



The Health Care Workforce in New York State

Trends in the Supply of and Demand for Health Care Workers



School of Public Health
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PREFACE

This report summarizes data from a variety of sources to describe New York State's health workforce. A key goal of this report is to assist policy makers and other stakeholders to:

- Make informed decisions on health workforce education and job training investments
- Address the most pressing health care workforce needs
- Guide health workforce policies, including decisions related to the capacity of health profession education programs
- Inform current and prospective students about profession-specific health care employment prospects and opportunities.

This report was prepared by the Center for Health Workforce Studies (CHWS) and provides information drawn from a variety of data sources to describe New York State's health workforce. The report also includes primary data collected by CHWS on registered nurse (RN) education and on health workforce recruitment and retention challenges in New York State.

This report was prepared by CHWS staff, including Maa'isa Cleaves, Kristen Stiegler, Robert Martiniano, and Jean Moore. Funding for this report was provided by the 1199 Hospital League Health Care Industry Planning and Placement Fund, Inc.

Established in 1996, CHWS is an academic research center based at the School of Public Health, University at Albany, State University of New York (SUNY). The mission of CHWS is to provide timely, accurate information and conduct policy relevant research about the health workforce. The research conducted by CHWS supports and promotes health workforce planning and policymaking at local, regional, state, and national levels. CHWS is a national leader in the field of health workforce studies.

The views expressed in this report are those of CHWS and do not necessarily represent positions or policies of SUNY or 1199 SEIU/Hospital League Health Care Industry Planning and Placement Fund, Inc.

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I. EXECUTIVE SUMMARY

The health workforce is a vital part of New York's health care delivery system. Efforts to expand access to care, improve the quality of care, and improve the cultural competence of the health care delivery system depend on the availability of a diverse, well-trained, and adequately sized health workforce.

The COVID-19 pandemic caused major disruptions in our state's health care delivery system as well as its workforce. In response to the initial surge in COVID-19 cases, New York used an array of strategies to make better use of its available health workforce and to recruit workers from other states, often through executive orders. Additionally, there were pandemic-related impacts on the health professions education pipeline, with reductions in clinical placements. Today, health care providers in all settings face growing workforce shortages that are, in part, pandemic related. These providers employ a variety of strategies to attract and retain workers.

Early on in the pandemic, hospitals were overwhelmed by large numbers of acutely ill COVID-19 patients. This led to staffing shortages that contributed to an extremely stressful work environment. In long-term care, many patients and staff contracted COVID-19. Ambulatory care providers, including home health care agencies, saw reductions in the use of their services during the initial COVID-19 outbreak. In some instances, these providers cut back staff hours or furloughed workers, while in other instances, staff were redeployed to acute care settings.

These pandemic disruptions have contributed to attrition from the state's health workforce. Many workers retired, while others left the field for better job opportunities in other employment sectors. As a result, health care providers have employed a variety of strategies to recruit and retain workers, including sign-on or retention bonuses, using travel nurses and workers from staffing agencies, and enhancing salaries and benefits. Unfortunately, these efforts have not expanded the supply of health workers and have reduced operating margins for many health care providers.

An analysis of health workforce employment trends suggests growing demand for workers in a wide array of health professions and occupations over the next 10 years. Given the current recruitment and retention challenges faced by health care providers, shortages of health care workers are likely to worsen. Monitoring the supply of health workers in relation to demand for them can help inform the best strategies to address current and future workforce gaps.

FINDINGS

This report presents data and information drawn from primary and secondary data sources to describe New York's health workforce and provides both types of data at state and regional levels. The report includes information on the health status of New Yorkers, the health care system, and the supply of and demand for health workers. It is designed to assist stakeholders in their health workforce planning efforts. Key findings include:

- **Jobs in the health care sector in New York State grew by more than 38% between 2000 and 2020.**

Despite 20 years of health care job growth, the number of health care jobs declined by over 3% between 2019 and 2020, likely due to pandemic disruptions in health service delivery. Health

care employment declined in all regions of the state between 2019 and 2020. Jobs in all other employment sectors fell by 11% during the same period.

- Employment in the state's hospitals and home health care agencies increased between 2016 and 2020, while employment in nursing homes and residential care facilities and in ambulatory care settings, excluding home health care, declined during the same period.
- Between 2019 and 2020, the number of jobs in many health care occupations saw declines, including nursing assistants, dental assistants, and medical assistants. In contrast, the number of home health and personal care aides and the number of social workers increased during that same period.
- The state's hospitals reported the most difficulty recruiting clinical laboratory technologists and technicians, RNs, and psychiatrists. The main reasons cited for these difficulties included a shortage of workers in those occupations and non-competitive salaries.
- The state's hospitals reported difficulty retaining psychiatrists, RNs, and clinical laboratory technologists. The main reasons cited for these retention difficulties were staff leaving for better paying positions and retirements.
- The state's federally qualified health centers (FQHCs) reported the most difficulty recruiting family physicians and internists, licensed clinical social workers and counselors, nurses, and psychiatrists. The main reasons cited were the general shortage of workers in the occupation and non-competitive wages.
- FQHCs in New York State also reported that support personnel, nurses, and family practitioners/internists were the most difficult to retain. The 2 primary reasons cited for these retention difficulties were non-competitive wages and the general shortage of workers in these occupations.
- The state's nursing homes and adult care facilities reported the most difficulty recruiting licenses practical nurses (LPNs), RNs (newly trained^a and experienced), and certified nursing assistants (CNAs). The main reasons cited were the general shortage of workers and fear of COVID-19 exposure.
- The state's nursing homes and adult care facilities reported retention difficulties for RNs (newly trained and experienced), home health aides, and LPNs, citing higher pay elsewhere, leaving for other employment sectors, fear of COVID-19 exposure, and childcare or family demands as the main reasons.
- The state's home health care agencies indicated that personal care aides, home health aides, speech-language pathologists, RNs, and homemakers were the most difficult to recruit. The main reasons cited for these difficulties were the shortage of workers in these occupations and fear of COVID-19 exposure.
- The state's home health care agencies reported that personal care aides, home health aides, homemakers, and speech-language pathologists were the most difficult to retain. The main

^a RNs are considered newly trained if they have less than 2 years post RN education experience.

reasons cited for these difficulties were staff finding higher pay elsewhere and family commitments.

- **Despite COVID-19 pandemic disruptions, RN graduations from the state’s nursing education programs have remained relatively stable statewide. Additionally, nearly 5,400 social workers graduated from New York State schools in 2020, an 8% increase in graduations between 2016 and 2020.**
- **Nurse practitioners and physician assistants experienced the greatest growth in licenses^b in New York State between 2017 and 2021. In contrast, the number of licensed clinical laboratory technologists and LPNs declined during the same period.**
- **The numbers of home health aides, personal care aides, and RNs are projected to grow the fastest in New York State between 2018 and 2028, with 45,810, 52,380, and 16,190 annual openings, respectively.**

FUTURE OUTLOOK

Federal projections indicate that the health care delivery system will continue to grow faster than other employment sectors, though at a slower pace than in previous 10-year projections. This current slowed projected growth is likely influenced by new models of care, using health workers differently, and changes in the population.

The growing focus on primary care and prevention is shifting care from inpatient to outpatient settings. With a rising elderly population planning to age in place, there may be less need for nursing home beds and greater need for in-home care services. The health care delivery system is adopting new models of care, expanding the use of technology in treatment, such as telehealth or same-day outpatient surgery. Additionally, there is an increased use of team-based service delivery models, including the use of new categories of health workers who assist in the delivery and management of care.

The health care delivery system is also adjusting to population changes. New York State’s population is aging, especially in rural areas, as is the health workforce. Between the COVID-19 pandemic and the aging health workforce, retirements from the health workforce swelled over the past several years. Additionally, higher salaries outside of health care employment, especially for entry-level, direct-care workers, has led to increased attrition from the health care workforce. More than ever, health care is now competing with other employment sectors for the same workers.

Finally, the health workforce does not represent the diversity that is in the general population, with populations of color underrepresented in many professional titles. While state and federal loan repayment and scholarship programs are used to target providers in short supply to underserved areas, it is not clear if these programs consistently ensure a more diverse workforce. Ultimately, more effort is needed to create a more diverse and culturally competent health workforce.

Consequently, it is critical to continually monitor the supply of and demand for health workers in the state, in order to avert potential shortages. In addition, it is important to assess the adequacy of production from the state’s health professions education pipeline. Timely workforce data and insights are necessary to assess current and future health care workforce needs and deficits.

^b NPs are licensed as registered nurses and certified in 1 or more of 16 specialties in New York State.

OBJECTIVES AND GOALS

The objectives of this report are to:

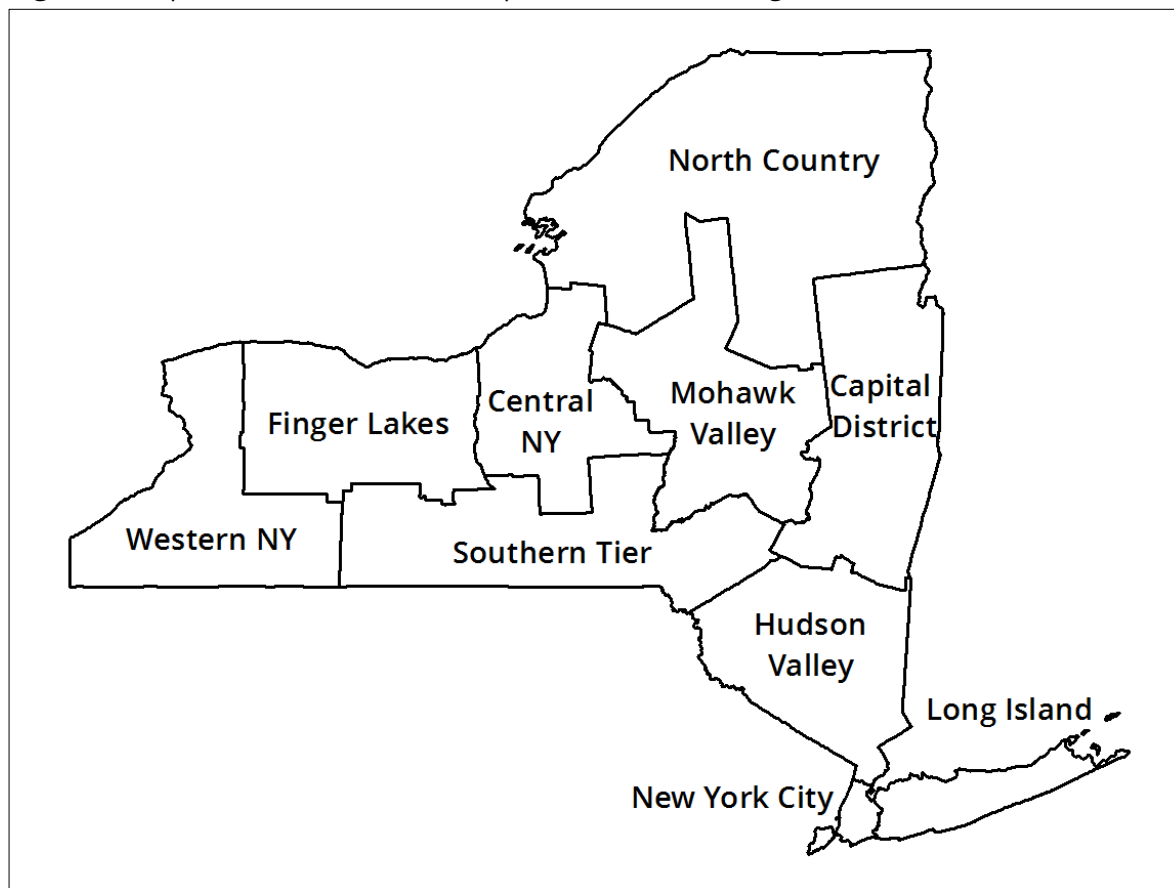
- Describe health care employment, graduation, and licensure trends in New York State statewide and regionally, and
- Identify the health care professions and occupations currently and projected to be in greatest demand.

Key goals of this report are to assist policy makers and other stakeholders to:

- Make informed decisions on health workforce education and job training investments
- Address the most pressing health care workforce needs
- Guide health workforce policies, including decisions related to the capacity of health profession education programs
- Inform current and prospective students about profession-specific health care employment prospects and opportunities.

The New York State Department of Labor (NYSDOL) has divided the state into several regions. Figure 1 is a map of the NYSDOL regions used in this report. For a list of counties in each region, please see Section C (Geographic Areas) in the [Appendix](#), page 272. Each regional profile page has a list of counties profiled in that region as well.

Figure 1. Map of the New York State Department of Labor Regions



II. NEW YORK STATE HEALTH CARE SECTOR EMPLOYMENT

KEY FINDINGS

Health Care Employment

- There were nearly 1.2 million jobs in health care settings in New York State in 2020, a decline of 3.4% between 2019 and 2020 (Figures 3 and 4).
- Between 2000 and 2020, jobs in health care settings in New York State increased by 38.4%, compared with a decline of 4.5% for jobs in all other employment sectors (Figure 4).
- Health care jobs outside of New York City^c increased by 23.7% between 2000 and 2020, compared with a nearly 12.0% decline for all other employment sectors during the same period (Figure 5).
- In 2020, 39.0% of health care sectors jobs were in hospitals, compared to 27.0% in ambulatory care settings, 22.0% in home health care, and 12.0% in nursing homes and residential care facilities (Figure 6).
- Employment in home health care in New York State grew faster than employment in other health care settings between 2000 and 2020, quadrupling during that period and increasing by 45.7% between 2016 and 2020 (Table 3).
- The number of home health and personal care aide jobs statewide increased by nearly 139,000 (41.9%) between 2016 and 2020. During the same period, the number of social worker jobs grew by more than 5,700 (24.3%), and the number of medical records and health technician jobs increased by nearly 5,500 (62.3%). In contrast, the number of nursing assistant jobs decreased by more than 16,000, or 16.9%, between 2016 and 2020 (Table 14).

Health Care Recruitment and Retention Difficulties^d

- Hospitals in New York State reported that clinical laboratory technologists (90.8%), RNs (89.6%), and psychiatrists (87.5%) were the most difficult occupations to recruit in 2020. The most common reason cited for these difficulties was a shortage of workers (Tables 16 and 17).
- Psychiatrists (72.2%), surgical technicians (66.7%), RNs (58.9%), and respiratory therapists (56.3%) were among the most difficult to retain in New York State hospitals in 2020. Burnout was identified as a major reason for leaving (Tables 18 and 19).
- FQHCs in New York State reported that family and internal medicine physicians (25.0%) were the most difficult to recruit in 2020. During the same period, support personnel (25.0%) and nurses (21.9%) were the most difficult to retain. For all occupations surveyed, FQHCs reported

^c Regions outside of New York City include the Department of Labor regions of Capital District, Central New York, Finger Lakes, Hudson Valley, Long Island, Mohawk Valley, North Country, Southern Tier, and Western New York.

^d Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for “easy” to a 5 for “difficult.” The percentages reported indicated those facilities with either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers with the profession or occupation in the top 3 most difficult to recruit for and/or retain.

a shortage of workers and non-competitive wages as the most common reasons for recruitment and retention difficulties (Tables 20, 21, 22, 23).

- Nursing homes and adult care facilities in New York State reported that LPNs (86.1%), experienced RNs (85.3%), CNAs (79.4%), and newly licensed RNs (79.3%) were the most difficult occupations to recruit in 2020. A shortage of workers was the most common reason cited for these recruitment challenges. Additionally, nursing homes reported fear of exposure as the most common COVID-19 pandemic-related recruitment difficulty for many of the occupations (Tables 24 and 25).
- In 2020, New York State's nursing homes and adult care facilities reported that newly licensed RNs (75.2%) were the most difficult to retain, followed by home health aides (70.5%) and LPNs (67.7%). The most commonly cited reason was staff finding higher pay elsewhere. Fear of exposure to the COVID-19 virus and childcare or family demands at home were also cited as reasons for retention difficulties (Tables 26 and 27).
- Home health care agencies in New York State reported home health aides (80.6%) and personal care aides (77.5%) were the most difficult to recruit for, with a shortage of workers cited as the main reason for each occupation. Home health care agencies also reported that reasons for recruitment difficulties for home health aides were a fear of exposure to the COVID-19 virus, possible transmission of COVID-19 virus to others, as well as the state unemployment benefits. For personal care aides, the state unemployment benefit (60.8%) was the most reported reason for pandemic-related recruitment difficulty (Tables 28 and 29).
- Personal care aides (73.4%), home health aides (72.0%), and homemakers (68.4%) were reported as the most difficult to retain in New York State's home health care agencies. The most common reasons for retention difficulties for these occupations included staff finding higher pay elsewhere and family commitments related to the COVID-19 pandemic (Tables 30 and 31).

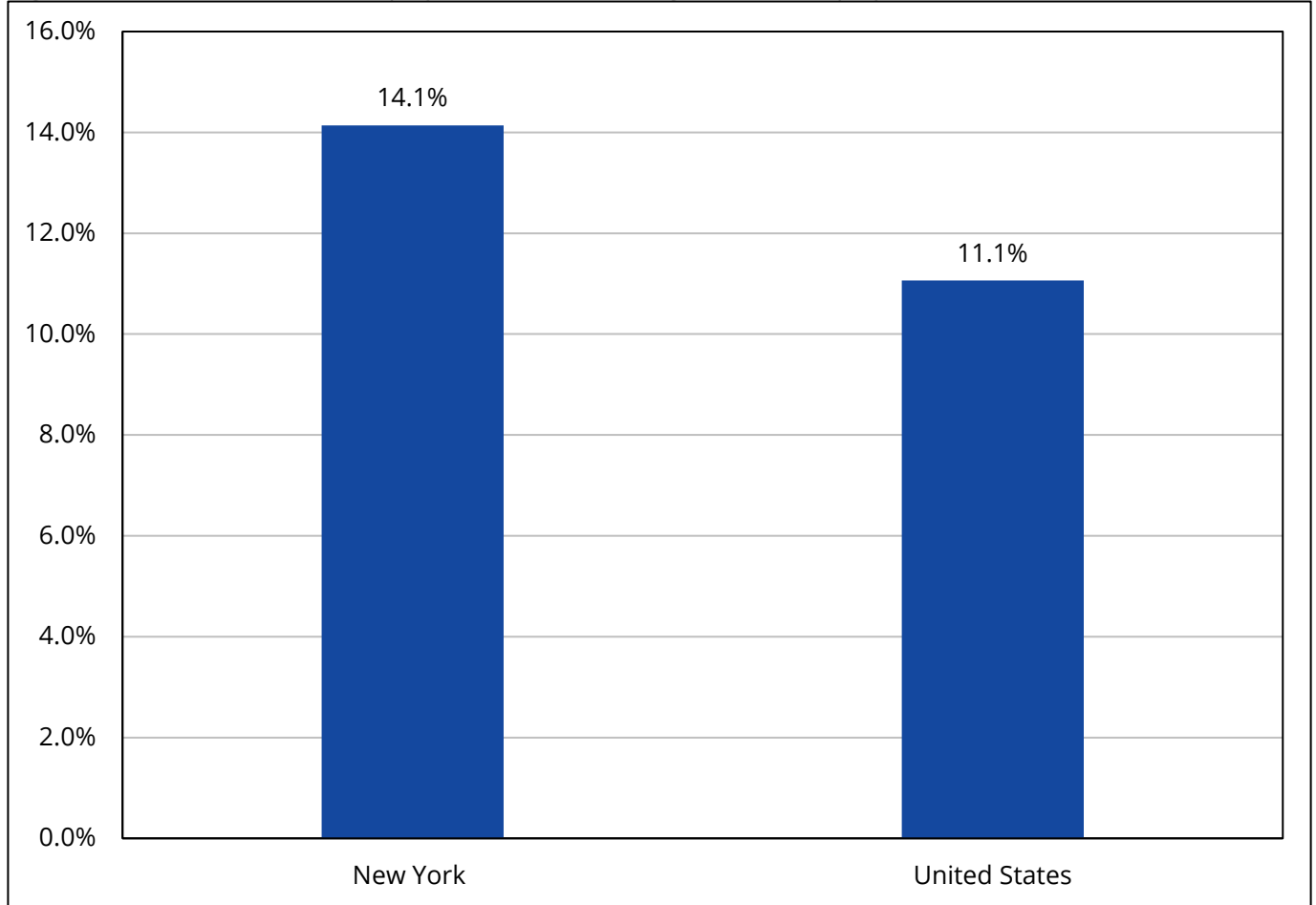
Health Care Production and Need

- The number of New York State social worker graduations increased by nearly 400, or 8.0% between 2016 and 2020. The number of NP graduations increased by slightly over 300 during the same period. The production of medical assistants, LPNs, nursing assistants, and pharmacy technicians all decreased between 2016 and 2020 (Table 32).
- There were 8,814 more NPs certified^e to practice in the state in 2021 compared with 2017, an increase of 36.8%. Physician assistants licensed to practice in the state increased as well during the same period by 3,781 (24.1%). There were 2,296 (3.3%) fewer LPNs and 715 (5.0%) fewer clinical laboratory technologists licensed to practice in the state in 2021 than in 2017 (Table 33).
- Total RN graduations statewide exceeded 11,000 in 2020. Despite COVID-19 pandemic disruptions, applications and acceptances into RN education programs remained relatively stable. Additionally, the job market for new RNs is strong, especially in hospitals and nursing homes (Figures 7, 8, 9, and 10).
- Between 2018 and 2028, some of the fastest-growing occupations statewide are projected to be home health aides (65.9%), personal care aides (55.6%), physician assistants (41.5%), and NPs (41.3%) (Table 34).

^e NPs are licensed in New York State as registered nurses but certified in 1 or more of 16 specialties.

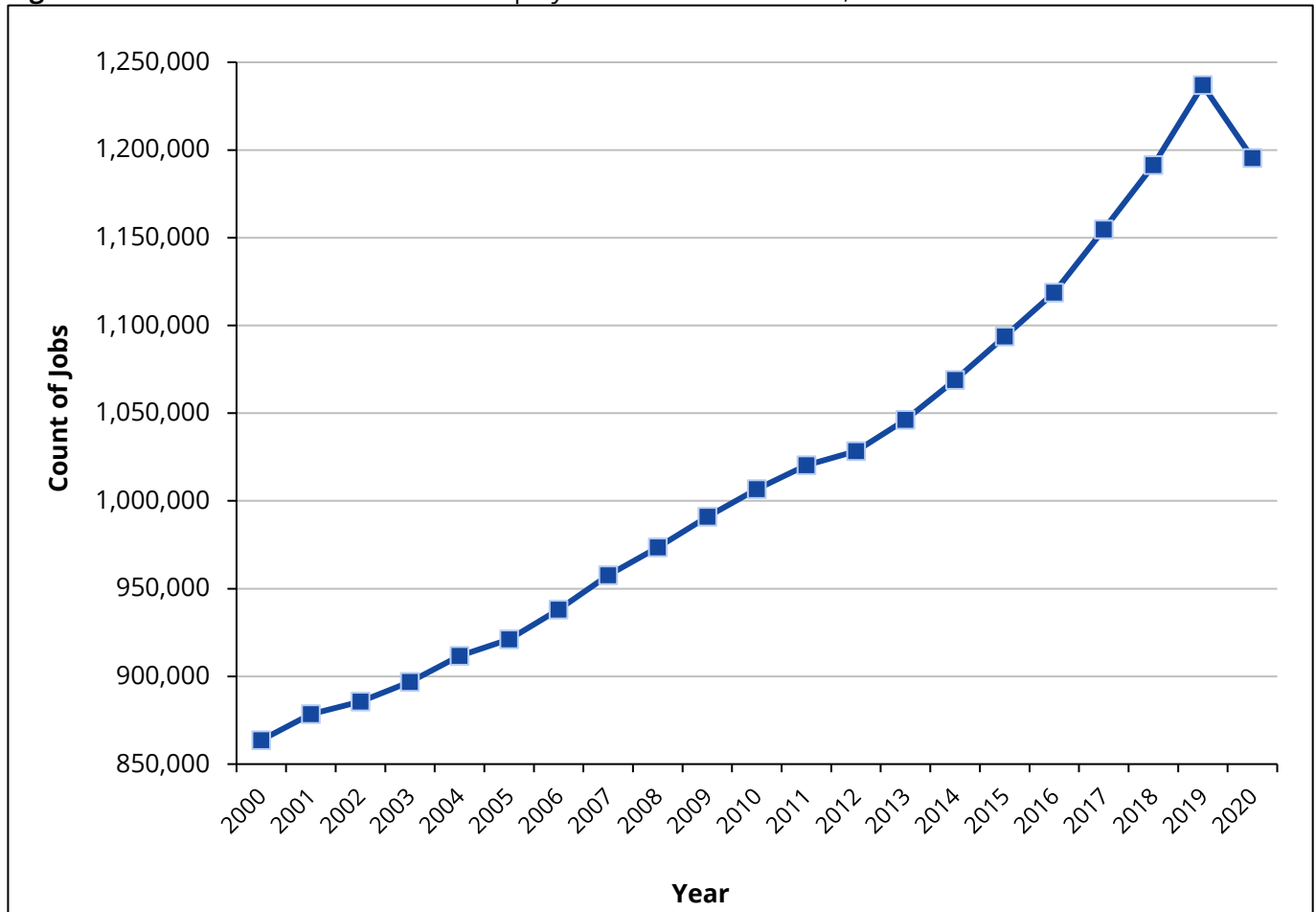
Total Health Care Employment in New York State

Figure 2. Health Care Sector Employment as a Percentage of Total Employment, 2020



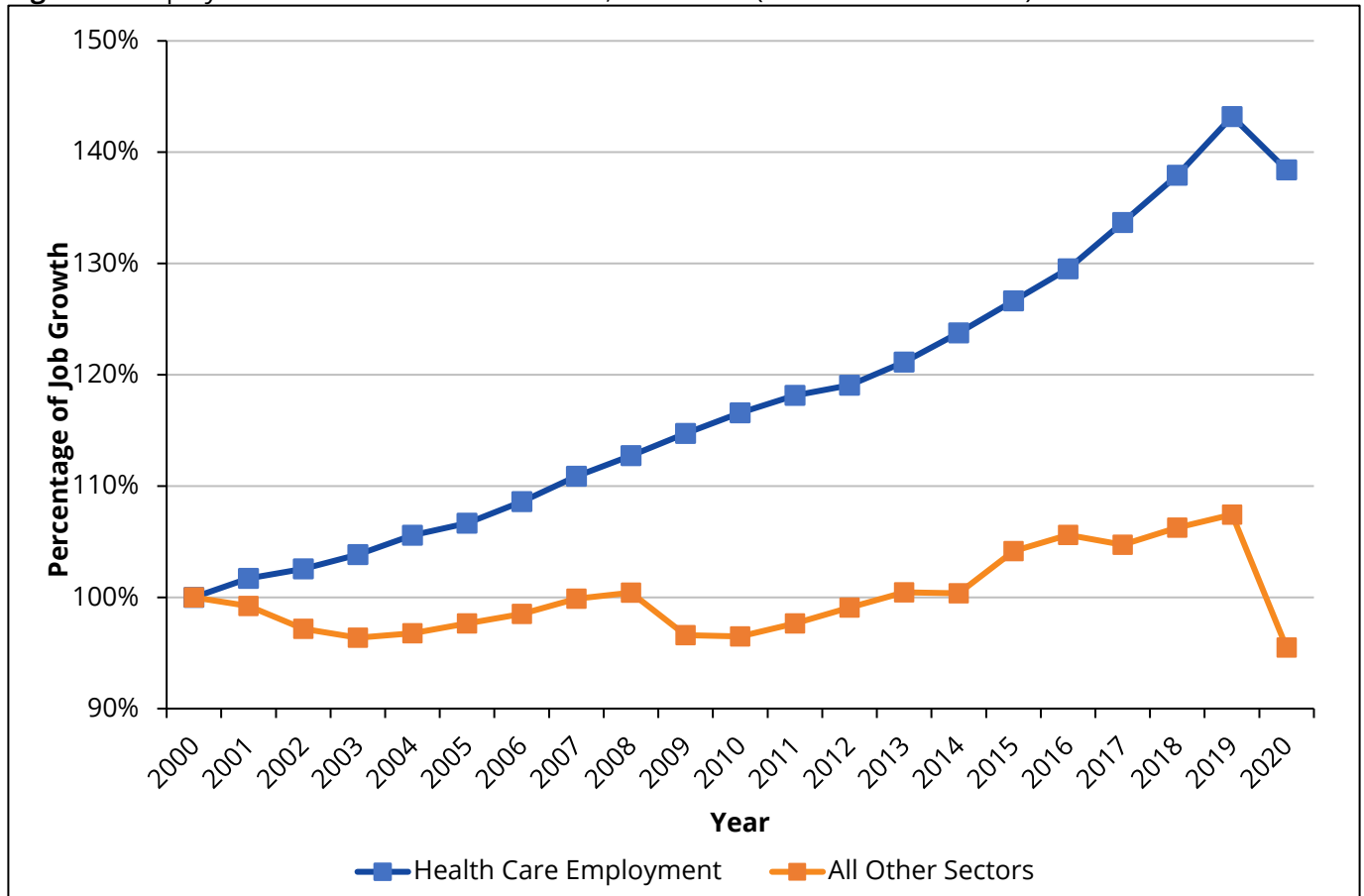
Sources: US Department of Labor, Bureau of Labor Statistics. Employment Projections program: Table 1.9, 2018-2028 Industry-Occupation Matrix Data, by Industry; and Table 2.11, Employment and Output by Industry; New York State Department of Labor, Quarterly Census of Employment and Wages.

Figure 3. Growth in Health Care Sector Employment in New York State, 2000-2020



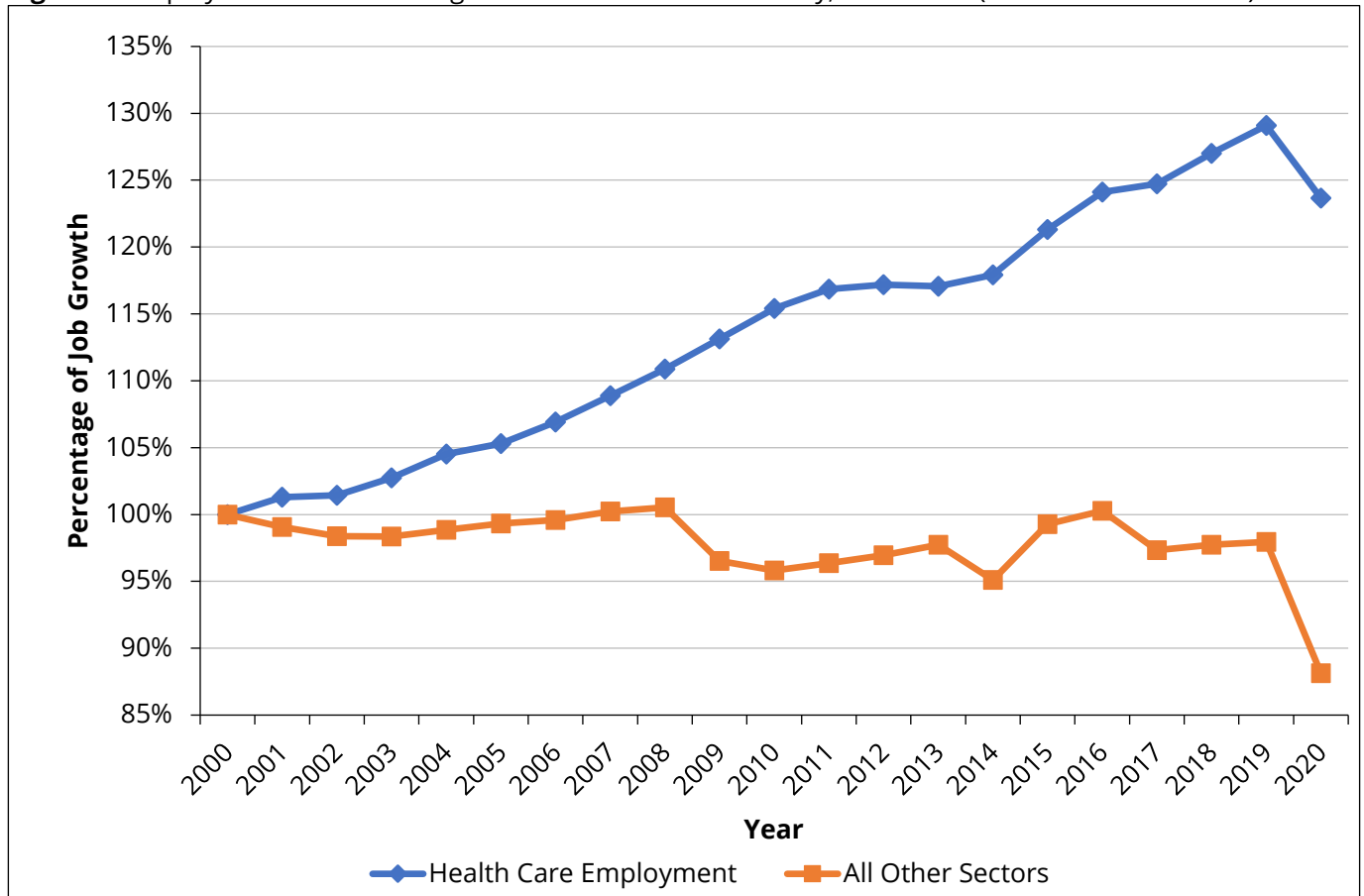
Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Figure 4. Employment Growth in New York State, 2000-2020 (Standardized to 2000)



Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Figure 5. Employment Growth in Regions Outside of New York City, 2000-2020 (Standardized to 2000)



Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

A. Population Characteristics

Table 1. Selected Population Characteristics in New York State, 2015-2019

Population Characteristics	Number	Percent
Total population	19,572,319	N/A
Population under 100% FPL	2,681,277	14.1%
Population under 200% FPL	5,665,922	29.7%
Population aged birth to 17 years	4,108,499	21.0%
Population aged 65 and older	3,146,306	16.1%
Population female aged 15 to 44	3,924,385	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	4,648	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	148,723	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	67,605	30.6%
Black/African American, non-Hispanic	2,790,504	14.3%
Hispanic/Latino	3,720,983	19.0%
Asian/Pacific Islander, non-Hispanic	1,639,228	8.4%
American Indian/Native Alaskan, non-Hispanic	46,034	0.2%
Two or more/other races	385,313	2.0%
Population with less than a high school education ^a	1,796,594	13.2%
Population with a high school diploma or equivalent ^a	5,659,296	41.5%
Population with an associate degree ^a	1,190,240	8.7%
Population with a bachelor's degree ^a	2,799,878	20.5%
Population with a master's degree or higher ^a	2,185,929	16.0%
Home ownership	3,957,802	53.9%
^a Education levels and rates are based on individuals aged 25 years and older.		

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 2. Selected Health Indicators in New York State, 2016-2018

Health Indicator	Statewide	
	Number	Rate
Total deaths, per 100,000	466,052	793.0
Deaths due to heart disease, per 100,000	131,888	224.4
Deaths due to all cancers, per 100,000	103,820	176.3
Deaths due to diabetes, per 100,000	12,649	21.5
Total births, per 1,000 females aged 15 to 44	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	22,262	12.6
Low-birthweight births, as a percent of total births	54,941	8.0
Late/no prenatal care, as a percent of total births	36,747	5.5
Infant deaths, per 1,000 live births	3,018	4.4
Total hospitalizations, per 10,000	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	25,000	6.7
Rate of asthma hospitalizations, aged 25-44 per 10,000	8,405	5.3
Rate of asthma hospitalizations, aged 45-64 per 10,000	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	26,999	22.1
Diabetes hospitalizations, per 10,000	116,638	19.8
CLRD hospitalizations, per 10,000	181,011	30.8
Heart disease hospitalizations, per 10,000	603,977	102.8
Total ED visits, per 10,000	24,415,312	4,154.0

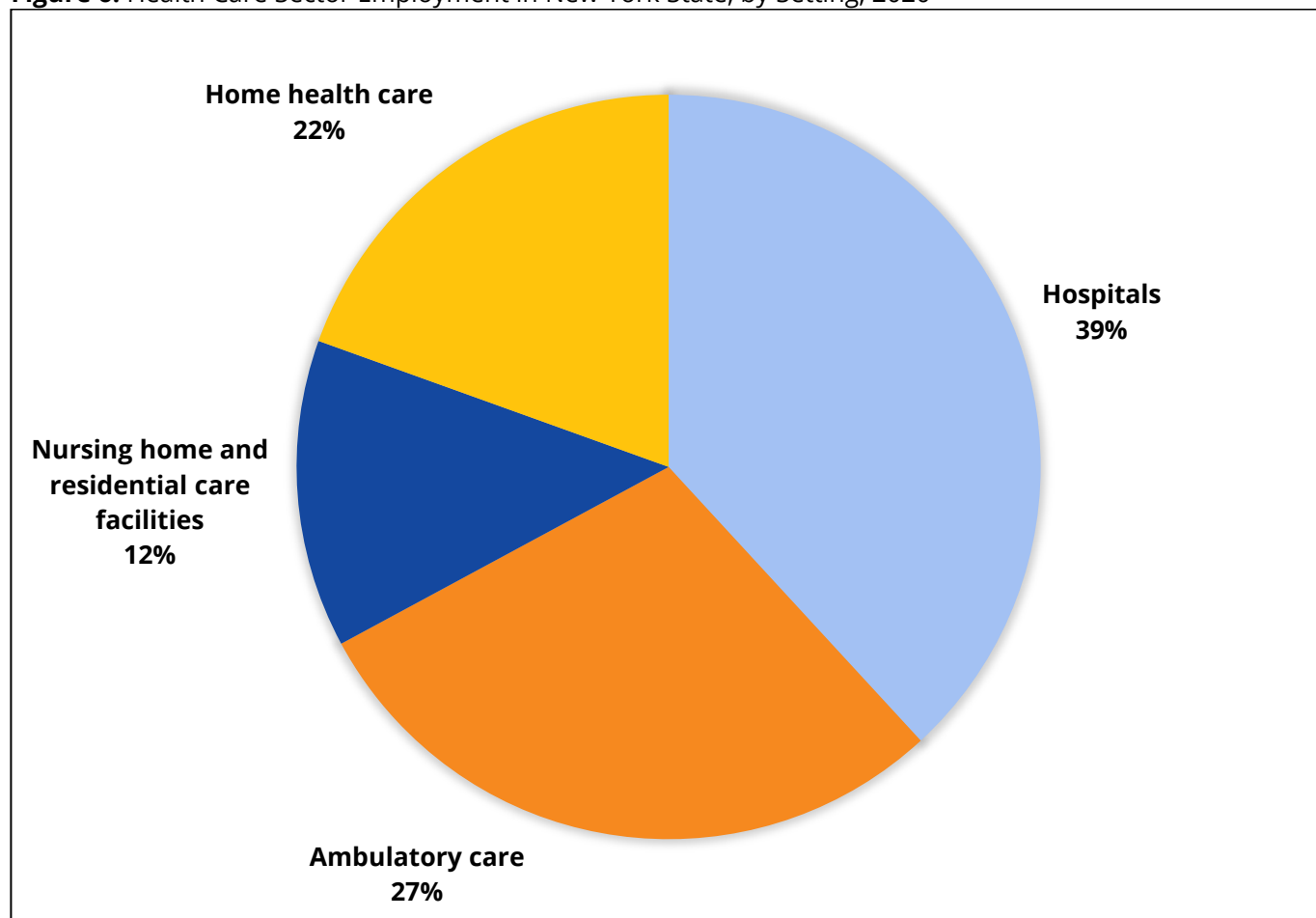
CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

B. Health Care Sector Employment

Figure 6. Health Care Sector Employment in New York State, by Setting, 2020



Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 3. Number of Health Care Jobs in New York State, by Setting, 2000, 2016, 2020

Setting	2000	2016	2020	Number Change		Percent Change	
				2000-2020	2016-2020	2000-2020	2016-2020
Hospitals	410,300	444,949	460,283	49,983	15,334	12.2%	3.4%
Ambulatory care (excluding home health)	245,600	333,059	324,176	78,576	-8,883	32.0%	-2.7%
Nursing home and residential care facilities	143,200	160,625	148,813	5,613	-11,812	3.9%	-7.4%
Home health care	64,600	179,996	262,208	197,608	82,212	305.9%	45.7%
Total	863,700	1,118,629	1,195,480	331,780	76,851	38.4%	6.9%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

C. By Region

1. Regional Health Care Sector Employment Summaries

Table 4. Total Health Care Sector Employment in New York State, by Department of Labor Region, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Capital District	58,613	59,764	60,374	59,272	57,012	-1,601	-2.7%
Central New York	40,075	40,258	40,538	41,907	39,161	-914	-2.3%
Finger Lakes	67,125	68,200	69,298	69,772	66,607	-518	-0.8%
Hudson Valley	118,275	120,732	121,722	123,422	120,117	1,842	1.6%
Long Island	176,542	180,436	186,482	194,047	186,101	9,559	5.4%
Mohawk Valley	26,816	27,177	26,984	26,527	25,010	-1,806	-6.7%
New York City	510,565	536,892	562,429	597,601	583,083	72,518	14.2%
North Country	18,898	18,976	19,026	19,244	18,388	-510	-2.7%
Southern Tier	29,062	28,924	29,148	29,083	27,767	-1,295	-4.5%
Western New York	72,658	73,287	75,376	76,042	72,234	-424	-0.6%
Total	1,118,629	1,154,646	1,191,377	1,236,917	1,195,480	76,851	6.9%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 5. Total Employment and Health Care Sector Employment in New York State, by Department of Labor Region, 2010 and 2020

Region	2010		2020	
	Jobs per 100,000 Population	% of Jobs in Health Care	Jobs per 100,000 Population	% of Jobs in Health Care
Capital District	5,052.0	11.1%	5,263.3	11.7%
Central New York	4,683.8	11.0%	5,035.5	12.3%
Finger Lakes	5,011.6	11.4%	5,525.8	13.0%
Hudson Valley	4,825.5	12.9%	5,178.1	14.1%
Long Island	5,697.2	13.6%	6,552.1	15.9%
Mohawk Valley	5,437.3	14.2%	5,144.4	14.4%
New York City	5,324.2	12.1%	6,925.5	14.6%
North Country	4,054.5	11.6%	4,364.0	13.2%
Southern Tier	4,354.4	10.9%	4,361.4	11.7%
Western New York	5,105.2	11.7%	5,225.0	12.6%
Total	5,195.5	12.3%	6,108.0	14.1%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages; U.S. Census Bureau.

