CONSOLIDATED FINANCIAL STATEMENTS, SUPPLEMENTARY INFORMATION, AUDIT REPORTS AND SCHEDULES RELATED TO THE UNIFORM GUIDANCE

Northwell Health, Inc. Year Ended December 31, 2019 With Reports of Independent Auditors

Ernst & Young LLP



Consolidated Financial Statements, Supplementary Information, Audit Reports and Schedules Related to the Uniform Guidance

Year Ended December 31, 2019

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Report of Independent Auditors

Management and the Board of Trustees Northwell Health, Inc.

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of Northwell Health, Inc. and its member corporations and other affiliated entities (collectively, Northwell), which comprise the consolidated statements of financial position as of December 31, 2019 and 2018, and the related consolidated statements of operations, changes in net assets and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement.

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Northwell Health, Inc. and its member corporations and other affiliated entities as of December 31, 2019 and 2018, and the consolidated results of its operations, changes in its net assets and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.



Adoption of ASU No. 2016-02, Leases

As discussed in Note 2 to the consolidated financial statements, Northwell changed its method of accounting for leases as a result of the adoption of the amendments to the Financial Accounting Standards Board Accounting Standards Codification resulting from Accounting Standards Update No. 2016-02, *Leases*, effective January 1, 2019. Our opinion is not modified with respect to this matter.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. We have not performed any procedures with respect to the audited consolidated financial statements subsequent to April 29, 2020. The accompanying Schedule of Expenditures of Federal Awards for the year ended December 31, 2019, as required by Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, is presented for purposes of additional analysis and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audits of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States. In our opinion, the information is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we also have issued our report dated April 29, 2020 on our consideration of Northwell's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Northwell's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Northwell's internal control over financial reporting and compliance.

Ernst & Young LLP

April 29, 2020, except for our report on the schedule of expenditures of federal awards for which the date is September 30, 2020.

Consolidated Statements of Financial Position (In Thousands)

	December 31			31
		2019		2018
Assets				
Current assets:				
Cash and cash equivalents	\$	535,619	\$	538,964
Short-term investments		2,931,431		2,581,695
Accounts receivable for services to patients, net		1,285,542		1,130,325
Accounts receivable for physician activities, net		255,893		205,422
Pledges receivable, current portion		47,316		67,590
Insurance claims receivable, current portion		44,256		54,877
Other current assets		349,832		326,685
Total current assets		5,449,889		4,905,558
Long-term investments		2,532,060		2,066,327
Pledges receivable, net of current portion		99,971		99,146
Property, plant and equipment, net		5,548,317		5,392,562
Right-of-use assets – operating leases		959,622		_
Insurance claims receivable, net of current portion		151,214		182,426
Other assets		415,610		390,963
Total assets	\$	15,156,683	\$	13,036,982
Liabilities and net assets Current liabilities:				
Short-term borrowings	\$	95,000	\$	103,500
Accounts payable and accrued expenses		989,611		979,100
Accrued salaries and related benefits		984,572		891,525
Current portion of operating lease obligations		118,163		=
Current portion of finance lease obligations		7,263		6,720
Current portion of long-term debt		56,950		55,469
Current portion of insurance claims liability		44,256		54,877
Current portion of malpractice and other insurance liabilities		184,506		175,728
Current portion of estimated payables to third-party payers		338,251		270,578
Total current liabilities		2,818,572		2,537,497
Accrued retirement benefits, net of current portion		646,738		1,041,936
Operating lease obligations, net of current portion		869,879		=
Finance lease obligations, net of current portion		227,819		177,449
Long-term debt, net of current portion		3,715,934		3,199,039
Insurance claims liability, net of current portion		151,214		182,426
Malpractice and other insurance liabilities, net of current portion		1,336,641		1,220,562
Other long-term liabilities		634,490		694,538
Total liabilities		10,401,287		9,053,447
Commitments and contingencies				
Net assets:		4.063.654		2 244 926
Without donor restrictions		4,063,674		3,344,826
With donor restrictions		691,722		638,709
Total net assets		4,755,396		3,983,535
Total liabilities and net assets	\$	15,156,683	\$	13,036,982

Consolidated Statements of Operations (In Thousands)

	 Year Ended D 2019	ecei	nber 31 2018
Operating revenue: Net patient service revenue Physician practice revenue	\$ 9,500,259 2,093,076	\$	8,762,122 1,854,861
Total patient revenue	11,593,335		10,616,983
Other operating revenue	833,653		826,999
Net assets released from restrictions used for operations	60,279		63,021
•	12,487,267		11,507,003
Operating expenses:			
Salaries	6,410,803		5,851,950
Employee benefits	1,446,365		1,347,618
Supplies and expenses	3,788,695		3,530,160
Depreciation and amortization	510,653		474,509
Interest	152,444		146,660
	 12,308,960		11,350,897
Excess of operating revenue over operating expenses, excluding Health Insurance Companies	178,307		156,106
Health Insurance Companies excess (deficiency) of operating revenue over operating	10.067		(21.711)
expenses	 10,067		(21,711)
Total excess of operating revenue over operating expenses	 188,374		134,395
Non-operating gains and losses: Investment income	171,744		130,096
Change in net unrealized gains and losses and change in value of equity method investments	401,110		(328,931)
Change in fair value of interest rate swap agreements designated as	401,110		(328,931)
derivative instruments	(464)		433
Non-operating net periodic benefit cost	(57,579)		(12,862)
Loss on refunding of long-term debt	(519)		(12,002)
Contribution received in the acquisition of John T. Mather Memorial Hospital	(0.25)		75,819
Gain on sale of property	_		65,723
Other non-operating gains and losses	(30,906)		(41,779)
Total non-operating gains and losses	483,386		(111,501)
Excess of revenue and gains and losses over expenses	671,760		22,894
Net assets released from restrictions for capital asset acquisitions	47,052		44,170
Change in fair value of interest rate swap agreements designated as	, -		,
cash flow hedges	(733)		1,279
Pension and other postretirement liability adjustments	9,105		(31,190)
Other changes in net assets	(8,336)		(7,438)
Increase in net assets without donor restrictions	\$	\$	29,715

Consolidated Statements of Changes in Net Assets (In Thousands)

Years Ended December 31, 2019 and 2018

	Without Donor Restrictions					Total
Net assets, January 1, 2018	\$	3,315,111	\$	630,947	\$	3,946,058
Contributions and grants				137,057		137,057
Investment income		_		13,379		13,379
Change in net unrealized gains and losses and change in value of equity						
method investments		_		(21,731)		(21,731)
Contribution received in the acquisition of John T. Mather Memorial						
Hospital		_		3,241		3,241
Excess of revenue and gains and losses over expenses		22,894		_		22,894
Net assets released from restrictions for:						
Capital asset acquisitions		44,170		(44,170)		_
Operations		_		(63,021)		(63,021)
Non-operating activities		_		(16,400)		(16,400)
Change in fair value of interest rate swap agreements designated as cash		1.050				1.270
flow hedges		1,279		=		1,279
Pension and other postretirement liability adjustments		(31,190)		(502)		(31,190)
Other changes in net assets		(7,438)		(593)		(8,031)
Increase in net assets		29,715		7,762		37,477
Net assets, December 31, 2018	\$	3,344,826	\$	638,709	\$	3,983,535
		thout Donor Restrictions		Vith Donor Restrictions		Total
1 2010						
Net assets, January 1, 2019	\$	3,344,826	\$	638,709	\$	3,983,535
Net assets, January 1, 2019 Contributions and grants	\$	3,344,826	\$	638,709 127,262	\$	3,983,535 127,262
	\$	3,344,826	\$		\$	
Contributions and grants	\$	3,344,826 - -	\$	127,262	\$	127,262
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments	\$	- -	\$	127,262	\$	127,262
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses	\$	3,344,826 - - - 671,760	\$	127,262 10,257	\$	127,262 10,257
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for:	\$	- - 671,760	\$	127,262 10,257 29,714	\$	127,262 10,257 29,714
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions	\$	- -	\$	127,262 10,257 29,714 - (47,052)	\$	127,262 10,257 29,714 671,760
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions Operations	\$	- - 671,760	\$	127,262 10,257 29,714 - (47,052) (60,279)	\$	127,262 10,257 29,714 671,760 - (60,279)
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions Operations Non-operating activities	\$	- - 671,760	\$	127,262 10,257 29,714 - (47,052)	\$	127,262 10,257 29,714 671,760
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions Operations Non-operating activities Change in fair value of interest rate swap agreements	\$	671,760 47,052	\$	127,262 10,257 29,714 - (47,052) (60,279)	\$	127,262 10,257 29,714 671,760 - (60,279) (14,088)
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions Operations Non-operating activities Change in fair value of interest rate swap agreements designated as cash flow hedges	\$	- 671,760 47,052 - (733)	\$	127,262 10,257 29,714 - (47,052) (60,279)	\$	127,262 10,257 29,714 671,760 - (60,279) (14,088) (733)
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions Operations Non-operating activities Change in fair value of interest rate swap agreements designated as cash flow hedges Pension and other postretirement liability adjustments	\$	- 671,760 47,052 - (733) 9,105	\$	127,262 10,257 29,714 - (47,052) (60,279) (14,088)	\$	127,262 10,257 29,714 671,760 - (60,279) (14,088) (733) 9,105
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions Operations Non-operating activities Change in fair value of interest rate swap agreements designated as cash flow hedges Pension and other postretirement liability adjustments Other changes in net assets	\$	- 671,760 47,052 - (733) 9,105 (8,336)	\$	127,262 10,257 29,714 - (47,052) (60,279) (14,088) - 7,199	\$	127,262 10,257 29,714 671,760 - (60,279) (14,088) (733) 9,105 (1,137)
Contributions and grants Investment income Change in net unrealized gains and losses and change in value of equity method investments Excess of revenue and gains and losses over expenses Net assets released from restrictions for: Capital asset acquisitions Operations Non-operating activities Change in fair value of interest rate swap agreements designated as cash flow hedges Pension and other postretirement liability adjustments	\$ 	- 671,760 47,052 - (733) 9,105	\$	127,262 10,257 29,714 - (47,052) (60,279) (14,088)	\$	127,262 10,257 29,714 671,760 - (60,279) (14,088) (733) 9,105

Consolidated Statements of Cash Flows (In Thousands)

		Year Ended 2019	Decen	nber 31 2018
Operating activities				
Increase in net assets	\$	771,861	\$	37,477
Adjustments to reconcile increase in net assets to net cash provided by				
operating activities:				
Contribution received in the acquisition of John T. Mather Memorial Hospital		_		(79,060)
Permanent endowment donor contributions		(18,398)		(25,332)
Depreciation and amortization		510,894		475,255
Amortization of bond premiums, discounts and financing costs		(2,699)		(1,584)
Net realized gains and losses, change in net unrealized gains and losses and				,
change in value of equity method investments		(553,035)		242,753
Change in fair value of interest rate swap agreements		1,197		(1,712)
Gain on sale of property		, –		(65,723)
Loss on refunding of long-term debt		519		_
Changes in operating assets and liabilities:				
Accounts receivable for services to patients, net		(155,217)		9,064
Accounts receivable for physician activities, net		(50,471)		(54,335)
Pledges receivable		4,503		26,775
Current portion of estimated payables to third-party payers		67,673		(87,940)
Accrued retirement benefits, net of current portion		(395,198)		43,033
Malpractice and other insurance liabilities		124,857		183,099
Net change in all other operating assets and liabilities				
		516,630		210,256
Net cash provided by operating activities		823,116		912,026
Investing activities				
Capital expenditures		(747,978)		(824,947)
Proceeds from sale of property		_		65,723
Net cash (invested in) from sales of short-term and long-term investments		(607,504)		125,214
Cash received in the acquisition of John T. Mather Memorial Hospital		_		15,222
Payments for acquisitions and clinical joint venture investments, net		(32,110)		(119,723)
Net cash used in investing activities		(1,387,592)		(738,511)
Financing activities				
Principal payments on long-term debt and finance lease obligations		(61 042)		(51 601)
Payments on refunded long-term debt		(61,943)		(51,691)
·		(49,910)		(110,609)
Payments on short-term borrowings Proceeds from short-term borrowings		(198,500)		(110,608)
e e e e e e e e e e e e e e e e e e e		190,000		100,000
Proceeds from long-term debt		675,164		_
Payments for financing costs		(6,072)		- 21.542
Proceeds from permanent endowment donor contributions		33,344		21,543
Net cash provided by (used in) financing activities		582,083		(40,756)
Net increase in cash and cash equivalents (unrestricted and restricted)		17,607		132,759
Cash and cash equivalents (unrestricted and restricted), beginning of year		961,646		828,887
	\$	979,253	\$	961,646
Cash and cash equivalents (unrestricted and restricted), end of year	3	717,453	Ф	901,040
Supplemental disclosure of cash flow information				
Cash paid during the year for interest (exclusive of amounts capitalized)	\$	150,254	\$	147,958

Notes to Consolidated Financial Statements (In Thousands)

December 31, 2019

1. Organization and Principles of Consolidation

Northwell Health, Inc. and its member corporations and other affiliated entities (collectively, Northwell) is an integrated health care delivery system in the New York metropolitan area. Most entities within Northwell are exempt from Federal income taxes on related income under the provisions of Section 501(a) of the Internal Revenue Code (the Code) as organizations described in Section 501(c)(3), while certain entities are not exempt from such income taxes. The exempt organizations also are exempt from New York State and local income taxes.

The accompanying consolidated financial statements include the accounts of the following principal operating organizations. All interorganization accounts and activities have been eliminated in consolidation.

Hospitals

- North Shore University Hospital (NSUH), including Syosset Hospital
- Long Island Jewish Medical Center (LIJMC), including Long Island Jewish Hospital, Long Island Jewish Forest Hills, Long Island Jewish Valley Stream, Steven and Alexandra Cohen Children's Medical Center of New York, Zucker Hillside Hospital and Orzac Center for Rehabilitation
- Staten Island University Hospital (Staten Island), including both North and South campuses
- Lenox Hill Hospital (Lenox)
- Southside Hospital (Southside)

- Glen Cove Hospital (Glen Cove)
- Huntington Hospital Association (Huntington)
- Plainview Hospital (Plainview)
- The Long Island Home (South Oaks Hospital)
- Phelps Memorial Hospital Association (Phelps, collectively with its subsidiaries)
- Northern Westchester Hospital Association (Northern Westchester, collectively with its subsidiaries)
- Peconic Bay Medical Center (Peconic, collectively with its subsidiaries)
- John T. Mather Memorial Hospital (Mather, collectively with its subsidiary)

Notes to Consolidated Financial Statements (continued) (In Thousands)

1. Organization and Principles of Consolidation (continued)

Other Entities

- Northwell Health, Inc. and Northwell Healthcare, Inc. (HCI) parent holding companies
- Northwell Health Stern Family Center for Rehabilitation (Stern) – skilled nursing facility and rehabilitation center
- Northwell Health Laboratories laboratory services
- North Shore Health System Enterprises, Inc., North Shore Health Enterprises, Inc. and True North Health Services Company, LLC – holding companies for certain related entities
- RegionCare, Inc. infusion therapy and licensed home health agency services
- North Shore Community Services, Inc. real estate holdings and related services
- North Shore University Hospital Housing, Inc.,
 North Shore University Hospital at Glen Cove
 Housing, Inc. and Hillside Hospital Houses,
 Inc. housing and auxiliary facilities for staff
 members, students and employees
- Visiting Nurse Association of Hudson Valley, Inc. and subsidiaries – home care and hospice services
- True North Health Pharmacy, Inc. retail pharmacy
- North Shore-LIJ and Yale New Haven Medical Air Transport, LLC – medical air transport company 90% owned by Northwell
- Greenwich Village Surgery Center outpatient ambulatory surgery center currently 100% owned by Northwell

- The Feinstein Institutes for Medical Research medical research
- Northwell Health Foundation fundraising
- Hospice Care Network hospice services
- Regional Insurance Company Ltd. (Regional Insurance) captive insurance company providing excess professional liability insurance
- Montauk Risk Retention Group, Inc. captive insurance company providing professional liability insurance
- Huntington Hospital Dolan Family Health Center – community health center
- Endoscopy Center of Long Island, LLC outpatient endoscopy center 70.2% owned by Northwell
- North Shore Medical Accelerator, P.C. outpatient radiation oncology center 70% owned by Northwell
- Endo Group, LLC outpatient ambulatory surgery center 51% owned by Northwell
- DHCH, LLC (Digestive Health Center of Huntington) – outpatient endoscopy center 51% owned by Northwell
- South Shore Surgery Center, LLC outpatient ambulatory surgery center 53.1% owned by Northwell
- Suffolk Surgery Center, LLC outpatient ambulatory surgery center 68% owned by Northwell
- Melville SC, LLC outpatient ambulatory surgery center 65.7% owned by Northwell
- Other affiliated professional corporations

Notes to Consolidated Financial Statements (continued) (In Thousands)

1. Organization and Principles of Consolidation (continued)

Certain members of Northwell (the Obligated Group) are jointly and severally liable for obligations under bond indentures (see Note 8). The Obligated Group consists of HCI, NSUH, LIJMC, Staten Island, Lenox, Southside, Huntington, Glen Cove, Plainview and Stern.

Northwell maintains a controlling ownership in various entities, whose results of operations are included in the accompanying consolidated financial statements. Northwell's non-controlling interest in these entities at December 31, 2019 and 2018 is immaterial, both individually and in the aggregate, to Northwell's net assets and excess of revenue and gains and losses over expenses, as reported in the accompanying consolidated financial statements.

Northwell has an 8% ownership interest in Optum360, LLC (Optum360) which is accounted for using the equity method of accounting. Under the agreement, Optum360 provides revenue cycle services for most of Northwell's hospitals. At December 31, 2019 and 2018, \$144,661 and \$137,104, respectively, is reported within long-term investments in the accompanying consolidated statements of financial position for this investment. Northwell incurred fees of \$175,752 and \$195,305 to Optum360 for revenue cycle services for the years ended December 31, 2019 and 2018, respectively.

Acquisitions

On January 1, 2018 (the Acquisition Date), Northwell acquired Mather, a 248-bed not-for-profit community teaching hospital located in Port Jefferson, New York, and its affiliated professional corporation. Northwell acquired Mather by means of an inherent contribution where no consideration was transferred by Northwell. Northwell accounted for the business combination by applying the acquisition method and, accordingly, the inherent contribution is valued as the excess of the fair value of assets acquired over the fair value of liabilities assumed. In determining the inherent contribution received, all assets and liabilities were measured at the fair value as of the Acquisition Date. The results of Mather's operations have been included in the consolidated financial statements since the Acquisition Date. Mather is not a member of the Obligated Group.

