



# ESSENTIAL WORKERS

MIDDLE-TIER HEALTH CARE JOBS  
IN NEW YORK CITY

PRESTON COOPER  
AND TAMAR JACOBY

MARCH 2021





# ESSENTIAL WORKERS

## MIDDLE-TIER HEALTH CARE JOBS IN NEW YORK CITY

Preston Cooper and Tamar Jacoby

Based on initial analysis conducted by the New York City  
Labor Market Information Service

MARCH 2021

## ABOUT THE AUTHORS

**Preston Cooper** is a visiting fellow at the Foundation for Research on Equal Opportunity, where he studies the economics of higher education. He is a regular contributor to *Forbes*, and his writing has appeared in the *Wall Street Journal*, the *Washington Post*, the *Washington Examiner* and *National Review*.

**Tamar Jacoby** is president of Opportunity America. A former journalist and author, she was a senior writer and justice editor at *Newsweek* and, before that, the deputy editor of the *New York Times* op-ed page. She is the author of *Someone Else's House: America's Unfinished Struggle for Integration* and editor of *This Way Up: New Thinking About Poverty and Economic Mobility*

## ACKNOWLEDGMENTS

This paper would not have been possible without help from many New York City health care employers, educators, and the health care workers union, 1199SEIU. The authors thank the New York City Labor Market Information Service for its initial analysis of data from the New York State Department of Labor and Burning Glass Technologies. We're grateful to Sandi Vito, Denise Cherenfant, and their colleagues at 1199SEIU League Training and Employment Funds for organizing an eye-opening roundtable session with New York City health care employers and union representatives. We thank the employers who took extra time for individual interviews and the personnel at the City University of New York who provided data on CUNY education and training programs. Opportunity America is deeply indebted to the funders who have supported our broader examination of CUNY's role in preparing students to succeed in the labor market: the Achelis Foundation, the Carnegie Corporation of New York, the Lucius N. Littauer Foundation, the New York Community Trust, and the Pinkerton Foundation. Special gratitude goes to the New York Community Trust for its generous support of this collaboration with the New York City Labor Market Information Service.

# TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... 1

INTRODUCTION ..... 3

I. ECONOMIC OPPORTUNITY ..... 5

II. THE PANDEMIC ..... 11

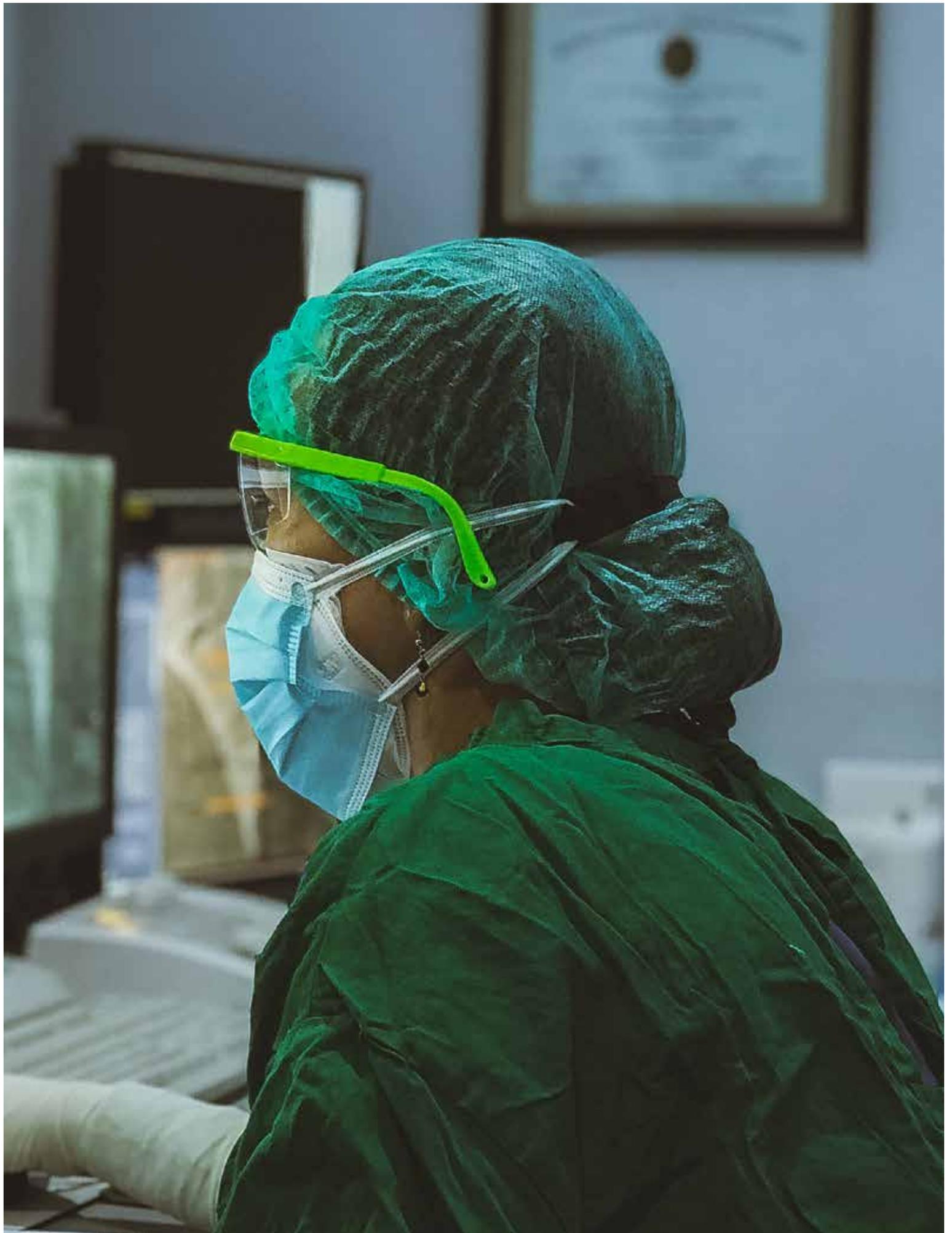
III. LOOKING AHEAD..... 15

IV. EDUCATION AND TRAINING ..... 21

V. RECOMMENDATIONS ..... 27

Appendix..... 29

Endnotes ..... 30



# EXECUTIVE SUMMARY

**M**iddle-tier occupations, which require some training or education beyond high school but less than four years of college, are an important source of employment for the 62 percent of New York City adults who lack a bachelor's degree. A disproportionate share of New York middle-tier jobs are in the health care sector, which is expected to grow rapidly in the wake of the Covid-19 pandemic as the population ages and requires more medical care.

Data from the New York State Department of Labor paint a picture of the health care industry before the pandemic, revealing a wide range of labor market outcomes for middle-tier workers. Some jobs, such as radiologic technologists, pay more than \$87,000 per year despite not requiring a bachelor's degree. Other middle-tier jobs, such as medical assistants, pay less but offer opportunities for career advancement. Though there are important exceptions, most middle-tier health care jobs pay at least a living wage, making them a key source of economic opportunity for New Yorkers without a four-year college degree.

