX CHASE NETWORK, INC.	
	By:	
Secretary	Authorized Officer	
	U.S. BANK TRUST COMPANY, NATIONAL ASSOCIATION, as Trustee	
Attest:		
	By:	
Authorized Officer	Authorized Officer	



APPENDIX G FORM OF BOND COUNSEL OPINION



April 5, 2022

The Hospitals and Higher Education Facilities Authority of Philadelphia Philadelphia, Pennsylvania Temple University Health System, Inc., on behalf of itself and the rest of the Obligated Group Philadelphia, Pennsylvania

U.S. Bank Trust Company, National Association, as Trustee Philadelphia, Pennsylvania RBC Capital Markets, LLC, as the Underwriters' Representative Philadelphia, Pennsylvania

Re: The Hospitals and Higher Education Facilities Authority of Philadelphia Hospital Revenue Bonds (Temple University Health System Obligated Group), Series of 2022

Ladies and Gentlemen:

We have acted as Bond Counsel to The Hospitals and Higher Education Facilities Authority of Philadelphia (the "Authority") in connection with the issuance of its \$165,980,000 Hospital Revenue Bonds (Temple University Health System Obligated Group), Series of 2022 (the "Bonds"). The Bonds are issued under and pursuant to the laws of the Commonwealth of Pennsylvania (the "Commonwealth"), including particularly the Municipality Authorities Act, 53 Pa. Cons. Stat. §5601 et seq. and a Trust Indenture dated as of April 1, 2022 (the "Bond Indenture") between the Authority and U.S. Bank Trust Company, National Association, as bond trustee (the "Bond Trustee"). The Bonds have been authorized by a resolution duly adopted by the Authority on February 8, 2022 (the "Resolution"). Pursuant to a Bond Purchase Agreement (the "Bond Purchase Agreement") between the Authority and RBC Capital Markets, LLC (the "Underwriters' Representative"), as the representative of itself and the other underwriters for the Bonds as set forth in the Bond Purchase Agreement, and approved by Temple University Health System, Inc., as agent for the Obligated Group (the "Obligated Group Agent") made up of the Obligated Group Agent, Temple University Hospital, Inc., Temple Physicians, Inc., Temple Health System Transport Team, Inc., American Oncologic Hospital d/b/a Hospital of the Fox Chase Cancer Center, The Institute for Cancer Research d/b/a The Research Institute of Fox Chase Cancer Center, the Fox Chase Network, Inc., and Fox Chase Cancer Center Medical Group, Inc. (collectively, the "Obligated Group" and each an "Obligated Group Member"), the Underwriters will purchase the Bonds from the Authority for a public offering price as more fully set forth therein.

The Authority will lend the proceeds of the Bonds to the Obligated Group Agent pursuant to a Loan Agreement dated as of April 1, 2022 (the "Loan Agreement") between the Authority and the Obligated Group Agent. The Bonds will be payable from payments made by the Obligated Group Agent pursuant to the Loan Agreement. As security for its obligation to make the payments required under the Loan Agreement, the Obligated Group Agent has issued a promissory note (the "Obligation No. 1") in the principal amount of the Bonds under the terms of and pursuant to the Master Trust Indenture dated as of April 1, 2022, as supplemented by a Supplemental Master Trust Indenture No. 1 dated as of April 1, 2022 (as supplemented, the "Master Indenture"), between the Obligated Group and U.S. Bank Trust Company, National Association, as master trustee.

The Hospitals and Higher Education Facilities Authority of Philadelphia Temple University Health System, Inc. U.S. Bank National Association RBC Capital Markets, LLC

Obligation No. 1 is also issued pursuant to the terms of a Twentieth Supplemental Loan and Trust Agreement dated as of April 1, 2022 (the "Twentieth Supplement") by and among the Obligated Group, the Authority, and U.S. Bank Trust Company, National Association (as successor-in-interest to U.S. Bank National Association as successor trustee), as Trustee (the "LTA Trustee"), which amends and supplements a Loan and Trust Agreement dated as of January 15, 1993 (the "Original Loan and Trust Agreement" and, as previously amended and supplemented, and as further amended and supplemented by the Twentieth Supplement, the "Agreement").

The Bonds are being issued at the request of the Obligated Group to provide funds for the benefit of the Obligated Group pursuant to the Bond Indenture to provide financing for a project consisting of: (i) the current refunding of all or a portion of (a) the Authority's outstanding Hospital Revenue Bonds (Temple University Health System Obligated Group) Series A of 2012 (the "2012 Bonds"); and (ii) paying the costs of issuance of the Bonds (collectively, the "Project").