Notes to Consolidated Financial Statements (continued) (In Thousands)

1. Organization and Principles of Consolidation (continued)

The following table summarizes the estimated fair values of Mather's assets acquired and liabilities assumed at the Acquisition Date:

	January 1, 2018
Assets	
Cash and cash equivalents	\$ 15,222
Investments	54,506
Accounts receivable for services to patients	44,805
Accounts receivable for physician activities	1,583
Property, plant and equipment	105,882
Insurance claims receivable	21,257
Other assets	28,379
Total assets acquired	271,634
Liabilities	
Short-term borrowings	3,500
Accounts payable and accrued expenses	29,755
Accrued salaries and related benefits	20,325
Accrued retirement benefits	49,909
Finance lease obligations	11,792
Long-term debt	32,644
Insurance claims liability	21,257
Malpractice and other insurance liabilities	21,378
Other long-term liabilities	2,014
Total liabilities assumed	192,574
Excess of assets acquired over liabilities assumed	\$ 79,060
	,
Net assets acquired	
Without donor restrictions	\$ 75,819
With donor restrictions	3,241
	\$ 79,060

Notes to Consolidated Financial Statements (continued) (In Thousands)

1. Organization and Principles of Consolidation (continued)

The following table summarizes amounts attributable to Mather from the Acquisition Date through December 31, 2018 that are included in the accompanying 2018 consolidated statements of operations and changes in net assets:

	ear Ended cember 31, 2018
Total operating revenue	\$ 376,577
Total operating expenses	 372,052
Excess of operating revenue over operating expenses	4,525
Total non-operating gains and losses	 1,935
Excess of revenue and gains and losses over expenses	\$ 6,460
Change in net assets:	
Net assets without donor restrictions	\$ 3,637
Net assets with donor restrictions	 (824)
Total change in net assets	\$ 2,813

In addition to the Mather acquisition, during 2019 and 2018, Northwell acquired various physician practices. These acquisitions were accounted for as business combinations. Assets acquired during 2018 were approximately \$100,000. Incremental revenue recorded in 2018 attributable to these entities acquired during 2018 was approximately \$80,000. Acquisitions during 2019 were not significant.

Health Insurance Companies

In July 2017, North Shore-LIJ Health Plan Inc. (Health Plan) filed a termination plan which was approved by the New York State Department of Health (NYSDOH) in September 2017. Health Plan ceased new enrollment in its Medicaid Managed Long-Term Care Plan and, by January 2018, had transitioned its existing members to other plans. Northwell expects the wind down of Health Plan's operations to be completed during 2020.

Notes to Consolidated Financial Statements (continued) (In Thousands)

1. Organization and Principles of Consolidation (continued)

In August 2017, Northwell announced that it would wind down CareConnect Insurance Company Inc. (CareConnect) and withdraw from New York State's insurance markets. The New York State Department of Financial Services approved CareConnect's plan which allowed CareConnect to stop writing and renewing annual large and small group policies effective December 1, 2017 and individual policies effective January 1, 2018. Northwell expects the wind down of CareConnect's operations to be substantially completed during 2020.

As a result of Northwell's decision to exit the health insurance business, the net operating results of CareConnect and Health Plan (collectively, the Health Insurance Companies) are separately reported within the accompanying consolidated statements of operations for the years ended December 31, 2019 and 2018.

2. Summary of Significant Accounting Policies

Consolidated Statements of Operations

The accompanying consolidated statements of operations include the excess of revenue and gains and losses over expenses as the performance indicator. For purposes of display, transactions deemed by management to be ongoing, major or central to the provision of health care services are reported as operating revenue and operating expenses; peripheral or incidental transactions and unusual, nonrecurring items are reported as non-operating gains and losses.

Net assets released from restrictions for capital asset acquisitions, the change in fair value of interest rate swap agreements designated as cash flow hedges, pension and other postretirement liability adjustments and other changes in net assets are excluded from Northwell's performance indicator.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Recently Adopted Accounting Standards

In January 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities. Under ASU 2016-01, certain investments in limited partnerships and similar entities that are accounted for at cost, less impairment, are now recorded at fair value. The standard also allows entities that are not public business entities, among other things, to no longer disclose the fair value and significant assumptions used to estimate the fair value of certain financial instruments carried at amortized cost. The adoption of ASU 2016-01 did not have a material impact on the consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*. ASU 2016-02 requires lessees to recognize the rights and obligations arising from both finance lease contracts (formerly referred to as capital leases) and operating lease contracts as assets and liabilities on the statement of financial position. The accounting for finance leases remains substantially unchanged as a result of adoption. Lessors in operating leases continue to recognize the underlying asset and recognize lease income on either a straight-line basis or another systematic and rational basis. Northwell adopted ASU 2016-02 effective January 1, 2019, following the modified retrospective method of application. As such, the 2018 consolidated financial statement amounts and disclosures have not been adjusted to reflect the provisions of the new standard. The standard did not materially impact Northwell's consolidated statements of operations, changes in net assets or cash flows for the year ended December 31, 2019. Northwell has made the transition-specific election to apply the package of practical expedients which allows for the carryforward of historical assessments of (i) whether contracts are or contain leases, (ii) the lease classification and (iii) initial direct costs. Certain other accounting policy elections and quantitative and qualitative information pertaining to Northwell's adoption of ASU 2016-02 are described in Note 7.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows – Restricted Cash*, which requires that the statement of cash flows explain the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. Northwell adopted ASU 2016-18 effective December 31, 2019. Therefore, amounts generally described as restricted cash and restricted cash equivalents included in assets limited as to use (see Note 4) should be included with cash and cash equivalents (including the amounts in the investment portfolio) when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. Northwell has adopted ASU 2016-18 using a retrospective transition method, and as such, certain reclassifications were made to 2018 amounts previously reported on the consolidated statement of cash flows.

In June 2018, the FASB issued ASU 2018-08, Clarifying the Scope and Accounting Guidance for Contributions Received and Contributions Made, which clarifies existing guidance in order to address diversity in practice in classifying grants (including governmental grants) and contracts received by not-for-profit entities. The standard also clarifies the guidance on how entities determine when a contribution is conditional. Northwell adopted ASU 2018-08 effective January 1, 2019. The impact of the adoption of ASU 2018-08 did not have a material impact on the consolidated financial statements for the year ended December 31, 2019.

Other Recent Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. The new credit losses standard changes the impairment model for most financial assets and certain other instruments. For trade and other receivables, contract assets recognized as a result of applying ASU 2014-09, Revenue from Contracts with Customers (Topic 606), loans and certain other instruments, entities will be required to use a new forward looking "expected loss" model that generally will result in earlier recognition of credit losses than under today's incurred loss model. The ASU is effective for annual periods beginning after December 15, 2022. Northwell has not completed the process of evaluating the impact of ASU 2016-13 on its consolidated financial statements.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, including accounts receivable for services to patients, and liabilities, including accounts payable and accrued expenses, estimated payables to third-party payers, accrued retirement benefits and malpractice and other insurance liabilities, and disclosures of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

During 2019 and 2018, Northwell revised certain estimates made in prior years to reflect the passage of time and the availability of more recent information. For the years ended December 31, 2019 and 2018, the net change in estimates related to prior years was not significant.

Cash and Cash Equivalents

Northwell classifies all highly liquid financial instruments purchased with a maturity of three months or less as cash equivalents. Northwell maintains cash on deposit with major banks and invests in money market securities with financial institutions which exceed federally-insured limits. Management believes the credit risk related to these deposits is minimal. Northwell does not hold any money market funds with significant liquidity restrictions that would be required to be excluded from cash equivalents.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Cash and cash equivalents (unrestricted and restricted), as reported in the accompanying consolidated statements of cash flows, are reported within the following categories in the accompanying consolidated statements of financial position as of December 31, 2019 and 2018:

	 2019	2018
Cash and cash equivalents Short and long-term investments	\$ 535,619 443,634	\$ 538,964 422,682
-	\$ 979,253	\$ 961,646

Pledges Receivable

Pledges (promises to give), less an allowance for uncollectible amounts, are recorded as receivables in the year made at net present value and are recorded as additions to net assets with donor restrictions. Pledges receivable that are due more than one year from the statement of financial position date are discounted to reflect the present value of future cash flows.

Investments

Short-term and long-term investments include marketable securities and other investments. Marketable securities are classified as trading securities. Investments in debt securities, equity securities and mutual funds with readily determinable fair values are reported at fair value, based on quoted market prices.

Northwell has also invested in alternative investments, including funds of hedge funds, hedge funds, private equity funds and private real estate funds. These other investments are not readily marketable and are reported under the equity method of accounting. The equity method reflects Northwell's share of the net asset value of the respective funds.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Individual investment holdings of the funds of hedge funds, hedge funds, private equity funds and private real estate funds may include investments in both nonmarketable and market-traded securities. Valuations of these investments, and therefore Northwell's holdings, may be determined by the investment managers or general partners. Values may be based on estimates that require varying degrees of judgment. Recorded estimates may change by a material amount in the near term. The investments may indirectly expose Northwell to securities lending, short sales of securities and trading in futures and forwards contracts, options and other derivative products. However, Northwell's risk is limited to its amounts invested. At December 31, 2019, Northwell has future commitments of \$137,435 and \$17,666 to invest in private equity and private real estate funds for pension and restricted assets, respectively.

Other investments also include non-controlling interests in non-clinical joint ventures held by Northwell for investment purposes. Such investments are accounted for under the equity method or at cost less any impairment, adjusted for observable price changes for an identical or similar investment of the same issuer (Adjusted Cost).

Northwell is also invested in commingled fixed income, equity and risk-parity funds. The underlying investment holdings of the commingled funds are predominantly marketable securities. These investments are reported either at fair value based on quoted market prices, if their fair values are readily determinable, or under the equity method of accounting, which approximates fair value. The equity method reflects Northwell's share of the net asset value of these investments.

The financial statements of the alternative investments and commingled fixed income, equity and risk-parity funds noted above are audited annually by independent auditors, although the timing for reporting the results of such audits for certain investments does not coincide with Northwell's annual financial statement reporting.

Included in investments are assets limited as to use, which include funds held pursuant to debt financing arrangements, management designated funds (including management designated malpractice and other self-insurance assets), deferred employee compensation plan assets and donor restricted assets. Amounts required to meet current liabilities are reported as short-term investments. Northwell has future commitments of approximately \$162,000 at December 31, 2019 to purchase additional investments included in assets limited as to use.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Investment income (including realized gains and losses on investments, interest and dividends) and the change in net unrealized gains and losses and change in value of equity method investments are included in the performance indicator, unless the income or loss is restricted by donor or law. Interest and dividend income earned on Northwell's internally designated malpractice and other self-insurance assets is recorded in other operating revenue.

Inventory of Supplies

Inventory, included in other current assets, is stated at the lower of cost and net realizable value.

Insurance Claims Receivable and Liability

For medical malpractice and similar contingent liabilities, Northwell determines such claims liabilities without consideration of insurance recoveries. Accordingly, Northwell recognizes insurance receivables at the same time that it recognizes the liabilities, measured on the same basis as the liabilities, subject to the need for a valuation allowance for uncollectible amounts in the accompanying consolidated statements of financial position. Such amounts represent the actuarially determined present value of medical malpractice and other claims that are anticipated to be covered by insurance, discounted at a rate of 2.0%.

Property, Plant and Equipment

Property, plant and equipment is stated at cost or, in the case of gifts, at fair value at the date of the gift, less accumulated depreciation and amortization. Property, plant and equipment from acquired entities that existed at their respective acquisition dates was recorded at fair value based upon an independent valuation. Depreciation and amortization of land improvements, buildings, fixed equipment and major movable equipment is computed by the straight-line method based upon the estimated useful lives of the assets, ranging from three to forty years.

Equipment under finance lease obligations and leasehold improvements are amortized using the straight-line method over the lesser of the estimated useful life of the asset or the lease term. Such amortization is included in depreciation and amortization in the accompanying consolidated financial statements.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

During the period of construction of capital assets, interest costs are capitalized as a component of the cost of assets. When assets are disposed of, the carrying amounts of the assets and the related accumulated depreciation are removed from the accounts, and any resulting gain or loss on disposal is included in the performance indicator. When assets become fully depreciated, the carrying amounts of such assets and the related accumulated depreciation are removed from the accounts (see Note 6).

Long-Lived Assets

Gifts of long-lived assets are reported at fair value established at the date of contribution as changes in net assets without donor restrictions, excluded from the performance indicator, unless explicit donor stipulations specify how the donated asset must be used.

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If long-lived assets are deemed to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value. Assets to be disposed of are reported at the lower of the carrying amount or the fair value, less costs to sell.

Other Assets

Other assets included in the accompanying consolidated statements of financial position primarily consist of goodwill, other intangible assets and investments in clinical joint ventures.

In connection with various acquisitions, Northwell has recognized certain indefinite-lived intangible assets totaling approximately \$243,000 and \$241,000 at December 31, 2019 and 2018, respectively. The intangible assets are subject to impairment testing on an annual basis. At December 31, 2019 and 2018, Northwell determined that there has been no impairment of these intangible assets.

Deferred Financing Costs

Deferred financing costs, included in long-term debt and finance lease obligations, represent costs incurred to obtain financing for various Northwell projects and initiatives. Amortization of these costs is provided over the term of the applicable indebtedness.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Interest Rate Swap Agreements

Interest rate swap agreements are reported at fair value. Fair value is estimated using discounted cash flow analyses based on current and projected interest rates with consideration of the risk of non-performance. Changes in fair value of interest rate swap agreements designated as derivative instruments are recognized in Northwell's performance indicator. Changes in fair value of interest rate swap agreements designated as cash flow hedges are excluded from the performance indicator.

Other Long-Term Liabilities

Other long-term liabilities included in the accompanying consolidated statements of financial position primarily consist of the long-term portion of estimated payables to third-party payers, the long-term portion of expected payment obligations, deferred revenue and the fair value of the interest rate swap agreements.

Classification of Net Assets

Northwell separately accounts for and reports net assets without donor restrictions and net assets with donor restrictions. Net assets without donor restrictions include resources that the governing board may use for any designated purpose and resources whose use is limited by an agreement between Northwell and an outside party other than the donor or grantor. Net assets with donor restrictions are those whose use by Northwell has been limited by donors to a specific time period or purpose. When donor restrictions expire, that is, when a time restriction ends or a purpose restriction is accomplished, these net assets are reclassified to net assets without donor restrictions and reported as net assets released from restrictions.

Certain net assets with donor restrictions have been restricted by donors to be maintained in perpetuity. Income from these net assets is available to support certain teaching, research and training programs.

Northwell also recognizes governmental grants where commensurate value is not exchanged as contributions when conditions and restrictions are satisfied and reports such amounts within other operating revenue or net assets released from restrictions for capital asset acquisitions in the consolidated statements of operations.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Donor Gifts

Gifts of cash and other assets, including unconditional promises to give cash and other assets (pledges), are reported at fair value when the gift is received (or promise is made). Donor-restricted contributions whose restrictions are met within the same year as received are classified as contributions without donor restrictions in the accompanying consolidated financial statements. Northwell receives conditional pledges, which are not reflected in the accompanying consolidated financial statements. The conditional pledges primarily relate to the establishment of certain programs. As the conditions of the pledges are met, the pledges are recognized. At December 31, 2019 and 2018, \$70,120 and \$48,083, respectively, of conditional pledges have not been recognized in the consolidated statements of financial position.

Contributions and pledges raised through fundraising efforts for the years ended December 31, 2019 and 2018 are summarized as follows:

	 2019		2018
Without donor restrictions With donor restrictions	\$ 5,130 87,680	\$	2,478 99,942
	\$ 92,810	\$	102,420

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Functional Expenses

Northwell provides health care services to residents primarily within its geographic areas. Expenses related to providing these services pertain to the following functional and natural categories for the years ended December 31, 2019 and 2018:

			20	019		
	I	Health Care		G	eneral and	
		Services	Research	Ad	ministrative	Total
Salaries	\$	5,629,582	\$ 75,551	\$	705,670	\$ 6,410,803
Employee benefits		1,262,267	21,095		163,003	1,446,365
Supplies and expenses		3,305,122	50,227		433,346	3,788,695
Depreciation and amortization		316,997	6,413		187,243	510,653
Interest		134,754	_		17,690	152,444
	\$	10,648,722	\$ 153,286	\$	1,506,952	\$ 12,308,960

				20	018			
	Н	ealth Care			G	eneral and		_
		Services		Research	Ad	ministrative		Total
Salaries	\$	5,161,998	\$	72,214	\$	617,738	\$	5,851,950
Employee benefits	,	1,181,159	•	19,941	,	146,518	•	1,347,618
Supplies and expenses		3,128,322		53,874		347,964		3,530,160
Depreciation and amortization		302,072		6,324		166,113		474,509
Interest		130,690		_		15,970		146,660
	\$	9,904,241	\$	152,353	\$	1,294,303	\$	11,350,897

The accompanying consolidated financial statements report expense categories that are attributable to more than one health care service or support function. Costs not directly attributable to a function are allocated on a functional basis based on internal records and estimates.

Notes to Consolidated Financial Statements (continued) (In Thousands)

2. Summary of Significant Accounting Policies (continued)

Gain on Sale of Property

As a result of a prior year donation, Northwell held title to a remainder interest in a property located in Brea, California. In June 2018, the property was sold and Northwell recognized a \$65,723 gain on sale of property for its share of the sale proceeds received.

Tax Status

Certain entities included in Northwell's consolidated financial statements are taxable entities under Federal or state laws. U.S. generally accepted accounting principles require that the asset and liability method of accounting for income taxes be utilized by these organizations and for unrelated business activities of the tax-exempt entities included in Northwell's consolidated financial statements. Under the asset and liability method, deferred income taxes are recognized for the tax consequences of temporary differences by applying enacted statutory tax rates applicable to future years to differences between the financial statement carrying amounts and the tax basis of existing assets and liabilities.

At December 31, 2019 and 2018, Northwell has a deferred tax asset of approximately \$112,000 and \$118,000, respectively, both of which have been fully offset by a related valuation allowance. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax asset will not be realized. Significant components of the deferred tax asset relate to net operating loss (NOL) carryforwards. Certain entities have NOL carryforwards aggregating approximately \$540,000 at December 31, 2019. NOL carryforwards generated prior to 2018 will expire in varying amounts through 2037 and are available to offset future taxable income of the respective entity. NOLs generated after 2017 can be carried forward indefinitely, but with limitations.

Reclassifications

Certain reclassifications have been made to the amounts previously reported in the 2018 functional expense and fair value disclosures reported above in Note 2 and in Note 9 to conform with the 2019 presentation.

Notes to Consolidated Financial Statements (continued) (In Thousands)

3. Accounts Receivable and Patient Revenue

Net patient service revenue and physician practice revenue (collectively, Patient Revenue) are reported at the amount that reflects the consideration to which Northwell expects to be entitled in exchange for providing patient care. These amounts are due from patients and third-party payers (including health insurers and government programs) and include various elements of variable consideration in determining a transaction price.