2. Hospital Employment

Table 6. New York Upstate and Downstate Health Care Employment in Hospitals, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2018	
						Number	Percent
Downstate	273,183	276,845	279,037	284,309	287,772	14,589	5.3%
Upstate	171,766	174,826	178,270	178,737	172,511	745	0.4%
Total	444,949	451,671	457,307	463,046	460,283	15,334	3.4%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Note: The downstate category includes the Department of Labor regions of New York City and Long Island. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

Table 7. Hospital Employment in New York State, by Department of Labor Region, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Capital District	24,365	24,907	25,225	24,537	23,328	-1,037	-4.3%
Central New York	13,755	13,931	14,066	14,210	13,603	-152	-1.1%
Finger Lakes	32,027	32,738	33,911	34,532	33,594	1,567	4.9%
Hudson Valley	40,633	42,007	42,156	42,400	41,898	1,265	3.1%
Long Island	67,833	71,183	73,929	76,005	76,195	8,362	12.3%
Mohawk Valley	11,667	11,773	11,838	11,785	10,678	-989	-8.5%
New York City	205,350	205,662	205,108	208,304	211,577	6,227	3.0%
North Country	9,438	9,507	9,710	9,796	9,369	-69	-0.7%
Southern Tier	13,505	13,506	13,535	13,681	13,198	-307	-2.3%
Western New York	26,376	26,457	27,829	27,796	26,843	467	1.8%
Total	444,949	451,671	457,307	463,046	460,283	15,334	3.4%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

3. Ambulatory Care Employment

Table 8. New York Upstate and Downstate Health Care Employment in Ambulatory Care Settings (excluding Home Health Care), 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Downstate	190,693	194,917	196,004	203,012	185,310	-5,383	-2.8%
Upstate	142,366	144,757	146,374	148,048	138,866	-3,500	-2.5%
Total	333,059	339,674	342,378	351,060	324,176	-8,883	-2.7%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Note: The downstate category includes the Department of Labor regions of New York City and Long Island. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

Table 9. Ambulatory Care Settings Employment (excluding Home Health Care) in New York State, by Department of Labor Region, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Capital District	19,866	19,933	20,226	20,132	19,096	-770	-3.9%
Central New York	15,313	15,622	15,924	16,919	15,208	-105	-0.7%
Finger Lakes	16,863	16,719	16,350	16,256	15,163	-1,700	-10.1%
Hudson Valley	44,693	46,360	47,357	47,262	43,721	-972	-2.2%
Long Island	65,861	65,745	66,852	68,700	63,302	-2,559	-3.9%
Mohawk Valley	6,845	6,968	6,967	6,929	7,003	158	2.3%
New York City	124,832	129,172	129,152	134,312	122,008	-2,824	-2.3%
North Country	5,637	5,698	5,703	5,917	5,642	5	0.1%
Southern Tier	7,728	7,675	7,796	7,857	7,495	-233	-3.0%
Western New York	25,421	25,782	26,051	26,776	25,538	117	0.5%
Total	333,059	339,674	342,378	351,060	324,176	-8,883	-2.7%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

4. Nursing and Residential Care Facility Employment

Table 10. New York Upstate and Downstate Health Care Employment in Nursing and Residential Care, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Downstate	73,603	74,125	74,324	74,416	69,277	-4,326	-5.9%
Upstate	87,022	86,034	85,671	85,256	79,536	-7,486	-8.6%
Total	160,625	160,159	159,995	159,672	148,813	-11,812	-7.4%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Note: The downstate category includes the Department of Labor regions of New York City and Long Island. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

Table 11. Nursing and Residential Care Facility Employment in New York State, by Department of Labor Region, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Capital District	11,203	11,490	11,423	11,250	10,323	-880	-7.9%
Central New York	8,909	8,522	8,370	8,547	8,112	-797	-8.9%
Finger Lakes	13,757	13,842	13,948	13,730	12,916	-841	-6.1%
Hudson Valley	21,102	20,310	20,405	20,665	19,363	-1,739	-8.2%
Long Island	23,681	23,953	24,490	25,282	23,492	-189	-0.8%
Mohawk Valley	6,834	6,724	6,418	6,278	5,911	-923	-13.5%
New York City	49,922	50,172	49,834	49,134	45,785	-4,137	-8.3%
North Country	3,019	2,975	2,887	2,813	2,675	-344	-11.4%
Southern Tier	6,692	6,689	6,738	6,584	6,126	-566	-8.5%
Western New York	15,506	15,482	15,482	15,389	14,110	-1,396	-9.0%
Total	160,625	160,159	159,995	159,672	148,813	-11,812	-7.4%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

5. Home Health Care Employment

Table 12. New York Upstate and Downstate Health Care Employment in Home Health Care, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Downstate	149,628	171,441	199,546	229,911	226,825	77,197	51.6%
Upstate	30,368	31,701	32,151	33,228	35,383	5,015	16.5%
Total	179,996	203,142	231,697	263,139	262,208	82,212	45.7%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Note: The downstate category includes the Department of Labor regions of New York City and Long Island. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

Table 13. Home Health Care Employment in New York State, by Department of Labor Region, 2016-2020

Region	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Capital District	3,179	3,434	3,500	3,353	4,265	1,086	34.2%
Central New York	2,098	2,183	2,178	2,231	2,238	140	6.7%
Finger Lakes	4,478	4,901	5,089	5,254	4,934	456	10.2%
Hudson Valley	11,847	12,055	11,804	13,095	15,135	3,288	27.8%
Long Island	19,167	19,555	21,211	24,060	23,112	3,945	20.6%
Mohawk Valley	1,470	1,712	1,761	1,535	1,418	-52	-3.5%
New York City	130,461	151,886	178,335	205,851	203,713	73,252	56.1%
North Country	804	796	726	718	702	-102	-12.7%
Southern Tier	1,137	1,054	1,079	961	948	-189	-16.6%
Western New York	5,355	5,566	6,014	6,081	5,743	388	7.2%
Total	179,996	203,142	231,697	263,139	262,208	82,212	45.7%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 14. Number of Jobs in Selected Health Care Occupations in New York State, in Alphabetical Order, 2016-2020

Occupational Title	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Cardiovascular Technologists and Technicians	3,110	3,260	3,280	3,370	3,360	250	8.0%
Certified Registered Nurse Anesthetists	1,230	1,660	1,770	1,900	1,920	690	56.1%
Dental Assistants	20,040	20,370	19,110	19,520	14,420	-5,620	-28.0%
Dental Hygienists	10,750	11,050	11,300	11,620	9,190	-1,560	-14.5%
Dietetic Technicians	930	900	1,090	1,040	1,060	130	14.0%
Dietitians and Nutritionists	4,960	4,800	4,710	4,640	4,450	-510	-10.3%
Home Health and Personal Care Aides	330,660	360,220	390,880	444,880	469,370	138,710	41.9%
Licensed Practical Nurses	46,990	45,950	46,500	46,320	44,440	-2,550	-5.4%
Medical and Health Services Managers	26,010	25,850	25,830	25,740	24,360	-1,650	-6.3%
Medical Assistants	23,860	25,140	26,080	27,730	25,490	1,630	6.8%
Medical Records and Health Info Techs	8,800	,590	10,180	14,990	14,280	5,480	62.3%
Medical Secretaries	11,720	10,060	8,890	8,950	9,320	-2,400	-20.5%
Mental Health Counselors	14,570	13,590	14,610	14,910	16,340	1,770	12.1%
Nuclear Medicine Technologists	1,260	1,150	1,040	970	870	-390	-31.0%
Nurses Midwives	480	510	450	480	460	-20	-4.2%
Nurse Practitioners	13,060	13,450	13,710	14,060	14,850	1,790	13.7%
Nursing Assistants	98,040	94,980	91,400	85,090	81,440	-16,600	-16.9%
Occupational Therapists	8,140	9,080	9,740	12,460	10,560	2,420	29.7%
Occupational Therapy Assistants	2,300	2,650	2,360	2,880	2,620	320	13.9%
Orderlies	4,800	3,440	3,240	3,070	3,210	-1,590	-33.1%
Pharmacists	20,430	21,890	20,400	20,180	19,460	-970	-4.7%
Pharmacy Aides	2,480	2,210	2,050	1,670	1,920	-560	-22.6%
Pharmacy Technicians	17,660	18,260	19,320	20,360	18,970	1,310	7.4%
Physical Therapist Assistants/Aides	7,140	7,020	7,790	8,700	8,100	960	13.4%
Physical Therapists	16,390	15,750	16,660	17,710	16,150	-240	-1.5%
Physician Assistants	12,070	12,150	12,060	13,270	13,760	1,690	14.0%
Radiation Therapists	1,540	1,180	1,150	1,170	1,320	-220	-14.3%
Radiologic Technologists and Technicians	12,990	12,320	12,780	12,620	12,170	-820	-6.3%
Registered Nurses	180,730	180,170	182,490	178,320	178,550	-2,180	-1.2%
Respiratory Therapists	5,840	5,750	5,740	5,860	6,040	200	3.4%
Social Workers	23,580	23,200	24,760	27,260	29,310	5,730	24.3%
Speech-Language Pathologists	11,360	12,090	12,750	13,130	12,950	1,590	14.0%

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Note: Changes in the number of health care jobs in New York State varied by occupation. Although these data represent positions or jobs and not individuals or full-time equivalents (FTEs), they are useful in identifying trends in occupations and job titles.

Table 15. Average Annual Salary for Selected Health Care Occupations in New York State, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$67,150
Certified Registered Nurse Anesthetists	\$204,160
Dental Assistants	\$44,030
Dental Hygienists	\$78,510
Dietetic Technicians	\$41,530
Dietitians and Nutritionists	\$71,560
Healthcare Social Workers	\$59,230
Home Health and Personal Care Aides	\$32,020
Licensed Practical Nurses	\$52,140
Medical and Health Services Managers	\$135,840
Medical Assistants	\$40,040
Medical Records and Health Information Technicians	\$51,230
Medical Secretaries	\$41,640
Mental Health and Substance Abuse Social Workers	\$62,910
Mental Health Counselors	\$54,270
Nuclear Medicine Technologists	\$93,250
Nurse Practitioners	\$126,540
Nurses Midwives	\$121,670
Nursing Assistants	\$42,220
Occupational Therapists	\$86,480
Occupational Therapy Assistants	\$64,730
Orderlies	\$42,670
Pharmacists	\$126,840
Pharmacy Aides	\$32,050
Pharmacy Technicians	\$35,760
Physical Therapist Assistants	\$58,210
Physical Therapists	\$93,630
Physician Assistants	\$127,220
Speech-Language Pathologists	\$93,600
Surgical Technologists	\$54,910

Source: New York State Department of Labor, Occupational Employment Statistics.

D. Recruitment and Retention Difficulties

1. Hospitals

Table 16. Recruitment Difficulties for Selected Occupations in Hospitals in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	90.8%	78.9%	55.3%	2.6%
Registered Nurses	89.6%	67.5%	45.5%	5.2%
Clinical Laboratory Technicians	81.2%	65.2%	47.8%	4.3%
Respiratory Therapists	74.7%	69.3%	45.3%	2.7%
Licensed Practical Nurses	72.2%	50.0%	16.7%	2.8%
Physician Assistants	71.9%	31.3%	32.8%	10.9%
Nurse Practitioners (excluding Psychiatric NPs)	69.6%	39.1%	4.3%	5.8%
Infection Preventionists	69.1%	58.2%	3.6%	3.6%
Surgical Technicians	68.5%	45.2%	23.3%	2.7%
Cardiovascular Technicians	63.5%	42.9%	31.7%	1.6%
Internists (General)	62.9%	56.5%	8.1%	9.7%
Obstetricians/Gynecologists	49.2%	45.8%	13.6%	6.8%
Pharmacists	48.6%	12.9%	8.6%	1.4%
Family and General Physicians	47.5%	41.0%	8.2%	9.8%
Patient Care Techs/CNAs	36.8%	17.1%	18.4%	1.3%
Pharmacy Technicians	18.9%	13.5%	13.5%	1.4%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 17. Recruitment Difficulties for Behavioral Health Occupations in Hospitals in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	87.5%	81.3%	39.6%	10.4%
Licensed Clinical Social Workers	63.0%	53.4%	26.0%	5.5%
Certified Alcohol and Substance Abuse Counselors	54.0%	49.2%	3.2%	1.6%
Licensed Master Social Workers	41.4%	31.4%	8.6%	4.3%
Psychologists	35.3%	49.0%	9.8%	7.8%
Substance Abuse and Behavioral Health Counselors	12.0%	14.0%	4.0%	4.0%
Licensed Mental Health Counselors	11.3%	8.1%	3.2%	4.8%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 18. Retention Difficulties for Selected Occupations in Hospitals in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Surgical Technicians	66.7%	78.6%	19.0%	4.8%	5%	23.8%	0.0%	4.8%
Registered Nurses	58.9%	58.9%	21.9%	11.0%	42%	53.4%	0.0%	35.6%
Respiratory Therapists	56.3%	49.3%	11.3%	7.0%	28%	31.0%	0.0%	4.2%
Clinical Laboratory Technologists	56.2%	37.0%	0.0%	1.4%	32%	26.0%	0.0%	2.7%
Cardiovascular Technicians	45.7%	25.7%	0.0%	0.0%	3%	2.9%	0.0%	5.7%
Clinical Laboratory Technicians	42.6%	20.4%	1.9%	1.9%	15%	5.6%	0.0%	1.9%
Licensed Practical Nurses	39.3%	35.7%	21.4%	8.9%	4%	28.6%	0.0%	16.1%
Surgeons (General)	38.3%	19.1%	0.0%	0.0%	36%	2.1%	0.0%	2.1%
Pharmacy Technicians	35.1%	7.0%	3.5%	3.5%	0%	3.5%	0.0%	1.8%
Patient Care Techs/CNAs	32.8%	42.6%	16.4%	14.8%	3%	13.1%	0.0%	31.1%
Infection Preventionists	22.2%	2.2%	0.0%	2.2%	0%	2.2%	0.0%	2.2%
Nurse Practitioners (excluding Psychiatric NPs)	21.6%	25.5%	0.0%	5.9%	6%	3.9%	0.0%	2.0%
Physician Assistants	6.6%	41.0%	0.0%	3.3%	2%	3.3%	0.0%	1.6%
Pharmacists	4.5%	13.6%	0.0%	1.5%	12%	1.5%	0.0%	1.5%
Family and General Physicians	4.0%	18.0%	0.0%	4.0%	40%	4.0%	0.0%	2.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 19. Retention Difficulties for Behavioral Health Occupations in Hospitals in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Psychiatrists	72.2%	38.9%	0.0%	3.7%	0%	1.9%	0.0%	3.7%
Psychologists	60.0%	4.4%	0.0%	2.2%	0%	2.2%	0.0%	4.4%
Licensed Clinical Social Workers	46.6%	9.1%	2.3%	2.3%	0%	1.1%	0.0%	2.3%
Licensed Master Social Workers	15.1%	13.2%	3.8%	3.8%	0%	1.9%	0.0%	1.9%
Licensed Mental Health Counselors	12.5%	6.3%	3.1%	3.1%	19%	3.1%	0.0%	6.3%
Certified Alcohol and Substance Abuse Counselors	6.7%	13.3%	0.0%	3.3%	7%	3.3%	0.0%	6.7%
Substance Abuse and Behavioral Health Counselors	4.3%	4.3%	2.1%	4.3%	13%	2.1%	0.0%	4.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

2. Federally Qualified Health Centers (FQHCs)

Table 20. Recruitment Difficulties for Selected Occupations in FQHCs in New York State, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Family Physicians/Internal Medicine	25.0%
Licensed Clinical Social Workers/Licensed Professional Counselors	18.8%
Nurses	15.6%
Psychiatrists	12.5%
Obstetricians/Gynecologists	9.4%
Dentists	6.3%
Dental Hygienists	3.1%
Management Personnel	3.1%
IT Personnel	3.1%
Support Personnel	3.1%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Table 21. Reasons for Recruitment Difficulties for Selected Occupations in FQHCs in New York State, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
General shortage of occupation(s) in area	90.6%
Wages not competitive	59.4%
Geographic location	50.0%
Challenging patient/client population	40.6%
Insufficient educational pipeline in the area	25.0%
Limited benefits	12.5%
Office conditions (eg, space limitations, outdated facilities)	12.5%
Lack of clinical support personnel	12.5%
High clinical/case load requirements	9.4%
Lack of peers/professional network in area	6.3%
Limited job security due to grant funding or other issue	3.1%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Table 22. Retention Difficulties for Selected Occupations in FQHCs in New York State, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	25.0%
Nurses	21.9%
Family Physicians/Internal Medicine	12.5%
Licensed Clinical Social Workers/Licensed Professional Counselors	9.4%
Obstetricians/Gynecologists	6.3%
Nurse Practitioners/Physician Assistants	6.3%
Medical Assistants	6.3%
Dentists	3.1%
Dental Hygienists	3.1%
Fiscal and Billing Personnel	3.1%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Table 23. Reasons for Retention Difficulties for Selected Occupations in FQHCs in New York State, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	78.1%
General shortage of occupation(s) in area	53.1%
Challenging patient/client population	46.9%
Geographic location	28.1%
High clinical/case load requirements	25.0%
Lack of clinical support personnel	18.8%
Limited benefits	12.5%
Insufficient educational pipeline in the area	9.4%
Lack of peers/professional network in area	6.3%
Office conditions (eg, space limitations, outdated facilities)	3.1%
Limited job security due to grant funding or other issue	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

3. Nursing Homes and Adult Care Facilities

Table 24. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	86.1%	61.1%	23.6%	22.9%	9.0%
Registered Nurses (Experienced)	85.3%	68.2%	24.8%	27.9%	8.5%
CNAs and Temps	79.4%	40.7%	13.0%	13.0%	7.4%
Registered Nurses (Newly Licensed)	79.3%	67.8%	25.6%	28.9%	8.3%
Home Health Aides	62.7%	54.9%	27.5%	11.8%	3.9%
Personal Care Aides	49.1%	43.6%	21.8%	16.4%	7.3%
Speech-Language Pathologists	43.5%	28.3%	9.8%	2.2%	0.0%
Occupational Therapists	38.8%	31.3%	10.4%	3.1%	0.0%
Physical Therapists	37.5%	31.9%	12.1%	4.4%	0.0%
Paid Feeding Assistants	37.5%	35.0%	12.5%	5.0%	7.5%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 25. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	86.1%	29.9%	29.2%	22.9%	3.5%
Registered Nurses (Experienced)	85.3%	25.6%	22.5%	15.5%	3.1%
CNAs and Temps	79.4%	21.3%	17.6%	25.9%	4.6%
Registered Nurses (Newly Licensed)	79.3%	28.9%	24.0%	16.5%	2.5%
Home Health Aides	62.7%	25.5%	31.4%	39.2%	7.8%
Personal Care Aides	49.1%	23.6%	29.1%	32.7%	10.9%
Speech-Language Pathologists	43.5%	3.3%	5.4%	3.3%	1.1%
Occupational Therapists	38.8%	7.3%	7.3%	4.2%	1.0%
Physical Therapists	37.5%	7.7%	8.8%	5.5%	1.1%
Paid Feeding Assistants	37.5%	12.5%	10.0%	20.0%	5.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 26. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Registered Nurses (Newly Licensed)	75.2%	56.4%	28.7%	21.8%	5.0%
Home Health Aides	70.5%	43.2%	36.4%	9.1%	2.3%
Licensed Practical Nurses	67.7%	54.0%	34.7%	19.4%	7.3%
CNAs and Temps	40.8%	49.5%	43.5%	12.5%	6.5%
Registered Nurses (Experienced)	64.2%	55.7%	34.0%	20.8%	8.5%
Personal Care Aides	62.5%	40.0%	32.5%	7.5%	5.0%
Nurse Directors/Managers	51.5%	31.7%	22.8%	16.8%	6.9%
Paid Feeding Assistants	45.8%	33.3%	29.2%	4.2%	0.0%
Infection Preventionist Practitioners	45.6%	14.7%	14.7%	7.4%	0.0%
MDS Coordinators	26.2%	9.5%	6.0%	9.5%	7.1%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 27. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Registered Nurses (Newly Licensed)	75.2%	1.0%	27.7%	21.8%	3.0%
Home Health Aides	70.5%	4.5%	31.8%	34.1%	9.1%
Licensed Practical Nurses	67.7%	0.0%	37.1%	32.3%	3.2%
CNAs and Temps	40.8%	2.7%	42.4%	41.8%	6.5%
Registered Nurses (Experienced)	64.2%	0.0%	25.5%	19.8%	2.8%
Personal Care Aides	62.5%	0.0%	47.5%	37.5%	7.5%
Nurse Directors/Managers	51.5%	0.0%	15.8%	9.9%	6.9%
Paid Feeding Assistants	45.8%	0.0%	16.7%	12.5%	0.0%
Infection Preventionist Practitioners	45.6%	0.0%	7.4%	4.4%	2.9%
MDS Coordinators	26.2%	0.0%	7.1%	6.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

4. Home Health Care Agencies

Table 28. Recruitment Difficulties for Selected Health Occupations in Home Health Care Agencies in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Home Health Aides	80.6%	72.2%	35.4%	27.8%	20.8%
Personal Care Aides	77.5%	71.7%	34.2%	34.2%	22.5%
Speech-Language Pathologists	68.6%	62.9%	14.3%	14.3%	2.9%
Registered Nurses	68.3%	48.2%	17.3%	34.5%	20.9%
Homemakers	65.2%	63.6%	28.8%	24.2%	21.2%
Occupational Therapists	61.5%	43.6%	17.9%	15.4%	10.3%
Licensed Master Social Workers	57.8%	42.2%	24.4%	17.8%	6.7%
Physical Therapists	57.1%	40.8%	12.2%	12.2%	6.1%
Licensed Practical Nurses	56.5%	48.2%	14.1%	29.4%	18.8%
Licensed Clinical Social Workers	54.1%	43.2%	16.2%	18.9%	10.8%
Respiratory Therapists	53.8%	50.0%	11.5%	11.5%	0.0%
Intake Coordinators	30.5%	24.2%	12.6%	17.9%	9.5%
COVID-19 Compliance Officers	25.0%	19.7%	15.8%	15.8%	9.2%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 29. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Home Health Aides	80.6%	18.1%	59.0%	31.3%	59.0%	12.5%
Personal Care Aides	77.5%	22.5%	59.2%	37.5%	60.8%	14.2%
Speech-Language Pathologists	68.6%	14.3%	22.9%	2.9%	8.6%	5.7%
Registered Nurses	68.3%	12.2%	30.9%	22.3%	12.2%	8.6%
Homemakers	65.2%	16.7%	57.6%	33.3%	59.1%	10.6%
Occupational Therapists	61.5%	7.7%	20.5%	5.1%	7.7%	7.7%
Licensed Master Social Workers	57.8%	8.9%	15.6%	6.7%	15.6%	4.4%
Physical Therapists	57.1%	8.2%	22.4%	8.2%	6.1%	6.1%
Licensed Practical Nurses	56.5%	7.1%	28.2%	16.5%	17.6%	8.2%
Licensed Clinical Social Workers	54.1%	13.5%	16.2%	8.1%	13.5%	2.7%
Respiratory Therapists	53.8%	15.4%	19.2%	3.8%	7.7%	7.7%
Intake Coordinators	30.5%	2.1%	17.9%	9.5%	12.6%	3.2%
COVID-19 Compliance Officers	25.0%	10.5%	21.1%	7.9%	17.1%	10.5%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 30. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations in New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Personal Care Aides	73.4%	56.9%	42.2%	21.1%	9.2%	30.3%
Home Health Aides	72.0%	49.2%	37.9%	19.7%	4.5%	25.0%
Homemakers	68.4%	57.9%	36.8%	8.8%	3.5%	15.8%
Speech-Language Pathologists	63.0%	18.5%	14.8%	29.6%	3.7%	0.0%
Physical Therapists	54.8%	25.8%	12.9%	32.3%	0.0%	3.2%
Occupational Therapists	53.6%	21.4%	7.1%	21.4%	0.0%	0.0%
Respiratory Therapists	52.9%	23.5%	5.9%	29.4%	5.9%	0.0%
Licensed Master Social Workers	50.0%	31.3%	15.6%	18.8%	3.1%	0.0%
Licensed Practical Nurses	47.8%	40.6%	15.9%	27.5%	2.9%	7.2%
Licensed Clinical Social Workers	46.4%	28.6%	14.3%	25.0%	3.6%	0.0%
Registered Nurses	42.7%	42.7%	29.8%	31.5%	16.1%	12.9%
Intake Coordinators	24.0%	24.0%	16.0%	16.0%	1.3%	6.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 31. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, New York State, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Personal Care Aides	73.4%	41.3%	18.3%	48.6%	11.0%	21.1%	45.0%
Home Health Aides	72.0%	38.6%	20.5%	51.5%	11.4%	20.5%	47.0%
Homemakers	68.4%	43.9%	24.6%	49.1%	8.8%	8.8%	45.6%
Speech-Language Pathologists	63.0%	7.4%	25.9%	14.8%	18.5%	22.2%	11.1%
Physical Therapists	54.8%	12.9%	12.9%	25.8%	12.9%	25.8%	9.7%
Occupational Therapists	53.6%	10.7%	14.3%	17.9%	17.9%	21.4%	14.3%
Respiratory Therapists	52.9%	11.8%	29.4%	11.8%	29.4%	17.6%	11.8%
Licensed Master Social Workers	50.0%	6.3%	12.5%	9.4%	15.6%	18.8%	3.1%
Licensed Practical Nurse	47.8%	26.1%	10.1%	29.0%	11.6%	21.7%	15.9%
Licensed Clinical Social Workers	46.4%	7.1%	14.3%	7.1%	14.3%	17.9%	7.1%
Registered Nurses	42.7%	16.1%	6.5%	22.6%	9.7%	20.2%	14.5%
Intake Coordinators	24.0%	6.7%	8.0%	17.3%	8.0%	6.7%	10.7%
COVID-19 Compliance Officers	15.5%	10.3%	13.8%	15.5%	10.3%	12.1%	12.1%

PT, Part-Time.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

E. Graduations by Occupation

Table 32. Number of Graduations in Selected Health Care Occupational Programs in New York State, Ranked by Largest Increase in Numbers, 2016-2020

Occupational Program	School Year					Change Between 2016-2020	
	2016	2017	2018	2019	2020	Number	Percent
Social Workers	4,956	4,983	5,054	5,333	5,353	397	8.0%
Health Care Administrators	1,617	1,836	1,815	2,009	1,941	324	20.0%
Nurse Practitioners	1,199	1,336	1,318	1,475	1,495	296	24.7%
Registered Nurses	11,460	11,519	11,221	11,700	11,638	178	1.6%
Speech-Language Pathologists	485	447	606	629	662	177	36.5%
Occupational Therapists	930	998	1,005	1,071	1,106	176	18.9%
Physician Assistants	1,146	1,215	1,222	1,281	1,299	153	13.4%
Physical Therapists	1,239	1,424	1,407	1,446	1,373	134	10.8%
Mental Health Counselors	883	884	844	925	997	114	12.9%
Dietitians	319	364	418	420	406	87	27.3%
Occupational Therapy Assistants	262	258	316	259	327	65	24.8%
Radiation Therapists	487	494	532	527	520	33	6.8%
Nutritionists	165	199	194	185	185	20	12.1%
Pharmacists	996	1,056	1,044	1,000	1,012	16	1.6%
Nurse Midwives	18	15	30	38	32	14	77.8%
Physical Therapist Assistants/Aides	251	281	283	261	264	13	5.2%
Clinical Laboratory Technologists	315	312	312	302	321	6	1.9%
Emergency Medical Technicians and Paramedics	219	257	249	335	223	4	1.8%
Nuclear Medicine Technologists	24	28	21	30	23	-1	-4.2%
Respiratory Therapists	176	169	166	151	173	-3	-1.7%
Clinical Laboratory Technicians	113	129	127	102	106	-7	-6.2%
Dietetic Technicians	42	35	39	23	32	-10	-23.8%
Nurse Anesthetists	46	42	51	50	33	-13	-28.3%
Dental Hygienists	459	458	487	405	442	-17	-3.7%
Cardiovascular Technologists and Technicians	52	33	13	14	10	-42	-80.8%
Dental Assistants	461	440	393	371	335	-126	-27.3%
Pharmacy Technicians/Assistants	486	335	217	186	179	-307	-63.2%
Licensed Practical Nurses	2,801	2,505	2,351	2,383	2,442	-359	-12.8%
Nursing Assistants	969	654	471	422	474	-495	-51.1%
Medical Assistants	5,474	4,481	3,842	3,339	3,028	-2,446	-44.7%

Source: Integrated Postsecondary Education Data System.

F. Professional Licensure by Occupation

Table 33. Number of Licensed Individuals in Selected Health Care Professions in New York State, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	1,896	1,900	1,816	1,867	1,894	-2	-0.1%
Clinical Laboratory Technologists	14,279	14,284	13,409	13,699	13,564	-715	-5.0%
Dental Assistants	1,447	1,424	1,470	1,556	1,573	126	8.7%
Dental Hygienists	11,780	11,653	11,741	11,967	12,036	256	2.2%
Dietitians/Nutritionists, Certified	5,690	5,861	6,044	6,189	6,486	796	14.0%
Licensed Practical Nurses	70,618	69,872	67,717	69,050	68,322	-2,296	-3.3%
Nurse Practitioners	23,936	25,168	26,952	29,843	32,750	8,814	36.8%
Occupational Therapists	13,408	13,889	14,433	15,363	15,942	2,534	18.9%
Occupational Therapy Assistants	4,119	4,322	4,513	4,786	4,818	699	17.0%
Pharmacists	27,611	26,894	27,473	28,099	28,971	1,360	4.9%
Physical Therapists	23,220	23,431	23,876	24,922	25,838	2,618	11.3%
Physical Therapist Assistants	6,417	6,587	6,636	6,880	6,992	575	9.0%
Physician Assistants	15,668	15,758	16,721	18,256	19,449	3,781	24.1%
Registered Professional Nurses	295,802	302,560	309,241	328,204	345,212	49,410	16.7%
Respiratory Therapists	6,453	6,491	6,560	6,956	7,041	588	9.1%
Social Workers	57,102	56,703	56,947	59,149	61,722	4,620	8.1%
Speech-Language Pathologists	18,523	18,920	19,406	20,282	20,865	2,342	12.6%
Total	597,969	605,717	614,955	647,068	673,475	75,506	12.6%

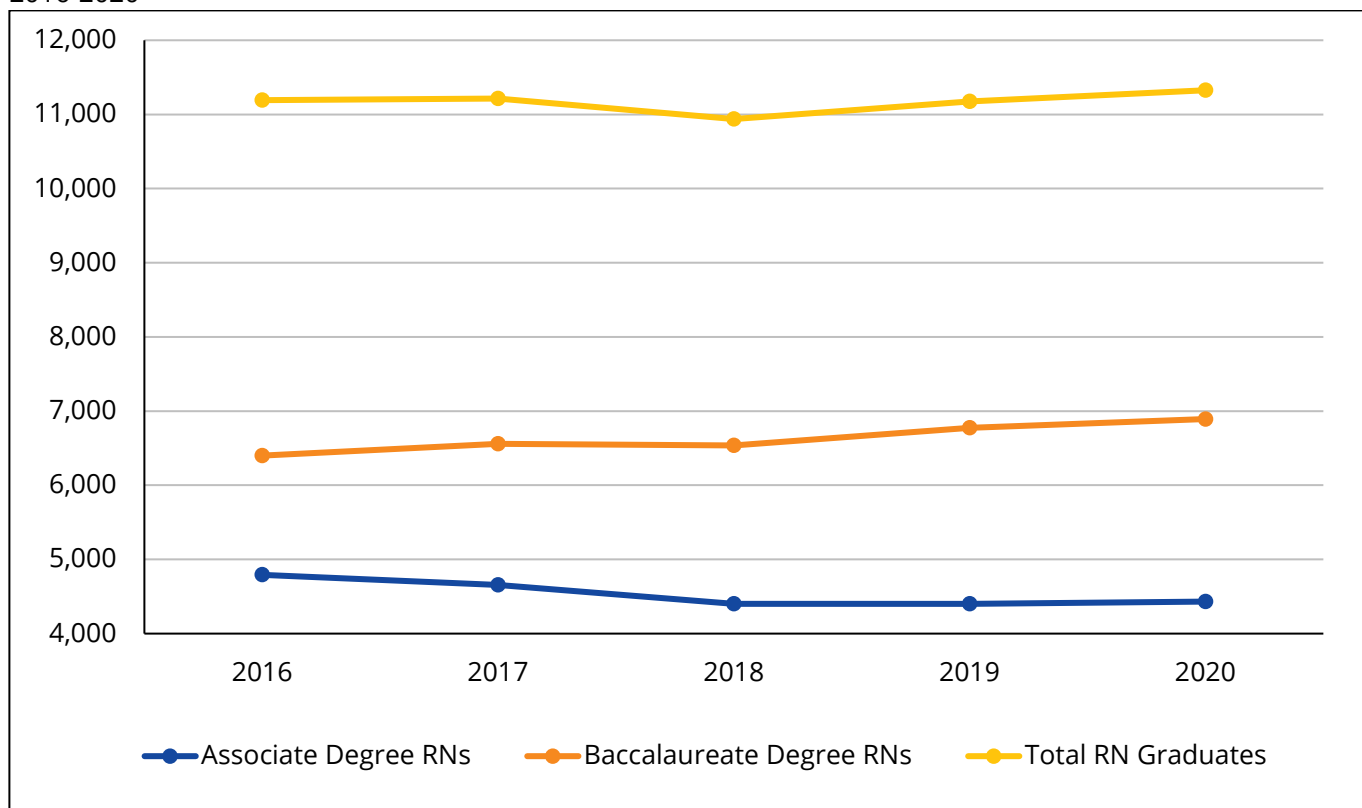
Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

G. Trends in New York State RN Education, 2016-2021

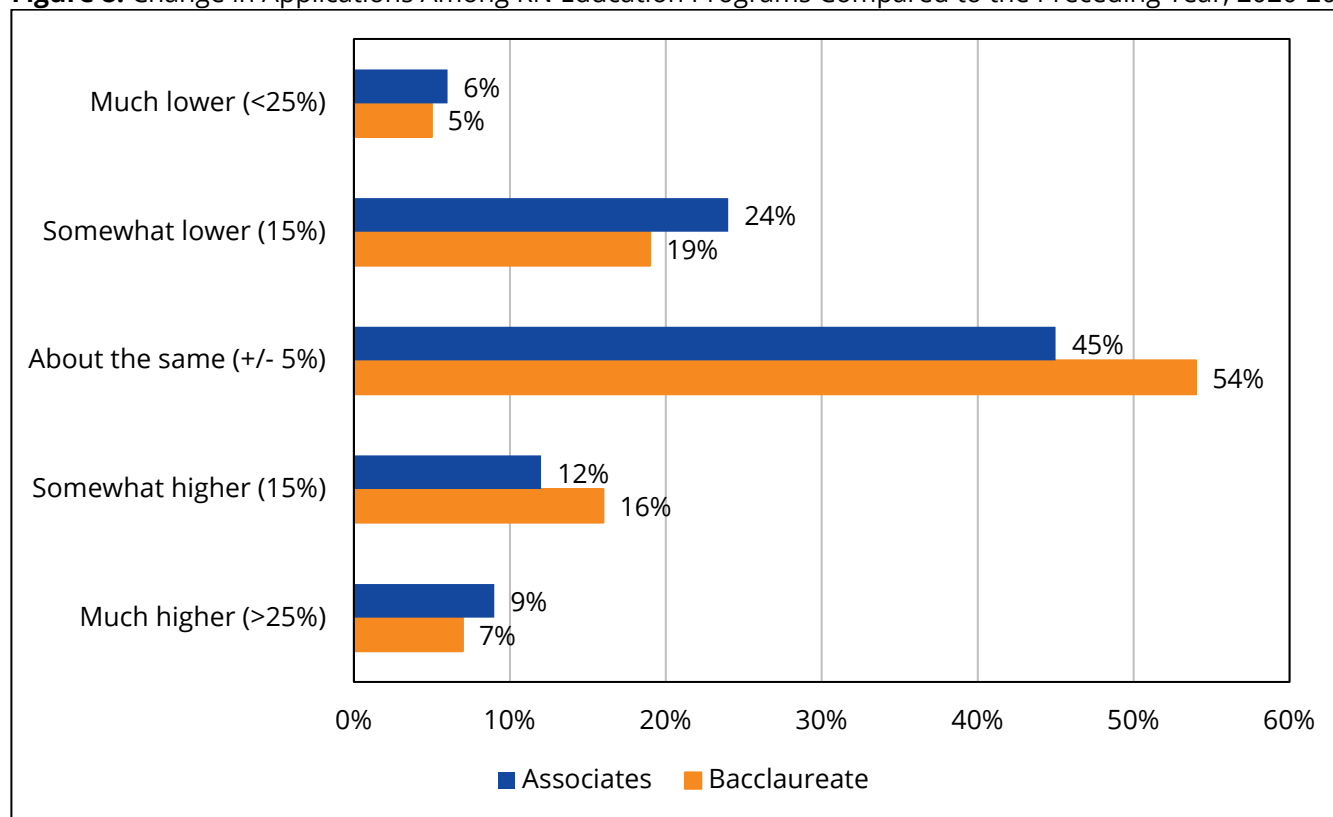
Every year, CHWS surveys the state's RN education program deans and directors to monitor the production of RNs in the state. The most recent survey was conducted in the fall of 2020 and the spring of 2021 and included questions about applications and acceptances to the nursing program as well as perspectives on the local job market for RN graduates. Of the 126 programs eligible to participate in the survey, 76 responded for a 60% response rate. Finally, IPEDS data were used for total annual RN graduations from 2016 to 2020.

Figure 7. Annual Number of Graduates from RN Education Programs in New York State by Degree Type, 2016-2020



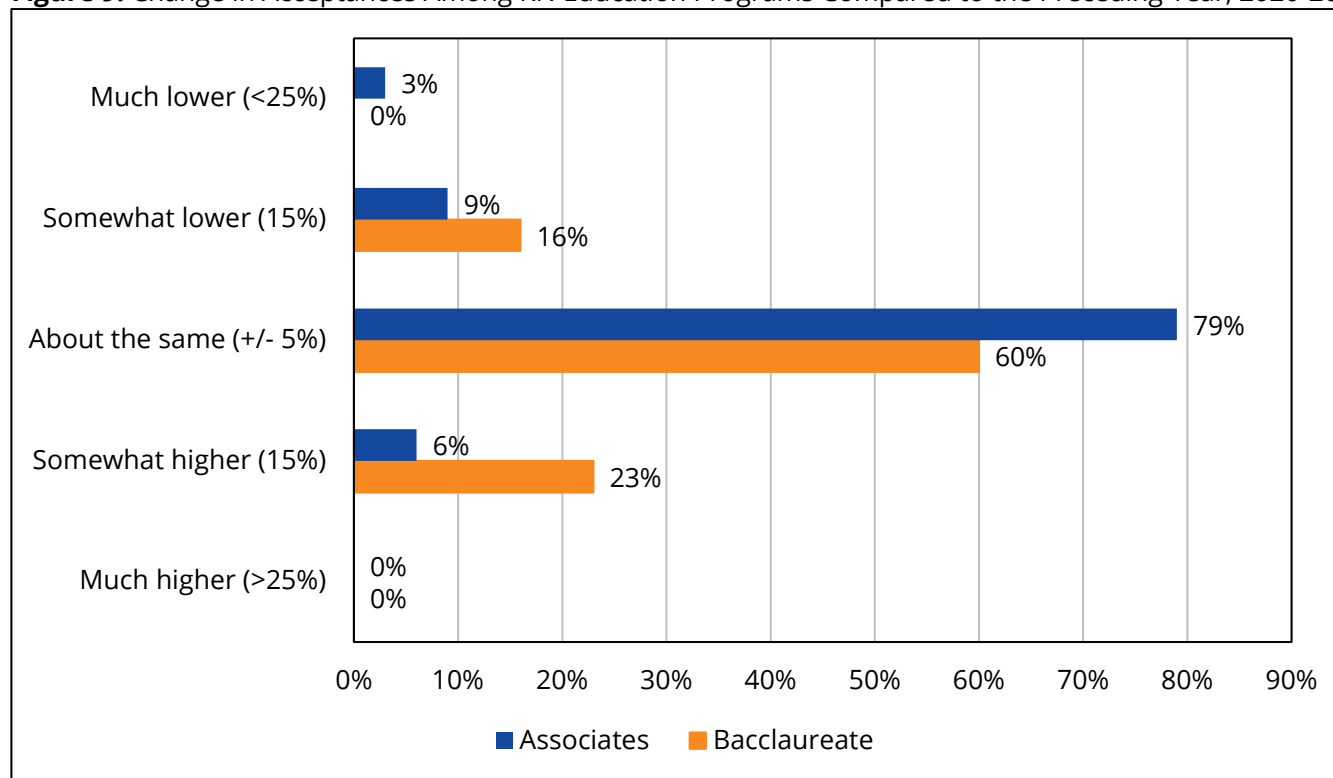
Source: Integrated Postsecondary Education Data System.

Figure 8. Change in Applications Among RN Education Programs Compared to the Preceding Year, 2020-2021



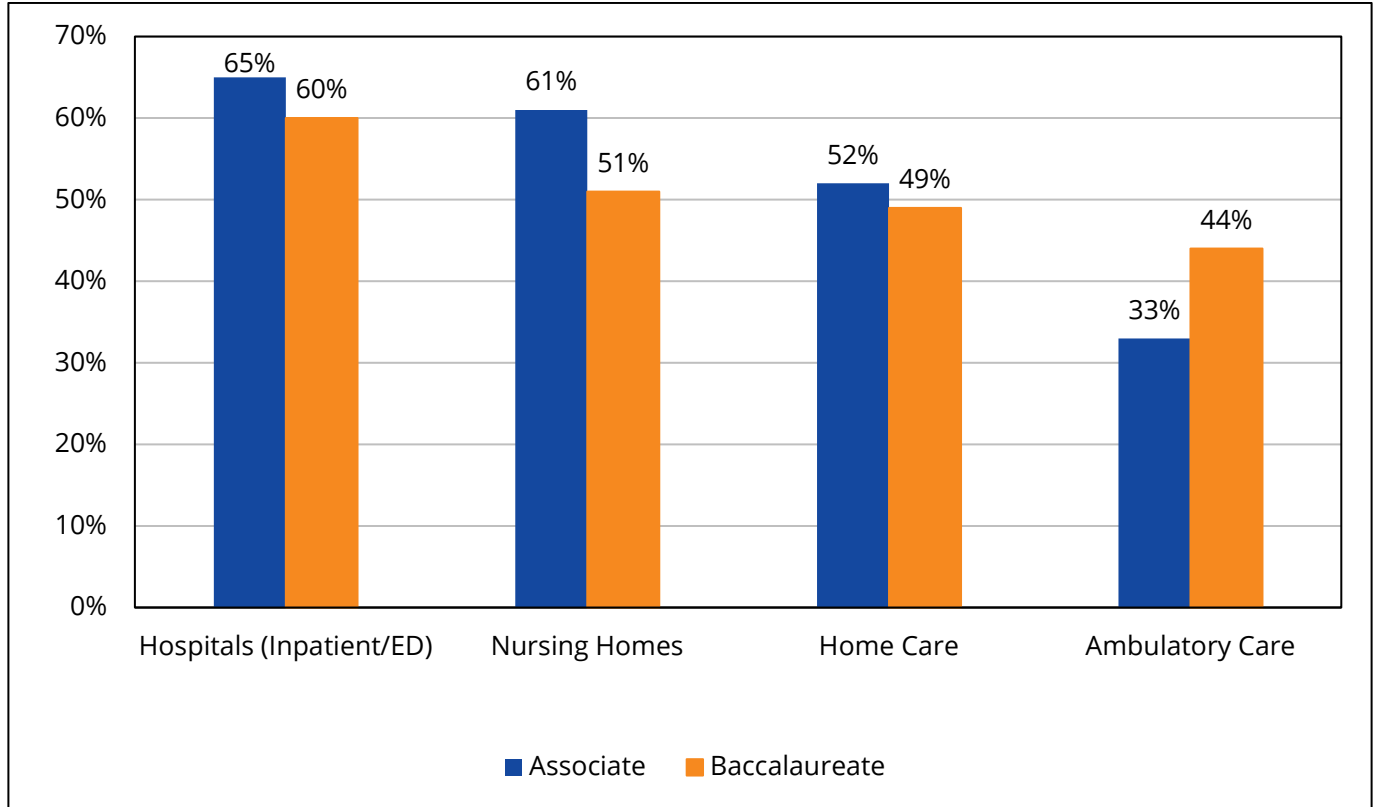
Source: Center for Health Workforce Studies, Registered Nursing Education Survey, 2020-2021.

Figure 9. Change in Acceptances Among RN Education Programs Compared to the Preceding Year, 2020-2021



Source: Center for Health Workforce Studies, Registered Nursing Education Survey, 2020-2021.

Figure 10. Percentage of Nursing Deans and Directors Reporting “Many Jobs” by Health Care Sector, 2020-2021



Source: Center for Health Workforce Studies, Registered Nursing Education Survey, 2020-2021.

H. Projected Job Growth

Table 34. Employment Projections for Selected Health Care Occupational Programs in New York State, Ranked by Largest Increase in Percentage, 2018-2028

Occupational Title	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	213,120	353,640	140,520	65.9%	45,810
Personal Care Aides	224,180	348,730	124,550	55.6%	52,380
Physician Assistants	13,460	19,050	5,590	41.5%	1,480
Nurse Practitioners	15,480	21,870	6,390	41.3%	1,640
Occupational Therapy Assistants	2,540	3,500	960	37.8%	420
Medical Assistants	28,580	38,310	9,730	34.0%	4,660
Physical Therapists	18,830	25,230	6,400	34.0%	1,560
Occupational Therapists	10,630	14,120	3,490	32.8%	1,050
Speech-Language Pathologists	13,720	18,000	4,280	31.2%	1,280
Counselors ^b	28,470	37,160	8,690	30.5%	4,230
Respiratory Therapists	6,320	8,220	1,900	30.1%	570
Nurse Anesthetists	2,110	2,730	620	29.4%	180
Diagnostic Medical Sonographers	5,740	7,230	1,490	26.0%	500
Dental Assistants	20,690	26,010	5,320	25.7%	3,150
Dental Hygienists	12,290	15,400	3,110	25.3%	1,240
Registered Nurses	199,870	249,100	49,230	24.6%	16,910
Medical Records and Health Information Technicians	10,960	13,450	2,490	22.7%	1,030
Social Workers	65,480	80,240	14,760	22.5%	8,590
Radiologic Technologists	14,070	17,210	3,140	22.3%	1,170
Radiation Therapists	1,260	1,520	260	20.6%	90
Clinical Laboratory Technicians and Technologists	20,310	24,420	4,110	20.2%	1,820
Emergency Medical Technicians and Paramedics	19,620	23,560	3,940	20.1%	1,830
Licensed Practical Nurses	50,880	60,840	9,960	19.6%	5,250
Cardiovascular Technologists and Technicians	3,630	4,300	670	18.5%	290
Dietitians and Nutritionists	5,330	6,310	980	18.4%	460
Surgical Technologists	6,240	7,330	1,090	17.5%	660
Nuclear Medicine Technologists	1,140	1,330	190	16.7%	90
Orderlies	3,700	4,290	590	15.9%	510
Nursing Assistants	100,870	114,860	13,990	13.9%	13,490
Pharmacy Technicians	19,590	20,810	1,220	6.2%	1,750
Pharmacists	20,930	20,590	-340	-1.6%	900
Pharmacy Aides	2,070	1,800	-270	-13.0%	220

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the occupation.

^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Jobs in Demand/Projects, Long-Term Occupation Projections, 2018-2028.

III. REGIONAL PROFILES

A. New York City

The NYSDOL New York City region includes the 5 counties in New York City: Bronx, New York (Manhattan), Kings (Brooklyn), Queens, and Richmond (Staten Island).



