Interim Unaudited Consolidated Financial Statements and Other Information

For The Period Ended December 31, 2018

The Cleveland Clinic Foundation d.b.a. Cleveland Clinic Health System





CLEVELAND CLINIC HEALTH SYSTEM INTERIM UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS AND OTHER INFORMATION FOR THE PERIOD ENDED DECEMBER 31, 2018

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March 14, 2019

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of the Cleveland Clinic Foundation (together with its subsidiaries and affiliates that comprise the health system, the "Cleveland Clinic") is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Cleveland Clinic's consolidated financial statements for external purposes in accordance with generally accepted accounting principles. This process contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Cleveland Clinic; (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of the consolidated financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Cleveland Clinic are being made only in accordance with appropriate authorizations of management and directors of the Cleveland Clinic; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Cleveland Clinic's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an assessment of the Cleveland Clinic's internal control over financial reporting as of December 31, 2018 using the framework specified in *Internal Control – Integrated Framework (2013 framework)*, published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In April 2018, Union Hospital joined the Cleveland Clinic. Management elected to exclude Union Hospital from the assessment of effectiveness of internal control over financial reporting as of December 31, 2018. In our opinion, Cleveland Clinic maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

Tomislav Mihaljevic, M.D.

President and Chief Executive Officer

Michael P. Harrington

Associate Chief Financial Officer

Steven C. Glass Chief Financial Officer

Timothy L. Longville

Chief Accounting Officer/Controller

The Cleveland Chinic Foundation

9500 Euclid Avenue Cleveland, Ohio 44195



Unaudited Consolidated Balance Sheets

(\$ in thousands)

	December 31		
	2018 2017		
Assets			
Current assets:			
Cash and cash equivalents	\$ 444,763	\$ 241.	,227
Patient receivables, net of allowances for uncollectible			
accounts of \$194,159 in 2017	1,122,918	1,012	,903
Investments for current use	53,841	154.	,971
Other current assets	426,465	374	,726
Total current assets	2,047,987	1,783	,827
Investments:			
Long-term investments	7,533,668	7,729	,697
Funds held by trustees	49,377	69.	,234
Assets held for self-insurance	106,966	159.	,802
Donor-restricted assets	744,851	717.	,410
	8,434,862	8,676	,143
Property, plant, and equipment, net	5,072,464	4,699	,697
Other assets:			
Pledges receivable, net	152,448		,019
Trusts and interests in foundations	87,606	· ·	,643
Other noncurrent assets	411,762		,010
	651,816	706	,672
Total assets	\$ 16,207,129	\$ 15,866.	,339

Unaudited Consolidated Balance Sheets (continued) (\$ in thousands)

	December 31		
	2018 2017		
Liabilities and net assets			
Current liabilities:			
Accounts payable	\$ 527,672	\$ 503,691	
Compensation and amounts withheld from payroll	359,342	345,446	
Current portion of long-term debt	191,350	457,813	
Variable rate debt classified as current	407,776	573,270	
Other current liabilities	493,453	438,662	
Total current liabilities	1,979,593	2,318,882	
Long-term debt	3,558,911	2,996,278	
Other liabilities:			
Professional and general liability insurance reserves	141,182	147,327	
Accrued retirement benefits	465,527	492,833	
Other noncurrent liabilities	542,029	567,566	
	1,148,738	1,207,726	
Total liabilities	6,687,242	6,522,886	
Net assets:			
Without donor restrictions	8,465,468	8,346,649	
With donor restrictions	1,054,419	996,804	
Total net assets	9,519,887	9,343,453	
Total liabilities and net assets	\$ 16,207,129	\$ 15,866,339	

See notes to unaudited consolidated financial statements.

Unaudited Consolidated Statements of Operations and Changes in Net Assets $(\$ in \ thousands)$

Operations

o positione.	Three Months Ended December 31			
	20	18		2017
Unrestricted revenues				
Net patient service revenue	\$ 2,1	09,500	\$	1,956,080
Provision for uncollectible accounts		_		(53,112)
	2,1	09,500		1,902,968
Other	2	50,110		221,912
Total unrestricted revenues	2,3	59,610		2,124,880
Expenses				
Salaries, wages, and benefits	1,2	26,823		1,117,742
Supplies	2	34,085		207,707
Pharmaceuticals	2	93,123		247,726
Purchased services and other fees	1:	59,362		140,776
Administrative services		64,210		62,269
Facilities		88,878		82,879
Insurance		13,274		13,560
	2,0	79,755		1,872,659
Operating income before interest, depreciation,				
amortization, and special charges	2	79,855		252,221
Interest		36,522		32,990
Depreciation and amortization	1	19,142		118,455
Operating income before special charges	1:	24,191		100,776
Special charges		241		1,072
Operating income	1:	23,950		99,704
Nonoperating gains and losses				
Investment return	(3	11,395)		248,375
Derivative (losses) gains	(27,975)		4,217
Other, net	(.	28,627)		(41,439)
Net nonoperating (losses) gains	(3	67,997)		211,153
(Deficiency) excess of revenues over expenses	(2	44,047)		310,857



Unaudited Consolidated Statements of Operations and Changes in Net Assets (continued) (\$ in thousands)

Changes in Net Assets

	Three Months Ended			
	December 31			· 31
	2018 2017		2017	
Changes in net assets without donor restrictions:				
(Deficiency) excess of revenues over expenses	\$	(244,047)	\$	310,857
Donated capital		78		-
Net assets released from restriction for capital purposes		5,479		9,864
Retirement benefits adjustment		26,736		(1,398)
Foreign currency translation		(824)		2,189
Other		323		287
(Decrease) increase in net assets without donor restrictions		(212,255)		321,799
Changes in net assets with donor restrictions:				
Gifts and bequests		53,465		42,218
Net investment (loss) income		(17,916)		16,893
Net assets released from restrictions used for		(17,510)		10,075
operations included in other unrestricted revenues		(16,480)		(15,213)
Net assets released from restriction for capital purposes		(5,479)		(9,864)
Change in interests in foundations		(3,338)		1,411
Change in value of perpetual trusts		(2,101)		829
Other		(264)		(139)
Increase in net assets with donor restrictions		7,887		36,135
		,		
(Decrease) increase in net assets		(204,368)		357,934
Net assets at beginning of period		9,724,255		8,985,519
Net assets at end of period	\$	9,519,887	\$	9,343,453

See notes to unaudited consolidated financial statements.

Unaudited Consolidated Statements of Operations and Changes in Net Assets (\$ in thousands)

Operations

	Year Ended December 31		
	2018 2017		
Unrestricted revenues			
Net patient service revenue	\$ 8,031,799	\$ 7,794,551	
Provision for uncollectible accounts	_	(296,469)	
	8,031,799	7,498,082	
Other	895,758	908,920	
Total unrestricted revenues	8,927,557	8,407,002	
Expenses			
Salaries, wages, and benefits	4,857,426	4,565,140	
Supplies	864,870	793,365	
Pharmaceuticals	1,090,981	957,045	
Purchased services and other fees	563,770	533,045	
Administrative services	222,116	198,863	
Facilities	353,478	334,371	
Insurance	71,584	61,060	
	8,024,225	7,442,889	
Operating income before interest, depreciation,			
amortization, and special charges	903,332	964,113	
Interest	138,844	140,824	
Depreciation and amortization	495,636	487,240	
Operating income before special charges	268,852	336,049	
Special charges	2,419	5,491	
Operating income	266,433	330,558	
Nonoperating gains and losses			
Investment return	(191,190)	896,139	
Derivative losses	(186)	(2,305)	
Other, net	28,862	(74,078)	
Net nonoperating (losses) gains	(162,514)	819,756	
Excess of revenues over expenses	103,919	1,150,314	



Unaudited Consolidated Statements of Operations and Changes in Net Assets (continued) (\$ in thousands)

Changes in Net Assets

	Year Ended December 31 2018 2017		
Changes in net assets without donor restrictions:			
Excess of revenues over expenses	\$ 103,919	\$ 1,150,314	
Donated capital	603	· · · · · -	
Net assets released from restriction for capital purposes	12,159	81,871	
Retirement benefits adjustment	24,589	(3,373)	
Foreign currency translation	(23,332)	` ' '	
Other	881	327	
Increase in net assets without donor restrictions	118,819	1,258,440	
	,	, ,	
Changes in net assets with donor restrictions:			
Gifts and bequests	121,814	120,671	
Net investment (loss) income	(9,005)	55,112	
Net assets released from restrictions used for			
operations included in other unrestricted revenues	(51,886)	, , ,	
Net assets released from restriction for capital purposes	(12,159)	(81,871)	
Change in interests in foundations	(3,300)	5,047	
Change in value of perpetual trusts	(984)	2,335	
Union Hospital member substitution contribution	13,180	-	
Other	(45)	(405)	
Increase in net assets with donor restrictions	57,615	59,214	
Increase in net assets	176,434	1,317,654	
Net assets at beginning of year	9,343,453	8,025,799	
Net assets at end of year	\$ 9,519,887	\$ 9,343,453	

See notes to unaudited consolidated financial statements.

Unaudited Consolidated Statements of Cash Flows (\$ in thousands)

	2018	2017
Operating activities and net nonoperating gains and losses		
Increase in net assets	\$ 176,434	\$ 1,317,654
Adjustments to reconcile increase in net assets to net cash provided by		
operating activities and net nonoperating gains and losses:		
Loss on extinguishment of debt	_	46,159
Retirement benefits adjustment	(24,589)	3,373
Net realized and unrealized loses (gains) on investments	249,359	(897,841)
Depreciation and amortization	497,357	490,663
Foreign currency translation loss (gain)	23,332	(29,301)
Donated capital	(603)	_
Restricted gifts, bequests, investment income, and other	(108,525)	(183,165)
Amortization of bond premiums and debt issuance costs	(6,046)	(3,106)
Net gain in value of derivatives	(15,701)	(26,509)
Union Hospital member substitution contribution	(64,876)	_
Changes in operating assets and liabilities:		
Patient receivables	(89,108)	46,268
Other current assets	(27,394)	10,173
Other noncurrent assets	65,984	(66,487)
Accounts payable and other current liabilities	80,075	16,404
Other liabilities	(10,213)	92,395
Net cash provided by operating activities and net		
nonoperating gains and losses	745,486	816,680
Financing activities		
Proceeds from long-term borrowings	556,864	1,118,137
Payments for advance refunding and redemption of long-term debt	(420,030)	(1,110,120)
Principal payments on long-term debt	(88,437)	(84,257)
Debt issuance costs	(6,417)	(8,173)
Change in pledges receivable, trusts, and interests in foundations	(16,300)	(1,206)
Restricted gifts, bequests, investment income, and other	108,525	183,165
Net cash provided by financing activities	134,205	97,546
Investing activities		
Expenditures for property, plant, and equipment	(804,515)	(607,720)
Proceeds from sale of property, plant, and equipment	165	1,486
Cash acquired through member substitution	1,515	_
Net change in cash equivalents reported in long-term investments	68,265	(362,513)
Purchases of investments	(3,683,770)	(2,441,368)
Sales of investments	3,747,101	2,215,234
Net cash used in investing activities	(671,239)	(1,194,881)
Effect of exchange rate changes on cash	(4,916)	1,254
Increase (decrease) in cash and cash equivalents	203,536	(279,401)
Cash and cash equivalents at beginning of year	241,227	520,628
Cash and cash equivalents at end of year	\$ 444,763	\$ 241,227
Supplemental disclosure of noncash activity		
Assets acquired through capital leases and other financing agreements	\$ 40,185	\$ 28,062
Accounts payable accruals for property, plant, and equipment	\$ 86,804	\$ 82,206
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Year Ended December 31

See notes to unaudited consolidated financial statements.



Basis of Presentation

The accompanying unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) for interim financial information. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of management, all adjustments considered necessary for a fair presentation have been included and are of a normal and recurring nature. For further information, refer to the audited financial statements and notes thereto for the year ended December 31, 2018.

1. Organization and Consolidation

The Cleveland Clinic Foundation (Clinic) is a nonprofit, tax-exempt, Ohio corporation organized and operated to provide medical and hospital care, medical research, and education. The accompanying consolidated financial statements include the accounts of the Clinic and its controlled affiliates, d.b.a. Cleveland Clinic Health System (System).

The System is the leading provider of healthcare services in northeast Ohio. As of December 31, 2018, the System operates 14 hospitals with approximately 4,200 staffed beds. Thirteen of the hospitals are operated in the Northeast Ohio area, anchored by the Clinic. The System operates 21 outpatient Family Health Centers, 11 ambulatory surgery centers, as well as numerous physician offices, which are located throughout northeast Ohio, and specialized cancer centers in Sandusky and Mansfield, Ohio. In Florida, the System operates a hospital and a clinic in Weston, an outpatient family health and surgery center in Coral Springs, an outpatient family health center in West Palm Beach and numerous physician offices located throughout southeast Florida. In addition, the System operates a health and wellness center and a sports medicine clinic in Toronto, Canada and a specialized neurological clinical center in Las Vegas, Nevada. Pursuant to agreements, the System also provides management services for Ashtabula County Medical Center, located in Ashtabula, Ohio, with approximately 180 staffed beds, and Cleveland Clinic Abu Dhabi, a multispecialty hospital offering critical and acute care services that is part of Mubadala Development Company's network of healthcare facilities located in Abu Dhabi, United Arab Emirates with approximately 364 staffed beds.

All significant intercompany balances and transactions have been eliminated in consolidation.

2. Business Combinations

Effective April 1, 2018, the Clinic through a subsidiary became the sole member of The Union Hospital Association (Union Hospital) through a non-cash business combination transaction. The business combination was recorded under the acquisition method of accounting. The System recorded the fair value of the assets acquired of \$122.8 million and the liabilities assumed of \$57.9 million as of April 1, 2018. The fair value of net assets of \$64.9 million was recognized in the consolidated statement of operations and changes in net assets for the year ended December 31, 2018 as a member substitution contribution of \$51.7 million included in other nonoperating gains and losses and contributions of net assets with donor restrictions of \$13.2 million. There was no goodwill or identifiable intangible assets recorded as a result of the member substitution.

2. Business Combinations (continued)

The results of operations for Union Hospital are included in the consolidated statements of operations and changes in net assets beginning on April 1, 2018. For the nine months ended December 31, 2018, Union Hospital had total unrestricted revenues of \$92.8 million, operating loss of \$11.1 million and a deficiency of revenues over expenses of \$11.4 million. The operations of Union Hospital did not have a material impact on net assets with donor restrictions.

Pro forma results of operations and changes in net assets of Union Hospital for the years ended December 31, 2018 and 2017, as though the business combination transaction had occurred on January 1, 2017, are not material and accordingly, are not provided.

3. Accounting Policies

Recent Accounting Pronouncements

Adopted

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers, which outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance, and requires expanded disclosures about revenue recognition. The core principle of the revenue model is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The System adopted ASU 2014-09 on January 1, 2018 using the modified retrospective method of transition. The System performed an analysis of revenue streams and transactions under ASU 2014-09. In particular, for net patient service revenue, the System performed an analysis into the application of the portfolio approach as a practical expedient to group patient contracts with similar characteristics, such that revenue for a given portfolio would not be materially different than if it were evaluated on a contractby-contract basis. Upon adoption, the majority of what was previously classified as provision for uncollectible accounts and presented as a reduction to net patient service revenue on the consolidated statements of operations and changes in net assets is treated as a price concession that reduces the transaction price, which is reported as net patient service revenue. The new standard also requires enhanced disclosures related to the disaggregation of revenue and significant judgments made in measurement and recognition. The impact of adopting ASU 2014-09 was not material to total unrestricted revenues, excess of revenues over expenses or total net assets.

3. Accounting Policies (continued)

In August 2016, the FASB issued ASU 2016-14, *Presentation of Financial Statements for Not-for-Profit Entities*. This ASU intends to make certain improvements to the current reporting requirements for not-for-profit entities. This standard sets forth changes to net asset classification requirements and the information presented about a not-for-profit entity's liquidity, financial performance and cash flows. The System adopted ASU 2016-14 in its consolidated financial statements effective December 31, 2018, applying retrospectively to all periods presented. The impact of adoption changes the classification of net assets on the consolidated balance sheets and consolidated statements of operations and changes in net assets from three classes of net assets to two classes of net assets. The System also added disclosure for the liquidity and availability of financial assets at the balance sheet date to meet cash needs for general expenditures within one year and disaggregated functional expense classifications by their natural expense classification. The impact of adopting ASU 2016-14 had no impact to total unrestricted revenues, excess of revenues over expenses or total net assets.

Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, *Leases*. This ASU requires lessees to recognize assets and liabilities on the balance sheet for leases with lease terms greater than twelve months. The recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification as a finance or operating lease. This amends current guidance that requires only capital leases to be recognized on the lessee balance sheet. ASU 2016-02 will also require additional disclosures on the amount, timing and uncertainty of cash flows arising from leases. The System adopted ASU 2016-02 on January 1, 2019 using a modified retrospective approach. The impact of adoption on the consolidated financial statements will be an increase in other current and noncurrent assets to record right-of-use assets and an increase in other current and noncurrent liabilities to record lease obligations for current operating leases of approximately \$350 million representing the present value of remaining lease payments for operating leases.

In June 2018, the FASB issued ASU No. 2018-08, *Not-for-Profit Entities, Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*. This ASU intends to clarify and improve current accounting guidance to determine when a transaction should be accounted for as a contribution or as an exchange transaction and provides additional guidance about how to determine whether a contribution is conditional. The ASU is effective for the System for annual reporting periods beginning after June 15, 2018 for contributions received and after December 15, 2018 for contributions made, and interim periods beginning after December 31, 2019 with early adoption permitted. The System is currently assessing the impact that ASU 2018-08 will have on its consolidated financial statements and will adopt the provisions upon the effective date.

In August 2018, the FASB issued ASU No. 2018-13, Fair Value Measurement, Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement. This ASU intends to improve the effectiveness of disclosures in the notes to financial statements by modifying disclosure requirements for fair value measurements. The ASU is effective for the System for annual and interim reporting periods beginning after December 15, 2019 with early adoption permitted. The System is currently assessing the impact that ASU 2018-13 will have on its consolidated financial statements and will adopt the provisions upon the effective date.

3. Accounting Policies (continued)

In August 2018, the FASB issued ASU No. 2018-14, Compensation – Retirement Benefits – Defined Benefit Plans – General, Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans. This ASU intends to improve the effectiveness of disclosures in the notes to financial statements by modifying disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. The ASU is effective for the System for annual reporting periods ending after December 15, 2021 with early adoption permitted. The System is currently assessing the impact that ASU 2018-14 will have on its consolidated financial statements and will adopt the provisions upon the effective date.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software, Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract.* This ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The ASU is effective for the System for annual reporting periods beginning after December 15, 2020, and interim periods beginning after December 15, 2021 with early adoption permitted. The System is currently assessing the impact that ASU 2018-15 will have on its consolidated financial statements and will adopt the provisions upon the effective date.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements. Estimates also affect the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Net Patient Service Revenue and Patient Receivables

Net patient service revenue is reported at the amount that reflects the consideration to which the System expects to be entitled for providing patient care. These amounts are due from patients, third-party payors, and others and includes variable consideration for retroactive revenue adjustments due to settlement of reviews and audits. Generally, the System bills the patients and third-party payors several days after the services are performed or shortly after discharge. Revenue is recognized as performance obligations are satisfied.

3. Accounting Policies (continued)

Performance obligations are determined based on the nature of the services provided by the System. Revenue for performance obligations satisfied over time is recognized based on actual charges incurred in relation to total expected or actual charges. The System believes that this method provides a reasonable depiction 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 receiving inpatient acute care services. The System measures the performance obligation from admission into the hospital to the point when it is no longer required to provide services to that patient, which is generally at the time of discharge. These services are considered to be a single performance obligation. Revenue for performance obligations satisfied at a point in time is recognized when services are provided and the System does not believe it is required to provide additional services to the patient.

Because all of its performance obligations relate to contracts with a duration of less than one year, the System has elected to apply the optional exemption provided in FASB ASC 606-10-50-14(a) 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 unsatisfied or partially unsatisfied performance obligations referred to above are primarily related to inpatient acute care services 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.

The System is utilizing the portfolio approach practical expedient in ASC 606 for contracts related to net patient service revenue. The System accounts for the contracts within each portfolio as a collective group, rather than individual contracts, based on the payment pattern expected in each portfolio category and the similar nature and characteristics of the patients within each portfolio. The portfolios consist of major payor classes for inpatient revenue and outpatient revenue. Based on historical collection trends and other analyses, the System has concluded that revenue for a given portfolio would not be materially different than if accounting for revenue on a contract-by-contract basis.

The System has agreements with third-party payors that generally provide for payments to the System at amounts different from its established rates. For uninsured patients who do not qualify for charity care, the System recognizes revenue based on established rates, subject to certain discounts and implicit price concessions as determined by the System. The System determines the transaction price based on standard charges for services provided, reduced by explicit price concessions provided to third-party payors, discounts provided to uninsured patients in accordance with the System's policy, and implicit price concessions provided to uninsured patients. Explicit price concessions are based on contractual agreements, discount policies and historical experience. Implicit price concessions represent differences between amounts billed and the estimated consideration the System expects to receive from patients, which are determined based on historical collection experience, current market conditions and other factors.

3. Accounting Policies (continued)

Generally, patients who are covered by third-party payors are responsible for patient responsibility balances, including deductibles and coinsurance, which vary in amount. The System estimates the transaction price for patients with deductibles and coinsurance based on historical experience and current market conditions. The initial estimate of the transaction price is determined by reducing the standard charge by any explicit price concessions, discounts, and implicit price concessions. Subsequent changes to the estimate of the transaction price are generally recorded as adjustments to patient service revenue in the period of the change. Adjustments arising from a change in the transaction price were not significant in 2018 or 2017.

The System is paid a prospectively determined rate for the majority of inpatient acute care and outpatient, skilled nursing, and rehabilitation services provided (principally Medicare, Medicaid, and certain insurers). These rates vary according to a patient classification system that is based on clinical, diagnostic, and other factors. Payments for capital are received on a prospective basis for Medicare and on a cost reimbursement methodology for Medicaid. Payments are received on a prospective basis for the System's medical education costs, subject to certain limits. The System is paid for cost reimbursable items at a tentative rate, with final settlement determined after submission of annual cost reports by the System and audits thereof by the Medicare Administrative Contractor.

Laws and regulations governing the Medicare and Medicaid programs are complex and subject to interpretation as well as significant regulatory action, and, in the normal course of business, the System is subject to contractual reviews and audits, including audits initiated by the Medicare Recovery Audit Contractor program. As a result, there is at least a reasonable possibility that recorded estimates will change in the near term. The System believes it is in compliance with applicable laws and regulations governing the Medicare and Medicaid programs and that adequate provisions have been made for any adjustments that may result from final settlements.

Settlements with third-party payors for retroactive adjustments due to reviews and audits are considered variable consideration and are included in the determination of the estimated transaction price for providing patient care in the period the related services are provided. These settlements are estimated based on the terms of the payment agreement with the payor, correspondence from the payor and the System's historical settlement activity, including an assessment to ensure that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the retroactive adjustment is subsequently resolved. Estimated settlements are adjusted in future periods as adjustments become known or as years are settled or are no longer subject to such reviews and audits. Adjustments arising from a change in estimated settlements increased net patient service revenue by \$16.7 million and \$5.9 million in 2018 and 2017, respectively.

3. Accounting Policies (continued)

As part of integration efforts involving Akron General Health System (Akron General) and through review of contractual relationships between Akron General and some of its independent physician practice groups, the System identified possible violations to the Federal Anti-Kickback Statute and Limitations on Certain Physician Referrals regulation (commonly referred to as the "Stark Law"), which may have resulted in false claims to federal and/or state healthcare programs and may result in liability under the Federal Anti-Kickback Statute, Stark Law, False Claims Act and/or other laws and regulations. Akron General is cooperating with the appropriate government authorities on such possible violations. The resolution of this matter is not expected to be material to the System's consolidated financial statements.

Charity Care

The System provides care to patients who do not have the ability to pay and who qualify for charity care pursuant to established policies of the System. Charity care is defined as services for which patients have the obligation and willingness to pay but do not have the ability to do so. The System does not report charity care as net patient service revenue. The cost of charity care provided in 2018 and 2017 approximated \$107 million and \$91 million, respectively. The System estimated these costs by calculating a ratio of cost to gross charges and then multiplying that ratio by the gross uncompensated charges associated with providing care to charity patients.

The System participates in the Hospital Care Assurance Program (HCAP). Ohio created HCAP to financially support those hospitals that service a disproportionate share of low-income patients unable to pay for care. HCAP funds basic, medically necessary hospital services for patients whose family income is at or below the federal poverty level, which includes Medicaid patients and patients without health insurance. The System recorded HCAP expenses of \$6.2 million and \$8.3 million for the years ended December 31, 2018 and 2017, respectively, which are reported in net patient service revenue.

Management Service Agreements

The System has management service agreements with regional, national and international organizations to provide advisory services for various healthcare ventures. The scope of these services range from managing current healthcare operations that are designed to improve clinical quality, innovation, patient care, medical education and research at other healthcare organizations and educational institutions to managing the construction, training, organizational infrastructure, and operational management of healthcare entities. The System recognizes revenues related to management service agreements on a pro rata basis over the term of the agreements as services are provided. Payments received in advance are recorded as deferred revenue until the services have been provided. The System has recorded deferred revenue related to management service agreements, included in other current liabilities, of \$8.8 million and \$15.7 million at December 31, 2018 and 2017, respectively. Revenue related to management service agreements for 2018 and 2017 was \$108.9 million and \$113.9 million, respectively, and is included in other unrestricted revenues.

3. Accounting Policies (continued)

Cash and Cash Equivalents

The System considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents. Cash equivalents are recorded at fair value in the consolidated balance sheets and exclude amounts included in long-term investments and investments for current use.

Inventories

Inventories (primarily supplies and pharmaceuticals) are stated at an average cost or the lower of cost (first-in, first-out method) or market and are recorded in other current assets.

Property, Plant, and Equipment

Property, plant, and equipment purchased by the System are recorded at cost. Donated property, plant, and equipment are recorded at fair value at the date of donation. Expenditures that substantially increase the useful lives of existing assets are capitalized. Routine maintenance and repairs are expensed as incurred. Depreciation, including amortization of capital leased assets, is computed by the straight-line method using the estimated useful lives of individual assets. Buildings are assigned useful lives ranging from five years to forty years. Equipment is assigned a useful life ranging from three to twenty years. Interest cost incurred on borrowed funds during the period of construction of capital assets and interest income on unexpended project funds are capitalized as a component of the cost of acquiring those assets. The System records costs and legal obligations associated with long-lived asset retirements. Assets acquired though capital lease arrangements are excluded from the consolidated statements of cash flows.

Impairment of Long-Lived Assets

The System evaluates the recoverability of long-lived assets and the related estimated remaining lives when indicators of impairment are present. For purposes of impairment analysis, assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. The System records an impairment charge or changes the useful life if events or changes in circumstances indicate that the carrying amount may not be recoverable or the useful life has changed.

Investments and Investment Income

Investments in equity securities with readily determinable fair values and all investments in debt securities are recorded at fair value in the consolidated balance sheets. Investments, excluding alternative investments, are primarily classified as trading. Investment transactions are recorded on a settlement date basis. Realized gains and losses are determined using the average cost method.

3. Accounting Policies (continued)

Commingled investment funds are valued using, as a practical expedient, the net asset value as provided by the respective investment companies and partnerships. There are no significant redemption restrictions on the commingled investment funds.

Investments in alternative investments, which include hedge funds, private equity/venture funds and real estate funds, are primarily limited partnerships that invest in marketable securities, privately held securities, real estate, and derivative products and are reported using the equity method of accounting based on net asset value information provided by the respective partnership or third-party fund administrators. Investments held by the partnerships consist of marketable securities as well as securities that do not have readily determinable values. The values of the securities held by the limited partnerships that do not have readily determinable values are determined by the general partner and are based on historical cost, appraisals, or other valuation estimates that require varying degrees of judgment. There is inherent uncertainty in such valuations, and the estimated fair values may differ from the values that would have been used had a ready market for the securities existed. Generally, the equity method investment balance of the System's holdings in alternative investments reflects net contributions to the partnerships and the System's share of realized and unrealized investment income and expenses. The investments may individually expose the System to securities lending, short sales, and trading in futures and forward contract options and other derivative products. The System's risk is limited to its carrying value. The financial statements of the limited partnerships are audited annually.

Alternative investments can be divested only at specified times in accordance with terms of the partnership agreements. Hedge fund redemptions typically contain restrictions that allow for a portion of the withdrawal proceeds to be held back from distribution while the underlying investments are liquidated. These redemptions are subject to lock-up provisions that are generally imposed upon initial investment in the fund. Private equity/venture funds and real estate funds are generally closed-end funds and have significant redemption restrictions that prohibit redemptions during the fund's life.

Investment return, including equity method income on alternative investments, is reported as nonoperating gains and losses, except for earnings on funds held by bond trustees and interest and dividends earned on assets held for self-insurance, which are included in other unrestricted revenues. Donor-restricted investment return on restricted investments is included in net assets with donor restrictions.

Certain of the System's assets and liabilities are exposed to various risks, such as interest rate, market, and credit risks.

3. Accounting Policies (continued)

Fair Value Measurements

Fair value measurements are defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Authoritative guidance provides an option to elect fair value as an alternative measurement for selected financial assets and liabilities not previously recorded at fair value. The System did not elect fair value accounting for any assets or liabilities that are not currently required to be measured at fair value.

The framework for measuring fair value is comprised of a three-level hierarchy based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

- Level 1 Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 Inputs to the valuation methodology include quoted prices for similar assets or liabilities
 in active markets, and inputs that are observable for the asset or liability, either directly or indirectly,
 for substantially the full term of the financial instrument.
- Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Goodwill and Other Intangibles

Goodwill has resulted from business combinations, primarily physician practice acquisitions, and is based on the purchase price in excess of the fair values of assets acquired and liabilities assumed at the acquisition date. Annually, or when indicators of impairment exist, the System evaluates goodwill for impairment to determine whether there are events or circumstances that indicate it is more likely than not that the fair value of a reporting unit is less than its carrying amount.

Intangible assets other than goodwill are recorded at fair value in the period of acquisition. Intangible assets with finite lives, which consist primarily of patient medical records and non-compete agreements, are amortized over their estimated useful lives, ranging from three to five years, with a weighted-average amortization period of approximately three years.

Cleveland Clinic

3. Accounting Policies (continued)

Derivative Instruments

The System's derivative financial instruments consist of interest rate swaps and foreign currency forward contracts (*Note 13*), which are recognized as assets or liabilities in the consolidated balance sheets at fair value.

The System accounts for changes in the fair value of derivative instruments depending on whether they are designated and qualified as part of a hedging relationship and further, on the type of hedging relationship. The System has not designated any derivative instruments as hedges. Accordingly, the changes in fair value of derivative instruments and the related cash payments are recorded in derivative losses in the consolidated statements of operations and changes in net assets.

Foreign Currency Translation

The statements of operations of foreign subsidiaries whose functional currencies are other than the U.S. dollar are translated into U.S. dollars using average exchange rates for the period. The assets and liabilities of foreign subsidiaries whose functional currencies are other than the U.S. dollar are translated into U.S. dollars using exchange rates as of the consolidated balance sheet date. The U.S. dollar effects that arise from translating the net assets of these subsidiaries at changing rates are recorded as foreign currency translation gains and losses in the consolidated statements of operations and changes in net assets. Cumulative foreign currency translation losses included in net assets without donor restrictions were \$65.4 million and \$42.1 million at December 31, 2018 and 2017, respectively.