The Bonds will be limited obligations of the Authority, payable solely from certain payments to be made by the Obligated Group Agent to the Authority under the Loan Agreement and funds and accounts consisting of monies and securities held by the Trustee under the Bond Indenture. Obligation No. 1 is secured (i) by the Twentieth Supplement on a parity with other Parity Bonds and Obligations (each as defined in the Agreement) previously issued and to be issued under the Agreement, and (ii) by the Master Indenture on a parity with other Master Indenture Obligations (as defined in the Master Indenture) to be issued under the Master Indenture. The Obligated Group, together with any future members of the Obligated Group, is required by the Agreement to make payments to the LTA Trustee in amounts sufficient to pay, among other things, the principal or redemption price of and interest on the Obligated Group, is required by the Master Indenture to make payments to the Master Trustee in amounts sufficient to pay, among other things, the principal or redemption price of and interest on Obligation No. 1 and other Master Indenture Obligations.

Each of the Obligated Group Members has represented that it is an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), is exempt from federal income tax under Section 501(a) of the Code, except for unrelated business income subject to taxation under Section 511 of the Code, and is not a "private foundation" within the meaning of Section 509(a) of the Code.

The Obligated Group Agent has covenanted in the Tax Compliance Agreement dated as of this date, with respect to the Bonds (the "Tax Compliance Agreement") to comply with the requirements of Section 148(f) of the Code which provides for the rebate of certain arbitrage profits to the United States, and has further covenanted that the Obligated Group shall not use proceeds of the Bonds or use or own the facilities financed or refinanced by the proceeds of the Bonds if such use would adversely affect the exclusion from gross income of interest on the Bonds. For the purposes of the opinions set forth below, we have assumed that the Authority and the Obligated Group Agent will comply with the covenants in the Bond Indenture, the Loan Agreement and the Tax Compliance Agreement, and that the Authority and the Obligated Group will comply with the covenants set forth in the Agreement, relating to the tax exempt status of interest on the Bonds, and that the proceeds of the Bonds will be expended as required by and described in the Bond Indenture, the Loan Agreement, the Tax Compliance Agreement and the other relevant documents, agreements, instruments and certificates executed and delivered in connection with the issuance of the Bonds (collectively, the "Bond Documents").

The Hospitals and Higher Education Facilities Authority of Philadelphia Temple University Health System, Inc. U.S. Bank National Association RBC Capital Markets, LLC

In rendering this opinion, we have examined (a) such constitutional provisions and statutes of the Commonwealth, (b) the proceedings authorizing the issuance of the Bonds, and (c) such certificates, opinions, receipts and other documents, including original counterparts or certified copies of the Bond Indenture, Loan Agreement, the Tax Compliance Agreement and such other documents as we have deemed necessary. In making the aforesaid examinations, we have assumed and relied upon the truth, completeness, authenticity and due authorization of all documents and certificates examined and of the authenticity of all the signatures thereon and we have not undertaken to verify the factual matters set forth in any certificates or other documents by independent investigation. In addition, we have assumed that all documents submitted to us as copies conform to the originals thereof. We have also assumed that the documents referred to herein have been duly authorized by all parties thereto other than the Authority and are, where appropriate, legally binding obligations of, and enforceable in accordance with their terms against all parties, except the Authority, and that the actions required to be taken with consent required to be obtained by such parties, have or will be taken or obtained.

In rendering this opinion, we have also assumed that the parties to the documents referred to herein, other than the Authority, have acted in full compliance with the terms of applicable laws, regulations and orders. We have relied upon the opinion of Austin McGreal, Esq., Philadelphia, Pennsylvania, Special Counsel to the Authority, dated the date hereof, to the effect that the Authority is a public instrumentality and a body corporate and politic duly organized and existing under the Constitution and laws of the Commonwealth.

We have also relied upon the opinion of John Ryan, Esquire, Chief Counsel to the Obligated Group, dated the date hereof to the effect that, among other matters, (a) each of the Obligated Group Members is an organization described in Section 501(c)(3) of the Code and is exempt from federal income tax under Section 501(a) of the Code, except for unrelated business income subject to taxation under Section 511 of the Code, and (b) none of the Obligated Group Members are "private foundations" within the meaning of Section 509(a) of the Code.

We have assumed that each party to the Bond Documents will carry out all obligations imposed on such party by the Bond Documents in accordance with the terms thereof and that all representations and certifications contained in the Bond Documents are accurate, true and complete.

On the basis of the foregoing and subject to the qualifications stated herein, we are of the opinion that, under existing law, as presently enacted and construed:

- 1. The Authority is a body corporate and politic validly existing under the laws of the Commonwealth, and has the power and authority to execute and deliver the Bond Indenture and the Loan Agreement and to issue and deliver the Bonds.
- 2. The Bond Indenture and the Loan Agreement have each been duly authorized, executed and delivered by the Authority and the obligations of the Authority under each of the Bond Indenture and the Loan Agreement constitute binding obligations of the Authority, enforceable against the Authority in accordance with its terms.
- 3. The Bonds have been duly authorized, executed, issued and delivered by the Authority and are the binding limited obligations of the Authority and are enforceable against the Authority in accordance with their terms.