Demand for middle-tier workers has remained robust throughout the pandemic. Even as the health care sector struggled overall in 2020, the number of job openings for midlevel workers expanded, according to data from Burning Glass Technologies. Interviews with New York health care employers explain why this was so: middle-tier workers are the backbone of virtually all health care services, whether in a hospital, a nursing home or an ambulatory care center, so their jobs remain resilient even in tough economic times.

Although no one knows for certain how the aftermath of the Covid pandemic will affect the health care sector, four other long-term trends are also reshaping the field. The aging population will generate increased demand for medical care. Growing skepticism of nursing homes will mean more seniors seeking care at home. Technological change will create demand for workers adept with new machines and information technology, and shifting business models will intensify employer concern about labor efficiency.

---

## Middle-tier workers are the backbone of virtually all health care services.

All four trends are likely to reinforce demand for midlevel health care workers. Most middle-tier health care jobs are difficult to automate, and over the coming decade, many are expected to grow significantly faster than the average rate for all US jobs.

The question in New York City: are education and training providers, including the City University of New York, equipped to produce the skilled health care workers likely to be needed in years ahead? Governments have a role to play in ensuring that education and training programs can accommodate increased demand. But what's needed goes beyond public policy. Middle-tier health care workers deserve more respect. They are the cornerstone of the health care sector and all but certain to remain so for years to come.



# INTRODUCTION

The Covid-19 pandemic has struck New York City harder than any other big city in the country, with more than 27,000 deaths as of February 2021.<sup>1</sup> The crisis has shined a light on health care workers, who account for a full one-eighth of employment in the city—a bigger share than the finance or retail sectors, or the leisure, hospitality, accommodation, and food services sectors combined.<sup>2</sup>

One subset of health care workers stands out because of how essential they are for the industry and for patients: those who lack a bachelor’s degree but have some education or professional training beyond high school.

These middle-tier health care workers do pivotal jobs in New York hospitals, nursing homes and ambulatory health care centers. They bathe and dress patients, record vital signs, draw

---

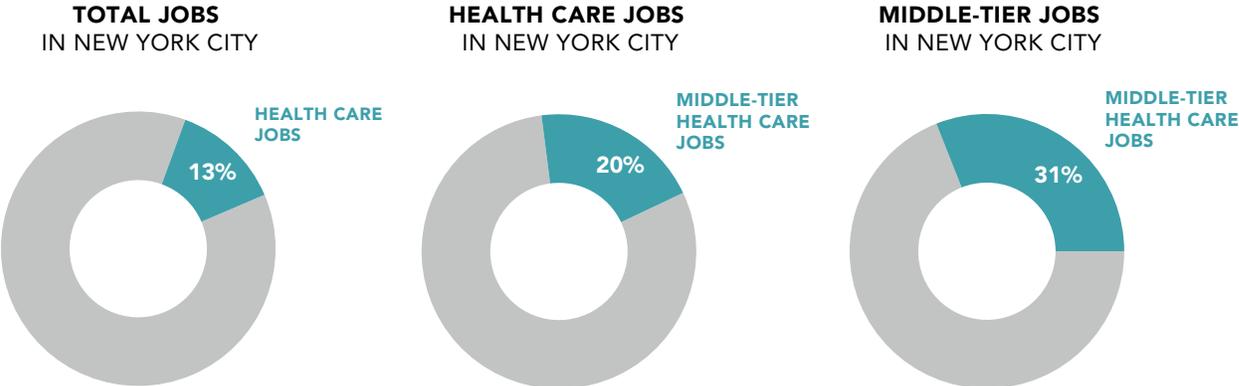
‘They’re the people who keep the building running.’

blood, clean teeth, sterilize medical equipment, measure and administer medications, drive ambulances, make appointments, and maintain medical records, to name just a few critical tasks. “They’re the people who keep the building running,” an executive at a large New York City hospital explained.<sup>3</sup> But with physicians, pharmacists, and registered nurses typically the public face of medicine, it’s easy to take midlevel health care workers for granted.

Middle-tier health care jobs are expected to remain essential long after the Covid pandemic.

FIGURE 1. A key source of employment for New Yorkers without bachelor’s degrees

New York jobs by category, 2020



Source: New York State Department of Labor; analysis by New York City Labor Market Information Service.

Health care jobs are growing more than four times faster than openings across all sectors of the economy. And long-term trends, including an aging population and changing financing models, are all but sure to increase demand for middle-tier workers.

Midlevel health care jobs also offer opportunity for the 62 percent of New Yorkers aged 25 and older who lack a bachelor's degree.<sup>4</sup>

In New York City, the health care sector accounts for 13 percent of the workforce. Some 20 percent of these jobs are middle-tier. And although health care accounts for just one-eighth of the labor force, health care workers account for almost one-third of the roughly 400,000 New York jobs that typically require more than a high school diploma but less than a four-year college degree.<sup>5</sup> (See figure 1.)

Bottom line: health care is a critical source of entry-level employment for New Yorkers with more than a high school education but less than a four-year college degree. For many, it's also a stepping stone—a first foothold in a growing sector that provides ample opportunity for further education and promotion.

The current moment, as Covid vaccines are distributed and the post-pandemic economy comes into view, raises important questions about these essential workers. How have they fared during the pandemic and the labor market

disruption it triggered? What does the future hold—how is health care changing, and what will this mean for the health care labor market? Finally, what is the proper role for policymakers and education and training providers in addressing demand for workers to fill middle-tier health care jobs?

This report begins to answer those questions. The pace of economic change has quickened dramatically during the pandemic, creating some uncertainty about pre-pandemic labor market information and projections. So our analysis draws on long-term projections from the US Bureau of Labor Statistics and the New York State Department of Labor but supplements them with real-time job postings data from Burning Glass Technologies.

We also sought the views of New York City health care employers. In November 2020, during a brief lull between waves of the pandemic, Opportunity America partnered with the city's health care worker union, 1199SEIU League Training and Employment Funds, to convene a focus-group-like roundtable of personnel from hospitals, nursing homes, and ambulatory health care facilities who had seen firsthand how Covid was reshaping labor market demand. Then, in the months after the roundtable, we followed up with a series of individual interviews.

