

# Health Worker Recruitment and Retention in New York City:

What Are the Issues? What Are the Strategies?





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**December 2022**



# CHWS

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# INTRODUCTION

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The health workforce is a vital component of New York State's health care delivery system. Efforts to expand access to care, improve the quality of care, or address health disparities depend on the availability of a diverse, well-trained, and adequately sized health workforce. Many states, including New York State (NYS), face the ongoing challenge of health worker maldistribution. For instance, while the overall supply of health workers appears to be adequate, these workers are not evenly distributed, resulting in areas that are underserved. Chronic workforce shortages in primary care, oral health, and behavioral health have persisted in many rural and inner-city communities of the state. Currently, nearly 30% of New Yorkers reside in federally designated Health Professional Shortage Areas (HPSAs), with many of these shortage areas located in New York City (NYC).<sup>1</sup>

The COVID-19 pandemic has had substantial impacts on the state's health care delivery system as well as on its health workforce. Initially, in response to surging COVID-19 cases, NYS used an array of strategies, sometimes using executive orders to build workforce surge capacity, to make better use of the available health workforce and to facilitate licensing health professionals from other states. In addition, health professions education programs faced pandemic-related disruptions that jeopardized their students' ability to meet educational program requirements. More recently, health care providers report growing difficulty recruiting and retaining patient-care staff in all health care settings, including acute care, ambulatory care, long-term care, and home health care.

The Center for Health Workforce Studies (CHWS) is a research center based at the University at Albany School of Public Health. Established in 1996, the mission of CHWS is to provide timely, accurate data and conduct policy-relevant research on the health workforce to support health workforce planning and policymaking. CHWS monitors NYS's health workforce and has studied long-standing workforce recruitment and retention challenges reported by the state's health care providers.

## METHODS

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CHWS, in collaboration with City University of New York (CUNY) and with support from 1199 SEIU League Training and Upgrading Fund, conducted a study to identify the workforce issues that health care providers face in the greater NYC area (the 5 boroughs of NYC, plus Long Island and the lower Hudson Valley), including the factors contributing to recruitment and retention challenges, COVID-19 impacts, and the strategies used to address these challenges.

Research questions included:

- What health professions/occupations are the most difficult for NYC healthcare providers to recruit and why?
- What health professions/occupations are the most difficult for NYC health care providers to retain and why?

- Do recruitment and retention difficulties vary by provider type?
- What strategies are health care providers using to recruit and retain needed workers?
- What are recent trends in the deployment of and demand for health workers in NYC?
- What impacts has the COVID-19 pandemic had on the health professions educational pipeline, particularly registered nursing, in relation to admissions, graduations, capacity constraints, transition to practice, and demand for new graduates?

The study used a mixed-methods approach to assess health workforce recruitment and retention issues currently experienced by NYC health care providers, to understand the ways in which the COVID-19 pandemic has contributed to these issues, and to identify strategies used by providers to attract and retain workers.

## Primary Data Sources

### *Key Informant Interviews*

Semi-structured key informant interviews were conducted from May-August 2022 with approximately 15 human resources (HR) staff and Chief Learning Officers from hospitals and hospital systems, including safety net hospitals, academic medical centers, and community hospitals; long-term care facilities; home health care agencies; and ambulatory care providers, including federally qualified health centers (FQHCs) in the greater NYC area. Interview participants were selected through a convenience sample, with attention paid to location, organizational size, and sponsorship. Additionally, group interviews were held from April-June 2022 with Chief Nursing Officers from NYC health care organizations and in August 2022 with HR staff from FQHCs.

Interviewees were asked about current recruitment and retention challenges; contributing factors, including pandemic impacts; and potential strategies used to address these difficulties. A team of 3-4 researchers convened Zoom interviews, which lasted 30-45 minutes on average. Prior to the scheduled interview, a list of questions was sent to participants that included:

- What professions/occupations are hardest to recruit?
- What professions/occupations are hardest to retain?
- What are the most common reasons for difficulty in recruitment/retention?
- What strategies are used address staffing challenges?
- How are gaps in transition to practice (preparation/readiness of new staff) being addressed?
- Are there any strategies in place to bolster training pipelines?