KEY FINDINGS

Population and Health Indicators

- The New York City region had higher percentages of their population under 100% and under 200% of poverty than the state as a whole.
- Health indicators related to asthma were significantly worse in the New York City region than statewide. The rate of pediatric hospitalizations per 10,000 children younger than age 18 due to asthma in the region was 34.1 compared to the statewide rate of 22.1. The rate of asthma hospitalizations among people aged 25 to 44 was 6.2 per 10,000, while the statewide rate was 5.3 per 10,000. Additionally, among people aged 45 to 64, the asthma hospitalization rate was 14.5 per 10,000 versus the statewide rate of 9.1 per 10,000 (Table 36).

Health Care Employment

- Although hospitals continued to employ the most health care workers in the New York City region in 2020 (211,577), home health care showed the most growth in employment between 2016 and 2020 (56.1%) (Figures 12 and 13, Table 37).

Health Care Recruitment and Retention Difficulties^f

- Hospitals in downstate^g New York reported that licensed clinical social workers (97.1%), RNs (94.1%), and cardiovascular technicians (91.2%) were among the most difficult to recruit. The most common reasons cited for these recruitment difficulties were a shortage of workers and non-competitive salaries.
- Psychiatrists (68.6%), clinical laboratory technologists (60.0%), and respiratory therapists (51.4%) were the most difficult to retain in hospitals in downstate New York. Retention difficulty for psychiatrists and respiratory therapists was primarily attributed to leaving for a better paying position, whereas retirement was the most cited reason for retention difficulty among clinical laboratory technologists (Tables 40, 41, 42, and 43).
- FQHCs in downstate New York reported family and internal medicine physicians (29.4%) as the most difficult to recruit, followed by nurses (23.5%) and psychiatrists (17.6%). FQHCs in downstate New York reported a shortage of workers as the most common reason for recruitment difficulty followed by non-competitive wages (Tables 44 and 45).

^fRecruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for “easy” to a 5 for “difficult.” The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^gHospital and FQHC regional survey results are divided into upstate and downstate categories. The Downstate category includes the Department of Labor regions of New York City and Long Island.

- FQHCs in downstate New York reported the most retention difficulties for nurses (29.4%), family and internal medicine physicians (17.6%), and NPs/physician assistants (11.8%). FQHCs in downstate New York reported non-competitive wages and the shortage of workers as the most common reasons for retention difficulties (Tables 46 and 47).
- Nursing homes and adult care facilities in the New York City region reported that experienced RNs (56.0%), LPNs (51.7%), speech-language pathologists (38.1%), CNAs (38.1%), and infection preventionist practitioners (38.1%) were the most difficult to recruit, all due to a shortage of workers. The most cited reason for recruitment difficulty related to the COVID-19 pandemic in nursing homes was COVID-19 testing and required quarantine due to positive test results (Tables 48 and 49).
- Newly licensed RNs were reported by 61.1% of New York City's nursing homes as the most difficult to retain, followed by personal care aides (50.0%) and nurse directors/managers (47.6%). Retention difficulty for newly licensed nurses was attributed to staff finding higher pay elsewhere, whereas retention difficulties for personal care aides was attributed to them finding jobs in other employment sectors (Table 50).
- Home health agencies in the New York City region identified home health aides (71.4%), personal care aides (67.3%), and RNs (65.6%) as the most difficult to recruit. A shortage of workers was most cited as the reason for these difficulties. Recruitment difficulty related to the pandemic was most attributed to fear of exposure to COVID-19 for home health aides and personal care aides (Tables 52 and 53).
- Physical therapists (75.0%), occupational therapists (70.0%), and homemakers (63.6%) were commonly reported as the most difficult to retain in New York City's home health care agencies. For homemakers, transportation issues were the most common reason reported for retention difficulties, followed by family commitments (Tables 54 and 55).

Health Care Production and Need

- Social workers experienced the largest growth in the number of graduations in the New York City region, with an increase of 234 graduations from 2016 to 2020. In contrast, RNs and LPNs saw declines in graduations during the same period (Table 56).
- Dental assistants (98.7%), NPs (32.3%), and physician assistants (12.1%) experienced the greatest increase in the number of licenses between 2017 and 2021. In contrast, the number of LPNs and clinical laboratory technologists declined during the same period (Table 57).

Table 35. Selected Population Characteristics in the New York City Region, 2015-2019

Population Characteristics	Region		Statewide Percent
	Number	Percent	
Total population	8,419,316	N/A	N/A
Population under 100% FPL	1,485,784	17.9%	14.1%
Population under 200% FPL	2,983,038	36.0%	29.7%
Population aged birth to 17 years	1,754,547	20.8%	21.0%
Population aged 65 and older	1,222,267	14.5%	16.1%
Population female aged 15 to 44	3,651,488	43.4%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	1,683	1.7%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	65,646	64.7%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	34,211	33.7%	30.6%
Black/African American, non-Hispanic	1,837,549	21.8%	14.3%
Hispanic/Latino	2,447,862	29.1%	19.0%
Asian/Pacific Islander, non-Hispanic	1,179,590	14.0%	8.4%
American Indian/Native Alaskan, non-Hispanic	14,463	0.2%	0.2%
Two or more/other races	167,378	2.0%	2.0%
Population with less than a high school education ^a	1,058,852	17.8%	13.2%
Population with a high school diploma or equivalent ^a	2,239,128	37.7%	41.5%
Population with an associate degree ^a	375,956	6.3%	8.7%
Population with a bachelor's degree ^a	1,315,727	22.2%	20.5%
Population with a master's degree or higher ^a	945,552	15.9%	16.0%
Home ownership	1,034,637	32.7%	53.9%
^a Education levels and rates are based on individuals aged 25 years and older.			

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

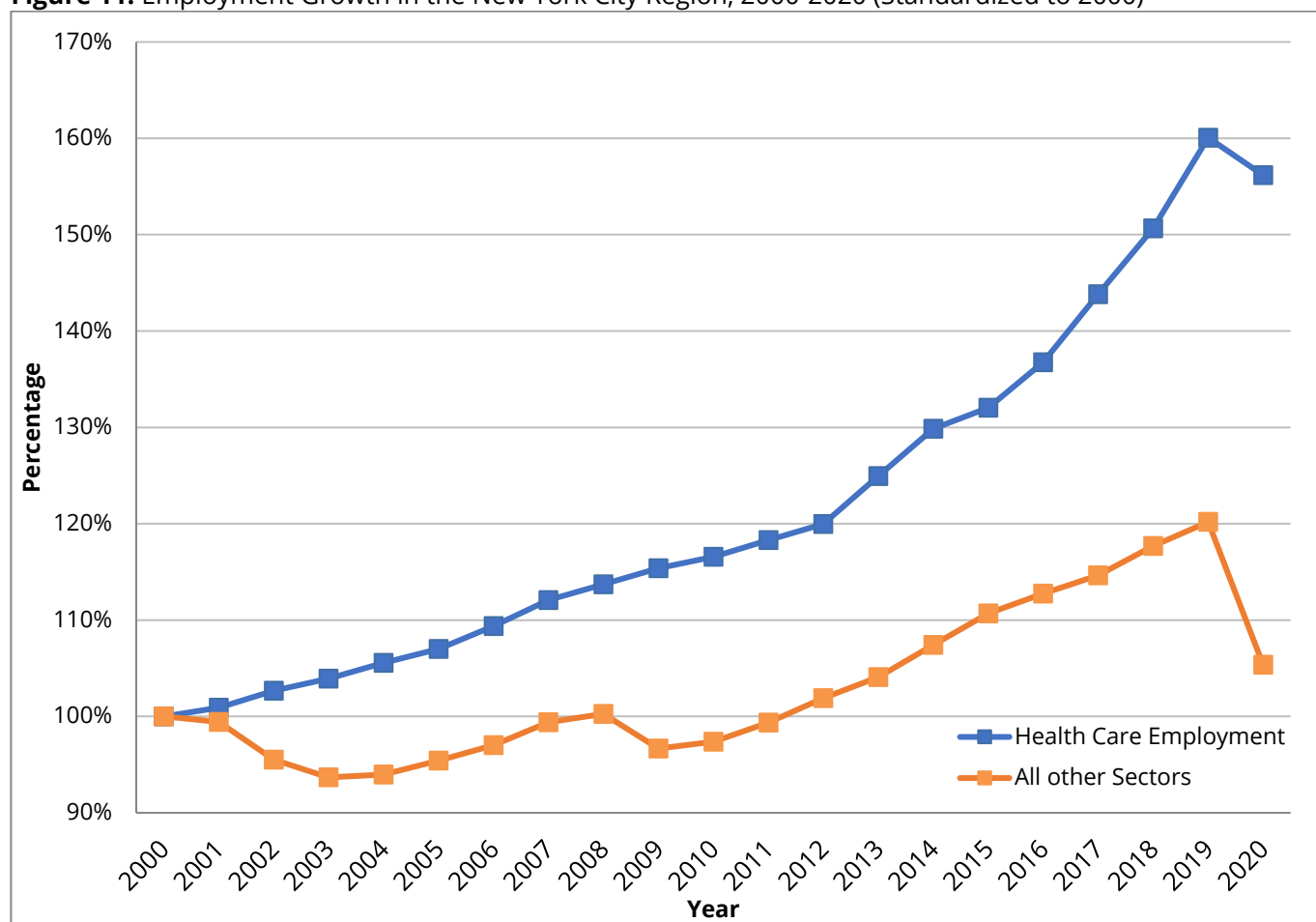
Table 36. Selected Health Indicators in the New York City Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	162,120	640.5	466,052	793.0
Deaths due to heart disease, per 100,000	52,637	207.9	131,888	224.4
Deaths due to all cancers, per 100,000	38,488	151.6	103,820	176.3
Deaths due to diabetes, per 100,000	5,496	21.7	12,649	21.5
Total births, per 1,000 females aged 15 to 44	332,903	59.2	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	9,196	13.7	22,262	12.6
Low-birthweight births, as a percent of total births	27,820	8.4	54,941	8.0
Late/no prenatal care, as a percent of total births	21,838	6.6	36,747	5.5
Infant deaths, per 1,000 live births	1,287	3.9	3,018	4.4
Total hospitalizations, per 10,000	2,969,976	1,173.3	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	15,635	9.5	25,000	6.7
Rate of asthma hospitalizations, aged 25-44 per 10,000	4,959	6.2	8,405	5.3
Rate of asthma hospitalizations, aged 45-64 per 10,000	9,045	14.5	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	17,990	34.1	26,999	22.1
Diabetes hospitalizations, per 10,000	57,951	22.9	116,638	19.8
CLRD hospitalizations, per 10,000	82,696	32.7	181,011	30.8
Heart disease hospitalizations, per 10,000	240,049	94.8	603,977	102.8
Total ED visits, per 10,000	11,606,010	4,585.0	24,415,312	4,154.0

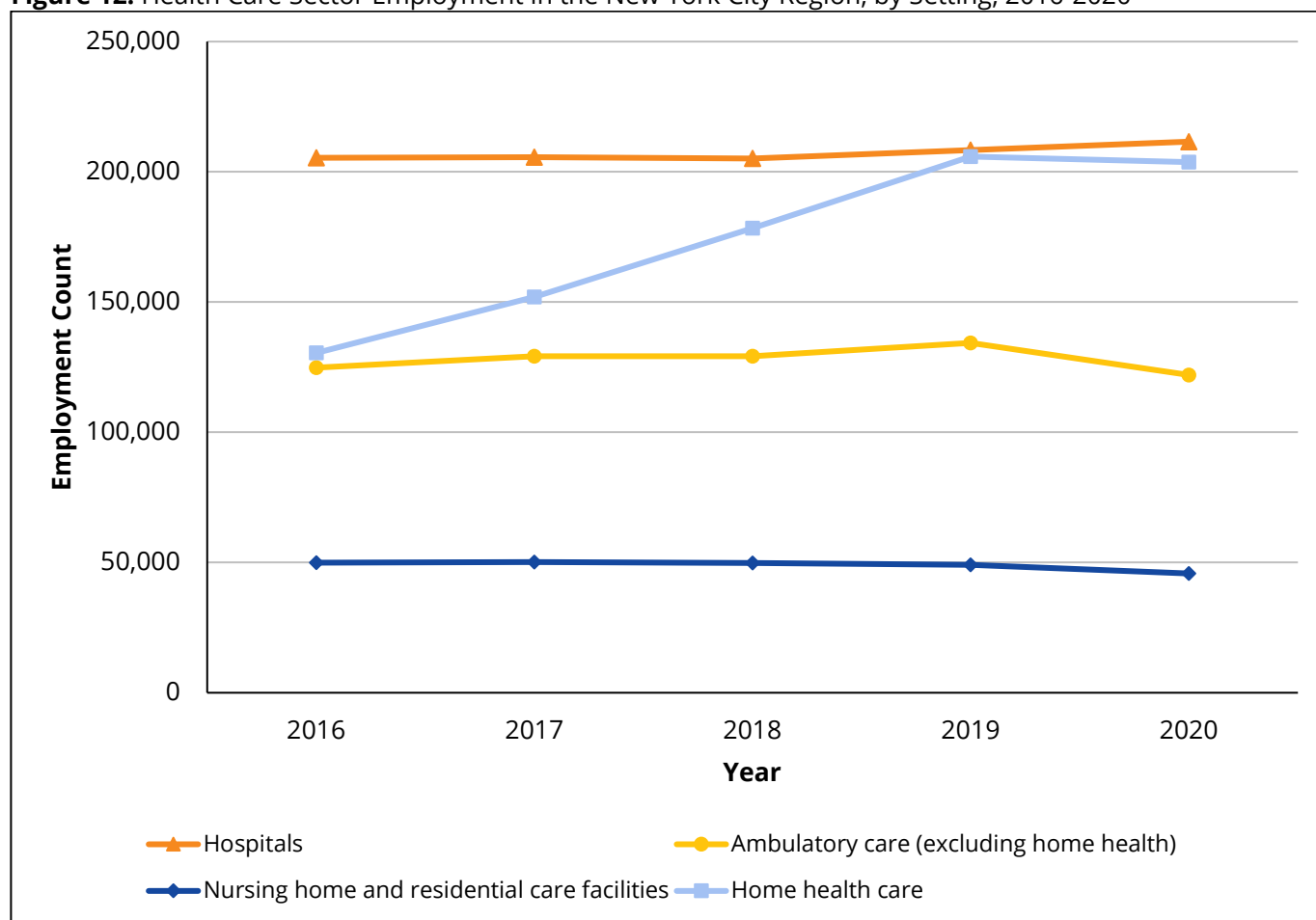
CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

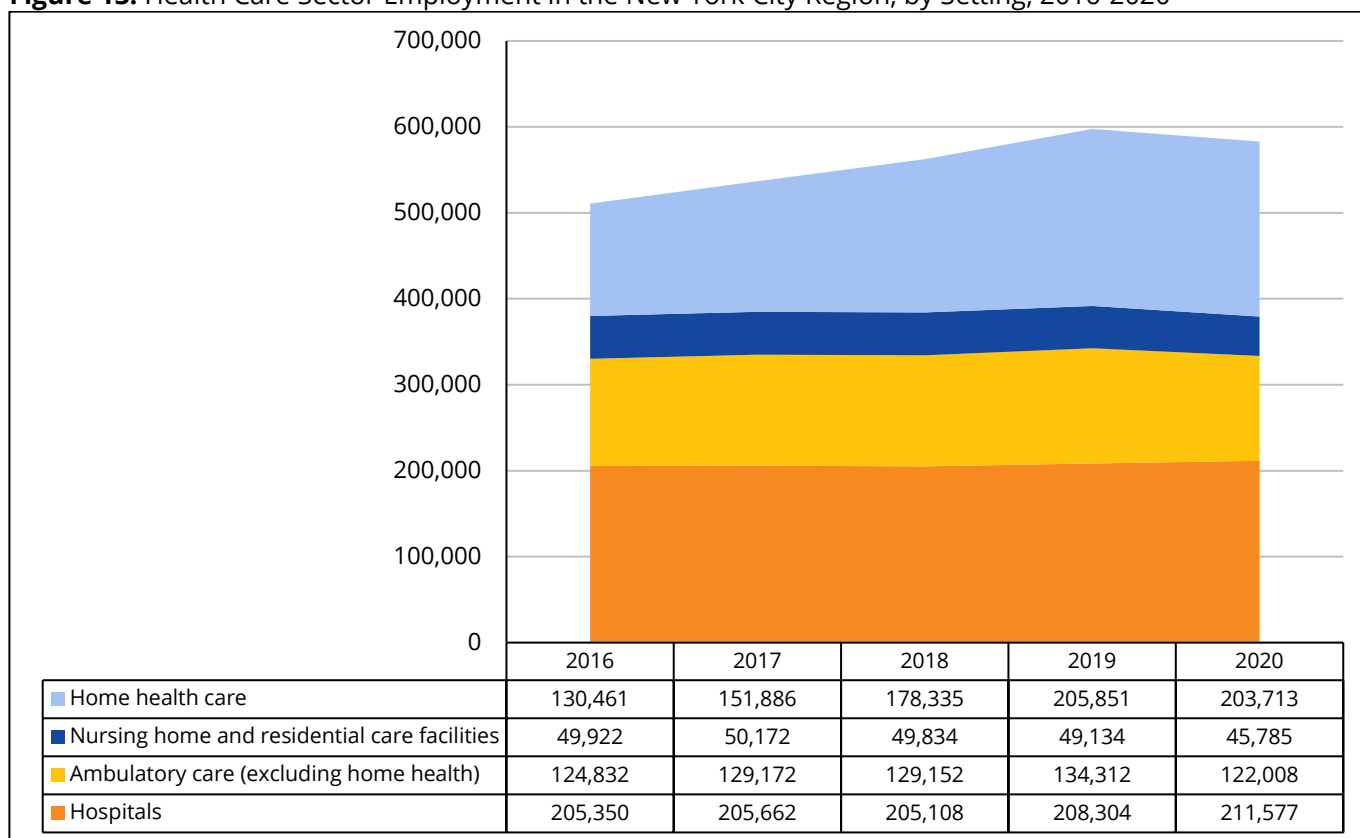
Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Figure 11. Employment Growth in the New York City Region, 2000-2020 (Standardized to 2000)

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Figure 12. Health Care Sector Employment in the New York City Region, by Setting, 2016-2020

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Figure 13. Health Care Sector Employment in the New York City Region, by Setting, 2016-2020

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 37. Health Care Sector Employment in the New York City Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	205,350	205,662	205,108	208,304	211,577	6,227	3.0%
Ambulatory care (excluding home health)	124,832	129,172	129,152	134,312	122,008	-2,824	-2.3%
Nursing home and residential care facilities	49,922	50,172	49,834	49,134	45,785	-4,137	-8.3%
Home health care	130,461	151,886	178,335	205,851	203,713	73,252	56.1%
Total	510,565	536,892	562,429	597,601	583,083	72,518	14.2%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 38. Number of Jobs in Selected Health Care Occupations in the New York City Region, in Alphabetical Order, 2020

Occupational Title	Employment
Cardiovascular Technologists and Technicians	1,250
Certified Registered Nurse Anesthetists	580
Dental Assistants	5,650
Dental Hygienists	1,960
Dietetic Technicians	310
Dietitians and Nutritionists	1,790
Emergency Medical Technicians and Paramedics	8,280
Home Health and Personal Care Aides	307,040
Licensed Practical Nurses	13,330
Medical and Health Services Managers	11,700
Medical Assistants	12,160
Medical Records and Health Information Technicians	5,580
Medical Secretaries	4,170
Mental Health Counselors	6,980
Nuclear Medicine Technologists	310
Nurses Midwives	N/A
Nurse Practitioners	6,180
Nursing Assistants	32,610
Occupational Therapists	3,960
Occupational Therapy Assistants	700
Orderlies	1,450
Pharmacists	9,170
Pharmacy Aides	670
Pharmacy Technicians	8,560
Physical Therapist Assistants/Aides	2,670
Physical Therapists	5,750
Physician Assistants	5,930
Radiation Therapists	570
Radiologic Technologists	4,210
Registered Nurses	72,400
Respiratory Therapists	2,350
Social Workers	15,170
Speech-Language Pathologists	3,870
Surgical Technologists	2,280

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 39. Average Annual Salary for Selected Health Care Occupations in the New York City Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$72,830
Certified Registered Nurse Anesthetists	\$211,570
Dental Assistants	\$44,700
Dental Hygienists	\$90,450
Dietetic Technicians	\$45,480
Dietitians and Nutritionists	\$73,930
Health Care Social Workers	\$62,550
Home Health and Personal Care Aides	\$32,560
Licensed Practical Nurses	\$59,130
Medical and Health Services Managers	\$146,870
Medical Assistants	\$40,830
Medical Records and Health Information Technicians	\$54,270
Medical Secretaries	\$46,680
Mental Health and Substance Abuse Social Workers	\$64,660
Mental Health Counselors	\$59,380
Nuclear Medicine Technologists	\$94,830
Nurse Practitioners	\$135,910
Nurses Midwives	\$117,980
Nursing Assistants	\$47,620
Occupational Therapists	\$92,110
Occupational Therapy Assistants	\$69,250
Orderlies	\$47,220
Pharmacists	\$121,230
Pharmacy Aides	\$34,580
Pharmacy Technicians	\$38,290
Physical Therapist Assistants	\$50,590
Physical Therapists	\$99,530
Physician Assistants	\$130,550
Speech-Language Pathologists	\$97,520
Surgical Technologists	\$65,490

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 40. Recruitment Difficulties for Selected Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Registered Nurses	94.1%	41.2%	52.9%	2.9%
Cardiovascular Technicians	91.2%	52.9%	50.0%	0.0%
Clinical Laboratory Technologists	88.2%	91.2%	85.3%	0.0%
Clinical Laboratory Technicians	85.3%	2.1%	2.0%	0.0%
Physician Assistants	82.4%	29.4%	58.8%	17.6%
Nurse Practitioners (excluding Psychiatric NPs)	73.5%	38.2%	2.9%	2.9%
Respiratory Therapists	67.6%	58.8%	64.7%	2.9%
Licensed Practical Nurses	67.6%	35.3%	2.9%	0.0%
Surgical Technicians	64.7%	38.2%	26.5%	0.0%
Pharmacists	61.8%	2.9%	2.9%	0.0%
Infection Preventionists	58.8%	52.9%	2.9%	2.9%
Internists (General)	51.5%	1.3%	0.2%	0.1%
Patient Care Techs/CNAs	35.3%	0.0%	2.9%	0.0%
Obstetricians/Gynecologists	29.4%	0.7%	0.7%	0.1%
Family and General Physicians	21.2%	6.1%	6.1%	3.0%
Pharmacy Technicians	17.6%	2.9%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 41. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Clinical Social Workers	97.1%	73.5%	38.2%	0.0%
Psychiatrists	95.8%	87.5%	62.5%	4.2%
Certified Alcohol and Substance Abuse Counselors	73.5%	70.6%	0.0%	0.0%
Licensed Master Social Workers	41.2%	35.3%	2.9%	0.0%
Substance Abuse and Behavioral Health Counselors	2.9%	5.9%	0.0%	0.0%
Psychologists	0.0%	38.2%	5.9%	2.9%
Licensed Mental Health Counselors	0.0%	2.9%	0.0%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 42. Retention Difficulties for Selected Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Clinical Laboratory Technologists	60.0%	42.9%	0.0%	0.0%	51.4%	37.1%	0.0%	5.7%
Respiratory Therapists	51.4%	71.4%	0.0%	0.0%	54.3%	20.0%	0.0%	2.9%
Registered Nurses	34.3%	60.0%	0.0%	2.9%	60.0%	54.3%	0.0%	42.9%
Nurse Practitioners (excluding Psychiatric NPs)	22.9%	20.0%	0.0%	2.9%	2.9%	2.9%	0.0%	2.9%
Surgical Technicians	22.9%	57.1%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Surgeons (General)	20.6%	20.6%	0.0%	0.0%	20.6%	2.9%	0.0%	2.9%
Clinical Laboratory Technicians	20.0%	5.7%	0.0%	0.0%	17.1%	2.9%	0.0%	2.9%
Pharmacy Technicians	20.0%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Cardiovascular Technicians	20.0%	20.0%	0.0%	0.0%	2.9%	2.9%	0.0%	2.9%
Patient Care Techs/CNAs	5.7%	22.9%	0.0%	17.1%	2.9%	2.9%	0.0%	5.7%
Licensed Practical Nurses	5.7%	22.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Infection Preventionists	2.9%	2.9%	0.0%	2.9%	0.0%	2.9%	0.0%	2.9%
Pharmacists	2.9%	20.0%	0.0%	0.0%	20.0%	2.9%	0.0%	2.9%
Physician assistants	2.9%	60.0%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Family and General Physicians	0.8%	20.6%	0.0%	0.0%	23.5%	2.9%	0.0%	2.9%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 43. Retention Difficulties for Behavioral Health Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Psychiatrists	68.6%	57.1%	0.0%	2.9%	0.0%	2.9%	0.0%	2.9%
Psychologists	45.7%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Certified Alcohol and Substance Abuse Counselors	2.9%	0.0%	0.0%	0.0%	2.9%	2.9%	0.0%	2.9%
Licensed Clinical Social Workers	2.9%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Licensed Master Social Workers	2.9%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Licensed Mental Health Counselors	2.9%	0.0%	0.0%	0.0%	17.1%	2.9%	0.0%	2.9%
Substance Abuse and Behavioral Health Counselors	2.9%	0.0%	0.0%	2.9%	17.1%	2.9%	0.0%	2.9%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 44. Recruitment Difficulties for Selected Occupations in FQHCs, Downstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Family Physicians/Internal Medicine	29.4%
Nurses	23.5%
Psychiatrists	17.6%
Licensed Clinical Social Workers/Licensed Professional Counselors	17.6%
Obstetricians/Gynecologists	11.8%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 45. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Downstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
General shortage of occupation(s) in area	88.2%
Wages not competitive	82.4%
Challenging patient/client population	41.2%
Geographic location	35.3%
Lack of clinical support personnel	23.5%
High clinical/case load requirements	17.6%
Insufficient educational pipeline in the area	11.8%
Limited benefits	11.8%
Lack of peers/professional network in area	11.8%
Office conditions (eg, space limitations, outdated facilities)	11.8%
Limited job security due to grant funding or other issue	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 46. Retention Difficulties for Selected Occupations in FQHCs, Downstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Nurses	29.4%
Family Physicians/Internal Medicine	17.6%
Nurse Practitioners/Physician Assistants	11.8%
Medical Assistants	11.8%
Support Personnel	11.8%
Obstetricians/Gynecologists	5.9%
Dental Hygienists	5.9%
Licensed Clinical Social Workers/Licensed Professional Counselors	5.9%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 47. Retention Difficulty Reasons for Selected Occupations in FQHCs, Downstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	76.5%
General shortage of occupation(s) in area	58.8%
Challenging patient/client population	52.9%
Geographic location	29.4%
Lack of clinical support personnel	23.5%
Limited benefits	11.8%
Lack of peers/professional network in area	11.8%
High clinical/case load requirements	11.8%
Insufficient educational pipeline in the area	5.9%
Office conditions (eg, space limitations, outdated facilities)	5.9%
Limited job security due to grant funding or other issue	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 48. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Registered Nurses (Experienced)	56.0%	55.6%	22.2%	18.5%	3.7%
Licensed Practical Nurses	51.7%	41.4%	17.2%	10.3%	6.9%
Speech-Language Pathologists	38.1%	23.8%	14.3%	4.8%	0.0%
CNAs and Temps	38.1%	21.4%	0.0%	7.1%	0.0%
Infection Preventionist Practitioners	38.1%	28.6%	23.8%	9.5%	0.0%
Occupational Therapists	33.3%	23.8%	14.3%	0.0%	0.0%
Physical Therapists	33.3%	19.0%	9.5%	0.0%	0.0%
Registered Nurses (Newly Licensed)	30.0%	56.0%	24.0%	24.0%	4.0%
Paid Feeding Assistants	28.6%	14.3%	0.0%	0.0%	0.0%
Personal Care Aides	22.2%	22.2%	0.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 49. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Registered Nurses (Experienced)	56.0%	11.1%	11.1%	0.0%	0.0%
Licensed Practical Nurses	51.7%	6.9%	10.3%	6.9%	3.4%
Speech-Language Pathologists	38.1%	0.0%	9.5%	0.0%	0.0%
CNAs and Temps	38.1%	0.0%	14.3%	7.1%	0.0%
Infection Preventionist Practitioners	38.1%	0.0%	9.5%	0.0%	4.8%
Occupational Therapists	33.3%	4.8%	9.5%	0.0%	0.0%
Physical Therapists	33.3%	0.0%	14.3%	0.0%	0.0%
Registered Nurses (Newly Licensed)	30.0%	12.0%	12.0%	0.0%	0.0%
Paid Feeding Assistants	28.6%	0.0%	28.6%	14.3%	0.0%
Personal Care Aides	22.2%	11.1%	33.3%	11.1%	11.1%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 50. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Registered Nurses (Newly Licensed)	61.1%	50.0%	11.1%	22.2%	0.0%
Personal Care Aides	50.0%	25.0%	50.0%	0.0%	0.0%
Nurse Directors/Managers	47.6%	14.3%	14.3%	9.5%	0.0%
Registered Nurses (Experienced)	39.1%	39.1%	21.7%	13.0%	0.0%
Home Health Aides	37.5%	12.5%	12.5%	0.0%	0.0%
Licensed Practical Nurses	36.4%	27.3%	18.2%	22.7%	4.5%
Paid Feeding Assistants	33.3%	33.3%	33.3%	0.0%	0.0%
Infection Preventionist Practitioners	25.0%	18.8%	18.8%	6.3%	0.0%
Dietitians/Nutritionists	20.0%	0.0%	10.0%	5.0%	0.0%
CNAs and Temps	17.2%	20.7%	20.7%	6.9%	6.9%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 51. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Registered Nurses (Newly Licensed)	61.1%	0.0%	16.7%	5.6%	0.0%
Personal Care Aides	50.0%	0.0%	25.0%	0.0%	0.0%
Nurse Directors/Managers	47.6%	0.0%	4.8%	0.0%	0.0%
Registered Nurses (Experienced)	39.1%	0.0%	13.0%	8.7%	0.0%
Home Health Aides	37.5%	0.0%	0.0%	0.0%	12.5%
Licensed Practical Nurses	36.4%	0.0%	22.7%	9.1%	0.0%
Paid Feeding Assistants	33.3%	0.0%	0.0%	0.0%	0.0%
CNAs and Temps	17.2%	0.0%	24.1%	20.7%	3.4%
Infection Preventionist Practitioners	25.0%	0.0%	6.3%	0.0%	0.0%
Dietitians/Nutritionists	20.0%	0.0%	10.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 52. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Home Health Aides	71.4%	71.4%	31.7%	20.6%	11.1%
Personal Care Aides	67.3%	67.3%	27.3%	29.1%	10.9%
Registered Nurses	65.6%	45.3%	23.4%	28.1%	20.3%
Physical Therapists	57.1%	47.6%	9.5%	9.5%	4.8%
Speech-Language Pathologists	53.8%	53.8%	23.1%	0.0%	0.0%
Licensed Practical Nurses	53.6%	50.0%	14.3%	21.4%	N/A
Occupational Therapists	53.3%	46.7%	N/A	0.0%	N/A
Homemakers	50.0%	61.5%	N/A	N/A	N/A
Licensed Master Social Workers	47.6%	38.1%	19.0%	9.5%	4.8%
Licensed Clinical Social Workers	46.7%	40.0%	N/A	N/A	N/A
COVID-19 Compliance Officers	28.6%	16.7%	21.4%	19.0%	11.9%
Intake Coordinators	27.5%	23.5%	17.6%	13.7%	N/A

N/A, not available.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 53. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Home Health Aides	71.4%	19.0%	65.1%	28.6%	47.6%	9.5%
Personal Care Aides	67.3%	20.0%	61.8%	34.5%	43.6%	12.7%
Registered Nurses	65.6%	7.8%	39.1%	20.3%	6.3%	7.8%
Physical Therapists	57.1%	4.8%	42.9%	14.3%	4.8%	4.8%
Speech-Language Pathologists	53.8%	7.7%	38.5%	7.7%	7.7%	0.0%
Licensed Practical Nurses	53.6%	3.6%	42.9%	14.3%	10.7%	14.3%
Occupational Therapists	53.3%	6.7%	40.0%	13.3%	6.7%	6.7%
Homemakers	50.0%	15.4%	50.0%	19.2%	38.5%	3.8%
Licensed Master Social Workers	47.6%	0.0%	28.6%	4.8%	23.8%	4.8%
Licensed Clinical Social Workers	46.7%	0.0%	33.3%	6.7%	20.0%	0.0%
COVID-19 Compliance Officers	28.6%	9.5%	26.2%	11.9%	21.4%	11.9%
Intake Coordinators	27.5%	0.0%	23.5%	7.8%	11.8%	2.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 54. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Physical Therapists	75.0%	33.3%	0.0%	25.0%	0.0%	0.0%
Occupational Therapists	70.0%	20.0%	10.0%	10.0%	0.0%	0.0%
Homemakers	63.6%	31.8%	36.4%	4.5%	4.5%	9.1%
Respiratory Therapists	62.5%	12.5%	12.5%	12.5%	0.0%	0.0%
Personal Care Aides	60.0%	48.9%	44.4%	15.6%	11.1%	13.3%
Speech-Language Pathologists	60.0%	10.0%	20.0%	20.0%	0.0%	0.0%
Home Health Aides	59.6%	43.9%	40.4%	19.3%	8.8%	14.0%
Licensed Practical Nurses	52.0%	36.0%	20.0%	24.0%	4.0%	8.0%
Registered Nurses	42.6%	40.7%	29.6%	25.9%	14.8%	13.0%
Licensed Master Social Workers	40.0%	20.0%	6.7%	6.7%	0.0%	0.0%
Licensed Clinical Social Workers	36.4%	9.1%	9.1%	9.1%	0.0%	0.0%
Intake Coordinators	21.1%	23.7%	21.1%	18.4%	2.6%	7.9%
COVID-19 Compliance Officers	15.6%	18.8%	9.4%	18.8%	3.1%	3.1%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 55. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Physical Therapists	75.0%	16.7%	25.0%	41.7%	16.7%	33.3%	16.7%
Occupational Therapists	70.0%	20.0%	30.0%	40.0%	20.0%	30.0%	30.0%
Homemakers	63.6%	27.3%	22.7%	50.0%	4.5%	4.5%	59.1%
Respiratory Therapists	62.5%	12.5%	50.0%	25.0%	37.5%	25.0%	25.0%
Personal Care Aides	60.0%	28.9%	13.3%	42.2%	6.7%	15.6%	55.6%
Speech-Language Pathologists	60.0%	20.0%	40.0%	40.0%	20.0%	30.0%	30.0%
Home Health Aides	59.6%	26.3%	21.1%	47.4%	7.0%	17.5%	57.9%
Licensed Practical Nurses	52.0%	28.0%	12.0%	32.0%	12.0%	24.0%	28.0%
Registered Nurses	42.6%	20.4%	9.3%	27.8%	7.4%	20.4%	25.9%
Licensed Master Social Workers	40.0%	6.7%	20.0%	13.3%	13.3%	13.3%	6.7%
Licensed Clinical Social Workers	36.4%	18.2%	27.3%	9.1%	18.2%	18.2%	18.2%
Intake Coordinators	21.1%	7.9%	7.9%	18.4%	10.5%	7.9%	18.4%
COVID-19 Compliance Officers	15.6%	15.6%	18.8%	21.9%	12.5%	15.6%	18.8%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 56. Number of Graduations in Selected Health Care Occupational Programs in the New York City Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Social Workers	2,878	3,014	2,980	3,109	3,112	234	8.1%
Health Care Administrators	844	1,000	1,004	1,052	1,004	160	19.0%
Physical Therapists	228	288	327	298	306	78	34.2%
Mental Health Counselors	342	346	357	359	411	69	20.2%
Dental Hygienists	167	185	182	177	212	45	26.9%
Speech-Language Pathologists	233	231	295	278	278	45	19.3%
Dietitians	230	231	285	279	267	37	16.1%
Radiation Therapists	201	205	239	227	231	30	14.9%
Nurse Midwives	13	15	21	26	21	8	61.5%
Physical Therapist Assistants/Aides	55	60	64	44	56	1	1.8%
Nutritionists	0	0	0	0	0	0	N/A
Nuclear Medicine Technologists	4	7	3	6	1	-3	-75.0%
Dietetic Technicians	18	10	11	7	12	-6	-33.3%
Emergency Medical Technicians and Paramedics	53	63	64	86	46	-7	-13.2%
Clinical Laboratory Technicians	33	34	32	26	24	-9	-27.3%
Cardiovascular Technologists and Technicians	10	0	0	0	0	-10	-100.0%
Nurse Anesthetists	11	11	13	10	0	-11	-100.0%
Occupational Therapy Assistants	66	57	68	35	46	-20	-30.3%
Respiratory Therapists	23	23	28	0	0	-23	-100.0%
Physician Assistants	635	637	665	610	608	-27	-4.3%
Occupational Therapists	291	336	288	227	257	-34	-11.7%
Clinical Laboratory Technologists	152	136	113	88	102	-50	-32.9%
Dental Assistants	198	202	186	154	148	-50	-25.3%
Nurse Practitioners	560	570	557	452	480	-80	-14.3%
Licensed Practical Nurses	450	208	243	334	287	-163	-36.2%
Pharmacists	495	602	546	298	328	-167	-33.7%
Pharmacy Technicians/Assistants	354	275	187	152	154	-200	-56.5%
Registered Nurses	3,838	3,785	3,431	3,566	3,418	-420	-10.9%
Nursing Assistants	842	496	393	360	365	-477	-56.7%
Medical Assistants	3,297	2,486	2,420	2,175	2,067	-1,230	-37.3%

N/A, not applicable.

Source: Integrated Postsecondary Education Data System.

Table 57. Number of Licensed Individuals in Selected Health Care Occupations in the New York City Region, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	456	446	421	424	420	-36	-7.9%
Clinical Laboratory Technologists	4,341	4,398	4,104	4,121	3,997	-344	-7.9%
Dental Assistants	75	83	101	133	149	74	98.7%
Dental Hygienists	2,287	2,325	2,378	2,440	2,490	203	8.9%
Dietitians/Nutritionists, Certified	1,721	1,749	1,837	1,879	1,911	190	11.0%
Licensed Practical Nurses	15,094	14,943	14,213	14,086	13,950	-1,144	-7.6%
Nurse Practitioners	6,123	6,543	7,007	7,519	8,098	1,975	32.3%
Occupational Therapists	3,786	3,892	4,017	4,199	4,238	452	11.9%
Occupational Therapy Assistants	1,064	1,067	1,066	1,085	1,087	23	2.2%
Pharmacists	7,781	7,257	7,603	7,685	7,841	60	0.8%
Physical Therapists	5,775	5,726	5,859	5,948	6,020	245	4.2%
Physical Therapist Assistants	1,498	1,506	1,513	1,529	1,539	41	2.7%
Registered Physician Assistants	4,303	4,333	4,554	4,738	4,823	520	12.1%
Registered Professional Nurses	68,113	69,306	70,942	72,103	73,956	5,843	8.6%
Respiratory Therapists	1,639	1,635	1,674	1,685	1,645	6	0.4%
Social Workers	22,530	22,379	22,461	23,055	23,528	998	4.4%
Speech-Language Pathologists	5,315	5,422	5,558	5,757	5,872	557	10.5%
Total	151,901	153,010	155,308	158,386	161,564	9,663	6.4%

Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 58. Employment Projections for Selected Health Care Occupations in the New York City Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	165,810	285,030	119,220	71.9%	37,185
Personal Care Aides	126,720	210,360	83,640	66.0%	31,855
Occupational Therapy Assistants	870	1,250	380	43.7%	153
Speech-Language Pathologists	5,680	8,050	2,370	41.7%	604
Physician Assistants	5,770	8,140	2,370	41.1%	632
Medical Assistants	13,670	19,220	5,550	40.6%	2,367
Nurse Practitioners	6,480	8,990	2,510	38.7%	664
Diagnostic Medical Sonographers	2,160	2,980	820	38.0%	223
Physical Therapists	6,640	8,940	2,300	34.6%	555
Occupational Therapists	3,830	5,100	1,270	33.2%	378
Counselors ^b	11,170	14,630	3,460	31.0%	1,665
Respiratory Therapists	2,260	2,940	680	30.1%	205
Nurse Anesthetists	650	840	190	29.2%	56
Dental Assistants	8,450	10,750	2,300	27.2%	1,305
Social Workers	32,460	41,260	8,800	27.1%	4,478
Dental Hygienists	2,790	3,540	750	26.9%	287
Licensed Practical Nurses	15,380	19,360	3,980	25.9%	1,722
Registered Nurses	78,470	97,570	19,100	24.3%	6,610
Radiologic Technologists	5,200	6,440	1,240	23.8%	443
Medical Records and Health Information Technicians	3,950	4,840	890	22.5%	369
Dietitians and Nutritionists	2,170	2,590	420	19.4%	192
Clinical Laboratory Technicians and Technologists	7,900	9,370	1,470	18.6%	691
Radiation Therapists	440	520	80	18.2%	31
Cardiovascular Technologists and Technicians	1,250	1,470	220	17.6%	96
Nuclear Medicine Technologists	460	540	80	17.4%	36
Emergency Medical Technicians and Paramedics	7,650	8,910	1,260	16.5%	677
Orderlies	1,530	1,770	240	15.7%	209
Surgical Technologists	2,530	2,910	380	15.0%	258
Nursing Assistants	39,790	45,570	5,780	14.5%	5,361
Pharmacy Technicians	8,960	9,530	570	6.4%	802
Pharmacists	10,000	9,710	-290	-2.9%	414
Pharmacy Aides	740	620	-120	-16.2%	74

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

B. Capital District

The Capital District region includes the counties of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington.



KEY FINDINGS

Population and Health Indicators

- People in the Capital District region were generally healthier than the population statewide. There were, however, a few exceptions. Total deaths per 100,000 in the Capital District region was 958.5 compared to the statewide rate of 793.0. Additionally, the rate of deaths due to heart disease was 232.7 per 100,000 in the Capital District region to 224.4 per 100,000 statewide. Finally, the number of deaths due to cancer in the Capital District region was 215.5 per 100,000 individuals compared to the statewide rate of 176.3 per 100,000 (Table 60).

Health Care Employment

- The Capital District region experienced a 2.7% decline of jobs in all health care settings from 2016 to 2020. Overall, there were 1,601 fewer health care jobs in 2020 than in 2016. Capital District region nursing homes and residential facilities experienced the largest decline in health care jobs (7.9%) between those years, followed by hospitals (4.3%). Conversely, jobs in home health care settings grew by 34.2% during the same period (Table 61).

Health Care Recruitment and Retention Difficulties^h

- In 2020, upstate New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of workers (Tables 64 and 65).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for RN retention difficulty (Tables 66 and 67).
- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) were the most difficult to recruit in 2021. FQHCs reported that geographic location (61.1%) was the most common reason for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 68 and 69).
- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult workers to retain for upstate New York FQHCs. FQHCs cited non-

^h Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

ⁱ Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 70 and 71).

- Nursing homes and adult care facilities in the Capital District region reported paid feeding assistants (100.0%), CNAs (91.3%), and LPNs (92.9%) as the most difficult occupations to recruit. A shortage of workers was the most common reason for recruitment difficulty for paid feeding assistants (75.0%), CNAs (60.0%), and LPNs (57.1%). Additionally, the state unemployment incentive was the most reported COVID-19 pandemic-related recruitment difficulty reason for paid feeding assistants (75.0%) and CNAs (70.0%) (Tables 72 and 73).
- The Capital District region's nursing homes reported personal care aides (100.0%), home health aides (100.0%), and CNAs (90.9%) as the most difficult to retain. Retention difficulties were commonly attributed to staff finding higher pay elsewhere, especially for personal care aides (80.0%) and home health aides (75.0%). Additionally, childcare or family demands at home were the primary COVID-19-related retention difficulty reasons reported for personal care aides (60.0%) and CNAs (54.5%) (Tables 74 and 75).
- Home health care agencies reported home health aides (85.7%) and speech-language pathologists (85.7%) as the most difficult to recruit. For speech-language pathologists, 100.0% of survey respondents attributed this difficulty to a shortage of workers. Recruitment difficulties related to the pandemic for home health aides were reported as a lack of resources to meet job requirements in transition (71.4%) and family commitments (52.4%) (Tables 76 and 77).
- Home health care agencies reported physical therapists (83.3%), personal care aides (76.2%), and occupational therapists (71.4%) as the most difficult occupations to retain. The most common reasons cited included staff finding higher pay elsewhere, staff leaving for other sectors, or regulatory burdens. Family commitment was the most common reason related to the COVID-19 pandemic for retention difficulties among personal care aides (47.6%) (Tables 78 and 79).

Health Care Production and Need

- Mental health counselor programs experienced the greatest growth in graduations in the region, with a more than 130% increase from 2016 to 2020 (Table 80).
- Between 2017 and 2021, NPs (357), occupational therapists (89), and physician assistants (113) experienced the greatest increase of licenses in the region. In contrast, the number of licensed LPNs (194) and clinical laboratory technologists (78) declined in the Capital District region during the same period (Table 81).