The Hospitals and Higher Education Facilities Authority of Philadelphia Temple University Health System, Inc. U.S. Bank National Association RBC Capital Markets, LLC

- 4. Under the laws of the Commonwealth, as presently enacted and construed on the date hereof, the Bonds are exempt from personal property taxes in the Commonwealth and interest on the Bonds is exempt from Commonwealth personal income and corporate net income tax.
- 5. Interest on the Bonds (including any original issue discount properly allocated to a holder thereof) is excluded from the gross income of the owner of the Bonds for federal income tax purposes under existing law, as currently enacted and construed. Interest on the Bonds is not an item of tax preference for purposes of the federal individual alternative minimum tax.

In providing this opinion, we advise you that it may be determined in the future that interest on the Bonds, retroactive to the date of issuance thereof or prospectively, will not be excluded from the gross income of the owners of the Bonds for federal income tax purposes if certain requirements of the Code are not met. The Authority and the Obligated Group Members have covenanted in the Agreement and the Tax Compliance Agreement to comply with such requirements.

The purchasers of the Bonds should consult their own tax advisor as to collateral state or federal income tax consequences. We express no opinion regarding state or federal tax consequences arising with respect to the Bonds other than as expressly set forth in numbered paragraphs 4 and 5 hereof.

We express no opinion herein with respect to the perfection or priority of any lien or security interest or any other matter not set forth herein. We call your attention to the fact that the Bonds are special, limited obligations of the Authority, payable only out of certain revenues of the Authority and certain other monies available therefor as provided in the Bonds, and that the Bonds do not pledge the credit or taxing power of the Authority, the City of Philadelphia, the Commonwealth or any political subdivision, agency or instrumentality thereof. The Authority has no taxing power.

Our opinions as to the validity, binding effect and enforceability of the Bond Indenture, the Loan Agreement, and the Bonds are subject to the effect of any applicable bankruptcy, fraudulent conveyance or transfer, insolvency, reorganization, moratorium or similar law affecting creditors' rights generally and the effect of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity, at law, or in bankruptcy).

These opinions are rendered on the basis of the laws of the Commonwealth and, as to numbered paragraph 5 hereof only, federal law, in both instances as enacted and construed on the date hereof. We express no opinion as to, and we assume no responsibility for, any matter or information not set forth in the numbered paragraphs above.

We undertake no obligation to supplement this opinion at any time to reflect events, occurrences and changes of law following the date of delivery of the Bonds. We express no opinion on, and do not undertake to render an opinion in the future on, any event which requires, as a condition precedent to such event, that bond counsel render an opinion to the effect that such event will not cause interest on the Bonds to be included in gross income for federal income tax purposes. Furthermore, no assurance can be given that any such opinion can, or could in the future, be rendered.

Very truly yours,

APPENDIX H FORM OF CONTINUING DISCLOSURE AGREEMENT



FORM OF CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the "Disclosure Agreement") made as of the 1st day of April, 2022, by and among the Obligated Group (the "Obligated Group") consisting of Temple University Hospital, Inc., Temple University Health System, Inc. (the "Credit Group Representative"), Temple Physicians, Inc., Temple Health System Transport Team, Inc., The American Oncologic Hospital, The Institute for Cancer Research, Fox Chase Cancer Center Medical Group, Inc. and Fox Chase Network, Inc. (each a "Member" of the Obligated Group and collectively, the "Obligated Group Members") and Digital Assurance Certification, L.L.C., as dissemination agent (the "Dissemination Agent").

WITNESSETH

WHEREAS, pursuant to a Bond Purchase Agreement between The Hospitals and Higher Education Facilities Authority of Philadelphia (the "Authority") and RBC Capital Markets, LLC, acting for itself and as representative of the underwriters listed therein (the "Underwriters"), the Authority is selling \$165,890,000 aggregate principal amount of its Hospital Revenue Bonds (Temple University Health System Obligated Group), Series of 2022 (the "2022 Bonds") to the Underwriters; and

WHEREAS, Rule 15c2-12(b)(5) promulgated under the Securities Exchange Act of 1934, as amended (the "Rule"), provides that a Participating Underwriter (as defined in the Rule) shall not purchase or sell municipal securities in connection with an Offering (as defined in the Rule) unless the Participating Underwriter has reasonably determined that an issuer of the municipal securities, or an obligated person for whom financial or operating data is presented in the final official statement has undertaken, either individually or in connection with other issuers of such municipal securities or obligated persons, in a written agreement or contract for the benefit of holders of such securities, to provide, either directly or indirectly through an indenture trustee or a designated agent, certain specified financial information and operating data and notices of material events; and

WHEREAS, the Credit Group Representative, at the request of the Underwriters, has agreed to make publicly available certain financial information with respect to its affiliates that are not obligated persons and has determined to memorialize its agreement to do so in this Disclosure Agreement; and

WHEREAS, the Obligated Group Members are the only obligated persons with respect to the 2022 Bonds for purposes of the Rule; and

WHEREAS, in order to enable the Underwriters to comply with the requirements of the Rule, the Obligated Group Members, as the obligated persons, agree to undertake to provide the information and notices required by the Rule.