### *Health Care Employer Demand Surveys*

Since 2000, CHWS has been surveying health care providers across NYS annually to learn more about their recruitment and retention challenges and to determine whether there is variation by setting (hospitals, long-term care, home care, and ambulatory care) and/or by geography. This data source supported a trend

analysis to determine whether recruitment and retention issues have changed over time, including a better understanding of COVID-19 impacts on attracting and retaining health workers. The employer-demand survey findings for nursing homes, long-term facilities, and home health care agencies were based on surveys conducted in 2022. The employer-demand survey findings for hospitals and FQHCs were based on surveys conducted in 2021. The most recent report of findings from health care employer-demand surveys can be found at: [https://www.chwsny.org/wp-content/uploads/2021/12/CHWS\\_RR\\_InfoGraphic\\_Final\\_Updated-1-24-22.pdf](https://www.chwsny.org/wp-content/uploads/2021/12/CHWS_RR_InfoGraphic_Final_Updated-1-24-22.pdf) and at [https://www.chwsny.org/wp-content/uploads/2022/02/CHWS\\_FQHC\\_RR\\_InfoGraphic\\_Final.pdf](https://www.chwsny.org/wp-content/uploads/2022/02/CHWS_FQHC_RR_InfoGraphic_Final.pdf).

### *Survey of Nursing Deans of RN Education Programs in NYS*

For over 20 years, CHWS has conducted an annual survey of the deans of NYS's registered nurse (RN) education programs. The survey asks about nursing program applications, admissions, and graduations as well as the deans' assessment of the local job market, barriers to expanding program capacity, and more recently, COVID-19 impacts on their programs. The survey was conducted in the spring and summer of 2022, and it included separate surveys for associate degree RN programs and baccalaureate degree RN programs. An analysis of data from this source was used to assess the RN educational pipeline in NYC, including COVID-19 impacts. The most recent report based on findings from this survey can be found at: <https://www.chwsny.org/wp-content/uploads/2022/08/NURSING-ED-REPORT-NY-UT-2022.pdf>

## **Secondary Data Sources**

### *The Integrated Postsecondary Data System*

The Integrated Postsecondary Data System (IPEDS) is a compilation of surveys conducted annually by the US Department of Education, National Center for Education Statistics. IPEDS includes information on institutional characteristics, student financial aid, faculty, and graduations by award level and by program for educational programs from every college, university, and technical and/or vocational institution that participates in the federal student-financial-aid program. Data analyzed include final data from academic years 2016-2017 through 2019-2020 and provisional data from the 2020-2021 academic year. Data from IPEDS were used in this study to assess trends in graduations from health professions education programs in NYC.

### *The American Community Survey*

The American Community Survey (ACS) is conducted each year by the US Census Bureau and is used to provide population estimates by a variety of indicators, including age, gender, race and ethnicity, educational level, occupation, occupational setting, income, and socioeconomic status. The 5-year estimates can be broken down by various geographic levels, including state, county, subcounty, census tract, and census block. ACS data were used to develop estimates of RN employment in NYC. Data from the 2015-2019 5-year estimates were used for the analysis.



### *NYS Department of Labor employment data and 10-year projections*

The NYS Department of Labor (NYSDOL) Quarterly Census of Employment and Wages (QWEC) data were used to count the number of jobs in health care by setting for the years 2017-2021 by NYSDOL region. Additionally, NYSDOL developed regional projections for the 2018-2028 period by both occupation and setting and the projections include counts of both newly created positions and annual job openings that are a result of worker departures (retirements, job changes, departures from the field). These data were used to assess NYC health workforce employment trends over a 10-year period.

### *NYS Education Department RN licensure data*

Licensure data from the NYS Education Department (NYSED) for the years 2018-2022 were used to count the number of licensed RNs in NYC. NYSED uses licensees' addresses to determine the county of residence. The 5 boroughs of NYC were aggregated to obtain a regional total.

## **Data Analysis**

All analyses were NYC-focused. IPEDS data were used to assess trends in graduations from health professions education programs. ACS data were used to estimate the number of RNs employed in health care settings regardless of where they lived. NYSDOL employment data were used to report the number of health care jobs in NYC. NYSDOL projections were used to identify the professions and occupations projected to be in greatest demand over the 10-year period. NYSED licensure data were used to assess trends in licensed RNs by geography.

The University at Albany Institutional Review Board (IRB) conducted a review of the interview protocols and the proposed secondary data analysis and determined that the research was not human subjects research and did not require an IRB application.

## **FINDINGS**

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### **Recruitment and Retention Challenges**

Nurse leaders and HR staff from health care providers in all settings identified RNs as one of the occupations most difficult to recruit and retain (Table 1). They also reported that licensed practical nurses (LPNs) were also among the most difficult to recruit. HR staff from hospitals reported that clinical laboratory technicians and technologists; MRI, ultrasound, and surgical technicians; respiratory therapists; and radiologic technicians were also difficult to recruit and retain. HR staff from hospitals, home health care agencies, and ambulatory care indicated that physicians, social workers, medical assistants, and clerical staff were difficult to recruit and retain. HR staff from long-term care providers and home health care agencies reported that home health aides were difficult to recruit and retain.