Northwell uses a portfolio approach to account for categories of patient contracts as a collective group, rather than recognizing revenue on an individual contract basis. The portfolios consist of major payer classes for Patient Revenue. Based on historical collection trends and other analyses, Northwell believes that revenue recognized by utilizing the portfolio approach approximates the revenue that would have been recognized if an individual contract approach was used.

Northwell's initial estimate of the transaction price for services provided to patients subject to revenue recognition is determined by reducing the total standard charges related to the patient services provided by various elements of variable consideration, including contractual adjustments, discounts, implicit price concessions and other reductions to Northwell's standard charges. Northwell determines the transaction price associated with services provided to patients who have third-party payer coverage on the basis of contractual rates, governmental rates or established charges for the services rendered. The estimates for contractual allowances and discounts are based on contractual agreements, Northwell's discount policies and historical experience. For uninsured patients who are ineligible for any government assistance program, Northwell provides services without charge or at amounts less than its established rates for patients who meet the criteria of its charity care policy. Because Northwell does not pursue collection of amounts determined to qualify as charity care, such services are not reported as Patient Revenue. For uninsured and under-insured patients who do not qualify for charity care, Northwell determines the transaction price associated with services on the basis of charges reduced by implicit price concessions. Implicit price concessions included in the estimate of the transaction price are based on Northwell's historical collection experience for applicable patient portfolios.

Generally, Northwell bills patients and third-party payers several days after the services are performed and/or the patient is discharged. Patient Revenue is recognized as performance obligations are satisfied. Performance obligations are determined based on the nature of the services provided by Northwell. Patient Revenue for performance obligations satisfied over time is recognized based on actual charges incurred in relation to total charges. Northwell believes that this method provides a reasonable depiction of the transfer of services over the term of the performance obligation based on the services needed to satisfy the obligation. Generally,

Notes to Consolidated Financial Statements (continued) (In Thousands)

3. Accounts Receivable and Patient Revenue (continued)

performance obligations satisfied over time relate to patients receiving inpatient acute care services or patients receiving services in Northwell's outpatient and ambulatory care centers. Northwell measures the performance obligation from admission into the hospital or the commencement of an outpatient or physician service to the point when it is no longer required to provide services to that patient, which is generally at the time of discharge or the completion of the outpatient or physician visit.

Substantially all of Northwell's performance obligations relate to contracts with a duration of less than one year; the unsatisfied or partially unsatisfied performance obligations referred to below are primarily related to inpatient acute care services at the end of the reporting period for patients who remain admitted at that time (in-house patients). As such, accounts receivable related to inhouse patients are considered contract assets as the performance obligation is not completed until the patients are discharged, which for the majority of the in-house patients occur within days or weeks after the end of the reporting period and at which point Northwell has the right to bill.

At December 31, 2019 and 2018, accounts receivable for services to patients, net is comprised of the following components:

	2019	2018
Receivables for services to patients	\$ 1,203,722	
Contract assets (for in-house patients)	81,820	72,527
	\$ 1,285,542	\$ 1,130,325

Subsequent changes to the estimate of the transaction price (determined on a portfolio basis when applicable) are generally recorded as adjustments to Patient Revenue in the period of the change. For the years ended December 31, 2019 and 2018, changes in Northwell's estimates of implicit price concessions, discounts, contractual adjustments or other reductions to expected payments for performance obligations satisfied in prior years were not significant. Portfolio collection estimates are updated periodically based on collection trends. Subsequent changes that are determined to be the result of an adverse change in the patient's ability to pay (determined on a portfolio basis when applicable) are recorded as bad debt expense in supplies and expenses in the accompanying consolidated statements of operations. Bad debt expense and the related allowance for uncollectible accounts as of and for the years ended and as of December 31, 2019 and 2018 were not significant.

Notes to Consolidated Financial Statements (continued) (In Thousands)

3. Accounts Receivable and Patient Revenue (continued)

Northwell has determined that the nature, amount, timing and uncertainty of revenue and cash flows are primarily affected by its mix of payers and services.

Patient Revenue for the years ended December 31, 2019 and 2018, by payer, is approximately as follows:

	2019	2018
Medicare and Medicare managed care	\$ 3,785,000	\$ 3,598,000
Medicaid and Medicaid managed care	1,615,000	1,548,000
Self-pay	80,000	87,000
Other third-party payers	6,113,000	5,384,000
	\$ 11,593,000	\$ 10,617,000

Deductibles, copayments and coinsurance under third-party payment programs which are the patient's responsibility are included within the appropriate payer category above.

Patient Revenue for the years ended December 31, 2019 and 2018, disaggregated by lines of service, is as follows:

	2019	2018
Net patient service revenue: Hospitals	\$ 9,241,342	\$ 8,512,094
Joint venture ambulatory surgery centers	69,430	63,382
Stern (skilled nursing facility and rehabilitation center)	58,161	56,727
Hospice Care Network	50,211	50,237
RegionCare, Inc.	51,802	51,745
Other	29,313	27,937
Net patient service revenue	9,500,259	8,762,122
Physician practice revenue	2,093,076	1,854,861
Total Patient Revenue	\$ 11,593,335	\$ 10,616,983

Notes to Consolidated Financial Statements (continued) (In Thousands)

3. Accounts Receivable and Patient Revenue (continued)

Third-Party Payment Programs

Northwell has agreements with third-party payers that provide for payment for services rendered at amounts different from its established charges. A summary of the payment arrangements with major third-party payers follows:

Non-Medicare

In New York State, hospitals and all non-Medicare payers (including Medicare and Medicaid managed care plans), except Medicaid, workers' compensation and no-fault insurance programs, negotiate payment rates. If negotiated rates are not established, payers are billed at hospitals' established charges. Medicaid, workers' compensation and no-fault payers pay hospital rates promulgated by the NYSDOH. Payments to hospitals for Medicaid, workers' compensation and no-fault inpatient services are based on a statewide prospective payment system, with retroactive and/or prospective adjustments for certain rate components paid concurrently with the settlement of the final rate. Outpatient services also are paid based on a statewide prospective system. Medicaid rate methodologies are subject to approval at the Federal level by the Centers for Medicare and Medicaid Services (CMS), which may routinely request information about such methodologies prior to approval. Revenue related to specific rate components that have not been approved by CMS is not recognized until Northwell is reasonably assured that such amounts are realizable. Adjustments to the current and prior years' payment rates for those payers will continue to be made in future years.

Medicare

Hospitals are paid for most Medicare inpatient and outpatient services under national prospective payment systems and other methodologies of the Medicare program for certain other services. Federal regulations provide for certain adjustments to current and prior years' payment rates, based on industry-wide and Northwell-specific data.

Notes to Consolidated Financial Statements (continued) (In Thousands)

3. Accounts Receivable and Patient Revenue (continued)

Northwell has established estimates, based on information presently available, of amounts due to or from Medicare and non-Medicare payers for adjustments to current and prior years' payment rates, based on industry-wide and Northwell-specific data. The current Medicaid, Medicare and other third-party payer programs are based upon extremely complex laws and regulations that are subject to interpretation. Noncompliance with such laws and regulations could result in fines, penalties and exclusion from such programs. Northwell is not aware of any allegations of noncompliance that could have a material adverse effect on the accompanying consolidated financial statements and believes that it is in compliance with all applicable laws and regulations. Medicare cost reports, which are filed individually by the applicable Northwell entities and serve as the basis for final settlement with the Medicare program, have been audited by the Medicare fiscal intermediary and settled through years ranging from 2000 to 2017. Other years remain open for audit and settlement, as do certain issues related to the New York State Medicaid program for prior years. As a result, there is at least a reasonable possibility that recorded estimates will change by a material amount when open years are settled and additional information is obtained.

Settlements with third-party payers for cost report filings and retroactive adjustments due to ongoing and future audits, reviews or investigations are considered variable consideration and are included in the determination of Patient Revenue. These settlements are estimated based on the terms of the payment agreement with the payer, correspondence from the payer and Northwell's historical settlement activity (for example, cost report final settlements or repayments related to recovery audits), 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. Such estimates are determined through either a probability-weighted estimate or an estimate of the most likely amount, depending on the circumstances related to a given estimated settlement item. Estimated settlements are adjusted in future periods as adjustments become known (that is, new information becomes available), or as years are settled or are no longer subject to such audits, reviews and investigations. Changes in estimates relating to prior year settlements were not significant for the years ended December 31, 2019 and 2018.

Notes to Consolidated Financial Statements (continued) (In Thousands)

3. Accounts Receivable and Patient Revenue (continued)

There are various proposals at the Federal and State levels that could, among other things, significantly reduce payment rates or modify payment methods. The ultimate outcome of these proposals and other market changes, including the potential effects of revisions to health care regulations that may be enacted by the Federal and State governments, cannot presently be determined. Future changes in the Medicare and Medicaid programs and any reduction of funding could have an adverse impact on Northwell. Additionally, certain payers' payment rates for various years have been appealed by certain members of Northwell. If the appeals are successful, additional income applicable to those years might be realized.

Northwell grants credit without collateral to its patients, most of whom are insured under various third-party agreements. The significant concentrations of accounts receivable for services to patients at December 31, 2019 and 2018 were as follows:

	December 31			
	2019	2018		
Medicare and Medicare managed care	32%	33%		
Medicaid and Medicaid managed care	20	20		
Self-pay	5	5		
Other third-party payers	43	42		
	100%	100%		

Charity Care

Together, charity care, implicit price concessions and bad debt expense represent uncompensated care. The estimated cost of total uncompensated care was approximately \$357,000 and \$340,000 for the years ended December 31, 2019 and 2018, respectively. The estimated cost of charity care provided was approximately \$260,000 and \$250,000 for the years ended December 31, 2019 and 2018, respectively. The estimated cost of uncompensated care and charity care is based on the ratio of cost to charges, as determined using Northwell-specific data.

The NYSDOH Hospital Indigent Care Pool (the Pool) was established to provide funds to hospitals for the provision of uncompensated care and is funded, in part, by a 1% assessment on hospital net inpatient service revenue. For the years ended December 31, 2019 and 2018, Northwell received \$66,476 and \$69,040, respectively. Northwell made payments into the Pool of \$60,132 and \$54,752 for the years ended December 31, 2019 and 2018, respectively, for the 1% assessment.

Notes to Consolidated Financial Statements (continued) (In Thousands)

4. Cash, Investments and Liquidity

Northwell's cash, cash equivalents and investments are reported in the consolidated statements of financial position as presented below at December 31, 2019 and 2018:

	 2019	2018
Cash and cash equivalents	\$ 535,619	· · · · · · · · · · · · · · · · · · ·
Short-term investments	2,931,431	2,581,695
Long-term investments	 2,532,060	2,066,327
Total cash, cash equivalents and investments	5,999,110	5,186,986
Less assets limited as to use:		
Management designated malpractice and other		
self-insurance assets	720,251	965,846
Other management designated assets*	1,283,324	644,575
Donor restricted assets	308,948	265,897
Deferred employee compensation plan assets	243,250	184,400
Assets under bond indentures and other	121,515	75,195
Total assets limited as to use	2,677,288	2,135,913
Total unrestricted cash, cash equivalents and investments	\$ 3,321,822	\$ 3,051,073

^{*}Other management designated assets include sinking funds established to repay Northwell's debt and proceeds from taxable bond issues and other amounts designated to fund future capital expenditures and investments.

The total unrestricted cash, cash equivalents and investments is used in Northwell's days cash on hand calculation, a required financial ratio for certain debt compliance covenants (see Note 8).

Short-term investments include \$225,030 and \$166,290 of assets limited as to use at December 31, 2019 and 2018, respectively. Long-term investments include \$2,452,258 and \$1,969,623 of assets limited as to use at December 31, 2019 and 2018, respectively.

In September 2019, \$364,000 of management designated malpractice and other self-insurance assets were transferred to the Northwell Health Cash Balance Plan (the Cash Balance Plan) (see Note 10), which resulted in certain financial benefits and cash flow savings.

Notes to Consolidated Financial Statements (continued) (In Thousands)

4. Cash, Investments and Liquidity (continued)

Cash and cash equivalents, short-term investments and long term-investments, stated on the applicable measurement basis as described in Note 2, consist of the following at December 31, 2019:

		Total	nrestricted Cash and ivestments		Assets mited as to Use	
Cash and cash equivalents (including amounts		10001	11	1 v estillents		<u> </u>
in the investment portfolio)	\$	979,253	2	816,862	2	162,391
U.S. Government obligations	Ψ	410,326	Ψ	337,616	Ψ	72,710
Corporate and other bonds		518,725		464,643		54,082
Fixed income mutual funds						
		450,547		371,217		79,330
Commingled fixed income funds		612,479		100,565		511,914
Equity securities		1,015,540		771,283		244,257
Equity mutual funds		785,480		451,022		334,458
Commingled equity funds		281,166		_		281,166
Target-age mutual funds		73,727		_		73,727
Funds of hedge funds		552,945		_		552,945
Hedge funds		480		_		480
Private equity funds		24,464		_		24,464
Private real estate funds		5,301		_		5,301
Non-clinical joint venture investments		187,340		_		187,340
Interest and other receivables		101,337		8,614		92,723
	\$	5,999,110	\$	3,321,822	\$	2,677,288

Notes to Consolidated Financial Statements (continued) (In Thousands)

4. Cash, Investments and Liquidity (continued)

Cash and cash equivalents, short-term investments and long term-investments, stated on the applicable measurement basis as described in Note 2, consist of the following at December 31, 2018:

		\mathbf{U}_{1}	nrestricted			
		(Cash and	Li	mited as to	
	 Total	Ir	vestments		Use	
Cash and cash equivalents (including amounts						
in the investment portfolio)	\$ 961,646	\$	847,903	\$	113,743	
U.S. Government obligations	356,098		296,086		60,012	
Corporate and other bonds	440,259		407,154		33,105	
Fixed income mutual funds	339,731		231,566		108,165	
Commingled fixed income funds	646,314		284,813		361,501	
Equity securities	703,431		615,163		88,268	
Equity mutual funds	555,495		360,623		194,872	
Commingled equity funds	183,742		_		183,742	
Target-age mutual funds	50,440		_		50,440	
Commingled risk-parity funds	199,953		_		199,953	
Funds of hedge funds	530,197		_		530,197	
Hedge funds	446		_		446	
Private equity funds	15,351		_		15,351	
Private real estate funds	4,992		_		4,992	
Non-clinical joint venture investments	170,935		_		170,935	
Interest and other receivables	27,956		7,765		20,191	
	\$ 5,186,986	\$	3,051,073	\$	2,135,913	

Notes to Consolidated Financial Statements (continued) (In Thousands)

4. Cash, Investments and Liquidity (continued)

Investment income and the change in net unrealized gains and losses and change in value of equity method investments are comprised of the following for the years ended December 31, 2019 and 2018:

				2019		
		Without Donor estrictions		ith Donor		Total
Investment income: Interest and dividend income, net of fees Net realized gains and losses Less interest and dividend income on malpractice and other self-insurance assets (included in	\$	73,082 115,260	\$	3,306 6,951	\$	76,388 122,211
other operating revenue)	<u> </u>	(16,598)	Φ.	10.257	•	(16,598)
	\$	171,744	\$	10,257	\$	182,001
Change in net unrealized gains and losses and change in value of equity method investments:	•	222 000	•			2- (-)
Change in net unrealized gains and losses Equity method investment gains	\$	333,809 67,301	\$	22,951 6,763	\$	356,760 74,064
Equity method investment gains	\$	401,110	\$	29,714	\$	430,824
				2018		
		Without	***			
		Donor		ith Donor		Tatel
Investment income: Interest and dividend income, net of fees Net realized gains and losses Less interest and dividend income on malpractice					\$	Total 51,337 107,909
Interest and dividend income, net of fees	R (Donor estrictions 48,466 97,401 (15,771)	\$	2,871 10,508	Ť	51,337 107,909 (15,771)
Interest and dividend income, net of fees Net realized gains and losses Less interest and dividend income on malpractice and other self-insurance assets (included in	R	Donor estrictions 48,466 97,401	Re	ith Donor estrictions	\$	51,337 107,909
Interest and dividend income, net of fees Net realized gains and losses Less interest and dividend income on malpractice and other self-insurance assets (included in other operating revenue) Change in net unrealized gains and losses and change in value of equity method investments:	\$ \$	Donor estrictions 48,466 97,401 (15,771) 130,096	\$ \$	2,871 10,508	\$	51,337 107,909 (15,771) 143,475
Interest and dividend income, net of fees Net realized gains and losses Less interest and dividend income on malpractice and other self-insurance assets (included in other operating revenue) Change in net unrealized gains and losses and change in value of equity method investments: Change in net unrealized gains and losses	R (48,466 97,401 (15,771) 130,096	\$ \$	2,871 10,508 ————————————————————————————————————	\$	51,337 107,909 (15,771) 143,475 (278,926)
Interest and dividend income, net of fees Net realized gains and losses Less interest and dividend income on malpractice and other self-insurance assets (included in other operating revenue) Change in net unrealized gains and losses and change in value of equity method investments:	\$ \$	Donor estrictions 48,466 97,401 (15,771) 130,096	\$ \$	2,871 10,508	\$	51,337 107,909 (15,771) 143,475

Notes to Consolidated Financial Statements (continued) (In Thousands)

4. Cash, Investments and Liquidity (continued)

Liquidity

Financial assets available for general expenditure within one year of the consolidated statement of financial position date consist of the following at December 31, 2019 and 2018:

	 2019	2018
Cash and cash equivalents	\$ 535,619	\$ 538,964
Short-term investments	2,706,401	2,415,405
Accounts receivable for services to patients, net	1,285,542	1,130,325
Accounts receivable for physician activities, net	255,893	205,422
	\$ 4,783,455	\$ 4,290,116

In addition to the assets above, Northwell also has assets limited as to use of \$225,030 and \$166,290 included within short-term investments on the accompanying consolidated statements of financial position at December 31, 2019 and 2018, respectively, which are designated to be used within the next year. Also, included within long-term investments on the accompanying consolidated statements of financial position at December 31, 2019 and 2018 are certain management designated assets limited as to use not currently available for general expenditure within the next year, but which could be made available if necessary. Refer to Note 2 for further discussion of assets limited as to use.

As part of Northwell's liquidity management plan, cash in excess of daily requirements is invested in marketable securities and other investments.

Additionally, Northwell has entered into various unsecured revolving credit facilities with commercial banks, as discussed in more detail in Note 8. As of December 31, 2019 and 2018, \$197,000 and \$188,500, respectively, remain available on such arrangements.