Debt Issuance Costs

Debt issuance costs are amortized over the period the obligation is outstanding using the straight-line method, which approximates the interest method.

Contributions

Unconditional donor pledges to give cash, marketable securities, and other assets are reported at fair value at the date the pledge is made to the extent estimated to be collectible by the System. Conditional donor promises to give and indications of intentions to give are not recognized until the condition is satisfied. Pledges received with donor restrictions that limit the use of the donated assets are reported as donor restricted support. When a donor restriction expires, that is, when a stipulated time restriction ends or purpose restriction is accomplished, net assets with donor restrictions are transferred to net assets without donor restrictions and reported in the consolidated statements of operations and changes in net assets as other unrestricted revenues if the purpose relates to operations or reported as a change in net assets without donor restrictions if the purpose relates to capital.

No amounts have been reflected in the consolidated financial statements for donated services. The System pays for most services requiring specific expertise. However, many individuals volunteer their time and perform a variety of tasks that assist the System with various programs.

3. Accounting Policies (continued)

Grants

Grant revenue is recognized in the period it is earned based on when the applicable project expenses are incurred and project milestones are achieved. Grant payments received in advance of related project expenses are deferred until the expenditure has been incurred and recorded as deferred revenue and included in other current liabilities. The System recorded research grant revenue, included in other unrestricted revenues, of \$212.8 million and \$195.7 million in 2018 and 2017, respectively.

Net Assets With Donor Restrictions

Net assets with donor restrictions are used to differentiate resources, the use of which is restricted by donors or grantors to a specific time period or purpose, from resources on which no restrictions have been placed or that arise from the general operations of the System. Donor-restricted gifts and bequests are recorded as an addition to net assets with donor restrictions in the period received, Donor-restricted gifts include amounts held in perpetuity or for terms designated by donors, including the fair value of several charitable and perpetual trusts for which the System is an income or remainder beneficiary. Earnings on donor-restricted gifts are recorded as investment income in net assets with donor restrictions and subsequently used in accordance with the donor's designation. Net assets with donor restrictions are primarily restricted for research, education, and strategic capital projects.

Excess of Revenues Over Expenses

The consolidated statements of operations and changes in net assets include excess of revenues over expenses. Changes in net assets without donor restrictions, which are excluded from excess of revenues over expenses, consistent with industry practice, include retirement benefits adjustments, foreign currency translation gains and losses and contributions of long-lived assets (including assets acquired using grants or contributions that by donor restriction were to be used for the purpose of acquiring such assets).

4. Net Patient Service Revenue and Patient Receivables

Net patient service revenue by major payor source, net of price concessions, for the year ended December 31, 2018, is as follows (in thousands):

Medicare	\$ 2,871,709	36%	
Medicaid	649,428	8	
Managed care and commercial	4,465,582	55	
Self-pay	45,080	1	
Net patient service revenue	\$ 8,031,799	100%	



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4. Net Patient Service Revenue and Patient Receivables (continued)

Net patient service revenue by major payor source, net of contractual adjustments and before the provision for uncollectible accounts, for the year ended December 31, 2017, is as follows (in thousands):

	2017		
Medicare	\$ 2,584,950 33%		
Medicaid	646,934 8		
Managed care and commercial	4,400,325 57		
Self-pay	162,342 2		
Net patient service revenue	\$ 7,794,551 100%		

The System's concentration of credit risk relating to patient receivables is limited due to the diversity of patients and payors. Patient receivables consist of amounts due from government programs, commercial insurance companies, other group insurance programs, and private pay patients. Patient receivables due from Medicare, Medicaid, and one commercial payor account for approximately 26%, 7%, and 23% at December 31, 2018, and 27%, 9%, and 23% at December 31, 2017, respectively, of the System's total patient receivables. Revenues from the Medicare and Medicaid programs and one commercial payor account for approximately 36%, 8%, and 15% for 2018, and 33%, 8%, and 17% for 2017, respectively, of the System's net patient service revenue. Excluding these payors, no one payor represents more than 10% of the System's patient receivables or net patient service revenue.

As a result of certain changes required by ASU 2014-09, the majority of the System's provision for uncollectible accounts is recorded as a direct reduction to net patient service revenue instead of being presented as a separate line item on the consolidated statements of operations and changes in net assets. The adoption of ASU 2014-09 has no impact on the System's patient receivables as it was historically recorded net of allowance for uncollectible accounts and contractual adjustments on the consolidated balance sheets.

5. Cash, Cash Equivalents, and Investments

The composition of cash, cash equivalents, and investments at December 31, 2018 and 2017, is as follows (in thousands):

	2018	2017
Cash and cash equivalents Fixed income securities:	\$ 911,877	\$ 770,654
U.S. treasuries	1,385,156	1,075,486
U.S. government agencies	20,889	18,964
U.S. corporate	108,240	83,383
U.S. government agencies asset-backed securities	94,399	25,139
Corporate asset-backed securities	31,477	4,895
Foreign	54,132	21,267
Fixed income mutual funds	122,034	391,971
Commingled fixed income funds	692,830	791,372
Common and preferred stocks:		
U.S.	425,269	475,141
Foreign	292,635	297,573
Equity mutual funds	97,932	262,991
Commingled equity funds	1,772,594	2,029,255
Commingled commodity funds	188,769	127,690
Alternative investments:		
Hedge funds	1,357,553	1,142,932
Private equity/venture funds	1,007,692	854,632
Real estate	369,988	483,996
Pending purchases of investments		215,000
Total cash, cash equivalents, and investments	\$8,933,466	\$9,072,341

Pending purchases of investments of \$215.0 million at December 31, 2017 were invested as hedge funds on January 1, 2018.

Investments are primarily maintained in a master trust fund administered using a bank as trustee. The management of the majority of the System's investments is conducted by numerous external investment management organizations that are monitored by the System. The alternative investments have separate administrators and custodian arrangements. Alternative investments also include five holdings in which the System invests directly.

5. Cash, Cash Equivalents, and Investments (continued)

Total investment return is comprised of the following for the years ended December 31, 2018 and 2017 (in thousands):

	 2018	2017
Other unrestricted revenues:		
Interest income and dividends	\$ 2,108	\$ 2,909
Nonoperating gains, net:		
Interest income and dividends	73,101	70,135
Net realized gains on sales of investments	171,240	177,901
Net change in unrealized (losses) gains on investments	(553,824)	518,861
Equity method income on alternative investments	148,278	152,178
Investment management fees	 (29,985)	(22,936)
	(191,190)	896,139
Other changes in net assets:		
Investment income on restricted investments and other	 (9,005)	54,250
Total investment return	\$ (198,087)	\$ 953,298

6. Liquidity and Availability

Financial assets available for general expenditure within one year of December 31, 2018 include the following (in thousands):

	2018
Cash and cash equivalents	\$ 444,763
Patient receivables	1,122,918
Long-term investments	5,579,202
	\$ 7,146,883

The System has assets limited to use held by trustees, set aside for the System's captive insurance subsidiary and held for donor-restricted purposes. These investments are not reflected in the amounts above.

The System invests in alternative investments to increase the investment portfolio's diversification. The asset allocation of the portfolio is broadly diversified across global equity and global fixed income asset classes and alternative investment strategies and is designed to maximize the probability of achieving the System's long-term investment objectives at an appropriate level of risk while maintaining a level of liquidity to meet the needs of ongoing portfolio management. The nature of alternative investments generally restricts the liquidity and availability of these investments to be available for the general expenditures of the System within one year of the consolidated balance sheet. As such, these investments have been excluded from the amounts above.

6. Liquidity and Availability (continued)

As part of the System's liquidity management plan, cash in excess of daily requirements for general expenditures is invested in long-term investments. The System's long-term investment portfolio contains money market funds and other liquid investments that can be drawn upon, if necessary, to meet the liquidity needs of the System.

The System maintains a \$300 million revolving credit facility as discussed in Note 12. As of December 31, 2018, \$195 million was available under the credit facility.

7. Other Current Assets and Liabilities and Other Noncurrent Assets and Liabilities

Other current and noncurrent assets at December 31, 2018 and 2017, consist of the following (in thousands):

	2018	2017
Current:		
Inventories	\$ 162,198	\$ 143,437
Prepaid expenses	73,511	57,010
Pledges receivable, current (Note 11)	66,674	45,657
Research receivables	37,024	36,143
Estimated amounts due from third-party payors	13,447	9,397
Other	73,611	83,082
Total other current assets	\$ 426,465	\$ 374,726
	2018	2017
Noncurrent:		
Deferred compensation plan assets	\$ 211,345	\$ 206,085
Goodwill and other intangible assets (Note 8)	102,857	101,999
Investments in affiliates	35,436	33,921
Note receivable	_	37,204
Other	62,124	95,801
Total other noncurrent assets	\$ 411,762	\$ 475,010

7. Other Current Assets and Liabilities and Other Noncurrent Assets and Liabilities (continued)

Other current and noncurrent liabilities at December 31, 2018 and 2017 consist of the following (in thousands):

		2018	2017
Current:			_
Interest payable	\$	63,046	\$ 52,236
Research deferred revenue		61,591	67,492
Current portion of professional and general			
liability insurance reserves (Note 14)		53,841	51,051
Estimated amounts due to third-party payors		31,910	40,053
Management contracts and other deferred revenue		31,821	38,026
Employee benefit related liabilities		30,804	29,211
Current portion of pledges payable		1,255	15,460
Other		219,185	145,133
Total other current liabilities	\$	493,453	\$ 438,662
		2018	2017
Noncurrent:	-		
Employee benefit related liabilities	\$	259,341	\$ 256,797
Derivative liabilities (Note 13)		110,863	123,989
Pledge liabilities		21,603	20,328
Estimated amounts due to third-party payors		12,799	18,665
Gift annuity liabilities		11,688	12,120
Other		125,735	135,667
Total other noncurrent liabilities	\$	542,029	\$ 567,566



8. Goodwill and Other Intangible Assets

The System recorded goodwill of \$1.7 million and \$10.9 million in 2018 and 2017, respectively, related to the acquisitions of various physician practices. Goodwill is recorded in other noncurrent assets in the consolidated balance sheets.

The changes in the carrying amount of goodwill for the years ended December 31, 2018 and 2017 are as follows (in thousands):

	Year Ended December 31					
		2018		2017		
Balance, beginning of year	\$	69,420	\$	58,497		
Goodwill acquired		1,726		10,978		
Foreign currency translation		(726)		(55)		
Balance, end of year	\$	70,420	\$	69,420		

The System acquired other intangible assets of \$0.5 million and \$0.2 million in 2018 and 2017, respectively, related to the acquisitions of various physician practices. Other intangible assets are recorded in other noncurrent assets in the consolidated balance sheets.

Other intangible assets at December 31, 2018 and 2017 consist of the following (in thousands):

		2018				2017			
	F	Historical Cost		cumulated ortization	ŀ	Historical Cost	Accumulated Amortization		
Trade name Finite-lived intangible	\$	31,700	\$	-	\$	31,700	\$	_	
assets		6,786		6,049		6,261		5,382	
Total	\$	38,486	\$	6,049	\$	37,961	\$	5,382	

Amortization related to finite-lived intangible assets was \$0.7 million and \$1.7 million in 2018 and 2017, respectively, and is included in depreciation and amortization in the consolidated statements of operations and changes in net assets. Future amortization is as follows (in thousands): 2019 - \$394; 2020 - \$234; and 2021 - \$109.

9. Fair Value Measurements

The following tables present the financial instruments measured at fair value on a recurring basis as of December 31, 2018 and 2017, based on the valuation hierarchy (in thousands):

December 31, 2018	 Level 1	Level 2	Level 3	Total
Assets				
Cash and investments:				
Cash and cash equivalents	\$ 911,624	\$ 253	\$ - :	\$ 911,877
Fixed income securities:				
U.S. treasuries	1,385,156	_	_	1,385,156
U.S. government agencies	_	20,889	_	20,889
U.S. corporate	_	108,240	_	108,240
U.S. government agencies		,		,
asset-backed securities	_	94,399	_	94,399
Corporate asset-backed		0 1,000		0 1,000
securities	_	31,477	_	31,477
Foreign		54,132		54,132
Fixed income mutual funds	122,034	34,132	_	122,034
	122,034	_	_	122,034
Common and preferred stocks:	405.000			405.000
U.S.	425,269		_	425,269
Foreign	288,773	3,862	_	292,635
Equity mutual funds	 97,932			97,932
Total cash and investments	3,230,788	313,252	_	3,544,040
Perpetual and charitable trusts	 	63,991		63,991
Total assets at fair value	\$ 3,230,788	\$ 377,243	\$ _ ;	\$ 3,608,031
Liabilities				
Interest rate swaps	\$ _	\$ 101,444	\$ _ ;	\$ 101,444
Foreign currency forward contracts	_	9,419	_	9,419
Total liabilities at fair value	\$ _	\$ 110,863	\$ _ ;	\$ 110,863



9. Fair Value Measurements (continued)

December 31, 2017	Le	evel 1	Level 2	Level 3	Total
Assets					_
Cash and investments:					
Cash and cash equivalents	\$	770,609	\$ 45	\$ - \$	770,654
Fixed income securities:					
U.S. treasuries	1,	075,486	_	_	1,075,486
U.S. government agencies		_	18,964	_	18,964
U.S. corporate		_	83,383	_	83,383
U.S. government agencies					
asset-backed securities		_	25,139	_	25,139
Corporate asset-backed					
securities		_	4,895	_	4,895
Foreign		_	21,267	_	21,267
Fixed income mutual funds	;	391,971	_	_	391,971
Common and preferred stocks:					
U.S.		473,420	1,721	_	475,141
Foreign	2	296,025	1,548	_	297,573
Equity mutual funds		262,991	_	_	262,991
Total cash and investments	3,	270,502	156,962	_	3,427,464
Perpetual and charitable trusts		_	53,728	_	53,728
Total assets at fair value	\$ 3,	270,502	\$ 210,690	\$ <u> </u>	3,481,192
Liabilities					
Interest rate swaps	\$	_	\$ 123,989	\$ - \$	123,989
Total liabilities at fair value	\$	_	\$ 123,989	\$ - \$	123,989



9. Fair Value Measurements (continued)

Financial instruments at December 31, 2018 and 2017 are reflected in the consolidated balance sheets as follows (in thousands):

		2018		2017
Cash, cash equivalents, and investments measured at fair value	\$	3,544,040	\$	3,427,464
Commingled funds measured at net asset value Alternative investments accounted for under the	•	2,654,193	Ψ	2,948,317
equity method		2,735,233		2,481,560
Pending purchases of investments	_			215,000
Total cash, cash equivalents, and investments	<u>\$</u>	8,933,466	\$	9,072,341
Perpetual and charitable trusts measured at fair value	\$	63,991	\$	53,728
Interests in foundations	Ψ	•	Ψ	•
	_	23,615		26,915
Trusts and interests in foundations	\$	87,606	\$	80,643

Interest rate swaps and forward currency forward contracts (*Note 13*) are reported in other noncurrent liabilities in the consolidated balance sheets.

The following is a description of the System's valuation methodologies for assets and liabilities measured at fair value. Fair value for Level 1 is based upon quoted market prices. Fair value for Level 2 is determined as follows:

Investments classified as Level 2 are primarily determined using techniques that are consistent with the market approach. Valuations are based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets. Inputs, which include broker/dealer quotes, reported/comparable trades, and benchmark yields, are obtained from various sources, including market participants, dealers, and brokers.

The fair value of perpetual and charitable trusts in which the System receives periodic payments from the trust is determined based on the present value of expected cash flows to be received from the trust using discount rates ranging from 2.8% to 5.0%, which are based on Treasury yield curve interest rates or the assumed yield of the trust assets. The fair value of charitable trusts in which the System is a remainder beneficiary is based on the System's beneficial interest in the investments held in the trust, which are measured at fair value.

9. Fair Value Measurements (continued)

The fair value of interest rate swaps is determined based on the present value of expected future cash flows using discount rates appropriate with the risks involved. The valuations include a credit spread adjustment to market interest rate curves to appropriately reflect nonperformance risk. The credit spread adjustment is derived from other comparably rated health care entities' bonds. The System manages credit risk based on the net portfolio exposure with each counterparty.

The fair value of foreign currency forward contracts is based on the difference between the contracted exchange rate and current market foreign currency exchange rates adjusted for forward points, which are differences in prevailing deposit interest rates between each currency through the remaining term of the contract.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the System believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

10. Property, Plant, and Equipment

Property, plant, and equipment at December 31, 2018 and 2017 consist of the following (in thousands):

	2018	2017
Land and improvements	\$ 438,577	\$ 406,463
Buildings	6,021,391	5,657,283
Leasehold improvements	30,237	30,832
Equipment	1,732,114	1,671,465
Computer hardware and software	1,074,167	855,524
Construction-in-progress	617,055	754,564
Leased facilities and equipment	194,421	158,785
	10,107,962	9,534,916
Accumulated depreciation and amortization	(5,035,498)	(4,835,219)
	\$ 5,072,464	\$ 4,699,697

Included in the preceding table is unamortized computer software of \$212.6 million and \$193.2 million at December 31, 2018 and 2017, respectively. Amortization of computer software totaled \$46.3 million and \$47.9 million in 2018 and 2017, respectively. Amortization of computer software for the five years subsequent to December 31, 2018, is as follows (in millions): 2019 – \$40.6; 2020 – \$31.6; 2021 – \$26.4; 2022 – \$23.2; and 2023 – \$23.0.

Accumulated amortization of leased facilities and equipment was \$79.1 million and \$70.4 million at December 31, 2018 and 2017, respectively.

11. Pledges Receivable

Outstanding pledges receivable from various corporations, foundations, and individuals at December 31, 2018 and 2017, are as follows (in thousands):

	 2018	2017
Pledges due:		
In less than one year	\$ 85,918 \$	61,439
In one to five years	116,240	115,638
In more than five years	 79,200	81,429
	281,358	258,506
Allowance for uncollectible pledges and discounting	(62,236)	(61,830)
Current portion (net of allowance for uncollectible		
pledges of \$19.2 million in 2018 and \$15.6 million		
in 2017)	 (66,674)	(45,657)
	\$ 152,448 \$	151,019

12. Long-Term Debt

Long-term debt at December 31, 2018 and 2017 consists of the following (in thousands):

Rate(s) Maturity 2018 2017 Series 2018 Sterling Notes 2.90% to 3.08% 2068 \$509,476 \$ Series 2017A Bonds 0.83% to 3.48% 2043 818,775 \$818,775 Series 2017C Bonds 1.56% to 3.70% 2043 169,255 169,255 Series 2016, Private Placement 3.35% 2046 325,000 325,000 Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2014A CP Notes Variable rate 2044 70,955 70,955 Series 2013B Bonds Variable rate 2034 62,650 73,150 Series 2013K Keep Memory Variable rate 2037 59,115 61,165 Series 2011A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 2.56% 2031 26,380 27,785 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds		Interest	Final	Amount Outstanding at December 31		
Series 2017A Bonds 0.83% to 3.48% 2043 818,775 818,775 Series 2017B Bonds 1.56% to 3.70% 2043 169,255 169,255 Series 2017C Bonds 2.24% 2032 8,945 9,305 Series 2016, Private Placement Series 2016, Private Placement Series 2014 Bonds 3.35% 2046 325,000 325,000 Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2014A CP Notes Variable rate 2044 70,955 70,955 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013B Bonds Variable rate 2037 59,115 61,165 Series 2013B Bonds Variable rate 2037 59,115 61,165 Series 2014A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945		Rate(s)	Maturity		2018	2017
Series 2017A Bonds 0.83% to 3.48% 2043 818,775 818,775 Series 2017B Bonds 1.56% to 3.70% 2043 169,255 169,255 Series 2017C Bonds 2.24% 2032 8,945 9,305 Series 2016, Private Placement Series 2016, Private Placement Series 2014 Bonds 3.35% 2046 325,000 325,000 Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2014A CP Notes Variable rate 2044 70,955 70,955 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013B Bonds Variable rate 2037 59,115 61,165 Series 2013B Bonds Variable rate 2037 59,115 61,165 Series 2014A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945						
Series 2017B Bonds 1.56% to 3.70% 2043 169,255 169,255 Series 2017C Bonds 2.24% 2032 8,945 9,305 Series 2016, Private Placement 3.35% 2046 325,000 325,000 Series 2016, Term Loan Variable rate 2026 15,170 16,270 Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2013A Bonds 3.62% to 4.04% 2042 62,650 73,150 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013B Ronds Variable rate 2039 201,160 201,160 Series 2013 Keep Memory Alive Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2008B Bonds 4.21% 2039 16,135 31,640	•			\$		\$ -
Series 2017C Bonds 2.24% 2032 8,945 9,305 Series 2016, Private Placement 3.35% 2046 325,000 325,000 Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2014A CP Notes Variable rate 2044 70,955 70,955 Series 2013A Bonds 3.62% to 4.04% 2042 62,650 73,150 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013, Keep Memory Alive Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2014B Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds Variable rate 2043 27,755 327,575 <td></td> <td></td> <td>2043</td> <td></td> <td>818,775</td> <td>818,775</td>			2043		818,775	818,775
Series 2016, Private Placement 3.35% 2046 325,000 325,000 Series 2016, Term Loan Variable rate 2026 15,170 16,270 Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2013A Bonds 3.62% to 4.04% 2042 62,650 73,150 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013, Keep Memory Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2014B Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2043 327,575 327,575 <tr< td=""><td>Series 2017B Bonds</td><td>1.56% to 3.70%</td><td>2043</td><td></td><td>169,255</td><td>169,255</td></tr<>	Series 2017B Bonds	1.56% to 3.70%	2043		169,255	169,255
Series 2016, Term Loan Variable rate 2026 15,170 16,270 Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2014A CP Notes Variable rate 2044 70,955 70,955 Series 2013A Bonds 3.62% to 4.04% 2042 62,650 73,150 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013, Keep Memory Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2043 327,575 327,575		2.24%	2032		8,945	9,305
Series 2014 Bonds 4.86% 2114 400,000 400,000 Series 2014A CP Notes Variable rate 2044 70,955 70,955 Series 2013A Bonds 3.62% to 4.04% 2042 62,650 73,150 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013, Keep Memory Alive Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2008A Bonds 4.21% 2039 16,135 31,640 Series 2008B Bonds Variable rate 2043 27,757 327,575 Series 2003C Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2013 41,905 41,905	Series 2016, Private Placement	3.35%	2046		325,000	325,000
Series 2014A CP Notes Variable rate 2044 70,955 70,955 Series 2013A Bonds 3.62% to 4.04% 2042 62,650 73,150 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013, Keep Memory Alive Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008B Bonds 4.39% 2043 - 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Varies Varies 106 376,521	Series 2016, Term Loan	Variable rate	2026		15,170	16,270
Series 2013A Bonds 3.62% to 4.04% 2042 62,650 73,150 Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013, Keep Memory Alive Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 - 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 14,025,706 3,882,575 </td <td>Series 2014 Bonds</td> <td>4.86%</td> <td>2114</td> <td></td> <td>400,000</td> <td>400,000</td>	Series 2014 Bonds	4.86%	2114		400,000	400,000
Series 2013B Bonds Variable rate 2039 201,160 201,160 Series 2013, Keep Memory Alive Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 - 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 14,025,706 3,882,575 Net un	Series 2014A CP Notes	Variable rate	2044		70,955	70,955
Series 2013, Keep Memory Alive	Series 2013A Bonds	3.62% to 4.04%	2042		62,650	73,150
Alive Variable rate 2037 59,115 61,165 Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 - 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 - 513 4,025,706 3,882,575	Series 2013B Bonds	Variable rate	2039		201,160	201,160
Series 2012A Bonds 1.80% to 4.07% 2039 439,925 451,135 Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 - 7,930 Series 2003C Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 - 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) <td>Series 2013, Keep Memory</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Series 2013, Keep Memory					
Series 2011A Bonds 3.15% to 4.83% 2032 148,645 160,605 Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 - 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 - 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt (407,776) (573,	Alive	Variable rate	2037		59,115	61,165
Series 2011B Bonds 2.56% 2031 26,380 27,785 Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 - 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 - 513 Varies unamortized premium 160,044 167,451 Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Series 2012A Bonds	1.80% to 4.07%	2039		439,925	451,135
Series 2011C Bonds 3.40% to 4.72% 2032 157,945 157,945 Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 – 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 – 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt (407,776) (573,270)	Series 2011A Bonds	3.15% to 4.83%	2032		148,645	160,605
Series 2009B Bonds 4.21% 2039 16,135 31,640 Series 2008A Bonds 4.39% 2043 – 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 – 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt (407,776) (573,270)	Series 2011B Bonds	2.56%	2031		26,380	27,785
Series 2008A Bonds 4.39% 2043 — 7,930 Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 — 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Series 2011C Bonds	3.40% to 4.72%	2032		157,945	157,945
Series 2008B Bonds Variable rate 2043 327,575 327,575 Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 — 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Series 2009B Bonds	4.21%	2039		16,135	31,640
Series 2003C Bonds Variable rate 2035 41,905 41,905 Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 — 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Series 2008A Bonds	4.39%	2043		_	7,930
Revolving credit facility Variable rate 2019 105,000 60,000 Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 — 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Series 2008B Bonds	Variable rate	2043		327,575	327,575
Notes payable Varies Varies 106 376,521 Capital leases Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 — 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Series 2003C Bonds	Variable rate	2035		41,905	41,905
Capital leases Varies Varies Varies 121,589 93,986 City of Lakewood lease 6.00% 2018 — 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Revolving credit facility	Variable rate	2019		105,000	60,000
City of Lakewood lease 6.00% 2018 — 513 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Notes payable	Varies	Varies		106	376,521
Net unamortized premium 4,025,706 3,882,575 Net unamortized premium 160,044 167,451 Unamortized debt issuance (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Capital leases	Varies	Varies		121,589	93,986
Net unamortized premium 160,044 167,451 Unamortized debt issuance (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	City of Lakewood lease	6.00%	2018		_	513
Unamortized debt issuance costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)					1,025,706	3,882,575
costs (27,713) (22,665) Current portion (191,350) (457,813) Long-term variable rate debt classified as current (407,776) (573,270)	Net unamortized premium				160,044	167,451
Current portion (191,350) (457,813) Long-term variable rate debt (407,776) (573,270)	•				•	-
Current portion (191,350) (457,813) Long-term variable rate debt (407,776) (573,270)	costs				(27,713)	(22,665)
Long-term variable rate debt classified as current (407,776) (573,270)	Current portion				(191,350)	•
classified as current (407,776) (573,270)	•					•
	•				(407,776)	(573,270)
Ψο,οοο,οτι ψε,οοο,ετο				\$3	3,558,911	\$2,996,278



12. Long-Term Debt (continued)

The majority of the System's outstanding bonds are limited obligations of various issuing authorities payable solely by the System pursuant to loan agreements between the borrowing entities and the issuing authorities. The Series 2018 Sterling Notes, Series 2016 private placement, Series 2016 term loan, Series 2014 bonds and Series 2013 Keep Memory Alive bonds are issued directly by the Clinic or its subsidiaries. Under various financing agreements, the System must meet certain operating and financial performance covenants.

In August 2018, the System through a UK subsidiary entered into a private placement agreement to issue Guaranteed Senior Notes (Series 2018 Sterling Notes) totaling £665 million. The subsidiary received proceeds of £300 million and £100 million in August 2018 and November 2018, respectively, and will receive additional proceeds of £265 million in August 2019. The 2018 Sterling Notes are guaranteed by the Cleveland Clinic obligated group and another UK subsidiary, mature at various dates through 2068 and bear interest at an average fixed rate of 2.99%. The proceeds of the 2018 Sterling Notes repaid a \$375.0 million term loan used to acquire a long-term leasehold interest in a building in London, England and have been or will be used to partially fund the construction and conversion of the building into a healthcare facility.

In August 2017, pursuant to certain agreements between the System and the State of Ohio (State) acting by and through the Ohio Higher Education Facility Commission, the State issued \$818.8 million of fixed-rate Hospital Refunding Revenue Bonds (Series 2017A Bonds) and \$169.3 million of fixed-rate Taxable Hospital Refunding Revenue Bonds (Series 2017B Bonds) for the benefit of the System. Proceeds from the sale of the Series 2017A Bonds and Series 2017B Bonds were used to refund all or a portion of the outstanding Series 2008A, 2008B, 2009A, 2009B and 2012A Bonds and to pay the cost of issuance. The System recorded a loss on extinguishment of debt of \$46.2 million related to this transaction, which is recorded in other nonoperating gains and losses in the consolidated statements of operations and changes in net assets.

In December 2017, pursuant to certain agreements between the System and the State of Ohio (State) acting by and through the Ohio Higher Education Facility Commission, the State issued \$9.3 million of Hospital Refunding Revenue Bonds (Series 2017C Bonds) for the benefit of the System. Proceeds from the sale of the Series 2017C Bonds were used to refund all of the outstanding Series 2002 Bonds. The Series 2017C Bonds were purchased by a financial institution and are scheduled to be tendered to the System on December 1, 2027. During this term, the bonds bear interest at 2.24% plus an applicable credit spread. The tender date may be extended subject to the consent of the financial institution.

The System maintains the Cleveland Clinic Health System Obligated Group Commercial Paper Program (CP Program), which provides for the issuance of the Series 2014A CP Notes. The CP Program was established in November 2014 and will terminate no later than January 2044. The Series 2014A CP Notes may be issued from time to time in a maximum outstanding face amount of \$100 million and are supported by the System's self-liquidity program. The System has \$71.0 million of outstanding Series 2014A CP Notes at both December 31, 2018 and 2017.

12. Long-Term Debt (continued)

Certain of the System's current outstanding bonds bear interest at a variable rate. During 2018 and 2017, the rates for the System's variable rate long-term debt series ranged from 0.49% to 3.14% (average rate 1.56%) and 0.47% to 2.18% (average rate 0.91%), respectively.

Certain variable rate bonds are secured by irrevocable direct pay letters of credit and standby bond purchase agreements totaling \$352.2 million at December 31, 2018. Long-term variable rate debt is classified as current in the consolidated balance sheets if it is supported by lines of credit or standby bond purchase agreements that expire within one year, require repayment of a remarketing draw within one year or contain a subjective clause that, if declared by the lender, could cause immediate repayment of the bonds.

The System provides self-liquidity on the Series 2003C Bonds, certain sub-series of the Series 2008B Bonds and the Series 2014A CP Notes. These bonds are classified as current liabilities in the consolidated balance sheets.

During the term of agreements with the issuing authorities, the System is required to make specified deposits with trustees to fund principal and interest payments when due. Also, unexpended bond proceeds are held by the trustee and released to the System for approved requisition requests for capital projects. There were no unexpended bond proceeds at December 31, 2018 and 2017. The current portion of the funds held by trustees, which consists of deposits with the trustees to fund current principal and interest payments, was \$103.9 million at December 31, 2017 and is included in investments for current use. There was no current portion of funds held by trustees at December 31, 2018.

The System is subject to certain restrictive covenants, including provisions relating to certain debt ratios, days cash on hand, and other matters. The System was in compliance with these covenants at December 31, 2018 and 2017.

The System executed a \$375.0 million term loan agreement with a financial institution in 2015. The proceeds of the term loan were used to finance the System's international business strategy. The term loan was paid in 2018 using proceeds from the issuance of the 2018 Sterling Notes. The interest rate on the term loan was a variable rate based on the London Interbank Offered Rate (LIBOR) plus an applicable spread and ranged from 1.85% to 2.69% in 2018 (average rate 2.37%) and from 01.11% to 1.85% in 2017 (average rate 1.59%).