**TABLE 1. Health Care Occupations with Recruitment and Retention Difficulties in NYC by Setting**

Setting	Most Difficult to Recruit and Retain
Hospitals	Behavioral health providers Clinical laboratory technicians Clinical laboratory technologists Licensed practical nurses (recruitment only) MRI, ultrasound, and radiologic technicians Nurse practitioners Registered nurses Respiratory therapists Social workers Surgical technicians
Long-Term Care Providers	Certified nurse aides Clerical staff Home health aides Licensed practical nurses Nursing directors and managers Registered nurses
Home Health Care	Home health aides Licensed practical nurses Nurse practitioners Personal care aides Registered nurses Social workers
Ambulatory Care Providers	Clerical staff Licensed practical nurses Medical assistants Nurse practitioners Obstetricians/gynecologists Primary care physicians Psychiatrists Registered nurses Social workers Support staff

### *Reasons for Recruitment and Retention Difficulties*

Health workforce recruitment was problematic for providers prior to the pandemic. However, the COVID-19 pandemic exacerbated health workforce shortages in NYC, dramatically increasing the number of occupations in short supply as well as the magnitude of the shortages. Some of the occupations in short supply have been problematic for many years, even prior to the pandemic. Some are newer, eg, the recruitment difficulties of LPNs reported by hospitals. Key informant interviewees in hospitals indicated they added more LPN positions due to the difficulties recruiting and retaining RNs.

## BEST PRACTICES FROM THE FIELD

### The New Jewish Home Geriatrics Career Development Program

The New Jewish Home Geriatrics Career Development (GCD) is a workforce development training program for underserved young people. GCD bridges the gap between geriatric care job opportunities and underserved young people. GCD provides hands-on experience, paid internships, job training, and courses in healthcare certifications aligned with the needs of the industry.

Each year GCD serves approximately 275 participants ages 14-24 across 2 programs at no cost to the participants.

GCD currently partners with 10 under-resourced New York City public high schools to serve students in grades 10-12 through a 3-year after-school or out-of-school program. GCD also trains young adults ages 18-24 who are disconnected from education and employment through a 3-month full-time skill development program that includes human development, social support, foundational professional training, healthcare career orientation, skills training for certification, and connection to employment. There have been nearly 1,000 graduates since 2006.

Key informants generally agreed that a critical factor contributing to recruitment problems was that demand for workers outstripped supply. As a result, there was great competition for available workers. Many informants noted that many social-service agencies, retail stores, and fast-food restaurants are in direct competition for the same entry-level workers. Key informants also indicated that noncompetitive salaries contributed to the problem. An example cited frequently was that RNs were often drawn to travel or agency nurse positions that paid much higher wages than NYC health care providers could offer them. This trend extends beyond NYC.<sup>2</sup>

NYC respondents to the employer-demand survey also agreed that a general shortage of workers and noncompetitive salaries were key reasons for recruitment difficulties. Long-term care respondents to the survey also indicated that refusal to obtain a COVID-19 vaccine or booster also contributed to recruitment and retention difficulties. Home care respondents to the survey indicated that a lack of flexible scheduling and transportation challenges also contributed to recruitment difficulties in home care agencies in NYC.

Most key informants noted a generational shift among prospective job candidates, indicating that younger applicants were much more concerned with work-life balance and the need for organizational support for worker resilience to address burnout. These younger workers seemed less mission-driven and more likely to create boundaries that better separate work and personal life through behaviors such as “quiet quitting.”<sup>3</sup> These applicants were much more likely to want flexible hours and, in some instances, the opportunity to work remotely. Additionally, key informants across settings reported an increasing amount of “ghosting” by prospective new hires who accepted jobs but never began employment. They also described new hires who began employment but only stayed long enough to obtain the necessary experience to get a higher paying job, often in a different setting.

Key informants as well as respondents to the employer-demand survey indicated that the retention of health care workers by providers in NYC worsened during the pandemic. They attributed retention difficulties to a variety of factors. Many workers experienced stressful working conditions (extremely ill patients

## BEST PRACTICES FROM THE FIELD

### NYC Health + Hospitals Nursing Residency Program

NYC Health + Hospitals implemented a 12-month nurse residency program in 2019 using evidence-based Vizient/AACN curriculum for newly hired registered nurses (RNs) with less than 1 year experience or RNs who are new to their specialty. The sessions occur once a month over a 12-month period. The program starts at time of hire and is designed to build confidence, build relationships, and develop leadership skills through shared learning and mentoring.