# ECONOMIC OPPORTUNITY

For the purposes of this analysis, the term “middle-tier” refers to jobs that require some postsecondary education or an associate degree, as well as jobs that require a high school diploma plus significant on-the-job training.<sup>6</sup>

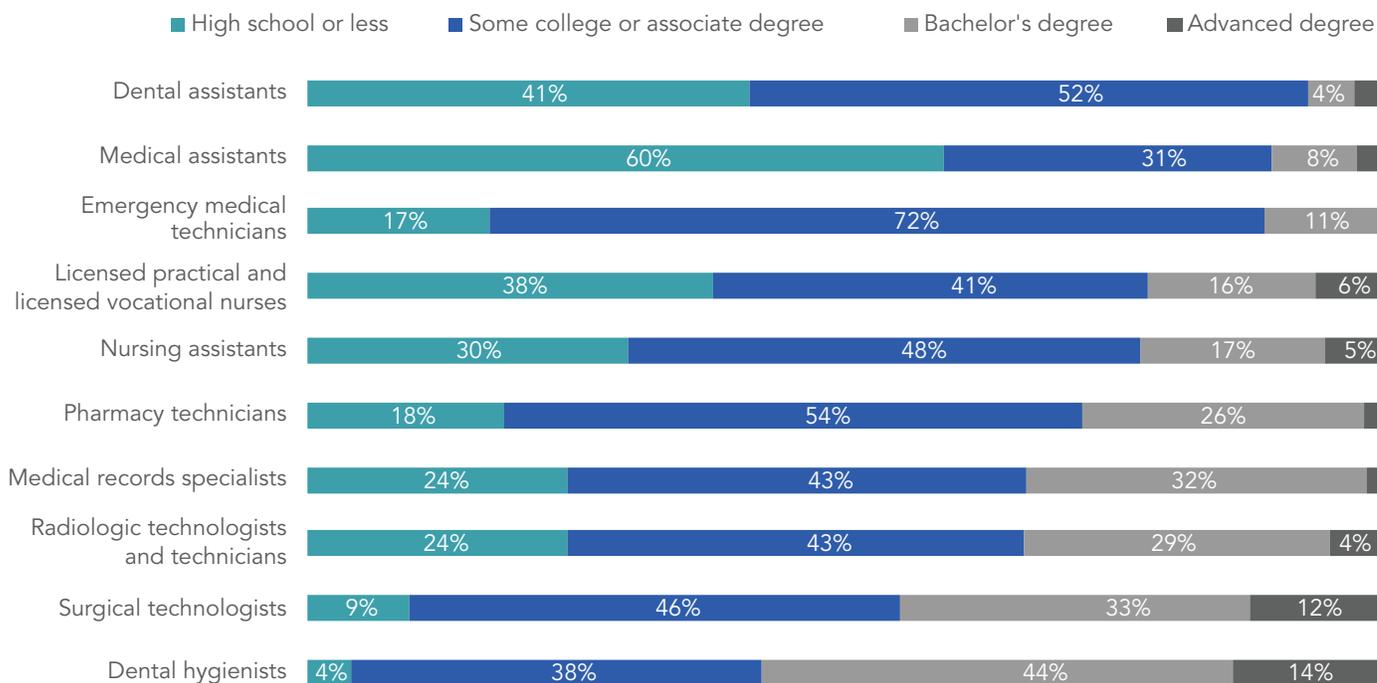
It does not include jobs that typically require a bachelor’s degree or more, or jobs that require only a high school diploma and little or no on-the-job training.

The New York State Department of Labor (NYSDOL) collects data on the typical education and training requirements for most jobs available across the state and identifies 36 unique health care positions that qualify as middle-tier.

It’s a diverse category, with some jobs requiring significantly more education and training than others. (See figure 2.)

**FIGURE 2. What’s important are skills, not years of education**

Educational distribution of selected middle-tier health care jobs, 2015-2019



Source: American Community Survey; IPUMS USA, University of Minnesota, [www.ipums.org](http://www.ipums.org).

## ESSENTIAL WORKERS

The majority of middle-tier health care jobs require certification by a city or state agency or industry group, generally earned by passing a third-party test administered by someone other than an education or training provider. But the length and depth of training required to earn certification varies widely across jobs.

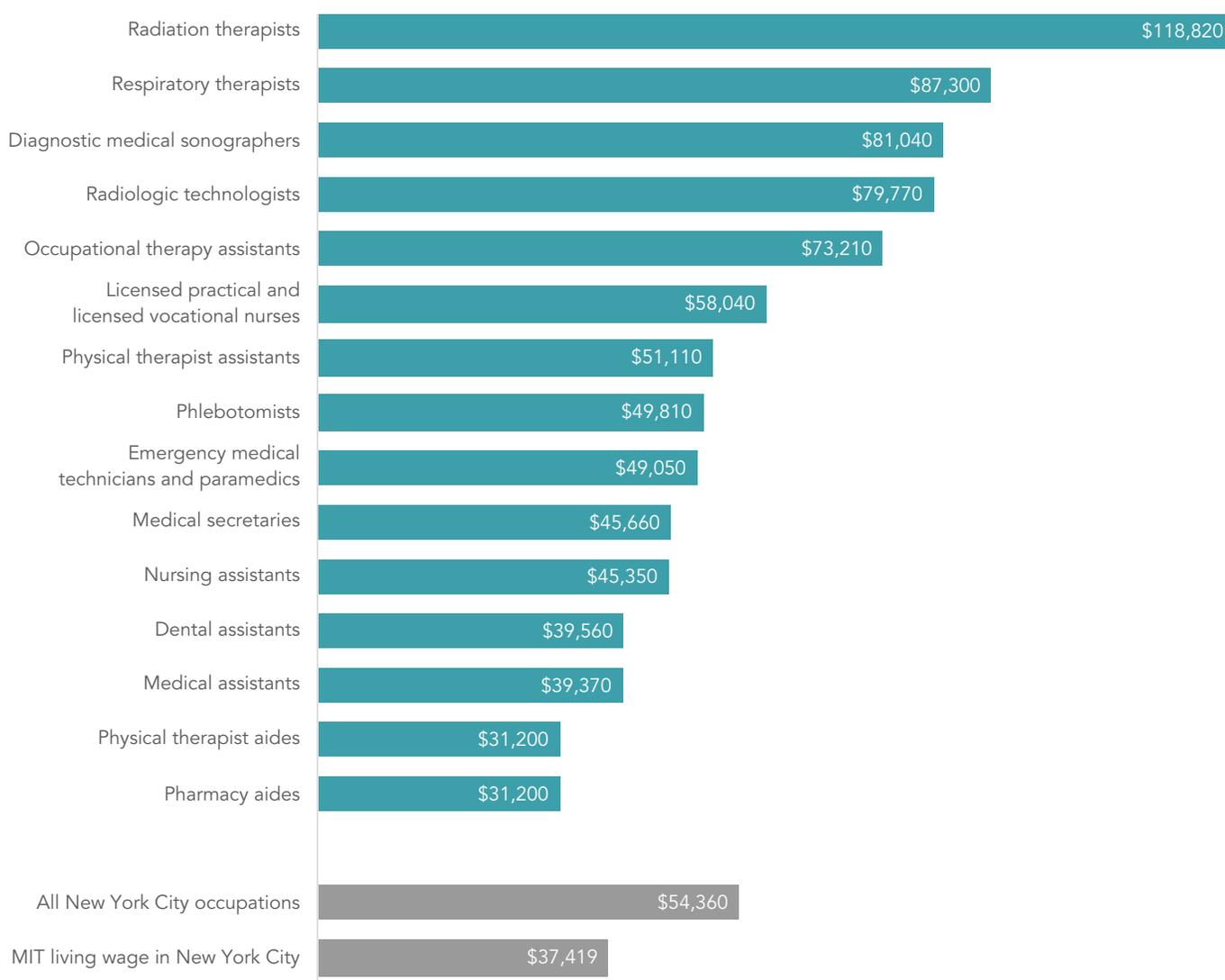
Nursing assistants, who work under registered nurses and perform tasks such as feeding and

bathing patients and taking vital signs, typically have just 130 hours of training in a program that culminates in a certification, and they do not need a college degree, associate or bachelor's.<sup>7</sup>

Other middle-tier workers require more extensive preparation. Radiologic technologists, who take X-rays and perform CAT scans, must have an associate degree. So must respiratory therapists, who diagnose and treat breathing problems.