The System has a \$300 million revolving credit facility with multiple financial institutions. The revolving credit facility expires in 2019 with provisions allowing the System to extend the term for one-year periods. The facility allows the System to enter into short-term loans that automatically renew throughout the term of the facility. The revolving credit facility bears interest at a variable rate based on the London Interbank Offered Rate (LIBOR) plus an applicable spread. Amounts outstanding on the revolving credit facility as of December 31, 2018 and 2017 totaled \$105.0 million and \$60.0 million, respectively. The interest rate on the revolving credit facility ranged from 2.09% to 3.10% in 2018 (average rate 2.58%) and from 1.52% to 2.09% in 2017 (average rate 1.70%).

CLEVELAND CLINIC HEALTH SYSTEM NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS FOR THE PERIOD ENDED DECEMBER 31, 2018

12. Long-Term Debt (continued)

Combined current aggregate scheduled maturities of long-term debt, excluding capital leases and assuming the remarketing of the variable rate demand bonds, for the five years subsequent to December 31, 2018, are as follows (in thousands): 2019 – \$169,141; 2020 – \$66,020; 2021 – \$68,870; 2022 – \$71,825; and 2023 – \$75,130.

The System has various capital leases for facilities and equipment. Future minimum capital lease payments, including total interest of \$24.5 million, are as follows (in thousands): 2019 – \$27,363; 2020 – \$23,280; 2021 – \$19,227; 2022 – \$14,488; and 2023 – \$11,569; and thereafter – \$50,114. Assets acquired through capital lease arrangements are included in property, plant, and equipment.

The City of Lakewood, Ohio (the City) leased real and personal property to Lakewood Hospital Association (LHA) for the purpose of enabling the operation of certain healthcare services at Lakewood Hospital. In connection with executing an Amended Lease with the City, LHA had agreed to make additional payments to the City. In 2015, under the terms of an agreement between the Clinic, LHA and the City, the Amended Lease was further amended to shorten the lease term and to reduce the total payments due under the lease. The payments under the amended lease ranged in annual amounts up to \$1.2 million through 2018, or until certain provisions in the lease were satisfied. The lease terminated in 2018, and the property was returned to the City. The net present value of the additional payments discounted at an interest rate of 6% was \$0.5 million at December 31, 2017.

Total interest paid approximated \$128.5 million and \$153.4 million in 2018 and 2017, respectively. Capitalized interest cost approximated \$0.4 million and \$0.6 million in 2018 and 2017, respectively.

13. Derivative Instruments

The System has entered into various derivative financial instruments to manage interest rate risk and foreign currency exposures.

The System's objective with respect to interest rate risk is to manage the risk of rising interest rates on the System's variable rate debt and certain variable rate operating lease payments. Consistent with its interest rate risk management objective, the System entered into various interest rate swap agreements with a total outstanding notional amount of \$618.2 million and \$615.0 million at December 31, 2018 and 2017, respectively. During the term of these transactions, the System pays interest at a fixed rate and receives interest at a variable rate based on the London Interbank Offered Rate (LIBOR) or the Securities Industry and Financial Markets Association Index (SIFMA). The swap agreements are not designated as hedging instruments. Net interest paid or received under the swap agreements is included in derivative losses in the consolidated statements of operations and changes in net assets.

13. Derivative Instruments (continued)

The following table summarizes the System's interest rate swap agreements (in thousands):

Swan	Expiration	Systom				Amount at nber 31
Swap Type	Date	System Pays	Syster	m Receives	2018	2017
		- -				
Fixed	2021	3.21%	68%	of LIBOR	\$ 30,145	\$ 31,725
Fixed	2024	3.42%	68%	of LIBOR	26,500	27,200
Fixed	2027	3.56%	68%	of LIBOR	120,113	124,303
Fixed	2028	5.12%	100%	of LIBOR	36,605	37,730
Fixed	2028	3.51%	68%	of LIBOR	28,285	29,125
Fixed	2030	5.07%	100%	of LIBOR	57,250	59,075
Fixed	2030	5.06%	100%	of LIBOR	57,225	59,050
Fixed	2031	3.04%	68%	of LIBOR	46,975	49,850
Fixed	2032	4.32%	79%	of LIBOR	2,189	2,279
Fixed	2032	4.33%	70%	of LIBOR	4,377	4,557
Fixed	2032	3.78%	70%	of LIBOR	2,189	2,279
Fixed	2036	4.90%	100%	of LIBOR	49,125	49,700
Fixed	2036	4.90%	100%	of LIBOR	76,950	76,950
Fixed	2037	4.62%	100%	of SIFMA	59,115	61,165
Fixed	2039	4.62%	68%	of LIBOR	21,170	_
					\$ 618,213	\$614,988

The System is exposed to fluctuations in various foreign currencies against its functional currency, the U.S. dollar (USD). The System uses foreign currency forward contracts to manage its exposure to fluctuations in the USD – British Pound (GBP) exchange rate. Currency forward contracts involve fixing the USD – GBP exchange rate for delivery of a specified amount of foreign currency on a specified date. The currency forward contracts are typically cash settled in USD for their fair value at or close to their settlement date.

In November 2018, the System entered into three foreign currency forward contracts, expiring between May 2020 and April 2021, with a total outstanding notional amount of \$336.2 million at December 31, 2018. The System had no outstanding foreign currency forward contracts at December 31, 2017. The foreign currency forward contracts are not designated as hedging instruments.

13. Derivative Instruments (continued)

The following table summarizes the location and fair value for the System's derivative instruments (in thousands):

		Derivativ	es Liability	
	December 3	31, 2018	December 3	31, 2017
	Balance Sheet		Balance Sheet	
	Location	Fair Value	Location	Fair Value
Derivatives not designated as hedging instruments				
Interest rate swap agreements	Other noncurrent liabilities	\$ 101,444	Other noncurrent liabilities	\$ 123,989
Foreign currency contracts	Other noncurrent liabilities	\$ 9,419		\$ -

The following table summarizes the location and amounts of derivative losses on the System's interest rate swap agreements (in thousands):

	Location of Loss	Ye	ar Ended	Dec	ember 31
	Recognized		2018		2017
Derivatives not designated as hedging instruments					
Interest rate swap agreements	Derivative gains (losses)	\$	9,233	\$	(5,309)
Foreign currency contracts	Derivative (losses) gains	\$	(9,419)	\$	3,004

13. Derivative Instruments (continued)

The System has used various derivative contracts in connection with certain prior obligations and investments. Although minimum credit ratings are required for counterparties, this does not eliminate the risk that a counterparty may fail to honor its obligations. Derivative contracts are subject to periodic "mark-to-market" valuations. A derivative contract may, at any time, have a positive or negative value to the System. In the event that the negative value reaches certain thresholds established in the derivative contracts, the System is required to post collateral, which could adversely affect its liquidity. At December 31, 2018 and 2017, the System posted \$49.0 million and \$69.2 million, respectively, of collateral with counterparties that is included in funds held by trustees in the consolidated balance sheets. In addition, if the System were to choose to terminate a derivative contract or if a derivative contract were terminated pursuant to an event of default or a termination event as described in the derivative contract, the System could be required to pay a termination payment to the counterparty.

14. Professional and General Liability Insurance

The System manages its professional and general liability insurance program through a captive insurance arrangement.

In the ordinary course of business, professional and general liability claims have been asserted against the System by various claimants. These claims are in various stages of processing or, in certain instances, are in litigation. In addition, there are known incidents, and there also may be unknown incidents, which may result in the assertion of additional claims. The System has accrued its best estimate of both asserted and unasserted claims based on actuarially determined amounts. These estimates are subject to the effects of trends in loss severity and frequency, and ultimate settlement of professional and general liability claims may vary significantly from the estimated amounts.

The System's professional and general liability insurance reserves of \$195.0 million and \$198.4 million at December 31, 2018 and 2017, respectively, are recorded as current and noncurrent liabilities and include discounted estimates of the ultimate costs for both asserted claims and unasserted claims. Asserted claims for the System's reserves were discounted at 3.25% and 2.25% at December 31, 2018 and 2017, respectively. Unasserted claims were discounted at 3.50% and 2.50% at December 31, 2018 and 2017, respectively. Through the captive insurance subsidiary, the System has set aside investments of \$160.8 million (\$53.8 million included in investments for current use) and \$210.9 million (\$51.1 million included in investments for current use) at December 31, 2018 and 2017, respectively, of which \$38.2 million and \$37.6 million at December 31, 2018 and 2017, respectively, are restricted in accordance with reinsurance trust agreements related to coverage of the Florida operations and other reinsurance programs provided by the captive insurance subsidiary.

14. Professional and General Liability Insurance (continued)

Activity in the professional and general liability insurance reserves is summarized as follows (in thousands):

	 2018	2017
Balance at beginning of year Incurred related to:	\$ 198,378 \$	198,234
Current period	62,320	65,901
Prior period	(4,095)	(14,288)
Total incurred	58,225	51,613
Paid related to:		
Current period	6,481	5,219
Prior period	 54,747	44,828
Total paid	 61,228	50,047
Total incurred less total paid	(3,003)	1,566
Decrease in unasserted claims	(320)	(1,414)
Decrease in reinsurance recoverable	 (32)	(8)
Balance at end of year	\$ 195,023 \$	198,378

The foregoing reconciliation shows \$4.1 million and \$14.3 million of favorable development in 2018 and 2017, respectively, due to changes in actuarial estimates as a result of lower claim activity, closed claims, and expedited settlement of claims, which has reduced claim expenses and resulted in more favorable settlements. The System utilizes a combination of actual and industry statistics to estimate loss and loss adjustment expense reserves.

15. Pensions and Other Postretirement Benefits

The System maintains four defined benefit pension plans, including two plans related to Akron General. The CCHS Retirement Plan is a tax-qualified defined benefit pension plan that provides benefits to substantially all employees of the System, except those employed by Akron General or Union Hospital. All benefit accruals under the CCHS Retirement Plan ceased as of December 31, 2012. Akron General has a tax-qualified defined benefit plan covering substantially all of its employees that were hired before 2004 who meet certain eligibility requirements. All benefit accruals under the Akron General defined benefit plan ceased as of December 31, 2017. The benefits for the System's tax-qualified defined benefit pension plans are provided based on age, years of service, and compensation. The System's policy for its tax-qualified defined benefit pension plans is to fund at least the minimum amounts required by the Employee Retirement Income Security Act. The System also maintains two unfunded, nonqualified defined benefit supplemental retirement plans, which cover certain professional staff and administrative employees.

CLEVELAND CLINIC HEALTH SYSTEM NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS FOR THE PERIOD ENDED DECEMBER 31, 2018

15. Pensions and Other Postretirement Benefits (continued)

The System sponsors two noncontributory, defined contribution plans, and three contributory, defined contribution plans covering System and Akron General employees. The System also assumed three additional contributory, defined contribution plans from the Union Hospital member substitution. The Cleveland Clinic Investment Pension Plan (IPP) is a noncontributory, defined contribution plan, which covers substantially all of the System's employees, except employees covered by the Cleveland Clinic Cash Balance Plan and those employed by Akron General or Union Hospital. The System's contribution to the IPP for participants is based upon a percentage of employee compensation that is based on years of service. The Cleveland Clinic Cash Balance Plan (CBP) is a noncontributory, defined contribution plan that covers certain professional and administrative employees not covered by the IPP. The System's contribution to the CBP is a percentage of employee compensation that is determined according to age. The System sponsors six tax-qualified contributory, defined contribution plans, which cover substantially all employees. The plans permit employees to make pretax employee deferrals and to become entitled to certain employer matching contributions that are based on employee contributions.

The System provides healthcare benefits upon retirement for substantially all of its employees who meet certain minimum age and years of service provisions at retirement. The System's healthcare plans generally provide for cost-sharing, in the form of retiree contributions, deductibles, and coinsurance. The System's policy is to fund the annual cost of healthcare benefits from the general assets of the System. The estimated cost of these postretirement benefits is actuarially determined and accrued over the employees' service periods.

The mortality tables used to calculate the defined benefit obligation for the System's defined benefit and postretirement health benefit plans are based on the RP-2014 "Employees" table unadjusted, with generational projection for non-annuitants and the RP-2014 "Healthy Annuitants" table unadjusted, with generational projection for annuitants. In 2017, the System updated the generational mortality projections scale from Scale MP-2016 to Scale MP-2017. In 2018, the System updated the generational mortality projections scale from Scale MP-2017 to Scale MP-2018. The System believes that the updated mortality rates are the best estimate of future experience.

The System expects to make contributions of \$9.5 million to the defined benefit pension plans in 2019. Pension benefit payments over the next ten years are estimated as follows: 2019 – \$114.4 million; 2020 – \$115.6 million; 2021 – \$119.2 million; 2022 – \$116.7 million; 2023 – \$117.1 million; and in the aggregate for the five years thereafter – \$548.3 million.

The System expects to make contributions of \$3.8 million to other postretirement benefit plans in 2019. Other postretirement benefit payments over the next ten years, net of the average annual Medicare Part D subsidy of approximately \$0.9 million, are estimated as follows: 2019 –\$3.8 million; 2020 – \$3.8 million; 2021 – \$3.6 million; 2022 – \$3.3 million; 2023 – \$3.0 million; and in the aggregate for the five years thereafter – \$10.8 million.

No plan assets are expected to be returned to the employer during 2019.



The System is required to recognize the funded status, which is the difference between the fair value of plan assets and the projected benefit obligations, of its pension and other postretirement benefit plans in the consolidated balance sheets, with a corresponding adjustment to net assets without donor restrictions. Amounts recorded in net assets without donor restrictions consist of actuarial gains and losses and prior service credits and costs. Actuarial gains and losses recorded in net assets outside of the corridor, which is 10% of the greater of the projected benefit obligation or the fair value of the plan assets, will be recognized as a component of net periodic benefit cost immediately in the current period. Prior service credits and costs will be amortized over future periods, pursuant to the System's accounting policy.

Unrecognized prior service credits and costs are amortized on a straight-line basis over the estimated life of the plan participants. In 2019, the System is expected to amortize \$2.9 million of unrecognized prior service credits in net periodic benefit costs.

Included in net assets without donor restrictions at December 31, 2018 and 2017 are the following amounts that have not yet been recognized in net periodic benefit cost (in thousands):

	Defined Benefit Pension Plans			Other Postretirement Benefits			
		2018		2017		2018	2017
Unrecognized actuarial losses (gains) Unrecognized prior service	\$	144,463	\$	173,279	\$	(8,189) \$	(9,553)
credit		(13,711)		(15,621)		(7,041)	(7,994)
Total	\$	130,752	\$	157,658	\$	(15,230) \$	(17,547)

Unrecognized actuarial losses (gains) included in net assets without donor restrictions represent amounts within the corridor that do not require recognition in net periodic benefit cost for each respective year.

Changes in plan assets and benefit obligations recognized in net assets without donor restrictions for the years ended December 31, 2018 and 2017 are as follows (in thousands):

	Defined Be Pension F		(Other Pos Ben	
	 2018	2017		2018	2017
Current year actuarial (loss) gain Recognition of actuarial loss (gain)	\$ (5,114) \$	(45,990)	\$	13,870	\$ 5,674
in excess of corridor	33,930	41,048		(15,234)	(6,011)
Current year prior service credit	_	4,538		_	_
Amortization of prior service credit	(1,910)	(1,680)		(953)	(952)
Total	\$ 26,906 \$	(2,084)	\$	(2,317)	\$ (1,289)



The following table sets forth the funded status of the System's pensions and other postretirement benefit plans and the amounts recognized in the System's December 31, 2018 and 2017 consolidated balance sheets (in thousands):

		Benefit	C	ther Postre	
		n Plans		Benefit	
	2018	2017		2018	2017
Change in projected benefit					
obligation:					
Projected benefit obligation at	04 705 440	Φ4 7 00 004	•	05 500 A	00.000
beginning of year	\$1,785,443		\$	95,533 \$	98,900
Service (credit) cost	(1,513)	196		1,068	1,313
Interest cost	64,712	71,493		3,622	4,273
Actuarial (gain) loss	(104,647)	89,403		(13,870)	(5,674)
Participant contributions	_	(4.500)		15,254	13,437
Plan amendments	_	(4,538)		_	_
Curtailment	- (CO C7C)	(62)		_	_
Settlement payments	(68,676)	(68,248)		- (20.479)	(17 606)
Benefits paid Federal subsidy	(44,736)	(39,482)		(20,478) 760	(17,606) 890
•	<u>_</u>			760	090
Projected benefit obligation at end of year	1,630,583	1,785,443		01 000	05 522
Change in plan assets:	1,030,363	1,705,445		81,889	95,533
Fair value of plan assets at					
beginning					
of year	1,375,159	1,342,970		_	_
Actual return on plan assets	(34,975)	128,022		_	_
Participant contributions	(04,010)	120,022		15,254	13,437
System contributions	7,647	11,897		5,224	4,169
Benefits paid	(113,412)	(107,730)		(20,478)	(17,606)
Fair value of plan assets at end	(110,112)	(101,100)		(=0, 0)	(11,000)
of year	1,234,419	1,375,159		_	_
o. yeu.	1,201,110	1,010,100			
Accrued retirement benefits	\$ (396,164)	\$ (410,284)	\$	(81,889) \$	(95,533)
Current liabilities	\$ (8,680)	\$ (8,882)	\$	(3,846) \$	(4,102)
Noncurrent liabilities	(387,484)	(401,402)		(78,043)	(91,431)
Net liability recognized in					
consolidated					
balance sheets	\$ (396,164)	\$ (410,284)	\$	(81,889) \$	(95,533)

The accumulated benefit obligation for all defined benefit pension plans was \$1.6 billion and \$1.8 billion at December 31, 2018 and 2017, respectively.



The CCHS Retirement Plan paid \$68.7 million and \$68.2 million in lump-sum payments in accordance with plan terms in 2018 and 2017, respectively, which exceeded the sum of the service cost and interest cost components of net periodic benefit cost for each year. As a result, the System recorded a settlement charge of \$8.0 million and \$7.6 million for the years ended December 31, 2018 and 2017, respectively.

In 2017, the System amended the Akron General primary defined benefit pension plan to offer a lump sum option to all non-bargained active and terminated vested participants, effective January 1, 2018. As a result of this amendment, the projected benefit obligation decreased \$4.5 million in 2017.

The components of net periodic benefit cost (credit) are as follows (in thousands):

	Defined Benefit Pension Plans			Other Postretirement Benefits		
	2018	2017		2018	2017	
Components of net periodic						
benefit cost:						
Service (credit) cost	\$ (1,513) \$	196	\$	1,068 \$	1,313	
Interest cost	64,712	71,493		3,622	4,273	
Expected return on plan assets	(74,786)	(84,670)		_	_	
Recognition of actuarial loss						
(gain) in excess of corridor	25,901	33,471		(15,234)	(6,011)	
Settlement charge	8,029	7,577		_	_	
Amortization of unrecognized						
prior service credit	 (1,910)	(1,680)		(953)	(952)	
Net periodic benefit cost (credit)	20,433	26,387		(11,497)	(1,377)	
Defined contribution plans	 238,129	224,769		_		
Total	\$ 258,562 \$	251,156	\$	(11,497) \$	(1,377)	

The service (credit) cost component of net periodic benefit cost (credit) is included in salaries, wages, and benefits in the consolidated statements of operations and changes in net assets. The components of net periodic benefit cost (credit) other than the service (credit) cost component are included in other nonoperating gains and losses in the consolidated statements of operations and changes in net assets.

Weighted-average assumptions used to determine pension and postretirement benefit obligations and net periodic benefit cost are as follows:

_	Defined Benefit Pension Plans		Other Postretiremen Benefits		
_	2018	2017	2018	2017	
Weighted-average assumptions:					
Discount rates:					
Used for benefit obligations	4.37%	3.74%	4.38%	3.83%	
Used for net periodic benefit					
cost	3.74%	4.24%	3.83%	4.36%	
Expected rate of return on					
plan assets	5.65%	6.53%	_	_	
Rate of compensation increase:					
Used for benefit obligations	2.25%	2.25%	_	_	
Used for net periodic benefit					
cost	2.25%	2.25%	_	_	

The System uses a direct cost approach to estimate its postretirement benefit obligation for healthcare services provided by the System (internally provided services). Healthcare services provided by non-System entities (externally provided services) are based on the System's historical cost experience.

The annual assumed healthcare cost trend rates for the next year and the assumed trend thereafter is as follows:

	2018	2017
Internally provided services:		
Initial rate	5.75%	6.00%
Ultimate rate	4.50%	4.50%
Year ultimate reached	2024	2024
Externally provided services:		
Initial rate	6.75%	7.00%
Ultimate rate	5.50%	5.50%
Year ultimate reached	2024	2024

A one-percentage-point increase or decrease in the healthcare cost trend rate would have increased or decreased service and interest costs in 2018 by \$2.1 million and \$1.4 million, respectively, and service and interest costs in 2017 by \$2.4 million and \$1.4 million, respectively.

The System's weighted-average asset allocation of pension plan assets at December 31, 2018 and 2017, by asset category, are as follows:

	Percer	ntage of Pla	n Assets
	2018	2017	Target Allocation
Asset category			7
Interest-bearing cash	4.1%	6.4%	1%–6%
Fixed income securities	49.7	45.8	41%–65%
Common and preferred stocks	27.6	31.1	16%-36%
Alternative investments	18.6	16.7	7%–28%
Total	100.0%	100.0%	=

The System's investment strategy for its pension assets balances the liquidity needs of the pension plans with the long-term return goals necessary to satisfy future pension obligations. The target allocation ranges of the investment pool to various asset classes are designed to diversify the portfolio in a way that achieves an efficient trade-off between long-term return and risk while providing adequate liquidity to meet near-term expenses and obligations.

The System's weighted-average pension portfolio return assumption of 5.65% and 6.53% in 2018 and 2017, respectively, is based on the targeted assumed rate of return through its asset mix at the beginning of each year, which is designed to mitigate short-term return volatility and achieve an efficient trade-off between return and risk. Expected returns and risk for each asset class are formed using a global capital asset pricing model framework in which the expected return is the compensation earned from taking risk. Forward-looking adjustments are made to expected return, volatility, and correlation estimates as well. Additionally, constraints such as permissible asset classes, portfolio guidelines, and liquidity considerations are included in the model.

The System implemented an investment strategy for the CCHS Retirement Plan over the last few years based on the current funded status of the plan that has reduced the asset allocation for common and preferred stocks with a corresponding increase in fixed income securities. The updated investment strategy was implemented because of the funded status of the pension plan and the anticipation that such changes in investment strategy will result in lower volatility of future changes in funded status. Additional revisions in asset allocations and expected rate of return on plan assets may occur based on future changes in the funded status of the pension plans. Once the new investment strategy is fully implemented, it is anticipated that the duration of the investment assets will match the liabilities of the pension plan over time.

The following tables present the financial instruments in the System's defined benefit pension plans measured at fair value on a recurring basis as of December 31, 2018 and 2017, based on the valuation hierarchy (in thousands):

December 31, 2018	 Level 1	Level 2	Level 3	Total
Assets Cash and investments: Cash and cash equivalents Fixed income securities:	\$ 49,767	\$ 367	\$ _ \$	50,134
U.S. treasuries	297,780	_	_	297,780
U.S. government agencies	_	_	_	· _
U.S. corporate	_	144,345	_	144,345
Foreign	_	17,437	_	17,437
Fixed income mutual funds	_	_	_	_
Common and preferred stocks:				
U.S.	60,750	_	_	60,750
Foreign	14,924	1,174	_	16,098
Equity mutual funds	19,927	_	_	19,927
Total assets at fair value	\$ 443,148	\$ 163,323	\$ - \$	606,471
December 31, 2017	Level 1	Level 2	Level 3	Total
December 31, 2017 Assets	Level 1	Level 2	Level 3	Total
	Level 1	Level 2	Level 3	Total
Assets Cash and investments: Cash and cash equivalents	\$ Level 1 87,571	\$	\$ Level 3 - \$	Total 87,576
Assets Cash and investments: Cash and cash equivalents Fixed income securities:	87,571	\$	\$	87,576
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries		\$ 5 –	\$	87,576 360,138
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies	87,571	\$ 5 - 5,045	\$	87,576 360,138 5,045
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies U.S. corporate	87,571	\$ 5 - 5,045 62,672	\$	87,576 360,138 5,045 62,672
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies U.S. corporate Foreign	87,571 360,138 - -	\$ 5 - 5,045	\$	87,576 360,138 5,045 62,672 7,513
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies U.S. corporate Foreign Fixed income mutual funds	87,571	\$ 5 - 5,045 62,672	\$	87,576 360,138 5,045 62,672
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies U.S. corporate Foreign Fixed income mutual funds Common and preferred stocks:	87,571 360,138 - - - 73,016	\$ 5 - 5,045 62,672	\$	87,576 360,138 5,045 62,672 7,513 73,016
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies U.S. corporate Foreign Fixed income mutual funds Common and preferred stocks: U.S.	87,571 360,138 - - - 73,016 69,804	\$ 5 5,045 62,672 7,513 –	\$	87,576 360,138 5,045 62,672 7,513 73,016 69,804
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies U.S. corporate Foreign Fixed income mutual funds Common and preferred stocks: U.S. Foreign	87,571 360,138 - - 73,016 69,804 20,342	\$ 5 - 5,045 62,672	\$	87,576 360,138 5,045 62,672 7,513 73,016 69,804 20,996
Assets Cash and investments: Cash and cash equivalents Fixed income securities: U.S. treasuries U.S. government agencies U.S. corporate Foreign Fixed income mutual funds Common and preferred stocks: U.S.	87,571 360,138 - - - 73,016 69,804	5 5,045 62,672 7,513 –		87,576 360,138 5,045 62,672 7,513 73,016 69,804



Total plan assets in the System's defined benefit pension plans at December 31, 2018 and 2017 are comprised of the following (in thousands):

	2018			2017
Plan assets measured at fair value	¢	606,471	Ф	778,949
	Ψ	•	φ	,
Commingled funds measured at net asset value		398,884		367,089
Alternative investments measured at net asset value		229,064		196,121
Pending purchases of alternative investments		_		33,000
Total fair value of plan assets at end of year	\$	1,234,419	\$	1,375,159

Fair value methodologies for Level 1 and Level 2 are consistent with the inputs described in Note 9.

Fixed income securities include debt obligations of the U.S. government and various agencies, U.S. corporations, and other fixed income instruments such as mortgage-backed and asset-backed securities. The composition of these securities represents an expected return and risk profile that is commensurate with broadly defined fixed income indexes such as the Barclays Capital U.S. Aggregate Index. Additionally, investments include mutual funds and commingled fixed-income funds that may also invest in opportunistic as well as non-U.S. and high-yield debt instruments. Commingled fixed-income funds are valued using net asset value as a practical expedient.

Common and preferred stocks include investments of publicly traded common stocks of both U.S. and international corporations, the majority of which represent actively traded and liquid securities that are traded on many of the world's major exchanges and include large-, mid-, and small-capitalization securities. The composition of these securities represents an expected return and risk profile that is commensurate with broadly defined equity indexes such as the Russell 3000 Index and the Morgan Stanley Capital International (MSCI) All Country World ex-U.S. Index. Investments also include equity mutual funds and commingled equity funds whose underlying assets may include publicly traded equity securities. Commingled equity funds are valued using net asset value as a practical expedient.

Alternative investments include hedge funds and private equity funds that are valued using net asset value as a practical expedient. Hedge funds are meant to provide returns between those expected from stocks and fixed income investments with commensurate levels of risk and lower correlation relative to traditional investments. Included in this category are investments that are well diversified across various strategies and may consist of absolute return funds, long/short funds, and other opportunistic/multistrategy funds. The underlying investments in such funds may include publicly traded and privately held equity and debt instruments issued by U.S. and international corporations as well as various derivatives based on these securities. Hedge fund redemptions typically contain restrictions that allow for a portion of the withdrawal proceeds to be held back from distribution while the underlying investments are liquidated. Private equity investments make up a smaller portion of the alternative investments and generally consist of limited partnerships formed to invest in equity and debt investments in operating companies that are not publicly traded. Investment strategies in this category may include buyouts, distressed debt, and venture capital. Private equity funds are closed-end funds and have significant redemption restrictions that prohibit redemptions during the fund's life.

16. Income Taxes

The Clinic and most of its controlled affiliates are tax-exempt organizations as described in Section 501(c)(3) of the Internal Revenue Code. These organizations are subject to income tax on any income from unrelated business activities. The System also owns or controls certain domestic and international taxable affiliates.

The System files income tax returns in the U.S. federal jurisdiction and in various state and foreign jurisdictions. With few exceptions, the System is no longer subject to U.S. federal, state, and local or non-U.S. income tax examinations by tax authorities for years before 2015.

At December 31, 2018 and 2017, the liability for uncertainty in income taxes was \$0.9 million and \$0.6 million, respectively. The System does not expect a significant increase or decrease in unrecognized tax benefits within the next 12 months. The System recognizes interest and penalties accrued related to the liability for unrecognized tax benefits in the consolidated statements of operations and changes in net assets.

The System has gross deferred tax assets of \$201.9 million and \$210.7 million at December 31, 2018 and 2017, respectively. The gross deferred tax assets primarily relate to net operating losses available for income tax purposes. The majority of these losses expire in varying amounts from 2019 through 2037. A deferred tax asset of \$40.9 million and \$45.2 million has been recorded at December 31, 2018 and 2017, respectively. A valuation allowance of \$40.9 million and \$45.1 million has been recorded at December 31, 2018 and 2017, respectively, against the deferred tax assets due to the uncertainty regarding their use.

CLEVELAND CLINIC HEALTH SYSTEM NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS FOR THE PERIOD ENDED DECEMBER 31, 2018

16. Income Taxes (continued)

The Tax Cuts and Jobs Act (Act) was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that was previously tax deferred and creates new taxes on certain foreign sourced earnings. For tax-exempt entities, the Act also requires organizations to categorize certain fringe benefit expenses as a source of unrelated business income, pay an excise tax on remuneration above certain thresholds that is paid to executives by the organization, and report income or loss from unrelated business activities on an activity-by-activity basis, among other provisions. The System has adopted the relevant provisions of the Act. At December 31, 2017, the System recorded a tax benefit of \$6.2 million for the remeasurement of the deferred tax balances at the new tax rate. The System will continue to revise and refine calculations as additional IRS guidance is issued.

17. Commitments and Contingent Liabilities

The System leases various equipment and facilities under operating lease arrangements. Total rental expense in 2018 and 2017 was \$71.2 million and \$66.2 million, respectively. Minimum operating lease payments over the next five years are as follows (in thousands): 2019 – \$46,394; 2020 – \$41,711; 2021 – \$37,958; 2022 – \$34,318; and 2023 – \$30,502.

Included in the System's operating lease payments are the following off-balance-sheet financing agreements:

In 2003, the System entered into an operating lease agreement for the purpose of leasing a genetics and stem cell research building (Stem Cell Building Lease). Under the terms of the Stem Cell Building Lease, the System began to lease the facility upon the issuance of the certificate of occupancy in December 2004 and is required to lease the facility for 29 years. At December 31, 2018, total remaining minimum operating lease payments were \$26.5 million.