The benefits of the program include increasing retention rates for the participating RNs who learn strategies for delivering patient care. The RNs participate in group seminars on decision-making, conflict-resolution, end-of life care, health-care quality, and patient safety, among other topics. RNs participating in the program develop and present a poster on an evidenced-based practice topic that improves the quality of patient care.

and staffing shortages) that resulted in attrition, often from patient-care positions. Many older workers retired. Some workers who left their jobs were concerned about COVID-19 exposure and the potential impact on themselves and their families. In addition, many workers found better paying jobs that were often less stressful both in and out of health care. Some nurses pursued opportunities as travel nurses or agency nurses, which tended to be higher paying. Other factors that contributed to attrition included family commitments (childcare or eldercare) and transportation issues.

### Strategies Used to Address Recruitment and Retention Difficulties

Key informants described a variety of strategies they used to attract and retain workers. Some key informants described using incentives to attract health care professionals, particularly service-obligated scholarships and loan-repayment programs such as the Primary Care Service Corps, Doctors Across New York, and the National Health Service Corps. In 2020, there were nearly 600 health care professionals who participated in these programs and were fulfilling service obligations in NYC.<sup>4</sup>

Informants also described partnerships with educational institutions to support career advancement opportunities for new recruits as well as existing workers. Among the strategies used through these collaborations were standardized career-ladder programs (eg, nurse aide to LPN to RN) or internships or externships offered to health-professions students who would then go on to become employees after training. Informants emphasized the value of local recruitment, indicating that community residents were more likely to consider employment close to home.

Key informants discussed the urgent need to support new graduates' transition to practice. During the pandemic, RN students had limited access to clinical-training sites, greatly reducing direct-patient experience. According to Chief Nursing Officers, many providers provide nurse residencies to new RN hires to help them acclimate to patient care. However, preceptor shortages were problematic and challenged the effectiveness of these residencies and oversight of clinical training for RNs and other health care professionals.

## BEST PRACTICES FROM THE FIELD

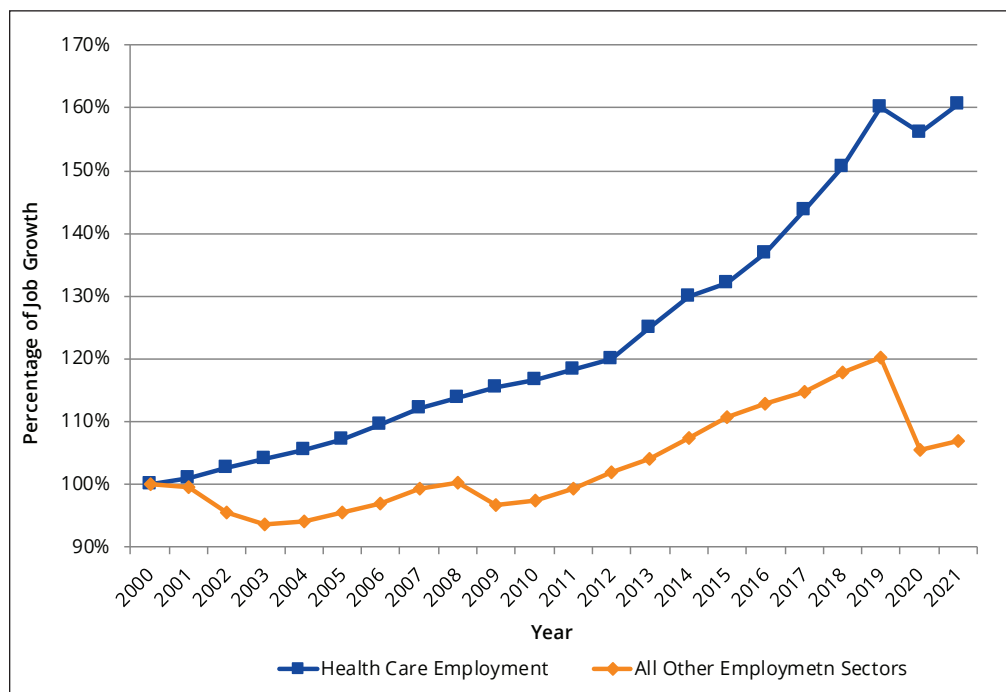
### FutureReadyNYC

Northwell Health, a hospital-based healthcare system, partnered with the New York City Department of Education to create “FutureReadyNYC.” It introduces students in grades 9-12 to healthcare roles and gives them a better understanding of opportunities at Northwell Health based on high-demand jobs. The program is operating at 4 high schools throughout New York City.

The aim of FutureReadyNYC is to help students visualize their career paths by introducing earn-and-learn and professional development pathways connected directly to their studies. Additionally, FutureReadyNYC aims to remove barriers to employment and spark interest in healthcare that drives participants to become future innovators, leaders, and clinicians, while building relevant skills to support their readiness for economically secure careers in healthcare.