Notes to Consolidated Financial Statements (continued) (In Thousands)

5. Pledges Receivable

Pledges receivable at December 31, 2019 and 2018 consist of the following:

	 2019	2018
Amounts expected to be collected in:		
Less than one year	\$ 63,901 \$	80,032
One to five years	103,806	105,910
More than five years	29,881	31,646
	 197,588	217,588
Less:		
Discount to present value future cash flows (discount		
rates ranging from 0.75% to 4.68%)	15,174	15,588
Allowance for uncollectible amounts	35,127	35,264
Current portion of pledges receivable	 47,316	67,590
Pledges receivable, net of current portion	\$ 99,971 \$	99,146

6. Property, Plant and Equipment

Property, plant and equipment and accumulated depreciation and amortization at December 31, 2019 and 2018 are summarized as follows:

		2019	2018
Land	\$	776,957	\$ 774,496
Land improvements		27,639	27,915
Buildings and fixed equipment		4,484,488	4,228,163
Movable equipment		2,147,277	1,950,463
Leasehold improvements		36,587	32,843
	·	7,472,948	7,013,880
Less accumulated depreciation and amortization		2,566,555	2,337,482
	·	4,906,393	4,676,398
Construction-in-progress		641,924	716,164
	\$	5,548,317	\$ 5,392,562

Northwell wrote off approximately \$282,000 and \$271,000 of fully depreciated assets in 2019 and 2018, respectively.

Notes to Consolidated Financial Statements (continued) (In Thousands)

6. Property, Plant and Equipment (continued)

Net interest capitalized for the years ended December 31, 2019 and 2018 was approximately \$9,000 and \$13,000, respectively.

7. Leases

As described in Note 2, Northwell adopted ASU 2016-02 effective January 1, 2019. Northwell leases certain medical offices, administrative offices and equipment under finance and operating leases. At the inception of a contract, a determination is made if the arrangement is or contains a lease. Leases are classified as either finance or operating leases, based on the underlying terms of the agreement and certain criteria, such as the term of the lease relative to the useful life of the asset and the total lease payments to be made as compared to the fair value of the asset, among other criteria.

As of December 31, 2019 and 2018, assets acquired under finance leases of \$187,587 and \$158,549, respectively, and accumulated amortization associated with finance leases of \$20,635 and \$13,773, respectively, are recorded in property, plant and equipment, net in the consolidated statements of financial position. As a result of implementing ASU 2016-02, certain transactions previously classified as long-term debt were reclassified as of January 1, 2019 and are now reported as finance leases.

Northwell's right-of-use assets pertaining to operating leases represent the right to use the agreement's underlying assets for the lease term, and the corresponding lease liabilities represent the obligation to make lease payments arising from the lease. Such right-of-use assets and lease liabilities are recognized at the lease's commencement date at the present value of lease payments over the lease term for leases with initial terms greater than one year. The present value of lease payments is calculated by utilizing the discount rate implicit in the lease, when readily determinable. For leases for which this rate is not readily determinable, Northwell uses its incremental borrowing rate for financing over a comparable period as the discount rate. A rightof-use asset and lease liability are not recognized for leases with an initial term of 12 months or less. Northwell recognizes lease expense for operating leases over the lease term within supplies and expenses on the consolidated statements of operations. The deferred rent liability resulting from recording operating lease expense using the straight-line method is recorded within the other long-term liabilities line of the accompanying consolidated statement of financial position at December 31, 2018. As a result of implementing ASU 2016-02, this amount is now reported as a reduction to the right-of-use assets - operating leases line of the accompanying consolidated statement of financial position at December 31, 2019.

Notes to Consolidated Financial Statements (continued) (In Thousands)

7. Leases (continued)

Northwell's operating and finance leases have remaining lease terms, ranging from less than one year to sixty-five years, some of which may include options to extend. Lease payments related to periods subject to renewal options are excluded from the amounts used to determine the right-of-use leased assets and liabilities, unless Northwell is reasonably certain to exercise the option to extend the lease. Northwell's leases may also include variable lease payments. Variable lease payments are excluded from the amounts used to determine the right-of-use leased assets and liabilities, unless the variable lease payments depend on an index or rate or are in substance fixed payments.

Northwell has made an election for all leases to not separate lease components from non-lease components in contracts in the accounting for its lease payments, as permitted by ASU 2016-02. As such, Northwell accounts for the applicable non-lease components (e.g., fixed common area maintenance costs), together with the related lease components when determining the right-of-use assets and lease liabilities.

Operating leases with a present value of approximately \$900,000 were recorded as right-of-use liabilities and assets as of January 1, 2019 upon the adoption of ASU 2016-02.

The components of lease cost included in the accompanying consolidated statement of operations for the year ended December 31, 2019 are as follows:

Finance lease cost:	
Amortization of assets acquired under finance leases	\$ 6,508
Interest on finance lease obligations	16,924
Operating lease cost:	
Lease cost – leases with terms greater than one year	190,136
Short-term lease cost	3,309
Variable lease cost	26,654
Total lease cost	\$ 243,531

For the year ended December 31, 2018, rent expense under operating leases was approximately \$150,000.

Notes to Consolidated Financial Statements (continued) (In Thousands)

7. Leases (continued)

Other information related to leases and supplemental cash flows as of and for the year ended December 31, 2019 are as follows:

Operating cash flows for interest on finance leases	\$ 16,924
Operating cash flows from operating leases*	174,388
Financing cash flows from finance leases	6,918
Assets acquired under new finance lease obligations Right-of-use leased assets obtained in exchange for new operating lease	14,230
obligations	164,481
Weighted-average remaining lease term:	
Finance leases	26 years
Operating leases	11 years
Weighted-average discount rate on finance leases	7.9%
Weighted-average discount rate on operating leases	4.1%

^{*} Cash flows relating to operating lease costs for leases with terms greater than one year. Excludes variable lease costs.

Notes to Consolidated Financial Statements (continued) (In Thousands)

7. Leases (continued)

The following table reconciles the undiscounted future lease payments to the lease obligations recorded on the accompanying consolidated statement of financial position at December 31, 2019:

	 Operating	Finance
2020	\$ 155,748	\$ 22,598
2021	148,332	21,823
2022	130,925	20,654
2023	115,891	19,622
2024	104,888	19,197
Thereafter	 608,386	432,652
Total minimum future payments	1,264,170	536,546
Less: Interest	276,128	299,422
Less: Net unamortized issuance costs	_	2,042
Total liabilities	988,042	235,082
Less: Current portion	 118,163	7,263
Long-term liabilities	\$ 869,879	\$ 227,819

8. Debt

Long-Term Debt

Long-term debt at December 31, 2019 and 2018 consists of the following:

	2019	2018
Bonds payable at varying dates through November 2049,		
at fixed and variable interest rates ranging from 3.00%		
to 6.15%	\$ 3,228,562	\$ 2,666,010
Other long-term debt payable at varying dates through		
September 2045 at variable and fixed interest rates		
ranging from 2.00% to 4.46%	519,017	581,164
Total long-term debt	3,747,579	3,247,174
Less current portion of bonds payable	39,696	37,538
Less current portion of other long-term debt	17,254	17,931
Less net unamortized debt issuance costs	26,399	23,393
Add net unamortized bond premium	51,704	30,727
	\$ 3,715,934	\$ 3,199,039

Notes to Consolidated Financial Statements (continued) (In Thousands)

8. Debt (continued)

Annual aggregate principal payments applicable to long-term debt for years subsequent to December 31, 2019 are as follows:

			Other	
	Bonds	L	ong-Term	
	Payable		Debt	Total
Year ended December 31:				
2020	\$ 39,696	\$	17,254	\$ 56,950
2021	30,149		28,787	58,936
2022 ^(a)	31,222		30,744	61,966
2023	30,105		29,100	59,205
2024 ^(b)	26,603		30,628	57,231
Thereafter	3,070,787		382,504	3,453,291
	\$ 3,228,562	\$	519,017	\$ 3,747,579

⁽a) \$53,730 of Series 2019B-1 bonds subject to mandatory tender for purchase on May 1, 2022 are excluded from the principal payments noted above. Northwell has an option to refinance these bonds at that date.

Most of Northwell's debt arrangements include security agreements of various types. The agreements include, among other provisions, the pledging as collateral certain assets and revenues, and limitations on the use of assets, including restrictions on the transfer of assets to entities outside Northwell. At December 31, 2019 and 2018, the majority of Northwell's assets were pledged as collateral under the terms of various debt agreements. In addition, certain debt agreements contain covenants related to the maintenance of financial ratios, including debt service coverage ratios and days cash on hand, and the maintenance of certain debt service and other reserve funds included in assets limited as to use. At December 31, 2019 and 2018, Northwell was in compliance with the financial covenants.

⁽b) \$53,725 of Series 2019B-2 bonds subject to mandatory tender for purchase on May 1, 2024 are excluded from the principal payments noted above. Northwell has an option to refinance these bonds at that date.

Notes to Consolidated Financial Statements (continued) (In Thousands)

8. Debt (continued)

Bonds Payable

Bonds payable by Northwell consist of the following at December 31, 2019:

	Interest Structure	Final Maturity	itstanding Principal
Obligated Group		-	
Series 2019A (taxable)	Fixed	2049	\$ 447,675
Series 2019A	Fixed	2033	41,145
Series 2019B	Fixed	2048 ^(f)	161,180
Series 2017A (taxable)	Fixed	2047	956,919
Series 2016A (taxable)	Fixed	2046	500,000
Series 2015A	Fixed	2043	476,275
Series 2013A (taxable)	Fixed	2043	250,000
Series 2012A	Fixed	2023	12,875
Series 2012B (taxable)	Fixed	2042	135,000
Series 2009B	Fixed	2039	50,000
Series 2009C	Fixed	2039	37,500
Series 2009D	Fixed	2039	37,500
Other			
Phelps Series 2013 (a)	Fixed	2038	10,640
Phelps Series 2005 A and B (a)	Fixed	2030	15,885
Northern Westchester Series 2014 (b)	Fixed	2039	29,603
Northern Westchester Series 2009 (b)	Variable	2032	9,270
Northern Westchester Series 2004 (b)	Variable (e)	2024	5,540
Peconic Series A (c)	Variable (e)	2031	5,270
Peconic Series B (c)	Variable (e)	2031	10,305
Peconic Series D (c)	Variable (e)	2032	8,670
Mather Series 2013 (d)	Variable (e)	2043	20,760
Mather Series 2012 (d)	Variable (e)	2022	 6,550
			\$ 3,228,562

⁽a) Phelps is party to direct purchase agreements with a commercial bank expiring in 2025 and 2030 for its Series 2013 and Series 2005 A and B bonds, respectively.

⁽b) Northern Westchester is party to direct purchase agreements with two commercial banks expiring in 2024 for its Series 2014 Series bonds. Northern Westchester's Series 2009 and 2004 bonds are backed by commercial bank direct pay letters of credit expiring in 2024 and 2022, respectively.

⁽c) Peconic is party to an agented direct purchase agreement with three commercial bank parties expiring in 2022 for its three outstanding bond issues.

⁽d) Mather is party to direct purchase agreements with a commercial bank expiring in 2023 and 2022 for its Series 2013 and 2012 bonds, respectively.

⁽e) Variable rate debt is swapped to a fixed rate via interest rate swap agreements.

⁽f) \$53,730, \$53,725 and \$53,725 subject to mandatory tender for purchase on May 1, 2022, May 1, 2024 and May 1, 2026, respectively.

Notes to Consolidated Financial Statements (continued) (In Thousands)

8. Debt (continued)

The Series 2019A, 2017A, 2016A, 2013A and 2012B bonds are taxable bonds and were each issued by HCI as a joint and several obligation of the Obligated Group. The bonds of Phelps, Northern Westchester, Peconic and Mather are tax-exempt and are not obligations of the Obligated Group. All other bonds are tax-exempt and were issued through the Dormitory Authority of the State of New York (DASNY) on behalf of the Obligated Group.

In September 2019, HCI issued \$447,675 of taxable Northwell Health Series 2019A bonds. The Series 2019A taxable bonds were issued by HCI as a joint and several general obligation of the Obligated Group. The Series 2019A taxable bonds bear interest at a fixed rate, payable semi-annually, with a maturity date of November 1, 2049. The proceeds from the Series 2019A taxable bonds will primarily be used for capital investments.

In September 2019, the Obligated Group issued \$41,145 of tax-exempt revenue bonds through the DASNY Series 2019A bonds. The DASNY Series 2019A bonds were sold at a premium of \$4,276 and bear interest at a fixed rate, payable semi-annually, with a final maturity date of May 1, 2033. The proceeds from the DASNY Series 2019A bonds, along with existing trustee-held Series 2009E debt service funds, were used to refund \$49,910 in Series 2009E bonds of the Obligated Group. A loss on refunding of long-term debt of \$519 resulted from the refunding.

In September 2019, the Obligated Group also issued \$161,180 of tax-exempt revenue bonds through the DASNY Series 2019B bonds. The DASNY Series 2019B bonds were sold at a premium of \$20,888 and bear interest at a fixed rate, payable semi-annually through May 1, 2048, with mandatory purchase dates ranging from May 1, 2022 through May 1, 2026. The proceeds from the DASNY Series 2019B bonds were and will be used to finance capital projects for certain members of the Obligated Group.

For certain Obligated Group bonds that were included in a prior year refunding transaction, funds were placed in escrow with a trustee to pay bondholders at future redemption dates. These funds and the liability for the corresponding bonds are excluded from Northwell's consolidated statements of financial position at December 31, 2019 and 2018. At December 31, 2019, outstanding principal amounts to be paid from escrow to bondholders are \$324,875 and have a final redemption date of May 1, 2021.

Notes to Consolidated Financial Statements (continued) (In Thousands)

8. Debt (continued)

Other Long-Term Debt

Other long-term debt consists of the following at December 31, 2019:

	Interest Structure	Final Maturity		itstanding Principal
Obligated Group 2014 Private Placement Notes Payable	Fixed	2030	\$	245,285
2014 I IIvate I facement Notes I ayable	Tixeu	2030	Ψ	243,263
Other				
LIJMC's Center for Advanced Medicine				
Mortgage	Fixed	2045		196,546
Real Estate Financing	Fixed	2045		26,762
Staten Island Term Loan	Fixed	2023		14,000
Lenox Mortgage	Variable	2029		18,347
Phelps Mortgage	Fixed	2031		2,942
Northern Westchester Term Loan	Variable	2022		3,000
Peconic Loans	Variable	2027		6,075
Other Loans	Fixed	2026		6,060
			\$	519,017

Short-Term Borrowings

Certain members of Northwell have entered into several unsecured revolving credit facilities with commercial banks with commitment availability through dates currently ranging from May 31, 2020 to September 30, 2022. Borrowings under these credit facilities are short-term and are primarily used to provide interim financing for capital improvement projects, with repayment to be provided from bond proceeds and/or the receipt of fundraising proceeds from capital campaigns. Additionally, amounts can be used to provide backup financing for the support of the certificate of need process as required by the NYSDOH and short-term working capital to support the monthly operating cash conversion cycle. Total credit available under such arrangements is \$292,000. Balances outstanding from these borrowings are \$95,000 and \$103,500 at December 31, 2019 and 2018, respectively.

Notes to Consolidated Financial Statements (continued) (In Thousands)

9. Fair Values of Financial Instruments

For assets and liabilities required to be measured at fair value, Northwell measures fair value based on 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. Fair value measurements are applied based on the unit of account from Northwell's perspective. The unit of account determines what is being measured by reference to the level at which the asset or liability is aggregated (or disaggregated) for purposes of applying other accounting pronouncements.

Northwell follows a valuation hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels, which are described below:

- Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for identical assets or liabilities.
- Level 2: Observable inputs that are based on inputs not quoted in active markets, but corroborated by market data.
- Level 3: Unobservable inputs are used when little or no market data is available.

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. In determining fair value, Northwell uses valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and considers nonperformance risk in its assessment of fair value.

A financial instrument's categorization within the three levels of the valuation hierarchy is not indicative of the investment risk associated with the underlying assets.

Notes to Consolidated Financial Statements (continued) (In Thousands)

9. Fair Values of Financial Instruments (continued)

Financial assets and liabilities carried at fair value as of December 31, 2019 are classified in the following table in one of the three categories described previously:

	2019					
	 Level 1		Level 2		Level 3	Total
Assets						
Cash and cash equivalents (including amounts in the						
investment portfolio)	\$ 979,253	\$	_	\$	- \$	979,253
Fixed income obligations:	,					,
U.S. Government obligations	152,491		257,835		_	410,326
Corporate and other bonds	_		518,725		_	518,725
Fixed income mutual funds	450,547		_		_	450,547
Commingled fixed income						
funds*	_		267,342		_	267,342
Equity securities:						
Value	444,598		_		_	444,598
Small cap	162,855		_		_	162,855
Global	273,653		_		_	273,653
Growth	134,434		_		_	134,434
Equity mutual funds	785,480		_		_	785,480
Commingled equity funds*	_		216,308		_	216,308
Target-age mutual funds	73,727		_		_	73,727
Interest and other receivables	27,027		_		_	27,027
Liabilities						
Interest rate swap agreements	 _		(6,130)		_	(6,130)
	\$ 3,484,065	\$	1,254,080	\$	- \$	4,738,145

Notes to Consolidated Financial Statements (continued) (In Thousands)

9. Fair Values of Financial Instruments (continued)

Financial assets and liabilities carried at fair value as of December 31, 2018 are classified in the following table in one of the three categories described previously:

		Level 1		T 10			
		20,011		Level 2	Level 3		Total
Assets							
Cash and cash equivalents							
(including amounts in the	Φ	061 646	Φ		Φ	Φ	061 646
investment portfolio)	\$	961,646	>	_	\$ -	\$	961,646
Fixed income obligations:							
U.S. Government obligations		100,189		255,909	_		356,098
Corporate and other bonds		_		440,259	_		440,259
Fixed income mutual funds		339,731		_	_		339,731
Equity securities:							
Value		288,137		_	_		288,137
Small cap		116,179		_	_		116,179
Global		206,806		_	_		206,806
Growth		92,309		_	_		92,309
Equity mutual funds		555,495		_	_		555,495
Commingled equity funds*		_		143,566	_		143,566
Target-age mutual funds		50,440		_	_		50,440
Interest and other receivables		13,093		_	_		13,093
Liabilities							
Interest rate swap agreements		_		(4,933)	_		(4,933)
	\$	2,724,025	\$	834,801	\$ -	\$	3,558,826

^{*} Certain of Northwell's commingled fixed income and commingled equity fund investments are valued based on inputs not quoted in active markets, but corroborated by market data, while other commingled fixed income and commingled equity fund investments are recorded on the equity method of accounting and excluded from the fair value tables above.

Notes to Consolidated Financial Statements (continued) (In Thousands)

9. Fair Values of Financial Instruments (continued)

Fair value for Level 1 is based upon quoted market prices. Fair value for Level 2 is 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 investment.

The amounts reported in the previous tables exclude certain amounts reported as investments, including investments under the equity method or at Adjusted Cost in the amounts of \$1,254,835 and \$1,623,227 at December 31, 2019 and 2018, respectively (see Note 2), and assets invested in Northwell's pension plans (see Note 10).

10. Pension Plans and Other Postretirement Benefits

Pension Plans

Northwell maintains several pension plans for its employees. The following are descriptions of such plans and the respective pension expense for the years ended December 31, 2019 and 2018.