NOW, THEREFORE, in consideration of the premises, the parties hereto, intending to be legally bound hereby, agree as follows:

Section 1. <u>Definitions</u>. In addition to the terms defined in the above recitals, the following terms shall have the meanings specified below:

"Agreement" means the Loan Agreement dated as of April 1, 2022, between the Authority and the Credit Group Representative.

"Indenture" means the Bond Indenture dated as of April 1, 2022, between the Authority and U.S. Bank Trust Company, National Association as bond trustee (the "Bond Trustee").

"Loan and Trust Agreement" means the Loan and Trust Agreement dated as of January 15, 1993, as amended and supplemented.

"Master Indenture" means the Master Trust Indenture dated as of April 1, 2022, among the Obligated Group Members and U.S. Bank Trust Company, National Association as master trustee (the "Master Trustee"), as heretofore and hereafter amended and supplemented.

"EMMA" means the Electronic Municipal Market Access system with a portal at http://emma/msrb.org.

"Financial Obligation" shall mean "financial obligation" as such term is used in the Rule, as evidenced by SEC Release No. 34 83885 (August 20, 2018).

"MSRB" shall mean the Municipal Securities Rulemaking Board.

"Official Statement" shall mean the Official Statement dated March 9, 2022 with respect to the 2022 Bonds.

"Rating Agencies" shall mean Moody's Investor Service, Inc., S&P Global Ratings, a division of S&P Global Inc., and Fitch Ratings, and their successors and assigns.

Terms not otherwise defined herein shall have the same meanings as set forth in the Agreement.

Section 2. Covenants of the Obligated Group.

The Obligated Group covenants as follows:

- (a) The Obligated Group shall file with the Dissemination Agent or with EMMA, if any, within 120 days after the end of each fiscal year commencing with the fiscal year ending June 30, 2022 the information listed below. The Dissemination Agent shall file promptly upon receipt thereof, with EMMA, if any, the following information:
 - (1) a copy of the Health System (as defined in the Official Statement) consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States and audited by a certified public accountant;
 - (2) An update of the financial information and operating data relating to the Hospitals (as defined in the Official Statement) in the Official Statement contained in Appendix "A", under the following captions:
 - (i) In the first paragraph under each subheading under the heading "MEDICAL STAFF AND PHYSICIAN RELATIONS" for each of the Hospitals,
 - (ii) The tabular information under the heading "PERSONNEL" for each of the Hospitals,
 - (iii) The tabular utilization information for the Health System and each Hospital under the general heading "HEALTH SYSTEM UTILIZATION"

including the subsections thereunder. In the event that the reporting of utilization information for the Health System is amended, then this Section 2(a)(2)(iii) shall apply to such amended information; and

- (iv) The tabular information set forth in Table A-16: "Liquidity of the Obligated Group," Table A-17 "Debt Service Coverage" (excluding, however, the pro forma calculations set forth in Table A-17) and Table A-18: "Debt to Capitalization."
- (b) The Obligated Group shall file with the Dissemination Agent or with EMMA, if any, within 90 days after the end of each fiscal year commencing with the fiscal year ending June 30, 2022 the information listed below. The Dissemination Agent shall file promptly upon receipt thereof, with EMMA, if any, the following information:
 - (1) Unaudited consolidating balance sheet and consolidating statement of operations and changes in net assets for the Health System.
- (c) Commencing with the fiscal quarter ending June 30, 2022, and each fiscal quarter thereafter, the Obligated Group, not later than 60 days after the end of each of the first, second and third fiscal quarters (i.e. the fiscal quarters ending September 30, December 31, and March 31) and not later than 90 days after the end of the fourth fiscal quarter (i.e. June 30), shall file, or cause the Dissemination Agent to file with EMMA, if any (i) unaudited combined financial statements of the Health System for such fiscal quarter consisting of balance sheets, statements of operations and statements of cash flow, (ii) unaudited consolidating balance sheet and statement of operations and changes in net assets for such fiscal quarter for the Health System, and (iii) an update of the financial information and operating data relating to the Hospitals for such fiscal quarter and for the year to date of the type included in the Official Statement contained in Appendix A, under the following caption:
 - (1) The tabular utilization information for the Health System and each Hospital under the general heading "HEALTH SYSTEM UTILIZATION" including subheadings thereunder.
- (d) The Obligated Group agrees that it shall file or cause the Dissemination Agent to file with EMMA, if any, notice of the occurrence of any of the following events with respect to the 2022 Bonds (each a "Notice Event"):
 - (1) principal and interest payment delinquencies;
 - (2) non-payment related defaults, if material;
 - (3) unscheduled draws on debt service reserves reflecting financial difficulties;
 - (4) unscheduled draws on credit enhancements, if any, reflecting financial difficulties:
 - (5) substitution of credit or liquidity providers, if any, or their failure to perform;
 - (6) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-