Retention strategies reported by key informants included retention bonuses, worker-resilience programs, flexible hours, and use of hybrid models when possible. Some key informants added more support staff (LPNs and nurse aides) to ease the demands placed on RNs, while others used agency staff to reduce the need for overtime by existing nursing staff. One focus group participant described using a “retention coordinator” whose job entailed working with both new and existing staff to assess their satisfaction with working conditions and to the extent possible, make changes that supported worker retention. A few key informants indicated that they were exploring the potential for recruiting foreign-trained RNs as a strategy but indicated that the process was both costly and lengthy and had not yet proved fruitful.

**FIGURE 1. Employment Growth in NYC, 2000-2021 (Standardized to 2000)**



Source: NYSDOL, Quarterly Census of Employment and Wages.

## BEST PRACTICES FROM THE FIELD

### Jamaica Hospital Student Nurse Summer Externship Program

Jamaica Hospital offers a 9-week paid externship program each year that employs 30 nursing students during the summer. RN students who are eligible for this program must be currently enrolled in an accredited RN program and must have completed 2 semesters of clinical nursing rotations in an acute care setting and be entering their final year of nursing education.

This program gives the student nurses an opportunity to integrate theoretical knowledge with clinical skills and begin to develop basic, critical thinking skills through the application of the nursing process under the supervision of a nurse preceptor. The program for 2022 began on June 26. Student externs were assigned to specific medical surgical units and they also rotated through critical care and the emergency department to gain more experience.

Some key informants described involvement in programs at local primary and secondary schools designed to help students learn about health care career opportunities as well as expanded volunteer programs at their facilities. They indicated that such programs may assure a future health workforce drawn from local communities.

### NYC Health Workforce Trends

#### Health Care Employment

- **The Covid-19 pandemic affected both overall employment and health care employment in NYC.**  
Between 2019-2020, jobs in the health care sector in NYC declined by 4%, while jobs in all other employment sectors dropped by 15%. Jobs in the health care sector in NYC, however, rebounded in 2021, surpassing the number of jobs in 2019 (Figure 1). National trends indicate a similar pattern of job loss in health care, with the number of jobs rebounding in 2021, though not to the pre-COVID-19 levels.<sup>5</sup>
- **Jobs in home health care grew the fastest between 2016-2020 in NYC.**  
Between 2017-2021, jobs in home health care in NYC grew by 40%, jobs in ambulatory care grew by 3%, and jobs in hospitals grew by 2% (Table 2). Jobs in nursing homes and residential-care facilities in NYC both declined by 13% during the same period.

**TABLE 2. Health Care Sector Employment in the New York City Region, by Setting, 2016-2020**

Setting	2017	2018	2019	2020	2021	Change Between 2018-2022	
						Number	Percent
Hospitals	205,662	205,108	208,304	211,577	209,483	3,821	1.9%
Ambulatory care (excluding home health care)	129,172	129,152	134,312	122,008	132,903	3,731	2.9%
Nursing home and residential care facilities	50,172	49,834	49,134	45,785	43,542	-6,630	-13.2%
Home health care	151,886	178,335	205,851	203,713	213,270	61,384	40.4%
<b>Total</b>	<b>536,892</b>	<b>562,429</b>	<b>597,601</b>	<b>583,083</b>	<b>599,198</b>	<b>62,306</b>	<b>11.6%</b>

Source: NYSDOL, *Quarterly Census of Employment and Wages*.

## BEST PRACTICES FROM THE FIELD

### AHRC Retention Support Coordinator

AHRC, a federally qualified health center, has implemented the new role of retention support coordinator (RSC). The RSC focuses on retaining and engaging with first-year direct support professionals (DSPs). The RSC sends out onboarding surveys at 30-, 60-, and 90-days after the start of employment, and exit surveys to the first-year DSPs who resign. The RSC also conducts “stay” interviews after DSPs successfully complete their probationary periods.

The RSC creates training plans for struggling DSPs when requested, which are discussed and approved by managers. The RSC also meets with program directors and human resources business partners to identify “focus areas” at specific locations that have increased turnover, increased complaints, or reports of low morale.

### Employment Projections

- Jobs for home health aides and personal care aides are projected to grow the fastest in NYC between 2018-2028.

Home health aide positions are projected to grow by nearly 72% between 2018-2028 in NYC, with more than 37,000 annual openings (Table 3). There are projected to be nearly 32,000 annual openings for personal care aides during the same time period.