Table 59. Selected Population Characteristics in the Capital District Region, 2015-2019

Population Characteristics	Region		Statewide Percent
	Number	Percent	
Total population	1,083,201	N/A	N/A
Population under 100% FPL	108,471	10.4%	14.1%
Population under 200% FPL	252,374	24.2%	29.7%
Population aged birth to 17 years	210,048	19.4%	21.0%
Population aged 65 and older	192,949	17.8%	16.1%
Population female aged 15 to 44	415,114	38.3%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	218	2.0%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	7,415	69.0%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	3,119	29.0%	30.6%
Black/African American, non-Hispanic	70,621	6.5%	14.3%
Hispanic/Latino	53,456	4.9%	19.0%
Asian/Pacific Islander, non-Hispanic	40,723	3.8%	8.4%
American Indian/Native Alaskan, non-Hispanic	1,774	0.2%	0.2%
Two or more/other races	28,855	2.7%	2.0%
Population with less than a high school education ^a	63,258	8.3%	13.2%
Population with a high school diploma or equivalent ^a	334,447	44.0%	41.5%
Population with an associate degree ^a	92,298	12.1%	8.7%
Population with a bachelor's degree ^a	147,594	19.4%	20.5%
Population with a master's degree or higher ^a	122,499	16.1%	16.0%
Home ownership	284,725	65.6%	53.9%
^a Education levels and rates are based on individuals aged 25 years and older.			

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: American Community Survey, 5-Year Estimates, 2015-2019

Table 60. Selected Health Indicators in the Capital District Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	31,179	958.5	466,052	793.0
Deaths due to heart disease, per 100,000	7,570	232.7	131,888	224.4
Deaths due to all cancers, per 100,000	7,005	215.5	103,820	176.3
Deaths due to diabetes, per 100,000	758	23.3	12,649	21.5
Total births, per 1,000 females aged 15 to 44	31,637	51.8	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	1,109	10.9	22,262	12.6
Low-birthweight births, as a percent of total births	2,494	7.9	54,941	8.0
Late/no prenatal care, as a percent of total births	1,503	4.8	36,747	5.5
Infant deaths, per 1,000 live births	167	5.3	3,018	4.4
Total hospitalizations, per 10,000	360,696	1,108.9	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	786	4.7	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	371	4.7	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	433	4.8	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	523	8.3	26,999	22.1
Diabetes hospitalizations, per 10,000	5,579	17.1	116,638	19.8
CLRD hospitalizations, per 10,000	9,800	30.1	181,011	30.8
Heart disease hospitalizations, per 10,000	32,445	99.7	603,977	102.8
Total ED visits, per 10,000	1,148,658	3,531.4	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 61. Number of Health Care Jobs in the Capital District Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	24,365	24,907	25,225	24,537	23,328	-1,037	-4.3%
Ambulatory care (excluding home health)	19,866	19,933	20,226	20,132	19,096	-770	-3.9%
Nursing home and residential care facilities	11,203	11,490	11,423	11,250	10,323	-880	-7.9%
Home health care	3,179	3,434	3,500	3,353	4,265	1,086	34.2%
Total	58,613	59,764	60,374	59,272	57,012	-1,601	-2.7%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 62. Number of Jobs in Selected Health Care Occupations in the Capital District Region, in Alphabetical Order, 2020

Occupational Title	Employment
Cardiovascular Technologists and Technicians	280
Certified Registered Nurse Anesthetists	180
Dental Assistants	660
Dental Hygienists	670
Dietetic Technicians	50
Dietitians and Nutritionists	300
Emergency Medical Technicians and Paramedics	1,430
Home Health and Personal Care Aides	11,500
Licensed Practical Nurses	3,590
Medical and Health Services Managers	1,540
Medical Assistants	1,050
Medical Records and Health Information Technicians	900
Medical Secretaries	620
Mental Health Counselors	930
Nuclear Medicine Technologists	60
Nurse Midwives	N/A
Nurse Practitioners	670
Nursing Assistants	6,230
Occupational Therapists	550
Occupational Therapy Assistants	120
Orderlies	180
Pharmacists	1,080
Pharmacy Aides	100
Pharmacy Technicians	1,330
Physical Therapist Assistants/Aides	320
Physical Therapists	850
Physician Assistants	850
Radiation Therapists	80
Radiologic Technologists	830
Registered Nurses	11,140
Respiratory Therapists	400
Social Workers	1,350
Speech-Language Pathologists	580
Surgical Technologists	290

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 63. Average Annual Salary for Selected Health Care Occupations in the Capital District Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$55,950
Certified Registered Nurse Anesthetists	\$212,660
Dental Assistants	\$45,090
Dental Hygienists	\$71,370
Dietetic Technicians	\$38,240
Dietitians and Nutritionists	\$70,610
Healthcare Social Workers	\$53,500
Home Health and Personal Care Aides	\$31,510
Licensed Practical Nurses	\$47,520
Medical and Health Services Managers	\$106,930
Medical Assistants	\$36,260
Medical Records and Health Information Technicians	\$43,490
Medical Secretaries	\$36,950
Mental Health and Substance Abuse Social Workers	\$60,230
Mental Health Counselors	\$47,620
Nuclear Medicine Technologists	\$93,210
Nurse Practitioners	\$111,770
Nurses Midwives	N/A
Nursing Assistants	\$33,290
Occupational Therapists	\$77,380
Occupational Therapy Assistants	\$54,710
Orderlies	\$30,770
Pharmacists	\$126,020
Pharmacy Aides	\$27,340
Pharmacy Technicians	\$32,250
Physical Therapist Assistants	\$55,770
Physical Therapists	\$81,550
Physician Assistants	\$118,920
Speech-Language Pathologists	\$72,020
Surgical Technologists	\$46,240

N/A, not available.

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 64. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 65. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 66. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 67. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 68. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 69. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 70. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 71. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 72. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Paid Feeding Assistants	100.0%	75.0%	50.0%	25.0%	25.0%
CNAs and Temps	91.3%	60.0%	30.0%	30.0%	20.0%
Licensed Practical Nurses	92.9%	57.1%	42.9%	50.0%	21.4%
Registered Nurses (Experienced)	90.9%	81.8%	63.6%	45.5%	18.2%
Home Health Aides	80.0%	60.0%	40.0%	40.0%	20.0%
Registered Nurses (Newly Licensed)	80.0%	90.0%	70.0%	50.0%	20.0%
Personal Care Aides	66.7%	33.3%	16.7%	33.3%	16.7%
Infection Preventionist Practitioners	66.7%	11.1%	22.2%	0.0%	0.0%
Physical Therapists	42.9%	42.9%	0.0%	0.0%	0.0%
Occupational Therapists	37.5%	25.0%	12.5%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 73. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Paid Feeding Assistants	100.0%	50.0%	50.0%	75.0%	0.0%
CNAs and Temps	91.3%	60.0%	50.0%	70.0%	10.0%
Licensed Practical Nurses	92.9%	64.3%	42.9%	42.9%	14.3%
Registered Nurses (Experienced)	90.9%	72.7%	54.5%	36.4%	9.1%
Home Health Aides	80.0%	20.0%	40.0%	60.0%	0.0%
Registered Nurses (Newly Licensed)	80.0%	80.0%	60.0%	40.0%	10.0%
Personal Care Aides	66.7%	16.7%	33.3%	50.0%	16.7%
Infection Preventionist Practitioners	66.7%	11.1%	22.2%	11.1%	0.0%
Physical Therapists	42.9%	0.0%	14.3%	0.0%	0.0%
Occupational Therapists	37.5%	0.0%	12.5%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 74. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Personal Care Aides	100.0%	80.0%	20.0%	0.0%	20.0%
Home Health Aides	100.0%	75.0%	25.0%	0.0%	0.0%
CNAs and Temps	90.9%	68.2%	68.2%	4.5%	13.6%
Registered Nurses (Experienced)	83.3%	41.7%	50.0%	16.7%	8.3%
Licensed Practical Nurses	76.9%	76.9%	30.8%	7.7%	15.4%
Nurse Directors/Managers	72.7%	36.4%	36.4%	9.1%	9.1%
Registered Nurses (Newly Licensed)	72.7%	54.5%	27.3%	18.2%	9.1%
Paid Feeding Assistants	66.7%	66.7%	33.3%	0.0%	0.0%
Infection Preventionist Practitioners	55.6%	0.0%	0.0%	11.1%	0.0%
MDS Coordinators	36.4%	0.0%	9.1%	9.1%	9.1%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 75. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Personal Care Aides	100.0%	0.0%	40.0%	60.0%	20.0%
Home Health Aides	100.0%	0.0%	50.0%	25.0%	0.0%
CNAs and Temps	90.9%	0.0%	81.8%	54.5%	4.5%
Registered Nurses (Experienced)	83.3%	0.0%	50.0%	25.0%	16.7%
Licensed Practical Nurses	76.9%	0.0%	76.9%	69.2%	7.7%
Nurse Directors/Managers	72.7%	0.0%	36.4%	18.2%	18.2%
Registered Nurses (Newly Licensed)	72.7%	0.0%	54.5%	27.3%	18.2%
Paid Feeding Assistants	66.7%	0.0%	0.0%	0.0%	0.0%
Infection Preventionist Practitioners	55.6%	0.0%	22.2%	11.1%	11.1%
Occupational Therapists	0.0%	0.0%	0.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 76. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Home Health Aides	85.7%	61.9%	19.0%	33.3%	28.6%
Speech-Language Pathologists	85.7%	100.0%	14.3%	14.3%	0.0%
Respiratory Therapists	83.3%	83.3%	0.0%	0.0%	0.0%
Personal Care Aides	82.6%	56.5%	21.7%	30.4%	26.1%
Occupational Therapists	75.0%	62.5%	12.5%	25.0%	25.0%
Registered Nurses	73.7%	52.6%	5.3%	42.1%	15.8%
Licensed Clinical Social Workers	71.4%	42.9%	14.3%	28.6%	14.3%
Licensed Master Social Workers	70.0%	20.0%	30.0%	30.0%	10.0%
Homemakers	57.1%	42.9%	14.3%	21.4%	28.6%
Physical Therapists	55.6%	33.3%	22.2%	11.1%	11.1%
Licensed Practical Nurses	50.0%	43.8%	12.5%	25.0%	12.5%
COVID-19 Compliance Officers	30.0%	20.0%	10.0%	20.0%	10.0%
Intake Coordinators	21.4%	28.6%	0.0%	21.4%	7.1%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 77. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Home Health Aides	85.7%	4.8%	14.3%	52.4%	28.6%	71.4%
Speech-Language Pathologists	85.7%	0.0%	28.6%	0.0%	0.0%	0.0%
Respiratory Therapists	83.3%	16.7%	33.3%	0.0%	0.0%	0.0%
Personal Care Aides	82.6%	0.0%	17.4%	52.2%	34.8%	65.2%
Occupational Therapists	75.0%	37.5%	12.5%	0.0%	0.0%	0.0%
Registered Nurses	73.7%	0.0%	15.8%	26.3%	31.6%	21.1%
Licensed Clinical Social Workers	71.4%	14.3%	28.6%	0.0%	14.3%	14.3%
Licensed Master Social Workers	70.0%	0.0%	20.0%	0.0%	10.0%	10.0%
Homemakers	57.1%	0.0%	14.3%	42.9%	28.6%	50.0%
Physical Therapists	55.6%	33.3%	11.1%	0.0%	0.0%	0.0%
Licensed Practical Nurses	50.0%	6.3%	12.5%	37.5%	31.3%	25.0%
COVID-19 Compliance Officers	30.0%	150.0%	10.0%	10.0%	10.0%	30.0%
Intake Coordinators	21.4%	7.1%	7.1%	21.4%	28.6%	28.6%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 78. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Physical Therapists	83.3%	16.7%	33.3%	33.3%	0.0%	16.7%
Personal Care Aides	76.2%	61.9%	28.6%	14.3%	9.5%	19.0%
Occupational Therapists	71.4%	28.6%	14.3%	28.6%	0.0%	0.0%
Speech-Language Pathologists	71.4%	14.3%	14.3%	42.9%	0.0%	0.0%
Home Health Aides	70.0%	70.0%	20.0%	5.0%	0.0%	25.0%
Licensed Master Social Workers	62.5%	50.0%	12.5%	25.0%	0.0%	0.0%
Licensed Clinical Social Workers	50.0%	66.7%	0.0%	33.3%	0.0%	0.0%
Registered Nurses	50.0%	66.7%	27.8%	33.3%	16.7%	11.1%
Homemakers	45.5%	81.8%	36.4%	0.0%	0.0%	9.1%
Intake Coordinators	38.5%	30.8%	15.4%	15.4%	0.0%	23.1%
Licensed Practical Nurses	27.3%	63.6%	18.2%	18.2%	0.0%	18.2%
COVID-19 Compliance Officers	25.0%	25.0%	12.5%	37.5%	0.0%	12.5%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 79. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Capital District Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Physical Therapists	83.3%	16.7%	0.0%	16.7%	0.0%	0.0%	0.0%
Personal Care Aides	76.2%	38.1%	14.3%	47.6%	19.0%	23.8%	23.8%
Occupational Therapists	71.4%	14.3%	0.0%	0.0%	14.3%	0.0%	0.0%
Speech-Language Pathologists	71.4%	0.0%	14.3%	0.0%	14.3%	14.3%	14.3%
Home Health Aides	70.0%	35.0%	15.0%	50.0%	10.0%	25.0%	25.0%
Licensed Master Social Workers	62.5%	12.5%	0.0%	0.0%	12.5%	12.5%	0.0%
Licensed Clinical Social Workers	50.0%	16.7%	0.0%	0.0%	0.0%	16.7%	16.7%
Registered Nurses	50.0%	11.1%	16.7%	16.7%	16.7%	11.1%	11.1%
Homemakers	45.5%	45.5%	27.3%	45.5%	9.1%	18.2%	18.2%
Intake Coordinators	38.5%	15.4%	7.7%	15.4%	15.4%	7.7%	7.7%
Licensed Practical Nurses	27.3%	36.4%	18.2%	18.2%	18.2%	9.1%	9.1%
COVID-19 Compliance Officers	25.0%	12.5%	12.5%	0.0%	0.0%	0.0%	12.5%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 80. Number of Graduations in Selected Health Care Occupational Programs in the Capital District Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Mental Health Counselors	20	25	30	52	47	27	135.0%
Nurse Practitioners	22	39	46	49	36	14	63.6%
Occupational Therapy Assistants	53	63	44	42	65	12	22.6%
Registered Nurses	632	634	590	569	641	9	1.4%
Clinical Laboratory Technologists	17	19	21	20	22	5	29.4%
Dental Assistants	11	16	16	14	16	5	45.5%
Licensed Practical Nurses	228	255	283	232	233	5	2.2%
Occupational Therapists	35	34	38	36	37	2	5.7%
Physician Assistants	40	40	42	40	41	1	2.5%
Dietetic Technicians	10	14	15	11	10	0	0.0%
Dental Hygienists	37	30	30	35	36	-1	-2.7%
Nurse Anesthetists	19	19	25	23	18	-1	-5.3%
Cardiovascular Technologists and Technicians	6	15	5	8	4	-2	-33.3%
Social Workers	270	246	271	259	268	-2	-0.7%
Respiratory Therapists	22	17	22	18	19	-3	-13.6%
Radiation Therapists	29	22	27	21	23	-6	-20.7%
Physical Therapists	38	36	37	37	29	-9	-23.7%
Emergency Medical Technicians and Paramedics	49	55	26	53	38	-11	-22.4%
Health Care Administrators	65	21	23	41	51	-14	-21.5%
Pharmacists	240	200	232	225	218	-22	-9.2%
Medical Assistants	261	170	149	131	97	-164	-62.8%

Source: Integrated Postsecondary Education Data System.

Table 81. Number of Licensed Individuals in Selected Health Care Occupations in the Capital District Region, in Alphabetical Order, 2017-2021

Occupations	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	82	83	80	82	79	-3	-3.7%
Clinical Laboratory Technologists	779	768	713	731	701	-78	-10.0%
Dental Assistants	148	148	154	161	165	17	11.5%
Dental Hygienists	907	889	874	881	881	-26	-2.9%
Dietitians/Nutritionists, Certified	360	381	386	393	403	43	11.9%
Licensed Practical Nurses	5,301	5,293	5,066	5,187	5,107	-194	-3.7%
Nurse Practitioners	1,060	1,105	1,198	1,298	1,417	357	33.7%
Occupational Therapists	668	662	694	728	757	89	13.3%
Occupational Therapy Assistants	344	346	351	356	351	7	2.0%
Pharmacists	1,584	1,588	1,603	1,592	1,625	41	2.6%
Physical Therapists	1,154	1,172	1,196	1,194	1,235	81	7.0%
Physical Therapy Assistants	299	304	292	306	307	8	2.7%
Registered Physician Assistants	890	857	897	967	1,003	113	12.7%
Registered Professional Nurses	17,036	17,341	17,511	17,898	18,331	1,295	7.6%
Respiratory Therapists	429	436	434	453	446	17	4.0%
Social Workers	2,609	2,625	2,628	2,712	2,786	177	6.8%
Speech-Language Pathologists	966	978	964	969	992	26	2.7%
Total	34,616	34,976	35,041	35,908	36,586	1,970	5.7%

Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 82. Employment Projections for Selected Health Care Occupations in the Capital District Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	5,230	7,990	2,760	52.8%	1,017
Occupational Therapy Assistants	190	270	80	42.1%	33
Personal Care Aides	7,990	11,310	3,320	41.6%	1,676
Physician Assistants	960	1,350	390	40.6%	105
Nurse Practitioners	790	1,070	280	35.4%	78
Occupational Therapists	640	860	220	34.4%	64
Physical Therapists	1,180	1,560	380	32.2%	95
Medical Assistants	1,520	2,000	480	31.6%	242
Speech-Language Pathologists	680	890	210	30.9%	63
Respiratory Therapists	450	580	130	28.9%	40
Counselors ^b	1,790	2,290	500	27.9%	258
Diagnostic Medical Sonographers	330	420	90	27.3%	30
Nurse Anesthetists	260	330	70	26.9%	22
Dental Hygienists	900	1,130	230	25.6%	91
Dental Assistants	880	1,100	220	25.0%	133
Registered Nurses	13,750	17,020	3,270	23.8%	1,148
Social Workers	3,720	4,540	820	22.0%	485
Surgical Technologists	330	400	70	21.2%	37
Emergency Medical Technicians and Paramedics	1,540	1,850	310	20.1%	144
Medical Records and Health Information Technicians	740	880	140	18.9%	66
Radiologic Technologists	970	1,150	180	18.6%	76
Licensed Practical Nurses	4,020	4,740	720	17.9%	406
Clinical Laboratory Technicians and Technologists	1,500	1,750	250	16.7%	127
Nuclear Medicine Technologists	60	70	10	16.7%	5
Cardiovascular Technologists and Technicians	320	370	50	15.6%	24
Dietitians and Nutritionists	350	400	50	14.3%	29
Nursing Assistants	6,730	7,610	880	13.1%	891
Orderlies	180	200	20	11.1%	24
Pharmacy Technicians	1,120	1,190	70	6.3%	101
Pharmacists	1,480	1,480	0	0.0%	67
Pharmacy Aides	130	110	-20	-15.4%	13

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.

^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

C. Central New York

The Central New York region includes the counties of Cayuga, Cortland, Madison, Onondaga, and Oswego.

KEY FINDINGS

Population and Health Indicators

- The health of individuals in Central New York was similar to the rest of the state, though some indicators suggested worse health. The total death rate per 100,000 individuals in Central New York was 938.1 compared to the statewide rate of 793.0. Additionally, the rate of infant deaths per 1,000 live births was 6.2 compared to the statewide rate of 4.4 per 1,000 live births. Finally, the death rate due to cancer in the Central New York region was 202.4 per 100,000 individuals compared to the statewide rate of 176.3 per 100,000 individuals (Table 84).



Health Care Employment

- Between 2016 to 2020, the Central New York region experienced a 2.3% decrease in the overall number of jobs in the health care sector, with the exception of home health care. In 2020, there were 140 more jobs in home health care settings than in 2016, a 6.7% increase (Table 85).

Health Care Recruitment and Retention Difficulties^j

- In 2020, upstate^k New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of workers (Tables 88 and 89).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for RN retention difficulty (Tables 90 and 91).
- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) were the most difficult to recruit in 2021. FQHCs reported that geographic location (61.1%) was the most common reason cited for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 92 and 93).
- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult to retain in upstate New York FQHCs. FQHCs cited non-competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 94 and 95).

^j Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^k Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

- Nursing homes and adult care facilities in the Central New York region reported that LPNs (85.6%), CNAs (78.3%), and experienced RNs (75.0%) were the most difficult to recruit in 2020. A shortage of workers was the most common reason cited for recruitment difficulties of experienced licensed RNs (58.3%). Fear of exposure to COVID-19 as well as the requisite quarantine for COVID-positive tests were the most common reasons cited for recruitment difficulties among LPNs (Tables 96 and 97).
- CNAs (84.6%), personal care aides (66.7%), and home health aides (50.0%) were reported as most difficult to retain in Central New York region nursing homes. The reason cited for these retention difficulties was staff finding higher pay elsewhere (Table 98).
- Home health care agencies in the Central New York region reported that speech-language pathologists (100.0%), RNs (89.5%), and home health aides (85.0%) were the most difficult to recruit. A shortage of workers was the most common reason for these recruitment difficulties. Recruitment difficulties related to the pandemic were reported highest among personal care aides, with family commitments that prevented availability and state unemployment benefits as the primary reasons cited (Tables 100 and 101).
- Home health care agencies reported that speech-language pathologists (85.7%), personal care aides (81.3%), and homemakers (75.0%) were the most difficult to retain in the Central New York region. The most reported reason for retention difficulty among personal care aides and homemakers was staff finding higher pay elsewhere (62.5%). Personal care aides were also reported leaving for employment in other sectors (62.5%). Additionally, scheduling challenges was the most common pandemic-related retention difficulty for homemakers (100.0%) and personal care aides (71.4%) (Tables 102 and 103).

Health Care Production and Need

- RN programs had 117 more graduations in 2020 in the Central New York region than in 2016. Conversely, pharmacy technician programs had 42 fewer graduations in 2020 than in 2016. Additionally, there were only 174 LPNs graduations in 2020 compared to 204 graduations in 2016 (Table 104).
- In 2021, there were 958 more RNs, 257 more NPs, and 88 more occupational therapists licensed in the region than in 2017. In contrast, there were 338 fewer LPNs in 2017 than in 2021) (Table 105).

Table 83. Selected Population Characteristics in the Central New York Region, 2015-2019

Population Characteristics	Region		Statewide Percent
	Number	Percent	
Total population	777,706	N/A	N/A
Population under 100% FPL	104,366	14.1%	14.1%
Population under 200% FPL	222,956	30.1%	29.7%
Population aged birth to 17 years	162,581	20.9%	21.0%
Population aged 65 and older	129,931	16.7%	16.1%
Population female aged 15 to 44	299,407	38.5%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	242	3.0%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	6,055	74.1%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	1,879	23.0%	30.6%
Black/African American, non-Hispanic	56,598	7.3%	14.3%
Hispanic/Latino	30,953	4.0%	19.0%
Asian/Pacific Islander, non-Hispanic	19,412	2.5%	8.4%
American Indian/Native Alaskan, non-Hispanic	2,967	0.4%	0.2%
Two or more/other races	19,382	2.5%	2.0%
Population with less than a high school education ^a	51,247	9.7%	13.2%
Population with a high school diploma or equivalent ^a	249,810	47.2%	41.5%
Population with an associate degree ^a	66,347	12.5%	8.7%
Population with a bachelor's degree ^a	91,605	17.3%	20.5%
Population with a master's degree or higher ^a	70,478	13.3%	16.0%
Home ownership	207,751	67.8%	53.9%

^aEducation levels and rates are based on individuals aged 25 years and older.

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: American Community Survey, 5-Year Estimates, 2015-2019.

Table 84. Selected Health Indicators in the Central New York Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	21,874	938.1	466,052	793.0
Deaths due to heart disease, per 100,000	5,010	214.9	131,888	224.4
Deaths due to all cancers, per 100,000	4,737	202.4	103,820	176.3
Deaths due to diabetes, per 100,000	501	21.5	12,649	21.5
Total births, per 1,000 females aged 15 to 44	25,007	55.6	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	1,229	14.1	22,262	12.6
Low-birthweight births, as a percent of total births	1,942	7.8	54,941	8.0
Late/no prenatal care, as a percent of total births	895	3.6	36,747	5.5
Infant deaths, per 1,000 live births	155	6.2	3,018	4.4
Total hospitalizations, per 10,000	258,833	1,110.1	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	473	3.3	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	208	3.8	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	203	3.2	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	501	10.3	26,999	22.1
Diabetes hospitalizations, per 10,000	4,546	19.5	116,638	19.8
CLRD hospitalizations, per 10,000	6,996	30.0	181,011	30.8
Heart disease hospitalizations, per 10,000	22,804	97.8	603,977	102.8
Total ED visits, per 10,000	883,457	3,789.0	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 85. Number of Health Care Jobs in the Central New York Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	13,755	13,931	14,066	14,210	13,603	-152	-1.1%
Ambulatory care (excluding home health)	15,313	15,622	15,924	16,919	15,208	-105	-0.7%
Nursing home and residential care facilities	8,909	8,522	8,370	8,547	8,112	-797	-8.9%
Home health care	2,098	2,183	2,178	2,231	2,238	140	6.7%
Total	40,075	40,258	40,538	41,907	39,161	-914	-2.3%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 86. Number of Jobs in Selected Health Care Occupations in the Central New York Region, in Alphabetical Order, 2020

Occupational Title	Employment
Cardiovascular Technologists and Technicians	80
Certified Registered Nurse Anesthetists	80
Dental Assistants	540
Dental Hygienists	610
Dietetic Technicians	60
Dietitians and Nutritionists	220
Emergency Medical Technicians and Paramedics	630
Home Health and Personal Care Aides	8,090
Licensed Practical Nurses	2,990
Medical and Health Services Managers	680
Medical Assistants	840
Medical Records and Health Information Technicians	660
Medical Secretaries	480
Mental Health Counselors	600
Nuclear Medicine Technologists	N/A
Nurses Midwives	N/A
Nurse Practitioners	630
Nursing Assistants	3,320
Occupational Therapists	510
Occupational Therapy Assistants	60
Orderlies	110
Pharmacists	690
Pharmacy Aides	120
Pharmacy Technicians	680
Physical Therapist Assistants/Aides	270
Physical Therapists	710
Physician Assistants	520
Radiation Therapists	N/A
Radiologic Technologists	620
Registered Nurses	8,200
Respiratory Therapists	310
Social Workers	930
Speech-Language Pathologists	630
Surgical Technologists	210

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 87. Average Annual Salary for Selected Health Care Occupations in the Central New York Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$50,680
Certified Registered Nurse Anesthetists	\$166,110
Dental Assistants	\$39,940
Dental Hygienists	\$75,810
Dietetic Technicians	\$40,340
Dietitians and Nutritionists	\$63,270
Health Care Social Workers	\$45,650
Home Health and Personal Care Aides	\$30,480
Licensed Practical Nurses	\$46,130
Medical and Health Services Managers	\$102,210
Medical Assistants	\$35,210
Medical Records and Health Information Technicians	\$46,460
Medical Secretaries	\$37,790
Mental Health and Substance Abuse Social Workers	\$63,010
Mental Health Counselors	\$52,270
Nuclear Medicine Technologists	\$87,640
Nurse Practitioners	\$108,800
Nurses Midwives	\$203,050
Nursing Assistants	\$32,760
Occupational Therapists	\$85,300
Occupational Therapy Assistants	\$52,400
Orderlies	\$30,200
Pharmacists	\$121,870
Pharmacy Aides	\$30,420
Pharmacy Technicians	\$33,750
Physical Therapist Assistants	\$49,560
Physical Therapists	\$79,260
Physician Assistants	\$119,500
Speech-Language Pathologists	\$87,220
Surgical Technologists	\$49,100

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 88. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 89. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 90. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 91. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 92. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 93. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 94. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 95. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 96. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	85.7%	50.0%	50.0%	42.9%	21.4%
CNAs and Temps	78.3%	45.5%	9.1%	36.4%	9.1%
Registered Nurses (Experienced)	75.0%	58.3%	50.0%	16.7%	0.0%
Registered Nurses (Newly Licensed)	72.7%	63.6%	54.5%	18.2%	0.0%
Home Health Aides	71.4%	57.1%	71.4%	42.9%	28.6%
Personal Care Aides	50.0%	50.0%	30.0%	10.0%	0.0%
Speech-Language Pathologists	50.0%	50.0%	30.0%	0.0%	0.0%
Paid Feeding Assistants	50.0%	20.0%	0.0%	0.0%	0.0%
Infection Preventionist Practitioners	40.0%	40.0%	0.0%	0.0%	0.0%
Licensed Master Social Workers	30.0%	50.0%	10.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 97. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	85.7%	42.9%	42.9%	21.4%	14.3%
CNAs and Temps	78.3%	0.0%	18.2%	27.3%	0.0%
Registered Nurses (Experienced)	75.0%	16.7%	16.7%	0.0%	0.0%
Registered Nurses (Newly Licensed)	72.7%	18.2%	18.2%	0.0%	0.0%
Home Health Aides	71.4%	28.6%	42.9%	42.9%	0.0%
Personal Care Aides	50.0%	10.0%	30.0%	20.0%	20.0%
Speech-Language Pathologists	50.0%	0.0%	20.0%	0.0%	0.0%
Paid Feeding Assistants	50.0%	0.0%	20.0%	20.0%	0.0%
Infection Preventionist Practitioners	40.0%	0.0%	20.0%	0.0%	0.0%
Licensed Master Social Workers	30.0%	20.0%	20.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 98. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
CNAs and Temps	84.6%	100.0%	38.5%	23.1%	0.0%
Personal Care Aides	66.7%	83.3%	33.3%	0.0%	0.0%
Home Health Aides	50.0%	57.1%	42.9%	0.0%	0.0%
Licensed Master Social Workers	42.9%	14.3%	0.0%	14.3%	0.0%
Licensed Practical Nurses	37.5%	100.0%	62.5%	50.0%	0.0%
Nurse Directors/Managers	36.4%	18.2%	36.4%	9.1%	9.1%
Occupational Therapy Assistants	36.4%	9.1%	9.1%	9.1%	0.0%
Speech-Language Pathologists	33.3%	0.0%	8.3%	8.3%	0.0%
Registered Nurses (Experienced)	30.8%	30.8%	38.5%	15.4%	7.7%
Physical Therapist Assistants	30.0%	0.0%	10.0%	10.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 99. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
CNAs and Temps	84.6%	0.0%	92.3%	69.2%	0.0%
Personal Care Aides	66.7%	0.0%	50.0%	16.7%	0.0%
Home Health Aides	50.0%	0.0%	42.9%	14.3%	0.0%
Licensed Master Social Workers	42.9%	0.0%	42.9%	0.0%	0.0%
Licensed Practical Nurses	37.5%	0.0%	62.5%	50.0%	0.0%
Nurse Directors/Managers	36.4%	0.0%	0.0%	9.1%	9.1%
Occupational Therapy Assistants	36.4%	0.0%	0.0%	0.0%	0.0%
Speech-Language Pathologists	33.3%	0.0%	0.0%	0.0%	0.0%
Registered Nurses (Experienced)	30.8%	0.0%	0.0%	7.7%	0.0%
Physical Therapist Assistants	30.0%	0.0%	0.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 100. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Speech-Language Pathologists	100.0%	100.0%	14.3%	14.3%	0.0%
Registered Nurses	89.5%	63.2%	15.8%	26.3%	5.3%
Home Health Aides	85.0%	80.0%	25.0%	15.0%	15.0%
Personal Care Aides	83.3%	88.9%	38.9%	22.2%	16.7%
Occupational Therapists	75.0%	25.0%	37.5%	25.0%	25.0%
Licensed Master Social Workers	71.4%	28.6%	14.3%	0.0%	14.3%
Homemakers	54.5%	36.4%	18.2%	18.2%	27.3%
Physical Therapists	37.5%	25.0%	25.0%	0.0%	0.0%
Licensed Practical Nurses	28.6%	28.6%	7.1%	0.0%	7.1%
Intake Coordinators	15.4%	23.1%	7.7%	7.7%	7.7%
COVID-19 Compliance Officers	9.1%	9.1%	0.0%	0.0%	9.1%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 101. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Speech-Language Pathologists	100.0%	60.0%	20.0%	0.0%	0.0%	0.0%
Home Health Aides	85.0%	45.5%	72.7%	81.8%	90.9%	27.3%
Personal Care Aides	83.3%	66.7%	88.9%	100.0%	100.0%	22.2%
Occupational Therapists	75.0%	16.7%	0.0%	0.0%	0.0%	0.0%
Respiratory Therapists	75.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Licensed Master Social Workers	71.4%	40.0%	0.0%	0.0%	20.0%	20.0%
Homemakers	54.5%	33.3%	100.0%	66.7%	66.7%	16.7%
Physical Therapists	37.5%	16.7%	0.0%	0.0%	0.0%	0.0%
Licensed Practical Nurses	28.6%	10.0%	30.0%	20.0%	20.0%	10.0%
Intake Coordinators	15.4%	11.1%	22.2%	11.1%	11.1%	0.0%
COVID-19 Compliance Officers	9.1%	16.7%	16.7%	0.0%	16.7%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 102. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Speech-Language Pathologists	85.7%	14.3%	28.6%	28.6%	14.3%	0.0%
Personal Care Aides	81.3%	62.5%	62.5%	31.3%	6.3%	56.3%
Homemakers	75.0%	62.5%	25.0%	0.0%	0.0%	25.0%
Home Health Aides	63.2%	52.6%	42.1%	15.8%	0.0%	42.1%
Physical Therapists	40.0%	0.0%	20.0%	0.0%	0.0%	20.0%
Registered Nurses	26.3%	31.6%	21.1%	15.8%	15.8%	15.8%
Licensed Practical Nurses	22.2%	44.4%	11.1%	22.2%	0.0%	22.2%
Intake Coordinators	16.7%	8.3%	8.3%	8.3%	0.0%	16.7%
COVID-19 Compliance Officers	14.3%	0.0%	0.0%	28.6%	14.3%	14.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 103. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Central New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Speech-Language Pathologists	85.7%	0.0%	40.0%	0.0%	20.0%	20.0%	0.0%
Personal Care Aides	81.3%	71.4%	42.9%	57.1%	14.3%	28.6%	14.3%
Homemakers	75.0%	100.0%	50.0%	25.0%	25.0%	0.0%	0.0%
Home Health Aides	63.2%	70.0%	30.0%	40.0%	0.0%	20.0%	10.0%
Physical Therapists	40.0%	20.0%	0.0%	20.0%	0.0%	0.0%	0.0%
Registered Nurses	26.3%	25.0%	16.7%	16.7%	16.7%	0.0%	0.0%
Licensed Practical Nurses	22.2%	42.9%	14.3%	14.3%	14.3%	0.0%	0.0%
Intake Coordinators	16.7%	0.0%	0.0%	0.0%	12.5%	12.5%	0.0%
COVID-19 Compliance Officers	14.3%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 104. Number of Graduations in Selected Health Care Occupational Programs in the Central New York Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Registered Nurses	553	659	538	584	670	117	21.2%
Occupational Therapy Assistants	0	0	30	25	40	40	N/A
Occupational Therapists	0	0	29	35	39	39	N/A
Physician Assistants	75	89	87	107	102	27	36.0%
Physical Therapist Assistants/Aides	11	20	16	22	28	17	154.5%
Social Workers	113	136	153	108	129	16	14.2%
Radiation Therapists	12	10	11	10	14	2	16.7%
Dietetic Technicians	2	7	8	3	3	1	50.0%
Medical Assistants	112	160	116	123	113	1	0.9%
Respiratory Therapists	9	8	10	11	9	0	0.0%
Clinical Laboratory Technologists	18	23	20	15	15	-3	-16.7%
Dental Assistants	51	56	49	56	46	-5	-9.8%
Health Care Administrators	35	37	46	49	29	-6	-17.1%
Physical Therapists	46	38	41	38	40	-6	-13.0%
Nurse Practitioners	71	55	67	87	55	-16	-22.5%
Mental Health Counselors	44	41	35	32	26	-18	-40.9%
Nursing Assistants	21	47	20	0	0	-21	-100.0%
Licensed Practical Nurses	204	186	125	143	174	-30	-14.7%
Pharmacy Technicians/Assistants	42	21	12	3	0	-42	-100.0%

N/A, not applicable.

Source: Integrated Postsecondary Education Data System.

Table 105. Number of Licensed Individuals in Selected Health Care Occupations in the Central New York Region, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	110	101	97	100	102	-8	-7.3%
Clinical Laboratory Technologists	559	537	497	508	497	-62	-11.1%
Dental Assistants	247	252	236	232	226	-21	-8.5%
Dental Hygienists	584	553	551	555	544	-40	-6.8%
Dietitians/Nutritionists, Certified	217	214	214	214	218	1	0.5%
Licensed Practical Nurses	4,896	4,839	4,672	4,699	4,558	-338	-6.9%
Nurse Practitioners	1,268	1,267	1,322	1,434	1,525	257	20.3%
Occupational Therapists	418	448	461	481	506	88	21.1%
Occupational Therapy Assistants	88	113	123	142	154	66	75.0%
Pharmacists	819	822	844	834	862	43	5.3%
Physical Therapists	872	899	922	920	945	73	8.4%
Physical Therapist Assistants	285	297	314	314	320	35	12.3%
Registered Physician Assistants	590	568	595	627	659	69	11.7%
Registered Professional Nurses	12,217	12,428	12,581	12,788	13,175	958	7.8%
Respiratory Therapists	399	388	382	395	368	-31	-7.8%
Social Workers	1,529	1,504	1,491	1,522	1,611	82	5.4%
Speech-Language Pathologists	570	576	593	602	611	41	7.2%
Total	25,668	25,806	25,895	26,367	26,881	1,213	4.7%

Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 106. Employment Projections for Selected Health Care Occupations in the Central New York Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	1,780	2,830	1,050	59.0%	364
Personal Care Aides	6,250	9,640	3,390	54.2%	1,447
Physician Assistants	500	720	220	44.0%	56
Nurse Practitioners	640	910	270	42.2%	68
Physical Therapists	830	1,170	340	41.0%	75
Medical Assistants	760	1,070	310	40.8%	131
Speech-Language Pathologists	470	650	180	38.3%	48
Counselors ^b	890	1,220	330	37.1%	140
Nurse Anesthetists	90	120	30	33.3%	8
Respiratory Therapists	270	360	90	33.3%	26
Dental Assistants	1,060	1,350	290	27.4%	164
Dental Hygienists	870	1,100	230	26.4%	89
Occupational Therapists	420	530	110	26.2%	38
Emergency Medical Technicians and Paramedics	700	880	180	25.7%	71
Cardiovascular Technologists and Technicians	120	150	30	25.0%	11
Diagnostic Medical Sonographers	160	200	40	25.0%	14
Clinical Laboratory Technicians and Technologists	570	710	140	24.6%	54
Radiologic Technologists	620	770	150	24.2%	53
Medical Records and Health Information Technicians	460	570	110	23.9%	43
Registered Nurses	7,380	9,130	1,750	23.7%	616
Social Workers	2,230	2,750	520	23.3%	296
Licensed Practical Nurses	3,350	4,130	780	23.3%	363
Surgical Technologists	230	280	50	21.7%	26
Dietitians and Nutritionists	260	310	50	19.2%	23
Nursing Assistants	3,680	4,190	510	13.9%	493
Orderlies	100	110	10	10.0%	13
Pharmacy Technicians	580	610	30	5.2%	50
Pharmacists	640	630	-10	-1.6%	27
Pharmacy Aides	180	160	-20	-11.1%	19

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.

^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

D. Finger Lakes

The Finger Lakes region includes the counties of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates.

KEY FINDINGS

Population and Health Indicators

- The data used in this report suggest that individuals in the Finger Lakes region are healthier than individuals statewide. Despite this, several indicators are of concern. There were 945.0 total deaths per 100,000 individuals in the region compared to 793.0 deaths per 100,000 statewide. Additionally, the rate of infant deaths per 1,000 live births was 6.9 in the region compared to 4.4 per 1,000 live births statewide. Finally, deaths due to all cancers per 100,000 total population was 212.5 in the region compared to a rate of 176.3 statewide (Table 108).



Health Care Employment

- The greatest growth in health care jobs in the Finger Lakes region was in home health care, which experienced a 10.2% increase in jobs between 2016 and 2020 (4,478 jobs in 2016 compared with 4,934 health care jobs in 2020). Hospitals had 33,594 jobs in the region in 2020, which was 1,567 more jobs than in 2016 (4.9% growth). Ambulatory care settings (excluding home health care) lost 1,700 jobs during the same period (16,863 jobs in 2016 compared to 15,163 jobs in 2020) (Table 109).

Health Care Recruitment and Retention Difficulties¹

- In 2020, upstate^m New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of workers (Tables 112 and 113).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for RN retention difficulty (Tables 114 and 115).
- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) as the most difficult workers to recruit in 2021. FQHCs reported that geographic location (61.1%) was the most common reason for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 116 and 117).

¹ Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^m Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult to retain in upstate New York FQHCs. FQHCs cited non-competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 118 and 119).
- Nursing homes and adult care facilities reported that LPNs (87.0%), newly licensed RNs (83.3%), and CNAs (80.6%) were the most difficult to recruit in the Finger Lakes region. A shortage of workers was the most common reason for these recruitment difficulties. The most common reason reported for difficulty recruiting related to the COVID-19 pandemic for CNAs (46.7%) and LPNs (43.5%) was the state unemployment incentive (Tables 120 and 121).
- Nursing homes and adult care facilities in the Finger Lakes region reported that home health aides (100.0%), newly licensed RNs (94.4%), and CNAs (88.2%) were most difficult to retain, indicating that staff were finding higher pay elsewhere, especially for newly licensed RNs (83.3%). COVID-19 pandemic-related retention difficulties were commonly reported for home health aides (38%) due to a fear of exposure to COVID-19 and family demands at home (37.5%) (Tables 122 and 123).
- Home health care agencies in the Finger Lakes region reported that home health aides (94.6%), speech-language pathologists (87.5%), and personal care aides (84.4%) were the most difficult to recruit. These recruitment difficulties were primarily due to a shortage of workers. Additionally, recruitment difficulties related to the pandemic for personal care aides and home health aides was attributed to state unemployment benefits (Tables 124 and 125). Home health aides (77.8%), personal care aides (73.3%), and homemakers (66.7%) were reported as the most difficult to retain in home health care agencies. Reasons cited for these retention difficulties were staff finding higher pay elsewhere and family commitments due to the COVID-19 pandemic (Tables 126 and 127).

Health Care Production and Need

- Between 2016 and 2020, several professions experienced an increase in graduations in the Finger Lakes region, including physician assistants (45), NPs (42), and social workers (39). In contrast, programs for RNs (162), medical assistants (22), and dental assistants (21) experienced significant declines in graduations during the same period (Table 128).
- There were 85 fewer clinical laboratory technologists licensed in the Finger Lakes region in 2021 than there were in 2017 (830 compared to 915). In contrast, between 2017 and 2021 the number of certified NPs increased by 28.8%, representing the largest increase in the region (Table 129).

Table 107. Selected Population Characteristics in the Finger Lakes Region, 2015-2019

Population Characteristics ^a	Region		Statewide Percent
	Number	Percent	
Total population	1,205,380	N/A	N/A
Population under 100% FPL	152,552	13.2%	14.1%
Population under 200% FPL	336,717	29.0%	29.7%
Population aged birth to 17 years	249,392	20.7%	21.0%
Population aged 65 and older	210,241	17.4%	16.1%
Population female aged 15 to 44	456,755	37.9%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	279	2.1%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	10,403	78.8%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	2,521	19.1%	30.6%
Black/African American, non-Hispanic	120,997	10.0%	14.3%
Hispanic/Latino	83,690	6.9%	19.0%
Asian/Pacific Islander, non-Hispanic	31,323	2.6%	8.4%
American Indian/Native Alaskan, non-Hispanic	2,766	0.2%	0.2%
Two or more/other races	24,409	2.0%	2.0%
Population with less than a high school education ^a	80,835	9.6%	13.2%
Population with a high school diploma or equivalent ^a	373,859	44.6%	41.5%
Population with an associate degree ^a	102,641	12.3%	8.7%
Population with a bachelor's degree ^a	156,402	18.7%	20.5%
Population with a master's degree or higher ^a	123,952	14.8%	16.0%
Home ownership	330,050	67.9%	53.9%

^aEducation levels and rates are based on individuals aged 25 years and older.