Certain members of Northwell provide pension and similar benefits to their employees through defined contribution plans. Contributions to the defined contribution plans are based on percentages of annual salaries. It is the policy of these members to fund accrued costs under these plans on a current basis. Pension expense for 2019 and 2018 related to the defined contribution plans amounted to \$200,016 and \$178,924, respectively.

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

Certain members of Northwell contribute to various multiemployer defined benefit pension plans under the terms of collective-bargaining agreements that cover union-represented employees. The risks of participating in these multiemployer plans are different from single-employer plans in the following aspects:

- a. Assets contributed to the multiemployer plan by one employer may be used to provide benefits to employees of other participating employers.
- b. If a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- c. If Northwell stops participating in any of its multiemployer plans, it may be required to pay those plans an amount based on the underfunded status of the plan, referred to as a withdrawal liability.

Northwell's significant participation in certain multiemployer plans for the annual period ended December 31, 2019 is outlined in the following table. The following information for the 1199SEIU Health Care Employees Pension Fund (the 1199 Plan) and the New York State Nurses Association Pension Plan (the NYSNA Plan) is included within the table:

- a. The "EIN/Pension Plan Number" column provides the plans' Employee Identification Number (EIN) and the three-digit plan number.
- b. The most recent "Pension Protection Act Zone Status" available in 2019 and 2018 is for a plan's year-end at December 31, 2018 and 2017, respectively, and is based on information that Northwell received from the plans and is certified by the plans' actuaries. Among other factors, plans in the red zone are generally less than 65% funded, plans in the yellow zone are less than 80% funded and plans in the green zone are at least 80% funded.
- c. The "FIP/RP Status Pending/Implemented" column indicates plans for which a financial improvement plan (FIP) or a rehabilitation plan (RP) is either pending or has been implemented.
- d. The last column lists the expiration dates of the collective bargaining agreements to which the plans are subject.

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

	EIN/Pension	Pension P		FIP/RP Status Pending/	Contributi Northw		Surcharge	Expiration Date of Collective- Bargaining
Pension Fund	Plan Number	2019	2018	Implemented	2019	2018	Imposed	Agreements
1199 Plan ^(a)	13- 3604862/001 13-	Green	Green	N/A	\$ 96,325 \$	75,873	No	9/30/2021 to 3/31/2022 3/31/2021 to
NYSNA Plan ^(a)	6604799/001	Green	Green	N/A	\$ 15,332 \$	13,678	No	12/31/2023

⁽a) Northwell contributions represent more than 5% of total contributions to the 1199 and NYSNA Plans for the plan years ended December 31, 2019 and 2018.

In addition to the plans noted in the table above, Northwell also participates in several other multiemployer plans. Contributions for these other plans totaled \$1,083 and \$1,089 for the years ended December 31, 2019 and 2018, respectively.

Certain of Northwell's employees participate in deferred compensation plans. The liability for these plans totaled \$3,916 and \$5,616 at December 31, 2019 and 2018, respectively. In connection with these plans, Northwell deposits amounts with trustees on behalf of the participating employees. Under the terms of the plans, Northwell is not responsible for investment gains or losses incurred. The assets are restricted for payments under the plans, but may revert to Northwell under certain specified circumstances.

In addition, Northwell maintains various deferred compensation plans pursuant to Section 457(b) of the Code (the 457(b) Plans). Eligible employees may defer compensation under a salary reduction agreement, subject to certain dollar limitations. Non-elective employer contributions may also be made for some of the 457(b) Plans. Payments upon retirement or termination of employment are based on amounts credited to the individual accounts. The assets and corresponding liability for the 457(b) Plans, included in long-term investments and accrued retirement benefits in the accompanying consolidated statements of financial position, totaled \$239,334 and \$178,784 at December 31, 2019 and 2018, respectively.

Certain employees are covered by noncontributory defined benefit pension plans (the Plans), with the Cash Balance Plan being the primary plan. Northwell recognizes the funded status (i.e., the difference between the fair value of plan assets and the projected benefit obligations) of the Plans in its consolidated statements of financial position.

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

Defined Benefit Pension Plans

The following tables provide a reconciliation of the changes in the Plans' aggregated projected benefit obligation and fair value of plan assets for the years ended December 31, 2019 and 2018 and the funded status and accumulated benefit obligation of the Plans as of December 31, 2019 and 2018:

		2019	2018
Reconciliation of the projected benefit obligation			_
Obligation at January 1	\$	2,705,092	\$ 2,524,882
Inclusion of Mather obligation at Acquisition Date		_	202,931
Service cost		98,340	98,296
Interest cost		120,223	105,334
Plan amendments		_	33,944
Actuarial loss (gain)		233,398	(145,570)
Benefit payments		(208,907)	(113,281)
Settlements		(10,358)	(1,444)
Obligation at December 31	\$	2,937,788	\$ 2,705,092
Reconciliation of fair value of plan assets Fair value of plan assets at January 1 Inclusion of Mather plan assets at Acquisition Date Actual return (loss) on plan assets Employer contributions Benefit payments Settlements Fair value of plan assets at December 31	\$ <u>\$</u>	1,874,898 - 312,331 605,085 (208,907) (10,319) 2,573,088	1,789,091 155,059 (65,598) 111,160 (113,281) (1,533) 1,874,898
Funded status Funded status at December 31	\$	(364,700)	\$ (830,194)
Accumulated benefit obligation at December 31	\$	2,749,325	\$ 2,561,138

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

The current portion of accrued retirement benefits related to the Plans, included in accrued salaries and related benefits in the accompanying consolidated statements of financial position, is \$2,040 and \$2,539 at December 31, 2019 and 2018, respectively. At December 31, 2019, certain plans were funded with plan assets at a level exceeding their respective projected benefit obligation. As a result, their funded status of \$6,007 is included in other assets in the accompanying consolidated statement of financial position as of December 31, 2019.

The actuarial loss in 2019 is primarily due to the decrease in the discount rate used in the measurement of the Plans' benefit obligation. The actuarial gain in 2018 is primarily due to the increase in the discount rate.

Included in net assets without donor restrictions at December 31, 2019 and 2018 are the following amounts related to the Plans that have not yet been recognized in net periodic benefit cost:

	 2019	2018
Unrecognized actuarial loss	\$ (671,755) \$	(676,826)
Unrecognized prior service cost	 (23,474)	(37,595)
	\$ (695,229) \$	(714,421)

The Plans' actuarial loss and prior service cost included in net assets without donor restrictions expected to be recognized in net periodic benefit cost during the year ended December 31, 2020 are as follows:

Actuarial loss	\$ 41,331
Prior service cost	10,517
Increase to net periodic benefit cost	\$ 51,848

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

The following table provides the components of the net periodic benefit cost for the Plans for the years ended December 31, 2019 and 2018:

	 2019	2018
Service cost (included in employee benefits)	\$ 98,340 \$	98,296
Interest cost on projected benefit obligation	120,223	105,334
Expected return on plan assets	(122,897)	(134,957)
Amortization of actuarial loss	46,675	40,005
Amortization of prior service cost	14,120	3,525
Settlement loss	1,908	207
Total included in non-operating net periodic benefit cost	 60,029	14,114
Net periodic benefit cost	\$ 158,369 \$	112,410

Prior service costs are amortized over the average remaining service period of active participants. Actuarial gains and losses in excess of 10% of the greater of the projected benefit obligations and the market-related value of assets are amortized over the average remaining service period of active participants.

The assumptions used in the measurement of the Cash Balance Plan's benefit obligations at December 31, 2019 and 2018 are shown in the following table:

	2019	2018
		-
Discount rate	3.50%	4.35%
Rate of compensation increase	4.00%	4.00%

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

The assumptions used in the measurement of the Cash Balance Plan's net periodic benefit cost for the years ended December 31, 2019 and 2018 are shown in the following table:

	2019	2018
Discount rate	4.35%	3.75%
Expected long-term rate of return on		
plan assets	6.50%	6.75%
Rate of compensation increase	4.00%	4.00%

The Cash Balance Plan comprises 81.6% and 82.1% of the Plans' total projected benefit obligation as of December 31, 2019 and 2018, respectively, and 84.2% and 97.1% of the net periodic benefit cost for the years ended December 31, 2019 and 2018, respectively.

Benefit payments for the Plans, which reflect expected future service, as appropriate, are expected to be paid as follows:

2020	\$ 129,497
2021	141,606
2022	147,393
2023	153,629
2024	160,802
2025 to 2029	870,833

Northwell expects to make contributions of approximately \$64,000 to the Plans in 2020.

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

Defined Benefit Pension Plan Assets

The fair values of the Plans' assets at December 31, 2019, by asset category, are as follows:

	 Level 1	Level 2	Level 3	Total
Asset Category				_
Cash and short-term investments	\$ 85,709	\$ _	\$ - 5	\$ 85,709
Fixed income obligations:				
U.S. Government obligations	14,339	76,264	_	90,603
Corporate and other bonds	_	187,273	_	187,273
Fixed income mutual funds	124,346	_	_	124,346
Commingled fixed income funds	_	267,852	_	267,852
Equity securities:				
Value	113,320	_	_	113,320
Small cap	71,728	_	_	71,728
Global	294,418	_	_	294,418
Growth	59,893	_	_	59,893
Equity mutual funds	294,334	_	_	294,334
Commingled equity funds	_	99,022	_	99,022
Interest and other receivables	 4,357	_	_	4,357
	\$ 1,062,444	\$ 630,411	\$ 	1,692,855
Assets measured at net asset value:				
Commingled fixed income funds				159,370
Commingled equity funds				88,269
Funds of hedge funds				388,854
Hedge funds				22
Private equity funds				188,794
Private real estate funds			_	54,924
Total assets at fair value			<u> </u>	\$ 2,573,088

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

The fair values of the Plans' assets at December 31, 2018, by asset category, are as follows:

	Level 1	Level 2	Level 3	Total
Asset Category				
Cash and short-term investments	\$ 39,763	\$ _	\$ - \$	39,763
Fixed income obligations:				
U.S. Government obligations	7,898	20,379	_	28,277
Corporate and other bonds	_	135,796	_	135,796
Fixed income mutual funds	62,602	_	_	62,602
Commingled fixed income funds	_	85,403	_	85,403
Equity securities:				
Value	80,376	_	_	80,376
Small cap	42,115	_	_	42,115
Global	187,893	_	_	187,893
Growth	34,792	_	_	34,792
Equity mutual funds	181,231	_	_	181,231
Commingled equity funds	_	56,272	_	56,272
Interest and other receivables	4,571	_		4,571
	\$ 641,241	\$ 297,850	\$ 	939,091
Assets measured at net asset value:				
Commingled fixed income funds				311,026
Commingled equity funds				62,646
Commingled commodity fund				499
Commingled risk-parity fund				83,889
Funds of hedge funds				286,685
Hedge funds				31
Private equity funds				137,679
Private real estate funds				53,352
Total assets at fair value			\$	1,874,898
Total assets at latt value			<u> </u>	1,0/4,070

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

Assets invested in the Plans are carried at fair value. Debt and equity securities and certain commingled funds with readily determinable values are carried at fair value, as determined based on independent published sources. Other commingled funds and alternative investments are stated at fair value, determined by using net asset value as a practical expedient, as permitted by generally accepted accounting principles, rather than using another valuation method to independently estimate fair value (see Note 2).

The following is a summary of assets in the Plans at December 31, 2019 (by asset category) with redemption restrictions:

	A	sset Value	Redemption Period (Including Notice Period)
Commingled fixed income funds Commingled equity funds	\$	427,222 187,291	1 day to 60 days 2 days to 45 days
Funds of hedge funds		388,854	61 days to 29 months

Private equity and private real estate funds have long lifecycles with distributions not expected for several years. In the instance of certain redemptions, some investments noted above may require an extended waiting period to receive a remainder portion of the redemption.

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

Basis Used to Determine the Expected Long-Term Rate of Return on Assets

The overall expected long-term rate of return on assets assumption is based upon a long-term building-block approach adjusted for current market conditions. First, return expectations for each asset class are developed with economic and fundamental drivers such as inflation, dividends and real earnings growth for stocks and real yields, defaults and recoveries for bonds. These expectations assume that market levels at the beginning of the forecast period are in a state of equilibrium. With the understanding that markets are more often than not in some state of disequilibrium, the "next ten year" return forecasts are adjusted to reflect the starting point for inflation expectations, interest rate levels and market risk premiums relative to historically normal market levels. The fundamental building blocks used to develop the long-term equilibrium return expectations are based on a combination of consensus forecasts and long-term historical averages. The historical data is adjusted to reflect any fundamental changes that have occurred in the relative markets.

Once long-term equilibrium forecasts are developed, returns are adjusted for the next ten years to reflect the current environment as it relates to the key economic variables that influence returns across the capital markets. In doing so, the expected path for breakeven inflation, real interest rates and investment grade corporate bond spreads are modeled for the next ten years. In this framework, the investment grade corporate spreads are used as a proxy for the risk premium priced broadly into all asset classes within the capital markets.

While the precise expected return derived using the above approach will fluctuate somewhat from year to year, the Plans' policy is to hold this long-term assumption constant as long as it remains within a reasonable tolerance from the derived rate.

Description of Investment Policies and Strategies

The Plans' overall investment strategy is to achieve wide diversification of asset types, fund strategies and fund managers. Equity securities include investments in domestic, international, global and emerging markets equities. Fixed income securities include corporate bonds of companies from diversified industries, mortgage-backed securities, emerging markets debt and U.S. Treasuries. Other types of investments include investments in commingled funds and alternative investments that follow several different strategies.

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

There are specific guidelines and diversification standards for each investment manager. Eligible investments are specifically outlined. Each manager must disclose its strategies and report that it abides by the Employee Retirement Income Security Act of 1974 (ERISA) rules, where applicable.

The Cash Balance Plan's asset allocation at December 31, 2019 and 2018, by asset category, is as follows:

	2019	2018	Target Allocation
Cash and short-term investments	3.7%	2.6%	1.0%
Fixed income obligations, including commingled fixed income funds	32.0	32.7	33.0
Equity securities, including commingled equity funds	36.8	30.8	24.5
Commingled risk-parity funds	0.0	5.1	0.0
Alternative investments	27.5	28.8	41.5
	100.0%	100.0%	100.0%

The target allocation percentages are set as long-term diversification objectives to be met over time, as the portfolio increases the allocation to alternative investments.

The Cash Balance Plan comprises 85.0% and 83.2% of the Plans' total fair value of plan assets as of December 31, 2019 and 2018, respectively.

Other Postretirement Benefits

Certain employees are covered by the Northwell Health Retiree Medical and Life Insurance Plan and other postretirement benefit plans other than pensions. As of December 31, 2019 and 2018, the total funded status of the plans was a liability of \$36,413 and \$31,418, respectively. The current portion of accrued retirement benefits related to the plans, included in accrued salaries and related benefits in the accompanying consolidated statements of financial position, is \$1,592 and \$1,537 at December 31, 2019 and 2018, respectively.

Notes to Consolidated Financial Statements (continued) (In Thousands)

10. Pension Plans and Other Postretirement Benefits (continued)

For the years ended December 31, 2019 and 2018, there was a net periodic benefit (credit) cost related to these plans of (\$1,573) and \$335, respectively, of which \$(2,450) and \$(1,252), respectively, was recorded within non-operating net periodic benefit cost in the accompanying consolidated statements of operations.

11. Malpractice and Other Insurance Liabilities

Malpractice

Northwell provides for potential medical malpractice losses through a combination of a self-insurance program and purchased primary and excess insurance, on both a claims-made and occurrence basis, as follows:

Primary Insurance Program

From January 2003 through December 2016, Northwell purchased primary malpractice insurance on an occurrence basis, covering most hospitals. The policies provided coverage with limits of \$1,000 per claim and a \$50,000 annual policy aggregate through 2009. Effective January 2010, the program retained \$750 of the primary coverage per indemnity claim, while aggregate limits increased to \$60,000. Effective January 2013, the retention level increased to \$900 per claim. Effective January 2017, Northwell decided to fully self-insure the primary layer covering most hospitals up to \$1,000 per claim.

In December 2002, Northwell purchased a tail insurance policy to cover unreported occurrences from its prior claims-made primary insurance program.

The estimated undiscounted liability for the retained primary coverage and losses in excess of the insured primary aggregate at December 31, 2019 and 2018 was \$801,568 and \$721,206, respectively. At December 31, 2019 and 2018, the liability was recorded at the actuarially determined present value of \$749,229 and \$671,804, respectively, based on a discount rate of 2.0%. Malpractice and other insurance liabilities are discounted based on the expected timing of the actuarially estimated future claim payments under the programs, using a risk-free rate. Such estimates are reviewed and updated on an annual basis.

Notes to Consolidated Financial Statements (continued) (In Thousands)

11. Malpractice and Other Insurance Liabilities (continued)

Excess Insurance Coverage

Regional Insurance covers certain excess malpractice losses above the primary per claim limit, on a claims-made basis. Additional commercial excess malpractice insurance is purchased on a claims-made basis for excess coverage layers above the Regional Insurance per claim limit.

Regional Insurance's estimated undiscounted reserves for losses and loss expenses outstanding at December 31, 2019 and 2018 were \$116,547 and \$150,317, respectively, and were recorded at the actuarially determined present value of \$103,502 and \$144,880, respectively, based on a discount rate of 2.0%.

Effective January 1, 2015, the annual aggregate excess coverage provided by Regional Insurance was significantly reduced to \$6,500, and was subsequently increased to \$7,750 effective January 1, 2018 and \$8,375 effective January 1, 2019. This resulted in an undiscounted liability for the Northwell hospitals for estimated losses in excess of the aggregate at December 31, 2019 and 2018 of \$323,056 and \$263,671, respectively, recorded at the actuarially determined present value of \$299,580 and \$243,240, respectively, based on a 2.0% discount rate.

The estimated undiscounted incurred but not reported liability for claims in excess of primary insurance layers at December 31, 2019 and 2018 was \$116,806 and \$105,453, respectively, and was recorded at the actuarially determined present value of \$101,584 and \$91,635, respectively, based on a discount rate of 2.0%.

Other Self-Insurance Coverage

For certain years, certain Northwell hospitals and physicians were covered for malpractice claims under various other insured and self-insured arrangements. For self-insured claims and incidents, Northwell has reserved \$39,771 and \$39,308 at December 31, 2019 and 2018, respectively, based on actuarial determinations and a discount rate of 2.0%, as its best estimates of the ultimate cost of such losses.

Malpractice claims have been asserted against Northwell by various claimants. These claims are in various stages of processing, and some may ultimately be brought to trial. There are known incidents that have occurred through December 31, 2019 that may result in the assertion of additional claims, and other claims may be asserted arising from services provided to patients in the past. It is the opinion of Northwell's management that adequate insurance, including self-insurance, and malpractice reserves are being maintained to cover potential malpractice losses.