TEB) or other material notices or determinations with respect to the tax status of the security, or other material events affecting the tax status of the security;

- (7) modifications to the rights of the holders of the 2022 Bonds, if material;
- (8) bond calls (other than mandatory sinking fund redemptions), material, and tender offers;
 - (9) defeasances:
 - (10) rating changes;
- (11) release, substitution, or sale of property securing repayment of any 2022 Bonds, if material;
- Group (for the purposes of the event identified in subsection 2(d)(12), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an Obligated Group Member in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Obligated Group, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Obligated Group);
- (13) the consummation of a merger, consolidation, or acquisition involving the Obligated Group or the sale of all or substantially all of the assets of the Obligated Group, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
- (14) appointment of a successor or additional trustee or the change of name of a trustee, if material; and
- (15) incurrence of a Financial Obligation of any Obligated Group Members, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of such Obligated Group Member, any of which affect security holders, if material; and
- (16) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of Obligated Group Members, any of which reflect financial difficulties.

Upon the occurrence of a Notice Event, the Obligated Group shall file, or cause the Dissemination Agent to file, a notice of such occurrence with the MSRB via EMMA, if any, in a timely manner not in excess of ten (10) Business Days after the occurrence of the Notice Event.

- (e) The Dissemination Agent shall prepare an affidavit of mailing for each notice delivered pursuant to clause (d) of this Section 2 and shall deliver such affidavit to the Obligated Group no later than three Business Days following the date of delivery of such notice.
 - (f) The Obligated Group shall send to the Authority:
 - (1) Copies of any information delivered to EMMA, if any, pursuant to subsections (a), (b), (c) or (d) above; and
 - (2) Concurrently with the delivery of any information required pursuant to subsection (a), (b), (c) or (d) above, a certificate signed by an authorized officer of the Credit Group Representative, as the case may be, that such information has been filed with EMMA, if any.
- (g) The Obligated Group agrees to provide the information required in subsections (a), (b), (c) and (d) above for all persons who are determined by the Obligated Group to be obligated persons under the Rule.
- (h) The Obligated Group agrees that the provisions of this Section 2 shall be for the benefit of the holders and beneficial holders of the 2022 Bonds, and shall be enforceable by any holders or beneficial holders of the 2022 Bonds in accordance with the provisions of Section 7 hereof.
- (i) Any beneficial owner or prospective owner of the 2022 Bonds, including the holder of a book entry credit evidencing an interest in the 2022 Bonds from time to time, may request that copies of any of the above listed information be provided directly to them after it becomes available, by contacting the Obligated Group at the addresses provided in Section 8(b) hereof.
- (j) Notwithstanding anything in this Disclosure Agreement to the contrary, the Obligated Group reserves the right to forward any of the information described in this Section 2 which would otherwise go to EMMA, if any, to such electronic filing systems and entities as are approved by the SEC by interpretative letter or "no action" letter for receipt of this type of information in order for "participating underwriters" (as defined in the Rule) to be in compliance with the continuing disclosure requirements of the Rule.

Section 3. Duties of Dissemination Agent.

- (a) The Dissemination Agent accepts and agrees to perform the duties imposed on it by this Disclosure Agreement, but only upon the terms and conditions set forth herein. The Dissemination Agent shall have only such duties in its capacity as are specifically set forth in this Disclosure Agreement. The Dissemination Agent may execute any powers hereunder and perform any duties required of it through attorneys, agents, and other experts, officers, or employees selected by it, and the written advice of such counsel or other experts shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon. The Dissemination Agent shall not be answerable for the default or misconduct of any attorney, agent, expert or employee selected by it with reasonable care. The Dissemination Agent shall not be answerable for the exercise of any discretion or power under this Disclosure Agreement or liable to the Obligated Group or any other person for actions taken hereunder, except only its own willful misconduct or negligence.
- (b) The Obligated Group shall pay the Dissemination Agent reasonable compensation for its services hereunder, and also all its reasonable expenses and disbursements, including reasonable fees and expenses of its counsel or other experts, as shall be agreed upon by the Dissemination Agent and the

Obligated Group. The provisions of this Section 3(b) shall survive termination of this Disclosure Agreement.