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 108. Selected Health Indicators in the Finger Lakes Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	34,152	945.0	466,052	793.0
Deaths due to heart disease, per 100,000	7,348	203.3	131,888	224.4
Deaths due to all cancers, per 100,000	7,696	212.5	103,820	176.3
Deaths due to diabetes, per 100,000	775	21.5	12,649	21.5
Total births, per 1,000 females aged 15 to 44	37,028	54.6	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	1,554	13.2	22,262	12.6
Low-birthweight births, as a percent of total births	2,940	8.0	54,941	8.0
Late/no prenatal care, as a percent of total births	1,451	4.1	36,747	5.5
Infant deaths, per 1,000 live births	257	6.9	3,018	4.4
Total hospitalizations, per 10,000	401,769	1,111.7	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	1,182	5.0	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	411	4.9	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	587	6.4	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	754	10.8	26,999	22.1
Diabetes hospitalizations, per 10,000	6,741	18.6	116,638	19.8
CLRD hospitalizations, per 10,000	10,079	27.9	181,011	30.8
Heart disease hospitalizations, per 10,000	38,004	105.1	603,977	102.8
Total ED visits, per 10,000	1,452,550	4,019.4	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 109. Number of Health Care Jobs in the Finger Lakes Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	32,027	32,738	33,911	34,532	33,594	1,567	4.9%
Ambulatory care (excluding home health)	16,863	16,719	16,350	16,256	15,163	-1,700	-10.1%
Nursing home and residential care facilities	13,757	13,842	13,948	13,730	12,916	-841	-6.1%
Home health care	4,478	4,901	5,089	5,254	4,934	456	10.2%
Total	67,125	68,200	69,298	69,772	66,607	-518	-0.8%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 110. Number of Jobs in Selected Health Care Occupations in the Finger Lakes Region, in Alphabetical Order, 2020

Occupation	Employment
Cardiovascular Technologists and Technicians	190
Certified Registered Nurse Anesthetists	100
Dental Assistants	960
Dental Hygienists	930
Dietetic Technicians	90
Dietitians and Nutritionists	260
Emergency Medical Technicians and Paramedics	1,410
Home Health and Personal Care Aides	18,670
Licensed Practical Nurses	3,980
Medical and Health Services Managers	1,030
Medical Assistants	800
Medical Records and Health Information Technicians	970
Medical Secretaries	750
Mental Health Counselors	920
Nuclear Medicine Technologists	60
Nurses Midwives	N/A
Nurse Practitioners	1,260
Nursing Assistants	5,470
Occupational Therapists	750
Occupational Therapy Assistants	120
Orderlies	310
Pharmacists	1,170
Pharmacy Aides	280
Pharmacy Technicians	1,210
Physical Therapist Assistants/Aides	340
Physical Therapists	1,020
Physician Assistants	970
Radiation Therapists	140
Radiologic Technologists	790
Registered Nurses	12,000
Respiratory Therapists	400
Social Workers	1,800
Speech-Language Pathologists	850
Surgical Technologists	300

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 111. Average Annual Salary for Selected Health Care Occupations in the Finger Lakes Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$59,280
Certified Registered Nurse Anesthetists	\$194,920
Dental Assistants	\$43,010
Dental Hygienists	\$64,510
Dietetic Technicians	\$31,110
Dietitians and Nutritionists	\$60,600
Healthcare Social Workers	\$53,740
Home Health and Personal Care Aides	\$29,680
Licensed Practical Nurses	\$45,190
Medical and Health Services Managers	\$108,550
Medical Assistants	\$33,860
Medical Records and Health Information Technicians	\$46,020
Medical Secretaries	\$35,640
Mental Health and Substance Abuse Social Workers	\$54,130
Mental Health Counselors	\$50,390
Nuclear Medicine Technologists	\$77,520
Nurse Practitioners	\$106,110
Nurses Midwives	N/A
Nursing Assistants	\$33,080
Occupational Therapists	\$79,390
Occupational Therapy Assistants	\$59,570
Orderlies	\$32,120
Pharmacists	\$124,800
Pharmacy Aides	\$30,610
Pharmacy Technicians	\$32,530
Physical Therapist Assistants	\$57,680
Physical Therapists	\$81,510
Physician Assistants	\$110,240
Speech-Language Pathologists	\$73,590
Surgical Technologists	\$47,260

N/A, not available.

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 112. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 113. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 114. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 115. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 116. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 117. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 118. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 119. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 120. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	87.0%	73.9%	26.1%	26.1%	17.4%
Registered Nurses (Newly Licensed)	83.3%	77.8%	33.3%	16.7%	5.6%
CNAs and Temps	80.6%	60.0%	6.7%	20.0%	13.3%
Registered Nurses (Experienced)	80.0%	75.0%	30.0%	15.0%	5.0%
Infection Preventionist Practitioners	68.8%	37.5%	0.0%	0.0%	0.0%
Paid Feeding Assistants	63.6%	36.4%	18.2%	9.1%	9.1%
Occupational Therapists	60.0%	40.0%	13.3%	0.0%	0.0%
Speech-Language Pathologists	60.0%	26.7%	6.7%	0.0%	0.0%
Personal Care Aides	55.6%	77.8%	11.1%	11.1%	11.1%
Physical Therapists	53.3%	33.3%	6.7%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 121. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	87.0%	30.4%	30.4%	43.5%	4.3%
Registered Nurses (Newly Licensed)	83.3%	27.8%	22.2%	27.8%	0.0%
CNAs and Temps	80.6%	6.7%	20.0%	46.7%	0.0%
Registered Nurses (Experienced)	80.0%	25.0%	20.0%	25.0%	0.0%
Infection Preventionist Practitioners	68.8%	0.0%	6.3%	6.3%	0.0%
Paid Feeding Assistants	63.6%	9.1%	9.1%	36.4%	0.0%
Occupational Therapists	60.0%	6.7%	6.7%	6.7%	0.0%
Speech-Language Pathologists	60.0%	0.0%	6.7%	6.7%	0.0%
Personal Care Aides	55.6%	11.1%	44.4%	55.6%	11.1%
Physical Therapists	53.3%	6.7%	6.7%	6.7%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 122. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Home Health Aides	100.0%	62.5%	50.0%	0.0%	0.0%
Registered Nurses (Newly Licensed)	94.4%	83.3%	33.3%	11.1%	0.0%
CNAs and Temps	88.2%	67.6%	47.1%	11.8%	0.0%
Paid Feeding Assistants	87.5%	75.0%	50.0%	0.0%	0.0%
Registered Nurses (Experienced)	84.2%	73.7%	36.8%	10.5%	5.3%
Licensed Practical Nurses	81.0%	76.2%	47.6%	19.0%	0.0%
Infection Preventionist Practitioners	75.0%	33.3%	25.0%	0.0%	0.0%
MDS Coordinators	73.3%	26.7%	13.3%	6.7%	6.7%
Nurse Directors/Managers	70.6%	52.9%	41.2%	11.8%	0.0%
Personal Care Aides	66.7%	55.6%	33.3%	11.1%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 123. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Home Health Aides	100.0%	0.0%	12.5%	37.5%	0.0%
Registered Nurses (Newly Licensed)	94.4%	0.0%	16.7%	16.7%	0.0%
CNAs and Temps	88.2%	2.9%	38.2%	32.4%	2.9%
Paid Feeding Assistants	87.5%	0.0%	12.5%	25.0%	0.0%
Registered Nurses (Experienced)	84.2%	0.0%	15.8%	15.8%	0.0%
Licensed Practical Nurses	81.0%	0.0%	28.6%	28.6%	0.0%
Infection Preventionist Practitioners	75.0%	0.0%	0.0%	8.3%	0.0%
MDS Coordinators	73.3%	0.0%	0.0%	6.7%	0.0%
Nurse Directors/Managers	70.6%	0.0%	5.9%	11.8%	0.0%
Personal Care Aides	66.7%	0.0%	22.2%	33.3%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 124. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Home Health Aides	94.6%	67.6%	45.9%	32.4%	24.3%
Speech-Language Pathologists	87.5%	62.5%	12.5%	25.0%	0.0%
Personal Care Aides	84.4%	78.1%	40.6%	43.8%	21.9%
Occupational Therapists	75.0%	50.0%	25.0%	25.0%	12.5%
Respiratory Therapists	71.4%	42.9%	14.3%	28.6%	0.0%
Licensed Clinical Social Workers	69.2%	61.5%	30.8%	15.4%	23.1%
Licensed Master Social Workers	66.7%	58.3%	33.3%	16.7%	25.0%
Licensed Practical Nurses	65.4%	57.7%	11.5%	50.0%	34.6%
Physical Therapists	62.5%	50.0%	12.5%	25.0%	0.0%
Registered Nurses	62.1%	51.7%	13.8%	41.4%	41.4%
Homemakers	50.0%	50.0%	16.7%	29.2%	12.5%
Intake Coordinators	37.5%	29.2%	8.3%	20.8%	8.3%
COVID-19 Compliance Officers	23.1%	30.8%	15.4%	7.7%	7.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 125. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Home Health Aides	94.6%	8.1%	51.4%	27.0%	78.4%	18.9%
Speech-Language Pathologists	87.5%	12.5%	25.0%	0.0%	25.0%	25.0%
Personal Care Aides	84.4%	28.1%	59.4%	37.5%	87.5%	21.9%
Occupational Therapists	75.0%	12.5%	25.0%	0.0%	25.0%	25.0%
Respiratory Therapists	71.4%	14.3%	14.3%	0.0%	14.3%	14.3%
Licensed Clinical Social Workers	69.2%	30.8%	7.7%	15.4%	23.1%	7.7%
Licensed Master Social Workers	66.7%	25.0%	8.3%	16.7%	25.0%	16.7%
Licensed Practical Nurses	65.4%	11.5%	23.1%	7.7%	38.5%	15.4%
Physical Therapists	62.5%	12.5%	25.0%	0.0%	25.0%	25.0%
Registered Nurses	62.1%	17.2%	20.7%	17.2%	31.0%	17.2%
Homemakers	50.0%	12.5%	37.5%	33.3%	66.7%	8.3%
Intake Coordinators	37.5%	4.2%	12.5%	4.2%	29.2%	4.2%
COVID-19 Compliance Officers	23.1%	23.1%	15.4%	0.0%	23.1%	7.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 126. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Home Health Aides	77.8%	52.8%	27.8%	30.6%	0.0%	38.9%
Personal Care Aides	73.3%	76.7%	36.7%	36.7%	6.7%	56.7%
Homemakers	66.7%	73.3%	26.7%	13.3%	0.0%	20.0%
Licensed Practical Nurses	63.2%	63.2%	26.3%	42.1%	5.3%	5.3%
Speech-Language Pathologists	60.0%	40.0%	0.0%	40.0%	0.0%	0.0%
Licensed Master Social Workers	55.6%	55.6%	33.3%	33.3%	0.0%	0.0%
Registered Nurses	53.8%	53.8%	19.2%	38.5%	11.5%	0.0%
Licensed Clinical Social Workers	50.0%	62.5%	37.5%	50.0%	0.0%	0.0%
Intake Coordinators	44.4%	27.8%	16.7%	27.8%	0.0%	11.1%
Respiratory Therapists	33.3%	66.7%	0.0%	33.3%	0.0%	0.0%
Occupational Therapists	25.0%	25.0%	0.0%	25.0%	0.0%	0.0%
Physical Therapists	20.0%	40.0%	0.0%	40.0%	0.0%	0.0%
COVID-19 Compliance Officers	16.7%	16.7%	25.0%	33.3%	0.0%	8.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 127. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Finger Lakes Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Home Health Aides	77.8%	47.2%	27.8%	50.0%	19.4%	25.0%	36.1%
Personal Care Aides	73.3%	50.0%	23.3%	46.7%	23.3%	23.3%	46.7%
Homemakers	66.7%	46.7%	26.7%	60.0%	6.7%	6.7%	40.0%
Licensed Practical Nurses	63.2%	26.3%	5.3%	31.6%	26.3%	31.6%	26.3%
Speech-Language Pathologists	60.0%	0.0%	40.0%	0.0%	40.0%	40.0%	20.0%
Licensed Master Social Workers	55.6%	0.0%	11.1%	22.2%	33.3%	11.1%	0.0%
Registered Nurses	53.8%	3.8%	7.7%	15.4%	26.9%	23.1%	7.7%
Licensed Clinical Social Workers	50.0%	12.5%	12.5%	25.0%	37.5%	12.5%	12.5%
Intake Coordinators	44.4%	5.6%	5.6%	27.8%	11.1%	5.6%	16.7%
Respiratory Therapists	33.3%	0.0%	66.7%	0.0%	33.3%	33.3%	33.3%
Occupational Therapists	25.0%	0.0%	12.5%	0.0%	25.0%	25.0%	0.0%
Physical Therapists	20.0%	0.0%	20.0%	0.0%	40.0%	40.0%	0.0%
COVID-19 Compliance Officers	16.7%	16.7%	33.3%	33.3%	8.3%	25.0%	8.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 128. Number of Graduations in Selected Health Care Occupational Programs in the Finger Lakes Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Physician Assistants	27	60	58	68	72	45	166.7%
Nurse Practitioners	64	70	57	132	106	42	65.6%
Social Workers	391	391	355	450	430	39	10.0%
Nutritionists	41	64	68	66	78	37	90.2%
Clinical Laboratory Technologists	14	10	12	20	29	15	107.1%
Mental Health Counselors	39	40	63	46	54	15	38.5%
Occupational Therapists	77	82	92	89	90	13	16.9%
Occupational Therapy Assistants	0	0	7	19	13	13	N/A
Pharmacists	69	82	80	82	79	10	14.5%
Radiation Therapists	20	27	25	33	28	8	40.0%
Emergency Medical Technicians and Paramedics	31	42	47	31	37	6	19.4%
Dietetic Technicians	0	0	0	1	5	5	N/A
Physical Therapists	49	54	55	47	53	4	8.2%
Dental Hygienists	25	31	29	26	28	3	12.0%
Health Care Administrators	87	78	74	82	89	2	2.3%
Licensed Practical Nurses	275	270	269	213	277	2	0.7%
Physical Therapist Assistants/Aides	27	28	18	25	29	2	7.4%
Nursing Assistants	0	12	10	8	0	0	N/A
Speech-Language Pathologists	1	0	0	0	0	-1	-100.0%
Clinical Laboratory Technicians	9	17	12	9	7	-2	-22.2%
Dental Assistants	83	71	67	66	62	-21	-25.3%
Medical Assistants	57	67	68	46	35	-22	-38.6%
Registered Nurses	1,374	1,239	1,283	1,211	1,212	-162	-11.8%

N/A, not applicable.

Source: Integrated Postsecondary Education Data System.

Table 129. Number of Licensed Individuals in Selected Health Care Occupations in the Finger Lakes Region, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	98	102	107	114	122	24	24.5%
Clinical Laboratory Technologists	915	910	814	824	830	-85	-9.3%
Dental Assistants	266	283	292	308	312	46	17.3%
Dental Hygienists	1,131	1,082	1,084	1,065	1,068	-63	-5.6%
Dietitians/Nutritionists, Certified	275	284	286	284	319	44	16.0%
Licensed Practical Nurses	6,366	6,367	6,242	6,443	6,482	116	1.8%
Nurse Practitioners	1,737	1,773	1,871	2,072	2,238	501	28.8%
Occupational Therapists	755	796	827	852	877	122	16.2%
Occupational Therapy Assistants	181	183	195	204	210	29	16.0%
Pharmacists	1,281	1,260	1,289	1,336	1,394	113	8.8%
Physical Therapists	1,181	1,231	1,286	1,347	1,421	240	20.3%
Physical Therapist Assistants	377	381	389	393	401	24	6.4%
Registered Physician Assistants	902	934	997	1,065	1,128	226	25.1%
Registered Professional Nurses	17,946	18,317	18,565	18,932	19,563	1,617	9.0%
Respiratory Therapists	376	374	384	401	400	24	6.4%
Social Workers	2,483	2,515	2,569	2,670	2,760	277	11.2%
Speech-Language Pathologists	1,129	1,143	1,164	1,168	1,176	47	4.2%
Total	37,399	37,935	38,361	39,478	40,701	3,302	8.8%

Source: New York State Education Department, Office of Professions

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 130. Employment Projections for Selected Health Care Occupations in the Finger Lakes Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	5,870	9,280	3,410	58.1%	1,190
Pharmacists	9,190	13,930	4,740	51.6%	2,086
Orderlies	100	140	40	40.0%	16
Physician Assistants	1,200	1,670	470	39.2%	106
Radiation Therapists	930	1,290	360	38.7%	100
Nurse Practitioners	1,280	1,760	480	37.5%	129
Medical Assistants	730	980	250	34.2%	119
Diagnostic Medical Sonographers	470	620	150	31.9%	45
Dental Hygienists	1,160	1,530	370	31.9%	127
Dental Assistants	1,380	1,810	430	31.2%	221
Emergency Medical Technicians and Paramedics	1,510	1,970	460	30.5%	161
Surgical Technologists	1,250	1,620	370	29.6%	184
Cardiovascular Technologists and Technicians	150	190	40	26.7%	13
Social Workers	4,200	5,260	1,060	25.2%	541
Medical Records and Health Information Technicians	640	800	160	25.0%	61
Occupational Therapy Assistants	760	950	190	25.0%	67
Counselors ^b	14,980	18,680	3,700	24.7%	1,268
Nurse Anesthetists	130	160	30	23.1%	11
Nuclear Medicine Technologists	90	110	20	22.2%	7
Occupational Therapists	360	440	80	22.2%	41
Clinical Laboratory Technicians and Technologists	2,170	2,650	480	22.1%	199
Registered Nurses	990	1,200	210	21.2%	81
Radiologic Technologists	150	180	30	20.0%	11
Respiratory Therapists	900	1,080	180	20.0%	120
Personal Care Aides	270	320	50	18.5%	39
Dietitians and Nutritionists	370	430	60	16.2%	31
Licensed Practical Nurses	4,530	5,230	700	15.5%	442
Nursing Assistants	6,940	7,830	890	12.8%	917
Speech-Language Pathologists	590	640	50	8.5%	65
Physical Therapists	1,200	1,300	100	8.3%	111
Pharmacy Aides	1,000	1,000	0	0.0%	45
Pharmacy Technicians	80	70	-10	-12.5%	9

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

E. Hudson Valley

The Hudson Valley region includes the counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester.



KEY FINDINGS

Population and Health Indicators

- The Hudson Valley region had a higher percentage of individuals with either a bachelor's or master's degree compared to statewide. Additionally, the population in the region was generally healthier than the population statewide. The number of total deaths per 100,000 individuals was 775.1 in the Hudson Valley region compared to the statewide rate of 793. The rate of diabetes hospitalizations per 10,000 individuals was 15.0 compared to the statewide rate of 19.8. Finally, the rate for heart disease hospitalizations per 10,000 individuals was 93.4 compared to 102.8 per 10,000 statewide (Tables 131 and 132).

Health Care Employment

- The number of jobs in home health care settings grew by 27.8% between 2016 and 2020, increasing by 3,288 during that period. Hudson Valley hospitals experienced 3.1% job growth during the same period (1,265 more jobs in 2020 than in 2016). In contrast, nursing homes and residential care facilities lost 1,739 jobs between 2016 and 2020 (Table 133).

Health Care Recruitment and Retention Difficultiesⁿ

- In 2020, upstate^o New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of workers (Tables 136 and 137).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for lack of RN retention (Tables 138 and 139).
- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) were the most difficult to recruit in 2021. FQHCs reported that geographic location (61.1%) was the most common reason for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 140 and 141).
- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult occupations to retain in upstate New York FQHCs. FQHCs cited non-

ⁿ Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^o Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 142 and 143).

- In 2020, nursing homes and adult care facilities in the Hudson Valley region reported that experienced RNs (86.4%), LPNs (82.6%), and newly licensed RNs (80.0%) were the most difficult to recruit. A shortage of workers was the most common reason for these recruitment difficulties. A fear of exposure to COVID-19 was the most common recruitment difficulty related to the pandemic cited for LPNs (34.8%), newly licensed RNs (35.0%), and experienced RNs (31.8%) (Tables 144 and 145).
- In 2020 LPNs (63.2%), newly licensed RNs (62.6%), and home health aides (60.0%) were reported as the most difficult to retain in Hudson Valley region nursing homes and adult care facilities. Retention difficulty was primarily due to staff finding higher pay elsewhere, especially among home health aides (80.0%). Additionally, nursing homes and adult care facilities also noted that retention of LPNs (36.8%) was related to fear of exposure to the COVID-19 pandemic (Tables 146 and 147).
- The Hudson Valley region's home health agencies reported the most difficulty recruiting occupational therapists (87.5%), home health aides (79.5%), and personal care aides (78.1%) mostly due to a shortage of workers. Fear of exposure to COVID-19 was reported as the most common recruitment difficulty related to the pandemic for home health aides (79.5%) and personal care aides (68.8%) (Tables 148 and 149).
- All the responding home health agencies in the Hudson Valley region reported that occupational therapists and speech-language pathologists were the most difficult to retain, followed by physical therapists (83.3%). Several reasons cited for these retention difficulties were finding higher pay elsewhere, leaving for employment in other sectors, family commitments, and scheduling conflicts (Tables 150 and 151).

Health Care Production and Need

- Graduations increased in the Hudson Valley region between 2016 and 2020 for speech-language pathologists (74 more graduations in 2020 than in 2016) and physician assistants (50 more graduations in 2020 than in 2016). Conversely, there were 100 fewer graduations of LPNs in 2020 than in 2016 (Table 152).
- Between 2017 and 2021, NPs (778) physician assistants (261), and occupational therapy assistants (133) experienced the greatest increase of licenses in the region. In contrast, the number of LPNs (441), pharmacists (112), and clinical laboratory technologists (111) licenses declined in the Hudson Valley region during the same period (Table 153).

Table 131. Selected Population Characteristics in the Hudson Valley Region, 2015-2019

Population Characteristics ^a	Region		Statewide Percent
	Number	Percent	
Total population	2,319,719	N/A	N/A
Population under 100% FPL	235,631	10.5%	14.1%
Population under 200% FPL	520,578	23.1%	29.7%
Population aged birth to 17 years	527,216	22.7%	21.0%
Population aged 65 and older	379,435	16.4%	16.1%
Population female aged 15 to 44	861,816	37.2%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	509	2.0%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	16,294	63.6%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	8,814	34.4%	30.6%
Black/African American, non-Hispanic	251,716	10.9%	14.3%
Hispanic/Latino	455,208	19.6%	19.0%
Asian/Pacific Islander, non-Hispanic	103,956	4.5%	8.4%
American Indian/Native Alaskan, non-Hispanic	3,696	0.2%	0.2%
Two or more/other races	44,792	1.9%	2.0%
Population with less than a high school education ^a	171,062	10.9%	13.2%
Population with a high school diploma or equivalent ^a	631,171	40.1%	41.5%
Population with an associate degree ^a	132,251	8.4%	8.7%
Population with a bachelor's degree ^a	334,793	21.3%	20.5%
Population with a master's degree or higher ^a	304,832	19.4%	16.0%
Home ownership	538,278	65.8%	53.9%
^a Education levels and rates are based on individuals aged 25 years and older.			

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 132. Selected Health Indicators in the Hudson Valley Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	53,950	775.1	466,052	793.0
Deaths due to heart disease, per 100,000	14,460	207.8	131,888	224.4
Deaths due to all cancers, per 100,000	11,196	161.0	103,820	176.3
Deaths due to diabetes, per 100,000	1,187	17.0	12,649	21.5
Total births, per 1,000 females aged 15 to 44	79,412	62.6	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	2,183	9.3	22,262	12.6
Low-birthweight births, as a percent of total births	5,681	7.2	54,941	8.0
Late/no prenatal care, as a percent of total births	3,195	4.2	36,747	5.5
Infant deaths, per 1,000 live births	289	3.6	3,018	4.4
Total hospitalizations, per 10,000	756,845	1,087.4	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	2,362	5.6	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	806	4.9	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	1,308	6.7	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	2,463	15.6	26,999	22.1
Diabetes hospitalizations, per 10,000	10,411	15.0	116,638	19.8
CLRD hospitalizations, per 10,000	19,620	28.2	181,011	30.8
Heart disease hospitalizations, per 10,000	64,978	93.4	603,977	102.8
Total ED visits, per 10,000	2,442,355	3,509.0	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 133. Number of Health Care Jobs in the Hudson Valley Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	40,633	42,007	42,156	42,400	41,898	1,265	3.1%
Ambulatory care (excluding home health)	44,693	46,360	47,357	47,262	43,721	-972	-2.2%
Nursing home and residential care facilities	21,102	20,310	20,405	20,665	19,363	-1,739	-8.2%
Home health care	11,847	12,055	11,804	13,095	15,135	3,288	27.8%
Total	118,275	120,732	121,722	123,422	120,117	1,842	1.6%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 134. Number of Jobs in Selected Health Care Occupations in the Hudson Valley Region, in Alphabetical Order, 2020

Occupation	Employment
Cardiovascular Technologists and Technicians	370
Certified Registered Nurse Anesthetists	N/A
Dental Assistants	1,700
Dental Hygienists	1,500
Dietetic Technicians	120
Dietitians and Nutritionists	610
Emergency Medical Technicians and Paramedics	1,980
Home Health and Personal Care Aides	36,370
Licensed Practical Nurses	6,010
Medical and Health Services Managers	3,000
Medical Assistants	2,380
Medical Records and Health Information Technicians	1,540
Medical Secretaries	520
Mental Health Counselors	2,240
Nuclear Medicine Technologists	N/A
Nurses Midwives	N/A
Nurse Practitioners	1,270
Nursing Assistants	9,190
Occupational Therapists	1,780
Occupational Therapy Assistants	860
Orderlies	180
Pharmacists	1,770
Pharmacy Aides	200
Pharmacy Technicians	1,350
Physical Therapist Assistants/Aides	1,170
Physical Therapists	2,510
Physician Assistants	1,070
Radiation Therapists	120
Radiologic Technologists	1,320
Registered Nurses	19,820
Respiratory Therapists	670
Social Workers	3,290
Speech-Language Pathologists	1,940
Surgical Technologists	720

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 135. Average Annual Salary for Selected Health Care Occupations in the Hudson Valley Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$81,370
Certified Registered Nurse Anesthetists	\$217,760
Dental Assistants	\$48,500
Dental Hygienists	\$89,130
Dietetic Technicians	\$39,290
Dietitians and Nutritionists	\$74,220
Health Care Social Workers	\$60,320
Home Health and Personal Care Aides	\$32,070
Licensed Practical Nurses	\$56,070
Medical and Health Services Managers	\$135,340
Medical Assistants	\$40,960
Medical Records and Health Information Technicians	\$49,200
Medical Secretaries	\$40,650
Mental Health and Substance Abuse Social Workers	\$69,360
Mental Health Counselors	\$58,060
Nuclear Medicine Technologists	\$104,350
Nurse Practitioners	\$128,730
Nurses Midwives	\$130,290
Nursing Assistants	\$41,120
Occupational Therapists	\$89,650
Occupational Therapy Assistants	\$69,220
Orderlies	\$39,980
Pharmacists	\$141,830
Pharmacy Aides	\$33,110
Pharmacy Technicians	\$35,310
Physical Therapist Assistants	\$62,380
Physical Therapists	\$99,950
Physician Assistants	\$127,870
Speech-Language Pathologists	\$102,740
Surgical Technologists	\$54,730

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 136. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 137. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 138. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 139. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 140. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 141. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 142. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 143. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 144. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Registered Nurses (Experienced)	86.4%	59.1%	27.3%	27.3%	0.0%
Licensed Practical Nurses	82.6%	56.5%	21.7%	34.8%	4.3%
Registered Nurses (Newly Licensed)	80.0%	55.0%	30.0%	25.0%	0.0%
Home Health Aides	71.4%	57.1%	14.3%	14.3%	14.3%
CNAs and Temps	70.6%	36.4%	18.2%	18.2%	0.0%
Occupational Therapists	58.8%	35.3%	11.8%	0.0%	5.9%
Physical Therapists	55.6%	38.9%	11.1%	5.6%	0.0%
Personal Care Aides	50.0%	50.0%	16.7%	0.0%	0.0%
Infection Preventionist Practitioners	43.8%	31.3%	18.8%	6.3%	0.0%
Speech-Language Pathologists	41.2%	29.4%	11.8%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 145. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Registered Nurses (Experienced)	86.4%	31.8%	18.2%	9.1%	4.5%
Licensed Practical Nurses	82.6%	34.8%	34.8%	17.4%	4.3%
Registered Nurses (Newly Licensed)	80.0%	35.0%	25.0%	10.0%	5.0%
Home Health Aides	71.4%	14.3%	28.6%	28.6%	14.3%
CNAs and Temps	70.6%	45.5%	36.4%	36.4%	9.1%
Occupational Therapists	58.8%	17.6%	23.5%	11.8%	5.9%
Physical Therapists	55.6%	16.7%	16.7%	5.6%	0.0%
Personal Care Aides	50.0%	0.0%	16.7%	33.3%	33.3%
Infection Preventionist Practitioners	43.8%	0.0%	6.3%	0.0%	12.5%
Speech-Language Pathologists	41.2%	5.9%	11.8%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 146. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Licensed Practical Nurses	63.2%	47.4%	42.1%	36.8%	5.3%
Registered Nurses (Newly Licensed)	62.5%	43.8%	31.3%	18.8%	0.0%
Home Health Aides	60.0%	80.0%	40.0%	60.0%	20.0%
Registered Nurses (Experienced)	56.3%	37.5%	56.3%	12.5%	6.3%
CNAs and Temps	51.9%	44.4%	40.7%	29.6%	3.7%
Nurse Directors/Managers	47.1%	11.8%	23.5%	17.6%	5.9%
Infection Preventionist Practitioners	25.0%	16.7%	25.0%	16.7%	0.0%
MDS Coordinators	15.4%	0.0%	0.0%	7.7%	0.0%
Dietitians/Nutritionists	13.3%	6.7%	0.0%	0.0%	0.0%
Speech-Language Pathologists	9.1%	9.1%	9.1%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 147. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Licensed Practical Nurses	63.2%	0.0%	36.8%	36.8%	5.3%
Registered Nurses (Newly Licensed)	62.5%	0.0%	18.8%	12.5%	6.3%
Home Health Aides	60.0%	20.0%	20.0%	40.0%	20.0%
Registered Nurses (Experienced)	56.3%	0.0%	18.8%	6.3%	0.0%
CNAs and Temps	51.9%	3.7%	44.4%	51.9%	14.8%
Nurse Directors/Managers	47.1%	0.0%	5.9%	5.9%	5.9%
Infection Preventionist Practitioners	25.0%	0.0%	0.0%	0.0%	8.3%
MDS Coordinators	15.4%	0.0%	0.0%	0.0%	0.0%
Dietitians/Nutritionists	13.3%	0.0%	6.7%	0.0%	0.0%
Speech-Language Pathologists	9.1%	0.0%	0.0%	0.0%	9.1%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 148. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Occupational Therapists	87.5%	50.0%	12.5%	12.5%	25.0%
Home Health Aides	79.5%	79.5%	35.9%	33.3%	25.6%
Personal Care Aides	78.1%	68.8%	37.5%	43.8%	28.1%
Speech-Language Pathologists	75.0%	62.5%	12.5%	12.5%	12.5%
Licensed Clinical Social Workers	71.4%	71.4%	28.6%	14.3%	28.6%
Licensed Master Social Workers	70.0%	70.0%	30.0%	20.0%	20.0%
Physical Therapists	63.6%	54.5%	9.1%	18.2%	9.1%
Homemakers	62.5%	68.8%	25.0%	25.0%	31.3%
Registered Nurses	56.1%	41.5%	22.0%	29.3%	26.8%
Licensed Practical Nurses	40.9%	36.4%	13.6%	31.8%	36.4%
Intake Coordinators	30.0%	23.3%	23.3%	13.3%	10.0%
COVID-19 Compliance Officers	25.9%	14.8%	18.5%	14.8%	18.5%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 149. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Occupational Therapists	87.5%	0.0%	25.0%	12.5%	0.0%	0.0%
Home Health Aides	79.5%	25.6%	76.9%	38.5%	64.1%	10.3%
Personal Care Aides	78.1%	21.9%	75.0%	46.9%	62.5%	9.4%
Speech-Language Pathologists	75.0%	0.0%	25.0%	12.5%	0.0%	0.0%
Licensed Clinical Social Workers	71.4%	0.0%	14.3%	0.0%	28.6%	0.0%
Licensed Master Social Workers	70.0%	0.0%	10.0%	0.0%	20.0%	10.0%
Physical Therapists	63.6%	9.1%	18.2%	18.2%	0.0%	0.0%
Homemakers	62.5%	18.8%	81.3%	43.8%	75.0%	6.3%
Registered Nurses	56.1%	19.5%	36.6%	26.8%	12.2%	7.3%
Licensed Practical Nurses	40.9%	13.6%	36.4%	27.3%	18.2%	18.2%
Intake Coordinators	30.0%	0.0%	30.0%	13.3%	20.0%	3.3%
COVID-19 Compliance Officers	25.9%	11.1%	33.3%	7.4%	22.2%	3.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 150. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Occupational Therapists	100.0%	0.0%	0.0%	4.5%	0.0%	0.0%
Speech-Language Pathologists	100.0%	0.0%	0.0%	33.3%	0.0%	0.0%
Physical Therapists	83.3%	33.3%	33.3%	83.3%	0.0%	0.0%
Homemakers	78.6%	57.1%	50.0%	7.1%	7.1%	14.3%
Home Health Aides	63.9%	66.7%	44.4%	22.2%	2.8%	22.2%
Personal Care Aides	62.1%	62.1%	41.4%	24.1%	3.4%	10.3%
Licensed Master Social Workers	55.6%	33.3%	11.1%	22.2%	11.1%	0.0%
Licensed Clinical Social Workers	50.0%	33.3%	16.7%	33.3%	16.7%	0.0%
Licensed Practical Nurses	47.1%	52.9%	23.5%	35.3%	5.9%	11.8%
Registered Nurses	44.4%	50.0%	25.0%	33.3%	16.7%	19.4%
Intake Coordinators	29.6%	37.0%	25.9%	18.5%	3.7%	11.1%
COVID-19 Compliance Officers	13.6%	18.2%	9.1%	18.2%	4.5%	9.1%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 151. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Hudson Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Occupational Therapists	100.0%	16.7%	16.7%	50.0%	0.0%	50.0%	33.3%
Speech-Language Pathologists	100.0%	16.7%	33.3%	33.3%	0.0%	33.3%	16.7%
Physical Therapists	83.3%	33.3%	16.7%	66.7%	0.0%	66.7%	33.3%
Homemakers	78.6%	50.0%	28.6%	57.1%	0.0%	0.0%	64.3%
Home Health Aides	63.9%	44.4%	27.8%	61.1%	8.3%	25.0%	72.2%
Personal Care Aides	62.1%	44.8%	20.7%	62.1%	6.9%	20.7%	55.2%
Licensed Master Social Workers	55.6%	0.0%	11.1%	0.0%	0.0%	22.2%	0.0%
Licensed Clinical Social Workers	50.0%	16.7%	16.7%	0.0%	0.0%	33.3%	16.7%
Licensed Practical Nurses	47.1%	41.2%	5.9%	47.1%	11.8%	35.3%	35.3%
Registered Nurses	44.4%	30.6%	5.6%	36.1%	11.1%	30.6%	30.6%
Intake Coordinators	29.6%	14.8%	7.4%	22.2%	3.7%	3.7%	11.1%
COVID-19 Compliance Officers	13.6%	13.6%	18.2%	18.2%	9.1%	18.2%	18.2%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 152. Number of Graduations in Selected Health Care Occupational Programs in the Hudson Valley Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Speech-Language Pathologists	33	0	91	104	107	74	224.2%
Physician Assistants	62	59	62	95	112	50	80.6%
Social Workers	115	139	151	150	150	35	30.4%
Physical Therapists	150	184	172	179	175	25	16.7%
Registered Nurses	1,004	1,093	1,192	1,157	1,027	23	2.3%
Nurse Practitioners	59	59	81	91	73	14	23.7%
Clinical Laboratory Technologists	21	28	25	34	34	13	61.9%
Occupational Therapy Assistants	75	85	87	70	81	6	8.0%
Dental Hygienists	14	14	17	17	16	2	14.3%
Respiratory Therapists	31	26	12	13	33	2	6.5%
Clinical Laboratory Technicians	20	22	26	15	20	0	0.0%
Occupational Therapists	101	94	83	134	97	-4	-4.0%
Physical Therapist Assistants/Aides	20	21	20	16	16	-4	-20.0%
Dietetic Technicians	5	0	0	0	0	-5	-100.0%
Radiation Therapists	44	43	37	41	38	-6	-13.6%
Emergency Medical Technicians and Paramedics	34	40	50	55	23	-11	-32.4%
Health Care Administrators	134	148	161	134	121	-13	-9.7%
Dental Assistants	95	73	53	61	43	-52	-54.7%
Mental Health Counselors	173	151	140	138	75	-98	-56.6%
Licensed Practical Nurses	345	325	259	250	245	-100	-29.0%
Medical Assistants	193	165	180	112	74	-119	-61.7%

Source: Integrated Postsecondary Education Data System.

Table 153. Number of Licensed Individuals in Selected Health Care Occupations in the Hudson Valley Region, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	223	234	235	237	244	21	9.4%
Clinical Laboratory Technologists	1,351	1,346	1,257	1,269	1,240	-111	-8.2%
Dental Assistants	147	135	137	136	135	-12	-8.2%
Dental Hygienists	1,263	1,248	1,263	1,284	1,271	8	0.6%
Dietitians/Nutritionists, Certified	790	821	820	800	844	54	6.8%
Licensed Practical Nurses	7,934	7,861	7,606	7,681	7,493	-441	-5.6%
Nurse Practitioners	2,811	2,931	3,084	3,317	3,589	778	27.7%
Occupational Therapists	1,645	1,680	1,743	1,828	1,889	244	14.8%
Occupational Therapy Assistants	837	882	913	952	970	133	15.9%
Pharmacists	2,303	2,166	2,166	2,148	2,191	-112	-4.9%
Physical Therapists	2,646	2,703	2,749	2,821	2,914	268	10.1%
Physical Therapist Assistants	573	597	597	608	620	47	8.2%
Registered Physician Assistants	1,247	1,248	1,305	1,416	1,508	261	20.9%
Registered Professional Nurses	33,832	34,408	34,669	35,119	36,398	2,566	7.6%
Respiratory Therapists	722	732	744	769	746	24	3.3%
Social Workers	7,820	7,692	7,670	7,907	8,287	467	6.0%
Speech-Language Pathologists	2,512	2,596	2,654	2,757	2,817	305	12.1%
Total	68,656	69,280	69,612	71,049	73,156	4,500	6.6%

Source: New York State Education Department, Office of Professions.

Table 154. Employment Projections for Selected Health Care Occupations in the Hudson Valley Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	11,360	18,610	7,250	63.8%	2,404
Personal Care Aides	19,400	29,010	9,610	49.5%	4,335
Physician Assistants	1,330	1,950	620	46.6%	155
Nurse Practitioners	1,490	2,150	660	44.3%	164
Medical Assistants	3,100	4,390	1,290	41.6%	541
Speech-Language Pathologists	1,790	2,500	710	39.7%	186
Occupational Therapy Assistants	510	700	190	37.3%	85
Physical Therapists	2,250	2,970	720	32.0%	181
Counselors ^b	3,340	4,400	1,060	31.7%	501
Respiratory Therapists	570	750	180	31.6%	53
Radiation Therapists	100	130	30	30.0%	9
Diagnostic Medical Sonographers	550	710	160	29.1%	51
Occupational Therapists	1,590	2,030	440	27.7%	145
Registered Nurses	22,120	27,830	5,710	25.8%	1,906
Emergency Medical Technicians and Paramedics	2,170	2,720	550	25.3%	218
Radiologic Technologists	1,850	2,300	450	24.3%	158
Medical Records and Health Information Technicians	1,110	1,360	250	22.5%	103
Social Workers	7,150	8,760	1,610	22.5%	939
Dental Assistants	2,850	3,490	640	22.5%	419
Clinical Laboratory Technicians and Technologists	1,730	2,110	380	22.0%	160
Cardiovascular Technologists and Technicians	510	620	110	21.6%	42
Dental Hygienists	1,530	1,860	330	21.6%	147
Surgical Technologists	790	940	150	19.0%	85
Nuclear Medicine Technologists	110	130	20	18.2%	8
Orderlies	220	260	40	18.2%	31
Licensed Practical Nurses	6,370	7,460	1,090	17.1%	636
Dietitians and Nutritionists	710	810	100	14.1%	58
Nursing Assistants	11,800	13,130	1,330	11.3%	1,530
Pharmacy Technicians	1,610	1,720	110	6.8%	145
Pharmacists	1,870	1,870	0	0.0%	84
Pharmacy Aides	210	200	-10	-4.8%	25

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

F. Long Island

The Long Island region includes the counties of Nassau and Suffolk.

KEY FINDINGS

Population and Health Indicators

- The population of the Long Island region was slightly older than statewide, with 17.0% of Long Islanders ages 65 or older compared to the statewide percentage of 16.1%. Additionally, a higher percentage of residents in the Long Island region held a bachelor's degree (22.4%) compared to the statewide percentage of 20.5%. Finally, a higher percentage of the population held a master's degree (18.6%) compared with the statewide percentage of 16.0% (Table 155).
- For most indicators, the health of residents in the Long Island region was generally better than the population statewide, with a few exceptions. The rate for total deaths per 100,000 individuals was 820.9 in the Long Island region compared with the statewide rate of 793.0. Additionally, the rate of deaths due to heart disease per 100,000 individuals was 255.2 in the Long Island region compared with the statewide rate of 224.4 (Table 156).



Health Care Employment

- Hospitals had the most health care jobs in the region in 2020 (76,195), but home health care showed the largest growth (20.6%) between 2016 and 2020. Overall, health care jobs increased by 5.4% between 2016 and 2020 (Table 157).

Health Care Recruitment and Retention Difficulties ^P

- Hospitals in downstate^Q New York reported that licensed clinical social workers (97.1%), RNs (94.1%), and cardiovascular technicians (91.2%) were among the most difficult to recruit. The most common reasons cited for these recruitment difficulties were a shortage of workers and non-competitive salaries (Tables 160 and 161).
- Psychiatrists (68.6%), clinical laboratory technologists (60.0%), and respiratory therapists (51.4%) were the most difficult to retain in hospitals in downstate New York. Retention difficulty for psychiatrists and respiratory therapists was primarily attributed to leaving for a better paying position, whereas retirement was the most cited reason for retention difficulty among clinical laboratory technologists (Tables 162 and 163).
- FQHCs in downstate New York reported family and internal medicine physicians (29.4%) as the most difficult to recruit, followed by nurses (23.5%) and psychiatrists (17.6%). FQHCs in

^PRecruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^Q Hospital and FQHC regional survey results are divided into upstate and downstate categories. The downstate category includes the Department of Labor regions of New York City and Long Island.

downstate New York reported a shortage of workers as the most common reason for recruitment difficulty followed by non-competitive wages (Tables 164 and 165).

- FQHCs in downstate New York reported the most retention difficulties for nurses (29.4%), family and internal medicine physicians (17.6%), and NPs/physician assistants (11.8%). FQHCs in downstate New York reported non-competitive wages and a shortage of workers as the most common reasons for retention difficulties (Tables 166 and 167).
- Nursing homes and adult care facilities in the Long Island region reported that LPNs (83.3%), CNAs (70.4%), home health aides (62.5%), and experienced RNs (62.5%) were the most difficult to recruit in 2020. A shortage of workers was the most common reason cited for recruitment difficulties for experienced RNs (52.9%), LPNs (38.9%), and home health aides (37.5%). The most common reason reported for difficulty recruiting home health aides related to the pandemic was the unemployment incentive (37.5%) (Tables 168 and 169).
- In 2020, nursing homes and adult care facilities reported retention difficulty among newly licensed RNs (71.4%), LPNs (60.0%), nurse directors/managers (50.0%), and CNAs (50.0%). For CNAs employed in nursing homes, fear of exposure to COVID-19 (45.5%) was the most common reason cited for retention difficulty attributed to the pandemic (Tables 170 and 171).
- Home health care agencies in the Long Island region reported that home health aides (72.7%), RNs (69.4%), and personal care aides (61.5%) were the most difficult to recruit. Reasons cited for these recruitment difficulties for home health aides (72.7%), RNs (44.9%), and personal care aides (66.7%) were a shortage of workers and fear of exposure to COVID-19 (Tables 172 and 173).
- Physical therapists (75.0%), occupational therapists (66.7%), and home health aides (57.1%) were reported as the most difficult to retain. The main reason cited for retention difficulty for physical therapists was paperwork and regulatory burdens (37.5%) and for home health aides the main reason was finding higher pay elsewhere (47.6%) (Table 174).

Health Care Production and Need

- RNs in the Long Island region experienced a great increase in the number graduations between 2016 and 2020 (356), and NP graduations increased by 265 during the same period. In contrast, there 65 fewer graduations from pharmacy technician programs in 2020 than in 2016 (Table 176).
- The number of licenses for RNs (12.1%) and for NPs (33.6%) increased in the Long Island region between 2017 and 2021. In contrast, the number of clinical laboratory technicians and licensed dental assistants declined by 6.7% and 4.7%, respectively, during the same period (Table 177).

Table 155. Selected Population Characteristics in the Long Island Region, 2015-2019

Population Characteristics ^a	Region		Statewide Percent
	Number	Percent	
Total population	2,840,341	N/A	N/A
Population under 100% FPL	174,424	6.2%	14.1%
Population under 200% FPL	436,120	15.6%	29.7%
Population aged birth to 17 years	611,955	21.5%	21.0%
Population aged 65 and older	481,854	17.0%	16.1%
Population female aged 15 to 44	1,038,453	36.6%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	483	1.7%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	17,181	61.5%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	10,254	36.7%	30.6%
Black/African American, non-Hispanic	258,946	9.1%	14.3%
Hispanic/Latino	515,858	18.2%	19.0%
Asian/Pacific Islander, non-Hispanic	188,359	6.6%	8.4%
American Indian/Native Alaskan, non-Hispanic	4,048	0.1%	0.2%
Two or more/other races	42,381	1.5%	2.0%
Population with less than a high school education ^a	178,236	9.0%	13.2%
Population with a high school diploma or equivalent ^a	815,306	41.3%	41.5%
Population with an associate degree ^a	172,235	8.7%	8.7%
Population with a bachelor's degree ^a	441,762	22.4%	20.5%
Population with a master's degree or higher ^a	366,316	18.6%	16.0%
Home ownership	754,814	80.6%	53.9%
^a Education levels and rates are based on individuals ages 25 years and older.			