### FIGURE 3. Decent middle-class wages

Median salaries for selected middle-tier health care occupations, New York City, 2019



Source: New York State Department of Labor; MIT.

## EARNINGS

In most professions, higher levels of education are associated with higher pay. But even without bachelor’s degrees, many middle-tier health care jobs offer decent middle-class wages. (See figure 3.)

In 2019, according to the NYSDOL, respiratory therapists in New York City earned a median wage of \$87,300 per year, and phlebotomists earned \$59,080. Other midlevel health care jobs are less remunerative, and low Medicaid reimbursement rates hold down wages for some positions.

But overall, middle-tier health care employment in New York City—median income between \$31,200 and \$118,820 depending on the occupation—compares favorably to the Massachusetts Institute of Technology (MIT) “living-wage” threshold for single workers without dependents, a regionally adjusted \$37,419.<sup>8</sup>

## ADVANCEMENT

Opportunities for advancement also vary widely across the midlevel health care sector, with some jobs offering significant opportunities and others relatively few. Wage data collected before and during the pandemic paint a picture of a three-tiered labor market.<sup>9</sup>

**Skill-builder jobs.** A first category of occupations offers opportunities for workers to build skills on the job, enabling them to advance to higher pay grades without changing jobs.

The NYSDOL estimates that the average salary for an entry-level radiologic technologist is \$59,160, but the average salary for experienced workers in the same occupation is \$89,050. So too, emergency medical technicians (EMTs). An entry-level EMT earns an average salary of \$32,280—significantly below the MIT living-wage threshold. But experienced EMTs earn an average salary of \$58,580, nearly twice as much as their entry-level counterparts. (See figure 4.)

**FIGURE 4. Room to grow on the job**

Average salaries for entry-level vs. experienced workers, New York City, 2019

### PHYSICAL THERAPIST AIDES



### EMERGENCY MEDICAL TECHNICIANS



### RADIOLOGIC TECHNOLOGISTS



Source: New York State Department of Labor.

## ESSENTIAL WORKERS

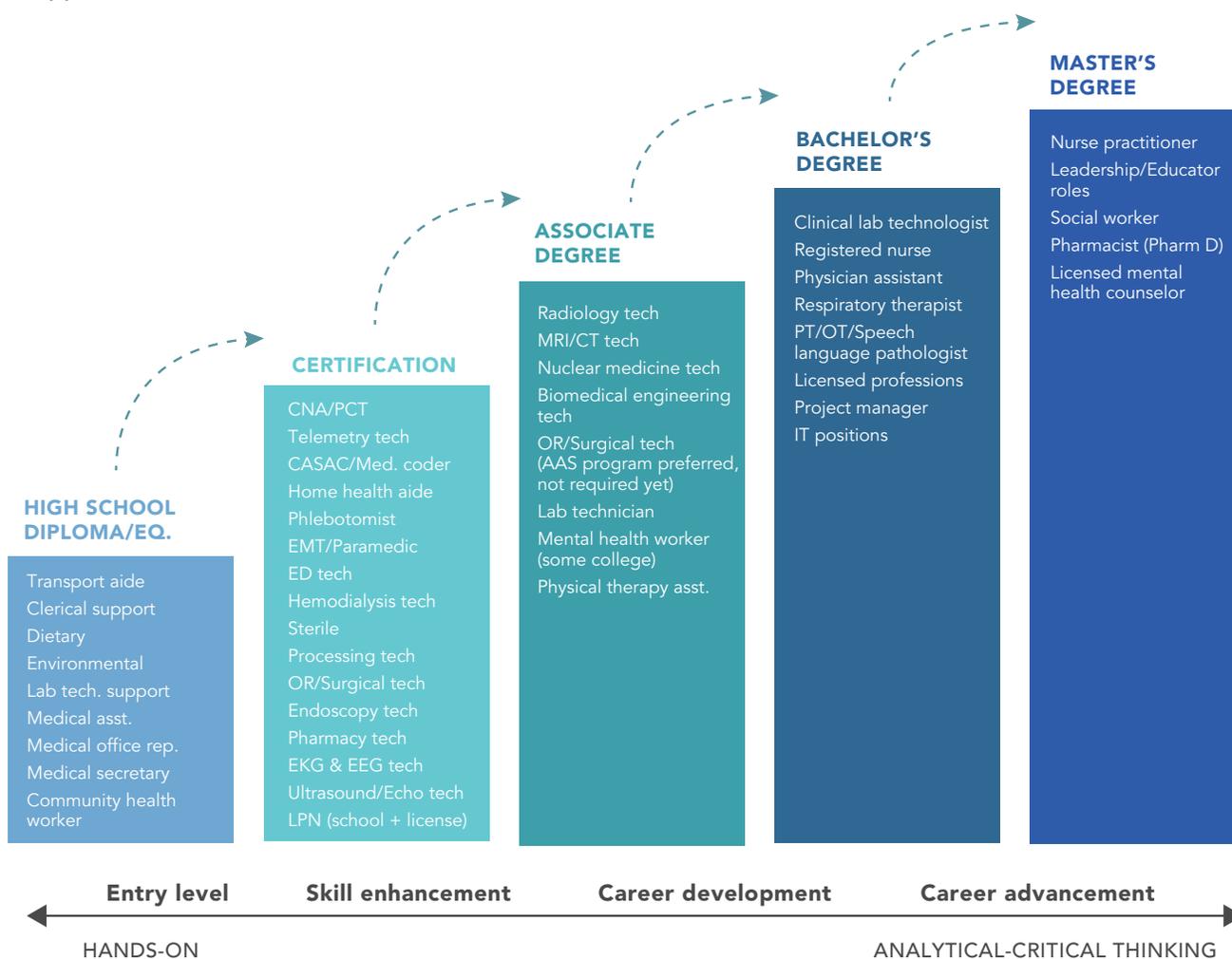
**Static jobs.** A second category of middle-tier health care jobs offers relatively low salaries and little opportunity for advancement in the same occupation. Entry-level physical therapist aides, who do tasks like cleaning and equipment setup for physical therapists, earn an average salary of \$31,200. Experienced workers in the same profession earn only \$35,590, still below the MIT living-wage threshold.