Notes to Consolidated Financial Statements (continued) (In Thousands)

11. Malpractice and Other Insurance Liabilities (continued)

Workers' Compensation

In June 2013, Northwell changed its workers' compensation insurance program from a guaranteed cost program to a high deductible program with a \$1,000 per claim retention level. At December 31, 2019 and 2018, the liability for retained losses under this program was recorded at the actuarially determined present value of \$188,810 and \$163,209, respectively, based on a discount rate of 2.0%. The estimated undiscounted liability was \$212,176 and \$182,982 at December 31, 2019 and 2018, respectively.

Prior to joining Northwell's high deductible program, certain hospitals had various self-insured programs for workers' compensation claims. At December 31, 2019 and 2018, the liability for these self-insured losses was recorded at the actuarially determined present value of \$19,278 and \$23,881, respectively, based on a discount rate of 2.0%.

Other Insurance

Some of Northwell's other insurance programs, including general liability, have a component of self-insurance or high deductibles. Liabilities for these other insurance programs were not significant at December 31, 2019 and 2018.

Notes to Consolidated Financial Statements (continued) (In Thousands)

12. Other Operating Revenue

Other operating revenue consists of the following for the years ended December 31, 2019 and 2018:

	2019		2018	
Laboratory services	\$	284,685 \$	265,005	
Pharmacy sales		156,523	110,371	
Grants and contracts		143,088	147,128	
Health plan risk pool distributions		37,019	37,196	
Rental income		32,829	29,516	
Group purchasing revenue		21,818	16,978	
Cafeteria and gift shop sales		18,497	18,093	
Investment income (see Note 4)		16,598	15,771	
MLMIC demutualization		10,858	104,075	
Health plan care coordination revenue		9,987	7,489	
Parking income		7,217	6,022	
All other		94,534	69,355	
	\$	833,653 \$	826,999	

In October 2018, Medical Liability Mutual Insurance Company (MLMIC), one of Northwell's malpractice insurers, was acquired by National Indemnity Company. As a result of the acquisition, MLMIC went through a demutualization whereby its legal structure converted from a customerowned mutual organization to a joint stock company. Included in other operating revenue in the accompanying consolidated statements of operations for the years ended December 31, 2019 and 2018 is \$10,858 and \$104,075, respectively, from proceeds received by Northwell following the demutualization of MLMIC.

Notes to Consolidated Financial Statements (continued) (In Thousands)

13. Net Assets

Donor restricted net assets at December 31, 2019 and 2018 are available for the following:

		2019	2018
Teaching, research, training and other Capital projects and purchases of equipment Permanent endowments		321,875 \$ 131,663 238,184	291,967 127,427 219,315
1 Childhelit Chdowinchts	\$	691,722 \$	638,709

Northwell's endowments consist of donor restricted funds, the income from which is available for a variety of purposes.

Northwell follows the requirements of the New York Prudent Management of Institutional Funds Act (NYPMIFA) as they relate to its permanent endowments. Northwell has interpreted NYPMIFA 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, Northwell classifies as net assets with donor restrictions to be maintained in perpetuity (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) 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 income from the permanent endowments is classified as net assets with donor restrictions to be used for described purposes or over specified periods of time until those amounts are appropriated for expenditure. Northwell 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 purpose of 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, and (6) the investment policies of Northwell.

Northwell's investment and spending policies for endowment assets seek to provide a predictable stream of funding to programs supported by its endowments, while seeking to maintain the purchasing power of the endowment assets. Endowment assets include those assets of donor-restricted funds that Northwell must hold in perpetuity or for a donor-specified term. Under this policy, as approved by the Board of Trustees, the endowment assets are invested in a manner that expects to generate an average annual return over time in excess of 5.0%. Actual returns in any given year may vary from this amount.

Notes to Consolidated Financial Statements (continued) (In Thousands)

13. Net Assets (continued)

To satisfy its long-term rate-of-return objectives, Northwell 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). Northwell targets a diversified asset allocation that consists of equities, fixed income and alternative investments.

Northwell has a policy of appropriating for distribution each year, no more than a 7% return on its endowment funds' corpus. In establishing this policy, Northwell considered the long-term expected return on its endowments.

For the years ended December 31, 2019 and 2018, Northwell had the following activity related to its endowment assets, including amounts to be held in perpetuity and earnings which may be expended:

	 2019	2018	
Endowment balance, beginning of year Investment return:	\$ 262,512 \$	261,045	
Investment income	10,257	13,379	
Net appreciation (depreciation)	 29,714	(21,731)	
Total investment return	39,971	(8,352)	
Contributions and other*	18,869	23,540	
Amounts appropriated for expenditure	 (11,727)	(13,721)	
Net change in endowment funds	 47,113	1,467	
Endowment balance, end of year	\$ 309,625 \$	262,512	

^{*}Contributions include pledges receivable for permanently restricted purposes.

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level that the donor requires Northwell to retain as a fund of perpetual duration. There was no such deficiency as of December 31, 2019 and 2018.

Notes to Consolidated Financial Statements (continued) (In Thousands)

14. Commitments and Contingencies

Litigation and Claims

Northwell is involved in litigation and claims which are not considered unusual to its business. While the ultimate outcome of these lawsuits cannot be determined at this time, it is the opinion of management that the ultimate resolution of these claims will not have a material adverse effect on the accompanying consolidated financial statements.

Collective Bargaining Agreements

At December 31, 2019, approximately 29% of Northwell's employees are union employees who are covered under the terms of various collective bargaining agreements. Certain collective bargaining agreements which represent approximately 1% of union employees (0.4% of total employees) have expired, or will expire, within the next year and are currently being renegotiated.

Letters of Credit and Surety Bonds

At December 31, 2019, \$14,999 in direct-pay letters of credit were maintained with a commercial bank to secure certain Northern Westchester bond issues.

At December 31, 2019, four commercial banks are providing a total of \$410,000 in commitments, solely to support letters of credit required for Northwell's high deductible workers' compensation and vehicle insurance programs. At December 31, 2019, \$135,473 in secured direct-pay letters of credit were maintained with the banks, and \$274,527 of the commitments remain available for future letters of credit. At December 31, 2019, there was also a \$45,000 surety bond supporting these programs.

In addition, at December 31, 2019, \$16,798 in direct-pay letters of credit or surety bonds were maintained to support other workers' compensation insurance programs at certain Northwell hospitals.

Notes to Consolidated Financial Statements (continued) (In Thousands)

14. Commitments and Contingencies (continued)

Other Commitments and Contingencies

In 2008, Hofstra University (the University) and Northwell entered into a joint academic agreement to establish what is now known as the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell (the Medical School), at the University, while remaining as separate corporations with separate governance. Under the agreement, Northwell will reimburse the University a minimum of \$5,000 each academic year for a portion of the Medical School's annual costs, with amounts indexed to the Medical School tuition. Such reimbursement is contingent upon annual approval by the boards of Northwell and the University. Northwell shall not advance funds to the University that have not yet been spent in connection with the Medical School. Northwell also provides a minimum of \$4,000 annually for funding of Medical School scholarships and student loans, with amounts indexed to the Medical School tuition.

In April 2015, Northwell entered into a strategic affiliation with Cold Spring Harbor Laboratory (CSHL). Under the terms of this affiliation, Northwell and CSHL will continue as independent organizations governed by their respective boards of trustees. The goals of the affiliation include advancing cancer diagnostic and therapeutic research, developing a new clinical cancer research unit at Northwell to support early-phase clinical studies of new cancer therapies, and recruiting and training more clinician-scientists in oncology. Pursuant to the agreement, Northwell is committed to pay CSHL \$15,000 annually throughout the remaining term of the affiliation.

In August 2015, Northwell entered into a clinical affiliation and collaboration agreement with Maimonides Medical Center (Maimonides), a not-for-profit acute care hospital located in Brooklyn, New York. The purpose of the affiliation is to pursue collaborative activities, such as clinical integration initiatives and ambulatory services joint ventures, as well as service agreements that may generate operational efficiencies. Under the terms of the affiliation agreement, Northwell and Maimonides will remain independent organizations governed by their respective boards of trustees. Pursuant to the affiliation agreement, the parties have also entered into an unsecured loan agreement, whereby through August 2017, Northwell loaned a total of \$125,000 to Maimonides. Payments on the loan and accrued interest thereon would not commence until the termination of the affiliation agreement. However, if Northwell becomes the sole member and corporate parent of Maimonides, outstanding amounts borrowed under the loan agreement, including accrued interest, will be forgiven.

Notes to Consolidated Financial Statements (continued) (In Thousands)

14. Commitments and Contingencies (continued)

In August 2018, Northwell entered into an option agreement with a third party that recently acquired property on the Upper East Side of Manhattan. Under the agreement, Northwell is required to make minimum monthly payments of approximately \$806 to the property owner and is given the option to purchase the property at a defined price at certain future dates. The option agreement is for a three-year period, with the ability to extend for up to two additional years.

In the normal course of business, Northwell enters into multi-year contracts with vendors, suppliers and service providers for goods or services to be provided to Northwell. Under the terms of such agreements, Northwell may be contingently liable for termination or other fees in the event of contract termination or default. Northwell does not believe that such contingent liabilities, should they become due, would have a material impact on its consolidated financial statements.

15. Subsequent Events

Management has evaluated the impact of subsequent events through April 29, 2020, representing the date at which the consolidated financial statements were issued.

Due to the global outbreak of Coronavirus Disease 2019 (COVID-19) in 2020, there have been resulting effects which could negatively impact Northwell's consolidated financial condition. These include significant volatility in the investment markets, widespread temporary business closures and event cancellations, and other economic and societal effects resulting from the national response to the COVID-19 pandemic, including the deferral of elective surgeries and nonemergent procedures and the disruption of other medical treatments and services at Northwell and throughout the U.S. health care system. Management continues to closely monitor the operational and financial impact of COVID-19 in many respects, and is pursuing opportunities for Federal and any other funding that is or will become available, including from the Federal Coronavirus Aid, Relief and Economic Security Act, the Federal Emergency Management Agency or other sources. While planning for and managing through the COVID-19 pandemic, in partnership with New York State, operations across the continuum have been disrupted, however, Northwell is currently preparing for the recovery of operations post the COVID-19 crisis. The ultimate impact of these various matters to Northwell and its consolidated financial condition is presently unknown. The accompanying consolidated financial statements as of and for the year ended December 31, 2019 do not reflect the effects of these subsequent events.

Except for those mentioned above, no events have occurred that require disclosure in or adjustment to the accompanying consolidated financial statements.

Supplementary Information, Audit Reports and Schedules Related to the Uniform Guidance

Schedule of Expenditures of Federal Awards

Year Ended December 31, 2019

Federal Grantor/Program Title/Project Title	Federal CFDA Number	Pass-through Grantor	Pass-through ID Number/Contract Number	Research and Development Cluster	Federal Expenditures	Expenditures to Subrecipients
U.S. Department of Health and Human Services	Number	Grantor	Number	Cluster	Expenditures	Subrecipients
Direct grants and contracts:						
Direct grants and contracts:	93.121, 93.213, 93.226, 93.242, 93.273,					
	93.310, 93.361, 93.393, 93.395, 93.398,					
	93.837, 93.838, 93.839, 93.846, 93.847,					
National Institutes of Health				6 21.056.920	0 21.056.020	6 2 000 000
National Institutes of Health	93.853, 93.855, 93.859, 93.866			\$ 21,056,820	\$ 21,056,820	\$ 2,800,880
Health Resources and Services Administration:						
Maternal and Child Health Federal						
Consolidated Programs	93.110			-	331,588	215,191
Coordinated Services and Access to Research						
for Women, Infants, Children, and Youth	93.153			-	727,814	7,499
Ryan White HIV/AIDS Dental						
Reimbursement and Community Based						
Dental Partnership Grants	93.924			_	191,559	-
Primary Care Medicine and Dentistry						
Clinician Educator Career Development						
Awards Program	93.976			_	161,147	
				_	1,412,108	222,690
Substance Abuse and Mental Health Services:						
Projects of Regional and National						
Significance	93.243			606,797	606,797	-
Centers for Disease Control and Prevention:						
Occupational Safety and Health Program	93.262			448,856	448,856	_
HIV Prevention Activities Non-Governmental						
Organization Based	93.939			_	808,801	91,905
			_	448,856	1,257,657	91,905
Subtotal direct grants and contracts				22,112,473	24,333,382	3,115,475
Pass-through programs:						
Environmental Public Health and Emergency			~~~~			
Response	93.070	Health Research, Inc.	6U01EH001290301	25,000	25,000	-
TI SID I D (TDD) IDIE						
Hospital Preparedness Program (HPP) and Public						
Health Emergency Preparedness (PHEP)						
Aligned Cooperative Agreements	93.074	Health Research, Inc.	6NU90TP9219240109	_	309,000	-
			OWIGED 001155 01 02			
DI IDI I D			6NU270D001155-04-02			
Blood Disorder Program: Prevention,	02.000	I I C I I C W I :	/ 5NU27DD001155-05-	25.000	25.550	
Surveillance, and Research	93.080	Icahn School of Medicine at Mount Sinai	00	25,268	25,268	-

Schedule of Expenditures of Federal Awards (continued)

Year Ended December 31, 2019

	Federal CFDA	Pass-through	Pass-through ID Number/Contract	Research and Development	Federal	Expenditures to
Federal Grantor/Program Title/Project Title	Number	Grantor	Number	Cluster	Expenditures	Subrecipients
U.S. Department of Health and Human Services						
Pass-through programs (continued):		Th- C				
Prevention of Disease, Disability, and Death by Infectious Diseases	93.084	The General Hospital Corporation d/b/a Massachusetts General Hospital	5U01CK000490-03	6 12.121	\$ 13.121	
Infectious Diseases	93.084	Massachuseus General Hospital	3001CK000490-03	\$ 13,121	\$ 13,121	\$ -
Maternal and Child Health Federal Consolidated						
Programs	93.110	Icahn School of Medicine at Mount Sinai	H30MC24048	-	22,994	-
Coordinated Services and Access to Research for						
Women, Infants, Children, and Youth	93.153	New York University School of Medicine	H12HA24879	_	23,284	-
Research Related to Deafness and						
Communication Disorders	93.173	University of Utah	1U01DC014706-01A1	1,300	1,300	-
Family Planning: Services	93.217	New York State Department of Health	C027056	_	10,695	=
Family Planning: Services	93.217	New York State Department of Health	C027029	_	11,633	_
, ,	Total 93.217	1		-	22,328	_
Research on Healthcare Costs, Quality and		The Trustees of Columbia University in the	5 R01HS025198-02 /			
Outcomes	93.226	City of New York	5 R01HS025198-03	5,682	5,682	_
Research on Healthcare Costs, Quality and		,	5 R01HS023708-05	*,**-	-,	
Outcomes	93.226	University of Pittsburgh	REVISED	11,854	11,854	-
	Total 93.226	, ,		17,536	17,536	_
Mental Health Research Grants	93,242	Regents of the University of California	5 R01MH101506-06	8,299	8,299	
Mental Health Research Grants	93.242	Research Foundation for Mental Hygiene	1R01MH120597	7.241	7,241	_
Mental Health Research Grants	93.242	Research Foundation for Mental Hygiene	5 R01MH111439-02	132,258	132,258	_
Wentai Heattii Rescarcii Grants	93.242	The Trustees of Columbia University in the	5 P50MH109429-02 / 5	132,236	132,236	=
Mental Health Research Grants	93.242	City of New York	P50MH109429-03	158,924	158,924	_
Montal Health Research Grants	75.212	The Board of Regents of the University	130001110712703	130,724	130,724	
		System of Georgia by and on behalf of				
Mental Health Research Grants	93.242	Georgia Institute of Technology	R01MH177172	26,550	26,550	_
Mental Health Research Grants	93.242	The Johns Hopkins University	1R01H121542-01	5,176	5,176	
Wentai Heattii Rescarcii Grants	93.242	The University of Texas Health Science	110111121342-01	3,170	3,170	=
Mental Health Research Grants	93.242	Center at San Antonio	1R01MH117101-01	210,713	210,713	
Wentai Treatui Researcii Giants	Total 93.242	Center at San Antonio	1K01WH1117101-01	549,161	549,161	
	10tat 73.242			349,101	349,101	
Advanced Nursing Education Workforce Grant						
Program	93.247	Hofstra University	D09HP29968	-	161,326	-
		New York City Department of Health and				
Immunization Cooperative Agreements	93.268	Mental Hygiene	N/A		279,335	
minumzation Cooperative Agreements	73.200	1.10mm Hygiene	14/73	_	417,333	_

Schedule of Expenditures of Federal Awards (continued)

Federal Grantor/Program Title/Project Title	Federal CFDA Number	Pass-through Grantor	Pass-through ID Number/Contract Number	Research and Development Cluster	Federal Expenditures	Expenditures to Subrecipients
U.S. Department of Health and Human Services	Number	Grantor	rumber	Cluster	Expenditures	Subrecipients
Pass-through programs (continued):						
Alcohol Research Programs	93.273	Partnership for a Drug-Free America, Inc d/b/a Partnership for Drug-Free Kids	4R01AA025058	\$ 91,854	\$ 91,854	\$ -
Alcohol Research Programs	93.273	The Trustees of Columbia University in the City of New York	1R21AA027392-01-A1	32,879	32,879	_
Alcohol Research Programs	93.273 Total 93.273	The Trustees of Columbia University in the City of New York	5R01A023653-02	30,653 155,386	30,653 155,386	
		The National Center on Addiction and	R33DA035615 /	,	,	
Drug Abuse and Addiction Research Programs	93.279	Substance Abuse	R01DA038193	32,650	32,650	_
Discovery and Applied Research for Technological Innovations to Improve						
Human Health	93.286	New York University School of Medicine The Trustees of Columbia University in the	1R01EB024539 1R01NR017206-01 /	10,236	10,236	-
Nursing Research	93.361	City of New York	1R01NR017206-02	27,485	27,485	-
Cancer Cause and Prevention Research	93.393	Alliance for Clinical Trials in Oncology	A151216 5 R01 CA190866-03 / 5	904	904	_
Cancer Cause and Prevention Research Cancer Cause and Prevention Research	93.393 93.393	Icahn School of Medicine at Mount Sinai International Agency for Research on Cancer	R01 CA190866-04 7U19CA203654	171,527 22,677	171,527 22,677	_
Cancel Cause and Frevention Research	Total 93.393	international Agency for Research on Cancer	7019CA203034	195,108	195,108	
Cancer Treatment Research	93.395	Children's Hospital of Philadelphia	2U10CA180886	18,000	18,000	
ACL National Institute on Disability, Independent Living, and Rehabilitation	93.433	Tourism & Donator Hairmania.	90RT5029-02-02	4.770	4.770	
Research	93.433	Trustees of Boston University	90K13029-02-02	4,779	4,779	_
ACA-Transforming Clinical Practice Initiative: Practice Transformation Networks (PTNs)	93.638	The National Council for Behavioral Health	1L1CMS331465-01-00	406,887	406,887	34,296
			DOH01-C32117GG- 3450000 / DOH01-C-			
Medicaid Cluster - Medical Assistance Program	93.778	New York State Department of Health	321327GG-3450000	=	382,940	-
Opioid STR	93.788	Research Foundation for Mental Hygiene, Inc.	H79TI081718	-	423,877	-