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 156. Selected Health Indicators in the Long Island Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	69,976	820.9	466,052	793.0
Deaths due to heart disease, per 100,000	21,752	255.2	131,888	224.4
Deaths due to all cancers, per 100,000	15,057	176.5	103,820	176.3
Deaths due to diabetes, per 100,000	1,289	15.1	12,649	21.5
Total births, per 1,000 females ages 15 to 44	88,748	57.7	686,326	58.2
Teen births, per 1,000 females ages 15 to 19	2,313	8.5	22,262	12.6
Low-birthweight births, as a percent of total births	7,017	7.9	54,941	8.0
Late/no prenatal care, as a percent of total births	3,185	3.7	36,747	5.5
Infant deaths, per 1,000 live births	318	3.6	3,018	4.4
Total hospitalizations, per 10,000	1,051,623	1,233.7	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	2,709	5.2	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	928	4.6	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	1,509	6.1	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	2,793	15.3	26,999	22.1
Diabetes hospitalizations, per 10,000	14,716	17.3	116,638	19.8
CLRD hospitalizations, per 10,000	23,513	27.6	181,011	30.8
Heart disease hospitalizations, per 10,000	109,174	128.0	603,977	102.8
Total ED visits, per 10,000	2,915,534	3,420.4	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 157. Number of Health Care Jobs in the Long Island Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	67,833	71,183	73,929	76,005	76,195	8,362	12.3%
Ambulatory care (excluding home health)	65,861	65,745	66,852	68,700	63,302	-2,559	-3.9%
Nursing home and residential care facilities	23,681	23,953	24,490	25,282	23,492	-189	-0.8%
Home health care	19,167	19,555	21,211	24,060	23,112	3,945	20.6%
Total	176,542	180,436	186,482	194,047	186,101	9,559	5.4%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 158. Number of Jobs in Selected Health Care Occupations in the Long Island Region, in Alphabetical Order, 2020

Occupation	Employment
Cardiovascular Technologists and Technicians	600
Certified Registered Nurse Anesthetists	350
Dental Assistants	3,000
Dental Hygienists	1,850
Dietetic Technicians	170
Dietitians and Nutritionists	630
Emergency Medical Technicians and Paramedics	3,500
Home Health and Personal Care Aides	47,630
Licensed Practical Nurses	5,050
Medical and Health Services Managers	3,830
Medical Assistants	5,240
Medical Records and Health Information Technicians	2,510
Medical Secretaries	1,350
Mental Health Counselors	2,060
Nuclear Medicine Technologists	160
Nurses Midwives	N/A
Nurse Practitioners	2,190
Nursing Assistants	12,300
Occupational Therapists	1,390
Occupational Therapy Assistants	260
Orderlies	700
Pharmacists	2,490
Pharmacy Aides	N/A
Pharmacy Technicians	2,860
Physical Therapist Assistants/Aides	2,140
Physical Therapists	3,090
Physician Assistants	2,800
Radiation Therapists	200
Radiologic Technologists	2,230
Registered Nurses	26,650
Respiratory Therapists	1,030
Social Workers	3,080
Speech-Language Pathologists	3,340
Surgical Technologists	890

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates.

Table 159. Average Annual Salary for Selected Health Care Occupations in the Long Island Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$68,730
Certified Registered Nurse Anesthetists	\$202,470
Dental Assistants	\$44,900
Dental Hygienists	\$87,170
Dietetic Technicians	\$49,040
Dietitians and Nutritionists	\$75,140
Healthcare Social Workers	\$67,150
Home Health and Personal Care Aides	\$31,590
Licensed Practical Nurses	\$58,590
Medical and Health Services Managers	\$147,720
Medical Assistants	\$41,970
Medical Records and Health Information Technicians	\$58,320
Medical Secretaries	\$43,790
Mental Health and Substance Abuse Social Workers	\$54,800
Mental Health Counselors	\$52,190
Nuclear Medicine Technologists	\$96,910
Nurse Practitioners	\$132,720
Nurses Midwives	\$120,230
Nursing Assistants	\$46,430
Occupational Therapists	\$95,980
Occupational Therapy Assistants	\$67,850
Orderlies	\$42,160
Pharmacists	\$137,380
Pharmacy Aides	\$29,300
Pharmacy Technicians	\$33,100
Physical Therapist Assistants	\$67,380
Physical Therapists	\$97,640
Physician Assistants	\$135,770
Speech-Language Pathologists	\$113,570
Surgical Technologists	\$68,820

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 160. Recruitment Difficulties for Selected Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Registered Nurses	94.1%	41.2%	52.9%	2.9%
Cardiovascular Technicians	91.2%	52.9%	50.0%	0.0%
Clinical Laboratory Technologists	88.2%	91.2%	85.3%	0.0%
Clinical Laboratory Technicians	85.3%	2.1%	2.0%	0.0%
Physician Assistants	82.4%	29.4%	58.8%	17.6%
Nurse Practitioners (excluding Psychiatric NPs)	73.5%	38.2%	2.9%	2.9%
Respiratory Therapists	67.6%	58.8%	64.7%	2.9%
Licensed Practical Nurses	67.6%	35.3%	2.9%	0.0%
Surgical Technicians	64.7%	38.2%	26.5%	0.0%
Pharmacists	61.8%	2.9%	2.9%	0.0%
Infection Preventionists	58.8%	52.9%	2.9%	2.9%
Internists (General)	51.5%	1.3%	0.2%	0.1%
Patient Care Techs/CNAs	35.3%	0.0%	2.9%	0.0%
Obstetricians/Gynecologists	29.4%	0.7%	0.7%	0.1%
Family and General Physicians	21.2%	6.1%	6.1%	3.0%
Pharmacy Technicians	17.6%	2.9%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 161. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Clinical Social Workers	97.1%	73.5%	38.2%	0.0%
Psychiatrists	95.8%	87.5%	62.5%	4.2%
Certified Alcohol and Substance Abuse Counselors	73.5%	70.6%	0.0%	0.0%
Licensed Master Social Workers	41.2%	35.3%	2.9%	0.0%
Substance Abuse and Behavioral Health Counselors	2.9%	5.9%	0.0%	0.0%
Psychologists	0.0%	38.2%	5.9%	2.9%
Licensed Mental Health Counselors	0.0%	2.9%	0.0%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 162. Retention Difficulties for Selected Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Clinical Laboratory Technologists	60.0%	42.9%	0.0%	0.0%	51.4%	37.1%	0.0%	5.7%
Respiratory Therapists	51.4%	71.4%	0.0%	0.0%	54.3%	20.0%	0.0%	2.9%
Registered Nurses	34.3%	60.0%	0.0%	2.9%	60.0%	54.3%	0.0%	42.9%
Nurse Practitioners (excluding Psychiatric NPs)	22.9%	20.0%	0.0%	2.9%	2.9%	2.9%	0.0%	2.9%
Surgical Technicians	22.9%	57.1%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Surgeons (General)	20.6%	20.6%	0.0%	0.0%	20.6%	2.9%	0.0%	2.9%
Clinical Laboratory Technicians	20.0%	5.7%	0.0%	0.0%	17.1%	2.9%	0.0%	2.9%
Pharmacy Technicians	20.0%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Cardiovascular Technicians	20.0%	20.0%	0.0%	0.0%	2.9%	2.9%	0.0%	2.9%
Patient Care Techs/CNAs	5.7%	22.9%	0.0%	17.1%	2.9%	2.9%	0.0%	5.7%
Licensed Practical Nurses	5.7%	22.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Infection Preventionists	2.9%	2.9%	0.0%	2.9%	0.0%	2.9%	0.0%	2.9%
Pharmacists	2.9%	20.0%	0.0%	0.0%	20.0%	2.9%	0.0%	2.9%
Physician Assistants	2.9%	60.0%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Family and General Physicians	0.8%	20.6%	0.0%	0.0%	23.5%	2.9%	0.0%	2.9%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 163. Retention Difficulties for Behavioral Health Occupations in Hospitals, Downstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Psychiatrists	68.6%	57.1%	0.0%	2.9%	0.0%	2.9%	0.0%	2.9%
Psychologists	45.7%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Certified Alcohol and Substance Abuse Counselors	2.9%	0.0%	0.0%	0.0%	2.9%	2.9%	0.0%	2.9%
Licensed Clinical Social Workers	2.9%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Licensed Master Social Workers	2.9%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	2.9%
Licensed Mental Health Counselors	2.9%	0.0%	0.0%	0.0%	17.1%	2.9%	0.0%	2.9%
Substance Abuse and Behavioral Health Counselors	2.9%	0.0%	0.0%	2.9%	17.1%	2.9%	0.0%	2.9%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 164. Recruitment Difficulties for Selected Occupations in FQHCs, Downstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Family Physicians/Internal Medicine	29.4%
Nurses	23.5%
Psychiatrists	17.6%
Licensed Clinical Social Workers/Licensed Professional Counselors	17.6%
Obstetricians/Gynecologists	11.8%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 165. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Downstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
General shortage of occupation(s) in area	88.2%
Wages not competitive	82.4%
Challenging patient/client population	41.2%
Geographic location	35.3%
Lack of clinical support personnel	23.5%
High clinical/case load requirements	17.6%
Insufficient educational pipeline in the area	11.8%
Limited benefits	11.8%
Lack of peers/professional network in area	11.8%
Office conditions (eg, space limitations, outdated facilities)	11.8%
Limited job security due to grant funding or other issue	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 166. Retention Difficulties for Selected Occupations in FQHCs, Downstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Nurses	29.4%
Family Physicians/Internal Medicine	17.6%
Nurse Practitioners/Physician Assistants	11.8%
Medical Assistants	11.8%
Support Personnel	11.8%
Obstetricians/Gynecologists	5.9%
Dental Hygienists	5.9%
Licensed Clinical Social Workers/Licensed Professional Counselors	5.9%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 167. Retention Difficulty Reasons for Selected Occupations in FQHCs, Downstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	76.5%
General shortage of occupation(s) in area	58.8%
Challenging patient/client population	52.9%
Geographic location	29.4%
Lack of clinical support personnel	23.5%
Limited benefits	11.8%
Lack of peers/professional network in area	11.8%
High clinical/case load requirements	11.8%
Insufficient educational pipeline in the area	5.9%
Office conditions (eg, space limitations, outdated facilities)	5.9%
Limited job security due to grant funding or other issue	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 168. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	83.3%	38.9%	27.8%	11.1%	11.1%
CNAs and Temps	70.4%	14.8%	3.7%	7.4%	0.0%
Home Health Aides	62.5%	37.5%	12.5%	25.0%	12.5%
Registered Nurses (Experienced)	62.5%	52.9%	23.5%	11.8%	5.9%
Paid Feeding Assistants	50.0%	16.7%	0.0%	0.0%	0.0%
Personal Care Aides	33.3%	33.3%	0.0%	0.0%	0.0%
Infection Preventionist Practitioners	30.8%	7.7%	15.4%	7.7%	7.7%
Occupational Therapists	20.0%	13.3%	6.7%	0.0%	0.0%
Registered Nurses (Newly Licensed)	15.4%	43.8%	18.8%	12.5%	6.3%
Speech-Language Pathologists	15.4%	15.4%	7.7%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 169. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	83.3%	11.1%	16.7%	5.6%	5.6%
CNAs and Temps	70.4%	7.4%	11.1%	3.7%	0.0%
Home Health Aides	62.5%	12.5%	25.0%	37.5%	0.0%
Registered Nurses (Experienced)	62.5%	17.6%	23.5%	0.0%	0.0%
Paid Feeding Assistants	50.0%	0.0%	16.7%	16.7%	0.0%
Personal Care Aides	33.3%	0.0%	16.7%	16.7%	16.7%
Infection Preventionist Practitioners	30.8%	0.0%	7.7%	0.0%	0.0%
Occupational Therapists	20.0%	0.0%	6.7%	0.0%	0.0%
Registered Nurses (Newly Licensed)	15.4%	18.8%	25.0%	0.0%	0.0%
Speech-Language Pathologists	15.4%	0.0%	7.7%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 170. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Registered Nurses (Newly Licensed)	71.4%	57.1%	42.9%	35.7%	7.1%
Licensed Practical Nurses	60.0%	60.0%	33.3%	33.3%	6.7%
Nurse Directors/Managers	50.0%	33.3%	33.3%	41.7%	8.3%
CNAs and Temps	50.0%	31.8%	27.3%	22.7%	9.1%
Registered Nurses (Experienced)	46.2%	61.5%	61.5%	53.8%	7.7%
Infection Preventionist Practitioners	44.4%	11.1%	22.2%	22.2%	0.0%
Home Health Aides	33.3%	50.0%	0.0%	0.0%	0.0%
Personal Care Aides	20.0%	20.0%	0.0%	0.0%	0.0%
Paid Feeding Assistants	20.0%	20.0%	0.0%	0.0%	0.0%
MDS Coordinators	11.1%	11.1%	0.0%	11.1%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 171. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Registered Nurses (Newly Licensed)	71.4%	0.0%	35.7%	14.3%	0.0%
Licensed Practical Nurses	60.0%	0.0%	40.0%	13.3%	6.7%
Nurse Directors/Managers	50.0%	0.0%	33.3%	8.3%	8.3%
CNAs and Temps	50.0%	0.0%	45.5%	22.7%	9.1%
Registered Nurses (Experienced)	46.2%	0.0%	38.5%	15.4%	0.0%
Infection Preventionist Practitioners	44.4%	0.0%	11.1%	0.0%	0.0%
Home Health Aides	33.3%	0.0%	16.7%	16.7%	0.0%
Personal Care Aides	20.0%	0.0%	20.0%	0.0%	0.0%
Paid Feeding Assistants	20.0%	0.0%	20.0%	0.0%	0.0%
MDS Coordinators	11.1%	0.0%	11.1%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 172. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Home Health Aides	72.7%	72.7%	31.8%	22.7%	11.4%
Registered Nurses	69.4%	44.9%	24.5%	26.5%	14.3%
Personal Care Aides	61.5%	66.7%	23.1%	25.6%	5.1%
Physical Therapists	56.3%	37.5%	12.5%	12.5%	0.0%
Licensed Practical Nurses	55.0%	40.0%	15.0%	15.0%	15.0%
Homemakers	50.0%	61.1%	16.7%	11.1%	11.1%
Speech-Language Pathologists	50.0%	50.0%	37.5%	0.0%	0.0%
Occupational Therapists	44.4%	33.3%	11.1%	0.0%	11.1%
Licensed Master Social Workers	38.5%	30.8%	15.4%	7.7%	7.7%
Licensed Clinical Social Workers	33.3%	33.3%	11.1%	0.0%	11.1%
Respiratory Therapists	33.3%	33.3%	33.3%	0.0%	0.0%
COVID-19 Compliance Officers	30.0%	13.3%	16.7%	20.0%	13.3%
Intake Coordinators	26.5%	20.6%	11.8%	17.6%	5.9%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 173. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Home Health Aides	72.7%	20.5%	70.5%	25.0%	50.0%	9.1%
Registered Nurses	69.4%	10.2%	44.9%	18.4%	12.2%	10.2%
Personal Care Aides	61.5%	20.5%	61.5%	25.6%	41.0%	12.8%
Physical Therapists	56.3%	6.3%	37.5%	12.5%	6.3%	6.3%
Licensed Practical Nurses	55.0%	10.0%	50.0%	20.0%	25.0%	15.0%
Homemakers	50.0%	11.1%	55.6%	16.7%	44.4%	11.1%
Speech-Language Pathologists	50.0%	12.5%	50.0%	12.5%	12.5%	0.0%
Occupational Therapists	44.4%	11.1%	44.4%	22.2%	11.1%	11.1%
Licensed Master Social Workers	38.5%	0.0%	38.5%	7.7%	30.8%	7.7%
Licensed Clinical Social Workers	33.3%	0.0%	44.4%	11.1%	33.3%	0.0%
Respiratory Therapists	33.3%	16.7%	50.0%	16.7%	16.7%	0.0%
COVID-19 Compliance Officers	30.0%	10.0%	26.7%	10.0%	20.0%	13.3%
Intake Coordinators	26.5%	0.0%	26.5%	8.8%	11.8%	2.9%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 174. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Physical Therapists	75.0%	25.0%	0.0%	37.5%	0.0%	0.0%
Occupational Therapists	66.7%	0.0%	16.7%	16.7%	0.0%	0.0%
Home Health Aides	57.1%	47.6%	45.2%	19.0%	9.5%	16.7%
Homemakers	57.1%	35.7%	50.0%	7.1%	14.3%	7.1%
Speech-Language Pathologists	57.1%	0.0%	28.6%	28.6%	0.0%	0.0%
Personal Care Aides	54.5%	42.4%	51.5%	21.2%	12.1%	9.1%
Respiratory Therapists	50.0%	0.0%	25.0%	25.0%	0.0%	0.0%
Licensed Master Social Workers	45.5%	18.2%	0.0%	0.0%	0.0%	0.0%
Registered Nurses	42.9%	38.1%	38.1%	28.6%	19.0%	9.5%
Licensed Practical Nurses	38.1%	28.6%	14.3%	23.8%	4.8%	4.8%
Licensed Clinical Social Workers	28.6%	14.3%	0.0%	14.3%	0.0%	0.0%
Intake Coordinators	18.5%	14.8%	22.2%	18.5%	0.0%	7.4%
COVID-19 Compliance Officers	8.7%	8.7%	8.7%	21.7%	4.3%	4.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 175. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Long Island Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Physical Therapists	75.0%	25.0%	25.0%	50.0%	25.0%	37.5%	25.0%
Occupational Therapists	66.7%	33.3%	33.3%	50.0%	33.3%	50.0%	33.3%
Home Health Aides	57.1%	33.3%	21.4%	50.0%	7.1%	11.9%	61.9%
Homemakers	57.1%	35.7%	21.4%	57.1%	7.1%	7.1%	64.3%
Speech-Language Pathologists	57.1%	28.6%	42.9%	42.9%	28.6%	42.9%	28.6%
Personal Care Aides	54.5%	33.3%	12.1%	36.4%	9.1%	12.1%	54.5%
Respiratory Therapists	50.0%	25.0%	75.0%	25.0%	50.0%	50.0%	50.0%
Licensed Master Social Workers	45.5%	9.1%	18.2%	18.2%	18.2%	18.2%	9.1%
Registered Nurses	42.9%	23.8%	9.5%	28.6%	7.1%	23.8%	26.2%
Licensed Practical Nurses	38.1%	28.6%	14.3%	23.8%	9.5%	19.0%	19.0%
Licensed Clinical Social Workers	28.6%	28.6%	28.6%	14.3%	28.6%	28.6%	28.6%
Intake Coordinators	18.5%	7.4%	7.4%	14.8%	14.8%	11.1%	18.5%
COVID-19 Compliance Officers	8.7%	13.0%	13.0%	13.0%	13.0%	13.0%	17.4%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 176. Number of Graduations in Selected Health Care Occupational Programs in the Long Island Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Registered Nurses	1,568	1,508	1,492	1,796	1,924	356	22.7%
Nurse Practitioners	232	347	317	427	497	265	114.2%
Pharmacists	0	0	0	199	187	187	N/A
Social Workers	711	614	656	770	813	102	14.3%
Occupational Therapists	86	86	102	145	174	88	102.3%
Mental Health Counselors	71	100	75	134	144	73	102.8%
Speech-Language Pathologists	104	0	111	141	161	57	54.8%
Health Care Administrators	244	295	250	319	293	49	20.1%
Physical Therapists	122	138	116	166	156	34	27.9%
Physician Assistants	165	177	161	213	198	33	20.0%
Dietitians	0	0	20	20	20	20	N/A
Clinical Laboratory Technologists	60	55	83	93	79	19	31.7%
Respiratory Therapists	54	49	55	69	70	16	29.6%
Nurse Midwives	5	0	9	12	11	6	120.0%
Nuclear Medicine Technologists	11	10	6	15	15	4	36.4%
Nursing Assistants	106	99	48	54	109	3	2.8%
Emergency Medical Technicians and Paramedics	8	11	8	9	8	0	0.0%
Occupational Therapy Assistants	28	18	26	26	28	0	0.0%
Radiation Therapists	62	56	56	61	61	-1	-1.6%
Physical Therapist Assistants/Aides	45	42	54	51	42	-3	-6.7%
Clinical Laboratory Technicians	26	18	24	18	19	-7	-26.9%
Nutritionists	63	79	76	57	52	-11	-17.5%
Cardiovascular Technologists and Technicians	36	18	8	6	6	-30	-83.3%
Licensed Practical Nurses	433	474	419	402	403	-30	-6.9%
Dental Hygienists	106	87	126	45	49	-57	-53.8%
Pharmacy Technicians/Assistants	90	39	18	31	25	-65	-72.2%
Medical Assistants	1,307	1,197	683	587	496	-811	-62.1%

N/A, not applicable.

Source: Integrated Postsecondary Education Data System.

Table 177. Number of Licensed Individuals in Selected Health Care Occupations in the Long Island Region, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	298	290	272	279	278	-20	-6.7%
Clinical Laboratory Technologists	2,433	2,467	2,361	2,465	2,476	43	1.8%
Dental Assistants	86	80	77	80	82	-4	-4.7%
Dental Hygienists	1,946	1,954	1,954	1,983	2,009	63	3.2%
Dietitians/Nutritionists, Certified	1,091	1,137	1,160	1,193	1,232	141	12.9%
Licensed Practical Nurses	8,916	8,949	8,604	8,936	8,843	-73	-0.8%
Nurse Practitioners	4,068	4,249	4,496	5,027	5,435	1,367	33.6%
Occupational Therapists	2,423	2,518	2,604	2,751	2,878	455	18.8%
Occupational Therapy Assistants	460	486	491	509	522	62	13.5%
Pharmacists	4,554	4,432	4,385	4,509	4,690	136	3.0%
Physical Therapists	4,095	4,054	4,121	4,279	4,513	418	10.2%
Physical Therapist Assistants	1,070	1,089	1,095	1,131	1,177	107	10.0%
Registered Physician Assistants	3,308	3,240	3,383	3,698	3,914	606	18.3%
Registered Professional Nurses	44,696	45,719	46,157	48,153	50,085	5,389	12.1%
Respiratory Therapists	1,125	1,130	1,125	1,211	1,199	74	6.6%
Social Workers	9,812	9,751	9,732	10,105	10,495	683	7.0%
Speech-Language Pathologists	4,253	4,356	4,498	4,736	4,869	616	14.5%
Total	94,634	95,901	96,515	101,045	104,697	10,063	10.6%

Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 178. Employment Projections for Selected Health Care Occupations in the Long Island Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	16,690	28,420	11,730	70.3%	3,700
Personal Care Aides	25,540	40,920	15,380	60.2%	6,170
Occupational Therapy Assistants	320	440	120	37.5%	52
Physician Assistants	2,710	3,680	970	35.8%	279
Nurse Practitioners	2,520	3,400	880	34.9%	246
Medical Assistants	5,470	7,360	1,890	34.6%	896
Physical Therapists	4,030	5,420	1,390	34.5%	336
Counselors ^b	3,160	4,170	1,010	32.0%	477
Speech-Language Pathologists	2,190	2,870	680	31.1%	204
Respiratory Therapists	1,300	1,700	400	30.8%	119
Diagnostic Medical Sonographers	1,330	1,730	400	30.1%	124
Occupational Therapists	1,540	1,990	450	29.2%	144
Social Workers	6,450	8,080	1,630	25.3%	872
Dental Assistants	3,640	4,500	860	23.6%	543
Dental Hygienists	2,780	3,430	650	23.4%	273
Licensed Practical Nurses	6,080	7,470	1,390	22.9%	655
Medical Records and Health Information Technicians	1,890	2,300	410	21.7%	174
Registered Nurses	33,050	40,170	7,120	21.5%	2,668
Clinical Laboratory Technicians and Technologists	3,730	4,510	780	20.9%	338
Radiation Therapists	160	190	30	18.8%	12
Emergency Medical Technicians and Paramedics	3,220	3,790	570	17.7%	290
Surgical Technologists	1,080	1,270	190	17.6%	113
Cardiovascular Technologists and Technicians	740	870	130	17.6%	57
Radiologic Technologists	2,300	2,700	400	17.4%	177
Dietitians and Nutritionists	750	880	130	17.3%	65
Orderlies	1,050	1,220	170	16.2%	144
Nursing Assistants	15,500	17,480	1,980	12.8%	2,046
Nuclear Medicine Technologists	200	220	20	10.0%	14
Pharmacy Technicians	3,050	3,230	180	5.9%	271
Pharmacists	2,760	2,760	0	0.0%	125
Pharmacy Aides	250	220	-30	-12.0%	28

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

G. Mohawk Valley

The Mohawk Valley region includes the counties of Fulton, Herkimer, Montgomery, Oneida, Otsego, and Schoharie.

KEY FINDINGS

Population and Health Indicators

- The Mohawk Valley region has several economic and demographic challenges. A higher percentage of the Mohawk Valley's population (33.8%) was under the 200% federal poverty level (FPL) compared to the statewide percentage of 29.7%. Additionally, the percentage of the region's population age 65 years and older was 19.1% compared to the statewide percentage of 16.1% (Table 179).
- Several health indicators suggested that the region was in poorer health than the rest of the state. The rate of total deaths per 100,000 individuals was 1,102.3 in the Mohawk Valley region compared with the statewide rate of 793.0. Additionally, the rate of death due to diabetes per 100,000 individuals was 33.5 compared to the statewide rate of 21.5. The rate of death due to cancer per 100,000 individuals was 231.6 compared to the statewide rate of 176.3. Finally, the rate of total emergency department visits per 10,000 individuals was 5,091.1 compared to the statewide rate of 4,154 (Table 180).



Health Care Employment

- Between 2016 and 2020, nursing home and residential care facilities lost 923 jobs (13.5%). During the same period, health care jobs in hospitals and in home health care settings decreased by 8.5% and 3.5%, respectively. In contrast, ambulatory care (excluding home health) gained 158 jobs between 2016 and 2020, an increase of 2.3% (Table 181).

Health Care Recruitment and Retention Difficulties^r

- In 2020, upstate^s New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of workers (Tables 184 and 185).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for lack of RN retention (Tables 186 and 187).

^r Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^s Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) were the most difficult to recruit in 2020. FQHCs reported that geographic location (61.1%) was the most common reason for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 188 and 189).
- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult to retain in upstate New York FQHCs. FQHCs cited non-competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 190 and 191).
- In 2020, LPNs (93.8%), experienced RNs (87.5%), and newly licensed RNs (80.0%) were reported as the most difficult to recruit for Mohawk Valley nursing homes and adult care facilities. A shortage of workers was the most common reason cited for these recruitment difficulties. Additionally, fear of exposure to COVID-19 and the requisite quarantining with a positive test were cited as recruitment difficulties related to the pandemic. (Tables 192 and 193).
- The Mohawk Valley region's nursing homes reported that LPNs (84.6%), CNAs (84.6%), and home health aides (75.0%) were difficult to retain. Staff finding higher pay elsewhere was cited as the main reason for retention difficulties. The main reason for retention difficulties related to the pandemic was fear of exposure to COVID-19 (Tables 194 and 195).
- Home health aides (89.5%), personal care aides (86.7%), RNs (83.3%), and speech-language pathologists (83.3%) were reported by the Mohawk Valley region's home health care agencies as the most difficult to recruit. The main reason cited for these recruitment difficulties was a shortage of workers. Additionally, the main recruitment difficulty related to the pandemic for personal care aides was the state unemployment incentive (Tables 196 and 197).
- Home health care agencies in the Mohawk Valley region reported that home health aides (75.0%), physical therapists (75.0%), and personal care aides (68.8%) were the most difficult to retain. The main reason cited for these retention difficulties was finding higher pay elsewhere, especially among home health aides (62.5%) and personal care aides (56.3%). Family commitment was the most common COVID-19 reason cited for retention difficulties among personal care aides (56.3%) and home health aides (50.0%) (Tables 198 and 199).

Health Care Production and Need

- RNs had 149 more graduations in the Mohawk Valley region in 2020 than in 2016. Conversely, the number of LPN graduations in the region declined by 59 during the same period (Table 200).
- Between 2017 and 2021, the number of NPs (106) physician assistants (46), and occupational therapists (50) licenses increased in the Mohawk Valley region. In contrast, the number of LPNs (290) and clinical laboratory technologists (35) licenses declined in the Mohawk Valley region during the same period (Table 201).

Table 179. Selected Population Characteristics in the Mohawk Valley Region, 2015-2019

Population Characteristics ^a	Region		Statewide Percent
	Number	Percent	
Total population	486,158	N/A	N/A
Population under 100% FPL	71,146	15.3%	14.1%
Population under 200% FPL	156,859	33.8%	29.7%
Population aged birth to 17 years	99,283	20.4%	21.0%
Population aged 65 and older	92,875	19.1%	16.1%
Population female aged 15 to 44	176,685	36.3%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	184	3.2%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	4,413	75.9%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	1,220	21.0%	30.6%
Black/African American, non-Hispanic	17,220	3.5%	14.3%
Hispanic/Latino	26,437	5.4%	19.0%
Asian/Pacific Islander, non-Hispanic	11,547	2.4%	8.4%
American Indian/Native Alaskan, non-Hispanic	923	0.2%	0.2%
Two or more/other races	8,822	1.8%	2.0%
Population with less than a high school education ^a	37,812	11.2%	13.2%
Population with a high school diploma or equivalent ^a	175,965	52.1%	41.5%
Population with an associate degree ^a	43,108	12.8%	8.7%
Population with a bachelor's degree ^a	46,449	13.8%	20.5%
Population with a master's degree or higher ^a	34,390	10.2%	16.0%
Home ownership	134,410	69.8%	53.9%
^a Education levels and rates are based on individuals aged 25 years and older.			

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 180. Selected Health Indicators in the Mohawk Valley Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	16,080	1,102.3	466,052	793.0
Deaths due to heart disease, per 100,000	4,078	279.5	131,888	224.4
Deaths due to all cancers, per 100,000	3,388	231.6	103,820	176.3
Deaths due to diabetes, per 100,000	489	33.5	12,649	21.5
Total births, per 1,000 females aged 15 to 44	15,003	58.1	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	845	17.6	22,262	12.6
Low-birthweight births, as a percent of total births	1,093	7.4	54,941	8.0
Late/no prenatal care, as a percent of total births	882	5.9	36,747	5.5
Infant deaths, per 1,000 live births	84	5.6	3,018	4.4
Total hospitalizations, per 10,000	180,645	1,238.3	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	277	3.3	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	138	4.4	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	116	3.2	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	211	7.7	26,999	22.1
Diabetes hospitalizations, per 10,000	3,185	21.9	116,638	19.8
CLRD hospitalizations, per 10,000	5,237	35.9	181,011	30.8
Heart disease hospitalizations, per 10,000	18,723	128.3	603,977	102.8
Total ED visits, per 10,000	742,696	5,091.1	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 181. Number of Health Care Jobs in the Mohawk Valley Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	11,667	11,773	11,838	11,785	10,678	-989	-8.5%
Ambulatory care (excluding home health)	6,845	6,968	6,967	6,929	7,003	158	2.3%
Nursing home and residential care facilities	6,834	6,724	6,418	6,278	5,911	-923	-13.5%
Home health care	1,470	1,712	1,761	1,535	1,418	-52	-3.5%
Total	26,816	27,177	26,984	26,527	25,010	-1,806	-6.7%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 182. Number of Jobs in Selected Health Care Occupations in the Mohawk Valley Region, in Alphabetical Order, 2020

Occupation	Employment
Cardiovascular Technologists and Technicians	90
Certified Registered Nurse Anesthetists	N/A
Dental Assistants	290
Dental Hygienists	240
Dietetic Technicians	N/A
Dietitians and Nutritionists	80
Emergency Medical Technicians and Paramedics	360
Home Health and Personal Care Aides	11,810
Licensed Practical Nurses	1,860
Medical and Health Services Managers	420
Medical Assistants	350
Medical Records and Health Information Technicians	340
Medical Secretaries	220
Mental Health Counselors	230
Nuclear Medicine Technologists	N/A
Nurses Midwives	N/A
Nurse Practitioners	310
Nursing Assistants	2,220
Occupational Therapists	210
Occupational Therapy Assistants	60
Orderlies	N/A
Pharmacists	570
Pharmacy Aides	N/A
Pharmacy Technicians	450
Physical Therapist Assistants/Aides	N/A
Physical Therapists	280
Physician Assistants	290
Radiation Therapists	N/A
Radiologic Technologists	310
Registered Nurses	3,810
Respiratory Therapists	140
Social Workers	690
Speech-Language Pathologists	190
Surgical Technologists	70

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 183. Average Annual Salary for Selected Health Care Occupations in the Mohawk Valley Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$56,460
Certified Registered Nurse Anesthetists	\$173,210
Dental Assistants	\$44,690
Dental Hygienists	\$71,260
Dietetic Technicians	\$44,870
Dietitians and Nutritionists	\$66,430
Health Care Social Workers	\$57,390
Home Health and Personal Care Aides	\$29,230
Licensed Practical Nurses	\$44,670
Medical and Health Services Managers	\$113,820
Medical Assistants	\$36,460
Medical Records and Health Information Technicians	\$44,700
Medical Secretaries	\$37,280
Mental Health and Substance Abuse Social Workers	\$71,370
Mental Health Counselors	\$48,150
Nuclear Medicine Technologists	\$89,970
Nurse Practitioners	\$107,680
Nurses Midwives	N/A
Nursing Assistants	\$32,280
Occupational Therapists	\$80,900
Occupational Therapy Assistants	\$52,590
Orderlies	\$29,090
Pharmacists	\$111,690
Pharmacy Aides	\$35,090
Pharmacy Technicians	\$31,910
Physical Therapist Assistants	\$52,480
Physical Therapists	\$84,450
Physician Assistants	\$126,990
Speech-Language Pathologists	\$79,450
Surgical Technologists	\$48,370

N/A, not available.

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 184. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 185. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 186. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 187. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 188. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 189. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 190. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 191. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 192. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Mohawk Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	93.8%	62.5%	31.3%	31.3%	18.8%
Registered Nurses (Experienced)	87.5%	68.8%	25.0%	37.5%	12.5%
Registered Nurses (Newly Licensed)	80.0%	73.3%	26.7%	33.3%	13.3%
CNAs and Temps	75.9%	53.8%	15.4%	23.1%	7.7%
Physical Therapists	60.0%	60.0%	20.0%	20.0%	0.0%
Speech-Language Pathologists	60.0%	50.0%	20.0%	0.0%	0.0%
Occupational Therapists	54.5%	54.5%	18.2%	18.2%	0.0%
Licensed Master Social Workers	50.0%	50.0%	30.0%	10.0%	0.0%
Paid Feeding Assistants	50.0%	50.0%	0.0%	0.0%	0.0%
Infection Preventionist Practitioners	45.5%	27.3%	18.2%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 193. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Mohawk Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	93.8%	43.8%	37.5%	12.5%	6.3%
Registered Nurses (Experienced)	87.5%	31.3%	25.0%	6.3%	0.0%
Registered Nurses (Newly Licensed)	80.0%	40.0%	26.7%	6.7%	0.0%
CNAs and Temps	75.9%	23.1%	7.7%	46.2%	0.0%
Physical Therapists	60.0%	0.0%	10.0%	0.0%	0.0%
Speech-Language Pathologists	60.0%	0.0%	10.0%	0.0%	0.0%
Occupational Therapists	54.5%	0.0%	9.1%	0.0%	0.0%
Licensed Master Social Workers	50.0%	10.0%	10.0%	0.0%	0.0%
Paid Feeding Assistants	50.0%	0.0%	25.0%	25.0%	0.0%
Infection Preventionist Practitioners	45.5%	0.0%	9.1%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 194. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Mohawk Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Licensed Practical Nurses	84.6%	69.2%	30.8%	23.1%	0.0%
CNAs and Temps	84.6%	76.9%	46.2%	11.5%	3.8%
Home Health Aides	75.0%	50.0%	25.0%	0.0%	0.0%
Personal Care Aides	75.0%	75.0%	25.0%	0.0%	0.0%
Paid Feeding Assistants	75.0%	50.0%	25.0%	0.0%	0.0%
Registered Nurses (Newly Licensed)	66.7%	60.0%	20.0%	20.0%	0.0%
Registered Nurses (Experienced)	66.7%	53.3%	33.3%	20.0%	0.0%
Nurse Directors/Managers	53.8%	46.2%	23.1%	7.7%	0.0%
Infection Preventionist Practitioners	50.0%	10.0%	0.0%	20.0%	0.0%
MDS Coordinators	33.3%	0.0%	0.0%	16.7%	8.3%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 195. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Mohawk Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Licensed Practical Nurses	84.6%	0.0%	46.2%	46.2%	0.0%
CNAs and Temps	84.6%	0.0%	57.7%	53.8%	7.7%
Home Health Aides	75.0%	0.0%	0.0%	25.0%	0.0%
Personal Care Aides	75.0%	0.0%	50.0%	50.0%	0.0%
Paid Feeding Assistants	75.0%	0.0%	25.0%	0.0%	0.0%
Registered Nurses (Newly Licensed)	66.7%	0.0%	20.0%	13.3%	6.7%
Registered Nurses (Experienced)	66.7%	0.0%	13.3%	13.3%	13.3%
Nurse Directors/Managers	53.8%	0.0%	7.7%	7.7%	7.7%
Infection Preventionist Practitioners	50.0%	0.0%	10.0%	0.0%	10.0%
MDS Coordinators	33.3%	0.0%	8.3%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 196. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Mohawk Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Home Health Aides	89.5%	68.4%	31.6%	26.3%	26.3%
Personal Care Aides	86.7%	66.7%	40.0%	26.7%	26.7%
Registered Nurses	83.3%	61.1%	0.0%	27.8%	5.6%
Speech-Language Pathologists	83.3%	100.0%	0.0%	16.7%	0.0%
Homemakers	69.2%	46.2%	30.8%	23.1%	30.8%
Licensed Clinical Social Workers	66.7%	33.3%	16.7%	33.3%	0.0%
Respiratory Therapists	66.7%	83.3%	0.0%	0.0%	0.0%
Licensed Master Social Workers	62.5%	25.0%	25.0%	25.0%	0.0%
Occupational Therapists	57.1%	57.1%	0.0%	14.3%	0.0%
Licensed Practical Nurses	46.7%	40.0%	13.3%	26.7%	13.3%
Intake Coordinators	42.9%	21.4%	0.0%	14.3%	7.1%
Physical Therapists	42.9%	28.6%	14.3%	0.0%	0.0%
COVID-19 Compliance Officers	25.0%	16.7%	8.3%	16.7%	8.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 197. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Mohawk Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Home Health Aides	89.5%	0.0%	16.7%	8.3%	25.0%	8.3%
Personal Care Aides	86.7%	21.1%	57.9%	36.8%	68.4%	5.3%
Registered Nurses	83.3%	15.4%	46.2%	30.8%	46.2%	15.4%
Speech-Language Pathologists	83.3%	0.0%	14.3%	42.9%	21.4%	7.1%
Homemakers	69.2%	16.7%	0.0%	16.7%	0.0%	0.0%
Licensed Clinical Social Workers	66.7%	12.5%	0.0%	12.5%	0.0%	0.0%
Respiratory Therapists	66.7%	6.7%	26.7%	26.7%	26.7%	13.3%
Licensed Master Social Workers	62.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Occupational Therapists	57.1%	33.3%	60.0%	60.0%	66.7%	26.7%
Licensed Practical Nurses	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Intake Coordinators	42.9%	11.1%	22.2%	27.8%	16.7%	5.6%
Physical Therapists	42.9%	16.7%	0.0%	0.0%	0.0%	0.0%
COVID-19 Compliance Officers	25.0%	16.7%	0.0%	0.0%	0.0%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 198. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Mohawk Valley Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Home Health Aides	75.0%	62.5%	43.8%	6.3%	0.0%	25.0%
Physical Therapists	75.0%	25.0%	25.0%	50.0%	0.0%	0.0%
Personal Care Aides	68.8%	56.3%	37.5%	12.5%	6.3%	25.0%
Licensed Clinical Social Workers	60.0%	40.0%	0.0%	40.0%	0.0%	0.0%
Licensed Master Social Workers	60.0%	40.0%	0.0%	40.0%	0.0%	0.0%
Homemakers	50.0%	70.0%	30.0%	10.0%	0.0%	10.0%
Occupational Therapists	50.0%	25.0%	0.0%	50.0%	0.0%	0.0%
Registered Nurses	40.0%	40.0%	33.3%	40.0%	20.0%	0.0%
Speech-Language Pathologists	40.0%	20.0%	0.0%	40.0%	20.0%	0.0%
Intake Coordinators	33.3%	25.0%	25.0%	8.3%	0.0%	8.3%
Respiratory Therapists	33.3%	33.3%	0.0%	66.7%	0.0%	0.0%
Licensed Practical Nurses	18.2%	27.3%	18.2%	9.1%	0.0%	9.1%
COVID-19 Compliance Officers	16.7%	33.3%	16.7%	16.7%	0.0%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 199. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, New York City Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Home Health Aides	75.0%	37.5%	12.5%	50.0%	6.3%	18.8%	31.3%
Physical Therapists	75.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Personal Care Aides	68.8%	50.0%	12.5%	56.3%	12.5%	12.5%	37.5%
Licensed Clinical Social Workers	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Licensed Master Social Workers	60.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%
Homemakers	50.0%	40.0%	20.0%	40.0%	10.0%	10.0%	20.0%
Occupational Therapists	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Registered Nurses	40.0%	13.3%	6.7%	20.0%	13.3%	13.3%	6.7%
Speech-Language Pathologists	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intake Coordinators	33.3%	16.7%	16.7%	33.3%	0.0%	0.0%	8.3%
Respiratory Therapists	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Licensed Practical Nurses	18.2%	18.2%	9.1%	9.1%	9.1%	9.1%	9.1%
COVID-19 Compliance Officers	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 200. Number of Graduations in Selected Health Care Occupational Programs in the Mohawk Valley Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Registered Nurses	446	519	546	599	595	149	33.4%
Nurse Practitioners	45	54	42	51	68	23	51.1%
Health Care Administrators	89	74	70	104	103	14	15.7%
Emergency Medical Technicians/Paramedics	7	10	29	21	20	13	185.7%
Physical Therapist Assistants/Aides	19	26	20	15	21	2	10.5%
Respiratory Therapists	14	22	18	15	14	0	0.0%
Clinical Laboratory Technologists	2	0	1	0	0	-2	-100.0%
Dietetic Technicians	2	3	3	0	0	-2	-100.0%
Radiation Therapists	37	34	35	36	33	-4	-10.8%
Nutritionists	19	21	16	18	12	-7	-36.8%
Social Workers	15	14	8	4	8	-7	-46.7%
Occupational Therapists	62	62	59	59	53	-9	-14.5%
Dietitians	41	47	46	41	31	-10	-24.4%
Physical Therapists	263	283	299	312	248	-15	-5.7%
Medical Assistants	22	9	13	2	0	-22	-100.0%
Licensed Practical Nurses	151	142	115	100	92	-59	-39.1%

Source: Integrated Postsecondary Education Data System.

Table 201. Number of Licensed Individuals in Selected Health Care Occupations in the Mohawk Valley Region, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	57	58	52	52	52	-5	-8.8%
Clinical Laboratory Technologists	320	312	297	289	285	-35	-10.9%
Dental Assistants	41	42	42	43	45	4	9.8%
Dental Hygienists	305	297	292	297	290	-15	-4.9%
Dietitians/Nutritionists, Certified	102	96	106	106	107	5	4.9%
Licensed Practical Nurses	3,412	3,385	3,236	3,243	3,122	-290	-8.5%
Nurse Practitioners	511	527	563	595	617	106	20.7%
Occupational Therapists	372	387	388	405	422	50	13.4%
Occupational Therapy Assistants	128	128	123	121	125	-3	-2.3%
Pharmacists	504	494	491	481	490	-14	-2.8%
Physical Therapists	431	439	443	452	471	40	9.3%
Physical Therapist Assistants	237	244	241	243	253	16	6.8%
Registered Physician Assistants	225	238	245	251	271	46	20.4%
Registered Professional Nurses	7,083	7,186	7,213	7,236	7,456	373	5.3%
Respiratory Therapists	237	238	245	247	252	15	6.3%
Social Workers	719	722	724	762	777	58	8.1%
Speech-Language Pathologists	235	238	237	259	256	21	8.9%
Total	14,919	15,031	14,938	15,082	15,291	372	2.5%

Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 202. Employment Projections for Selected Health Occupations in the Mohawk Valley Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	980	1,510	530	54.1%	192
Personal Care Aides	6,570	9,440	2,870	43.7%	1,403
Physician Assistants	190	260	70	36.8%	20
Respiratory Therapists	180	240	60	33.3%	16
Nurse Practitioners	400	530	130	32.5%	39
Speech-Language Pathologists	260	340	80	30.8%	24
Counselors ^b	500	630	130	26.0%	70
Physical Therapists	390	490	100	25.6%	28
Diagnostic Medical Sonographers	200	250	50	25.0%	17
Medical Assistants	290	360	70	24.1%	43
Emergency Medical Technicians and Paramedics	520	640	120	23.1%	51
Dental Assistants	360	430	70	19.4%	52
Occupational Therapists	310	370	60	19.4%	26
Registered Nurses	5,180	6,170	990	19.1%	402
Social Workers	1,730	2,040	310	17.9%	214
Dental Hygienists	290	340	50	17.2%	27
Surgical Technologists	130	150	20	15.4%	14
Medical Records and Health Information Technicians	440	500	60	13.6%	36
Licensed Practical Nurses	2,450	2,780	330	13.5%	232
Radiologic Technologists	380	430	50	13.2%	27
Cardiovascular Technologists and Technicians	90	100	10	11.1%	7
Nursing Assistants	3,040	3,360	320	10.5%	390
Clinical Laboratory Technicians and Technologists	410	450	40	9.8%	32
Dietitians and Nutritionists	130	140	10	7.7%	10
Pharmacy Technicians	420	450	30	7.1%	38
Pharmacists	560	550	-10	-1.8%	24
Pharmacy Aides	100	90	-10	-10.0%	12

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.