- (c) The Dissemination Agent may act on any resolution, notice, telegram, request, consent, waiver, certificate, statement, affidavit, or other paper or document which it in good faith believes to be genuine and to have been passed or signed by the proper persons or to have been prepared and furnished pursuant to any of the provisions of this Disclosure Agreement; and the Dissemination Agent shall be under no duty to make any investigation as to any statement contained in any such instrument, but may accept the same as conclusive evidence of the accuracy of such statement in the absence of actual notice to the contrary. The Dissemination Agent shall be under no obligation to institute any suit, or to take any action under this Disclosure Agreement, or to enter any appearance or in any way defend in any suit in which it may be made a defendant, or to take any steps in the execution of the duties hereby created or in the enforcement of any rights and powers hereunder, until it shall be indemnified to its satisfaction against any and all costs and expenses, outlays and counsel fees and expenses and other reasonable disbursements, and against all liability; the Dissemination Agent may, nevertheless, begin suit, or appear in and defend suit, or do anything else in its judgment proper to be done by it as such Dissemination Agent, without indemnity.
- (d) The Dissemination Agent shall have no duty or obligation to review or verify any of the information required to be provided herein or any other information, disclosures or notices provided to it by the Obligated Group and shall not be deemed to be acting in any fiduciary capacity for the Obligated Group, the holders of the 2022 Bonds or any other party.

Section 4. <u>Health System Information</u>.

- (a) The Credit Group Representative agrees to make available at the Health System's finance department website the information described in Section 2(a), 2(b) and 2(c) hereof.
- (b) To the extent not already provided as required by Section 2 hereof, the Credit Group Representative shall file copies of the information set forth in Section 4(a) hereof with the Dissemination Agent, and any registered or beneficial owner of a 2022 Bond, including the holder of a book entry credit evidencing an interest in the 2022 Bonds from time to time, may request that copies of such information be provided directly to such owner after the information is available, by contacting the Credit Group Representative at the address provided in Section 8(b) hereof.
- (c) By purchasing a 2022 Bond, each registered owner and each beneficial owner of the 2022 Bonds from time to time, including the holder of a book entry credit evidencing an interest in the 2022 Bonds from time to time, acknowledge and agree, as explicit and material consideration running to the Obligated Group to induce it to execute and deliver the Agreement and Master Indenture and cause the issuance of the 2022 Bonds, that (i) the affiliates comprising the Health System, other than the Obligated Group Members, are not obligated persons within the meaning of the Rule and the delivery of the information described herein shall not be or be deemed to create any agreement or admission, express or implied, that any such affiliates other than the Obligated Group Members, are obligated persons; and (ii) the sole and exclusive sources of payment and security for the 2022 Bonds are the interests and property pledged under the Agreement and Master Indenture and no recourse shall be had for any such payment or security against any affiliates of the Health System or their respective assets, revenues or income, except for the Obligated Group Members.

Section 5. <u>Termination of Reporting Obligations</u>.

The Obligated Group's obligations under this Disclosure Agreement shall terminate upon the legal defeasance, prior redemption or payment in full of all of the 2022 Bonds. If the Obligated Group's obligations with respect to the payment of the 2022 Bonds are assumed in full by some other entity, such other entity shall be responsible for compliance with this Disclosure Agreement in the same manner as if it were the Obligated Group, and the Obligated Group shall have no further responsibility hereunder. In addition, the Obligated Group's obligation to provide information and notices as specified in Section 2 hereof shall terminate (i) at such other times as such information and notices as specified in Section 2 hereof are no longer required to be provided by the Rule as it applies to the 2022 Bonds, (ii) in the event of a repeal or rescission of the Rule or (iii) upon a determination that the Rule is invalid or unenforceable. The Credit Group Representative's obligations under Section 4 hereof shall terminate at the time the Obligated Group's obligations terminate hereunder.

Section 6. Amendment.

This Disclosure Agreement may be amended by written agreement of the Dissemination Agent and the Obligated Group. The Dissemination Agent shall agree to any amendment requested by the Obligated Group (i) that is made in connection with a change in legal requirements, change in law or change in the identity, nature or status of the Obligated Group; (ii) that results in this Disclosure Agreement, as amended, complying with the requirements of the Rule, taking into account any amendments or interpretations of the Rule; and (iii) which does not impose any obligations upon Dissemination Agent which would materially differ from the obligations assumed by the Dissemination Agent under this Disclosure Agreement as originally executed. Prior to executing any requested amendment, the Dissemination Agent may request the Obligated Group to provide an opinion of counsel knowledgeable in federal securities laws and not unacceptable to the Dissemination Agent to the effect that the proposed amendment satisfies the requirements described above, which opinion the Dissemination Agent may exclusively rely upon. In the event of any amendment or waiver of a provision of this Disclosure Agreement, the Obligated Group shall describe such amendment in its next annual report delivered pursuant to Section 2(a) hereof, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the financial information or operating data being presented by the Obligated Group. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements (i.e., changes other than those prescribed by generally accepted accounting principles), (i) notice of such change shall be given pursuant to the Notice Event requirements as set forth in this Disclosure Agreement; and (ii) the annual report for the year in which the change is made will present a comparison between the financial statements as prepared on the basis of the former accounting principles. To the extent that the Rule requires or permits an approving vote of beneficial owners of 2022 Bonds, then 50% of the aggregate principal amount of the then outstanding 2022 Bonds shall constitute such approval. The Dissemination Agent shall provide notice of any amendment to this Disclosure Agreement to EMMA and the SID, if any, and to the registered holders of the 2022 Bonds.