Schedule of Expenditures of Federal Awards (continued)

Federal Grantor/Program Title/Project Title	Federal CFDA Number	Pass-through Grantor	Pass-through ID Number/Contract Number	Research and Development Cluster	Federal Expenditures	Expenditures to Subrecipients
U.S. Department of Health and Human Services	Number	Grantor	Number	Cluster	Expenditures	Subrecipients
Pass-through programs (continued):						
Hospital Preparedness Program (HPP) Ebola						
	93.817	Public Health Solutions	U3REP150506	S =	\$ 65,000	\$ -
Preparedness and Response Activities Hospital Preparedness Program (HPP) Ebola	93.817	Public Health Solutions	U3REP130306	\$ -	\$ 65,000	\$ -
Preparedness and Response Activities	93.817	Harlet Danson Land	U3REP150520		100.026	
Preparedness and Response Activities	73.817 Total 93.817	Health Research, Inc.	U3REP130320		109,036	
	1 otai 93.81 /			-	174,036	_
Cardiovascular Diseases Research	93.837	Duke University	2037894	600	600	_
Cardiovascular Diseases Research	93.837	Duke University	5U01HL125478-02	11,000	11,000	_
Cardiovascular Diseases Research	93.837	Cincinnati Children's Hospital Medical Center	5U01HL131003-04	12,376	12,376	_
Cardiovascular Diseases Research	93.837	Icahn School of Medicine at Mount Sinai	U01 HL 125506-02	8,935	8,935	_
		The Trustees of Columbia University in the	1R01HL141609-01 /	0,722	0,722	
Cardiovascular Diseases Research	93.837	City of New York	1R01HL141609-02	11,056	11,056	_
Cardiovascular Diseases Research	93.837	University of Rochester	R34HL133526-02	2,790	2,790	_
	Total 93.837	,		46,757	46,757	=
Blood Diseases and Resources Research	93.839	All Children's Research Institute. Inc.	1U01HL130048-01A1	5,750	5,750	_
Blood Bibeabes and Resources Research	33.033	The Children's Hospital Corporation d/b/a	5U01HL134812-02 /	3,730	3,730	
Blood Diseases and Resources Research	93.839	Boston Children's Hospital	5U01HL134812-03	304,082	304,082	_
		1	1U01HL133883-01A1 /	,	,	
Blood Diseases and Resources Research	93.839	Children's Hospital Medical Center	5U01HL133883-02	20,005	20,005	_
		1	5R01HL134043-02 /	· ·	*	
Blood Diseases and Resources Research	93.839	The Jackson Laboratory	5R01HL134043-03	253,059	253,059	_
		,	5U01HL133817-02-			
Blood Diseases and Resources Research	93.839	Rutgers University	REVISED	39,000	39,000	_
			1UG3HL138325-01 /			
Blood Diseases and Resources Research	93.839	The Washington University	4UH3HL138325-02	4,000	4,000	
	Total 93.839			625,896	625,896	_
Arthritis, Musculoskeletal and Skin Diseases						
Research	93.846	Benaroya Research Institute at Virginia Mason	1R01AR076242-01	89,104	89,104	_
Arthritis, Musculoskeletal and Skin Diseases	25.0.0	Benare ya reesearen institute at virginia Masen	1U01AR068043-01A1 /	07,101	07,101	
Research	93.846	The Brigham & Women's Hospital, Inc.	1U01AR068043	8,909	8,909	_
Arthritis, Musculoskeletal and Skin Diseases		g ·· ,			-,	
Research	93.846	The Johns Hopkins University	1R34AR073505-01A1	17,795	17,795	_
Arthritis, Musculoskeletal and Skin Diseases		1 ,		.,,,,	.,,,	
Research	93.846	The Pennsylvania State University	5U01AR071077-03	11,048	11,048	_
Arthritis, Musculoskeletal and Skin Diseases		The Trustees of Columbia University in the	7R01AR069668-02 /	**	***	
Research	93.846	City of New York	5R01AR069668-03	16,801	16,801	_
	Total 93.846			143,657	143,657	_

Schedule of Expenditures of Federal Awards (continued)

	Federal CFDA	Pass-through	Pass-through ID Number/Contract	Research and Development	Federal	Expenditures to
Federal Grantor/Program Title/Project Title U.S. Department of Health and Human Services	Number	Grantor	Number	Cluster	Expenditures	Subrecipients
Pass-through programs (continued):						
Diabetes, Digestive, and Kidney Diseases						
Extramural Research	93.847	Icahn School of Medicine at Mount Sinai	5U24DK062429-19	\$ 11.930	\$ 11.930	S -
Diabetes, Digestive, and Kidney Diseases	93.047	realin School of Medicine at Mount Sinai	5UM1DK100846-05	3 11,930	\$ 11,930	
Extramural Research	93.847	Trustees of the University of Pennsylvania	30W11DK100840-03	7,688	7,688	
Extrainural Research	93.047	Trustees of the Oniversity of Tennisyrvania	5U54DK083912-10 /	7,000	7,000	=
Diabetes, Digestive, and Kidney Diseases			5U54DK083912-107			
Extramural Research	93.847	Regents of the University of Michigan	REVISED	10.030	10.030	
Diabetes, Digestive, and Kidney Diseases	75.047	regents of the Oniversity of Whenigan	KL VISLD	10,030	10,030	_
Extramural Research	93.847	University of South Florida	1UC4DK106993-01	1,805	1,805	
Extramutar research	Total 93.847	Chiversity of South Florida	1004DK100773-01	31,453	31,453	
	10(a) 33.847			31,433	31,433	_
			2U01NS038455-16A1 /			
Extramural Research Programs in the		The Board of Trustees of the Leland Stanford	5U01NS038455-17			
Neurosciences and Neurological Disorders	93.853	Junior University	REVISED	64,013	64,013	
Extramural Research Programs in the	93.833	Julior Olliversity	RE VISED	04,013	04,013	_
Neurosciences and Neurological Disorders	93.853	University of Minnesota	1UG3NS107688-01	185,319	185,319	37,306
Extramural Research Programs in the	93.833	The Trustees of Columbia University in the City	1003107088-01	105,519	105,519	37,300
Neurosciences and Neurological Disorders	93.853	of New York	5U01NS098976-03	160,196	160,196	
Extramural Research Programs in the	73.633	Of New York	1U01NS099043-01A1	100,190	100,150	_
Neurosciences and Neurological Disorders	93.853	University of Cincinnati	REVISED	2,000	2,000	
Extramural Research Programs in the	73.633	Oniversity of Cineminati	1U01NS100699-01	2,000	2,000	_
Neurosciences and Neurological Disorders	93.853	University of Cincinnati	REVISED	3,500	3,500	
Extramural Research Programs in the	73.633	Oniversity of Cineminati	5U01NS05869-02	3,300	3,500	_
Neurosciences and Neurological Disorders	93.853	University of Cincinnati	REVISED	11,415	11,415	
Extramural Research Programs in the	73.633	Oniversity of Cineminati	KL VISLD	11,713	11,415	_
Neurosciences and Neurological Disorders	93.853	Regents of the University of Michigan	1U24NS100659-01	30,000	30,000	
rediosciences and rediological Disorders	Total 93.853	regents of the Oniversity of Whenigan	1024103100037-01	456,443	456,443	37,306
	10tai 93.833			430,443	430,443	37,300
Allergy and Infectious Diseases Research	93.855	Benaroya Research Institute at Virginia Mason	5UM1AI109565-05	14,998	14,998	
Allergy and infectious Diseases Research	93.833	Benaroya Research institute at virginia iviason	5UM1AI109565-05 /	14,770	14,550	_
Allergy and Infectious Diseases Research	93.855	Benaroya Research Institute at Virginia Mason	5UM1AI109565-06	63,532	63,532	
Allergy and Infectious Diseases Research	93.855	Duke University	2UM1AI104681-08	2,825	2,825	_
Allergy and Infectious Diseases Research	93.855	Emory University	2U19110483-06	25,439	25,439	_
Allergy and Infectious Diseases Research	93.855	New York University School of Medicine	5R01AI108680-06	30,926	30,926	_
Allergy and Infectious Diseases Research	93.855	The Regents of the University of California	5UM1AI110498-05	334,986	334,986	_
Anergy and infectious Diseases Research	Total 93.855	The regents of the oniversity of Camorina	30W1A1110476-03	472,706	472,706	
	10tal 93.833			4/2,/06	4/2,/00	_
Biomedical Research and Research Training	93.859	Beth Israel Deaconess Medical Center, Inc.	K23GM128005-01	5,000	5,000	
Biomedical Research and Research Training	93.859	TheraSource LLC	1R41GM123858-01	25,960	25,960	_
Diomedical Research and Research Training	Total 93.859	Therasource LLC	11C+1CW1123030-01	30,960	30,960	
	10tal 93.839			30,960	30,960	_

Schedule of Expenditures of Federal Awards (continued)

State Stat	Edward Country Decrease Title (Project Title	Federal CFDA	Pass-through	Pass-through ID Number/Contract	Research and Development	Federal	Expenditures to
Past-fluids Past Past-fluids Past Past-fluids Past Past-fluids Past	Federal Grantor/Program Title/Project Title	Number	Grantor	Number	Cluster	Expenditures	Subrecipients
Child Health and Human Development Extramural Research 93.865 Regents of the University of California SR01HD092471-02R S 2.50 \$ 2.50 \$ 2.50 \$ 5.250							
Extramural Research 93.865 Regents of the University of California RIUIIID093470-01 St. St							
Extramural Research 93.865 Regents of the University of Michigan FR01HD093450-02 48.258 48.258 -							
Extramural Research 93.865 Regents of the University of Michigan SR01HD093450-02 48.238 48.238 -		93.865	Regents of the University of California		\$ 2,500	\$ 2,500	\$ -
Total 93.865 The Trustees of Columbia University in the City of New York SU24AG052175-05 340,004 340,004 - 140,004 - 140,006 142,016 - 142,016							
Aging Research Aging	Extramural Research	93.865	Regents of the University of Michigan	5R01HD093450-02	48,258		
Aging Research		Total 93.865			50,758	50,758	-
Aging Research							
Aging Research							
Aging Research	Aging Research	93.866	City of New York		340,004	340,004	-
Aging Research							
Aging Research 93.866	Aging Research	93.866		4UH3AG060626-02	142,016	142,016	-
Aging Research 93.866 Research Foundation for Mental Hygiene, Inc. Board of Research Foundation for Mental Hygiene, Inc. Board of Research Stock System on behalf of University of Wisconsin System on behalf of University of Wisconsin System on behalf of University of Wisconsin System on behalf of University F21AG061307 6.538 6.538 -			The McLean Hospital Corp dba McLean	1R01AG061100-01 /			
Aging Research	Aging Research	93.866		5R01AG061100-02	261,024	261,024	_
Wisconsin System on behalf of University of Wisconsin-Milwaukce R21AG061307 6.538 6.538 -	Aging Research	93.866	Research Foundation for Mental Hygiene, Inc.	5R01AG051346-02	250,344	250,344	_
Aging Research 93.866 Total 93.867 New York University School of Medicine IU10EY026869-01 8.360 8.360			Board of Regents of the University of				
Aging Research 93.866 Total 93.867 New York University School of Medicine IU10EY026869-01 8.360 8.360			Wisconsin System on behalf of University				
Total 93.866 999,926 99,926 999,926	Aging Research	93.866		R21AG061307	6,538	6,538	_
Vision Research 93.867 New York University School of Medicine 1U10EY026869-01 8,360 8,360 -	6 6	Total 93.866					
Carants for Primary Care Training and Enhancement 93.884 Hofstra University 670BHP28558-05-00 / 670BHP28558-04-04 - 365,467 - 870BHP28558-04-04 - 365,467 - 365,							
Enhancement	Vision Research	93.867	New York University School of Medicine	1U10EY026869-01	8,360	8,360	-
Enhancement	C . C D' C T''			5T0D11D20550 05 00 /			
National Bioterrorism Hospital Preparedness Program 93.889 Health Research, Inc. 1U3REP1906080100 - 55,500 - National Bioterrorism Hospital Preparedness Program 93.889 Health Research, Inc. NU90TP921924 - 38,000 - National Bioterrorism Hospital Preparedness Program 93.889 Public Health Solutions 1USREP190597-01-00 - 493,600 - 587,100 -		02.004	YY C. YY '				
Program	Enhancement	93.884	Hotstra University	6T0BHP28558-04-04	_	365,467	=
Program	National Bioterrorism Hospital Preparedness						
National Bioterrorism Hospital Preparedness Program 93.889 Health Research, Inc. NU90TP921924 - 38,000 - National Bioterrorism Hospital Preparedness Program 93.889 Public Health Solutions 1USREP190597-01-00 - 493,600 - 587,100 - 587,100 - 100 - 587,100 - 587,100 - 100 - 587,100 - 587,100 - 100 - 587,100 - 100 - 587,100 - 100 - 587,100 - 100 - 587,100 - 100 - 587,100 - 100 - 587,100 - 1		93.889	Health Research, Inc.	1113RFP1906080100	_	55 500	_
Program		75.007	ricardi Rescarcii, inc.	103RE1 1700000100		33,300	
National Bioterrorism Hospital Preparedness 93.889 Public Health Solutions 1USREP190597-01-00 - 493,600 - 587,100		03 880	Health Research Inc	NI 100TP021024		38 000	
Program 93.889 Public Health Solutions 1USREP190597-01-00 - 493,600 - 587,100		93.889	ricartii Rescaren, me.	NO9011 921924	=	36,000	=
Total 93.889 HIV Emergency Relief Project Grants 93.914 United Way 18 MAI 11 / 19 MAI 11 - 18,960 - HIV Emergency Relief Project Grants 93.914 United Way 18104 / 19104 - 11,697 - HIV Emergency Relief Project Grants 93.914 United Way 18437 / 19437 - 250,576 - HIV Emergency Relief Project Grants 93.914 United Way 18650 / 19650 - 78,655 - HIV Emergency Relief Project Grants 93.914 United Way 18802 / 19802 - 222,126 - Total 93.914 Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease 93.918 New York University School of Medicine H76HA00043-27-00 - 58,559 - 58,559 - 58,559		02 990	Dublic Health Colutions	111CDED100507 01 00		402 600	
HIV Emergency Relief Project Grants 93.914 United Way 18 MAI 11 / 19 MAI 11 - 18,960 - HIV Emergency Relief Project Grants 93.914 United Way 18104 / 19104 - 11,697 -	riogiani		rubiic ricatui solutions	1USKEF190397-01-00		,	
HIV Emergency Relief Project Grants 93.914 United Way 18104 / 19104 - 11,697 - HIV Emergency Relief Project Grants 93.914 United Way 18437 / 19437 - 250,576 - 250,576 - 10,775 - 10,77		10tai 93.889			_	587,100	_
HIV Emergency Relief Project Grants 93.914 United Way 18104 / 19104 - 11,697 - HIV Emergency Relief Project Grants 93.914 United Way 18437 / 19437 - 250,576 - 250,576 - 10,775 - 10,77	HIV Emergency Relief Project Grants	93 914	United Way	18 MAI 11 / 19 MAI 11	_	18 960	_
HIV Emergency Relief Project Grants 93.914 United Way 18437 / 19437 - 250,576 - HIV Emergency Relief Project Grants 93.914 United Way 18650 / 19650 - 78,655 - 18650 / 19650 - 222,126 - 18650 / 19650 - 582,014 - 18650 / 19802 - 222,126 - 18650 / 19802 - 18802 / 19802 - 1							
HIV Emergency Relief Project Grants 93.914 United Way 18650 / 19650 - 78,655 - HIV Emergency Relief Project Grants 93.914 United Way 18802 / 19802 - 222,126 - Total 93.914 United Way 18802 / 19802 - 582,014 - 582,014 - Services with Respect to HIV Disease 93.918 New York University School of Medicine H76HA00043-27-00 - 58,559 -							
HIV Emergency Relief Project Grants 93.914 United Way 18802 / 19802 222,126	HIV Emergency Relief Project Grants						=
Total 93.914 – 582,014 – Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease 93.918 New York University School of Medicine H76HA00043-27-00 – 58,559 –							_
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease 93.918 New York University School of Medicine H76HA00043-27-00 – 58,559 –	THV Emergency Rener Project Grants		Officed way	18802 / 19802			
Services with Respect to HIV Disease 93.918 New York University School of Medicine H76HA00043-27-00 – 58,559 –		1 ota1 93.914			_	582,014	_
Services with Respect to HIV Disease 93.918 New York University School of Medicine H76HA00043-27-00 – 58,559 –	Grants to Provide Outpatient Early Intervention						
		93.918	New York University School of Medicine	H76HA00043-27-00	_	58,559	_
Special Projects of National Significance 93.928 Health Research, Inc. H97HA288900300 – 12,847 –	Services with respect to the Piscuse	23.210	The state of the control of the control	11,0111103013 27 00		30,337	
	Special Projects of National Significance	93.928	Health Research, Inc.	H97HA288900300	_	12,847	=

Schedule of Expenditures of Federal Awards (continued)

	Federal CFDA	Pass-through	Pass-through ID Number/Contract	Research and Development	Federal	Expenditures to
Federal Grantor/Program Title/Project Title	Number	Grantor	Number	Cluster	Expenditures	Subrecipients
U.S. Department of Health and Human Services						
Pass-through programs (continued):						
Maternal and Child Health Services Block Grant						
to the States	93.994	New York State Department of Health	C027056	\$ -	\$ 12,157	\$ -
Maternal and Child Health Services Block Grant						
to the States	93.994	New York State Department of Health	C028943	_	139,042	_
Maternal and Child Health Services Block Grant						
to the States	93.994	New York State Department of Health	C028944	-	138,349	-
Maternal and Child Health Services Block Grant			DOH01-C027029-			
to the States	93.994	New York State Department of Health	3450000	-	13,223	_
Maternal and Child Health Services Block Grant			DOH01-C32117GG-			
to the States	93.994	New York State Department of Health	3450000	_	29,533	-
Maternal and Child Health Services Block Grant			DOH01-C321327GG-			
to the States	93.994	New York State Department of Health	3450000	-	16,516	_
Maternal and Child Health Services Block Grant			DOH01-C32398GG-			
to the States	93.994	New York State Department of Health	3450000	-	28,093	_
	Total 93.994	·		_	376,913	_
An Observational Study of Acyclovir Pharmacokinetics, Viral Population Kinetics & Potential Biomarkers of Disease Severity in Neonatal Herpes Simplex Virus Infections Subtotal pass-through programs Total – U.S. Department of Health and Human Services	93.RD	The Board of Trustees of the University of Alabama Birmingham	HHSN272201100038C	11,745 4,360,578 26,473,051	11,745 8,142,598 32,475,980	71,602 3,187,077
U.S. Department of Agriculture WIC Special Supplemental Nutrition Program For Women, Infants, And Children WIC Special Supplemental Nutrition Program For Women, Infants, And Children Total – U.S. Department of Agriculture	10.557 10.557 Total 10.557	New York State Department of Health New York State Department of Health	DOH01-C30422GG- 3450000 DOH01-C30461GG- 3450000	- - -	2,078,237 4,492,566 6,570,803 6,570,803	- - - -