In 2006, the System entered into an operating lease agreement for the purpose of leasing a parking garage and service center building (Service Center Lease). Under the terms of the Service Center Lease, the System began to lease the facility upon issuance of a certificate of occupancy in October 2008 and is required to lease the facility for 21 years with an option (by the System) to extend the lease an additional five years. At December 31, 2018, total remaining minimum operating lease payments were \$67.0 million.

In 2007, the System entered into two operating lease agreements to lease an office complex comprised of five buildings primarily used for administrative services, totaling approximately 707,000 square feet. The System is required to lease the facilities for 22 years with an option (by the System) to extend the leases an additional five years. At December 31, 2018, total remaining minimum operating lease payments were \$35.4 million.

17. Commitments and Contingent Liabilities (continued)

At December 31, 2018, the System has commitments for construction and other related capital contracts of \$366 million and letters of credit of \$0.6 million. Guarantees of mortgage loans made by banks to certain staff members are \$20.5 million at December 31, 2018. In addition, the System has remaining commitments to invest approximately \$841 million in alternative investments at December 31, 2018. The largest commitment at December 31, 2018, to any one alternative strategy manager is \$81.0 million. These investments are expected to occur over the next three to five years. No amounts have been recorded in the consolidated balance sheets for these commitments and guarantees.

Pledge liabilities to various foundations and other entities at December 31, 2018 are as follows (in thousands): 2019 – \$1,255; 2020 – \$5,550; 2021 – \$1,000; 2022 – \$4,600; 2023 – \$500; and thereafter – \$13,200. The unamortized discount on pledge liabilities at December 31, 2018 was \$3.2 million. Pledge liabilities are recorded in other current liabilities and other noncurrent liabilities in the consolidated balance sheets.

18. Endowment

The System's endowment consists of approximately 331 individual donor-restricted funds established for a variety of purposes. Endowment funds are classified and reported based on donor-imposed restrictions as net assets with donor restrictions.

Interpretation of Relevant Law

In 2009, the Uniform Prudent Management of Institutional Funds Act (UPMIFA) was enacted to update and replace Ohio's previous law, the Uniform Management of Institutional Funds Act. The System has interpreted UPMIFA as requiring the preservation of the fair value of the original gift as of the gift date of the donor-restricted endowment funds, absent explicit donor stipulations to the contrary. As a result of this interpretation, the System classifies as net assets with donor restrictions (1) the original value of gifts donated to the permanent endowment, (2) the original value of subsequent gifts to the permanent endowment, and (3) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of the donor-restricted endowment fund that is not classified in the permanent endowment is available for appropriation for expenditure by the System in a manner consistent with the standard for expenditure prescribed by UPMIFA. In accordance with UPMIFA, the System considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds:

- 1. The duration and preservation of the fund.
- 2. The purposes of the System and the donor-restricted endowment fund.
- 3. General economic conditions.
- 4. The possible effect of inflation and deflation.
- 5. The expected total return from income and the appreciation of investments.
- 6. Other resources of the System.
- 7. The investment policies of the System.

CLEVELAND CLINIC HEALTH SYSTEM NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS FOR THE PERIOD ENDED DECEMBER 31, 2018

18. Endowment (continued)

Funds With Deficiencies

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the value of the original and subsequent donor gift amounts. As of December 31, 2018, the System had deficiencies of this nature in 18 donor-restricted endowment funds, which together have an original gift value of \$23.2 million, a current fair value of \$22.6 million, and a deficiency of \$0.6 million. These deficiencies resulted from unfavorable market fluctuations that occurred shortly after the investment of new contributions for donor-restricted endowment funds and continued appropriations for certain programs that were deemed prudent by the System. The System maintains policies that permit spending from underwater endowment funds depending on the degree to which the fund is underwater, unless otherwise precluded by donor intent or relevant laws and regulations.

Return Objectives and Risk Parameters

The System has adopted investment and spending policies for endowment assets that attempt to provide a predictable stream of funding to programs supported by its endowment while seeking to maintain the purchasing power of the endowment assets. Endowment assets include those assets of donor-restricted funds that the organization must hold in perpetuity. Under this policy, the endowment assets are invested in a highly diversified portfolio of U.S. and non-U.S. publicly traded equities, alternative investments, and fixed income securities structured to achieve an optimal balance between return and risk. The System expects its endowment funds, over time, to provide an average rate of return of approximately 7.5% annually. Actual returns in any given year may vary from this amount.

Strategies Employed for Achieving Objectives

To satisfy its long-term rate-of-return objectives, the System relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The System targets a diversified asset allocation to achieve its long-term return objective within prudent risk constraints.

18. Endowment (continued)

Spending Policy and How the Investment Objectives Relate to Spending Policy

The System has a policy of appropriating for distribution each year up to 5% of its endowment fund's average fair value over the prior three years through the calendar year-end preceding the fiscal year in which the distribution is planned. In establishing this policy, the System considered the long-term expected return on its endowment. Accordingly, over the long term, the System expects the current spending policy to allow its endowment to grow at an average of 2.5% annually. This is consistent with the System's objective to maintain the purchasing power of the endowment assets held in perpetuity or for a specified term as well as to provide additional real growth through new gifts and investment return.

Changes in Endowment Net Assets

The following table summarizes the changes in endowment net assets for the years ended December 31, 2018 and 2017 (in thousands):

		2018	2017
Endowment net assets, beginning of year	\$	381,810 \$	324,552
Investment income	•	2,303	2,251
Net (depreciation) appreciation		(7,885)	38,172
Contributions		17,655	22,160
Appropriation of endowment assets for expenditure		(5,748)	(5,325)
Endowment net assets, end of year	\$	388,135 \$	381,810

19. Functional Expenses

The System provides healthcare services and education and performs research. The following table presents expenses by both their nature and their function for the years ended December 31, 2018 and 2017 (in thousands):

			20 ⁻	18		
				General	Non-	
	Healthcare		Medical	and	Healthcare	
	Services	Research	Education	Administrative	Services	Total
Salaries, wages, and						
benefits	\$3,809,548	\$163,740	\$301,073	\$ 561,890	\$ 21,175	\$4,857,426
Supplies	816,522	20,217	7,409	12,048	8,674	864,870
Pharmaceuticals	1,090,116	393	9	463	_	1,090,981
Purchased services and						
other fees	306,136	5,609	9,060	243,317	(352)	563,770
Administrative services	96,024	43,510	23,741	44,534	14,307	222,116
Facilities	318,726	3,801	2,024	19,778	9,149	353,478
Insurance	68,776	_	340	2,113	355	71,584
Interest	124,309	1,732	_	3,545	9,258	138,844
Depreciation and						
amortization	364,571	12,119	151	100,374	18,421	495,636
Special charges	2,419	-	_	-	-	2,419
	\$6,997,147	\$251,121	\$343,807	\$ 988,062	\$ 80,987	\$8,661,124

			20	17		
				General	Non-	
	Healthcare		Medical	and	Healthcare	
	Services	Research	Education	Administrative	Services	Total
Salaries, wages, and						
benefits	\$3,563,863	\$151,172	\$290,549	\$ 534,382	\$ 25,176	\$4,565,142
Supplies	747,656	18,335	7,726	9,628	10,019	793,364
Pharmaceuticals	956,465	243	_	337	_	957,045
Purchased services and						
other fees	282,998	4,537	10,367	230,540	4,602	533,044
Administrative services	69,766	37,526	23,233	54,238	14,099	198,862
Facilities	294,204	3,827	2,267	23,801	10,272	334,371
Insurance	58,186	_	295	2,122	457	61,060
Interest	129,844	1,815	_	2,594	6,571	140,824
Depreciation and						
amortization	355,533	11,334	126	101,757	18,491	487,241
Special charges	5,491	_	_	_	_	5,491
	\$6,464,006	\$228,789	\$334,563	\$ 959,399	\$ 89,687	\$8,076,444

CLEVELAND CLINIC HEALTH SYSTEM NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS FOR THE PERIOD ENDED DECEMBER 31, 2018

19. Functional Expenses (continued)

The consolidated financial statements report certain categories of expenses that are attributable to more than one function. Therefore, these expenses require allocation on a reasonable basis that is consistently applied. The expenses that are allocated include salaries, wages and benefits, which include allocations on the basis of estimates of time and effort.

20. Special Charges

The System incurred and recorded special charges of \$2.4 million and \$5.5 million in 2018 and 2017, respectively. Special charges include accelerated depreciation expense and other costs related to LHA. The Clinic, LHA and the City of Lakewood entered into an agreement in December 2015 that outlines the transition of healthcare services in the City of Lakewood. Under the terms of the agreement, the Clinic constructed an approximately 62,000-square-foot family health center that opened in July 2018 that is located adjacent to the site of the former hospital. In addition, the Clinic and LHA will make contributions over the next 15 years for the creation of a new health and wellness community foundation to be used to address community health and wellness needs in the City of Lakewood.

21. Subsequent Events

The System evaluated events and transactions occurring subsequent to December 31, 2018 through March 29, 2019, the date the consolidated financial statements were issued. During this period, there were no subsequent events requiring recognition in the consolidated financial statements, and there were no nonrecognized subsequent events requiring disclosure, except that on January 1, 2019, the Clinic though a subsidiary became the sole member of Martin Memorial Health Systems, Inc. (Martin) and Indian River Memorial Hospital, Inc. (Indian River) through non-cash business combination transactions. Martin Health System is a regional not-for-profit, community-based healthcare provider located in Southeast Florida comprising three acute-care hospitals with approximately 513 staffed beds, a 150-member employed physician group and a network of outpatient services. Indian River is a not-for-profit medical center with approximately 250 staffed beds that provides healthcare services to Indian River and surrounding counties in Southeast Florida. Effective January 1, 2019, the financial results of Martin and Indian River will be included in the System's consolidated financial statements.

CLEVELAND CLINIC HEALTH SYSTEM OTHER INFORMATION FOR THE PERIOD ENDED DECEMBER 31, 2018

Unaudited Consolidating Balance Sheets

(\$ in thousands)

Assets Current assets: Cash and cash equivalents Patient receivables, net	 Obligated Group	Noi	n-Obligated	Consolidating Adjustments	
Current assets: Cash and cash equivalents Patient receivables, net	 O	Noi	U	Adjustments	
Current assets: Cash and cash equivalents Patient receivables, net	 Group		Crown		
Current assets: Cash and cash equivalents Patient receivables, net		Group		and Eliminations	Consolidated
Cash and cash equivalents Patient receivables, net					
Patient receivables, net					
	\$ 279,847	\$	164,916	\$	\$ 444,763
D C CC1' 4	1,008,777		150,582	(36,441)	1,122,918
Due from affiliates	5,053		20	(5,073)	_
Investments for current use	_		53,841	_	53,841
Other current assets	359,623		67,392	(550)	426,465
Total current assets	 1,653,300		436,751	(42,064)	2,047,987
Investments:					
Long-term investments	6,959,237		574,431	_	7,533,668
Funds held by trustees	49,353		24	_	49,377
Assets held for self-insurance	· _		106,966	_	106,966
Donor-restricted assets	715,268		29,583	_	744,851
	7,723,858		711,004	_	8,434,862
Property, plant, and equipment, net	4,144,790		927,674	-	5,072,464
Other assets:					
Pledges receivable, net	150,876		1,572	_	152,448
Trusts and interests in foundations	67,279		20,327	_	87,606
Other noncurrent assets	546,032		63,367	(197,637)	411,762
	764,187		85,266	(197,637)	651,816
Total assets	 14,286,135	\$	2,160,695	\$ (239,701)	\$ 16,207,129



Unaudited Consolidating Balance Sheets (continued)

(\$ in thousands)

	December 31, 2018											
					Co	nsolidating						
		Obligated	No	n-Obligated	Ac	ljustments						
		Group		Group		Eliminations	Consolidated					
Liabilities and net assets												
Current liabilities:												
Accounts payable	\$	448,095	\$	79,693	\$	(116)	\$	527,672				
Compensation and amounts												
withheld from payroll		329,434		29,908		_		359,342				
Current portion of long-term debt		185,676		5,746		(72)		191,350				
Variable rate debt classified as current		351,024		56,752		_		407,776				
Due to affiliates		20		5,053		(5,073)		_				
Other current liabilities		411,584		121,009		(39,140)		493,453				
Total current liabilities		1,725,833		298,161		(44,401)		1,979,593				
Long-term debt		3,028,825		723,115		(193,029)		3,558,911				
Other liabilities:												
Professional and general liability												
insurance reserves		55,556		85,626		_		141,182				
Accrued retirement benefits		420,436		45,091		_		465,527				
Other noncurrent liabilities		505,891		36,289		(151)		542,029				
		981,883		167,006		(151)		1,148,738				
Total liabilities		5,736,541		1,188,282		(237,581)		6,687,242				
Net assets:												
Without donor restrictions		7,547,813		919,775		(2,120)		8,465,468				
With donor restrictions		1,001,781		52,638		_		1,054,419				
Total net assets		8,549,594		972,413		(2,120)		9,519,887				
Total liabilities and net assets	\$	14,286,135	\$	2,160,695	\$	(239,701)	\$	16,207,129				
								-				



Unaudited Consolidating Balance Sheets (continued)

(\$ in thousands)

,	December 31, 2017											
					Co	nsolidating						
	(Obligated	No	n-Obligated	A	djustments						
		Group		Group	and	Eliminations	Consolidated					
Assets												
Current assets:												
Cash and cash equivalents	\$	27,644	\$	213,583	\$	_	\$	241,227				
Patient receivables, net		904,105		142,450		(33,652)		1,012,903				
Due from affiliates		55,942		50		(55,992)		_				
Investments for current use		103,920		51,051		_		154,971				
Other current assets		310,960		64,134		(368)		374,726				
Total current assets		1,402,571		471,268		(90,012)		1,783,827				
Investments:												
Long-term investments		7,289,000		440,697		_		7,729,697				
Funds held by trustees		69,234		_		_		69,234				
Assets held for self-insurance		_		159,802		_		159,802				
Donor-restricted assets		685,292		32,118		_		717,410				
		8,043,526		632,617		_		8,676,143				
Property, plant, and equipment, net		3,819,800		879,897		_		4,699,697				
Other assets:												
Pledges receivable, net		150,690		329		_		151,019				
Trusts and interests in foundations		71,866		8,777		_		80,643				
Other noncurrent assets		566,548		60,388		(151,926)		475,010				
		789,104		69,494		(151,926)		706,672				
T-4-14-	<u></u>	14.055.001	ф.	2.052.076	ф.	(241.029)	Φ.	15.066.220				
Total assets	\$	14,055,001	\$	2,053,276	\$	(241,938)	\$	15,866,339				



Unaudited Consolidating Balance Sheets (continued)

(\$ in thousands)

-	December 31, 2017												
					Co	nsolidating							
	(Obligated	No	n-Obligated	A	djustments							
		Group		Group	and	Eliminations	Consolidated						
Liabilities and net assets													
Current liabilities:													
Accounts payable	\$	432,859	\$	71,024	\$	(192)	\$	503,691					
Compensation and amounts													
withheld from payroll		311,159		34,287		_		345,446					
Current portion of long-term debt		77,208		380,677		(72)		457,813					
Variable rate debt classified as current		514,396		58,874		_		573,270					
Due to affiliates		50		55,942		(55,992)		_					
Other current liabilities		358,475		116,352		(36,165)		438,662					
Total current liabilities		1,694,147		717,156		(92,421)		2,318,882					
Long-term debt		2,972,113		171,562		(147,397)		2,996,278					
Other liabilities:													
Professional and general liability													
insurance reserves		55,875		91,452		_		147,327					
Accrued retirement benefits		453,710		39,123		_		492,833					
Other noncurrent liabilities		526,814		40,752		_		567,566					
		1,036,399		171,327		_		1,207,726					
Total liabilities		5,702,659		1,060,045		(239,818)		6,522,886					
Net assets:													
Without donor restrictions		7,397,798		950,971		(2,120)		8,346,649					
With donor restrictions		954,544		42,260				996,804					
Total net assets	-	8,352,342		993,231		(2,120)		9,343,453					
Total liabilities and net assets	\$	14,055,001	\$	2,053,276	\$	(241,938)	\$	15,866,339					



Unaudited Consolidating Statements of Operations and Changes in Net Assets (\$ in thousands)

Operations

Operations	Three Months Ended December 31, 2018										
	Three	e IVI	onuis Ena			, 2018					
	Ohlimatad	NI	. Oh!:4. J		onsolidating						
	Obligated	NOI	n-Obligated		djustments	Carralidata d					
TI () ()	Group		Group	and	Eliminations	Consolidated					
Unrestricted revenues	4.04 	4			(CA A CA)	A 400 T00					
Net patient service revenue	\$ 1,915,598	\$	256,267	\$	(62,365)	\$ 2,109,500					
Other	207,741		85,005		(42,636)	250,110					
Total unrestricted revenues	2,123,339		341,272		(105,001)	2,359,610					
Expenses											
Salaries, wages, and benefits	1,115,295		184,392		(72,864)	1,226,823					
Supplies	204,983		29,418		(316)	234,085					
Pharmaceuticals	274,696		18,427		_	293,123					
Purchased services and other fees	141,910		25,091		(7,639)	159,362					
Administrative services	45,196		26,532		(7,518)	64,210					
Facilities	70,457		19,266		(845)	88,878					
Insurance	16,061		13,007		(15,794)	13,274					
	1,868,598		316,133		(104,976)	2,079,755					
Operating income before interest, depreciation,			,		, , ,	, ,					
amortization, and special charges	254,741		25,139		(25)	279,855					
Interest	30,638		5,884		_	36,522					
Depreciation and amortization	104,292		14,875		(25)	119,142					
Operating income (loss) before special charges	119,811		4,380		_	124,191					
Special charges	_		241		_	241					
Operating income (loss)	119,811		4,139		_	123,950					
Nonoperating gains and losses											
Investment loss	(286,355)		(25,040)		_	(311,395					
Derivative losses	(27,538)		(437)		_	(27,975					
Other, net	(14,505)		(14,122)		_	(28,627					
Net nonoperating losses	(328,398)		(39,599)		_	(367,997					
Deficiency of revenues over expenses	(208,587)		(35,460)		_	(244,047					

Unaudited Consolidating Statements of Operations and Changes in Net Assets (continued) (\$ in thousands)

Operations

Operations	Three Months Ended December 31, 2017										
		Three	M	onths End			., 20)17			
						onsolidating					
	(Obligated	Noi	1-Obligated		Adjustments					
		Group		Group	and	l Eliminations	Co	nsolidated			
Unrestricted revenues											
Net patient service revenue	\$	1,814,911	\$	227,032	\$	(85,863)	\$	1,956,080			
Provision for uncollectible accounts		(41,224)		(11,888)				(53,112)			
Net patient service revenue less											
provision for uncollectible accounts		1,773,687		215,144		(85,863)		1,902,968			
Other		190,197		75,042		(43,327)		221,912			
Total unrestricted revenues		1,963,884		290,186		(129,190)		2,124,880			
Expenses											
Salaries, wages, and benefits		1,063,304		148,525		(94,087)		1,117,742			
Supplies		184,109		24,122		(524)		207,707			
Pharmaceuticals		226,538		21,188		_		247,726			
Purchased services and other fees		114,301		36,176		(9,701)		140,776			
Administrative services		46,831		23,200		(7,762)		62,269			
Facilities		68,786		14,985		(892)		82,879			
Insurance		16,778		12,981		(16,199)		13,560			
		1,720,647		281,177		(129,165)		1,872,659			
Operating income before interest, depreciation,											
amortization and special charges		243,237		9,009		(25)		252,221			
Interest		29,654		3,336		_		32,990			
Depreciation and amortization		103,548		14,932		(25)		118,455			
Operating income (loss) before special charges		110,035		(9,259)		_		100,776			
Special charges		_		1,072		_		1,072			
Operating income (loss)		110,035		(10,331)		_		99,704			
Nonoperating gains and losses											
Investment return		231,015		17,360		_		248,375			
Derivative gains (losses)		4,765		(548)		_		4,217			
Other, net		(32,201)		(9,238)				(41,439)			
Net nonoperating gains		203,579		7,574		_		211,153			
Excess (deficiency) of revenues over expenses		313,614		(2,757)		_		310,857			



Unaudited Consolidating Statements of Operations and Changes in Net Assets (continued) (\$ in thousands)

Change in Net Assets

J	 Obligated Group	No	n-Obligated Group	Ad	solidating justments liminations	Co	onsolidated
Total net assets at October 1, 2017	\$ 7,949,290	\$	1,039,677	\$	(3,448)	\$	8,985,519
Excess (deficiency) of revenues over expenses	313,614		(2,757)		_		310,857
Restricted gifts and bequests	41,586		632		_		42,218
Restricted net investment income	16,144		749		_		16,893
Net assets released from restrictions used for							
operations included in other unrestricted revenues	(13,944)		(1,269)		_		(15,213)
Retirement benefits adjustment	(5,282)		3,884		_		(1,398)
Transfers from (to) affiliates	49,481		(49,481)		_		
Change in restricted net assets related			, , ,				
to interest in foundations	1,411		_		_		1,411
Change in restricted net assets related							ŕ
to value of perpetual trusts	591		238		_		829
Foreign currency translation gain	_		2,189		_		2,189
Other	(549)		(631)		1,328		148
Increase (decrease) in total net assets	403,052		(46,446)		1,328		357,934
Total net assets at December 31, 2017	\$ 8,352,342	\$	993,231	\$	(2,120)	\$	9,343,453
Total net assets at October 1, 2018	\$ 8,695,150	\$	1,031,225	\$	(2,120)	\$	9,724,255
Deficiency of revenues over expenses	(208,587)		(35,460)		_		(244,047)
Donated capital	78				_		78
Restricted gifts and bequests	50,966		2,499		_		53,465
Restricted net investment loss	(17,150)		(766)		_		(17,916)
Net assets released from restrictions used for			· í				
operations included in other unrestricted revenues	(13,416)		(3,064)		_		(16,480)
Retirement benefits adjustment	30,373		(3,637)		_		26,736
Transfers from (to) affiliates	16,026		(16,026)		_		_
Change in restricted net assets related							
to interest in foundations	(3,338)		_		_		(3,338)
Change in restricted net assets related							
to value of perpetual trusts	(511)		(1,590)		_		(2,101)
Foreign currency translation loss	_		(824)		_		(824)
Other	 3		56				59
Decrease in total net assets	(145,556)		(58,812)		_		(204,368)
Total net assets at December 31, 2018	\$ 8,549,594	\$	972,413	\$	(2,120)	\$	9,519,887

Unaudited Consolidating Statements of Operations and Changes in Net Assets (\$ in thousands)

Operations

Operations	Year Ended December 31, 2018									
			Consolidating							
	Obligated	Non-Obligated	Adjustments							
	Group	Group	and Eliminations	Consolidated						
Unrestricted revenues										
Net patient service revenue	\$ 7,334,426	\$ 966,755	\$ (269,382)	\$ 8,031,799						
Other	753,137	301,295	(158,674)	895,758						
Total unrestricted revenues	8,087,563	1,268,050	(428,056)	8,927,557						
Expenses										
Salaries, wages, and benefits	4,486,481	682,986	(312,041)	4,857,426						
Supplies	758,369	107,452	(951)	864,870						
Pharmaceuticals	1,012,348	78,633	_	1,090,981						
Purchased services and other fees	490,408	98,784	(25,422)	563,770						
Administrative services	160,416	85,015	(23,315)	222,116						
Facilities	281,921	74,809	(3,252)	353,478						
Insurance	69,121	65,438	(62,975)	71,584						
	7,259,064	1,193,117	(427,956)	8,024,225						
Operating income before interest, depreciation,										
amortization, and special charges	828,499	74,933	(100)	903,332						
Interest	119,904	18,940	_	138,844						
Depreciation and amortization	432,794	62,942	(100)	495,636						
Operating income (loss) before special charges	275,801	(6,949)	-	268,852						
Special charges		2,419		2,419						
Operating income (loss)	275,801	(9,368)	_	266,433						
Nonoperating gains and losses										
Investment loss	(173,401)		_	(191,190)						
Derivative gains (losses)	1,458	(1,644)	_	(186)						
Other, net	(9,459)	38,321	_	28,862						
Net nonoperating (losses) gains	(181,402)	18,888	_	(162,514)						
Excess of revenues over expenses	94,399	9,520	_	103,919						

Unaudited Consolidating Statements of Operations and Changes in Net Assets (continued) (\$ in thousands)

Operations

Operations	Year Ended December 31, 2017							
	Obligated I		Non-Obligated Group		Consolidating Adjustments and Eliminations		Consolidated	
Unrestricted revenues								
Net patient service revenue	\$	7,151,809	\$	916,179	\$	(273,437)	\$	7,794,551
Provision for uncollectible accounts		(240,971)		(55,498)		_		(296,469)
Net patient service revenue less								
provision for uncollectible accounts		6,910,838		860,681		(273,437)		7,498,082
Other		769,719		302,217		(163,016)		908,920
Total unrestricted revenues		7,680,557		1,162,898		(436,453)		8,407,002
Expenses								
Salaries, wages, and benefits		4,291,356		587,955		(314,171)		4,565,140
Supplies		693,166		101,572		(1,373)		793,365
Pharmaceuticals		872,841		84,204		_		957,045
Purchased services and other fees		435,791		126,802		(29,548)		533,045
Administrative services		151,282		70,462		(22,881)		198,863
Facilities		269,428		68,627		(3,684)		334,371
Insurance		66,917		58,839		(64,696)		61,060
		6,780,781		1,098,461		(436,353)		7,442,889
Operating income before interest, depreciation, amortization and special charges		899,776		64,437		(100)		964,113
Interest		128,956		11,868		_		140,824
Depreciation and amortization		424,771		62,569		(100)		487,240
Operating income (loss) before special charges		346,049		(10,000)		_		336,049
Special charges		_		5,491		_		5,491
Operating income (loss)		346,049		(15,491)		_		330,558
Nonoperating gains and losses								
Investment return		830,497		65,642		_		896,139
Derivative gains (losses)		44		(2,349)		_		(2,305)
Other, net		(70,802)		(3,276)		_		(74,078)
Net nonoperating gains		759,739		60,017		_		819,756
Excess of revenues over expenses		1,105,788		44,526		_		1,150,314



Unaudited Consolidating Statements of Operations and Changes in Net Assets (continued) (\$ in thousands)

Change in Net Assets

•	 Obligated Group	No	n-Obligated Group	Adj	solidating ustments liminations	Co	onsolidated_
Total net assets at January 1, 2017	\$ 7,143,389	\$	885,858	\$	(3,448)	\$	8,025,799
Excess of revenues over expenses	1,105,788		44,526				1,150,314
Restricted gifts and bequests	118,562		2,109		_		120,671
Restricted net investment income	51,721		3,391		_		55,112
Net assets released from restrictions used for							
operations included in other unrestricted revenues	(38,081)		(3,594)		_		(41,675)
Retirement benefits adjustment	(7,257)		3,884		_		(3,373)
Transfers (to) from affiliates	(27,471)		27,471		_		_
Change in restricted net assets related							
to interest in foundations	5,047		_		_		5,047
Change in restricted net assets related							
to value of perpetual trusts	1,717		618		_		2,335
Foreign currency translation gain	_		29,301		_		29,301
Other	(1,073)		(333)		1,328		(78)
Increase in total net assets	 1,208,953		107,373		1,328		1,317,654
Total net assets at December 31, 2017	8,352,342		993,231		(2,120)		9,343,453
Excess of revenues over expenses	94,399		9,520		_		103,919
Donated capital, excluding assets released from	592		11		_		603
restrictions for capital purposes of \$12,159							
Restricted gifts and bequests	117,396		4,418		_		121,814
Restricted net investment (loss) income	(9,159)		154		_		(9,005)
Net assets released from restrictions used for							
operations included in other unrestricted revenues	(46,459)		(5,427)		_		(51,886)
Retirement benefits adjustment	28,398		(3,809)		_		24,589
Transfers from (to) affiliates	15,793		(15,793)		_		_
Change in restricted net assets related							
to interest in foundations	(3,300)		_		_		(3,300)
Change in restricted net assets related							
to value of perpetual trusts	355		(1,339)		_		(984)
Foreign currency translation loss	_		(23,332)		_		(23,332)
Union Hospital member substitution contribution	_		13,180		_		13,180
Other	(763)		1,599		_		836
Increase (decrease) in total net assets	197,252		(20,818)		_		176,434
Total net assets at December 31, 2018	\$ 8,549,594	\$	972,413	\$	(2,120)	\$	9,519,887

Unaudited Consolidating Statements of Cash Flows

(\$ in thousands)

(\$ III tilousarius)	Year Ended December 31, 2018					8
		Von	-O bligate	Consolidating Adjustments and Eliminations		
Operating activities and net nonoperating gains and losses Increase (decrease) in total net assets Adjustments to reconcile increase (decrease) in total net assets to net cash provided by (used in) operating activities and	\$ 197,252	\$	(20,818)		\$	176,434
net nonoperating gains and losses: Retirement benefits adjustment	(28,398))	3,809			(24,589)
Net realized and unrealized losses on investments Depreciation and amortization Foreign currency translation loss	227,207 432,794		22,152 64,663	(100)		249,359 497,357
Donated capital Restricted gifts, bequests, investment income, and other	(592) (105,292)		23,332 (11) (3,233)			23,332 (603) (108,525)
Transfers (from) to affiliates Amortization of bond premiums and debt issuance costs	(15,793) (6,109))	15,793 63			(6,046)
Net gain in value of derivatives Union Hospital member substitution contribution Changes in operating assets and liabilities:	(13,126)		(2,575) (64,876)			(15,701) (64,876)
Patient receivables Other current assets	(104,672) 22,876)	12,775 467	2,789 (50,737)		(89,108) (27,394)
Other noncurrent assets Accounts payable and other current liabilities Other liabilities	19,890 86,971 (1,129))	283 (54,916) (8,933)	45,811 48,020 (151)		65,984 80,075 (10,213)
Net cash provided by (used in) operating activities and net nonoperating gains and losses	711,879		(12,025)	45,632		745,486
Financing activities Proceeds from long-term borrowings	45,000		557,496	(45,632)		556,864
Payments for advance refunding and redemption of long-term debt Principal payments on long-term debt Debt issuance costs	(82,613) -)	(420,030) (5,824) (6,417)			(420,030) (88,437) (6,417)
Change in pledges receivables, trusts and interests in foundations Restricted gifts, bequests, investment income, and other	(16,249) 105,292)	(51) 3,233	(17.60)		(16,300) 108,525
Net cash provided by financing activities Investing activities	51,430		128,407	(45,632)		134,205
Expenditures for property, plant, and equipment Proceeds from sale of property, plant, and equipment Cash acquired through member substitution	(723,445) 165)	(81,070)			(804,515) 165
Net change in cash equivalents reported in long-term investments Purchases of investments	171,538 (3,401,430))	1,515 (103,273) (282,340)		(1,515 68,265 (3,683,770)
Sales of investments Transfers from (to) affiliates Net cash used in investing activities	3,426,273 15,793 (511,106)		320,828 (15,793) (160,133)			3,747,101 - (671,239)
Effect of exchange rate changes on cash Increase (decrease) in cash and cash equivalents			$\frac{(4,916)}{(48,667)}$			(4,916) 203,536
Cash and cash equivalents at beginning of year Cash and cash equivalents at end of year	27,644 \$ 279,847	\$	213,583 164,916	\$ -	\$	241,227 444,763



Unaudited Consolidating Statements of Cash Flows (continued)

(\$ in thousands)

(# III tilloudando)	Year Ended December 31, 2017				
	Obligated Group	_	Consolidating Adjustments and Eliminations	Consolidated	
Operating activities and net nonoperating gains and losses		•			
Increase in total net assets	\$ 1,208,953	\$ 107,373	\$ 1,328	\$ 1,317,654	
Adjustments to reconcile increase in total net assets					
to net cash provided by operating activities and					
net nonoperating gains and losses:					
Loss on extinguishment of debt	46,159	_	_	46,159	
Retirement benefits adjustment	7,257	(3,884)	_	3,373	
Net realized and unrealized gains on investments	(832,374)	(65,467)	_	(897,841)	
Depreciation and amortization	424,771	65,992	(100)	490,663	
Foreign currency translation gain	_	(29,301)	_	(29,301)	
Restricted gifts, bequests, investment income, and other	(177,047)	(6,118)	_	(183,165)	
Transfers to (from) affiliates	27,471	(27,471)	_	_	
Amortization of bond premiums and debt issuance costs	(3,118)	12	_	(3,106)	
Net gain in value of derivatives	(26,509)	_	_	(26,509)	
Changes in operating assets and liabilities:					
Patient receivables	76,139	(37,222)	7,351	46,268	
Other current assets	(59,278)	19,521	49,930	10,173	
Other noncurrent assets	(53,297)	(9,392)	(3,798)	(66,487)	
Accounts payable and other current liabilities	5,764	70,258	(59,618)	16,404	
Other liabilities	111,364	(18,969)	_	92,395	
Net cash provided by operating activities and net					
nonoperating gains and losses	756,255	65,332	(4,907)	816,680	
Financing activities					
Proceeds from long-term borrowings	1,118,137	2,710	(2,710)	1,118,137	
Payments for advance refunding and redemption of long-term debt	(1,110,120)	_	_	(1,110,120)	
Principal payments on long-term debt	(86,096)	(5,778)	7,617	(84,257)	
Debt issuance costs	(8,173)	_	_	(8,173)	
Change in pledges receivables, trusts and interests in foundations	(1,482)	276	_	(1,206)	
Restricted gifts, bequests, investment income, and other	177,047	6,118	_	183,165	
Net cash provided by financing activities	89,313	3,326	4,907	97,546	
Investing activities					
Expenditures for property, plant, and equipment	(519,040)	(88,680)	_	(607,720)	
Proceeds from sale of property, plant, and equipment	1,070	416	_	1,486	
Net change in cash equivalents reported in long-term investments	(394,195)	31,682	_	(362,513)	
Purchases of investments	(2,226,802)	(214,566)	_	(2,441,368)	
Sales of investments	2,045,412	169,822	_	2,215,234	
Transfers (to) from affiliates	(27,471)	27,471	_	_	
Net cash used in investing activities	(1,121,026)	(73,855)	_	(1,194,881)	
Effect of exchange rate changes on cash		1,254	_	1,254	
Decrease in cash and cash equivalents	(275,458)		_	(279,401)	
Cash and cash equivalents at beginning of year	303,102	217,526	_	520,628	
Cash and cash equivalents at end of year	\$ 27,644	\$ 213,583	\$ –	\$ 241,227	

Utilization

The following table provides selected utilization statistics for the Cleveland Clinic Health System:

	Year En		
	2016	2017	2018 ⁽²⁾
Total Staffed Beds ⁽¹⁾	3,931	3,847	4,167
Percent Occupancy ⁽¹⁾	69.3%	70.6%	68.8%
Inpatient Admissions ⁽¹⁾			
Acute	167,447	173,880	174,653
Post-acute	12,424	11,526	10,635
Total	179,871	185,406	185,288
Patient Days ⁽¹⁾			
Acute	857,990	890,353	901,801
Post-acute	103,979	92,449	79,737
Total	961,969	982,802	981,538
Average Length of Stay			
Acute	5.13	5.10	5.18
Post-acute	8.39	8.03	7.52
Surgical Facility Cases			
Inpatient	60,671	62,375	62,655
Outpatient	151,300	149,103	157,697
Total	211,971	211,478	220,352
Emergency Department Visits	652,073	644,185	675,657
Outpatient Observations	58,384	59,868	62,934
Outpatient Evaluation and Management Visits	4,235,729	4,407,973	4,632,296
Acute Medicare Case Mix Index - Health System	1.92	1.90	1.96
Acute Medicare Case Mix Index - Cleveland Clinic	2.53	2.59	2.71
Total Acute Patient Case Mix Index - Health System	1.82	1.84	1.89
Total Acute Patient Case Mix Index - Cleveland Clinic	2.45	2.52	2.63

⁽¹⁾ Acute and post-acute, including rehabilitative and psychiatric services within post-acute, but excluding newborns and bassinets.