**Stepping stones.** In a third, overlapping category, many lower-paid health care jobs offer opportunities for advancement into other health care occupations if workers are willing to go back to school, learning new skills and earning additional credentials. (See figure 5.)

One such well-worn career path starts with medical assisting. Medical assistants perform administrative and clinical duties for physicians, filling one of the most common middle-tier health care jobs, accounting for 13,820 workers in New York City in 2019.

FIGURE 5. Well-worn paths from job to job

Opportunities for advancement in the health care sector



Source: Deirdre Duke, Northwell Health.

Opportunities for acquiring new skills and advancing in the job are limited, and according to a career map created before the pandemic by the New York City Labor Market Information Service, after five years just over half of medical assistants remain in that position, typically earning around \$45,000.

But in the same five-year period, some 45 percent of medical assistants have advanced to other jobs, including phlebotomist (median salary in New York City: \$49,810) and licensed practical nurse (\$58,040). Within 10 years, it's possible to advance to medical laboratory technician (\$72,480) or even registered nurse (\$100,050).<sup>10</sup>

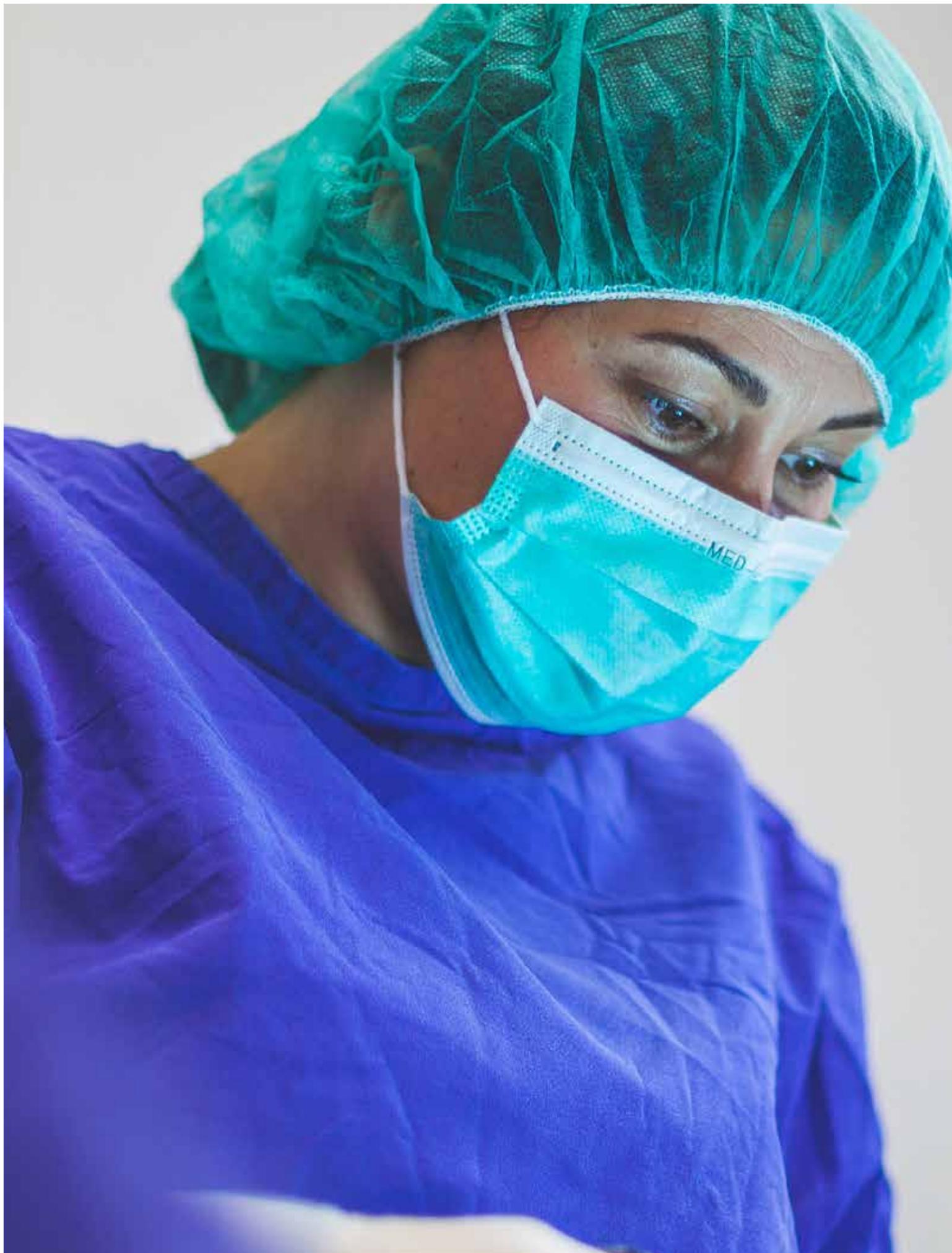
Other middle-tier health care jobs that serve as foundation stones for advancement include certified nursing assistant and licensed practical nurse, and some caregivers with these

---

Almost half of medical assistants advance to other, better-paying jobs, including phlebotomist and licensed practical nurse.

qualifications eventually train for bachelor's degree-level jobs like registered nurse.

Whether or not workers are able to advance in this way depends in large part on their employers—many workers need financial assistance to go back to school for further training—and on the availability of “bridge” programs offered by education and training providers across the city.



# THE PANDEMIC

The Covid economic shock upended the New York City labor market, hobbling sectors like food service, accommodation, and retail, all of which may take years to return to pre-pandemic employment levels. Health care employment also suffered significant losses, as fewer patients sought routine care and procedures unrelated to Covid-19.<sup>11</sup> The notable exception, strikingly resilient even in this difficult time, was middle-tier health care employment.

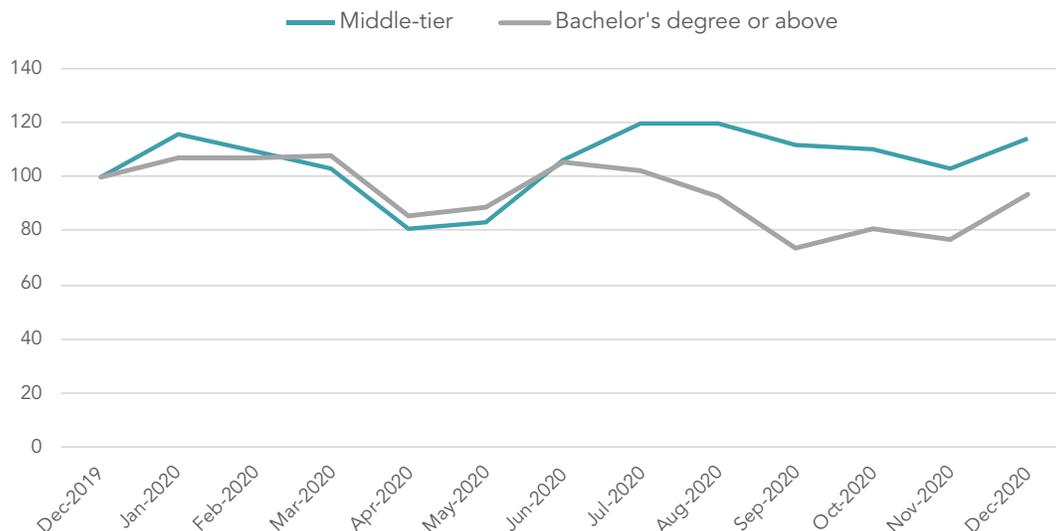
Middle-skill health jobs did not escape the effects of the pandemic. According to Burning Glass Technologies, new postings in these occupations dipped somewhat during the first months of the crisis.