**TABLE 3. Employment Projections for NYC for Selected Occupations, 2018-2028**

Title	Number of Jobs		Projected Change Between 2018-2028		Average Annual Openings
	2018	2028	Number	Percent	
Home Health Aides	165,810	285,030	119,220	71.90%	37,185
Personal Care Aides	126,720	210,360	83,640	66.00%	31,855
Registered Nurses	78,470	97,570	19,100	24.30%	6,610
Nursing Assistants	39,790	45,570	5,780	14.50%	5,361
Medical Assistants	13,670	19,220	5,550	40.60%	2,367
Licensed Practical Nurses	15,380	19,360	3,980	25.90%	1,722
Medical and Health Service Administrators	14,440	17,920	3,480	24.10%	1,630
Healthcare Social Workers	7,040	9,600	2,560	36.40%	1,069
Clinical Lab Technologists and Technicians	7,900	9,370	1,470	18.60%	691
Nursing Practitioners	6,480	8,990	2,510	38.70%	664
Physician Assistants	5,770	8,140	2,370	41.10%	632
Radiologic Technologists	5,200	6,440	1,240	23.80%	443
Surgical Technologists	2,530	2,910	380	15.00%	258
Respiratory Therapists	2,260	2,940	680	30.10%	205

Source: NYSDOL, *Jobs in Demand/Projects, Long-Term Occupation Projections, 2018-2028*.

- Driven by the growth of home health aide and personal care aide jobs, home health care employment in NYC is projected to grow the fastest between 2018-2028.

Jobs in home health care are projected to grow the fastest in NYC between 2018-2028, increasing by nearly 66%. Jobs in hospitals and nursing and residential-care facilities are projected to increase by 13% and nearly 11%, respectively, during the same time period.

**TABLE 4. Employment Projections for NYC by Setting, 2018-2028**

Industry Title	Number of Jobs		Projected Change Between 2018-2028	
	2018	2028	Number	Percent
Ambulatory health care services	330,500	547,230	216,730	65.6%
Hospitals	213,450	241,210	27,760	13.0%
Nursing and residential care facilities	81,590	90,140	8,550	10.5%

Source: NYSDOL, *Jobs in Demand/Projects, Long-Term Occupation Projections, 2018-2028*.

### *Registered Nursing Employment in NYC*

- Between 2018-2022, the number of licensed RNs with NYC addresses increased by nearly 8%. Statewide, the number of total RN licenses increased by more than 17% between 2018-2022 (Table 5). The number of licensed RNs with NYC addresses increased by slightly over 9%, while the number of RNs with other NYS addresses grew by nearly 9%. In contrast, licensed RNs with out-of-state addresses increased by nearly 50% over the same time period.
- One in 10 RNs working in NYC lives in another state. Based on an analysis of ACS data, 10% of RNs working in NYC live outside of NYS, including 11% of RNs working in hospitals (Table 6). In contrast, only 5% of RNs working in home health care in NYC live outside of NYS.

**TABLE 5. Count of RNs by License Address**

	2018	2019	2020	2021	2022	Change Between 2018-2022	
						Number	Percent
RNs with New York City addresses	68,802	71,070	72,103	73,956	75,128	6,326	9.2%
RNs with other NYS addresses	168,642	173,420	175,237	181,132	183,315	14,673	8.7%
RNs with addresses outside NYS	64,763	72,928	80,864	90,124	96,752	31,989	49.4%
Total NYS RN licenses	302,207	317,418	328,204	345,212	355,195	52,988	17.5%

Source: NYSED.



**TABLE 6. The RN Workforce in NYC by Location of Residence and Work Setting**

Setting	NYS Addresses # (%)	Out of State Addresses # (%)	Totals
Home health care	3,298 (95.1%)	169 (4.9%)	3,467
Ambulatory care (other than home care)	6,229 (90.5%)	653 (9.5%)	6,882
Hospitals	51,431 (89.2%)	6,254 (10.8%)	57,685
Nursing homes/LTC	5,682 (91.4%)	532 (8.6%)	6,214
Other employment sectors	6,839 (92.8%)	534 (7.2%)	7,373
<b>Total NYC RN workforce</b>	<b>73,479 (90.0%)</b>	<b>8,142 (10.0%)</b>	<b>81,621</b>

Source: ACS, 5-Year Estimates, 2015-2019.

### *The NYC Health Professions Educational Pipeline*

- **Between 2017-2021, social worker graduations in NYC grew by 650, or almost 22%.**

The number of graduations from social worker education programs in NYC grew by 650, or almost 22% between 2017-2021 (Table 7). Additionally, the number of graduates from LPN education programs in NYC increased by 139 or by nearly 67% during the same time period.

In contrast, the number of pharmacist graduates from NYC education programs declined by 277 or by 46%. While the number of pharmacist graduates has decreased, research has indicated that the number of pharmacy graduates is still exceeding average annual job openings.<sup>6</sup> The number of RN graduates from NYC education programs also decreased, declining by 80 or by just over 2% between 2017-2021. Finally, the number of clinical laboratory technologist graduations declined by 51 or by almost 38% during the same time period. The number of surgical technology graduations also fell between 2017-2021.