⁽²⁾ Includes Union Hospital statistics beginning April 1, 2018, which is the date the Clinic became the sole member of The Union Hospital Association.

Utilization (continued)

The following table provides selected utilization statistics for the Obligated Group:

	YTD December 31			
	2016	2017	2018	
Total Staffed Beds ⁽¹⁾	3,412	3,352	3,501	
Percent Occupancy ⁽¹⁾	69.6%	71.8%	70.9%	
Inpatient Admissions ⁽¹⁾				
Acute	144,038	150,300	149,047	
Post-acute	9,471	9,500	8,452	
Total	153,509	159,800	157,499	
Patient Days ⁽¹⁾				
Acute	755,138	778,333	785,433	
Post-acute	76,113	77,908	62,644	
Total	831,251	856,241	848,077	
Surgical Facility Cases				
Inpatient	54,072	56,041	56,144	
Outpatient	135,918	133,740	138,161	
Total	189,990	189,781	194,305	
Emergency Department Visits	535,478	530,384	531,822	
Outpatient Observations	50,671	52,485	53,112	
Outpatient Evaluation and Management Visits	4,232,729	4,404,070	4,628,353	
Acute Medicare Case Mix Index	1.97	1.95	2.01	
Total Acute Patient Case Mix Index	1.87	1.89	1.95	

⁽¹⁾ Acute and post-acute, including rehabilitative and psychiatric services within post-acute, but excluding newborns and bassinets.

Payor Mix

The following table shows payor mix as a percentage of gross patient service revenue for the health system and obligated group as a whole:

CLEVELAND CLINIC HEALTH SYSTEM Based on Gross Patient Service Revenue

	YTD December 31			
	2016	2017	2018 ⁽¹⁾	
<u>Payor</u>				
Managed Care and Commercial	39%	38%	37%	
Medicare	44%	46%	47%	
Medicaid	14%	14%	14%	
Self-Pay & Other	3%	2%	2%	
Total	100%	100%	100%	

OBLIGATED GROUP Based on Gross Patient Service Revenue

	YTD December 31				
	2016	2017	2018		
<u>Payor</u>					
Managed Care and Commercial	40%	39%	38%		
Medicare	44%	46%	47%		
Medicaid	13%	13%	13%		
Self-Pay & Other	3%	2%	2%		
Total	100%	100%	100%		

⁽¹⁾ Includes Union Hospital statistics beginning April 1, 2018, which is the date the Clinic became the sole member of The Union Hospital Association.

CLEVELAND CLINIC HEALTH SYSTEM OTHER INFORMATION FOR THE PERIOD ENDED DECEMBER 31, 2018

Research Support

(\$ in thousands)

The Clinic funds the annual cost of research from external sources, such as federal grants and contracts and contributions restricted for research, and internal sources, such as contributions, endowment earnings and revenue from operations. The following table summarizes the sources of research support for the Clinic:

	Year Ended December 31					
	2016	2017	2018			
External Grants Earned						
Federal Sources	\$108,253	\$114,942	\$117,786			
Non-Federal Sources	87,883	92,564	105,093			
Total	196,136	207,506	222,879			
Internal Support	59,326	59,873	63,327			
Total Sources of Support	\$255,462	\$267,379	\$286,206			

Key Ratios

The following table provides selected key ratios for the System as a whole:

	Year Ended December 31			
	2016	2017	2018	
Liquidity ratios				
Days of cash on hand	349	383	355	
Days of revenue in accounts receivable	51	49	49	
Coverage ratios				
Cash to debt (%)	172.7	197.9	191.9	
Maximum annual debt service coverage (x)	3.8	5.3	5.1	
Interest expense coverage (x)	7.5	9.1	9.2	
Debt to cash flow (x)	4.6	3.5	3.7	
Leverage ratio Debt to capitalization (%)	36.4	32.5	32.9	
Profitability ratios				
Operating margin (%)	3.0	3.9	3.0	
Operating cash flow margin (%)	11.0	11.5	10.1	
Excess margin (%)	6.2	12.5	1.2	
Return on assets (%)	3.6	7.3	0.6	

OVERVIEW

he Cleveland Clinic Health System (System) is a world-renowned provider of healthcare services and attracted patients from across the United States and from 132 other countries in 2018. As of December 31, 2018, the System operates 14 hospitals with approximately 4,200 staffed beds and is the leading provider of healthcare services in northeast Ohio. Thirteen of the hospitals are operated in the Northeast Ohio area, anchored by The Cleveland Clinic Foundation (Clinic). The System operates 21 outpatient family health centers, 11 ambulatory surgery centers, as well as numerous physician offices, which are located throughout northeast Ohio, and specialized cancer centers in Sandusky and Mansfield, Ohio. In Florida, the System operates a hospital and a clinic in Weston, an outpatient family health and surgery center in Coral Springs, an outpatient family health center in West Palm Beach, and numerous physician offices located throughout Southeast Florida. In addition, the System operates a health and wellness center and a sports medicine clinic in Toronto, Canada and a specialized neurological clinical center in Las Vegas, Nevada. Pursuant to agreements, the System also provides management services for Ashtabula County Medical Center, located in

Ashtabula, Ohio, with approximately 180 staffed beds, and Cleveland Clinic Abu Dhabi, a multispecialty hospital offering critical and acute care services that is part of Mubadala Development Company's network of healthcare facilities located in Abu Dhabi, United Arab Emirates with approximately 364 staffed beds.

Effective April 1, 2018, the Clinic through a subsidiary became the sole member of The Union Hospital Association (Union Hospital) through a non-cash business combination transaction. Union Hospital operates a hospital and several off-campus satellite services in Tuscarawas County and surrounding counties in Eastern Ohio. For a description of Union Hospital, refer to "UNION HOSPITAL."

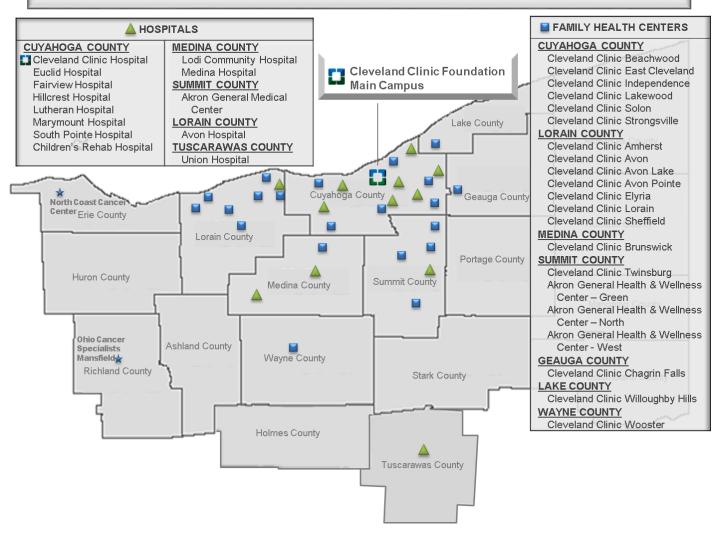
In January 2019, the Clinic through a subsidiary became the sole member of Martin Memorial Health Systems (Martin Health System) and Indian River Medical Center (Indian River Hospital) through non-cash business combination transactions. Martin Health System and Indian River Hospital operate healthcare facilities in Southeast Florida. For a description of Martin Health System and Indian River Hospital, refer to "FLORIDA GROWTH."



Cleveland Clinic Union Hospital Dover, OH

The location of the System's hospitals, its Family Health Centers and its specialized cancer centers in the Northeast Ohio area are identified on the following map:

CLEVELAND CLINIC HEALTH SYSTEM - NORTHEAST OHIO SERVICE AREA AND FACILITIES





Every life deserves world class care.

The following table sets forth the hospitals operated by the obligated issuers and their affiliates, together with each hospital's staffed bed count as of December 31, 2018:

	Staffed Beds
OBLIGATED	
Cleveland Clinic	1,294
Avon Hospital	1,254
Euclid Hospital	165
Fairview Hospital	460
Hillcrest Hospital	440
Lutheran Hospital	194
Marymount Hospital	277
Medina Hospital	143
South Pointe Hospital	172
Weston Hospital	230
	3,501
NON-OBLIGATED	
Akron General Medical Center	482
Children's Rehabilitation Hospital	25
Lodi Hospital	20
Union Hospital	139
	666
HEALTH SYSTEM	4,167



The location of the System's hospitals and Family Health Centers in the Southeast Florida area, including the Martin Health System and Indian River Hospital acquisitions that were effective in January 2019, are identified on the following map:



AWARDS & RECOGNITION

he Clinic was ranked as the second best hospital in the United States by *U.S. News and World Report* in its 2018-2019 edition of "America's Best Hospitals." For the past 20 years, the Clinic has been ranked among the top five hospitals in the United States. The Clinic's Heart and Vascular Institute, located on the Clinic's main campus, was recognized as the best cardiology and heart surgery program in the United States, an honor the Clinic has received

annually for twenty-four consecutive years. The Clinic has additionally received the honor of being recognized with the best urology program in the United States for the second straight year. The Clinic was nationally ranked in fourteen specialties, including twelve in the top five nationwide, and is one of just twenty hospitals to earn a place on the *U.S. News* 2018-2019 Honor Roll. The following table summarizes the Clinic's national rankings by medical specialty:



Cleveland Clinic Children's Hospital located on the Clinic's main campus ranked as one of the top pediatric hospitals in the country. The Children's Hospital earned national recognition in ten out of ten medical specialties ranked by *U.S.* News and World Report in its 2018-2019 edition of "Best Children's Hospitals." The following table summarizes the Clinic's national rankings by pediatric specialty:



The publication also evaluated hospitals by state and metropolitan area with a methodology similar to that used to determine the national rankings. The Clinic was ranked as the best hospital in both the State of Ohio and the Cleveland metropolitan area, which includes the City of Cleveland and its surrounding suburbs. The report also ranked three of the System's regional hospitals in the top hospitals in the Cleveland metropolitan area and Ohio: Fairview Hospital ranked third in Cleveland and fifth in Ohio; Hillcrest Hospital ranked fourth in Cleveland and sixth in Ohio; and South Pointe Hospital ranked fifth in Cleveland and thirteenth in Ohio. Akron General Medical Center, located in Summit County, was ranked eleventh in the State of Ohio. Weston Hospital was ranked first in the Miami-Fort Lauderdale metro area and fourth out of more than 250 hospitals in the State of Florida.

In 2019, the Clinic was named one of the World's Most Ethical Companies by the Ethisphere

Institute for the seventh consecutive year. Ethisphere Institute is a global leader in defining and advancing the standards of ethical business practices. The award recognizes organizations that promote ethical business standards and practices internally, enable managers and employees to make good choices and shape future industry standards by introducing best practices. Companies were evaluated in five categories: ethics and compliance programs; corporate citizenship and responsibility; culture of ethics; governance; and leadership, innovation and reputation.

The Clinic and Akron General Medical Center achieved re-designation of Magnet status recognition from the American Nurses Credentialing Center in 2018. Magnet status is the highest national credential for nursing excellence and serves as the gold standard for nursing practice. Organizations that have achieved Magnet status are recognized for

quality in patient care, nursing excellence and innovations in professional nursing practice. The credential can be renewed every five years by providing evidence of the expansion of professional knowledge and continued competence in nursing. Five System hospitals have achieved the distinguished Magnet status recognition. The Clinic has been recognized as a Magnet organization since 2003, Fairview Hospital has been recognized as a Magnet organization since 2009 and Akron General Medical Center has been recognized as a Magnet organization since 2013. Hillcrest Hospital achieved Magnet status in 2014, and South Pointe Hospital achieved Magnet status in 2017.

In January 2018, three of the System's Heart and Vascular Institute units received the Beacon Award for Excellence at the gold level. The Beacon award was created by the American Association of Critical Care Nurses to recognize hospital units for demonstrating exceptional care through improved outcomes, greater overall satisfaction and a positive and supportive work environment. Units are recognized at the gold, silver or bronze level, and the designation continues for three years. The Orthopedic Nursing Unit at Euclid Hospital was also honored in 2018 at the silver level. Other System units that have received the Beacon award are the main campus Heart Failure Intensive Care Unit and Coronary Intensive Care Unit, both at the gold level in 2015, and the Hillcrest Hospital Coronary Care Unit at the silver level in 2016.

In August 2018, the Parkinson's Foundation named the Clinic a Center of Excellence, a designation that recognizes hospitals and academic medical centers that provide the latest medications, therapies and innovations in Parkinson's disease. Organizations are required to meet various clinical, research, professional education and patient care criteria to be considered for the Center of Excellence

designation. The Clinic is one of 45 medical centers in the world and 31 in the U.S. that received the Center of Excellence designation from the Parkinson's Foundation.

In October 2018, Lutheran Hospital received the Vizient Bernard A. Birnbaum, MD, Quality Leadership Award for excellence in delivering safe, patient-centered care that is timely, effective, efficient and equitable. This is the second time Lutheran Hospital has received this award. Award recipients are selected from member organizations based on performance data from a variety of sources, including Vizient's Clinical Data Base, core measures data, the Hospital Consumer Assessment of Healthcare Providers and Systems survey, and the Centers for Disease Control and Prevention's National Healthcare Safety Network.

In October 2018, the Clinic was named to the 2018 HealthCare's Most Wired list by the College of Healthcare Information Management Executives. The "Most Wired" survey assesses hospitals and health systems on their progress of technology adoption and implementation and use of information technology. The survey also evaluates hospitals and health systems on how they leverage and implement information technology to improve clinical and financial performance for value-based healthcare and future care delivery systems.

The Clinic was recognized among twenty Cleveland area employers at the 2018 Smart Culture Conference by Smart Business magazine for the second consecutive year. Honorees were noted for having workplace cultures that bolster productivity, enhance job satisfaction and provide a competitive advantage in the marketplace.

The System was recognized by *The Plain Dealer* newspaper as one of Northeast Ohio's 150 top workplaces for 2018, ranking seventeenth in the

category for large local employers. This list was based on the opinions of employees who responded to a survey that measured several aspects of workplace culture, including alignment with the organization, execution of strategies and feelings of connection. This is the System's sixth time on this list.

The Clinic was recognized for having a positive impact on its employees and the region with a NorthCoast 99 award, an annual recognition program that honors ninety-nine great workplaces in Northeast Ohio based on results from employee surveys. The Clinic has received this recognition thirteen times.

The Clinic's CEO and President, Tomislav Mihaljevic, M.D., was named the sixteenth most influential physician executive in the nation by Modern Healthcare in its 2018 list of the fifty most influential physician executives and leaders. The list honors physicians working in the healthcare industry who are recognized by their peers and an expert panel as being influential in terms of demonstrated leadership and impact. Dr. Mihaljevic was recognized for his focus on new initiatives that the organization will pursue in 2018, including improvements in patient safety, caregiver experience and operational efficiency.

FINANCING DEVELOPMENTS

n August 2018 the System through a UK subsidiary entered into a private placement agreement to issue Guaranteed Senior Notes (2018 Sterling Notes) totaling £665 million. The subsidiary received proceeds of £300 million and £100 million in August 2018 and November 2018, respectively, and will receive additional proceeds of £265 million in August 2019. The 2018 Sterling Notes are guaranteed by the Cleveland Clinic obligated group and another UK subsidiary, mature at various dates from 2048 through 2068 and bear interest at an average fixed rate of 2.99%. The proceeds of the 2018 Sterling Notes repaid a \$375.0 million term loan used to acquire a long-term leasehold interest in a building in London, England and have been or will be used to partially fund the construction and conversion of the building into a healthcare facility. The 2018 Sterling Notes were assigned a rating of AA by Standard & Poor's (S&P).

At the time the 2018 Sterling Notes were rated, S&P affirmed its AA rating on the System's obligated group outstanding debt and maintained its stable outlook. S&P cited various reasons to support the rating, including a unique and very

strong enterprise profile, continued widespread brand recognition of tertiary and quaternary services and a stable leadership team that has executed on its strategy and vision. S&P noted the System's robust research program, increasing emphasis on teaching, and strategic focus on growth domestically and internationally. Challenges to the current rating include northeast Ohio's unfavorable demographic trend, the System's robust capital spending program and a highly competitive service area in northeast Ohio.



In July 2018 Moody's Investor Services (Moody's) affirmed its Aa2 rating on the System's obligated group outstanding debt and maintained their stable outlook. Moody's cited various factors to support this rating and outlook, including a national and international clinical reputation, a leading local market position, high degree of integration and centralization, strong liquidity with sustained good operating cashflow

margins and exceptional fundraising abilities. In its report, Moody's indicated that these strengths compensate for challenges such as relatively high debt levels for the rating category, execution risks of multiple strategies that require elevated capital spending and constrained revenue in the local market due to competition and weak demographic trends.

CORPORATE GOVERNANCE

he Board of Directors of the Clinic is responsible for all of its operations and affairs and controls its property. The Board of Directors is also responsible for ensuring that the Clinic is organized, and at all times operated, consistent with its charitable mission and its status as an Ohio nonprofit corporation and taxexempt charitable organization. The Board of Directors generally meets five times per year, including an annual meeting during which the Clinic's officers are elected and standing committees are appointed. The size of the Board of Directors can range between 15 to 30 Directors (currently there are 29 Directors). The Board of Trustees serves as an advisor to the

Board of Directors. The Trustees actively serve on the committees of the Board of Directors. At present, there are 63 active Trustees, nine Professional Staff Trustees and 14 Emeritus Trustees. Directors and Trustees each serve four-year terms and are selected on the basis of their expertise and experience in a variety of areas beneficial to the Clinic. Directors and Trustees are not compensated for their service.

The Board of Directors annually appoints certain committees to perform duties that it delegates to them from time to time, subject to ratification of such action by the Board of Directors. The current committees are as follows:



Members of the Committees are chosen based on the interests and skills of individual Board members and the needs of the particular Committee. Most Committees meet three or four times per year, though a few (such as the Audit Committee) meet five or six times per year.

The Clinic and its Ohio regional hospitals maintain a governance model for the Ohio regional hospitals that provides for regional hospital representation on the Clinic's Board of Directors while also maintaining separate boards of trustees for each hospital. The Ohio regional hospital boards meet quarterly and, among other topics, provide local input on quality and patient safety and community health needs. Each Ohio regional hospital has a president, all of whom report to the President of Regional Hospitals and Family Health Centers.

APPOINTMENTS



Tomislav "Tom" Mihaljevic, MD was appointed Chief Executive Officer (CEO) and President of the Clinic effective January 1, 2018. Dr. Mihaljevic replaced Toby Cosgrove, MD, who transitioned out of the CEO role in 2017 and now serves in an advisory role. Dr. Mihaljevic joined the Clinic in 2004 as a cardiothoracic surgeon specializing in minimally invasive and robotically assisted cardiac surgeries. Since 2015, Dr. Mihaljevic had served as CEO of Cleveland Clinic Abu Dhabi, overseeing the hospital's strategy and operations, including directly managing the hospital's patient experience and strategy and business development programs. Dr. Mihaljevic's early experiences include medical studies and training in Croatia and Switzerland, a surgical residency at Boston's Brigham and Women's Hospital, and leadership and teaching roles at Harvard Medical School. He is the author or co-author of more than 145 articles in medical and peer-reviewed scientific journals and is the author of numerous textbook chapters on robotic and minimally invasive mitral valve surgery and heart valve disease.



Brian Donley, MD was appointed Chief Executive Officer of Cleveland Clinic London in February 2018. As CEO of Cleveland Clinic London, Dr. Donley directs strategy and operations, guides recruitment and is leading the opening of the new healthcare facility in London. Dr. Donley had served as Chief of Staff and Chief of Clinical Operations at the Clinic since 2015. He joined the Clinic's Orthopaedic and Rheumatologic Institute in 1996 and served in various leadership roles over the years, including President of the Regional Hospitals and Family Health Centers. He is an orthopaedic surgeon specializing in foot and ankle surgery and has also served as Professor of Surgery at the Cleveland ClinicLerner College of Medicine. In 2013, Dr. Donley completed an Advanced Management Program at Harvard Business School.



Rakesh Suri, MD was appointed Chief Executive Officer of Cleveland Clinic Abu Dhabi in January 2018 as Dr. Mihaljevic transitioned into the Clinic CEO role. Dr. Suri joined the Clinic in 2015 and served as Chief of Staff of Cleveland Clinic Abu Dhabi, where he led the recruitment of more than 400 physicians and participated in the opening and initiation of clinical services through the hospital. Dr. Suri's early experiences include medical studies and training in Canada and the United Kingdom.



Herbert Wiedemann, MD was appointed Chief of Staff in March 2018. Dr. Wiedemann joined the Clinic in 1984 and had served as Chairman of the Respiratory Institute since 2007. He also served as a member of the Board of Governors.



Edmund Sabanegh, MD was appointed to the new role of President – Cleveland Clinic Main Campus in March 2018. Dr. Sabanegh joined the Clinic in 2006 and had served as Associate Chief of Staff, Chairman of the Department of Urology and as a member of the Board of Governors. In March 2018, Dr. Sabanegh was also named President of the Regional Hospitals and Family Health Centers.



James Young, MD was appointed Chief Academic Officer in March 2018 to oversee education and research across the System. Dr. Young joined the Clinic in 1995 and had served as Professor of Medicine and Executive Dean of Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. Dr. Young also chairs the Endocrinology and Metabolism Institute.



Adam Myers, MD, FACHE was appointed Chief of Population Health and Director of Cleveland Clinic Community Care in June 2018. Cleveland Clinic Community Care was launched in 2017 to manage populations of patients rather than just addressing individual patients' needs on a visit-by-visit basis with a goal of reducing the cost of healthcare while improving quality initiatives and metrics. Dr. Myers most recently served as Senior Vice President, Chief Medical Officer and Operations Officer of Texas Health Physicians Group/Enterprise and Chair of the Clinical Integration team at Southwestern Health Resources.



Josette M. Beran was appointed Chief Strategy Officer in August 2018. Ms. Beran has served in various leadership roles during her 17-year career at the Clinic, including Executive Administrative Officer at Cleveland Clinic Abu Dhabi from 2011-2014 and Executive Director in the Clinic's Strategy Office since 2014, a position she held until being named Interim Chief Strategy Officer in January 2018. During her roles in the Strategy Office, Ms. Beran led the integration of Akron General and Union Hospital into the System and the development of acquisition opportunities in Florida.



Wael Barsoum, MD, was appointed CEO and President of the Cleveland Clinic Florida Region in November 2018. Dr. Barsoum most recently served as CEO and President of Cleveland Clinic Florida since 2014. In his new role, Dr Barsoum will oversee the System's expanded operations in southeast Florida. He joined the Clinic's Orthopaedic Surgery staff in 2003 and served in various leadership roles over the years, including Chairman of Surgical Operations and Vice Chairman of the Department of Orthopaedic Surgery. In addition to his leadership roles, Dr. Barsoum is an orthopaedic surgeon specializing in adult reconstructive surgery, hip and knee reconstruction and knee arthroscopy. He has also served as Associate Professor of Surgery at the Cleveland Clinic Lerner College of Medicine.



Joseph lannotti, MD, PhD was appointed Chief of Staff for the Cleveland Clinic Florida region. Dr. lannotti joined Cleveland Clinic in 2000 and served as Chair of the Clinic's Orthopaedic and Rheumatologic Institute for nearly two decades. In addition to his clinical practice as an orthopaedic surgeon, Dr. lannotti has been the co-director of the Orthopaedic Research Center with a joint appointment in the department of biomedical engineering.



Rodolfo J. Blandon, MD was appointed President of Weston Hospital. Dr. Blandon has been a member of the Cleveland Clinic Florida staff since 2001 and has most recently served as Chief of Staff in Weston, Over the past 18 years, Dr. Blandon has made significant contributions to the growth of Cleveland Clinic Florida, while maintaining a robust practice in interventional radiology and serving as the Chairman of the department of imaging.



Gregory Rosencrance, MD was appointed President of Indian River Medical Center. Dr. Rosencrance joined the staff at Cleveland Clinic Florida in 2014, moving to Cleveland in 2016 to serve as Chair of the Medicine Institute. During his tenure in Cleveland, he was instrumental in launching Cleveland Clinic Community Care.



Robert L. Lord, Jr. will continue in his role as President of Martin Health System. In November 2015, Lord was named the President of Martin Health after previously having served as its Chief Operating Officer, Senior Vice President responsible for facility management, and Chief Legal Officer. He joined Martin Health System in 1998. Lord is a Fellow of the American College of Healthcare Executives and is Florida Bar board certified as a healthcare attorney.

EXPANSION AND IMPROVEMENT PROJECTS

ue to the anticipated long-term growth in the demand for services and the desire to continually upgrade medical facilities, the System is investing in buildings, equipment and technology to better serve its patients.

In July 2018, Akron General Medical Center completed and opened a \$49 million emergency department. The two-story, 73,000 square foot emergency department triples the size of the former emergency department space. The first floor houses the emergency department, and the second floor contains administrative offices and a clinical decision unit for patients that need short-term observation care. The facility is a Level 1 trauma center and has a total of 60 treatment rooms for patients, including six high-

acuity trauma rooms, an area designated for patients seeking treatment for sexual assault, an expanded behavioral health unit, an imaging department, a separate urgent care area, and an area for quarantining and treating highly contagious patients. The second floor houses a clinical decision unit that has capacity for up to 18 short-term observation patient beds and the rooftop has a helipad.

In July 2018, the Clinic completed and opened a new 64,700 square foot, three story family health center in Lakewood, Ohio on a site adjacent to the former Lakewood Hospital. The \$34 million facility has an emergency department located on the first floor with 16 treatment rooms. On the second and third floors, the facility has 60 exam

rooms. There is also lab and imaging services to support operations at the facility.

In July 2018, Cleveland Clinic Florida completed and opened a family health center and freestanding ambulatory surgery center in Coral Springs, Florida. Coral Springs is approximately twenty miles northeast of the Weston campus. 74.000 This new square foot accommodates approximately forty exam rooms, four operating rooms with shell space for two additional operating rooms in the future, two endoscopy rooms and imaging services. The \$32 million project was completed through a joint venture with a local Florida developer. A construction loan was obtained by the joint venture for the majority of the construction costs with a guarantee provided by affiliates of the Florida developer. Cleveland Clinic Florida is leasing the building from the joint venture on a triple net basis for an initial term of fifteen years and will provide the clinical operations in the facility.

In September 2018, the Clinic completed and the Cleveland Clinic Children's outpatient facility in the former location of the Taussig Cancer Building on the Clinic's main campus. The project consolidated multiple locations and specialties of Cleveland Clinic Children's ambulatory care into the existing including primary and specialty outpatient services, a children's retail pharmacy, pediatric lab services and pediatric radiology services with x-ray and ultrasound testing. It also features a family focused education center, sibling drop-off, pediatric nutrition center, an expanded front entrance, and new technologies focused on enhancing the care and experience for patients, families and caregivers. The 120,000 square foot facility has sixty-five exam rooms, twenty infusion rooms, and four procedure rooms. Outpatient services include adolescent medicine, allergy and immunology, behavioral health, cardiology and CT Surgery,

medicine, dermatology, developmental endocrinology/diabetes, fetal center. care gastroenterology, general surgery, genetics, infectious gynecology, hematology/oncology, disease, integrative medicine, maternal fetal medicine, nephrology, neurology and neurosurgery, otolaryngology, physical medicine and rehabilitation, plastic surgery, primary care, psychiatry, pulmonary medicine, sleep disorders and urology. The renovation costs including building infrastructure upgrades were approximately \$36 million.