But demand has since rebounded and indeed grown significantly. In December 2019, Burning Glass tracked 1,653 job openings for New York City middle-tier health care workers. By December 2020, that number had risen 14 percent to 1,883 jobs, even as the broader labor market had yet to recover.

Middle-skill health care employment also compared favorably with demand in bachelor's degree-level health care jobs. Bachelor's degree openings dipped some 15 percent in the first few months of the pandemic, and although demand picked up slightly at the end of the year, job openings for these workers were still 6 percent below their level in December 2019. (See figure 6.)

**FIGURE 6. More resilient than other health care jobs**

New postings for health care jobs in New York City



Source: Burning Glass Technologies.

Deirdre Duke, senior advisor on labor relations at Northwell Health, the city’s largest private employer, explains the apparent anomaly, underlining the importance of middle-tier health care jobs.<sup>12</sup> “What does the medical office need to run?” she asks. “It needs a doctor. It needs a nurse. But it also has to have a medical assistant, because they’re the ones that room the patients, clean up the rooms, and do the vital signs.” Without middle-tier workers, says Duke, doctor’s offices would have to close.

In contrast to aggregate industry trends, job postings data for individual occupations can be “noisy”; ordinary labor market churn and time lags sometimes complicate the picture.

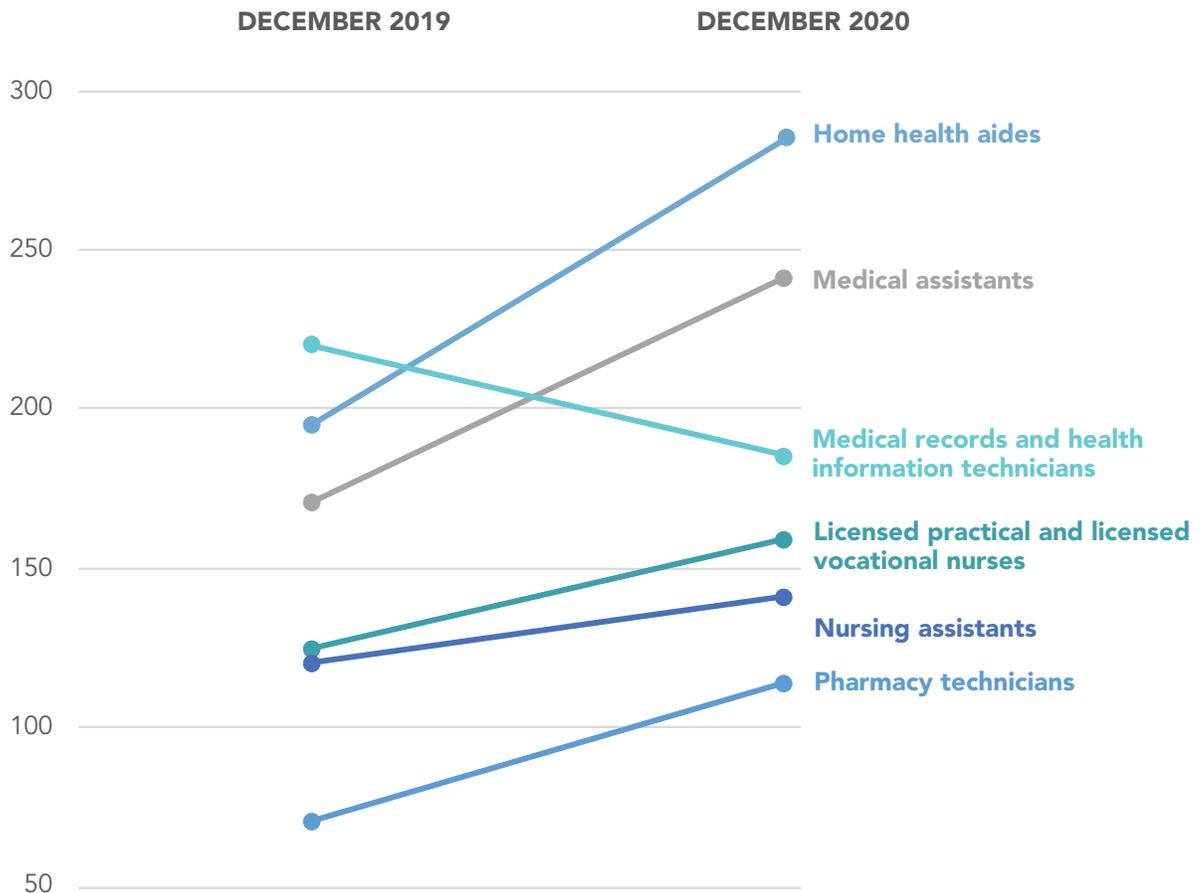
Several of the city’s largest middle-tier health care jobs saw demand increase during the pandemic.

But here too, the overall pattern is clear: several of the city’s largest middle-tier health care jobs saw demand increase during the pandemic. (See figure 7.)

According to Burning Glass data, there were 171 openings for medical assistants in New York City in December 2019. By December 2020,

**FIGURE 7. Sharp growth in demand for many midlevel workers**

Change in number of postings for selected health care jobs in New York City, December 2019 to December 2020



Source: Burning Glass Technologies.

the number had risen 41 percent to 241 jobs. Nursing assistants, pharmacy technicians, and licensed practical nurses also saw increased demand. The most striking job growth was for home health aides—an increase driven by growing public skepticism of nursing homes and a desire to care for elderly family members at home.

These numbers may or may not be indicative of the future; the Covid pandemic is transforming the labor market in dramatic and unexpected ways. But other deeper, long-term trends suggest that demand for midlevel health care workers is likely to remain robust even as the pandemic subsides.