Section 7. <u>Remedies for Default.</u>

In the event of a breach or default by the Dissemination Agent or the Obligated Group of its covenants hereunder, any beneficial owner of the 2022 Bonds shall have as their sole and exclusive remedy, the right to bring an action in a court of competent jurisdiction to compel specific performance by the Dissemination Agent or the Obligated Group. A breach or default under this Disclosure Agreement shall not constitute a breach or default or an event of default under the Agreement, Master Indenture, the 2022 Bonds or any other agreement.

Section 8. Miscellaneous.

- (a) This Disclosure Agreement shall be binding upon and inure the benefit of the parties hereto and their respective successors and assigns. In addition, registered owners of the 2022 Bonds, which for the purposes of this section 8 includes the holders of a book-entry credit evidencing an interest in the 2022 Bonds from time to time, shall be third party beneficiaries hereof and shall be entitled to enforce the provisions hereof as if they were parties hereto; but no consent of beneficial owners of the 2022 Bonds shall be required in connection with any amendment of this Disclosure Agreement, except as required by the Rule. Holders of book-entry credits evidencing an interest in the 2022 Bonds may file their names and addresses with the Dissemination Agent for the purposes of receiving notices or giving direction under this Disclosure Agreement.
- (b) All notices and other communications required or permitted under this Disclosure Agreement shall be in writing and shall be deemed to have been duly given, made and received only when delivered (personally, by recognized national or regional courier service, or by other messenger, for delivery to the intended addressee) or when deposited in the United States mails, registered or certified mail, postage prepaid, return receipt requested, addressed as set forth below:
 - (1) If to the Dissemination Agent:

Digital Assurance Certification, L.L.C. 315 East Robinson Street, Suite 300 Orlando, Florida 32801 Attention: Client Service Manager Fax: (407) 515-6513

(2) If to the Obligated Group:

Temple University Health System, Inc. 3509 N. Broad Street - 9th Floor Philadelphia, Pennsylvania 19140 Attention: Vice President and Chief Financial Officer

(3) If to the Authority:

The Hospitals and Higher Education Facilities Authority of Philadelphia 1880 J.F.K. Boulevard - Suite 1102 Philadelphia, Pennsylvania 19103 Attention: President

(4) If to MSRB:

Municipal Securities Rulemaking Board 1300 I Street NW, Suite 1000 Washington, DC 20005 Fax: (202) 898-1500

(5) Any filing under this Disclosure Agreement must be submitted to the EMMA website with a portal at http://emma/msrb.org as a word-searchable portable document.

Any party may alter the address to which communications are to be sent by giving notice of such change of address in conformity with the provisions of this Section 8(b).

- (c) This Disclosure Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original as against any parties whose signature appear thereon, and all of which shall together constitute one and the same instrument. This Disclosure Agreement shall become binding when one or more counterparts hereof, individually or taken together, shall be executed by all of the parties hereto.
- (d) This Disclosure Agreement and all questions relating to its validity, interpretation, performance and enforcement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Obligated Group has caused this Disclosure Agreement to be duly executed as of the date first written above.

TEMPLE UNIVERSITY HOSPITAL, INC.
TEMPLE PHYSICIANS, INC.
TEMPLE HEALTH SYSTEM TRANSPORT TEAM, INC.
THE AMERICAN ONCOLOGIC HOSPITAL
THE INSTITUTE FOR CANCER RESEARCH
FOX CHASE CANCER CENTER MEDICAL GROUP, INC.
FOX CHASE NETWORK, INC.

By: TEMPLE UNIVERSITY HEALTH SYSTEM, INC. as Credit Group Representative

By:			
Name:			
Title:			
DIGITAL ASSURANCE	CERTIFICATION	I I C	26
Dissemination Agent	CERTIFICATION,	L.L.C.,	as
By:			
Name:			
Title:			

APPENDIX I

INFORMATION REGARDING BOOK-ENTRY SYSTEM

The information in the following section has been prepared from information made available by DTC for use in securities offering documents, and the Authority, the Bond Trustee, the Underwriters and the Corporation take no responsibility for the accuracy or completeness thereof. The Authority, the Bond Trustee, the Underwriters and the Corporation cannot and do not give any assurances that DTC, DTC Participants or Indirect Participants will distribute to the Beneficial Owners either (a) payments of interest, principal or premium, if any, with respect to the Bonds or (b) certificates representing ownership interest in or other confirmation of ownership interest in the Bonds, or that they will so do on a timely basis or that DTC, DTC Participants or DTC Indirect Participants will act in the manner described in this Official Statement. The current "Rules" applicable to DTC are on file with the Securities and Exchange Commission and the current "Procedures" of DTC to be followed in dealing with DTC Participants are on file with DTC.