^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

H. North Country

The North Country includes the counties of Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and Saint Lawrence.

KEY FINDINGS

Population and Health Indicators

- The region's health indicators present a mixed picture. The rate of total hospitalizations per 10,000 individuals was lower at 1,031.6 compared to the statewide rate of 1,153.3. Additionally, the rate of asthma hospitalizations among people aged 45 to 64 was 2.5 per 10,000 individuals compared to the statewide rate of 9.2 per 10,000. In contrast, the rate of total deaths per 100,000 individuals for this region was 909.5 compared to the statewide rate was 793.0. Finally, the rate of deaths due to cancer per 100,000 individuals was 204.3 compared with the statewide rate of 176.3 (Table 204).



Health Care Employment

- Nursing homes and residential care facilities experienced a loss of 344 jobs in the region between 2016 and 2020, home health care lost 102 jobs, and hospitals lost 69 jobs during the same period. The number of ambulatory care setting jobs (excluding home health care) remained steady between 2016 and 2020 (Table 205).

Health Care Recruitment and Retention Difficulties[†]

- In 2020, upstate[‡] New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of workers (Tables 208 and 209).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in hospitals in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for lack of RN retention (Tables 210 and 211).
- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) were the most difficult to recruit in 2021. FQHCs reported that geographic location (61.1%) was the most common reason for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 212 and 213).

[†] Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

[‡] Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult to retain in upstate New York FQHCs. FQHCs cited non-competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 214 and 215).
- Nursing homes and adult care facilities in the North Country region reported that LPNs (85.7%), CNAs (78.3%), and experienced RNs (75.0%) were the most difficult occupations to recruit. A shortage of workers was the most common reason cited for these recruitment difficulties. Fear of exposure to COVID-19 and the requisite quarantine for COVID-positive tests were the most common reasons cited for COVID-19-related recruitment difficulties (Tables 216 and 217).
- CNAs (84.6%), personal care aides (66.7%), and home health aides (50.0%) were reported as most difficult to retain by North Country region nursing homes and adult care facilities. The main reason cited for these retention difficulties was staff finding higher pay elsewhere (Table 218).
- In 2020, home health care agencies in the North Country region reported that speech-language pathologists (100.0%), RNs (89.5%), and home health aides (85.0%) were the most difficult to recruit. A shortage of workers was the most common reason for these recruitment difficulties. Additionally, family commitments and state unemployment benefits were cited as the main COVID-19-related reasons for recruitment difficulties (Tables 220 and 221).
- Home health care agencies in the North Country region reported that speech-language pathologists (85.7%), personal care aides (81.3%), and homemakers (75.0%) were the most difficult to retain. The most reported reasons for these retention difficulties were staff finding higher pay elsewhere and staff leaving for employment in other sectors. Additionally, scheduling challenges was the most common pandemic-related retention difficulty for homemakers (100.0%) followed by personal care aides (71.4%). (Tables 222 and 223).

Health Care Production and Need

- Between 2016 and 2020, the number of health care administrator graduations increased by 74 and the number of RN graduations increased by 44. In contrast, the number of LPNs graduations declined by 39 during the same period (Table 224).
- There were 273 more RNs licensed in the North Country region between 2017 and 2021. In contrast, there were 123 fewer LPNs licensed in the region during the same period (Table 225).

Table 203. Selected Population Characteristics in the North Country Region, 2015-2019

Population Characteristics ^a	Region		Statewide
	Number	Percent	Percent
Total population	421,361	N/A	N/A
Population under 100% FPL	58,526	15.1%	14.1%
Population under 200% FPL	134,624	34.8%	29.7%
Population aged birth to 17 years	86,949	20.6%	21.0%
Population aged 65 and older	69,550	16.5%	16.1%
Population female aged 15 to 44	169,049	40.1%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	184	3.5%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	4,124	78.1%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	970	18.4%	30.6%
Black/African American, non-Hispanic	16,299	3.9%	14.3%
Hispanic/Latino	16,852	4.0%	19.0%
Asian/Pacific Islander, non-Hispanic	5,089	1.2%	8.4%
American Indian/Native Alaskan, non-Hispanic	5,236	1.2%	0.2%
Two or more/other races	7,114	1.7%	2.0%
Population with less than a high school education ^a	30,842	10.9%	13.2%
Population with a high school diploma or equivalent ^a	156,211	55.0%	41.5%
Population with an associate degree ^a	33,072	11.6%	8.7%
Population with a bachelor's degree ^a	34,728	12.2%	20.5%
Population with a master's degree or higher ^a	29,214	10.3%	16.0%
Home ownership	110,306	68.0%	53.9%

^aEducation levels and rates are based on individuals aged 25 years and older.

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 204. Selected Health Indicators in the North Country Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	11,488	909.5	466,052	793.0
Deaths due to heart disease, per 100,000	2,771	219.4	131,888	224.4
Deaths due to all cancers, per 100,000	2,598	204.3	103,820	176.3
Deaths due to diabetes, per 100,000	352	27.9	12,649	21.5
Total births, per 1,000 females aged 15 to 44	14,430	64.1	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	737	18.3	22,262	12.6
Low-birthweight births, as a percent of total births	930	6.5	54,941	8.0
Late/no prenatal care, as a percent of total births	703	5.0	36,747	5.5
Infant deaths, per 1,000 live births	84	5.8	3,018	4.4
Total hospitalizations, per 10,000	130,298	1,031.6	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	229	2.4	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	75	2.7	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	74	2.5	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	139	5.7	26,999	22.1
Diabetes hospitalizations, per 10,000	2,021	16.0	116,638	19.8
CLRD hospitalizations, per 10,000	4,211	33.3	181,011	30.8
Heart disease hospitalizations, per 10,000	12,114	95.9	603,977	102.8
Total ED visits, per 10,000	659,452	5,221.0	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 205. Number of Health Care Jobs in the North Country Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	9,438	9,507	9,710	9,796	9,369	-69	-0.7%
Ambulatory care (excluding home health)	5,637	5,698	5,703	5,917	5,642	5	0.1%
Nursing home and residential care facilities	3,019	2,975	2,887	2,813	2,675	-344	-11.4%
Home health care	804	796	726	718	702	-102	-12.7%
Total	18,898	18,976	19,026	19,244	18,388	-510	-2.7%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 206. Number of Jobs in Selected Health Occupations in the North Country Region, in Alphabetical Order, 2020

Occupation	Employment
Cardiovascular Technologists and Technicians	100
Certified Registered Nurse Anesthetists	50
Dental Assistants	210
Dental Hygienists	170
Dietetic Technicians	60
Dietitians and Nutritionists	60
Emergency Medical Technicians and Paramedics	500
Home Health and Personal Care Aides	4,930
Licensed Practical Nurses	1,260
Medical and Health Services Managers	370
Medical Assistants	120
Medical Records and Health Information Technicians	280
Medical Secretaries	80
Mental Health Counselors	460
Nuclear Medicine Technologists	20
Nurses Midwives	N/A
Nurse Practitioners	340
Nursing Assistants	1,630
Occupational Therapists	200
Occupational Therapy Assistants	50
Orderlies	50
Pharmacists	420
Pharmacy Aides	N/A
Pharmacy Technicians	410
Physical Therapist Assistants/Aides	150
Physical Therapists	290
Physician Assistants	250
Radiation Therapists	30
Radiologic Technologists	290
Registered Nurses	3,870
Respiratory Therapists	100
Social Workers	450
Speech-Language Pathologists	190
Surgical Technologists	110

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 207. Average Annual Salary for Selected Health Occupations in the North Country Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$65,550
Certified Registered Nurse Anesthetists	N/A
Dental Assistants	\$38,430
Dental Hygienists	\$68,860
Dietetic Technicians	\$42,970
Dietitians and Nutritionists	\$64,930
Healthcare Social Workers	\$54,300
Home Health and Personal Care Aides	\$30,900
Licensed Practical Nurses	\$42,880
Medical and Health Services Managers	\$109,870
Medical Assistants	\$37,660
Medical Records and Health Information Technicians	\$47,510
Medical Secretaries	\$39,300
Mental Health and Substance Abuse Social Workers	\$61,520
Mental Health Counselors	\$49,200
Nuclear Medicine Technologists	\$93,340
Nurse Practitioners	\$111,240
Nurses Midwives	\$122,590
Nursing Assistants	\$31,970
Occupational Therapists	\$71,430
Occupational Therapy Assistants	\$54,460
Orderlies	\$31,310
Pharmacists	\$136,140
Pharmacy Aides	N/A
Pharmacy Technicians	\$35,150
Physical Therapist Assistants	\$52,450
Physical Therapists	\$87,370
Physician Assistants	\$133,530
Speech-Language Pathologists	\$76,040
Surgical Technologists	\$51,730

N/A, not available.

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 208. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 209. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 210. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 211. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 212. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 213. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 214. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 215. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 216. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	85.7%	50.0%	50.0%	42.9%	21.4%
CNAs and Temps	78.3%	45.5%	9.1%	36.4%	9.1%
Registered Nurses (Experienced)	75.0%	58.3%	50.0%	16.7%	0.0%
Registered Nurses (Newly Licensed)	72.7%	63.6%	54.5%	18.2%	0.0%
Home Health Aides	71.4%	57.1%	71.4%	42.9%	28.6%
Personal Care Aides	50.0%	50.0%	30.0%	10.0%	0.0%
Speech-Language Pathologists	50.0%	50.0%	30.0%	0.0%	0.0%
Paid Feeding Assistants	50.0%	20.0%	0.0%	0.0%	0.0%
Infection Preventionist Practitioners	40.0%	40.0%	0.0%	0.0%	0.0%
Licensed Master Social Workers	30.0%	50.0%	10.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 217. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	85.7%	42.9%	42.9%	21.4%	14.3%
CNAs and Temps	78.3%	0.0%	18.2%	27.3%	0.0%
Registered Nurses (Experienced)	75.0%	16.7%	16.7%	0.0%	0.0%
Registered Nurses (Newly Licensed)	72.7%	18.2%	18.2%	0.0%	0.0%
Home Health Aides	71.4%	28.6%	42.9%	42.9%	0.0%
Personal Care Aides	50.0%	10.0%	30.0%	20.0%	20.0%
Speech-Language Pathologists	50.0%	0.0%	20.0%	0.0%	0.0%
Paid Feeding Assistants	50.0%	0.0%	20.0%	20.0%	0.0%
Infection Preventionist Practitioners	40.0%	0.0%	20.0%	0.0%	0.0%
Licensed Master Social Workers	30.0%	20.0%	20.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 218. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
CNAs and Temps	84.6%	100.0%	38.5%	23.1%	0.0%
Personal Care Aides	66.7%	83.3%	33.3%	0.0%	0.0%
Home Health Aides	50.0%	57.1%	42.9%	0.0%	0.0%
Licensed Master Social Workers	42.9%	14.3%	0.0%	14.3%	0.0%
Licensed Practical Nurses	37.5%	100.0%	62.5%	50.0%	0.0%
Nurse Directors/Managers	36.4%	18.2%	36.4%	9.1%	9.1%
Occupational Therapy Assistants	36.4%	9.1%	9.1%	9.1%	0.0%
Speech-Language Pathologists	33.3%	0.0%	8.3%	8.3%	0.0%
Registered Nurses (Experienced)	30.8%	30.8%	38.5%	15.4%	7.7%
Physical Therapist Assistants	30.0%	0.0%	10.0%	10.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 219. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
CNAs and Temps	84.6%	0.0%	92.3%	69.2%	0.0%
Personal Care Aides	66.7%	0.0%	50.0%	16.7%	0.0%
Home Health Aides	50.0%	0.0%	42.9%	14.3%	0.0%
Licensed Master Social Workers	42.9%	0.0%	42.9%	0.0%	0.0%
Licensed Practical Nurses	37.5%	0.0%	62.5%	50.0%	0.0%
Nurse Directors/Managers	36.4%	0.0%	0.0%	9.1%	9.1%
Occupational Therapy Assistants	36.4%	0.0%	0.0%	0.0%	0.0%
Speech-Language Pathologists	33.3%	0.0%	0.0%	0.0%	0.0%
Registered Nurses (Experienced)	30.8%	0.0%	0.0%	7.7%	0.0%
Physical Therapist Assistants	30.0%	0.0%	0.0%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, nursing home and adult care facility survey responses were combined for Central New York and the North Country regions.

Table 220. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Speech-Language Pathologists	100.0%	100.0%	14.3%	14.3%	0.0%
Registered Nurses	89.5%	63.2%	15.8%	26.3%	5.3%
Home Health Aides	85.0%	80.0%	25.0%	15.0%	15.0%
Personal Care Aides	83.3%	88.9%	38.9%	22.2%	16.7%
Occupational Therapists	75.0%	25.0%	37.5%	25.0%	25.0%
Licensed Master Social Workers	71.4%	28.6%	14.3%	0.0%	14.3%
Homemakers	54.5%	36.4%	18.2%	18.2%	27.3%
Physical Therapists	37.5%	25.0%	25.0%	0.0%	0.0%
Licensed Practical Nurses	28.6%	28.6%	7.1%	0.0%	7.1%
Intake Coordinators	15.4%	23.1%	7.7%	7.7%	7.7%
COVID-19 Compliance Officers	9.1%	9.1%	0.0%	0.0%	9.1%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 221. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Speech-Language Pathologists	100.0%	60.0%	20.0%	0.0%	0.0%	0.0%
Home Health Aides	85.0%	45.5%	72.7%	81.8%	90.9%	27.3%
Personal Care Aides	83.3%	66.7%	88.9%	100.0%	100.0%	22.2%
Occupational Therapists	75.0%	16.7%	0.0%	0.0%	0.0%	0.0%
Respiratory Therapists	75.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Licensed Master Social Workers	71.4%	40.0%	0.0%	0.0%	20.0%	20.0%
Homemakers	54.5%	33.3%	100.0%	66.7%	66.7%	16.7%
Physical Therapists	37.5%	16.7%	0.0%	0.0%	0.0%	0.0%
Licensed Practical Nurses	28.6%	10.0%	30.0%	20.0%	20.0%	10.0%
Intake Coordinators	15.4%	11.1%	22.2%	11.1%	11.1%	0.0%
COVID-19 Compliance Officers	9.1%	16.7%	16.7%	0.0%	16.7%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 222. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Speech-Language Pathologists	85.7%	14.3%	28.6%	28.6%	14.3%	0.0%
Personal Care Aides	81.3%	62.5%	62.5%	31.3%	6.3%	56.3%
Homemakers	75.0%	62.5%	25.0%	0.0%	0.0%	25.0%
Home Health Aides	63.2%	52.6%	42.1%	15.8%	0.0%	42.1%
Physical Therapists	40.0%	0.0%	20.0%	0.0%	0.0%	20.0%
Registered Nurses	26.3%	31.6%	21.1%	15.8%	15.8%	15.8%
Licensed Practical Nurses	22.2%	44.4%	11.1%	22.2%	0.0%	22.2%
Intake Coordinators	16.7%	8.3%	8.3%	8.3%	0.0%	16.7%
COVID-19 Compliance Officers	14.3%	0.0%	0.0%	28.6%	14.3%	14.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 223. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, North Country Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Speech-Language Pathologists	85.7%	0.0%	40.0%	0.0%	20.0%	20.0%	0.0%
Personal Care Aides	81.3%	71.4%	42.9%	57.1%	14.3%	28.6%	14.3%
Homemakers	75.0%	100.0%	50.0%	25.0%	25.0%	0.0%	0.0%
Home Health Aides	63.2%	70.0%	30.0%	40.0%	0.0%	20.0%	10.0%
Physical Therapists	40.0%	20.0%	0.0%	20.0%	0.0%	0.0%	0.0%
Registered Nurses	26.3%	25.0%	16.7%	16.7%	16.7%	0.0%	0.0%
Licensed Practical Nurses	22.2%	42.9%	14.3%	14.3%	14.3%	0.0%	0.0%
Intake Coordinators	16.7%	0.0%	0.0%	0.0%	12.5%	12.5%	0.0%
COVID-19 Compliance Officers	14.3%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data for the home health care surveys was combined for the Central New York and North Country regions.

Table 224. Number of Graduations in Selected Health Care Occupational Programs in the North Country Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Health Care Administrators	18	61	82	82	92	74	411.1%
Registered Nurses	289	327	355	329	333	44	15.2%
Occupational Therapists	0	0	0	18	17	17	N/A
Physician Assistants	20	19	19	25	28	8	40.0%
Clinical Laboratory Technologists	5	10	11	5	9	4	80.0%
Dental Hygienists	23	29	22	27	25	2	8.7%
Physical Therapists	19	25	24	22	20	1	5.3%
Social Workers	29	32	32	37	30	1	3.4%
Nutritionists	24	18	15	23	23	-1	-4.2%
Mental Health Counselors	30	40	28	26	28	-2	-6.7%
Speech-Language Pathologists	20	14	22	16	18	-2	-10.0%
Emergency Medical Technicians and Paramedics	10	11	7	2	6	-4	-40.0%
Radiation Therapists	18	11	18	10	13	-5	-27.8%
Physical Therapist Assistants/Aides	21	14	17	22	11	-10	-47.6%
Licensed Practical Nurses	185	207	170	192	146	-39	-21.1%

N/A, not applicable.

Source: Integrated Postsecondary Education Data System.

Table 225. Number of Licensed Individuals in Selected Health Care Occupations in the North Country Region, in Alphabetical Order, 2017-2021

Occupation	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	60	61	57	57	55	-5	-8.3%
Clinical Laboratory Technologists	246	241	228	226	226	-20	-8.1%
Dental Assistants	57	59	55	57	58	1	1.8%
Dental Hygienists	257	238	237	240	234	-23	-8.9%
Dietitians/Nutritionists, Certified	83	81	79	79	82	-1	-1.2%
Licensed Practical Nurses	2,637	2,578	2,502	2,517	2,514	-123	-4.7%
Nurse Practitioners	319	324	341	363	378	59	18.5%
Occupational Therapists	176	191	194	205	213	37	21.0%
Occupational Therapy Assistants	78	78	78	84	82	4	5.1%
Pharmacists	397	382	376	379	380	-17	-4.3%
Physical Therapists	345	352	363	377	395	50	14.5%
Physical Therapist Assistants	179	180	170	171	176	-3	-1.7%
Registered Physician Assistants	283	278	286	295	303	20	7.1%
Registered Professional Nurses	5,452	5,491	5,502	5,570	5,725	273	5.0%
Respiratory Therapists	84	83	83	83	85	1	1.2%
Social Workers	469	461	474	516	546	77	16.4%
Speech-Language Pathologists	277	273	279	281	279	2	0.7%
Total	11,399	11,351	11,304	11,500	11,731	332	2.9%

Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 226. Employment Projections for Selected Health Care Occupations in the North Country Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2016	2026	Change Between 2016 and 2026		Average Annual Openings ^a
			Number	Percent	
Nurse Practitioners	260	360	100	38.5%	26
Physician Assistants	200	270	70	35.0%	21
Personal Care Aides	4,320	5,610	1,290	29.9%	822
Medical Assistants	240	310	70	29.2%	37
Home Health Aides	940	1,190	250	26.6%	145
Emergency Medical Technicians and Paramedics	460	580	120	26.1%	45
Speech-Language Pathologists	250	310	60	24.0%	21
Dental Assistants	310	380	70	22.6%	45
Dental Hygienists	310	380	70	22.6%	31
Diagnostic Medical Sonographers	90	110	20	22.2%	7
Respiratory Therapists	90	110	20	22.2%	8
Occupational Therapy Assistants	50	60	10	20.0%	6
Physical Therapists	380	440	60	15.8%	26
Counselors ^b	590	680	90	15.3%	74
Registered Nurses	3,930	4,440	510	13.0%	274
Surgical Technologists	80	90	10	12.5%	8
Radiologic Technologists	260	290	30	11.5%	17
Medical Records and Health Information Technicians	280	310	30	10.7%	22
Clinical Laboratory Technicians and Technologists	380	420	40	10.5%	28
Social Workers	1,170	1,290	120	10.3%	134
Cardiovascular Technologists and Technicians	110	120	10	9.1%	7
Occupational Therapists	220	240	20	9.1%	15
Licensed Practical Nurses	1,520	1,640	120	7.9%	133
Nursing Assistants	2,030	2,180	150	7.4%	251
Pharmacy Technicians	360	380	20	5.6%	32
Dietitians and Nutritionists	80	80	0	0.0%	6
Pharmacists	410	400	-10	-2.4%	17
Pharmacy Aides	130	110	-20	-15.4%	13

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.
^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

I. Southern Tier

The Southern Tier region includes the counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins.

KEY FINDINGS

Population and Health Indicators

- The health indicators for the Southern Tier indicated a mixed picture. The rate of asthma hospitalizations among people aged 25 to 44 was 4.0 per 10,000 compared to a statewide rate of 5.3 per 10,000. Additionally, the asthma hospitalization rate for adults aged 45 to 64 was 3.5 per 10,000 compared to a statewide rate of 9.1 per 10,000. In contrast, the rate of total deaths per 100,000 individuals was 1,041.3 compared with the statewide rate of 793.0. Additionally, the rate of deaths due to heart disease per 100,000 individuals was 260.9 compared to a rate of 224.4. Finally, the rate of deaths due to all cancers per 100,000 individuals was 214.1 in the region compared to the statewide rate of 176.3 (Table 228).



Health Care Employment

- The Southern Tier region lost 1,295 jobs in all health care settings from 2016 to 2020. Health care jobs in home health care settings declined by 16.6%. Additionally, jobs in nursing home and residential care facilities declined by 8.5% in the Southern Tier region during the same period, and jobs in ambulatory care (excluding home health care) declined by 3.0%. Finally, jobs in hospitals in the Southern Tier region declined by 2.3% between 2016 and 2020 (Table 229).

Health Care Recruitment and Retention Difficulties^v

- In 2020, upstate^w New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of workers (Tables 232 and 233).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in hospitals in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for lack of RN retention (Tables 234 and 235).
- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) were the most difficult to recruit

^v Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^w Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

in 2021. FQHCs reported that geographic location (61.1%) was the most common reason for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 236 and 237).

- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult to retain in upstate New York FQHCs. FQHCs cited non-competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 238 and 239)
- In 2020, nursing homes and adult care facilities in the Southern Tier region reported that LPNs (94.4%), experienced RNs (94.4%), and CNAs (89.3%) were the most difficult to recruit. A shortage of workers was the most common reason for these recruitment difficulties (Table 240). Additionally, the most COVID-19-related reasons for recruitment difficulties for LPNs and CNAs was the mandatory COVID-19 testing and the requisite quarantine due to a positive test result (44.4% and 40.0%, respectively) (Tables 240 and 241).
- Nursing homes and adult care facilities in the Southern Tier region reported that home health aides (85.7%), CNAs (84.0%), and LPNs (81.3%) were the most difficult to retain. The most common reason cited was staff finding higher pay elsewhere (Table 242). Fear of exposure to COVID-19 and childcare and family demands were cited as the main COVID-19-related reasons for these retention difficulties (Tables 242 and 243).
- In 2020, home health care agencies reported that personal care aides (85.7%), home health aides (85.3%), and RNs (77.1%) were the most difficult to recruit in the Southern Tier region. A shortage of workers was attributed to recruitment difficulties these difficulties. The main reasons cited for recruitment difficulties related to the pandemic for home health aides were fear of exposure to COVID-19 (67.6%) and state unemployment benefits (61.8%) (Tables 244 and 245).
- Personal care aides (76.0%), home health aides (75.8%), and homemakers (69.2%) were reported as the most difficult to retain in Southern Tier region home health care agencies. Reasons cited for these retention difficulties were staff finding higher pay elsewhere and staff leaving for other sectors. Additionally, family commitment was the most common reason related to the COVID-19 pandemic for retention difficulties among homemakers (76.9%), home health aides (63.6%), and personal care aides (56.0%). Transportation issues were also a common reason reported for retention difficulties among homemakers (76.9%), home health aides (66.7%), and personal care aides (52.0%) (Tables 246 and 247).

Health Care Production and Need

- The number of graduations for RNs (57), LPNs (27), and radiation therapists (25) increased in the Southern Tier region between 2016 and 2020 (Table 248).
- There were 288 more licensed RNs in the region in 2021 than in 2017. In contrast, the number of LPNs declined by 208 between 2017 and 2021, a decrease of 6.8%, during the same period (Table 249).

Table 227. Selected Population Characteristics in the Southern Tier Region, 2015-2019

Population Characteristics ^a	Region		Statewide Percent
	Number	Percent	
Total population	636,657	N/A	N/A
Population under 100% FPL	93,945	15.6%	14.1%
Population under 200% FPL	204,735	33.9%	29.7%
Population aged birth to 17 years	123,487	19.4%	21.0%
Population aged 65 and older	118,063	18.5%	16.1%
Population female aged 15 to 44	246,341	38.7%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	397	5.9%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	4,946	73.6%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	1,381	20.5%	30.6%
Black/African American, non-Hispanic	21,612	3.4%	14.3%
Hispanic/Latino	21,715	3.4%	19.0%
Asian/Pacific Islander, non-Hispanic	22,011	3.5%	8.4%
American Indian/Native Alaskan, non-Hispanic	1,065	0.2%	0.2%
Two or more/other races	15,738	2.5%	2.0%
Population with less than a high school education ^a	39,562	9.2%	13.2%
Population with a high school diploma or equivalent ^a	214,624	49.8%	41.5%
Population with an associate degree ^a	52,160	12.1%	8.7%
Population with a bachelor's degree ^a	64,224	14.9%	20.5%
Population with a master's degree or higher ^a	60,014	13.9%	16.0%
Home ownership	175,494	67.7%	53.9%
^a Education levels and rates are based on individuals aged 25 years and older.			

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 228. Selected Health Indicators in the Southern Tier Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	19,885	1,041.3	466,052	793.0
Deaths due to heart disease, per 100,000	4,981	260.9	131,888	224.4
Deaths due to all cancers, per 100,000	4,114	214.1	103,820	176.3
Deaths due to diabetes, per 100,000	498	26.1	12,649	21.5
Total births, per 1,000 females aged 15 to 44	18,297	50.5	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	971	14.1	22,262	12.6
Low-birthweight births, as a percent of total births	1,299	7.1	54,941	8.0
Late/no prenatal care, as a percent of total births	859	4.7	36,747	5.5
Infant deaths, per 1,000 live births	99	5.4	3,018	4.4
Total hospitalizations, per 10,000	202,470	1,060.3	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	370	2.6	25,000	6.7
Rate of asthma hospitalizations, ages 25-44 per 10,000	153	4.0	8,405	5.3
Rate of asthma hospitalizations, ages 45-64 per 10,000	179	3.5	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	226	6.3	26,999	22.1
Diabetes hospitalizations, per 10,000	3,199	16.8	116,638	19.8
CLRD hospitalizations, per 10,000	5,687	29.8	181,011	30.8
Heart disease hospitalizations, per 10,000	19,670	103.0	603,977	102.8
Total ED visits, per 10,000	795,293	4,164.8	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 229. Number of Health Care Jobs in the Southern Tier Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	13,505	13,506	13,535	13,681	13,198	-307	-2.3%
Ambulatory care (excluding home health)	7,728	7,675	7,796	7,857	7,495	-233	-3.0%
Nursing homes and residential care facilities	6,692	6,689	6,738	6,584	6,126	-566	-8.5%
Home health care	1,137	1,054	1,079	961	948	-189	-16.6%
Total	29,062	28,924	29,148	29,083	27,767	-1,295	-4.5%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 230. Number of Jobs in Selected Health Care Occupations in the Southern Tier Region, in Alphabetical Order, 2020

Occupation	Employment
Cardiovascular Technologists and Technicians	90
Certified Registered Nurse Anesthetists	N/A
Dental Assistants	320
Dental Hygienists	370
Dietetic Technicians	N/A
Dietitians and Nutritionists	160
Emergency Medical Technicians and Paramedics	620
Home Health and Personal Care Aides	5,730
Licensed Practical Nurses	1,680
Medical and Health Services Managers	440
Medical Assistants	540
Medical Records and Health Information Technicians	440
Medical Secretaries	200
Mental Health Counselors	520
Nuclear Medicine Technologists	N/A
Nurses Midwives	N/A
Nurse Practitioners	480
Nursing Assistants	2,760
Occupational Therapists	370
Occupational Therapy Assistants	60
Orderlies	N/A
Pharmacists	480
Pharmacy Aides	N/A
Pharmacy Technicians	570
Physical Therapist Assistants/Aides	250
Physical Therapists	410
Physician Assistants	260
Radiation Therapists	N/A
Radiologic Technologists	420
Registered Nurses	5,300
Respiratory Therapists	140
Social Workers	780
Speech-Language Pathologists	330
Surgical Technologists	150

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 231. Average Annual Salary for Selected Health Care Occupations in the Southern Tier Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$58,520
Certified Registered Nurse Anesthetists	N/A
Dental Assistants	\$40,020
Dental Hygienists	\$66,080
Dietetic Technicians	\$41,330
Dietitians and Nutritionists	\$61,930
Health Care Social Workers	\$55,400
Home Health and Personal Care Aides	\$29,840
Licensed Practical Nurses	\$44,850
Medical and Health Services Managers	\$110,720
Medical Assistants	\$34,820
Medical Records and Health Information Technicians	\$41,530
Medical Secretaries	\$35,980
Mental Health and Substance Abuse Social Workers	\$62,500
Mental Health Counselors	\$51,080
Nuclear Medicine Technologists	\$86,490
Nurse Practitioners	\$105,950
Nurses Midwives	\$98,270
Nursing Assistants	\$31,430
Occupational Therapists	\$81,630
Occupational Therapy Assistants	\$55,920
Orderlies	\$28,290
Pharmacists	\$135,540
Pharmacy Aides	N/A
Pharmacy Technicians	\$34,520
Physical Therapist Assistants	\$51,970
Physical Therapists	\$82,820
Physician Assistants	\$111,610
Speech-Language Pathologists	\$75,190
Surgical Technologists	\$44,250

N/A, not available.

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 232. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 233. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 234. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 235. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 236. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 237. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 238. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 239. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 240. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	94.4%	77.8%	38.9%	27.8%	16.7%
Registered Nurses (Experienced)	94.4%	61.1%	33.3%	38.9%	16.7%
CNAs and Temps	89.3%	70.0%	30.0%	40.0%	20.0%
Registered Nurses (Newly Licensed)	82.4%	58.8%	29.4%	41.2%	17.6%
Home Health Aides	77.8%	55.6%	55.6%	33.3%	22.2%
Paid Feeding Assistants	57.1%	14.3%	0.0%	0.0%	0.0%
Personal Care Aides	50.0%	62.5%	37.5%	25.0%	12.5%
Speech-Language Pathologists	50.0%	28.6%	28.6%	7.1%	0.0%
Infection Preventionist Practitioners	50.0%	25.0%	33.3%	0.0%	0.0%
Physical Therapists	35.7%	28.6%	28.6%	0.0%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 241. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	94.4%	27.8%	44.4%	22.2%	5.6%
Registered Nurses (Experienced)	94.4%	16.7%	27.8%	11.1%	0.0%
CNAs and Temps	89.3%	30.0%	40.0%	50.0%	10.0%
Registered Nurses (Newly Licensed)	82.4%	17.6%	23.5%	11.8%	0.0%
Home Health Aides	77.8%	22.2%	33.3%	44.4%	0.0%
Paid Feeding Assistants	57.1%	14.3%	14.3%	28.6%	14.3%
Personal Care Aides	50.0%	37.5%	37.5%	50.0%	12.5%
Speech-Language Pathologists	50.0%	7.1%	14.3%	7.1%	0.0%
Infection Preventionist Practitioners	50.0%	8.3%	16.7%	0.0%	0.0%
Physical Therapists	35.7%	7.1%	14.3%	7.1%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 242. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Home Health Aides	85.7%	28.6%	14.3%	0.0%	0.0%
CNAs and Temps	84.0%	68.0%	60.0%	20.0%	12.0%
Licensed Practical Nurses	81.3%	68.8%	37.5%	43.8%	18.8%
Registered Nurses (Newly Licensed)	78.6%	64.3%	35.7%	28.6%	21.4%
Registered Nurses (Experienced)	76.9%	69.2%	53.8%	30.8%	23.1%
Personal Care Aides	66.7%	50.0%	16.7%	0.0%	0.0%
Nurse Directors/Managers	58.3%	41.7%	25.0%	25.0%	16.7%
MDS Coordinators	30.0%	10.0%	0.0%	20.0%	20.0%
Speech-Language Pathologists	30.0%	20.0%	0.0%	20.0%	10.0%
Infection Preventionist Practitioners	22.2%	11.1%	0.0%	11.1%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistant; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 243. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Home Health Aides	85.7%	0.0%	14.3%	14.3%	0.0%
CNAs and Temps	84.0%	0.0%	64.0%	64.0%	8.0%
Licensed Practical Nurses	81.3%	0.0%	37.5%	56.3%	0.0%
Registered Nurses (Newly Licensed)	78.6%	7.1%	28.6%	42.9%	0.0%
Registered Nurses (Experienced)	76.9%	0.0%	23.1%	30.8%	0.0%
Personal Care Aides	66.7%	0.0%	33.3%	33.3%	0.0%
Nurse Directors/Managers	58.3%	0.0%	16.7%	25.0%	0.0%
MDS Coordinators	30.0%	0.0%	10.0%	10.0%	0.0%
Speech-Language Pathologists	30.0%	0.0%	10.0%	10.0%	10.0%
Infection Preventionist Practitioners	22.2%	0.0%	0.0%	0.0%	11.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 244. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Personal Care Aides	85.7%	78.6%	39.3%	32.1%	17.9%
Home Health Aides	85.3%	79.4%	44.1%	32.4%	20.6%
Registered Nurses	77.1%	60.0%	25.7%	25.7%	14.3%
Homemakers	76.5%	82.4%	41.2%	35.3%	35.3%
Licensed Practical Nurses	56.5%	47.8%	13.0%	17.4%	17.4%
Speech-Language Pathologists	54.5%	63.6%	27.3%	0.0%	0.0%
Occupational Therapists	50.0%	41.7%	16.7%	0.0%	8.3%
COVID-19 Compliance Officers	47.1%	29.4%	11.8%	5.9%	5.9%
Licensed Master Social Workers	42.9%	42.9%	14.3%	7.1%	7.1%
Respiratory Therapists	42.9%	57.1%	28.6%	0.0%	0.0%
Physical Therapists	40.0%	46.7%	13.3%	6.7%	0.0%
Intake Coordinators	37.5%	33.3%	12.5%	16.7%	0.0%
Licensed Clinical Social Workers	36.4%	36.4%	9.1%	0.0%	9.1%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 245. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Personal Care Aides	85.7%	25.0%	57.1%	39.3%	57.1%	14.3%
Home Health Aides	85.3%	23.5%	67.6%	41.2%	61.8%	17.6%
Registered Nurses	77.1%	11.4%	42.9%	28.6%	17.1%	11.4%
Homemakers	76.5%	11.8%	70.6%	41.2%	64.7%	17.6%
Licensed Practical Nurses	56.5%	8.7%	34.8%	21.7%	21.7%	13.0%
Speech-Language Pathologists	54.5%	9.1%	27.3%	9.1%	9.1%	0.0%
Occupational Therapists	50.0%	8.3%	25.0%	16.7%	8.3%	8.3%
COVID-19 Compliance Officers	47.1%	11.8%	29.4%	11.8%	23.5%	5.9%
Licensed Master Social Workers	42.9%	0.0%	28.6%	7.1%	21.4%	7.1%
Respiratory Therapists	42.9%	14.3%	42.9%	14.3%	14.3%	0.0%
Physical Therapists	40.0%	6.7%	26.7%	6.7%	6.7%	6.7%
Intake Coordinators	37.5%	0.0%	20.8%	8.3%	16.7%	0.0%
Licensed Clinical Social Workers	36.4%	0.0%	27.3%	9.1%	27.3%	0.0%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 246. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Personal Care Aides	76.0%	56.0%	40.0%	36.0%	12.0%	36.0%
Home Health Aides	75.8%	63.6%	36.4%	27.3%	3.0%	30.3%
Homemakers	69.2%	69.2%	69.2%	7.7%	15.4%	30.8%
Speech-Language Pathologists	66.7%	0.0%	22.2%	33.3%	0.0%	0.0%
Occupational Therapists	62.5%	0.0%	12.5%	12.5%	0.0%	0.0%
Physical Therapists	62.5%	25.0%	0.0%	50.0%	0.0%	0.0%
Registered Nurses	56.3%	46.9%	34.4%	50.0%	15.6%	12.5%
Licensed Master Social Workers	50.0%	16.7%	0.0%	0.0%	0.0%	0.0%
Respiratory Therapists	50.0%	0.0%	25.0%	50.0%	0.0%	0.0%
Licensed Clinical Social Workers	42.9%	14.3%	0.0%	14.3%	0.0%	0.0%
Licensed Practical Nurses	31.8%	27.3%	9.1%	36.4%	4.5%	4.5%
Intake Coordinators	21.1%	15.8%	15.8%	26.3%	0.0%	10.5%
COVID-19 Compliance Officers	14.3%	7.1%	0.0%	28.6%	7.1%	7.1%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 247. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Southern Tier Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Personal Care Aides	76.0%	40.0%	24.0%	56.0%	16.0%	32.0%	52.0%
Home Health Aides	75.8%	42.4%	27.3%	63.6%	18.2%	24.2%	66.7%
Homemakers	69.2%	46.2%	38.5%	76.9%	15.4%	7.7%	76.9%
Speech-Language Pathologists	66.7%	22.2%	33.3%	33.3%	11.1%	33.3%	22.2%
Occupational Therapists	62.5%	25.0%	25.0%	37.5%	12.5%	37.5%	25.0%
Physical Therapists	62.5%	25.0%	25.0%	50.0%	12.5%	37.5%	25.0%
Registered Nurses	56.3%	21.9%	12.5%	34.4%	9.4%	37.5%	21.9%
Licensed Master Social Workers	50.0%	8.3%	16.7%	16.7%	8.3%	25.0%	8.3%
Respiratory Therapists	50.0%	25.0%	75.0%	25.0%	25.0%	50.0%	50.0%
Licensed Clinical Social Workers	42.9%	28.6%	28.6%	14.3%	14.3%	28.6%	28.6%
Licensed Practical Nurses	31.8%	18.2%	9.1%	27.3%	9.1%	31.8%	18.2%
Intake Coordinators	21.1%	10.5%	5.3%	15.8%	10.5%	15.8%	10.5%
COVID-19 Compliance Officers	14.3%	14.3%	21.4%	14.3%	14.3%	21.4%	21.4%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 248. Number of Graduations in Selected Health Care Occupational Programs in the Southern Tier Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Registered Nurses	564	625	651	654	621	57	10.1%
Licensed Practical Nurses	121	71	92	125	148	27	22.3%
Radiation Therapists	0	21	21	21	25	25	N/A
Occupational Therapists	87	93	95	103	100	13	14.9%
Health Care Administrators	42	35	36	42	51	9	21.4%
Clinical Laboratory Technicians	16	20	20	18	24	8	50.0%
Emergency Medical Technicians and Paramedics	4	5	3	40	10	6	150.0%
Physical Therapist Assistants/Aides	15	25	24	19	19	4	26.7%
Social Workers	62	47	68	73	64	2	3.2%
Speech-Language Pathologists	9	11	12	8	11	2	22.2%
Clinical Laboratory Technologists	1	1	0	1	1	0	N/A
Physical Therapists	173	173	170	167	169	-4	-2.3%
Nurse Practitioners	58	38	46	46	53	-5	-8.6%
Dental Hygienists	34	33	28	33	28	-6	-17.6%
Medical Assistants	91	101	77	49	45	-46	-50.5%

N/A, not applicable.

Source: Integrated Postsecondary Education Data System.

Table 249. Number of Licensed Individuals in Selected Health Care Occupations in the Southern Tier Region, in Alphabetical Order, 2017-2021

Profession	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	96	101	96	98	100	4	4.2%
Clinical Laboratory Technologists	326	314	284	286	281	-45	-13.8%
Dental Assistants	95	94	99	100	98	3	3.2%
Dental Hygienists	502	499	495	483	471	-31	-6.2%
Dietitians/Nutritionists, Certified	148	153	155	158	161	13	8.8%
Licensed Practical Nurses	3,073	3,028	2,913	2,956	2,865	-208	-6.8%
Nurse Practitioners	746	761	808	853	903	157	21.0%
Occupational Therapists	354	361	374	398	411	57	16.1%
Occupational Therapy Assistants	47	51	53	52	56	9	19.1%
Pharmacists	572	519	522	515	530	-42	-7.3%
Physical Therapists	531	550	571	571	600	69	13.0%
Physical Therapist Assistants	264	276	279	282	293	29	11.0%
Registered Physician Assistants	284	291	309	338	357	73	25.7%
Registered Professional Nurses	8,148	8,201	8,188	8,229	8,436	288	3.5%
Respiratory Therapists	149	154	149	151	132	-17	-11.4%
Social Workers	1,457	1,474	1,475	1,495	1,559	102	7.0%
Speech-Language Pathologists	365	365	373	379	393	28	7.7%
Total	17,157	17,192	17,143	17,344	17,646	489	2.9%

Source: New York State Education Department, Office of Professions.

Table 250. Employment Projections for Selected Health Care Occupations in the Southern Tier Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	1,650	2,530	880	53.3%	322
Speech-Language Pathologists	340	430	90	26.5%	29
Medical Assistants	700	880	180	25.7%	105
Nurse Practitioners	580	720	140	24.1%	49
Physician Assistants	310	380	70	22.6%	26
Personal Care Aides	5,360	6,480	1,120	20.9%	937
Dental Hygienists	450	540	90	20.0%	42
Dental Assistants	530	630	100	18.9%	76
Physical Therapists	440	520	80	18.2%	28
Counselors ^b	750	880	130	17.3%	96
Emergency Medical Technicians and Paramedics	720	840	120	16.7%	64
Occupational Therapists	330	380	50	15.2%	25
Dietitians and Nutritionists	200	230	30	15.0%	16
Registered Nurses	6,560	7,520	960	14.6%	472
Diagnostic Medical Sonographers	140	160	20	14.3%	10
Cardiovascular Technologists and Technicians	80	90	10	12.5%	6
Respiratory Therapists	180	200	20	11.1%	13
Medical Records and Health Information Technicians	370	410	40	10.8%	29
Social Workers	2,240	2,450	210	9.4%	249
Clinical Laboratory Technicians and Technologists	730	790	60	8.2%	53
Licensed Practical Nurses	1,910	2,010	100	5.2%	160
Pharmacy Technicians	680	700	20	2.9%	58
Nursing Assistants	3,410	3,450	40	1.2%	389
Orderlies	80	80	0	0.0%	9
Radiologic Technologists	450	450	0	0.0%	25
Surgical Technologists	180	180	0	0.0%	15
Pharmacists	480	460	-20	-4.2%	19

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.

^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

J. Western New York

The Western New York region includes the counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara.

KEY FINDINGS

Population and Health Indicators

- The health indicators studies showed poorer health in the Western New York region than statewide. The rate of total deaths per 100,000 individuals was 1,093.4 compared with the statewide rate of 793.0, while the rate of death due to heart disease per 100,000 individuals was 272.0 versus the statewide rate of 224.4. Finally, the rate of death due to cancer per 100,000 individuals was 229.6 compared to the statewide rate of 176.3 (Table 252).



Health Care Employment

- Between 2016 and 2020, hospitals in the Western New York region gained 467 jobs, home health care agencies gained 388 jobs, and ambulatory care settings (excluding home health care) gained 117 jobs. In contrast, nursing home and residential care facilities lost 1,396 jobs (Table 253).

Health Care Recruitment and Retention Difficulties^x

- In 2020, upstate^y New York's hospitals reported that clinical laboratory technologists (100.0%), RNs (92.9%), and psychiatrists (91.3%) were among the most difficult occupations to recruit. The most common reason cited for these recruitment difficulties was a shortage of worker (Tables 256 and 257).
- Psychiatrists (91.3%), RNs (69.6%), and surgical technicians (60.0%) were reported as the most difficult to retain in hospitals in upstate New York. The most common reason cited for these retention difficulties was leaving for better paying positions. Burnout was also cited as a reason for lack of RN retention (Tables 258 and 259).
- Upstate FQHCs reported that licensed clinical social workers/licensed professional counselors (22.2%) and family and internal medicine physicians (16.7%) were the most difficult to recruit in 2021. FQHCs reported that geographic location (61.1%) was the most common reason for recruitment difficulties, followed by non-competitive wages (44.4%) (Tables 260 and 261).
- Support personnel (33.3%), nurses (16.7%), and family and internal medicine physicians (11.1%) were the most difficult to retain in upstate New York FQHCs. FQHCs cited non-competitive wages (83.3%), the shortage of occupations in the area (50.0%), and a challenging patient/client population (44.4%) as the most common reasons for retention difficulties (Tables 262 and 263).