**TABLE 7. Number of Graduations in Selected Health Professions Education Programs in NYC, 2017-2021**

Occupational Program	2017	2018	2019	2020	2021	Change Between 2017 and 2021	
						Number	Percent
Clinical Laboratory Technicians	34	32	26	24	26	-8	-23.5%
Clinical Laboratory Technologists	136	113	88	102	85	-51	-37.5%
Licensed Practical Nurses	208	243	334	287	347	139	66.8%
Mental Health Counselors	346	357	359	411	353	7	2.0%
Pharmacists	602	546	298	328	325	-277	-46.0%
Physician Assistants	637	665	610	608	602	-35	-5.5%
Radiation Therapists	205	239	227	231	225	20	9.8%
Registered Nurses	3612	3,322	3,197	3,376	3,532	-80	-2.2%
Respiratory Therapists	23	28	0	0	43	20	87.0%
Social Workers	3,014	2,980	3,109	3,112	3,664	650	21.6%
Surgical Technologists	113	146	104	138	94	-19	-16.8%

Source: IPEDS.

## Registered Nursing Education in NYC: Preliminary Findings

The 2022 Nursing Deans and Directors survey is currently in the field. To date, over 30% of RN education programs in NYC have responded to the survey (nearly a quarter of associate degree nursing (ADN) programs and over 36% of baccalaureate degree nursing (BSN) programs). The following summarizes preliminary findings based on responses from NYC nursing education programs to date.

Nearly half of the deans reported that applications to their programs were comparable to last year. While half of ADN deans indicated that applications to their programs were somewhat higher, only 18% of BSN deans reported a higher number of applications compared to the previous year. More than 70% of the deans indicated that the number of acceptances to their programs was comparable to last year.

Nearly three-quarters of the deans reported turning away qualified applicants for the 2021-2022 school year. The reasons most often cited for turning away qualified applicants included faculty shortages, insufficient number of clinical training sites, and program admissions caps. Over 33% of BSN deans cited lack of classroom space as a reason for turning away qualified applicants.

More than 70% of deans indicated that they were recruiting faculty to fill vacant positions. On average, deans reported recruiting for 3 faculty positions, and 80% of the positions were full time. More than two-thirds of deans reported hiring adjunct faculty to fill these vacancies. When asked about the reasons for faculty leaving their positions, the deans most commonly cited retirements, accepting nursing positions elsewhere, making a career change in nursing, or family obligations.

When asked about COVID-19 impacts on their programs, two-thirds of deans cited reduced access to clinical training sites which greatly reduced the preparedness of their graduates for entry into practice. All of the deans reported increased use of simulation to help students complete clinical training requirements, while some reported using alternate clinical settings to address this issue.

Nearly 80% of deans reported many job openings for their graduates. All BSN deans reported many jobs in hospitals and in nursing homes, while all ADN deans reported many jobs for their graduates in nursing homes. Nearly all deans agreed that the COVID-19 pandemic created more demand for newly trained RNs.

## LIMITATIONS

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Participants for the key informant interviews were selected using a convenience sample. Consequently, they may not be representative of the population of health care providers in NYC, which could limit the generalizability of findings.

The hospital response rate to the employer-demand survey was low. This could result in selection bias, eg, hospitals having the most difficult challenges responding to the survey which could limit the generalizability of findings.

NYSDOL data were used to report the number of health care jobs in NYC. These data are potentially affected by several factors, including closures, mergers, and expansions of health facilities. Consequently, large changes in jobs in specific health sectors (ie, 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 data.

NYSDOL 2018-2028 job projections include counts of both newly created positions and annual job openings that are a result of worker departures (retirements, job changes, departures from the field). 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, changes in scope of work or education for specific occupational titles, changes in state and/or federal reimbursement, and advances in technology. Additionally, these projections did not account for the effects of the COVID-19 pandemic on the need for health care or the impact the COVID-19 pandemic had on the health care workforce.

NYSED licensure counts are based on the mailing address of licensees, which could be either a home or a practice location. Certain individuals in the file may be licensed to practice in NYS but may live and/or work in another state. Some individuals who are licensed in a health care profession may be working part time, may not be working in the profession at all, or may be working in the profession in another state. Consequently, licensure counts tend to overestimate the number of active health professionals working in NYS.

Not all health professions graduations reflect newly licensed individuals entering a profession. For example, some RN graduates are BSN completers, ie, they are already licensed nurses who obtained a higher nursing degree. Additionally, graduation may not make a person qualified to practice in a profession. For example, graduating with a bachelor's degree in social work does not qualify a person for licensure in NYS.