In October 2018, the System completed and opened a new tower to expand Weston Hospital. The new tower hosts a 40-bed emergency department, a 24-bed observation unit, 26 acute care beds and 48 intensive care beds. The new tower also includes a shelled floor for future expansion. To support this growth, significant renovation and backfill is planned to increase the size of existing imaging, laboratory, pharmacy, sterile processing and food services. A new endoscopy suite and three new operating rooms are also included in the renovation and backfill. The project includes a new central utility plant and new surface parking to support the campus expansion. The related backfill construction and renovation will continue through 2020. Overall, the project is expected to cost approximately \$230 million.

The System is currently in the final stages of a multi-year project to align revenue cycle support services and processes to support patients as they progress through their continuum of care. The Enterprise Administrative Patient Management (EAPM) project consolidates thirteen different technology systems used for scheduling appointments, admissions, electronic medical records, billing and collections into one technology platform with the goal of improving patient experiences. Reducing the number of systems has improved patient service and employee efficiency and resulted in annual savings of \$4.5 million in third-party system costs alone. Implementation of EAPM began in the first quarter of 2012 at the System facilities in Weston, Florida. The Clinic's main campus and family health centers implemented EAPM in the first quarter of 2016, and the System's community hospitals excluding Union Hospital

implemented EAPM at various phases throughout 2017 and 2018. EAPM is expected to require capital costs of approximately \$186 million over the entire implementation period, with substantially all of the costs incurred and paid at December 31, 2018.

The System also has the following expansion and improvement projects currently in progress:

Health Education Campus - In 2013, the Cleveland Clinic and Case Western Reserve University (CWRU) reached an agreement to build a health education campus on the Clinic's main campus to house the CWRU School of Medicine, which includes the Cleveland Clinic Lerner College of Medicine. The health education campus includes a medical school facility and will serve as home for the seminar, lecture, and laboratory curriculum taught during the first two years of medical school. Students' clinical training will continue to take place at area hospitals. This initiative is aligned with the future plans of the Clinic's main campus and supports the Clinic's mission and strategic direction. The facility also houses the CWRU Frances Payne Bolton School of Nursing and CWRU School of Dental Medicine. The medical school facility is designed to encourage interprofessional education. Construction of the medical school facility broke ground on October 1, 2015 and was completed in the spring of 2019, with students expected to start classes in the summer of 2019. CWRU and Cleveland Clinic share in the construction costs of approximately \$456 million and the ongoing operational costs of the facility, with a portion of the construction costs expected to be raised through fundraising efforts and donations. A separate three-story, 126,000 square-foot dental clinic is being constructed adjacent to the medical school facility and will cost approximately \$66 million. The dental clinic will provide a space where students can treat patients under dental faculty supervision. Construction of the dental clinic broke ground in October 2017, and it is expected to open at the same time as the medical school.

<u>Cleveland Clinic London Hospital</u> – In 2015, the Clinic acquired a long-term leasehold interest in a six-story 198,000 square foot building in London, England. In January 2017, regulatory approvals were received to convert the building from office space into an approximately 200-bed hospital with eight operating theatres. Construction on the London Hospital is expected to be completed in 2020 and open for patients in early 2021. The System through a UK subsidiary entered into a private placement agreement in August 2018 to repay a term loan that was used to finance the acquisition costs and to fund a portion of the construction and conversion costs of the facility. For a description of the London hospital financing, refer to "FINANCING DEVELOPMENTS."

PHILANTHROPY CAMPAIGN

he Clinic is currently in the midst of "The Power of Every One" philanthropic campaign. The campaign was publicly launched in 2014 with a goal of raising \$2 billion by the Clinic's 100th anniversary in 2021. The campaign will enable the Clinic to transform patient care, promote health, advance research and innovation, train caregivers and revitalize facilities through new construction and renovation of existing buildings. As of December 31, 2018, the Clinic has received pledges, cash and other assets of approximately \$1.5 billion toward the goal.

The \$2 billion campaign is divided into four categories: promoting health (\$800 million), advancing discovery (\$700 million), training

caregivers (\$400 million) and transforming care (\$100 million). Promoting health will focus on improving patient experience and supporting construction and renovation projects, renovation of vacated space, new facilities in Florida and other building projects at its Northeast Ohio hospitals and family health centers. Training caregivers will support scholarships, training programs and the construction of the new health education campus in collaboration with CWRU. Advancing discovery will support translational, basic science and clinical research as well as endowed chairs. Transforming care will support the development of new care delivery models, personalized therapies and information technology.

INNOVATIONS AND VENTURES

leveland Clinic Innovations promotes scientific, clinical and administrative creativity throughout the System into products that benefit patients around the Specifically, it helps to grow the Clinic's innovative capacity, mentors inventors, licenses technology, secures resources, and establishes spin-off companies and strategic collaborations with corporate partners. Since 2000, Cleveland Clinic Innovations has launched 85 companies. transacted more than 600 technology licenses, filed over 4,100 patent applications with over issued patents, and approximately 3,800 new inventions. In 2018, the Clinic executed 44 transactions to provide Clinic inventions external organizations to development and commercialization in various fields, including orthopaedics, telemedicine, cardiovascular, immunology and concussion management.

Cleveland Clinic Ventures operates in tandem with Cleveland Clinic Innovations to turn medical breakthrough inventions into products and companies. The strategy of Cleveland Clinic Ventures is to maximize the success and sustainability of spin-offs and to raise funds that help get ideas to market through funding strategies and business model development.

Cleveland Clinic Innovations manages the Healthcare Innovations Alliance, a collaborative network of healthcare systems, academic institutions and industry partners from around the nation. Alliance partners utilize the Clinic's comprehensive technology and commercialization experience to turn medical ideas into marketable inventions and commercial ventures. The integration of capabilities between organizations focused is on development and rapid deployment of new

technologies with the goal of improving patient care. In October 2017, Cleveland Clinic Innovations announced a partnership between the Clinic, Jumpstart Inc., and Plug & Play, a Silicon Valley-based accelerator. The first cohort of companies completed the three-month Plug & Play Cleveland program in June 2018. The accelerator connects innovative healthcare companies from all over the nation with investors and corporate partners. In October 2018, Cleveland Clinic Innovations hosted the annual Medical Innovation Summit in downtown Cleveland for industry leaders, investors, and entrepreneurs looking to expand understanding of the healthcare market and the future of medical innovation. The 2018 Medical Innovation Summit and its affiliated events hosted approximately 2,000 attendees, who discussed the future of healthcare and the latest opportunities and challenges in the healthcare industry with various keynote addresses from authors and business leaders in healthcare. In addition to the keynotes, other highlights included a panel discussion featuring members of the care team that completed the face transplant at the Clinic in 2017 as well as the unveiling of the Top 10 Medical Innovations for 2019, which highlights the potential for medical breakthroughs in the coming year. The "Top 10" has been led by Cleveland Clinic Innovations since its debut in 2007. Each year, Cleveland Clinic Innovations interviews over 75 Clinic experts to elicit more than 150 nominations, which are presented, debated, and ranked in a series by two separate committees of clinical experts that vote on the combined lists to establish the Top 10 Medical Innovations.

Cleveland Clinic Innovations operates a 50,000-square-foot Global Cardiovascular Innovation Center (GCIC) on the Clinic's main campus, which is home to its operations, as well as an incubator facility for approximately 30 companies. GCIC has supported the development of over 50 technologies and the creation of over 1,000 new jobs.

CLINICAL AFFILIATIONS

he Clinic has entered into various affiliations with national and regional partners that are seeking to improve clinical quality, patient care, medical education and research. The goal of clinical affiliations is to provide value-added, high quality clinical care to patients through the support, expansion and development of Institute-driven integrated care strategies. In addition, the Clinic has partnered with educational institutions with the goal of improving medical education and research.

In January 2018, the Clinic entered into a clinical management and professional services agreement with Avita Health System based in Ohio. Avita Health System is a regional not-forprofit, community-based healthcare provider with

two critical access hospitals, one acute care hospital and a network of outpatient services. The Clinic's Taussig Cancer Institute and Avita Health System plan to share best practices in medical oncology while focusing on providing high quality, safe care and improved outcomes. The Clinic will also provide certain professional and management services, such as clinical direction, quality assurance and access to technologies and techniques.

In July 2018, the Clinic and CWRU unveiled plans to work together to advance research and education in biomedical engineering. The goal is to create a portfolio of laboratory breakthroughs that improve treatments for patients and to establish a framework for creating more joint

efforts between the organizations with increased opportunities for trainees to study with scientists, physicians and engineers. The current alliance includes more than 50 researchers with primary

appointments in biomedical engineering and another 80 CWRU researchers appointed in such disciplines as cardiology, ophthalmology, orthopedics and precision medicine.

JOINT VENTURES

nder a joint venture agreement with Select Medical, one of the nation's largest providers of post-acute care services, the Clinic and Select Medical operate three rehabilitation hospitals in Northeast Ohio. The first hospital opened in December 2015 in Avon, Ohio. A second facility opened in Beachwood, Ohio in October 2017 and a third-facility opened in Bath Township, Ohio in November 2017. Each facility has 60 beds and features private rooms and the latest rehabilitation equipment to care for patients with stroke, spinal cord injury, brain injury, and a variety of medical and surgical conditions. These facilities expand inpatient rehabilitation services in Northeast Ohio and improve access for patients with complex

rehabilitation needs. The Clinic is a minority member in the joint venture, but the joint venture is operated and managed in a charitable manner.

The Clinic and Select Medical also operate four existing long-term acute care (LTAC) facilities through a joint venture agreement. The LTAC facilities have a total of 230 beds and are located in northeast Ohio. The joint venture expands the Clinic's relationship with Select Medical and combines the experience of both organizations in the treatment of LTAC patients. The Clinic is a minority member in the joint venture, but the joint venture is operated and managed in a charitable manner.

ACCOUNTABLE CARE ORGANIZATION

leveland Clinic Medicare ACO. LLC is an Accountable Care Organization (ACO) that includes participation from Clinic physicians and independent Quality Alliance physicians that come together with hospitals and other providers to provide coordinated, high quality care to Medicare patients as part of the Medicare Shared Savings Program. The Shared Savings Program rewards ACOs that lower their growth in healthcare costs while meeting performance standards on quality of care. Initiatives of the Cleveland Clinic Medicare ACO include decreased utilization of inpatient and skilled nursing beds, better blood pressure control, improved management of diabetes and a significant decrease in admissions for

asthma/COPD, chronic heart failure and 30-day readmissions. Cleveland Clinic Medicare ACO received more than \$36 million in shared savings payments since 2015, which was its first year of operation.

In 2018, Cleveland Clinic Medicare ACO transitioned to a new payment model for its approximately 105,000 beneficiaries that increases its opportunity for performance-based savings, while assuming limited performance based downside risk if it does not reach a specific savings benchmark. The downside risk is a fixed 30% loss-sharing rate, and in exchange the Clinic will be able to share higher savings based on quality performance.

CO-BRANDED INSURANCE

n June 2017, the Clinic entered into a collaboration with Oscar Health, a health insurance technology company based in New York City, to offer co-branded health insurance plans to consumers in five counties across northeast Ohio. The new Cleveland Clinic Oscar individual health plans are available through the Ohio health insurance exchange or directly through Oscar Health. Enrollment in the plans began in the 2018 open enrollment period with coverage beginning on January 1, 2018. More than 11,000 members enrolled during the open enrollment period, which was higher than original expectations and accounted for about 15% of the individual health insurance market in the fivecounty northeast Ohio area. Plan participants are matched with teams from both organizations that work together across the continuum of care to ensure that participant's health and wellness needs are proactively met. Participants have access to various technology to analyze and manage their health needs, including the option

of telehealth virtual visits through Cleveland Clinic Express Care Online and Oscar's Virtual Visits.

In November 2017, Humana Inc., a leading health and well-being company, and the Clinic announced the creation of two new \$0 premium Medicare Advantage health plans. The Humana Cleveland Clinic Preferred Medicare Plans will offer patient-centered, affordable access to expert doctors, nurses and facilities for people with Medicare in Cuyahoga County. The collaboration integrates Humana's Medicare Advantage experience with the Clinic's clinical expertise. The plans offer a \$0 monthly premium, \$0 primary care physician office visit copay, \$0 copay for a 30-day supply of Tier-1 prescription drugs and require no referrals to see in-network specialists. Plan members will have access to System's physicians, specialties and facilities, as well as independent physicians who are part of the Cleveland Clinic Quality Alliance.

AKRON GENERAL HEALTH SYSTEM

he Clinic became the sole member of Akron General Health System (Akron General) in November 2015. As part of the affiliation agreement, the Clinic and Akron General committed to funding for the capital expenditure needs to support Akron General's capital plan for at least the first five years after the member substitution. Recent initiatives include a new emergency department at Akron General Medical Center that opened in July 2018 and replacement of Akron General's electronic medical records system in the third quarter of 2017.

During the operational integration process in early 2016, a compliance review conducted by

the System of contractual relationships between Akron General and its independent physician practice groups identified a group of physician arrangements that were potentially compliant with the Federal Anti-Kickback Statute and the Limitations on Certain Physician Referrals regulation (commonly referred to as the Stark Law). Any noncompliance may have resulted in false claims to federal and/or state healthcare programs beginning in 2010 and could result in liability of Akron General under the Federal Anti-Kickback Statute, Stark Law, False Claims Act and/or other laws and regulations. The System voluntarily disclosed its concerns about these physician arrangements to the U.S. Department of Justice (DOJ) in May 2016. Akron General and the System have produced information to, engaged in discussions with, and are cooperating with the DOJ and related government authorities in connection with this matter.

Corrective actions have been taken by Akron General related to all of the physician arrangements at issue and the Clinic has implemented its compliance programs at Akron General. Discussions with the DOJ and related

government authorities about the physician arrangements are ongoing, though a timeframe for completion of the inquiry by the government authorities that may arise under the Federal Anti-Kickback Statute, Stark Law, False Claims Act and/or other related laws and regulations cannot be estimated at this time. The outcome of the ongoing dialogue with the DOJ is not expected to be material to the System or negatively impact the operations and/or financial condition of Akron General and/or the System.

UNION HOSPITAL

n April 2018, the Clinic through a subsidiary became the sole member of Union Hospital located in Dover, Ohio. Union Hospital operates a hospital and several off-campus satellite services. Union Hospital has more than 100 patient beds, 300 healthcare providers on staff, and 1,100 employees. In addition to Union Hospital, Union Hospital operates Tuscarawas Ambulatory Surgery Center and Union Physician Services, a hospital-owned physician network with several offices and approximately 30 providers.

All services, programs and locations managed and operated by Union Hospital are being integrated into and/or aligned with the System. The integration process is examining the operations and procedures at the various entities and looking for ways to improve the quality and delivery of care. The Clinic previously maintained an existing relationship for the past several years with Union Hospital through the Telestroke Network, which connects patients to the Clinic's Cerebrovascular Center.

FLORIDA GROWTH

n January 2019, the Clinic through a subsidiary became the sole member of Martin Health System, located in Southeast Florida, approximately 100 miles north of Weston. Martin Health System is a regional not-for-profit, community-based healthcare provider comprising three acute-care hospitals with approximately 513 staffed beds, a 150-member employed physician group and a network of outpatient services. As part of the agreement, the Clinic plans to commit \$500 million into Martin Health System over five years to support strategic and capital needs, as well as other programs and services. The Clinic also will

maintain certain clinical services at each of the Martin Health System hospitals for at least ten years.

In January 2019, the Clinic through a subsidiary became the sole member of Indian River Hospital, located in Southeast Florida approximately 130 miles north of Weston. Indian River Hospital is a not-for-profit medical center with approximately 250 staffed patient beds and is focused on providing healthcare to Indian River and surrounding counties in Florida. Under the terms of the transaction, the Clinic is committing to invest at least \$250 million in

Indian River Hospital over the next decade and will maintain certain clinical services at Indian River Hospital for at least ten years. Indian River Hospital will continue to lease the hospital facilities and the land on which they stand under an amended and restated agreement with the Indian River County Hospital District for a term of up to 75 years.

Since the completion of the affiliations with Martin Health System and Indian River Hospital in January 2019, the services, programs and locations managed and operated by Martin Health System and Indian River Hospital are being integrated into and/or aligned with the Health System and their operations and procedures examined to look for opportunities to improve the quality and delivery of care.

INTERNATIONAL GROWTH

n October 2015, the Clinic through a subsidiary acquired all of the share capital of 33 Grosvenor Place Limited (Grosvenor Place). Grosvenor Place is a limited liability company existing under Luxembourg law and a private company incorporated under Jersey law that has a long-term leasehold interest in a six-story 198.000 square-foot building in London. England. The System is converting the building from office space into an advanced healthcare facility that is expected to open in early 2021. For a description of the London hospital project, refer

to "EXPANSION AND IMPROVEMENT PROJECTS."

In addition to the London project, the System operates a health and wellness center and a sports medicine clinic in Toronto, Canada, and provides management services to Cleveland Clinic Abu Dhabi, a multispecialty 364-staffed bed hospital offering critical and acute care services that opened in March 2015.



Cleveland Clinic Abu Dhabi Abu Dhabi, UAE

In 2017, the Clinic established Cleveland Clinic Connected, an international program that aims to improve patient care delivery around the world by enabling international health care providers to access the Clinic's best practices. The Clinic entered into its first Cleveland Clinic Connected relationship with Luye Medical Group for the general hospital in the Shanghai New Hong Qiao International Medical Center currently under development in Shanghai, China. Patients will experience the same model of care through the Clinic's collaboration and guidance in the areas

of quality and patient safety, best practices and guidelines for patient care and engagement, distance health and second opinions, clinical and executive education and continuous improvements as well as the provision of advisory services across a spectrum of clinical and non-clinical areas.

These international activities have increased the diversity of the System's healthcare operations while promoting the Clinic's clinical expertise in new markets.

STRATEGY

he U.S. healthcare industry continues to undergo dramatic change with the intersection of economic pressure, insurance technological breakthroughs demographic shifts. At the center of this change is a shift in reimbursement models from fee for service to value-based and risk-based payments. This ongoing payment shift is occurring both in commercial and government payer segments, requiring healthcare delivery organizations to rethink fundamental capabilities for managing Contributing to the reformation of healthcare is a new level of consumerism spurred by the continued growth of highdeductible health insurance products and expectations for transparency, customization, and on-demand solutions. As these changes take place, the combination of consolidation, a blurring of traditional roles, and new entrants with innovative business models and compelling customer value propositions are reordering the healthcare landscape.

The System has set forth a strategy that embraces these fundamental shifts and positions

the organization for continued leadership and success in advancing its mission and meeting its goals in an uncertain and vastly changing healthcare environment. Anchoring the strategy is the System's belief that modern not-for-profit healthcare organizations must tend to four fundamental needs: care for the patients; care for the caregivers; care for the organization; and care for the community.



The strategy builds on the principles of the "Patients First" initiative started in 2013 by expanding and incorporating the four care priorities of patients, caregivers, community and organization. The strategic framework provides the System with the ability to prioritize activities and to focus on advancing the System's mission, vision, and values. In addition, the strategic

framework addresses structural questions, including the formation of teams, governance of the System, allocation of resources and metrics to measure performance. In 2018, Cleveland Clinic launched several initiatives focused on important issues of quality, affordability, patient safety and caregiver wellbeing, including the following:

Care Model - Deliver innovative care across the continuum at the highest quality and value.

Care Resource Optimization - Develop a sustainable cost position.

Caregiver Experience - Make Cleveland Clinic the best place to work and grow in healthcare.

Community - Measurably improve well-being according to each community's unique needs.

Education & Research - Expand the foundation of education and research to enhance the mission of patient care.

Growth - Drive sustainable, transformative growth by securing core markets, expanding to new markets and serving more lives globally.

Patient Experience - Deliver an empathetic, seamless experience as a lifelong partner.

Payer - Enhance risk capabilities to drive performance across all payers and products.

Physician Growth & Alignment - Foster alignment and growth of the physician workforce.

Technology - Develop an industry leading digital and analytics platform.

In 2017, the System launched Cleveland Clinic Community Care, an institute created to better enable healthcare providers and teams to take care of patient populations. Cleveland Clinic Community Care is designed to bring primary care providers together under one umbrella internal medicine, family medicine, hospital medicine, general pediatrics, wellness, home care and Express Care all report to the same unit. Primary care physicians are joined by advanced practice providers and medical assistants, who are supported by nurses, patient service representatives and care coordinators, working together to meet the needs of a specific group, or panel of patients. This single integrated care model brings together caregivers from primary and specialty care institutes and community providers in managing local

populations and delivering community-based primary and chronic care. The model leverages data and an expanded care team to proactively address the health needs of populations.

As a major element of delivering value, an important thread through all of the priority initiatives of the clinical enterprise is care affordability – reducing the cost structure so that the System can be price competitive and render care more affordable for patients. In 2013, the System commissioned a Care Affordability Task Force to perform an enterprise-wide cost structure analysis and propose recommendations for transformational cost and opportunities. efficiency The System structured to continually monitor its use of resources in all clinical, operational and administrative areas. Since the inception of the program in 2014, management estimates that Care Affordability initiatives and other localized efforts enabled more than \$1 billion of improvements in the cost structure. The System continues to develop and implement cost management and containment plans for a more affordable care model and to enable investments in key strategic initiatives. This work is expected to be an ongoing effort.

Cleveland Clinic

Brunswick Family Health Center Brunswick, OH

In parallel with efforts to transform the care model, the System is redefining its relationships with payors and the payment system to match the broader industry trend toward value-based contracting. The System continues to explore increased forms of risk-taking in payer contracts including pay-for-performance, bundled payments, global risk contracts and narrow network arrangements with payer partners. The Heath System has implemented various risk contracting initiatives, including the co-branded insurance products with payer partners launched

in 2018 that focus on specific product and consumer segments.

Leadership also is executing a focused growth strategy, domestically and internationally. A major emphasis of the domestic agenda is focused on developing and maintaining relationships with selected physician groups and hospitals throughout Northeast Ohio and partnering with community physicians in aligned,

yet different, models. In Florida, the

System has begun implementation of a multi-year growth plan that includes expansion of services at current facilities, new ambulatory facilities in surrounding communities and acquisition of healthcare facilities in Southeast Florida. The System will focus and prioritize initiatives to better prepare the Florida facilities for value-based care, while enhancing its position as theregional referral center for complex care. Internationally. the System is focusing on building strong relationships with physicians and medical centers around the world outreach research/education efforts, and an expanded global footprint.

Caregivers throughout the System continue to identify and pursue ways to improve on every dimension of the organization's performance: relentless pursuit of quality and safety; organization and delivery of care; effectuation of research and education; and the clearly conveyed message of the System's value to the market. The System is committed to a path not only to respond to the changes in the environment, but also to lead the field with novel approaches that preserve excellence in care while offering sustainable models for others to adopt.

COMMUNITY BENEFIT AND ECONOMIC IMPACT

Community Benefit

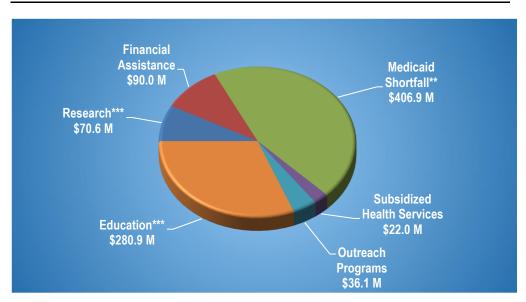
he Clinic and its hospital affiliates within the System are comprised of charitable, tax-exempt healthcare organizations. The System's mission includes addressing health service needs and providing benefits to the communities it serves. The tax-exempt members of the System must satisfy a community benefit standard to maintain their tax-exempt status. Community benefit reporting for the System conforms to Internal Revenue Service (IRS) requirements and is reported on the IRS Form

990, the information return required to be filed annually with the IRS by exempt organizations.

Community benefit includes activities or programs that improve access to health services, enhance public health, advance generalizable knowledge and relieve government burden. The primary categories for assessing community benefit include financial assistance, Medicaid shortfall, subsidized health services, outreach programs, education and research.

In 2017, the System provided \$906.5 million in benefits to the communities it serves. Community benefit information for 2018 was not available at the time of issuance of this Management Discussion and Analysis. The following chart summarizes community benefits for the System:





- * Includes all System operations in Ohio, Florida and Nevada
- ** Includes net Hospital Care Assurance Program assessment of \$8.3 million
- *** Research and Education are reported net of externally sponsored funding of \$159.7 million.



Financial Assistance: Financial Assistance represents the cost of providing free or discounted medically necessary care to patients unable to pay some or all of their medical bills. The System's financial assistance policy provides free or discounted care to uninsured patients with incomes up to 400 percent of the federal poverty level and who meet certain other eligibility criteria by state. This policy covers both hospital care and services provided by the System's employed physicians. As a result of the Affordable Care Act implementation over the last few years, which previously required individuals to obtain healthcare insurance, nonprofit hospitals across the United States saw an increase of individuals covered by Medicaid or health exchange policies.

Medicaid Shortfall: The System is a leading provider of Medicaid services in Ohio. The Medicaid program provides healthcare coverage for low-income families and individuals and is funded by both the state and federal governments. Medicaid shortfall represents the difference between the costs of providing care to Medicaid beneficiaries and the reimbursement received by the System.

Subsidized Health Services: Subsidized health services yield low or negative margins, but these programs are needed in the community. Subsidized health services provided in the System include pediatric programs, psychiatric/behavioral health programs, obstetrical services, chronic disease management and outpatient clinics.

Outreach Programs: The System is actively engaged in a broad array of community outreach programs, including numerous initiatives designed to serve vulnerable and at-risk populations in the community. Outreach programs typically fall into three categories: community health services; cash and in-kind donations; and community building. The System's outreach programs include wellness initiatives, chronic disease management, clinical services, free health screenings, and enrollment assistance for government funded health programs. A few of the System's community outreach initiatives are highlighted below:

- The System provided no-cost clinical care to under- and uninsured families at community sites. For example, the Langston Hughes Health and Education Center, a Fairfax neighborhood site, provided multigenerational prevention and wellness services.
- Health fairs provided thousands of people with free screenings for diabetes, heart disease, cancer and other health conditions. The Cleveland Clinic Minority Men's Health Fair, Celebrating Sisterhood, Tu Familia and dozens of other community health fairs educated community members on the benefits of preventive healthcare.
- Wellness initiatives and community education classes were provided to schools, faith-based organizations and community centers in the areas of prevention, chronic disease management and behavioral change, including tobacco cessation, weight management, teen parenting, family violence and child safety.
- Collaborative initiatives with community nonprofits and local governments addressed critical population issues, including the opioid epidemic and infant mortality.
- Physical education, training and concussion awareness were provided to high school students by the Clinic's Orthopaedic and Rheumatology Institute. The Pediatric Mobile Unit provided wellness services to local elementary schools.
- The Clinic's Robert J. Tomsich Pathology & Laboratory Medicine Institute donated services to area safety-net providers.



Education: The System provides a wide range of high-quality medical education, including accredited training programs for residents, physicians, nurses and other allied health professionals. The System maintains one of the largest graduate medical education programs in the nation. At the postgraduate level, the System's Center of Continuing Education has developed one of the largest and most diverse continuing medical education programs in the world. The System also operates Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, dedicated to the teaching of physician-scientists.

Research: From a community benefit perspective, medical research includes basic, clinical and community health research, as well as studies on healthcare delivery. Community benefits include research activities supported by government and foundation sources; corporate and other grants are excluded from community benefits. The System uses internal funding to cover shortfalls in outside resources for research.

Community Health Needs Assessment

The System completes comprehensive community health needs assessments (CHNA) once every three years for each hospital. Internal Revenue Code Section 501(r)(3) requires nonprofit hospital organizations to conduct a

CHNA every three years and adopt an implementation strategy to identify the community health needs that each hospital will address.

To obtain an in-depth understanding of the community risk indicators, population trends and healthcare needs, the System has gathered and will gather various data, including:

- demographic and health statistical data;
- information on socio-economic barriers to care, including income, culture, language, education, insurance and housing;
- national, state and local disease prevalence;
- health behavior; and
- medical research and health professional education.

Information is also gathered from persons representing the broad interests of the community, including those with special knowledge or expertise in public health.

Key CHNA needs identified throughout the System include:

- chronic disease (heart disease, cancer, diabetes, asthma, obesity);
- health conditions (mental health, poor birth outcomes, aging, chemical dependency);
- wellness (nutrition, exercise, tobacco cessation, preventative care);
- access to affordable healthcare;
- education (physician shortage); and
- medical research.



Hospital implementation strategies that address the health needs identified in the assessments have been developed by individual hospital leadership teams and have been added to the Clinic's website in compliance with the regulatory requirements.

The current CHNA reports and implementation strategies for the System hospitals are available on the Clinic's website (www.clevelandclinic.org/CHNAReports).

Economic Impact

According to the System's most recent Economic and Fiscal Impact Report, the System is the largest employer in Northeast Ohio and the second largest employer in the State of Ohio. The current report was released in 2018 and was based on 2016 data, the most current data available at that time. In 2016 the System generated \$17.8 billion of the total economic activity in Ohio and has directly and indirectly supported more than 119,000 jobs generating approximately \$7.5 billion in wages and earnings. The System's economic activity was accountable for \$2.25 billion in federal income taxes paid by employees and vendors and \$987 million in total state and local taxes. Systemsupported households spent \$5 billion on goods and services. The System has purchased almost \$1.8 billion of goods and services from Ohio businesses. Between 2014 and 2016, the System's construction projects have invested almost \$808 million in real property improvements, including renovating existing

structures, building new facilities, and improving properties in Ohio. The System continues to contribute significant economic and fiscal value to the State of Ohio and support businesses and professional services across the state. In addition to Ohio, the System contributed \$1.2 billion in total economic output in the State of Florida and \$47 million of total economic output in the State of Nevada.

The System's Economic and Fiscal Impact Report is the result of an economic analysis completed by the Silverlode Consulting Corp. The report was completed in part using the IMPLAN® economic impact model, which is used by more than 1,000 universities and government agencies to estimate economic and fiscal impacts. Additional information regarding the System's economic impact is available on the Clinic's website

(www.clevelandclinic.org/economicimpact).

SUSTAINABILITY

he System supports healthy environments for healthy communities, recognizes the link between environmental and human health and strives to responsibly address and mitigate its environmental impacts. As a national leader in healthcare, the System is in a position to lead by example in the adoption of environmental best practices. With a built environment portfolio of more than 22 million

square feet and more than 52,000 caregivers, the impact of the System on the community and ecosystem, both positive and negative, is substantial.

The System's Office for a Healthy Environment acknowledges its obligation and opportunity to minimize the health impacts of climate change. The System is working to enhance the resilience

of its facilities and communities, engaging its stakeholders to personalize climate action and embedding sustainability into its healthcare delivery model.