E.D. N.Y. 326  
AMBULANCE  
KEEP BACK

NOW OPEN

ONE WAY

9<sup>th</sup>

W 4<sup>th</sup>

Mount Sinai  
AMBU

Leon Bakery  
Alice Suss

# LOOKING AHEAD

Pre-pandemic job growth projections foresaw a steady increase of midlevel health care openings. According to the US Bureau of Labor Statistics, between 2019 and 2029, all jobs across the United States will grow 3.7 percent. Health care sector employment, in contrast, will grow by 15 percent, with much of the increase driven by middle-tier jobs.<sup>13</sup>

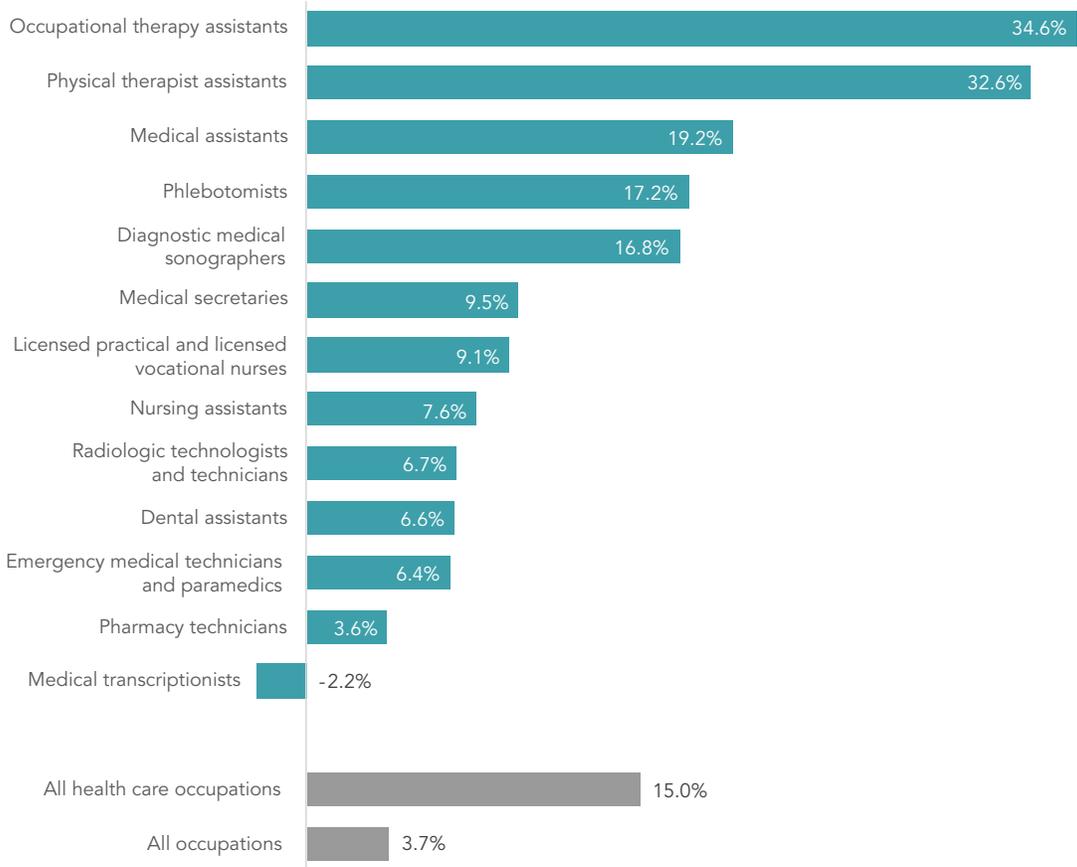
Prospects for individual occupations are mixed. (See figure 8.)

Even before the pandemic, it was clear that automation and other long-term trends would eliminate some jobs and reduce demand for some types of workers. The number of medical transcriptionists, who transcribe recorded remarks made by nurses and physicians, is expected to shrink 2 percent by 2029, for example.<sup>14</sup>

But other jobs, including some that account for the largest numbers of workers in the industry,

**FIGURE 8. Robust continued growth**

Projected employment growth for selected middle-tier health care jobs, United States, 2019-29



Source: US Bureau of Labor Statistics, Occupational Outlook Handbook.

are expected to see above-average growth. Openings for medical assistants are projected to grow 19 percent between 2019 and 2029, licensed practical nurses 9 percent, and nursing assistants 8 percent.

Still other, smaller middle-tier health care occupations may grow even faster. The ranks of occupational therapy assistants, who help ill, injured, or disabled patients recover and develop physical skills, are expected to increase 35 percent between 2019 and 2029, making this the fourth-fastest growing occupation in the country.<sup>15</sup> Among the factors driving this rapid growth: the aging of the population and new health care financing models that focus more intentionally on cost.

The latest New York State job growth projections, though slightly older than those available from the Bureau of Labor Statistics, paint much the same picture, suggesting that before the pandemic middle-tier health care jobs were on the cusp of a significant expansion.<sup>16</sup>

---

### Operating room personnel are in short supply across the city.

How will the pandemic affect these projections? It's impossible to predict with any certainty. The Covid economic shock has shattered entire sectors of the labor market, dramatically accelerated the adoption of new technology, and transformed how Americans think about health care consumption. But deeper, long-term trends suggest that demand for middle-tier health care workers will remain strong, and middle-tier workers will remain a mainstay of the health care industry.

The health care employers who participated in Opportunity America's November roundtable described a labor market at once transformed by the pandemic but also, in other ways, consistent with their experience before Covid.

The biggest changes of 2020 were clearly Covid-related: sharply increased demand for telemedicine technicians, telemedicine physician assistants, and respiratory therapists, a job that usually requires only an associate degree.

Other pinch points—occupations employers agreed were difficult to fill—appeared to reflect longer-term trends largely unaffected by the pandemic.

Operating room personnel were in short supply across the city—both surgical technologists and medical equipment sterilizers. Hospitals and ambulatory care centers alike stressed that they lacked lab technicians.

"We're short all kinds of techs," one participant reported, "especially lab techs and surgical techs, but also pharmacy techs, X-ray techs, and cardiovascular techs." "There are always vacancies [for tech jobs]," another employer explained, suggesting a perennial need rather than new demand spurred by the pandemic.

Two other apparent long-term trends: growing concern about the demographic profile of the health care workforce and sharply increased demand for computer skills. "Our top priority is recruiting a diverse, inclusive workforce that reflects the communities we serve," one employer said, "including bilingual providers." "We hire an army of IT people," an HR executive from a large hospital system explained, "and although many of them need degrees, not everyone does."

## FOUR LONG-TERM TRENDS

Among the longer-term trends likely to shape the health care labor market in years ahead: an aging population, increased demand for home care, rapidly changing technology, and a shift in health care financing models.

**An aging population.** Rising life expectancy and falling birth rates mean that the US population is getting older. In 2020, 17 percent of Americans were older than 65, a share that will rise to 22 percent by midcentury. The share of the population over 85 will double in that period.<sup>17</sup>

Older people consume more health care than others. They also require different kinds of care: for example, joint replacement surgery—an increasingly popular procedure spurring demand for a wide range of operating room personnel, including middle-tier workers.