When the Bonds are issued, ownership interests will be available to purchasers only through a book-entry-only system (the "Book-Entry System") maintained by DTC. DTC will act as initial securities depository for the Bonds. Initially, the Bonds will be issued as fully-registered bonds, registered in the name of Cede & Co. (DTC's partnership nominee). One fully-registered bond will be issued for each maturity of the Bonds, each in the aggregate original principal amount of such maturity of the Bonds and will be deposited with DTC. The following discussion will not apply to the Bonds if issued in certificate form due to the discontinuance of the DTC Book-Entry system, as described below.

General

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a S&P Global Ratings rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com. Neither the information on DTC's websites, nor any links from those websites, is part of this Official Statement, and such information cannot be relied upon to be accurate as of the date of this Official Statement, nor should any such information be relied upon to make investment decisions regarding the Bonds.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of a Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds. DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. The Obligated Group Members will not have any responsibility or obligation to such Direct Participants and Indirect Participants or the persons for whom they act as nominees with respect to the Bonds. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal or Redemption Price and interest payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Bond Trustee or other paying agent, if any, on payable dates in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant

and not of DTC nor its nominee, or the Bond Trustee or other paying agent, if any, the Obligated Group Members or the Authority, subject to any statutory, or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Bond Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Authority and the Bond Trustee. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The Authority and the Bond Trustee may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository) for the Bonds. In that event, Bond certificates will be printed and delivered.

Limitations

For so long as the Bonds of a series are registered in the name of DTC or its nominee, Cede & Co., or such other nominee as may be required by an authorized representative of DTC, the Authority and the Bond Trustee will recognize only DTC or its nominee, Cede & Co., as the registered owner of such series of the Bonds for all purposes, including payments, notices and voting.

Under the Indenture, payments made by the Bond Trustee to DTC or its nominee will satisfy the Authority's obligations under the Indenture and the Corporation's obligations under the Loan Agreement and on Obligation No. 1 to the extent of the payments so made.

Neither the Authority, the Underwriters, the Corporation nor the Bond Trustee will have any responsibility or obligation with respect to (i) the accuracy of the records of DTC, its nominee or any DTC Participant or Indirect Participant with respect to any beneficial ownership interest in any Bond, (ii) the delivery to any DTC Participant or Indirect Participant or any other Person, other than an owner, as shown in the Bond Register, of any notice with respect to any Bond including, without limitation, any notice of redemption, tender, purchase or any event which would or could give rise to a tender or purchase right or option with respect to any Bond, (iii) the payment to any DTC Participant or Indirect Participant or any other Person, other than an owner, as shown in the Bond Register, of any amount with respect to the principal of, premium, if any, or interest on, any Bond or (iv) any consent given by DTC as registered owner.

Prior to any discontinuation of the book-entry-only system described above, the Authority and the Bond Trustee may treat DTC as, and deem DTC to be, the absolute owner of the Bonds for all purposes whatsoever, including, without limitation, (i) the payment of principal of, premium, if any, and interest on the Bonds, (ii) giving notices of redemption and other matters with respect to the Bonds, (iii) registering transfers with respect to the Bonds and (iv) the selection of Bonds for redemption.



APPENDIX J SPECIMEN MUNICIPAL BOND INSURANCE POLICY





MUNICIPAL BOND INSURANCE POLICY

ISSUER: Policy No: -N

BONDS: \$ in aggregate principal amount of Effective Date:

Premium: \$

ASSURED GUARANTY MUNICIPAL CORP. ("AGM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of AGM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which AGM shall have received Notice of Nonpayment, AGM will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by AGM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest, then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in AGM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by AGM is incomplete, it shall be deemed not to have been received by AGM for purposes of the preceding sentence and AGM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, AGM shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by AGM hereunder. Payment by AGM to the Trustee or Paying Agent for the benefit of the Owner shall, to the extent thereof, discharge the obligation of AGM under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless AGM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which recovered from been such Owner pursuant

Page 2 of 2 Policy No. -N

United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to AGM which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

AGM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to AGM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to AGM and shall not be deemed received until received by both and (b) all payments required to be made by AGM under this Policy may be made directly by AGM or by the Insurer's Fiscal Agent on behalf of AGM. The Insurer's Fiscal Agent is the agent of AGM only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of AGM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, AGM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to AGM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of AGM, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be canceled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, ASSURED GUARANTY MUNICIPAL CORP. has caused this Policy to be executed on its behalf by its Authorized Officer.



A subsidiary of Assured Guaranty Municipal Holdings Inc. 1633 Broadway, New York, N.Y. 10019 (212) 974-0100

Form 500NY (5/90)

TEMPLE HEALTH