As a leader in the healthcare industry, the System has publically committed to compiling an annual sustainability report for its patients, caregivers, communities and global stakeholders through two leading international frameworks: The United Nations Global Compact and the Global Reporting Initiative. The compilation, titled "Serving Our Present, Caring for Our Future," includes performance metrics and stories, highlights accomplishments and communicates challenges as the System strives to reach its goals. The complete report is available on the Clinic's website (www.clevelandclinic.org/ungc).

The Clinic is a member of Practice Greenhealth, the nation's leading healthcare community that empowers its members to increase their efficiencies and environmental stewardship while improving patient safety and care through tools, best practices and knowledge. In 2017, the Clinic was awarded the prestigious "Greening the OR" environmental achievement award offered by Practice Greenhealth for the second year in a row. This award is given to only one healthcare system in the country for its performance in energy efficiency, materials efficiency and recycling in the operating room. In 2018, the Clinic won the Top 25 Environmental Excellence Award for the fourth straight year. This award recognizes healthcare facilities that exemplify environmental excellence and are setting the highest standards for environmental practices in healthcare. Award winners are chosen from hospitals that have the highest scores using Practice Greenhealth's thorough scoring and evaluation system. The Clinic was also recognized for being in the top ten in the nation in four Circles of Excellence: Green Building, Greening the OR, Climate and Leadership. The Leadership Circle represents the highperforming hospitals strong that have a infrastructure supporting long term commitment to healthier environments through leadership vision, committee structure, reporting, data tracking, communication and education. Other System entities and facilities were honored with additional Practice Greenhealth for Environmental Excellence Awards outstanding performance in healthcare sustainability in 2018.

The System's energy program is designed to enhance patient outcomes and the patient experience while reducing operating expenses. As the model of healthcare evolves, the System committed to reducing environmental, economic and human impact by reducing energy intensity. The System's commitments to both affordable care and external partnerships with ENERGY STAR and the Better Buildings Challenge have created goals of becoming 20% more energy efficient by 2020 from a 2010 baseline on more than 20 million square feet of facilities. Initiatives include a combination of critical energy efficiency projects and broad occupant education and engagement campaigns. From the December 2010 baseline, the System has realized a 15% reduction in weather normalized source energy use intensity for in-scope and reportable facilities.

A central component of the Systems' ongoing commitment to responsible energy management is to construct buildings that conform to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED). LEED is a third-party certification program and nationally accepted benchmark for design, construction and operation of environmentally responsible and energy-efficient buildings. All new major construction projects for the System follow LEED standards, with a goal of achieving gold certification. Construction projects also emphasize recycling of debris, with current diversion rates of up to 98% in recent years.

The System currently has sixteen LEED-certified buildings, with additional buildings pending certification. The System has four buildings that are certified LEED-Gold, including the Global Cardiovascular Innovations Center, Marymount Hospital Surgical Expansion, Twinsburg Health and Family Surgery Center and the Tomsich Pathology Laboratories building.

In 2018, the Clinic's Center for Functional Medicine suite located on the Clinic's main campus achieved WELL certification, a new building standard that integrates human health into building design and operation. The WELL

Certification process involves rigorous testing and a final evaluation carried out by the Green Business Certification Inc., which is the thirdparty certification body for the WELL Building Standard. WELL certification focuses on seven main concepts: air quality, water quality, healthy foods, light quality, integration of fitness, comfortable and productive workspaces. cognitive and emotional health and support for innovative features that impact the interaction between building and human health. The Center for Functional Medicine is one of the first medical offices to be awarded this certification.



Sydell & Arnold Miller Family Pavilion Cleveland. OH

DIVERSITY

he System provides healthcare services to patients and families from a global community. The Office of Diversity and Inclusion (ODI), created in 2006, makes diversity, inclusion and cultural competence a critical part of the System's mission with a goal of creating a culture caregivers integrate diversity inclusion throughout the enterprise. ODI provides direction that builds strategic cultural competence, cultivates an inclusive organization, promotes safety, quality, and health equity, develops talent, and supports a diverse population of caregivers and patients. Its programs include cultural competence training. diversity councils, employee resource groups, language enrichment, consultation, and pipeline development programs.

In 2018, the System was ranked number six on the list of the country's top eleven healthcare organizations diversity for management practices by DiversityInc. The System has made this list for the ninth consecutive year. Rankings are empirically driven and assess performance based on a number of factors including CEO commitment, equitable talent development, talent pipeline and supplier diversity. Additionally, the Clinic was recognized as a "2018 Leader in LGBTQ Healthcare Equality," by the Human Rights Campaign for the fourth consecutive year. This distinction was received by meeting criteria for LGBTQ workforce and patient non-discrimination in policy, training, patient care, and access.

In 2018, the System was named one of the Top 50 STEM Workplaces by the American Indian Science and Engineering Society for the sixth consecutive year. Additionally, the System ranked in the top 25% of 500 corporations for diversity efforts on the Forbes list of Best Employers for Diversity for 2019. To determine the rankings, 50,000 Americans, working for businesses with at least 1,000 employees, were surveyed. Participants were asked to openly and anonymously share their opinions and rate their organizations on age, gender, ethnicity, disability, sexual orientation equality, general diversity, and other criteria. This is the second year the System was recognized.

In 2018, a LGBTQ ODI specific training was launched for the System. Over 600 caregivers received instructor-led training, increasing LGBTQ cultural competence, promoting safety and quality and engaging caregivers in support of a positive caregiver and patient experience.

The SALUD ERG sponsored program, ACTiVHOS™, received financial support and approval to expand in 2019. ACTiVHOS™ stands for "Activity, Cognitive Therapy, and Incentives in Health Outreach for Students" and is the first and only bilingual/bi-cultural youth wellness program in Northeast Ohio. It was started by SALUD, the System's Hispanic/Latino ERG with support from ODI.

CONFLICT OF INTEREST

he System maintains policies that require internal reporting of outside financial and fiduciary interests to ensure that potential conflicts of interests do not inappropriately

influence research, patient care, education, business or professional decision making. In connection with these policies, the System developed the Innovation Management and



Weston Hospital Weston, FL

Conflict of Interest Program, which is designed to promote innovation while at the same time reducing, eliminating or managing real or perceived bias either due to System personnel consulting with pharmaceutical, medical device and diagnostic companies (industry) or the commercialization efforts undertaken by the System to develop discoveries and make them accessible to patients. The Program works with physicians, managers and other employees who interact with industry to manage any conflicts. Provisions related to whether or not "compelling" circumstances" are required to justify conducting research in the presence of related financial interests have been modified in policies that went into effect in 2013, consistent with the value the System places on beneficial relationships with industry. The System is committed to a process that maintains integrity in innovation and places the interests of its patients first. The Innovation Management and Conflict of Interest Program reviews situations in which a physician or other clinician prescribes or uses products of a company in their practice and has a financial relationship with that company. When appropriate, the Program will put management in place to address any conflict (for example, by disclosure). The goal of this policy is not to interfere with the practice of medicine.

initiative An bring to transparency to the System's relationships with industry has been in place since 2008 in which specific types interactions that individual physicians and scientists have with industry were disclosed on publiclyaccessible web pages on the System's internet site. Information can be

accessed by patients that describes the training, type of practice and accomplishments of a specific doctor or scientist, as well as the names of companies with which the doctor has financial or fiduciary relations as an inventor, consultant, speaker or board member. These disclosures are updated regularly. The System was the first academic medical center in the country to have made these interactions public. Many other academic medical centers have followed the System's lead by providing similar disclosures. The System maintains a Conflict of Interest in Education Policy to reflect its values and represent its and its employees' best interests. This policy is responsive to guidelines from the Association of American Medical Colleges, the Institute of Medicine and other organizations. It places restrictions on outside speaking activities that are not Accreditation Council for Continuing Medical Education approved and are generally considered marketing. Speakers must present content that is data-driven and balanced; speakers must create their own slides or use only unbranded slides created by industry. This policy puts the System in step with other top academic medical centers that have already banned speaker's bureaus. In addition, the policy requires instructors to disclose relevant financial interests with companies to trainees.

The Innovation Management and Conflict of Interest Committee of the System has also established processes with cross-membership and seamless interactions and communications with the Board of Directors' Conflict of Interest and Managing Innovations Committee.

Board members of the Clinic and the regional hospitals in the System are required to complete annual disclosure questionnaires. These questionnaires are designed to identify possible conflicts of interest that may exist and ensure that

any such conflicts do not inappropriately influence the operations of the System. The information obtained from these questionnaires is used to respond to the related-party transactions and other disclosures required by the Internal Revenue Service on Form 990. The Form 990 for the Clinic and for the System are available on the Clinic's website, as well as additional information regarding the Clinic's Directors and Board of any business relationships the Directors may have with the System.

ENTERPRISE RISK MANAGEMENT

he System maintains a multi-phase enterprise risk management (ERM) process to develop a formal and systematic approach to the identification, assessment, prioritization, and reporting of risks. The process is closely linked with the System's strategic and annual planning. The ultimate objective is to create an enterprise-wide risk management model that contains sustainable reporting and monitoring processes and embeds management into the System's culture, in order to more effectively mitigate risks. The System established an ERM Steering Committee and engaged a consulting firm to support this process.

In the ERM process, risk identification is conducted resulting in a System risk profile that categorizes individual risks based on their impact

upon the System's ability to meet its strategic objectives. During this process, certain risks are identified as top risks and then further separated into sub-risks and individual risk components. The most recent comprehensive evaluation of top risks was concluded in the third quarter of 2016. Following this evaluation of top risks, extensive risk assessments and mitigation analyses have been prepared whereby risk components are evaluated according to their likelihood of occurring and potential impact should they occur. Risk mitigation activities, including risk response effectiveness, examined, reviewed and updated as part of this process. ERM is an on-going program, with regular reporting to senior management, including the Audit Committee of the Board of Directors, the body with oversight responsibility for ERM.

INTERNAL CONTROL OVER FINANCIAL REPORTING

he System regularly evaluates its internal control environment over the System's financial reporting processes through an initiative based upon concepts established in the Sarbanes-Oxley Act of 2002. The goals of the initiative are to ensure the integrity and reliability

of financial information, strengthen internal control in the reporting process, reduce the risk of fraud and improve efficiencies in the financial reporting process. The initiative reviews all aspects of the financial reporting process, identifies potential risks and ensures that they have been mitigated utilizing a management selfassessment process. As a result of this initiative, management of the System issued a report on the effectiveness of its internal control over financial reporting as part of the issuance of its consolidated financial results for 2018, which is the tenth year the management report was completed. As part of the internal control evaluation process, certifications are completed by 135 members of System management, including top leadership. The System is one of the first not-for-profit hospitals to issue a management report on the effectiveness of internal control over financial reporting, a step that further increases the transparency of the organization. System management updates the certification on a quarterly basis.

INDUSTRY OUTLOOK

n December 2018, Moody's maintained its negative outlook for the U.S. not-for-profit healthcare and hospital sector, an outlook it has maintained since December 2017. Moody's expects operating cash flow to remain unchanged or decrease in the next year. The outlook also reflects Moody's expectation that hospital bad debt will continue to rise, predicting an 8%-9% growth in the next year as health plans place increased financial responsibility on patients. Moody's also predicts that an aging population will increase hospital reliance on Medicare, which may also constrain revenue growth. In August 2018, Moody's released medians for the U.S. not-for-profit healthcare and hospital sector that showed operating cash flow decreased to 8.1% for fiscal year 2017, which is the lowest level seen since the 2008/2009 recession.

In January 2019, S&P maintained its stable outlook for the U.S. not-for-profit healthcare sector. S&P based its rating on the strength of the balance sheets in the sector, a long-term trend of improving business profiles primarily from mergers and acquisitions and a growing

array of diversifying joint ventures. However, S&P does acknowledge that operating risks for some organizations exist, including a potential recession. continued Medicaid changes, increased traction nontraditional from competitors, and heightened cost and revenue pressure in part due to an aging population. S&P expects there to be continued uncertainty in the industry due to the various challenges and court rulings related to the Affordable Care Act. Rating performance in 2018 showed a generally even level of upgrades an downgrades, with approximately 81% of the rated portfolio with stable outlooks.

The System continues to anticipate, and remains alert to, changes in the healthcare market and is committed to formulating and implementing financial and strategic plans necessary to meet the System's strategic objectives and to enable the System to remain a recognized world leader in healthcare. To that end, System management continually monitors the environment in which it operates and evaluates the ways in which it conducts business.

PATIENT VOLUMES

he following table summarizes patient volumes for the System:

Utilization Statistics

	For the quarter ended December 31			For the twelve months ended December 31				
	2018	2017	Variance	%	2018	2017	Variance	%
Inpatient admissions ⁽¹⁾								
Acute admissions	44,362	42,485	1,877	4.4%	174,653	173,880	773	0.4%
Post-acute admissions	2,465	2,663	-198	-7.4%	10,635	11,526	-891	-7.7%
	46,827	45,148	1,679	3.7%	185,288	185,406	-118	-0.1%
Patient days ⁽¹⁾								
Acute patient days	224,020	220,057	3,963	1.8%	901,801	890,353	11,448	1.3%
Post-acute patient days	19,248	19,787	-539	-2.7%	79,737	92,449	-12,712	-13.8%
	243,268	239,844	3,424	1.4%	981,538	982,802	-1,264	-0.1%
Surgical cases								
Inpatient	15,584	15,397	187	1.2%	62,655	62,375	280	0.4%
Outpatient	42,032	36,296	5,736	15.8%	157,697	149,103	8,594	5.8%
	57,616	51,693	5,923	11.5%	220,352	211,478	8,874	4.2%
Emergency department visits	170,168	159,104	11,064	7.0%	675,657	644,185	31,472	4.9%
Observations	16,109	14,705	1,404	9.5%	62,934	59,868	3,066	5.1%
Clinic outpatient evaluation and management visits	1,191,078	1,088,444	102,634	9.4%	4,632,296	4,407,973	224,323	5.1%
(1) Excludes newborns								

Inpatient acute admissions for the System increased 4% in the fourth quarter of 2018 and increased less than 1% in 2018 compared to 2017. Excluding Union Hospital, which joined the System in April 2018, inpatient acute admissions decreased 1% in 2018 compared to 2017. In 2018, acute admissions for the System in the Cleveland metro area decreased 1%. According to data from the Center for Health Affairs, acute discharges excluding newborns in the Northeast Ohio service area decreased slightly in 2018 compared to 2017. Akron General experienced a decrease in acute admissions in 2018 compared

to 2017, while the Florida facilities experienced a 6% increase in acute admissions over the same period.

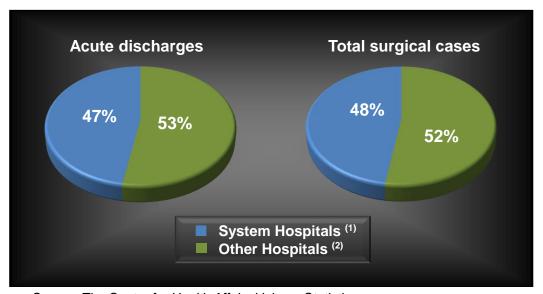
Total surgical cases for the System increased 12% in the fourth quarter of 2018 and increased 4% in 2018 compared to 2017. Excluding Union Hospital, which joined the System in April 2018, total surgical cases increased 2% in 2018 compared to 2017. In 2018, total surgical cases for the System in the Cleveland metro area increased 3%. According to data from the Center for Health Affairs, total surgical cases in



northeast Ohio increased 1% in 2018 compared to 2017. Akron General facilities and Florida facilities experienced increases of 1% over the same period. The surgical mix of total surgical cases for the System for 2018 was 28% inpatient and 72% outpatient, which represents an approximately 1% shift from inpatient to

outpatient compared to the surgical mix for the same period in 2017.

The following charts summarize selected statistical information for Northeast Ohio hospitals for the year ended December 31, 2018:



Source: The Center for Health Affairs Volume Statistics

- "System Hospitals" excludes Florida, Akron General, and Union Hospital facilities and includes Ashtabula County Medical Center.
- (2) "Other Hospitals" includes all other hospitals in northeast Ohio reported by the Center for Health Affairs that are not included in System hospitals.



LIQUIDITY

Cash and Investments

he System's objectives for its investment portfolio are to target returns over the long-term that exceed the System's capital costs so as to optimize its asset/liability mix and preserve and enhance its strong financial structure. The asset allocation of the portfolio is broadly diversified across global equity and global fixed income asset classes and alternative investment strategies and is designed to maximize the probability of achieving the longterm investment objectives at an appropriate level of risk while maintaining a level of liquidity to meet the needs of ongoing portfolio management. This allocation is formalized into a strategic policy benchmark that guides the management of the portfolio and provides a standard to use in evaluating the portfolio's performance.

Investments are primarily maintained in a master trust fund administered using a bank as trustee. In 2017, the System completed the transition of the management of its investment portfolios from a third-party external advisor to the Cleveland Clinic Investment Office (the "CCIO"). These portfolios include the System's general long-term investment portfolio, its defined benefit pension fund and the captive insurance fund. Investment professionals in the CCIO are charged with the day-to-day management of these investments and their strategic direction. The System has established formal investment policies that support the System's investment objectives and provide an appropriate balance between return and risk.

The following table sets forth the allocation of the System's cash and investments at December 31, 2018 and December 31, 2017:

Cash and Investments (Dollars in thousands)

	December 31, 2018	December 31, 2017
Cash and cash equivalents	\$ 911,877 10%	\$ 770,654 8%
Fixed income securities*	2,509,157 28%	2,412,477 27%
Marketable equity securities*	2,777,199 31%	3,192,650 35%
Alternative investments	2,735,233 31%	2,696,560 30%
Total cash and investments Less restricted investments**	\$ 8,933,466 100% (955,035)	\$ 9,072,341 100% (1,101,417)
Unrestricted cash and investments	\$ 7,978,431	\$ 7,970,924
Days cash on hand	355	383

- * Fixed income securities and marketable equity securities include mutual funds and commingled investment funds within each investment allocation category.
- ** Restricted investments include funds held by trustees, assets held for self-insurance and donor restricted assets.

The following chart summarizes days cash on hand for the System at December 31 for the last five years:



At December 31, 2018, total cash and investments for the System (including restricted investments) were \$8.9 billion, a decrease of \$139 million from \$9.1 billion at December 31, 2017. Cash inflows consist of cash provided by operating activities and related investment income of \$496 million, net proceeds from the issuance of long-term borrowings of \$130 million, a net increase in restricted gifts and income of \$92 million and \$40 million of cash and investments received by the System from the Union Hospital member substitution business combination. Cash inflows were offset by net capital expenditures of \$804 million, principal payments on debt of \$88 million and foreign exchange losses on cash and cash equivalents of \$5 million.

Included in the System's cash and investments are investments held for self-insurance. These investments totaled \$160.8 million at December 31, 2018, with an asset mix of 5% cash and short-term investments, 45% fixed-income securities, 28% equity investments and 22% alternative investments. The asset mix reflects the need for liquidity and the objective to maintain stable returns utilizing a lower tolerance for risk

and volatility consistent with insurance regulatory requirements.

Also included in the System's cash and investments at December 31, 2018 are \$49.4 million of funds held by trustees. Funds held by trustees include \$49.0 million of posted collateral related to the System's interest rate swap contracts. The swap contracts require that collateral be posted when the market value of a contract in a liability position exceeds a certain threshold. The collateral is returned as the liability is reduced. Investment objectives of funds held by the trustees are designed to preserve principal by investing in highly liquid cash or fixed-income investments. At December 31, 2018, the asset mix of funds held by trustees was substantially all fixed-income securities.

The System invests in alternative investments to increase the portfolio's diversification. Alternative investments are primarily limited partnerships that invest in marketable securities, privately held securities, real estate, and derivative products and are reported using the equity method of accounting based on information provided by the respective partnership.

Alternative investments at December 31, 2018 and December 31, 2017 consist of the following:

Alternative Investments (Dollars in thousands)

	December 31, 2018			December 31, 2017		
Hedge funds	\$	1,357,553	50%	\$	1,357,932	50%
Private equity/venture capital		1,007,692	37%		854,632	32%
Real estate		369,988	13%		483,996	18%
Total alternative investments	\$	2,735,233	100%	\$	2,696,560	100%

Alternative investments have varying degrees of liquidity and are generally less liquid than the traditional equity and fixed income classes of investments. Over time, investors may earn a premium return in exchange for this lack of liquidity. Hedge funds typically contain redeemable interests and offer the most liquidity of the alternative investment classes. These investment funds permit holders periodic opportunities to redeem interests at frequencies that can range from daily to annually, subject to lock-up provisions that are generally imposed upon initial investment in the fund. It is common, however, that a small portion (5-10%) of withdrawal proceeds are held back from distribution pending the fund's annual audit,

which can be up to a year away. Private equity, venture capital, and real estate funds typically have non-redeemable partnership interests. Due to the inherent illiquidity of the underlying investments, the funds generally contain lock-up provisions that prohibit redemptions during the fund's life. Distributions from the funds are received as the underlying investments in the fund are liquidated. These investments have an initial subscription period, under commitments are made to contribute a specified amount of capital as called for by the general partner of the fund. The System periodically reviews unfunded commitments to ensure adequate liquidity exists to fulfill anticipated contributions to alternative investments.

Investment Return

Return on investments, including equity method income on alternative investments, is reported as nonoperating gains and losses except for earnings on funds held by bond trustees and interest and dividends earned on assets held by the captive insurance subsidiary, which are included in other unrestricted revenues. Donor restricted investment return on temporarily and permanently restricted investments is included in temporarily restricted net assets.

The System's long-term investment portfolio, which excludes assets held for self-insurance, reported investment losses of 4.8% for the fourth quarter of 2018, which is lower than the portfolio's benchmark losses of 3.8% and lower than investment gains of 2.2% experienced in the fourth quarter of 2017. For the full year of 2018, the System experienced investment losses of 3.2%, which is lower than the portfolio's benchmark losses of 2.0% and lower than the investment gains of 12.1% experienced for the full year of 2017.

Total investment return for the System is comprised of the following:

Investment Return (Dollars in thousands)

(= 0.000	mododnaoj		-	
	For the quarter ended December 31		For the year ended December 31	
	2018	2017	2018	2017
Other unrestricted revenue:				
Interest income and dividends	\$ 470	\$ 798	\$ 2,108	\$ 2,909
Nonoperating gains and losses, net:				
Interest income and dividends	20,850	18,961	73,101	70,135
Net realized (losses) gains on sales of investments	(12,926)	31,078	171,240	177,901
Net change in unrealized (losses) gains on			(553,824)	518,861
investments	(346,574)	130,703	, , ,	·
Equity method income on alternative investments	35,483	73,357	148,278	152,178
Investment management fees	(8,228)	(5,724)	(29,985)	(22,936)
	(311,395)	248,375	(191,190)	896,139
Other changes in net assets:	, ,	·	, ,	·
Investment income on restricted investments and				
other	(17,916)	16,536	(9,005)	54,250
Total investment return	\$ (328,841)	\$ 265,709	\$ (198,087)	\$ 953,298



Taussig Cancer Center Cleveland, OH



Long-term Debt

At December 31, 2019, outstanding long-term bonds and notes for the System totaled \$3.799 billion, comprised of \$3.083 billion (81%) of fixedrate debt and \$716 million (19%) of variable-rate debt. The System utilizes various interest rate swap derivative contracts to manage the risk of increased debt service resulting from rising market interest rates on variable-rate bonds and certain variable-rate operating lease payments. The total notional amount on the System's interest rate swap contracts at December 31, 2018 was \$618 million. Using an interest rate benchmark, these contracts convert variable-rate debt to a fixed-rate, which further reduces the System's exposure to variable interest rates. The interest rate swap contracts can be unwound by System at any time, whereas counterparty has the option to unwind the contracts only upon an event of default as defined in the contracts.

Approximately \$348 million of the variable-rate debt is secured by irrevocable direct pay letters of credit or standby bond purchase agreements, and another \$15 million is directly placed with a financial institution. Debt supported by letters of credit or standby bond purchase agreements that expire within one year, require repayment of a remarketing draw within one year, or contain a subjective clause that would allow the lender to declare an event of default and cause immediate repayment of such bonds are classified as current liabilities.

The remaining \$353 million variable-rate debt is supported by the System's self-liquidity program.

Debt supported by self-liquidity includes the Series 2014A CP Notes and certain variable-rate bonds that are remarketed in commercial paper mode. Bonds and notes in the self-liquidity program are structured with various term dates so that no more than \$50 million of debt mature within a five-day period. Debt supported by self-liquidity are classified as current liabilities.

The System maintains the Cleveland Clinic Health System Obligated Group Commercial Paper Program (CP Program), which provides for the issuance of the Series 2014A CP Notes. The CP Program was established in November 2014 and will terminate no later than January 2044. The Series 2014A CP Notes may be issued from time to time in a maximum outstanding face amount of \$100 million and are supported by the System's self-liquidity program. At December 31, 2018, the System has \$71.0 million of outstanding Series 2014A CP Notes.

In August 2018 the System through a UK subsidiary entered into a private placement agreement to issue the 2018 Sterling Notes totaling £665 million. The subsidiary received proceeds of £300 million and £100 million in August 2018 and November 2018, respectively, and will receive additional proceeds of £265 million in August 2019. The outstanding 2018 Sterling Notes have been converted to U.S. dollars in the consolidated balance sheet using the exchange rate at December 31, 2018. For a description of the 2018 Sterling Notes, refer to "FINANCING DEVELOPMENTS."

Outstanding hospital revenue bonds and notes for the System as of December 31, 2018 and 2017 consist of the following:

Hospital Revenue Bonds and Notes (Dollars in thousands)

Series	Туре	Final Maturity	December 31 2018	December 31 2017
2018 Sterling Notes ¹	Fixed	2068	\$ 509,476	\$ -
2017A Revenue Bonds	Fixed	2043	818,775	818,775
2017B Revenue Bonds	Fixed	2043	169,255	169,255
2017C Revenue Bonds	Fixed	2032	8,945	9,305
2016 Private Placement	Fixed	2046	325,000	325,000
2016 Term Loan	Variable	2026	15,170	16,270
2014 Taxable Bonds	Fixed	2114	400,000	400,000
2014A CP Notes	CP	2044	70,955	70,955
2013A Revenue Bonds	Fixed	2042	62,650	73,150
2013B Revenue Bonds	Variable	2039	201,160	201,160
2013 Keep Memory Alive Bonds	Variable	2037	59,115	61,165
2012A Revenue Bonds	Fixed	2039	439,925	451,135
2011A Revenue Bonds	Fixed	2032	148,645	160,605
2011B Revenue Bonds	Fixed	2031	26,380	27,785
2011C Revenue Bonds	Fixed	2032	157,945	157,945
2009B Revenue Bonds	Fixed	2039	16,135	31,640
2008A Revenue Bonds	Fixed	2043	-	7,930
2008B Revenue Bonds	Variable	2043	327,575	327,575
2003C Revenue Bonds	Variable	2035	41,905	41,905
Notes Payable	Varies	Varies	106	376,521
			\$ 3,799,117	\$ 3,728,076

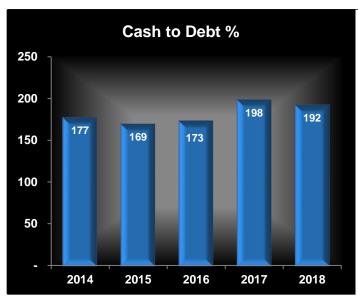
¹Converted to U.S. dollars using foreign exchange rates at the period end date

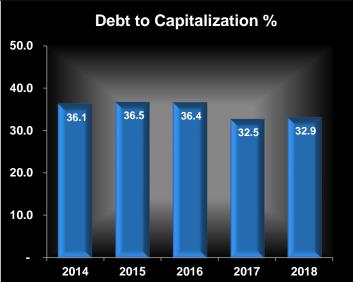
At December 31, 2018, the System has capital leases for property and equipment totaling \$121.6 million.

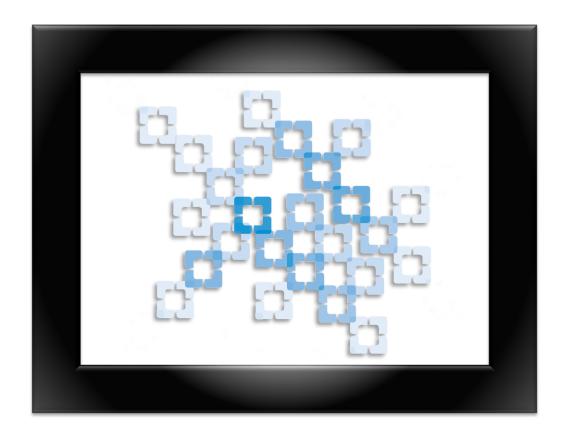
The Clinic has a \$300.0 million revolving credit facility with multiple financial institutions. The revolving credit facility expires in 2019 with provisions allowing the Clinic to extend the term annually for a one-year period. The facility allows the Clinic to enter into short-term loans that automatically renew throughout the term of the facility. The revolving credit facility bears interest at a variable rate based on the LIBOR index plus

an applicable spread. Amounts outstanding on the revolving credit facility as of December 31, 2018 and December 31, 2017 totaled \$105.0 million and \$60.0 million, respectively. The Clinic drew \$45.0 million in the second quarter of 2018 to extinguish debt that was assumed in the Union Hospital member substitution. The outstanding balance at December 31, 2018 is recorded in current portion of long-term debt based on the expiration of the facility. The outstanding balance at December 31, 2017 was recorded in long-term debt.

The following charts summarize cash-to-debt and debt-to-capitalization ratios for the System at December 31 for the last five years:







BOND RATINGS

he obligated group's outstanding bonds have been assigned ratings of Aa2 (stable outlook) and AA (stable outlook) by Moody's and S&P, respectively. In July 2018, Moody's and S&P affirmed their respective

ratings and outlooks. According to reports issued by Moody's and S&P, the ratings reflect a unique and strong enterprise profile, a strong leadership team and a national and international clinical reputation.

The following table lists the various bond rating categories for Moody's and S&P:

Bond Ratings Rating category Moody's S&P **Definition** Strongest Prime Aaa AAA Aa AA High grade/high quality Upper medium grade Α Α **BBB** Lower medium grade Baa Ba BB Non-investment grade/speculative В В Highly speculative Caa/Ca CCC Extremely speculative Weakest C Default or bankruptcy D

Within each rating category are the following modifiers

AA

Aa2

Moody's ratings: 1 indicates higher end, 2 indicates mid-range, 3 indicates lower end S&P ratings: + indicates higher end, - indicates lower end

Based on recent ratings summary reports obtained from Moody's and S&P, no healthcare organizations were rated in the prime category.

CONSOLIDATED RESULTS OF OPERATIONS

For the Quarters Ended December 31, 2018 and 2017

he following narrative describes the consolidated results of operations for the System for the fourth quarters of 2018 and 2017. The consolidated results of operations for the fourth quarter of 2018 includes the financial operations of Union Hospital, which became a consolidated entity of the System in April 2018. Union Hospital comprised approximately 1.3% of total consolidated operating revenues and 1.6% of total consolidated operating expenses in the

fourth quarter of 2018. No adjustments have been made in the following narrative to exclude Union Hospital operations except where indicated as same facility basis, which excludes Union Hospital activity in the fourth quarter of 2018 for comparative purposes.