Schedule of Expenditures of Federal Awards (continued)

Federal Grantor/Program Title/Project Title	Federal CFDA Number	Pass-through Grantor	Pass-through ID Number/Contract Number	Research and Development Cluster	Federal Expenditures	Expenditures to Subrecipients
U. S. Department of Defense Direct programs: Military Medical Research and Development Subtotal direct programs	12.420			\$ 1,562,408 1,562,408	\$ 1,562,408 1,562,408	\$ 108,215 108,215
Pass-through programs: Basic and Applied Scientific Research	12.300	University of Utah	N66001-15-C-4017	64,227	64,227	=
Military Medical Research and Development	12.420	Dignity Health d/b/a St. Joseph's Hospital & Medical Center	W81XWH-17-1-0429	439,145	439,145	-
Research and Technology Development Subtotal pass-through programs Total – U. S. Department of Defense	12.910	University of Washington	HR0011-17-2-0025	32,685 536,057 2,098,465	32,685 536,057 2,098,465	108,215
U.S. Department of Housing and Urban Development CDBG - Disaster Recovery Grants - Pub. L. No. 113-2 Cluster: Hurricane Sandy Community Development Block Grant Disaster Recovery Grants (CDBG-DR) Total - U.S. Department of Housing and Urban Development	14.269	NYC Office of Management & Budget & Office of Recovery & Resiliency	B-13-MS-36-0001		4,916,533 4,916,533	
U.S. Department of Labor WIOA Cluster: WIA/WIOA Dislocated Worker Formula Grants Total – U.S. Department of Labor	17.278	New York State Department of Labor	DOL01-T17110GG		5,697 5,697	
U.S. Department of Transportation Transit Services Programs Cluster: Enhanced Mobility of Seniors and Individuals with Disabilities	20.513	New York State Department of Transportation	C003997	-	45,693	-
Highway Safety Cluster: National Priority Safety Programs	20.616	New York State Department of Motor Vehicles	DMV01-T006292 - 3700393	-	6,375	-
Highway Safety Cluster: National Priority Safety Programs Total – U.S. Department of Transportation	20.616 Total 20.616	New York State Department of Motor Vehicles	DMV01-T006545 - 3700393		10,862 17,237 62,930	_ _ _

Schedule of Expenditures of Federal Awards (continued)

Year Ended December 31, 2019

Federal Grantor/Program Title/Project Title	Federal CFDA Number	Pass-through Grantor	Pass-through ID Number/Contract Number	Research and Development Cluster	Federal spenditures	enditures to brecipients
U.S. Department of Homeland Security		N. W. L. G. & D GH L. L.				
Hazard Mitigation Grant	97.039	New York State Division of Homeland Security and Emergency Services	C000775 / C000736		\$ 5,222,957	\$
Total - U.S. Department of Homeland Security					5,222,957	
Total Expenditures of Federal Awards				\$ 28,571,516	\$ 51,353,365	\$ 3,295,292

See accompanying notes.

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Notes to Schedule of Expenditures of Federal Awards

Year Ended December 31, 2019

1. Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the Schedule) includes the federal grant activities of Northwell Health, Inc. and its member corporations and other affiliated entities (collectively, Northwell) and is presented on the accrual basis of accounting. The information on the Schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (the Uniform Guidance). Therefore, some amounts presented in this Schedule may differ from amounts presented in, or used in the preparation of, the consolidated financial statements.

For purposes of the Schedule, federal awards include assistance provided by a federal agency directly or indirectly in the form of grants, contracts, cooperative agreements, loans and loan guarantees, or other non-cash assistance.

Direct and indirect costs are charged to awards in accordance with cost principles contained in the United States Department of Health and Human Services *Cost Principles for Hospitals* at 45 CFR Part 74 Appendix E for awards not subject to the Uniform Guidance and 45 CFR Part 75 Appendix IX for awards subject to the Uniform Guidance. Under these cost principles, certain types of expenditures are not allowable or are limited as to reimbursement. The Uniform Guidance provides for a 10% de minimis indirect cost rate election; however, Northwell did not make this election and uses a negotiated indirect cost rate.

The Schedule includes Federal awards subject to the requirements of the Uniform Guidance, as well as Federal awards that were funded prior to the Uniform Guidance effective date of December 26, 2014.

Notes to Schedule of Expenditures of Federal Awards (continued)

Year Ended December 31, 2019

2. Food and Nutrition Awards

During the year ended December 31, 2019, Northwell participated in the New York State Department of Health, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) through the provision of nutritional counseling and the distribution of food vouchers. The United States Department of Agriculture, the federal agency that sponsors the WIC program under CFDA number 10.557, has determined that WIC food instruments are considered "property in lieu of money" and, therefore, should be reported as federal awards received by Northwell.

The total amount reported as federal awards on the Schedule represents the value of food vouchers redeemed in the amount of \$4,883,010 plus administrative costs of \$1,687,793 for the year ended December 31, 2019. As New York State funds are commingled with federal funds, federal funding percentages were applied to determine the total amount of federal funds reported above. These percentages were supplied by the New York State Department of Health as follows:

	Federal P	ercentage
	,	October 1, 2018 to September 30, 2019
Administrative costs	96.9%	99.2%
Food vouchers redeemed	100	100

3. Vaccines for Children Program

During the year ended December 31, 2019, Northwell participated in the New York City Department of Health and Mental Hygiene Vaccines for Children Program (CFDA 93.268) through the provision of vaccinations. The United States Department of Health and Human Services, the federal agency that sponsors this program, has determined that the vaccines administered are considered "property in lieu of money" and, therefore, should be reported as federal awards received by Northwell.



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Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements

Performed in Accordance with *Government Auditing Standards*

Management and the Board of Trustees Northwell Health, Inc.

We have audited, in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Northwell Health, Inc. and its member corporations and other affiliated entities (collectively, Northwell), which comprise the consolidated statement of financial position as of December 31, 2019, and the related consolidated statements of operations, changes in net assets, and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated April 29, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Northwell's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Northwell's internal control. Accordingly, we do not express an opinion on the effectiveness of Northwell's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether Northwell's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Ernst + Young LLP

April 29, 2020



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Report of Independent Auditors on Compliance for Each Major Federal Program and Report on Internal Control Over Compliance Required by the Uniform Guidance

Management and the Board of Trustees Northwell Health, Inc.

Report on Compliance for Each Major Federal Program

We have audited Northwell Health, Inc. and its member corporations and other affiliated entities' (collectively, Northwell) compliance with the types of compliance requirements described in the U.S. Office of Management and Budget (OMB) *Compliance Supplement* that could have a direct and material effect on each of Northwell's major federal programs for the year ended December 31, 2019. Northwell's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of federal statutes, regulations and the terms and conditions of its federal awards applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of Northwell's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about Northwell's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of Northwell's compliance.



Opinion on Each Major Federal Program

In our opinion, Northwell complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2019.

Other Matters

The results of our auditing procedures disclosed instances of noncompliance which are required to be reported in accordance with the Uniform Guidance, and which are described in the accompanying schedule of findings and questioned costs as item 2019-001 related to the Research and Development Cluster for the procurement compliance requirement. Our opinion on each major federal program is not modified with respect to this matter.

Northwell's response to the noncompliance finding identified in our audit is described in the accompanying schedule of findings and questioned costs. Northwell's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

Report on Internal Control Over Compliance

Management of Northwell is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered Northwell's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Northwell's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.



Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we did identify certain deficiencies in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as item 2019-001 related to the Research and Development Cluster for the procurement compliance requirement, that we consider to be a significant deficiency.

Northwell's response to the internal control over compliance findings identified in our audit is described in the accompanying schedule of findings and questioned costs. Northwell's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

Northwell is responsible for preparing a corrective action plan to address each audit finding included in our auditor's report. Northwell's corrective action plan was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on it.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Ernst + Young LLP

September 30, 2020

Schedule of Findings and Questioned Costs

For the Year Ended December 31, 2019

Section I – Summary of Auditor's Results

Financial Statements

Type of report the auditor issued on whether the financial statements audited were prepared in accordance with GAAP:	Unmodified, with emphasis-of-matter paragraph on change in accounting
Internal control over financial reporting: Material weakness(es) identified? Significant deficiency(ies) identified?	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Noncompliance material to financial statements noted?	yes <u>X</u> no
Federal Awards	
Internal control over major federal programs: Material weakness(es) identified? Significant deficiency(ies) identified?	yesX no none reported
Type of auditor's report issued on compliance for major federal programs:	Unmodified
Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?	_X_ yes no

Schedule of Findings and Questioned Costs (continued)

Section I – Summary of Auditor's Results (continued)

Identification of major federal programs:

CFDA numbers 12.300, 12.420, 12.910, 93.070, 93,080, 93.084, 93.121, 93.173, 93.213, 93.226, 93.242, 93.243, 93.262, 93.273, 93.279, 93.286, 93.310, 93.361, 93.393, 93.395, 93.398, 93.433, 93.638, 93.837, 93.838, 93.839, 93.846, 93.847, 93.853, 93.855, 93.859, 93.865, 93.866, 93.867, 93.RD	Name of Federal Program or Cluster Research and Development Cluster
10.557	WIC Supplemental Nutrition Program for Women, Infants, And Children
Dollar threshold used to distinguish between Type A and Type B programs:	\$1,540,601
Auditee qualified as low-risk auditee?	yesX no

Section II—Financial Statement Findings

There are no matters that are required to be reported.

Schedule of Findings and Questioned Costs (continued)

Section III—Federal Award Findings and Questioned Costs

Finding 2019-001

Information on the federal program

Research and Development Cluster Federal Agency: *U.S. Army Medical Research Acquisition Activity* CFDA Number, CFDA Name, Direct Award Number/PTE Number and Award period:

> 12.420 Military Medical Research and Development W81XWH-17-1-0657 and W81XWH-15-1-0614 9/30/17 – 9/29/20 and 9/30/15 – 9/29/20

Federal Agency: *National Institute of Health* CFDA Number, CFDA Name, Direct Award Number/PTE Number and Award period:

93.855 Allergy and Infectious Diseases Research 5UM1AI110498-05 1/1/17-10/31/19

93.859 Biomedical Research and Research Training R01GM121102 8/1/17-4/30/21

Criteria or specific requirement (including statutory, regulatory or other citation)

I. Procurement, Suspension and Debarment

In December 2013, the Office of Management and Budget (OMB) issued Title 2 U.S. Code of Federal Regulations, Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance or 2 CFR 200) effective for awards issued on or after December 26, 2014. The Uniform Guidance changes included revised procurement requirements for direct cost expenditures under federal awards. Due to the complexity and significance of the changes to the procurement standards, the OMB established a three-year grace period for the

Schedule of Findings and Questioned Costs (continued)

Finding 2019-001 (continued)

implementation. As such, for Northwell Health, Inc. (Northwell), the effective date of the new procurement standards was January 1, 2018 for procurements of direct costs made under federal awards that are subject to Uniform Guidance.

2 CFR section 200.303 requires that a non-federal entity establish and maintain effective internal control over the Federal awards that provides reasonable assurance that the non-Federal entity is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the Federal award.

Under the new procurement standards, there are five methods of procurement based on dollar thresholds and the nature of the expenditures with prescribed documentation requirements for each. One of the procurement methods is "small purchases" which are purchases greater than \$10,000 (the Micro Purchase Threshold) but less than \$250,000 (the Simplified Acquisition Threshold). In accordance with 2 CFR section 200.320(b) "Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other property that do not cost more than the Simplified Acquisition Threshold. If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources." Generally, receiving price or rate quotations from more than one source would satisfy the small purchase requirements. In accordance with 2 CFR section 200.320(f), another procurement method is procurement by noncompetitive proposals, which is procurement through solicitation of a proposal from only one source and may be used in certain circumstances (e.g., if the item is available only from a single source).

Condition

In order to test internal controls established by Northwell and to test Northwell's compliance with the procurement requirements under the research and development cluster for activity during the year ended December 31, 2019,

Schedule of Findings and Questioned Costs (continued)

Finding 2019-001 (continued)

we selected a sample of 30 procurement-related expenditures totaling \$140,117 from a population of 6,486 procurement-related expenditures totaling \$2.7 million. In our sample we noted four procurement transactions which were subject either to the small purchase requirements or procurement by noncompetitive proposals (totaling \$108,872). For these selections, at the time of purchase, Northwell did not have evidence of obtaining price or rate quotations in accordance with the small purchase requirements or evidence that the item was only available from a single source at the time of purchase. Management informed us that a cost or price analysis was performed.

Cause

Northwell's formal procurement policy which incorporated the new Uniform Guidance procurement requirements was not approved until July 18, 2019 and not implemented until September 6, 2019.

Effect or potential effect

Northwell was not in compliance with the Uniform Guidance procurement requirements. The best price or rate may not be obtained if Northwell does not obtain the supporting price quotes or evidence of a single source at the time of purchase. However, in these instances, during our testing procedures, subsequent to purchase, management obtained and provided supporting documentation to support the price or rate quotations or evidence of a single source for these procurement transactions.

Questioned costs

None.

Context

Procurement-related expenditures for the research and development cluster totaled \$2.7 million for the year ended December 31, 2019 representing 9% of the major program's federal expenditures of \$28.6 million.

Schedule of Findings and Questioned Costs (continued)

Finding 2019-001 (continued)

Identification as a repeat finding, if applicable

This is a repeat finding. The prior year finding reference is 2018-001.

Recommendation

Northwell should adhere to and evaluate its compliance with its revised procurement policy adopted in September 2019 and evaluate whether it appropriately follows the necessary provisions of the new procurement standard as outlined in 2 CFR sections 317 – 326, including the requirements to retain price and rate quotations for small purchases and appropriate documentation of a single source.

Views of responsible officials

Northwell's updated procurement policy for federally sponsored programs was formally approved by Northwell's Policy and Procedure Committee and implemented in September 2019. The Grants Management Office (GMO) has advised faculty and grant administrators of the revised policy and has incorporated a process whereby the GMO will reject any purchase requisitions forwarded to its attention prior to the generation of purchase orders, that do not meet the requirements of the revised procurement policy which conforms to the requirements of 2 CFR 200 317 – 326.

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Summary Schedule of Prior Audit Findings

Year Ended December 31, 2019

Finding Reference Number: 2018-001

Federal Program Information:

Research and Development Cluster

Condition:

Under the new procurement standards, there are five methods of procurement based on dollar thresholds and the nature of the expenditures with prescribed documentation requirements for each. One of the procurement methods is "small purchases" which are purchases greater than \$10,000 (the Micro Purchase Threshold) but less than \$250,000 (the Simplified Acquisition Threshold). In accordance with 2 CFR section 200.320(b) "If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources." Northwell Health, Inc. (Northwell) did not have evidence of obtaining price or rate quotations in accordance with the small purchase requirements at the time of purchase.

Status:

Northwell's updated procurement policy for federally sponsored programs was formally approved by Northwell's Policy and Procedure Committee and implemented in September 2019. The Grants Management Office (GMO) has advised faculty and grant administrators of the revised policy and has incorporated a process whereby the GMO will reject any purchase requisitions forwarded to its attention prior to the generation of purchase orders, that do not meet the requirements of the revised procurement policy which conforms with the requirements of 2 CFR 200 317 – 326.



Finding Reference Number: 2018-002

Federal Program Information:

Research and Development Cluster

Condition:

The time and effort reports are not consistently completed accurately. In certain instances, the necessary adjustments are not being recorded to reflect the actual time worked on the program. In addition, the review being performed over the payroll amounts allocated to the program is not sufficient to detect incorrect amounts in accordance with Northwell's policies. These errors also affect the calculated fringe benefits and indirect cost amounts.

Status:

Northwell Health has completed the process of implementing an electronic time and effort certification system which will help minimize clerical errors due to the current manual nature of the collection of time and effort certifications. In addition, the Grants Management Office (GMO) has enhanced its practice of requiring and reviewing that all time and effort worksheets are reconciled to both the awarded budget and the general ledger. The GMO also offers annual training on time and effort certification. As a result of the audit recommendation, additional classes and one-on-one training was conducted.



Finding Reference Number: 2018-003

Federal Program 93.914 HIV Emergency Relief Project Grants **Information:**

Condition: During the testing of the requests for reimbursement, it

was observed that the requests were based on budgeted payroll amounts from the contract rather than the actual expenditures incurred. In addition, the requests were not

submitted timely.

Status: The Grants Management Office (GMO) revised the

format of worksheets used to generate fiscal reports and sponsor invoices. Directors review and ensure all worksheets reconcile to the general ledger and that there is appropriate documentation to support adjustments. No reports are approved if incomplete, do not reconcile, or

do not have appropriate support for final invoices.

^{*}No audit assurance has been provided on this schedule. This schedule is not subject to the auditor's report on compliance for each major program and report on internal control over compliance required by the Uniform Guidance.



Corrective Action Plan

Year Ended December 31, 2019

Finding

Reference 2019-001

Number:

Federal Program Information:

Research and Development Cluster

Condition:

Under the procurement standards, there are five methods of procurement based on dollar thresholds and the nature of the expenditures with prescribed documentation requirements for each. One of the procurement methods is "small purchases" which are purchases greater than the \$10,000 (the Micro Purchase Threshold) but less than \$250,000 (the Simplified Acquisition Threshold). In accordance with 2 CFR section 200.320(b) "If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources." In accordance with 2 CFR section 200.320(f), another procurement method is procurement by noncompetitive proposals, which is procurement through solicitation of a proposal from only one source and may be used in certain circumstances (e.g., if the item is available only from a single source). For the sample selected, Northwell Health, Inc. (Northwell) did not have evidence of obtaining price or rate quotations in accordance with the small purchase requirements or evidence that the item was only available from a single source at the time of purchase. The selections were related to transactions incurred prior to the effective date of the updated procurement policy in September 2019.

Status:

Northwell's updated procurement policy for federally sponsored programs was formally approved by Northwell's Policy and Procedure Committee and implemented in September 2019. The Grants Management Office (GMO) has advised faculty and grant administrators of the revised policy and has incorporated a process whereby the GMO will reject any purchase requisitions forwarded to its attention prior to the generation of purchase orders, that do not meet the requirements of the revised procurement policy which conforms to the requirements of 2 CFR 200 317 – 326.

Responsible Parties:

Diane Quinn, Assistant Vice President – Finance, The Feinstein Institutes

for Medical Research

Phyllis McCready, Vice President – Chief Procurement Officer

Completion Date: September 6, 2019