## DISCUSSION

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The COVID-19 pandemic had profound impacts on the state's health care delivery system as well as its workforce. Initially, as COVID-19 pandemic cases surged, demand for acute care services rose sharply. NYS used a number of different strategies, sometimes through executive orders to build health workforce surge capacity, to make better use of the available health workforce and to facilitate licensing health professionals from other states. Many hospital systems hired travel RNs to fill staffing gaps. This may explain the dramatic increase in the number of RNs licensed in NYS with out-of-state addresses. The use of travel RNs, however, is not a long-term solution. Decreased hospital admissions, especially from elective surgeries, in conjunction with increased workforce costs, have financially stressed hospitals even further.

Additionally, during that time, many providers, particularly in ambulatory care, cut back or stopped services entirely, temporarily or permanently closing offices and laying off staff. This, in part, may explain the 4% drop in health care employment between 2019-2020. For many patients, in-office ambulatory visits were

replaced by telehealth or teledentistry visits. While national data have shown a rebound in health care employment, the number of health care jobs has not returned to the pre-COVID-19 pandemic levels. This, in combination with the increased number of retirements, has stressed the health care workforce even further.

As acute COVID-19 cases began to subside, health care providers in all settings experienced great difficulty recruiting and retaining workers, particularly in patient care. While health worker shortages were not a new phenomenon, the COVID-19 pandemic dramatically increased the number of occupations in short supply as well as the magnitude of the shortages. Other employment sectors were also experiencing widespread labor shortages at that time and were also competing for the same entry-level workers. As a result, there was very strong competition for workers in general and in health care settings specifically.

RNs, LPNs, and social workers were identified as very difficult to recruit by providers across all health care settings. Hospitals also reported difficulty recruiting behavioral health providers, radiologic technicians, surgical technicians, respiratory therapists, and laboratory technicians and technologists. Long-term care providers also reported difficulty recruiting nursing directors, CNAs, and clerical staff. Home care providers reported difficulty recruiting and retaining home health aides and personal care aides. Ambulatory care providers reported difficulty recruiting physicians, nurse practitioners, behavioral health providers, clerical staff, and medical assistants.

A critical factor that contributed to recruitment problems was that demand for workers outstripped supply, resulting in greater competition for available workers. Noncompetitive salaries were also problematic.

Those occupations considered hard to recruit were also identified as hard to retain and the COVID-19 pandemic contributed to more attrition from the workforce. Many workers experienced stressful working conditions (extremely ill patients and staffing shortages) and left their jobs, including many older workers who retired. Some workers left their jobs because they were concerned about COVID-19 exposure and the potential impact on themselves and their families. Other workers found better paying jobs both in and out of health care. Other factors that contributed to increased attrition included family commitments (childcare or eldercare) and transportation issues.

Employers observed a generational shift in how younger employees view their jobs. These workers prioritize work-life balance by engaging in behaviors such as “quiet quitting” in order to avoid burnout and maintain better balance between their work and personal lives. Employers recognized the need to structure workers’ jobs to support resilience and help workers achieve this balance, giving them a sense of control, while ensuring the work gets done. Efforts to address these concerns have the potential to reduce behaviors such as “ghosting” by new employees, who may be attracted to a work culture that prioritizes resilience and balance. One key informant described using a retention coordinator who was tasked with worker outreach and the development of strategies to support staff retention.

The COVID-19 pandemic also impacted the health professions education pipeline. While there was little change in the number of new RN graduates between 2020-2021, there was a change in new RNs' practice readiness. During COVID-19, many health care providers were unable to accommodate clinical rotations for students and as a result, nursing students had limited experience working directly with patients. According to many of the individuals interviewed, this left them much less prepared for working in patient-care settings. Nursing deans indicated that they cannot easily expand program capacity as they are constrained by limited access to clinical training sites and faculty shortages.

A variety of health workforce recruitment strategies were identified and included service-obligated scholarships and loan-repayment programs. Other providers reported educational partnerships to support career advancement, including career ladders. Nurse residencies were a common strategy to support transition to practice for new RN graduates. Retention strategies included sign-on bonuses, worker resilience programs, and flexible hours. Also, providers added more support staff or agency staff to reduce demand on patient-care RNs. It is unclear how successful these strategies have been in the short term and what their impact is long term. Thus, it is important to assess the effectiveness of these strategies and to identify best practices.

## CONCLUSION

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This study aimed to identify the workforce issues that NYC health care providers were facing, the factors contributing to recruitment and retention challenges, including COVID-19 impacts, and the strategies used to address these challenges. Data drawn from a variety of sources, both primary and secondary, were used to answer the research questions posed. Findings suggest widespread workforce shortages exacerbated by the COVID-19 pandemic. Providers identified a variety of strategies that can potentially reduce the supply/demand imbalances currently faced by NYC health care providers. Strategies that can potentially alleviate health workforce shortages require collaborative efforts by a wide array of stakeholders including, among others, providers, educators, labor, management, and governmental entities.

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