^x Recruitment and retention difficulty for hospitals, nursing homes and adult care facilities, and home health care agencies was assessed on a 5-point Likert scale, ranging from 1 for "easy" to a 5 for "difficult." The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages reported indicated those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

^y Hospital and FQHC regional survey results are divided into upstate and downstate categories. The upstate category includes the following Department of Labor regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.

- In 2020, LPNs (96.0%), newly licensed RNs (86.4%), and experienced RNs (86.4%) were the most difficult to recruit in Western New York's nursing homes and adult care facilities. A shortage of workers was the most common reason cited for these recruitment difficulties. Fear of exposure was the most common COVID-19-related reason cited for difficulty recruiting these occupations. Additionally, the unemployment incentive was also reported as a common COVID-19-related reason cited for recruitment difficulties for LPNs (52.0%) (Tables 264 and 265).
- In 2020, nursing homes and adult care facilities in Western New York reported home health aides (100.0%), newly licensed RNs (82.4%), and personal care aides (80.0%) were difficult to retain. The most common reasons cited for these retention difficulties were finding higher pay elsewhere or leaving for employment in other sectors. Fear of exposure to COVID-19 and childcare or family demands at home were the most pandemic-related reasons cited (Tables 266 and 267).
- Home health care agencies in the Western New York region reported that home health aides (94.6%), speech-language pathologists (87.5%), and personal care aides (84.4%) were the most difficult to recruit in 2020. A shortage of workers was the most common reason cited for these recruitment difficulties. Additionally, recruitment difficulties related to the pandemic for personal care aides and home health aides was attributed to state unemployment benefits (Tables 268 and 269).
- Home health aides (77.8%), personal care aides (73.3%), and homemakers (66.7%) were reported as the most difficult to retain by Western New York home health care agencies. A primary reason cited for these retention difficulties was staff finding higher pay elsewhere. Additionally, family commitment was the most common COVID-19 pandemic-related reason cited for these retention difficulties (Tables 270 and 271).

Health Care Production and Need

- The number of occupational therapists, health care administrator, and mental health counselor graduations all increased between 2016 and 2020. In contrast, there were 10 fewer radiation therapist graduations during the same period (Table 272).
- In 2021, there were 1,394 more licensed RNs in the region than in 2017. The number of NPs (389), social workers (326), and physician assistants (218) also increased during that period. In contrast, there were 433 fewer LPNs licensed to practice in the Western New York region in 2021 than in 2017 (Table 273).

Table 251. Selected Population Characteristics in the Western New York Region, 2015-2019

Population Characteristics ^a	Region		Statewide
	Number	Percent	Percent
Total population	1,382,480	N/A	N/A
Population under 100% FPL	196,432	14.7%	14.1%
Population under 200% FPL	417,921	31.2%	29.7%
Population aged birth to 17 years	283,041	20.5%	21.0%
Population aged 65 and older	249,141	18.0%	16.1%
Population female aged 15 to 44	518,225	37.5%	20.1%
Women aged 15 to 19 who had a birth in past 12 mos.	469	2.9%	2.1%
Women aged 20 to 34 who had a birth in past 12 mos.	12,246	76.8%	67.3%
Women aged 35 to 50 who had a birth in past 12 mos.	3,236	20.3%	30.6%
Black/African American, non-Hispanic	138,946	10.1%	14.3%
Hispanic/Latino	68,952	5.0%	19.0%
Asian/Pacific Islander, non-Hispanic	37,218	2.7%	8.4%
American Indian/Native Alaskan, non-Hispanic	9,096	0.7%	0.2%
Two or more/other races	26,442	1.9%	2.0%
Population with less than a high school education ^a	84,888	8.8%	13.2%
Population with a high school diploma or equivalent ^a	468,775	48.4%	41.5%
Population with an associate degree ^a	120,172	12.4%	8.7%
Population with a bachelor's degree ^a	166,594	17.2%	20.5%
Population with a master's degree or higher ^a	128,682	13.3%	16.0%
Home ownership	387,337	66.7%	53.9%

^aEducation levels and rates are based on individuals aged 25 years and older.

FPL, federal poverty level; N/A, not applicable; mos., months.

Source: US Census, American Community Survey, 5-Year Estimates, 2015-2019.

Table 252. Selected Health Indicators in the Western New York Region, 2016-2018

Health Indicator	Region		Statewide	
	Number	Rate	Number	Rate
Total deaths, per 100,000	45,348	1,093.4	466,052	793.0
Deaths due to heart disease, per 100,000	11,281	272.0	131,888	224.4
Deaths due to all cancers, per 100,000	9,541	229.6	103,820	176.3
Deaths due to diabetes, per 100,000	1,304	31.5	12,649	21.5
Total births, per 1,000 females aged 15 to 44	43,861	56.9	686,326	58.2
Teen births, per 1,000 females aged 15 to 19	2,125	16.0	22,262	12.6
Low-birthweight births, as a percent of total births	3,725	8.6	54,941	8.0
Late/no prenatal care, as a percent of total births	2,236	5.4	36,747	5.5
Infant deaths, per 1,000 live births	278	6.3	3,018	4.4
Total hospitalizations, per 10,000	465,512	1,122.4	6,778,667	1,153.3
Adult asthma hospitalizations, per 10,000	977	3.8	25,000	6.7
Rate of asthma hospitalizations, aged 25-44 per 10,000	356	3.5	8,405	5.3
Rate of asthma hospitalizations, aged 45-64 per 10,000	520	4.5	13,974	9.1
Pediatric asthma hospitalizations, per 10,000	1,399	16.5	26,999	22.1
Diabetes hospitalizations, per 10,000	8,289	20.0	116,638	19.8
CLRD hospitalizations, per 10,000	13,172	31.8	181,011	30.8
Heart disease hospitalizations, per 10,000	46,016	111.0	603,977	102.8
Total ED visits, per 10,000	1,769,307	4,265.8	24,415,312	4,154.0

CLRD, chronic lower respiratory disease; ED, emergency department.

Source: New York State Community Health Indicator Reports, 2016-2018 (3-Year Average) Note: The cancer data is an average of data from 2015-2017; diabetes hospitalization data are for those with diabetes as the primary diagnosis for hospitalization.

Note: For the methodology on how the rates were calculated, please refer to the [Appendix](#), Section A. Data Sources and Methods, Section 7, New York State Community Health Indicator Report (CHIRS), page 270.

Table 253. Number of Health Care Jobs in the Western New York Region, by Setting, 2016-2020

Setting	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Hospitals	26,376	26,457	27,829	27,796	26,843	467	1.8%
Ambulatory care (excluding home health)	25,421	25,782	26,051	26,776	25,538	117	0.5%
Nursing home and residential care facilities	15,506	15,482	15,482	15,389	14,110	-1,396	-9.0%
Home health care	5,355	5,566	6,014	6,081	5,743	388	7.2%
Total	72,658	73,287	75,376	76,042	72,234	-424	-0.6%

Source: New York State Department of Labor, Quarterly Census of Employment and Wages.

Table 254. Number of Jobs in Selected Health Care Occupations in the Western New York Region, in Alphabetical Order, 2020

Occupational Title	Employment
Cardiovascular Technologists and Technicians	290
Certified Registered Nurse Anesthetists	190
Dental Assistants	930
Dental Hygienists	870
Dietetic Technicians	N/A
Dietitians and Nutritionists	340
Emergency Medical Technicians and Paramedics	730
Home Health and Personal Care Aides	16,070
Licensed Practical Nurses	4,580
Medical and Health Services Managers	1,230
Medical Assistants	1,960
Medical Records and Health Information Technicians	1,020
Medical Secretaries	840
Mental Health Counselors	1,350
Nuclear Medicine Technologists	90
Nurses Midwives	N/A
Nurse Practitioners	1,200
Nursing Assistants	5,470
Occupational Therapists	750
Occupational Therapy Assistants	260
Orderlies	150
Pharmacists	1,560
Pharmacy Aides	210
Pharmacy Technicians	1,520
Physical Therapist Assistants/Aides	540
Physical Therapists	1,170
Physician Assistants	810
Radiation Therapists	80
Radiologic Technologists	1,140
Registered Nurses	14,320
Respiratory Therapists	490
Social Workers	1,670
Speech-Language Pathologists	990
Surgical Technologists	490

N/A, not available.

Source: New York State Department of Labor, Employment Statistics, Occupational Wage and Employment Estimates (OES).

Table 255. Average Annual Salary by Setting in Selected Health Care Occupations in the Western New York Region, in Alphabetical Order, 2021

Occupational Title	Average Annual Salary
Cardiovascular Technologists and Technicians	\$62,300
Certified Registered Nurse Anesthetists	\$178,160
Dental Assistants	\$39,130
Dental Hygienists	\$59,800
Dietetic Technicians	N/A
Dietitians and Nutritionists	\$64,520
Health Care Social Workers	\$50,210
Home Health and Personal Care Aides	\$29,020
Licensed Practical Nurses	\$46,260
Medical and Health Services Managers	\$114,410
Medical Assistants	\$36,970
Medical Records and Health Information Technicians	\$45,820
Medical Secretaries	\$37,090
Mental Health and Substance Abuse Social Workers	\$54,630
Mental Health Counselors	\$45,020
Nuclear Medicine Technologists	\$83,950
Nurse Practitioners	\$107,300
Nurses Midwives	\$119,290
Nursing Assistants	\$33,610
Occupational Therapists	\$75,190
Occupational Therapy Assistants	\$48,570
Orderlies	\$33,240
Pharmacists	\$131,460
Pharmacy Aides	\$30,070
Pharmacy Technicians	\$33,580
Physical Therapist Assistants	\$47,730
Physical Therapists	\$79,450
Physician Assistants	\$108,400
Speech-Language Pathologists	\$72,790
Surgical Technologists	\$58,760

N/A, not available.

Source: New York State Department of Labor, Occupational Employment Statistics.

Table 256. Recruitment Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Clinical Laboratory Technologists	100.0%	70.7%	31.7%	2.4%
Registered Nurses	92.9%	92.5%	42.5%	5.0%
Respiratory Therapists	87.5%	78.0%	29.3%	0.0%
Clinical Laboratory Technicians	82.9%	48.8%	22.0%	4.9%
Internists (General)	82.1%	52.6%	5.3%	10.5%
Licensed Practical Nurses	78.9%	57.5%	25.0%	2.5%
Surgical Technicians	78.9%	47.5%	20.0%	2.5%
Obstetricians/Gynecologists	72.0%	50.0%	0.0%	5.3%
Nurse Practitioners (excluding Psychiatric NPs)	70.6%	33.3%	2.6%	5.1%
Family and General Physicians	70.0%	59.5%	5.4%	10.8%
Physician Assistants	69.0%	25.0%	2.8%	2.8%
Infection Preventionists	54.8%	35.9%	0.0%	0.0%
Pharmacists	42.9%	17.1%	9.8%	0.0%
Patient Care Techs/CNAs	41.5%	30.0%	30.0%	0.0%
Cardiovascular Technicians	39.3%	23.1%	7.7%	0.0%
Pharmacy Technicians	17.9%	19.5%	22.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 257. Recruitment Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 258. Retention Difficulties for Selected Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty						
		Left for a Better Paying Position	Left for Job Outside of Health Care	Family Commitments	Retirement	Burnout	Workplace Violence	Fear of Exposure to COVID-19
Registered Nurses	69.6%	47.8%	34.8%	15.2%	21.7%	43.5%	0.0%	23.9%
Surgical Technicians	60.0%	37.1%	22.9%	5.7%	5.7%	25.7%	0.0%	2.9%
Licensed Practical Nurses	53.8%	30.8%	30.8%	12.8%	5.1%	38.5%	0.0%	20.5%
Clinical Laboratory Technologists	53.3%	0.0%	2.2%	11.1%	13.3%	0.0%	0.0%	13.3%
Respiratory Therapists	52.3%	22.7%	18.2%	11.4%	2.3%	34.1%	0.0%	4.5%
Patient Care Techs/CNAs	46.5%	41.9%	23.3%	7.0%	2.3%	16.3%	0.0%	39.5%
Clinical Laboratory Technicians	45.9%	2.7%	2.7%	5.4%	5.4%	0.0%	0.0%	32.4%
Surgeons (General)	41.4%	6.9%	0.0%	0.0%	34.5%	0.0%	0.0%	0.0%
Pharmacy Technicians	35.9%	7.7%	5.1%	5.1%	0.0%	2.6%	0.0%	0.0%
Infection Preventionists	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiovascular Technicians	35.7%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Nurse Practitioners (excluding Psychiatric NPs)	15.2%	18.2%	0.0%	6.1%	6.1%	3.0%	0.0%	0.0%
Physician Assistants	14.3%	11.4%	0.0%	5.7%	2.9%	2.9%	0.0%	0.0%
Pharmacists	10.3%	5.1%	0.0%	2.6%	2.6%	0.0%	0.0%	0.0%
Family and General Physicians	3.4%	6.9%	0.0%	6.9%	41.4%	3.4%	0.0%	0.0%

CNAs, Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 259. Retention Difficulties for Behavioral Health Occupations in Hospitals, Upstate New York, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulty		
		Shortage of Workers	Non-competitive Salaries	Non-competitive Benefits
Psychiatrists	91.3%	70.0%	20.0%	10.0%
Psychologists	69.6%	77.8%	11.1%	11.1%
Licensed Clinical Social Workers	39.5%	59.3%	29.6%	11.1%
Licensed Master Social Workers	36.1%	60.0%	26.7%	13.3%
Certified Alcohol and Substance Abuse Counselors	34.5%	90.0%	10.0%	0.0%
Licensed Mental Health Counselors	17.9%	50.0%	16.7%	33.3%
Substance Abuse and Behavioral Health Counselors	12.0%	66.7%	16.7%	16.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Hospital survey results for regions are divided into upstate and downstate categories. Please see the list of counties for each category on [page 272](#).

Table 260. Recruitment Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Recruitment Difficulty
Licensed Clinical Social Workers/Licensed Professional Counselors	22.2%
Family Physicians/Internal Medicine	16.7%
Nurses	11.1%
Dentists	11.1%
Psychiatrists	11.1%
Obstetricians/Gynecologists	5.6%
Dental Hygienists	5.6%
Management Personnel	5.6%
IT Personnel	5.6%
Support Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 261. Recruitment Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Recruitment Difficulties	Percentage of Respondents Indicating Recruitment Difficulty
Geographic location	61.1%
Wages not competitive	44.4%
Insufficient educational pipeline in the area	38.9%
Challenging patient/client population	38.9%
Limited benefits	11.1%
Office conditions (eg, space limitations, outdated facilities)	11.1%
Lack of clinical support personnel	11.1%
Limited job security due to grant funding or other issue	5.6%
High clinical/case load requirements	5.6%
Lack of peers/professional network in area	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 262. Retention Difficulties for Selected Occupations in FQHCs, Upstate New York, 2021

Occupational Title	Percentage of Respondents Indicating Retention Difficulty
Support Personnel	33.3%
Nurses	16.7%
Family Physicians/Internal Medicine	11.1%
Obstetricians/Gynecologists	11.1%
Licensed Clinical Social Workers/Licensed Professional Counselors	11.1%
Dentists	5.6%
Fiscal and Billing Personnel	5.6%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 263. Retention Difficulty Reasons for Selected Occupations in FQHCs, Upstate New York, 2021

Reasons for Retention Difficulties	Percentage of Respondents Indicating Retention Difficulty
Wages not competitive	83.3%
General shortage of occupation(s) in area	50.0%
Challenging patient/client population	44.4%
High clinical/case load requirements	38.9%
Geographic location	22.2%
Lack of clinical support personnel	16.7%
Insufficient educational pipeline in the area	11.1%
Limited benefits	11.1%
Limited job security due to grant funding or other issue	0.0%
Lack of peers/professional network in area	0.0%
Office conditions (eg, space limitations, outdated facilities)	0.0%

Source: Community Health Care Association of New York State, Strategic Planning Survey, 2021.

Note: FQHC regional survey data is reported in upstate and downstate categories. Please refer to the Appendix, Section A. Data Sources and Methods, Section 1, in Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey) on [pages 269-270](#).

Table 264. Recruitment Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		General Shortage of Workers	Shortage of Qualified Workers	Non-competitive Salaries	Non-competitive Benefits
Licensed Practical Nurses	96.0%	76.0%	36.0%	24.0%	12.0%
Registered Nurses (Newly Licensed)	86.4%	77.3%	36.4%	27.3%	4.5%
Registered Nurses (Experienced)	86.4%	72.7%	31.8%	27.3%	9.1%
CNAs and Temps	75.9%	33.3%	13.3%	20.0%	13.3%
Home Health Aides	61.5%	61.5%	30.8%	7.7%	7.7%
Personal Care Aides	61.1%	38.9%	16.7%	16.7%	5.6%
Infection Preventionist Practitioners	57.1%	35.7%	14.3%	7.1%	14.3%
Speech-Language Pathologists	56.3%	43.8%	18.8%	0.0%	0.0%
Licensed Clinical Social Workers	46.7%	20.0%	6.7%	6.7%	0.0%
Occupational Therapists	41.2%	41.2%	11.8%	5.9%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 265. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Recruitment Difficulties			
		Fear of Exposure to COVID-19	COVID Testing of Staff and if Positive, Quarantine Reduced Available Staff	Unemployment Incentive	Lack of Online Training Certification
Licensed Practical Nurses	96.0%	60.0%	44.0%	52.0%	16.0%
Registered Nurses (Newly Licensed)	86.4%	50.0%	36.4%	31.8%	4.5%
Registered Nurses (Experienced)	86.4%	45.5%	36.4%	31.8%	9.1%
CNAs and Temps	75.9%	33.3%	26.7%	40.0%	13.3%
Home Health Aides	61.5%	38.5%	53.8%	61.5%	23.1%
Personal Care Aides	61.1%	33.3%	38.9%	44.4%	27.8%
Infection Preventionist Practitioners	57.1%	21.4%	28.6%	21.4%	14.3%
Speech-Language Pathologists	56.3%	6.3%	12.5%	6.3%	6.3%
Licensed Clinical Social Workers	46.7%	20.0%	13.3%	6.7%	6.7%
Occupational Therapists	41.2%	17.6%	17.6%	11.8%	5.9%
Physical Therapists	41.2%	17.6%	17.6%	11.8%	5.9%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 266. Retention Difficulties for Selected Occupations in Nursing Homes and Adult Care Facilities, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Staff Found Higher Pay Elsewhere	Staff Left for Other Employment Sectors	Paperwork and Regulatory Burdens	Retirement
Home Health Aides	100.0%	71.4%	42.9%	14.3%	0.0%
Registered Nurses (Newly Licensed)	82.4%	47.1%	23.5%	11.8%	0.0%
Personal Care Aides	80.0%	40.0%	40.0%	10.0%	0.0%
CNAs and Temps	75.9%	44.8%	55.2%	13.8%	3.4%
Licensed Practical Nurses	70.8%	45.8%	45.8%	12.5%	4.2%
Registered Nurses (Experienced)	70.6%	35.3%	35.3%	11.8%	5.9%
Nurse Directors/Managers	52.9%	17.6%	17.6%	17.6%	5.9%
Infection Preventionist Practitioners	40.0%	0.0%	10.0%	0.0%	0.0%
Licensed Master Social Workers	33.3%	11.1%	0.0%	0.0%	0.0%
MDS Coordinators	30.8%	0.0%	7.7%	7.7%	15.4%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 267. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Nursing Homes and Adult Care Facilities, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons for Retention Difficulties			
		Executive Order Waiver Lapses So Unable to Stay Employed	Fear of Exposure to COVID-19	Childcare or Family Demands at Home	Conversion to Another Position Based on Education
Home Health Aides	100.0%	14.3%	71.4%	85.7%	28.6%
Registered Nurses (Newly Licensed)	82.4%	0.0%	41.2%	29.4%	0.0%
Personal Care Aides	80.0%	0.0%	70.0%	60.0%	10.0%
CNAs and Temps	75.9%	10.3%	55.2%	48.3%	3.4%
Licensed Practical Nurses	70.8%	0.0%	50.0%	50.0%	4.2%
Registered Nurses (Experienced)	70.6%	0.0%	41.2%	29.4%	0.0%
Nurse Directors/Managers	52.9%	0.0%	29.4%	11.8%	11.8%
Infection Preventionist Practitioners	40.0%	0.0%	10.0%	10.0%	0.0%
Licensed Master Social Workers	33.3%	0.0%	11.1%	0.0%	11.1%
MDS Coordinators	30.8%	0.0%	15.4%	7.7%	0.0%

CNAs, Certified Nursing Assistants; Temps, Temporary Certified Nursing Assistants; MDS, Minimal Data Set.

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Table 268. Recruitment Difficulties for Home Health Care Agencies in Selected Health Occupations, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulties	Reasons for Recruitment Difficulties			
		Shortage of Workers	Non-Competitive Salaries	Shortage of Qualified Workers	Non-Competitive Benefits
Home Health Aides	94.6%	67.6%	45.9%	32.4%	24.3%
Speech-Language Pathologists	87.5%	62.5%	12.5%	25.0%	0.0%
Personal Care Aides	84.4%	78.1%	40.6%	43.8%	21.9%
Occupational Therapists	75.0%	50.0%	25.0%	25.0%	12.5%
Respiratory Therapists	71.4%	42.9%	14.3%	28.6%	0.0%
Licensed Clinical Social Workers	69.2%	61.5%	30.8%	15.4%	23.1%
Licensed Master Social Workers	66.7%	58.3%	33.3%	16.7%	25.0%
Licensed Practical Nurses	65.4%	57.7%	11.5%	50.0%	34.6%
Physical Therapists	62.5%	50.0%	12.5%	25.0%	0.0%
Registered Nurses	62.1%	51.7%	13.8%	41.4%	41.4%
Homemakers	50.0%	50.0%	16.7%	29.2%	12.5%
Intake Coordinators	37.5%	29.2%	8.3%	20.8%	8.3%
COVID-19 Compliance Officers	23.1%	30.8%	15.4%	7.7%	7.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 269. Recruitment Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Recruitment Difficulties				
		Virtual Training and On-Boarding Were Insufficient to Meet Need	Fear of Exposure to COVID-19	Family Commitments	State Unemployment Benefits Provided Incentive to Remain Unemployed	Lack Of Resources to Meet Job Requirements in Transition
Home Health Aides	94.6%	8.1%	51.4%	27.0%	78.4%	18.9%
Speech-Language Pathologists	87.5%	12.5%	25.0%	0.0%	25.0%	25.0%
Personal Care Aides	84.4%	28.1%	59.4%	37.5%	87.5%	21.9%
Occupational Therapists	75.0%	12.5%	25.0%	0.0%	25.0%	25.0%
Respiratory Therapists	71.4%	14.3%	14.3%	0.0%	14.3%	14.3%
Licensed Clinical Social Workers	69.2%	30.8%	7.7%	15.4%	23.1%	7.7%
Licensed Master Social Workers	66.7%	25.0%	8.3%	16.7%	25.0%	16.7%
Licensed Practical Nurses	65.4%	11.5%	23.1%	7.7%	38.5%	15.4%
Physical Therapists	62.5%	12.5%	25.0%	0.0%	25.0%	25.0%
Registered Nurses	62.1%	17.2%	20.7%	17.2%	31.0%	17.2%
Homemakers	50.0%	12.5%	37.5%	33.3%	66.7%	8.3%
Intake Coordinators	37.5%	4.2%	12.5%	4.2%	29.2%	4.2%
COVID-19 Compliance Officers	23.1%	23.1%	15.4%	0.0%	23.1%	7.7%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 270. Retention Difficulties for Home Health Care Agencies in Selected Health Occupations, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties				
		Staff Found Higher Pay Elsewhere	Staff Left for Other Sectors	Paperwork and Regulatory Burdens	Retirement	Termination Due to Non-Satisfactory Performance
Home Health Aides	77.8%	52.8%	27.8%	30.6%	0.0%	38.9%
Personal Care Aides	73.3%	76.7%	36.7%	36.7%	6.7%	56.7%
Homemakers	66.7%	73.3%	26.7%	13.3%	0.0%	20.0%
Licensed Practical Nurses	63.2%	63.2%	26.3%	42.1%	5.3%	5.3%
Speech-Language Pathologists	60.0%	40.0%	0.0%	40.0%	0.0%	0.0%
Licensed Master Social Workers	55.6%	55.6%	33.3%	33.3%	0.0%	0.0%
Registered Nurses	53.8%	53.8%	19.2%	38.5%	11.5%	0.0%
Licensed Clinical Social Workers	50.0%	62.5%	37.5%	50.0%	0.0%	0.0%
Intake Coordinators	44.4%	27.8%	16.7%	27.8%	0.0%	11.1%
Respiratory Therapists	33.3%	66.7%	0.0%	33.3%	0.0%	0.0%
Occupational Therapists	25.0%	25.0%	0.0%	25.0%	0.0%	0.0%
Physical Therapists	20.0%	40.0%	0.0%	40.0%	0.0%	0.0%
COVID-19 Compliance Officers	16.7%	16.7%	25.0%	33.3%	0.0%	8.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 271. Retention Difficulties Related to the COVID-19 Pandemic for Selected Occupations in Home Health Care Agencies, Western New York Region, 2020

Occupational Title	Percentage of Respondents Indicating Difficulty	Reasons For Retention Difficulties					
		Scheduling Challenges	Too Few Available Hours (PT Only)	Family Commitments	Lack of Resources to Meet Job Requirements in Transition	Paperwork or Other Regulatory Burdens Associated with Pandemic	Transportation Issues (Lack of, Fear of Exposure on Mass Transit)
Home Health Aides	77.8%	47.2%	27.8%	50.0%	19.4%	25.0%	36.1%
Personal Care Aides	73.3%	50.0%	23.3%	46.7%	23.3%	23.3%	46.7%
Homemakers	66.7%	46.7%	26.7%	60.0%	6.7%	6.7%	40.0%
Licensed Practical Nurses	63.2%	26.3%	5.3%	31.6%	26.3%	31.6%	26.3%
Speech-Language Pathologists	60.0%	0.0%	40.0%	0.0%	40.0%	40.0%	20.0%
Licensed Master Social Workers	55.6%	0.0%	11.1%	22.2%	33.3%	11.1%	0.0%
Registered Nurses	53.8%	3.8%	7.7%	15.4%	26.9%	23.1%	7.7%
Licensed Clinical Social Workers	50.0%	12.5%	12.5%	25.0%	37.5%	12.5%	12.5%
Intake Coordinators	44.4%	5.6%	5.6%	27.8%	11.1%	5.6%	16.7%
Respiratory Therapists	33.3%	0.0%	66.7%	0.0%	33.3%	33.3%	33.3%
Occupational Therapists	25.0%	0.0%	12.5%	0.0%	25.0%	25.0%	0.0%
Physical Therapists	20.0%	0.0%	20.0%	0.0%	40.0%	40.0%	0.0%
COVID-19 Compliance Officers	16.7%	16.7%	33.3%	33.3%	8.3%	25.0%	8.3%

Source: Center for Health Workforce Studies, Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey).

Note: Due to cell size issues, data reporting for the home health care surveys from the Finger Lakes and Western New York regions were combined.

Table 272. Number of Graduations in Selected Health Care Occupational Programs in the Western New York Region, Ranked by Largest Increase in Number, 2016-2020

Occupational Program	2016	2017	2018	2019	2020	Change Between 2016 and 2020	
						Number	Percent
Occupational Therapists	191	211	219	225	242	51	26.7%
Health Care Administrators	59	87	69	104	108	49	83.1%
Mental Health Counselors	164	141	116	138	212	48	29.3%
Dietitians	48	86	67	80	88	40	83.3%
Nurse Practitioners	88	104	105	140	127	39	44.3%
Licensed Practical Nurses	409	367	376	392	437	28	6.8%
Physical Therapists	151	205	166	180	177	26	17.2%
Physician Assistants	122	134	128	123	138	16	13.1%
Occupational Therapy Assistants	40	35	54	42	54	14	35.0%
Emergency Medical Technicians and Paramedics	23	20	15	38	35	12	52.2%
Pharmacists	192	172	186	196	200	8	4.2%
Clinical Laboratory Technologists	25	30	26	26	30	5	20.0%
Registered Nurses	1,192	1,130	1,143	1,235	1,197	5	0.4%
Respiratory Therapists	23	24	21	25	28	5	21.7%
Physical Therapist Assistants/Aides	38	45	50	47	42	4	10.5%
Clinical Laboratory Technicians	9	18	13	16	12	3	33.3%
Nutritionists	18	17	19	21	20	2	11.1%
Speech-Language Pathologists	85	72	75	82	87	2	2.4%
Nurse Anesthetists	16	12	13	17	15	-1	-6.3%
Social Workers	372	358	392	393	371	-1	-0.3%
Nuclear Medicine Technologists	9	11	12	9	7	-2	-22.2%
Dental Assistants	23	22	22	20	20	-3	-13.0%
Dietetic Technicians	5	1	2	1	2	-3	-60.0%
Dental Hygienists	53	49	53	45	48	-5	-9.4%
Radiation Therapists	64	65	63	67	54	-10	-15.6%
Medical Assistants	134	126	136	114	101	-33	-24.6%

Source: Integrated Postsecondary Education Data System.

Table 273. Number of Licensed Individuals in Selected Health Care Occupations in the Western New York Region, in Alphabetical Order, 2017-2021

Profession	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	194	193	182	190	179	-15	-7.7%
Clinical Laboratory Technologists	935	877	859	888	885	-50	-5.3%
Dental Assistants	248	213	241	252	251	3	1.2%
Dental Hygienists	1,189	1,147	1,192	1,214	1,201	12	1.0%
Dietitians/Nutritionists, Certified	380	378	398	400	424	44	11.6%
Licensed Practical Nurses	7,188	6,659	6,964	6,877	6,755	-433	-6.0%
Nurse Practitioners	1,583	1,553	1,680	1,812	1,972	389	24.6%
Occupational Therapists	970	977	1,047	1,088	1,132	162	16.7%
Occupational Therapy Assistants	540	516	538	544	526	-14	-2.6%
Pharmacists	1,941	1,804	1,856	1,858	1,927	-14	-0.7%
Physical Therapists	1,538	1,530	1,646	1,697	1,751	213	13.8%
Physical Therapist Assistants	499	498	530	535	533	34	6.8%
Registered Physician Assistants	1,098	1,033	1,152	1,248	1,316	218	19.9%
Registered Professional Nurses	20,569	19,992	21,088	21,312	21,963	1,394	6.8%
Respiratory Therapists	530	515	529	538	533	3	0.6%
Social Workers	2,407	2,358	2,527	2,614	2,733	326	13.5%
Speech-Language Pathologists	1,252	1,205	1,270	1,311	1,329	77	6.2%
Total	43,061	41,448	43,699	44,378	45,410	2,349	5.5%

Source: New York State Education Department, Office of Professions.

Note: Nurse practitioners are registered nurses and are certified in 1 or more 16 specialties.

Table 274. Employment Projections for Selected Health Care Occupations in the Western New York Region, Ranked by Largest Increase in Percentage, 2018-2028

Occupation	2018	2028	Change Between 2018 and 2028		Average Annual Openings ^a
			Number	Percent	
Home Health Aides	3,410	4,960	1,550	45.5%	624
Physician Assistants	680	970	290	42.6%	75
Nurse Practitioners	1,060	1,500	440	41.5%	112
Personal Care Aides	13,030	18,410	5,380	41.3%	2,730
Occupational Therapy Assistants	290	400	110	37.9%	48
Physical Therapists	1,400	1,900	500	35.7%	119
Speech-Language Pathologists	1,110	1,480	370	33.3%	106
Medical Assistants	1,930	2,510	580	30.1%	303
Diagnostic Medical Sonographers	310	390	80	25.8%	28
Nurse Anesthetists	390	490	100	25.6%	32
Respiratory Therapists	520	650	130	25.0%	43
Dental Assistants	1,270	1,580	310	24.4%	190
Dental Hygienists	1,230	1,530	300	24.4%	123
Occupational Therapists	780	970	190	24.4%	68
Emergency Medical Technicians and Paramedics	890	1,100	210	23.6%	87
Counselors ^b	2,510	3,010	500	19.9%	334
Registered Nurses	14,690	17,490	2,800	19.1%	1,139
Medical Records and Health Information Technicians	1,060	1,250	190	17.9%	92
Licensed Practical Nurses	5,320	6,230	910	17.1%	530
Social Workers	4,180	4,860	680	16.3%	508
Dietitians and Nutritionists	320	370	50	15.6%	26
Radiation Therapists	130	150	20	15.4%	9
Nursing Assistants	7,720	8,880	1,160	15.0%	1,045
Cardiovascular Technologists and Technicians	270	310	40	14.8%	20
Radiologic Technologists	1,100	1,260	160	14.5%	81
Surgical Technologists	530	600	70	13.2%	52
Clinical Laboratory Technicians and Technologists	1,230	1,360	130	10.6%	95
Nuclear Medicine Technologists	120	130	10	8.3%	8
Pharmacy Technicians	1,530	1,620	90	5.9%	136
Pharmacists	1,640	1,620	-20	-1.2%	71

^aAnnual openings reflect creation of new positions in the occupation and replacement for those retiring or otherwise leaving the profession.
^bCounselors include SOC codes 21-1015, rehabilitation counselors, and 21-1018 substance abuse, behavioral health, and mental health counselors

Source: New York State Department of Labor, Long-Term Occupation Projections, 2018-2028.

IV. APPENDIX

A. Data Sources and Methods

The following are descriptors of data sources used in this report. Where appropriate, the methods used for calculating the rates in this report are also described.

Information provided in this report is statewide or by New York State Department of Labor (NYSDOL) regions. A list of counties and a map depicting the NYSDOL regions are presented on pages 8 and 272, as well as on each regional profile page.

Data sources include:

1. Center for Health Workforce Studies

- New York State Registered Nurse (RN) Graduations

CHWS surveys RN education programs in New York annually to describe trends in the production of RNs in the state. The 2021 survey included questions about applications, acceptances, and perspectives on the local job market.

- Surveys of Human Resources Directors in Health Care (Recruitment and Retention Survey)

CHWS, in conjunction with statewide and regional provider organizations, conducts annual surveys of human resources directors from home health care agencies, hospitals, and nursing homes across New York State. The surveys asked about the professions and occupations that pose the greatest recruitment and retention problems, as well as emerging care coordination titles and employment trends in 2020. Recruitment and retention difficulties were assessed on a 5-point Likert scale, ranging from 1 for “easy” to a 5 for “difficult.” The percentages reported indicated those facilities that reported either a 4 or 5 on recruitment and/or retention issues. The provider organizations that CHWS collaborated with on these surveys included:

- Association on Aging in New York
- Empire State Association of Assisted Living
- Home Care Association of New York State, Inc.
- Hospital Association of New York State
- LeadingAge New York
- New York State Association of Health care Providers, Inc.
- New York State Center for Assisted Living
- New York State Health Facility Association

Home health care agencies and hospitals serve patients in multiple counties and may serve more than 1 county. In these cases, the counties may be located in different NYSDOL regions. Consequently, information on recruitment and retention for these settings was reported in each region where services were provided or sites were located. Additionally, in instances where total responses for a region (either by setting or by occupation) were less than 5, no information is provided, or regions were combined.

The Community Health Center Association of New York (CHCANYS) shared with CHWS the survey data results collected from their FQHC members in June 2021, and those data are shared in this report with permission. The survey was developed by CHCANYS, which resulted in slightly different questionnaire components than the surveys administered by CHWS, including how occupations were defined. FQHCs were asked to identify the top 3 occupations that were the most difficult to recruit for and/or retain within their community health centers. The percentages given indicate those community health centers that reported the profession or occupation in the top 3 most difficult to recruit for and/or retain.

2. New York State Department of Labor

- Quarterly Census of Employment and Wages (QCEW, formerly known as ES-202)

Counts of Jobs

Data from 2016 to 2020 were used to describe regional changes in health care employment by setting. A number of events potentially affected the information reported, including closures, mergers, and expansions of health facilities. Consequently, large changes in jobs in specific health sectors (i.e., hospitals, nursing homes, or home health care) may reflect changes in ownership or the service delivery system rather than changes in the workforce. Additionally, more recent changes in jobs and employment such as temporary or permanent layoffs or retirements due to the COVID-19 pandemic may not be reflected in the counts. Finally, addresses of survey respondents could not be determined for certain businesses. As a result, summing the regions' total will not add up to the statewide total. For more information about the QCEW data, please visit the QCEW Technical Notes page: <https://labor.ny.gov/stats/lstechqcew.shtm>

When reviewing the counts of jobs data, please keep in mind the following:

- These counts include full-time and part-time positions. Thus, 1 person could be working more than 1 job. In other words, there is not a one-to-one match of individuals employed to number of jobs reported in this report.
 - Nurse midwives is the title of the occupation used by the United States Bureau of Labor Statistics (BLS) and NYSDOL. However, in New York, a midwife does not have to be a nurse. The counts of jobs of nurse midwives may not be reflective of the actual midwives in an area.
 - To protect individual privacy, if counts of a job in any given area are less than 3 reporting institutions, we do not report the actual number of jobs (per NYDOL).
- Occupational Employment Statistics (OES)

The OES wage estimates are based on responses from 6 semi-annual panels collected between November 2017 and May 2020. Wages were then updated to the first quarter of 2021 by making cost-of-living adjustments. These wage estimates include both part-time and full-time employees, as well, as part-time consultants. Part-time employees may also earn lower average salaries. The Department of Labor does not report salaries in a region with fewer than 3 institutions in a particular setting.

- 2018-2028 Statewide and Regional Long-Term Occupation Projections

NYSDOL develops projections for the state by NYSDOL region, which are both prepared for the 2018-2028 period. Annual job openings reflect both newly created positions in the occupation and turnover of workers in existing positions who retire, change jobs, or leave the occupation. Occupations with a

small increase in the number of new jobs but a high number of annual openings typically reflect significant annual turnover rather than expansion of the occupation. Limitations to these projections include unanticipated external factors such as recessions, change in scopes or work or education for specific occupational titles, changes in state and/or federal reimbursement, and/or advancements in technology.

4. US Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS)

The IPEDS system is a collection of interrelated surveys conducted annually by the U.S. Department of Education, National Center for Education Statistics. IPEDS gathers information from every college, university, and technical and/or vocational institution that participates in the federal student financial aid program. The data from school year 2015/2016 (hereafter referred to as 2016) to school year 2019/2020 (hereafter referred to as 2020) were used to describe the number of new graduates each year potentially entering health occupations. These data were collected from two- and four-year universities, vocational schools, and technical schools. The number of graduations were displayed and aggregated by the NYDOL regions. These data do not reflect missing data or individuals trained through on-the-job training programs. Graduations may include entry-level degrees and those that lead to licensure. For example, social workers include those graduating with bachelor's degrees and those graduating with master's degrees--a requirement for licensure in New York State. The category of social worker includes CIPS codes 44.0701 and 51.1503. Health care administrators include CIPS codes 51.0701, 51.0702, 51.0718, and 51.2211. Nurse practitioners include CIPS codes 51.3803, 51.3805, 51.3806, 51.3809, 51.3810, 51.3819, 51.3821, and 51.3828.

5. New York State Education Department (NYSED) Licensure Data

Licensure data from 2017-2021 presented in this report reflects counts of licensed health care professionals in New York. Data on licenses are available from NYSED on the number of individuals licensed in a health care profession. NYSED licenses more than 40 health care professions, and individuals must secure a New York license before practicing in 1 of these health care professions. Each year in April, CHWS downloads these data.

Licensure data in a health care profession represent the upper limit of the number of individuals in New York who can practice in a profession. It is important to recognize the limitations of these data. Some individuals who are licensed in a health care profession may be working less than full-time, not at all in the profession, or may be working in the profession but in another state.² Licensure data, however, can provide valuable information on major trends in the supply of health care professionals in the state.

In reviewing licensure data, please be aware that:

- Social workers (SWs) are licensed in New York as either licensed clinical social workers (LCSWs) or licensed master social workers (LMSWs). Although state and federal labor department data sources provide statistics for LCSWs and LMSWs combined collectively as social workers, the licensing distinction is reflected for the purposes of understanding recruitment and retention difficulties.

² The total listed in the report includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, whereas tables of licensees by region include only those individuals with an address in the region.

- Nurse practitioners are licensed as RNs but are certified in 1 or more of 16 NP specialties. Information presented in the report at the regional level represents a duplicated count of NPs across all specialties. The statewide count, however, is unduplicated.
- Counts of health care professionals by region are based on the mailing address in the licensure file, which could be either a home or a practice location. Additionally, certain individuals in the file may be licensed to practice in New York but live in another state.

6. US Census Bureau, American Community Survey

The American Community Survey (ACS) is conducted each year and is used to provide population estimates. The 2015-2019 5-year Estimates from the ACS were used to describe selected population characteristics by NYSDOL regions. The population characteristics included total population, age structure, poverty, race/ethnicity, and education level. The education levels and rates were based on individuals aged 25 years and older. The following ACS categories were combined into 1 category for this report:

- Category "Population with Less than a High School Diploma" data was combined from "Total population aged 25 and older with less than 9th grade education" and "Total population aged 25 and older with 9th to 12th grade education, no diploma."
- Category "Population with a high school diploma or equivalent" was combined from "Total population 25 years and older who is a high school graduate (includes equivalency)" and "Total population aged 25 years and older, some college no degree."

7. New York State Department of Health

- New York State Community Health Indicator Report (CHIRS)

These data from 2016-2018 (2015-2017 for cancer), were used to describe the health of the population by NYSDOL regions. The health indicators were obtained from Community Health Indicator Reports (CHIRS) and includes information on deaths, births, and hospitalizations. Both counts and rates are reported for the average of 3 years. The rates for calculating these health indicators are as follows:

- Infant death rates are reported per 1,000 live births.
- Total birth rates are reported per 1,000 females aged 15 to 44 years.
- Teen birth rates are reported per 1,000 females aged 15 to 19 years.
- Low-birthweight rates and percentage of late/no prenatal care are reported per 100 live births. Percent of late/no prenatal care was based on those births where information was provided and not on total births.
- All deaths are reported per 100,000 total population.
- Rates per 10,000 for adult asthma hospital admissions are based on population aged 18 to 64 years.
- Rates per 10,000 for pediatric asthma hospital admissions are based on population aged birth to 17 years.
- All other rates per 10,000 for hospitalizations and emergency department (ED) visits are based on the total population.

B. Terminology

The settings used in this report are based on the North American Industry Classification System (NAICS) for the health care sector. The breakdown of settings within the health care sector is as follows:

- Hospitals (public and private)
- Nursing and personal care facilities (excluding residential, mental health and substance abuse facilities, and other residential care facilities)
- Home health care
- Ambulatory care settings (excluding home health care), including:
 - Medical and diagnostic laboratories
 - Offices and clinics of doctors of medicine
 - Offices and clinics of dentists
 - Offices and clinics of other health practitioners
 - Outpatient care centers; and
 - Other ambulatory health services.

This classification scheme provides standardization among the data sets presented, but it has some limitations. By limiting the analyses to the NAICS health care services industries, health care workers in hospital-sponsored ambulatory care sites may be included in hospital employment counts. In addition, health care professionals in industries outside of the settings listed, such as those working in schools, insurance firms, or who are self-employed, are excluded from the health care sector counts.

Historically, OES groups occupations by category. These occupational categories also have limitations. For example, prior to 2010, registered nursing made no distinction between NPs, nurse midwives, and RNs. Additionally, nursing aides, orderlies, and attendant's occupational category includes multiple job titles, levels of training, and certifications.

There are some job titles in a health care setting that may not necessarily reflect similar OES occupational classifications, and this may cause some problems in reporting. For example, confusion may result from the difference in defining a home health aide as any individual providing services in the home or as an individual who completes home health aide certification requirements.

Throughout this report some abbreviations are used. The following is a list of the most common.

CNA	certified nursing aide
FPL	federal poverty level
FQHC	federally qualified health center
LCSW	licensed clinical social workers
LMSW	licensed master social workers
LPN	licensed practical nurses
MDS (coordinators)	minimum data set (coordinators)
NP	nurse practitioners
RN	registered nurses

C. Geographic Areas

For purposes of this report, NYSDOL regions are used as described below and as depicted in Figure 1.

The NYSDOL regions (Figure 1) used in this report are:

- Capital District: The counties of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington.
- Central New York: The counties of Cayuga, Cortland, Madison, Onondaga, and Oswego.
- Finger Lakes: The counties of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates.
- Hudson Valley: The counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester.
- Long Island: The counties of Nassau and Suffolk.
- Mohawk Valley: The counties of Fulton, Herkimer, Montgomery, Oneida, Otsego, and Schoharie.
- New York City: The counties of Bronx, Kings (Brooklyn), New York (Manhattan), Queens, and Richmond (Staten Island).
- North Country: The counties of Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and St. Lawrence.
- Southern Tier: The counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins.
- Western New York: The counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara.

For the purpose of this report, the downstate category includes the NYSDOL regions of New York City and Long Island. The upstate category includes the following NYSDOL regions: Capital District, Central New York, Finger Lakes, Hudson Valley, Mohawk Valley, North Country, Southern Tier, and Western New York.