Operating income for the System in the fourth quarter of 2018 was \$124.0 million, resulting in an operating margin of 5.3%, as compared to

Cleveland Clinic

operating income of \$99.7 million and an operating margin of 4.7% in the fourth quarter of 2017. The higher operating income resulted from an 11.0% increase in total unrestricted revenues that outpaced total operating expense growth of 10.4% in the same period. Nonoperating losses for the System were \$368.0 million in the fourth quarter of 2018 compared to nonoperating gains of \$211.2 million in the fourth guarter of 2017. The decrease from the prior year was primarily due to changes in the financial markets. Overall, the System reported a deficiency of revenues over expenses of \$244.0 million in the fourth quarter of 2018 compared to an excess of revenues over expenses of \$310.9 million in the fourth quarter of 2017.

The System's net patient service revenue increased \$206.5 million (10.9%) in the fourth quarter of 2018 compared to the same period in 2017. The System experienced a 4.4% increase in inpatient acute admissions (2.2% increase on a same facility basis). In addition, patient service revenue was favorably impacted by a strong case mix due to efforts that focused on accurate documentation of patient care and higher acuity patients, which has resulted in more inpatient revenue patient. The System per experienced strong outpatient volumes in the fourth quarter of 2018. Outpatient surgical cases increased 15.8% (same facility increase of 12.3%) in the fourth quarter of 2018 compared to 2017, and outpatient evaluation management visits increased 9.4% over the same period. Net patient revenue has also benefited from rate increases on the System's managed care contracts that became effective in 2018. Offsetting the patient volume and rate increases is a shift in the gross revenue payor mix that has negatively impacted the revenue realization of the System. The System has experienced an increase in Medicare revenue primarily as a result of demographic trends in the service area and other industry trends. On a combined basis, governmental and self-pay revenue as a percentage of total gross patient revenue has increased 1.1% in the fourth quarter of 2018 compared to the same period in 2017. The System has experienced a corresponding decrease in managed care and commercial gross revenues as a percentage of total gross patient revenues. Over the last few years, the System has initiated national, regional and local revenue management projects designed to improve patient care access throughout the System.

Other unrestricted revenues increased \$28.2 million (12.7%) in the fourth quarter of 2018 compared to the same period in 2017. The increase in other unrestricted revenues was primarily due to an \$11.4 million increase in outpatient pharmacy revenue, a \$8.9 million increase in research and education grant revenue and a \$3.4 million increase in unrestricted gifts and assets released from restriction.

Total operating expenses increased \$210.5 million (10.4%) in the fourth guarter of 2018 compared to the same period in 2017. Excluding Union Hospital expenses in the fourth quarter of 2018, total operating expenses increased \$175.8 million (8.7%) compared to the same period in 2017. Notable increases in expenses primarily driven by higher patient volumes experienced in salaries, wages and benefits, supplies expenses and pharmaceutical costs. The System has implemented Care Affordability initiatives to address the growth in expenses caused by inflationary pressures in many expense categories such as salaries, benefits specialized pharmaceuticals. Affordability initiatives are designed to transform patient care and business models in an effort to provide quality, affordable patient care. The System identifies, quantifies and implements these initiatives through an extensive analysis of the cost structure. The System continues to develop and implement cost management and containment plans designed to make a more affordable care model for patients and to enable investments in key strategic initiatives.

Salaries, wages and benefits increased \$109.1 million (9.8%) in the fourth quarter of 2018 compared to the same period in 2017. Salaries, excluding benefits, increased \$77.8 million (7.8%) due to annual salary adjustments averaging 2-3% across the System that were awarded in the second quarter of 2018 and a 4.1% increase (2.4% same facility increase) in average full-time equivalent employees in the fourth quarter of 2018 compared to the same period in 2017. Benefit costs increased \$31.3 million (26.5%) during the same period. The System experienced a \$4.0 million increase in FICA expenses and a \$2.2 million increase in defined contribution expenses primarily due to the increase in salaries and full-time equivalent employees. Increases in benefit costs also resulted from a \$11.4 million increase in employee health care costs due to increased utilization in the plan and a \$6.3 million increase in long-term disability expenses due to increased claim activity.

Supplies expense increased \$26.4 million (12.7%) in the fourth quarter of 2018 compared to the same period in 2017. The System experienced a \$25.6 million increase in implantables and other medical supplies primarily due to increased patient volumes and a \$0.8 million increase in non-medical supplies primarily due to increased minor equipment purchases and dietary expenses.

Pharmaceutical costs increased \$45.4 million (18.3%) in the fourth quarter of 2018 compared to the same period in 2017. The increase is primarily due to higher costs and increased utilization in the oncology departments. In addition, the System operates a specialty pharmacy that is used to treat chronic illnesses and complex conditions. Specialty pharmacy

expenses increased \$9.9 million in the fourth quarter of 2018 compared to the same period in 2017. The System has also experienced a corresponding increase in outpatient pharmacy revenues related to specialty pharmaceuticals.

Purchased services and other fees increased \$18.6 million (13.2%) in the fourth quarter of 2018 compared to the same period in 2017. The increase in purchased services and other fees was primarily related to \$5.2 million increase in software and hardware technology costs primarily related to maintenance agreements, current period software subscriptions and repair services, a \$1.7 million increase in state franchise fee expenses and other various costs associated with certain System projects and initiatives. The System also recorded a \$6.2 million tax benefit for the remeasurement of deferred tax liabilities in 2017 resulting from the Tax Cuts and Jobs Act.

Administrative services increased \$1.9 million (3.1%) in the fourth quarter of 2018 compared to the same period in 2017. The increase in administrative services was primarily due to a \$2.1 million increase in expenses related to research projects that corresponds to the increase in research grant revenue.

Facilities expense increased \$6.0 million (7.2%) in the fourth quarter of 2018 compared to the same period in 2017. The increase in facilities expense was primarily due to a \$2.9 million increase in utility costs and a \$1.2 million increase in rent expenses.

Interest expense increased \$3.5 million (10.7%) in the fourth quarter of 2018 compared to the same period in 2017. The increase is primarily due to the issuance of the 2018 Sterling Notes. The System also experienced an increase in interest rates on its variable rate bonds. Offsetting these decreases is \$88.4 million of net

principal payments on bonds, notes and capital leases in 2018.

Depreciation and amortization expenses increased \$23.4 million (23.2%) in the fourth quarter of 2018 compared to the same period in 2017. Changes in depreciation include property, plant and equipment that was fully depreciated in 2017, offset by depreciation for property, plant and equipment that was acquired and placed into service in 2018.

Special charges decreased \$0.8 million (77.5%) in the fourth quarter of 2018 compared to the same period in 2017. The System incurred and recorded \$0.2 million and \$1.0 million of special charges in the fourth quarters of 2018 and 2017. respectively, related to Lakewood Hospital and the agreement between the City of Lakewood, LHA and the Clinic that outlines the transition of healthcare services in the City of Lakewood. For a description of the terms of the agreement, refer to "LAKEWOOD HOSPITAL ASSOCIATION." Special charges incurred and recorded for LHA primarily relate to accelerated depreciation expense and other property, plant and equipment costs on LHA assets. The hospital building was fully depreciated in the second quarter of 2018.

Gains and losses from nonoperating activities are recorded below operating income in the statement of operations. These items resulted in

a net loss to the System of \$368.0 million in the fourth quarter of 2018 compared to a net gain of \$211.2 million in the fourth quarter of 2017, resulting in an unfavorable variance of \$579.2 million. Investment returns were unfavorable by \$559.8 million in the fourth guarter of 2018 compared to the same period in 2017. The System's long-term investment portfolio reported investment losses of 4.9% for the fourth quarter of 2018, which is lower than the portfolio's benchmark loss of 3.7% and lower than investment gains of 2.2% experienced in the fourth quarter of 2017. Derivative gains and losses were unfavorable by \$32.2 million in the fourth guarter of 2018 compared to the same period in 2017. Derivative gains and losses result from changes in the interest rate benchmark associated with the System's foreign exchange forward currency contracts and interest rate swap agreements, including net interest paid or received under the swap agreements. Other nonoperating gains and losses were favorable by \$12.8 million in the fourth quarter of 2018 compared to the same period in 2017 primarily due to a \$15.9 favorable variance in net periodic benefit cost reported in other nonoperating gains and losses primarily due to actuarial gains and losses on the System's defined benefit and other postretirement pension plans offset by a \$1.3 million unfavorable variance in foreign currency transaction gains and losses primarily due to the remeasurement of assets and liabilities from the British Pound to the U.S. Dollar.

For the Years Ended December 31, 2018 and 2017

The following narrative describes the consolidated results of operations for the System for the years ended December 31, 2018 and 2017. The consolidated results of operations for 2018 includes the financial operations of Union Hospital, which became a consolidated entity of the System in April 2018. Union Hospital comprised approximately 1.0% of consolidated operating revenues and 1.2% of total consolidated operating expenses in 2018. No adjustments have been made in the following narrative to exclude Union Hospital operations except where indicated as same facility basis, which excludes Union Hospital activity in 2018 for comparative purposes.

Operating income for the System in 2018 was \$266.4 million, resulting in an operating margin



of 3.0%, as compared to operating income of \$330.6 million and an operating margin of 3.9% in 2017. The lower operating income resulted from a 7.2% increase in operating expenses that outpaced total unrestricted revenue growth of 6.2% in the same period. Operating income in 2017 benefited from a one-time \$70.0 million non-patient payment from a payor. Excluding the one-time payment, total unrestricted revenues increased 7.1%. The System experienced nonoperating losses of \$162.5 million in 2018 compared to nonoperating gains of \$819.8 million in 2017. The decrease from the prior year was primarily due to changes in the financial markets. Overall, the System reported an excess of revenues over expenses of \$103.9 million in 2018 compared to an excess of revenues over expenses of \$1,150.3 million in 2017.

The System's net patient service revenue increased \$533.7 million (7.1%) in 2018 compared to 2017. The System experienced a 0.4% increase in inpatient acute admissions (1.2% decrease on a same facility basis). In addition, patient service revenue was favorably impacted by a strong case mix due to efforts that focused on accurate documentation of patient care and caring for higher acuity patients, which has resulted in more inpatient revenue per patient. The System has experienced strong outpatient volumes in 2018. Outpatient surgical cases increased 5.8% (same facility increase of 3.3%) in 2018 compared to 2017, and outpatient evaluation and management visits increased 5.1% over the same period. Net patient revenue has benefited from rate increases on the System's managed care contracts that became effective in 2018. Offsetting the patient volume and rate increases is a shift in the gross revenue payor mix that has negatively impacted the revenue realization of the System. The System has experienced an increase in Medicare revenue primarily as a result of demographic trends in the service area and other industry trends. On a combined basis, governmental and

self-pay revenue as a percentage of total gross patient revenue has increased approximately 1% in 2018 compared to 2017. The System has experienced a corresponding decrease in managed care and commercial gross revenues as a percentage of total gross patient revenues. The revenue realization of the System has also been negatively impacted by an increase in acute average length of stay, which has pressured capacity and the ability to admit new patients. Over the last few years, the System has initiated local, regional and national revenue management projects designed to improve patient care access throughout the System.

Other unrestricted revenues decreased \$13.2 million (1.4%) in 2018 compared to 2017. The decrease in other unrestricted revenues was primarily due to a one-time \$70.0 million non-patient payment from a provider received from a payor in 2017. This decrease was offset by a \$35.5 million increase in outpatient pharmacy revenue, a \$15.8 million increase in research and education grant revenue and a \$7.4 million increase in unrestricted gifts and assets released from restriction used for operations.

Total operating expenses increased \$584.7 million (7.2%) in 2018 compared to 2017. Excluding Union Hospital expenses in 2018, total operating expenses increased \$480.9 million (6.0%) compared to 2017. Notable increases in expenses were experienced in salaries, wages and benefits, pharmaceutical costs and supplies. The System has implemented Care Affordability initiatives to address the growth in expenses caused by inflationary pressures in many expense categories such as salaries, benefits and specialized pharmaceuticals. Care Affordability initiatives are designed to transform patient care and business models in an effort to provide quality, affordable patient care. The System identifies, quantifies and implements these initiatives through an extensive analysis of the cost structure. The System continues to

develop and implement cost management and containment plans designed to make a more affordable care model for patients and to enable investments in key strategic initiatives.

Salaries, wages and benefits increased \$292.3 million (6.4%) in 2018 compared to 2017. Salaries, excluding benefits, increased \$248.5 million (6.3%) due to annual salary adjustments averaging 2-3% across the System that were awarded in the second quarter of 2018 and a 3.8% increase (2.4% same facility increase) in average full-time equivalent employees in 2018 compared to 2017. Benefit costs increased \$43.8 million (7.1%) during the same period. The System experienced a \$14.3 million increase in FICA expenses and a \$13.4 million increase in defined contribution expenses primarily due to the increase in salaries and full-time equivalent employees. Increases in benefit costs also resulted from a \$7.9 million increase in employee health care costs due to increased utilization in the plan and a \$5.3 million increase in long-term disability expenses due to increased claim activity.

Supplies expense increased \$71.5 million (9.0%) in 2018 compared to 2017. The System experienced a \$63.5 million increase in implantables and other medical supplies primarily due to increased patient volumes and an \$8.0 million increase in non-medical supplies primarily due to increased minor equipment purchases and dietary expenses.

Pharmaceutical costs increased \$133.9 million (14.0%) in 2018 compared to 2017. The increase is primarily due to higher costs and increased utilization in the oncology departments. In addition, the System operates a specialty pharmacy that is used to treat chronic illnesses and complex conditions. Specialty pharmacy expenses increased \$33.9 million in 2018 compared to 2017. The System has also experienced a corresponding increase in

outpatient pharmacy revenues related to specialty pharmaceuticals.

Purchased services and other fees increased \$30.7 million (5.8%) in 2018 compared to 2017. The System experienced a \$3.7 million increase in purchased medical services and a \$27.0 million increase in purchased non-medical service costs. The increase in purchased nonmedical costs was primarily related to \$18.3 million increase in software and hardware technology costs primarily related to maintenance agreements, current period software subscriptions and repair services, a \$6.7 million increase in state franchise fee expenses and other various costs associated with certain System projects and initiatives. The System also recorded a \$6.2 million tax benefit for the remeasurement of deferred tax liabilities in 2017 resulting from the Tax Cuts and Jobs Act.

Administrative services increased \$23.3 million (11.7%) in 2018 compared to 2017. The increase in administrative services was primarily due to a \$14.8 million increase in consulting fees and professional services for certain System projects and initiatives, a \$5.7 million increase in expenses related to research projects that corresponds to the increase in research grant revenue and a \$2.6 million increase in travel and education costs primarily related to the System's expanding international strategy.

Facilities expense increased \$19.1 million (5.7%) in 2018 compared to 2017. The increase in facilities expense was primarily due to a \$10.8 million increase in utility costs, a \$6.2 million increase in repairs and maintenance expenses, and a \$5.1 million increase in rent expense.

Insurance expense increased \$10.5 million (17.2%) in 2018 compared to 2017. The increase in insurance expense was primarily due to a \$7.9 million increase in professional malpractice expense. The System recorded a \$14.3 million

favorable adjustment in 2017 and a \$4.1 million favorable adjustment in 2018 related to development of outstanding prior year claims based on actuarial estimates of expected loss claims for each year. Offsetting this increase is a \$3.6 million reduction in incurred current year claim estimates in 2018 compared to 2017. The System utilizes an independent actuarial firm to review professional malpractice loss experience and establish estimated funding levels to the System's captive insurance subsidiary. Over the last several years, the System has undertaken numerous initiatives to manage its medical malpractice insurance expense that resulted in reducing the number of claims and lawsuits and associated costs. These initiatives include hiring staff devoted additional to clinical management, promoting patient safety prevent untoward events, and expanding education programs geared to enhance quality throughout the organization. The System utilizes, where appropriate, a proactive approach to expedite the settlement of claims, which has reduced claim expenses and has resulted in more favorable settlements.

Interest expense decreased \$2.0 million (1.4%) in 2018 compared to 2017. The decrease is primarily due the issuance of the Series 2017A Bonds and the Series 2017B Bonds in the third quarter of 2017 that refunded \$1.1 billion of fixed-rate bonds at a lower interest rate. The System has also made \$88.4 million of net principal payments on bonds, notes and capital leases in 2018. Offsetting these decreases is an increase in interest expense related to the issuance of the 2018 Sterling Notes in 2018. A portion of the proceeds of the 2018 Sterling Notes were used to repay a \$375 million term loan.

Depreciation and amortization expenses increased \$8.4 million (1.7%) in 2018 compared to 2017. Changes in depreciation include property, plant and equipment that was fully depreciated in 2017, offset by depreciation for

property, plant and equipment that was acquired and placed into service in 2018.

Special charges decreased \$3.1 million (55.9%) in 2018 compared to 2017. The System incurred and recorded \$2.4 million and \$5.5 million of special charges in 2018 and 2017, respectively, related to Lakewood Hospital and the agreement between the City of Lakewood, LHA and the Clinic that outlines the transition of healthcare services in the City of Lakewood. For a description of the terms of the agreement, refer to "LAKEWOOD HOSPITAL ASSOCIATION." Special charges incurred and recorded for LHA primarily relate to accelerated depreciation expense and other property, plant equipment costs on LHA assets. The hospital building was fully depreciated in the second guarter of 2018.

Gains and losses from nonoperating activities are recorded below operating income in the statement of operations. These items resulted in a net loss to the System of \$162.5 million in 2018 compared to a net gain of \$819.8 million in 2017, resulting in an unfavorable variance of \$982.3 million. Investment returns were unfavorable by \$1.087.3 million in 2018 compared to 2017. The System's long-term investment portfolio reported investment losses of 3.2% for 2018, which is lower than the portfolio's benchmark loss of 2.0% and lower than investment gains of 12.1% experienced in 2017. Derivative gains and losses were favorable by \$2.1 million in 2018 compared to 2017. Derivative gains and losses result from changes in the interest rate benchmark associated with the System's foreign exchange forward currency contracts and interest rate swap agreements, including net interest paid or received under the swap agreements. Other nonoperating gains and losses were favorable by \$102.9 million in 2018 compared to 2017 primarily due to a \$51.7 million Union Hospital member substitution contribution recorded in 2018, a \$46.2 million loss on extinguishment of debt recorded in 2017 that related to bonds that were refunded in connection with the issuance of the Series 2017 Bonds and a \$14.1 favorable variance in net periodic benefit cost reported in other nonoperating gains and losses primarily due to actuarial gains on the System's other postretirement pension plans recognized in 2018 compared to 2017.

BALANCE SHEET - DECEMBER 31, 2018 COMPARED TO DECEMBER 31, 2017

ash and cash equivalents increased \$203.5 million (84.4%) from December 31, 2017 to December 31, 2018. The majority of the System's cash and cash equivalents are held in operating bank accounts for general expenditures. The increase in 2018 primarily relates to debt service payments that were due in January 2019. In January 2019, the System paid \$126.8 million in regularly scheduled principal and interest payments. Debt service payments due in January 2018 were funded to the bond trustee prior to December 31, 2017, and therefore were reported in investments for current use as of December 31, 2017.

Patient accounts receivable increased \$110.0 million (10.9%) from December 31, 2017 to December 31, 2018. The increase in patient receivables is partially due to an increase in net patient service revenue resulting from a higher case mix and increased levels of patient activity, particularly in the fourth quarter of 2018. Patient receivables were also impacted by rate increases on the System's managed care contracts that became effective in January 2018. Union Hospital member substitution transaction added approximately \$20.9 million of patient accounts receivable to the balance sheet. The System has various initiatives to enhance cash collection efforts and create efficiencies in the revenue cycle process, includina implementation EAPM. **EAPM** of implemented at the Clinic in 2016 and at the System's community hospitals excluding Union Hospital at various phases throughout 2017 and 2018. Days revenue outstanding for the System remained constant at 49 days at both December 31, 2017 and December 31, 2018.

Investments for current use decreased \$101.1 million (65.3%) from December 31, 2017 to December 31, 2018. Investments for current use includes funds held by the bond trustee that are used to pay current debt service payments. The System paid \$103.9 million in debt service payments in January 2018 that had been funded to the bond trustee in 2017. There were no funds held by the bond trustee reported in investments for current use at December 31, 2018. Investments for current use also includes assets held for self-insurance that will be used to pay the current portion of estimated claim liabilities. These investments increased \$2.8 million in 2018 due to reclassification of investments from long-term to current based on estimated claim payments.

Other current assets increased \$51.7 million (13.8%) from December 31, 2017 to December 31, 2018. The increase in other current assets was primarily due to a \$21.0 million increase current pledge receivables, an \$18.8 million increase in inventory balances primarily due to increased costs and utilization of pharmaceuticals and a \$16.5 million increase in prepaid expenses driven by annual maintenance and information technology contracts.

Unrestricted long-term investments decreased \$196.0 million (2.5%) from December 31, 2017 to December 31, 2018. The decrease was primarily due to \$191.2 million of negative

unrestricted investment returns experienced in the System's investment portfolio. Net capital expenditures totaled \$804.4 million in the 2018, which was partially offset by \$496.1 million of positive cash provided by operating activities and \$136.8 million of net long-term borrowings in 2018 to fund the London construction project. Positive unrestricted cash flows in 2018 also resulted from a \$50.0 million dividend received from the System's captive insurance subsidiary, \$37.4 million added to the balance sheet as a result of Union Hospital member substitution transaction and \$20.1 million of derivative contract collateral returned to the System.

Funds held by trustees decreased \$19.9 million (28.7%) from December 31, 2017 to December 31, 2018. The decrease in funds held by trustees is primarily due to a \$20.1 million decrease in collateral posted with the counterparties on the System's derivative contracts.

Assets held for self-insurance decreased \$52.8 million (33.1%) from December 31, 2017 to December 31, 2018. The decrease in self-insurance assets is primarily due to the payment of a \$50.0 million dividend from the System's captive insurance subsidiary to the Clinic, negative investment returns in the System's captive insurance investment portfolio and the reclassification of \$2.8 million of investments from long-term to current. Insurance premiums received by the captive insurance subsidiary in 2018 approximated claim payments.

Donor restricted assets increased \$27.4 million (3.8%) from December 31, 2017 to December 31, 2018. The increase in donor restricted assets was primarily from the receipt of donor restricted gifts in excess of expenditures from restricted funds and investment losses on restricted investments.

Net property, plant and equipment increased \$372.85 million (7.9%) from December 31, 2017

to December 31, 2018. The System had net expenditures for property, plant and equipment of \$804.4 million, offset by depreciation expense of \$496.7 million, which includes \$1.7 million of accelerated depreciation expense recorded in special charges. The System also acquired \$41.2 million of property, plant and equipment in the Union Hospital member substitution transaction and \$0.6 million of donated capital. These increases were partially offset by \$21.4 million of foreign currency translation losses. Capital expenditures in 2018 include amounts paid on retainage liabilities recorded December 31, 2017 and exclude assets acquired through capital leases and other financing arrangements. Retainage liabilities increased \$4.6 million, and new capital leases and other financing arrangements totaled \$40.2 million. Expenditures for property, plant and equipment were incurred at numerous facilities across the System and include expenditures for strategic construction. expansion and technological investment as well as replacement of existing facilities and equipment. For a description of many of System's current projects, refer to **IMPROVEMENT** "EXPANSION AND PROJECTS."

Other noncurrent assets decreased \$54.9 million (7.8%) from December 31, 2017 to December 31, 2018. The decrease in noncurrent assets was primarily due to a \$37.2 million reduction in a note receivable related to a payment received on a construction financing loan for a hotel on the Clinic's main campus and a \$38.3 million reduction in receivables related to joint fundraising efforts by the Clinic and CWRU for the health education campus. These increases were offset by perpetual trusts totaling \$12.9 million acquired in the Union Hospital member substitution transaction and a \$5.3 million increase in deferred compensation plan assets.

Accounts payable increased \$24.0 million (4.8%) from December 31, 2017 to December 31, 2018.

The increase in accounts payable was primarily attributable to the timing of payment processing for trade payables and a \$4.6 million increase in retainage liabilities on current construction projects offset by an \$18.1 million decrease in outstanding checks.

Compensation and amounts withheld from payroll increased \$13.9 million (4.0%) from December 31, 2017 to December 31, 2018. The change was primarily attributable to the timing of payroll and the growth in employee benefit accruals.

Current portion of long-term debt decreased \$266.5 million (58.2%) from December 31, 2017 to December 31, 2018. The System refinanced a \$375.0 million term loan that was due within one year with the proceeds of the 2018 Sterling Notes, which are recorded as long-term debt. The term loan was used to finance the System's international business strategy. Offsetting this decrease was a reclassification of \$105.0 million from long-term debt to current related to amounts outstanding on the revolving credit facility, which expires in 2019. Other changes in the current portion of long-term debt include the reclassification of regularly scheduled principal payments from long-term to current that are due within one year, offset by principal payments made in 2018.

Variable rate debt classified as current (28.9%)decreased \$165.5 million from December 31, 2017 to December 31, 2018. Long-term debt classified as current consists of variable-rate bonds supported by the System's self-liquidity program and bonds with letters of credit or standby bond purchase agreements that expire within one year, require repayment of a remarketing draw within one year or contain a subjective clause that would allow the lender to declare an event of default and cause immediate repayment of such bonds. The decrease in variable rate debt classified as current is primarily due to the reclassification of debt from current to long-term resulting from the multi-year renewal of standby bond purchase agreements supporting portions of the Series 2008B and Series 2013B bonds that were previously set to expire in 2018.

Other current liabilities increased \$54.8 million (12.5%) from December 31, 2017 to December 31, 2018. The increase in other current liabilities is primarily due to a \$21.0 million increase in liabilities associated with a patient loan program, a \$20.9 million increase in state franchise fee liabilities primarily related to the timing of payments to the State of Ohio and a \$10.8 million increase in accrued interest payable resulting primarily from the issuance of the 2018 Sterling Notes. These increases were offset by a \$14.2 million reduction in the current portion of pledge liabilities for payments made in 2018.

Long-term debt increased \$562.6 million (18.8%) from December 31, 2017 to December 31, 2018. The increase is primarily due to the issuance of the 2018 Sterling Notes. The 2018 Sterling Notes outstanding at December 31, 2018 were valued at \$509.5 million. In June 2018, the System drew an additional \$45.0 million on its revolving credit facility for the purpose of extinguishing Union Hospital bonds that were acquired in the Union Hospital member substitution transaction. The revolving credit facility, which has a balance of \$105.0 million as of December 31 2018, was reclassified to current portion of long-term debt based on the expiration of the facility. The System expects the facility to be renewed prior to the expiration date. Other changes in long-term debt include the reclassification of variable rate debt classified as current to long-term related to the renewal of standby bond purchase agreements offset by the reclassification of regularly scheduled principal payments from long-term to current for debt payments due within one year.

Professional and general insurance liability reserves decreased \$6.1 million (4.2%) from December 31, 2017 to December 31, 2018. The decrease is due to expenses recorded for the accrual of current year claim estimates in excess of claim liability payments and the reclassification of \$2.8 million of liability reserves from long-term to current.

Accrued retirement benefits decreased \$27.3 million (5.5%) from December 31, 2017 to December 31, 2018. The change in accrued retirement benefits is comprised of a \$13.9 million decrease in the System's defined benefit pension plan liabilities and a \$13.4 million postretirement decrease in other liabilities. The decrease in defined benefit pension plan liabilities was primarily due to a \$26.9 million retirement benefit adjustment and \$7.7 million of employer contributions offset by \$20.4 million of net periodic benefit cost, which includes the recognition of \$25.9 million of actuarial losses in excess of the corridor and an \$8.0 million settlement charge, and a \$0.2 million reclassification of liabilities from current to longterm. Actuarial losses in net periodic benefit cost for the defined benefit plans primarily resulted from investment returns that were below expected returns for 2018. The decrease in other postretirement liabilities was comprised of \$5.2 million in employer contributions and a reduction for net periodic benefit credit of \$11.5 million, offset by \$2.3 million in retirement benefit adjustments recorded in net assets, a \$0.7 million federal subsidy on benefits paid and \$0.3 million reclassification of liabilities from current to long-term. Actuarial gains in other postretirement benefit liabilities primarily resulted from an increase in the discount rates used to determine the benefit obligations.

Other noncurrent liabilities decreased \$25.5 million (4.5%) from December 31, 2017 to December 31, 2018. The decrease in other noncurrent liabilities is primarily due to a \$13.1 million decrease in derivative liabilities associated with changes in the fair value of the System's interest rate swap derivative contracts and foreign currency forward contracts, an \$11.9 million reduction in liabilities related to joint venture construction projects and a \$5.9 million reduction in long-term third-party liabilities. These decreases were offset by a \$5.5 million increase in liabilities related to joint fundraising efforts by the Clinic and CWRU for the health education campus

Total net assets increased \$176.4 million (1.9%) from December 31, 2017 to December 31, 2018. Net assets without donor restrictions increased \$118.8 million (1.4%) primarily due to an excess of revenues over expenses of \$103.9 million, retirement benefits adjustment of \$24.6 million and donated capital and assets released from restriction for capital purposes of \$12.8 million. These increases were offset by foreign currency translation losses of \$23.3 million. Net assets with donor restrictions increased \$57.6 million (5.8%), primarily due to \$121.8 million in donor restricted gifts and \$13.2 million for the Union Hospital member substitution contribution of donor restricted net assets. These increases were offset by \$64.0 million in assets released from restriction and \$9.0 million in restricted investment losses.

FORWARD-LOOKING STATEMENTS

orward-looking statements contained in this report and other written reports and oral statements are made based on known events and circumstances at the time of release, and as such, are subject in the future to unforeseen uncertainties and risks. All statements regarding future performance, events or developments are forward-looking statements. It is possible that the System's future performance may differ materially from current expectations depending on economic conditions within the healthcare industry and other factors. Among other factors that might affect future performance are:

- Changes to the Medicare and Medicaid reimbursement systems resulting in reductions in payments and/or changes in eligibility of patients to qualify for Medicare and Medicaid;
- Legislative reforms or actions that reduce the payment for, and/or utilization of, healthcare services, such as the Patient Protection and Affordable Care Act and/or draft legislation to address reimbursement cuts related to the Sustainable Growth Rate Formulas:
- Possible repeal and/or replacement of the Patient Protection and Affordable Care Act, and repeal of the individual mandate;
- Adjustments resulting from Medicare and Medicaid reimbursement audits, including audits initiated by the Medicare Recovery Audit Contractor program;
- Future contract negotiations between public and private insurers, employers and participating
 hospitals, including the System's hospitals, and other efforts by these insurers and employers to limit
 hospitalization costs and coverage;
- Increased competition in the areas served by the System and limited options to respond to the same in part due to uncertainty in the enforcement of antitrust laws;
- The ability of the System to integrate the hospitals in Florida into a regional health system;
- The ability of the System to access capital for the funding of capital projects;
- Availability of malpractice insurance at reasonable rates, if at all;
- The System's ability to recruit and retain professionals;
- The ability of the Clinic to develop the London Hospital and establish relationships with payors in that market;
- General economic and business conditions, internationally, nationally and regionally, including the impact of interest rates, foreign currencies, financial market conditions and volatility and increases in the number of self-pay patients;
- The increasing number and severity of cyber threats and the costs of preventing them and protecting patient and other data;
- The declining population in the Greater Cleveland area;
- Impact of federal and state laws on tax-exempt organizations relating to exemption from income taxes, sales taxes, real estate taxes, excise taxes and bond financing, including the Tax Cuts and Jobs Act;
- Management, utilization and increases in the cost of medical drugs and devices as technological advancement progresses without concurrent increases in federal reimbursement;
- Ability of the System to adjust its cost structure and reduce operating expenses; and
- Changes in accounting standards or practices.

The System undertakes no obligation to update or publicly revise these forward-looking statements to reflect events or circumstances that arise after the date of this report.