Even as it expands demand, the aging of the population will shrink the supply of health care workers. Roughly 10,000 baby boomers reach retirement age every day, and tens of thousands of professional and midlevel health care workers will leave the labor force in coming years, creating a hole that younger workers must acquire skills to fill.<sup>18</sup>

According to health care professionals on the ground in New York City, the pandemic is sharply accelerating this trend, as older health care workers choose to retire rather than take the risk of contracting the disease at work. “The pandemic has really frightened home health aides,” an 1199SEIU organizer reported, “and a lot of them are changing jobs.”

**Patients seeking care at home.** As all Americans know, Covid has spread like wildfire through many of the nation’s nursing homes and long-term care facilities.<sup>19</sup> A survey conducted in April 2020 found that 80 percent of these facilities reported declining occupancy as residents moved out, fearful of contracting the disease.<sup>20</sup>

In New York City, Susan Brett, an executive at the for-profit home health care provider People Care, reports that “more and more individuals needing long-term care . . . want it in the home setting.” This trend was apparent before the pandemic, but Brett has seen a dramatic acceleration in recent months.

The home care field is dominated by home health aides—a fast-growing job that requires no more than a high school education and short-term on-the-job training.

But an increased number of patients seeking care at home will also create demand for middle-tier health care workers who can draw blood, operate medical equipment, and provide physical therapy outside a hospital setting.

**Telehealth and technological change.** Covid-19 has triggered an explosion in telehealth services. In the early months of the pandemic, Northwell Health saw the number of doctors using telemedicine rise from 200 to 6,000, and the American Hospital Association reports that aggregate national investment in telehealth totaled \$9.4 billion in the third quarter of 2020.<sup>21</sup>

Many doctors and patients will likely go back to in-person care once the pandemic has subsided, but others will appreciate the convenience and efficiency of telemedicine, and labor market analysts see a potential for robust continued use in coming years.<sup>22</sup>

---

Robotics and artificial intelligence will not eliminate the need for middle-tier workers.

Other kinds of technological change are also driving shifts across the health care industry.

Growing reliance on robotic surgery will have ripple effects across operating room staff: from doctors and nurses to surgical technologists and

medical equipment sterilizers. “Robotic arms are changing surgery,” one New York employer reported. “But the instruments still have to be re-sterilized before they’re reused.” So too with the increased use of artificial intelligence to diagnose and treat diseases—it will not eliminate the need for middle-tier workers.

More prosaically, a growing number of providers are relying on apps to track and record patient statistics.<sup>23</sup> Even health care facilities workers are feeling the impact of changing technology. With the pandemic putting a premium on better ventilation in hospitals and other settings, health care employers have seen an increased need for HVAC workers with IT skills. “All these systems—HVAC and air conditioning and heating—are now computerized” explained One Brooklyn Health CEO LaRay Brown. “We need people who combine computer skills with [traditional technical] expertise.”

These and other accelerating technological changes are likely to drive a sharply increased demand for skills among health care workers at all levels. But according to New York City health care providers, demand for middle-tier workers will remain robust even as overall skill levels rise.

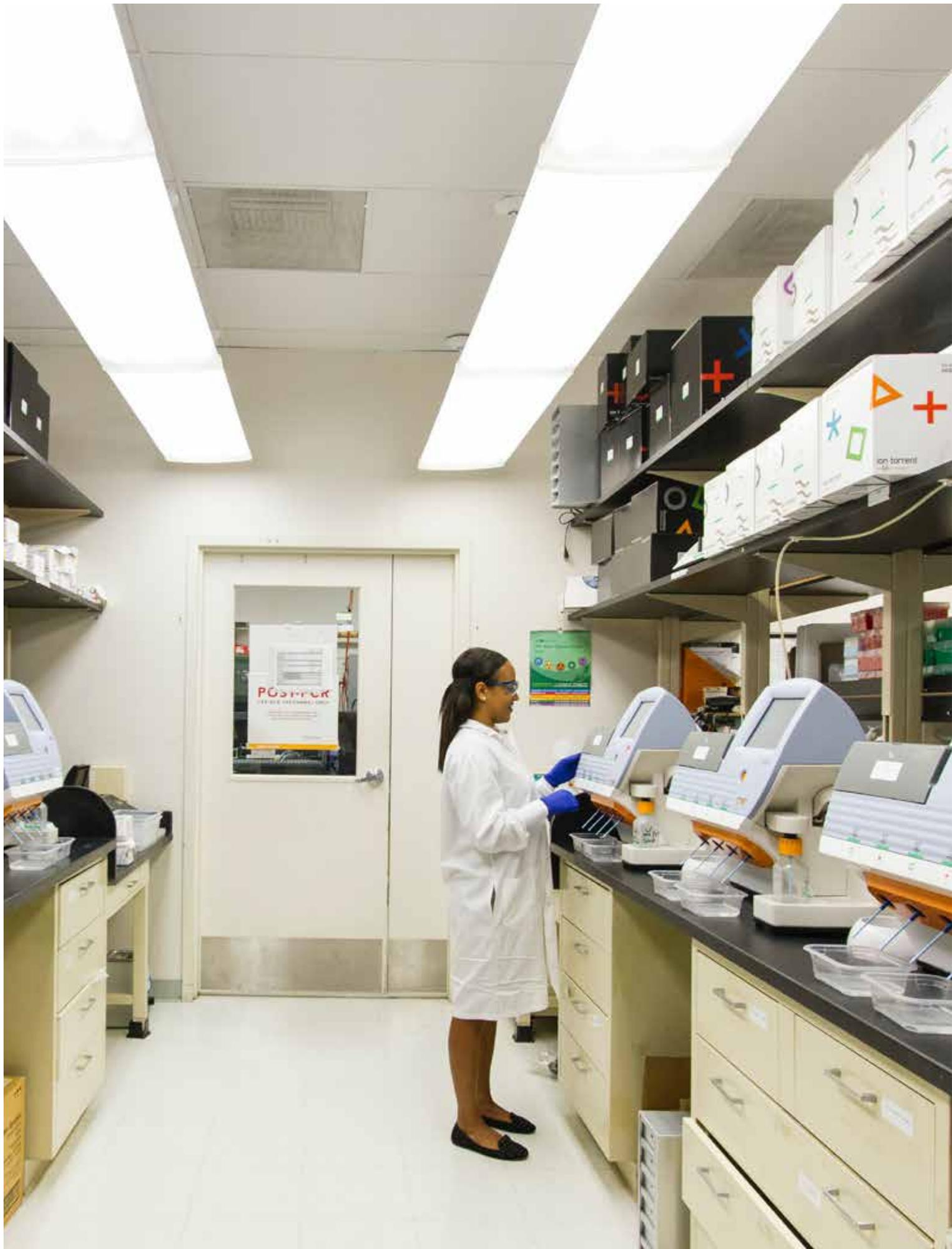
**Changing business models.** Still another trend that could sharpen demand for midlevel health care workers: the Affordable Care Act and subsequent legislation have accelerated a shift in insurer reimbursement away from fee-for-service models and toward more patient-focused, value-based purchasing.

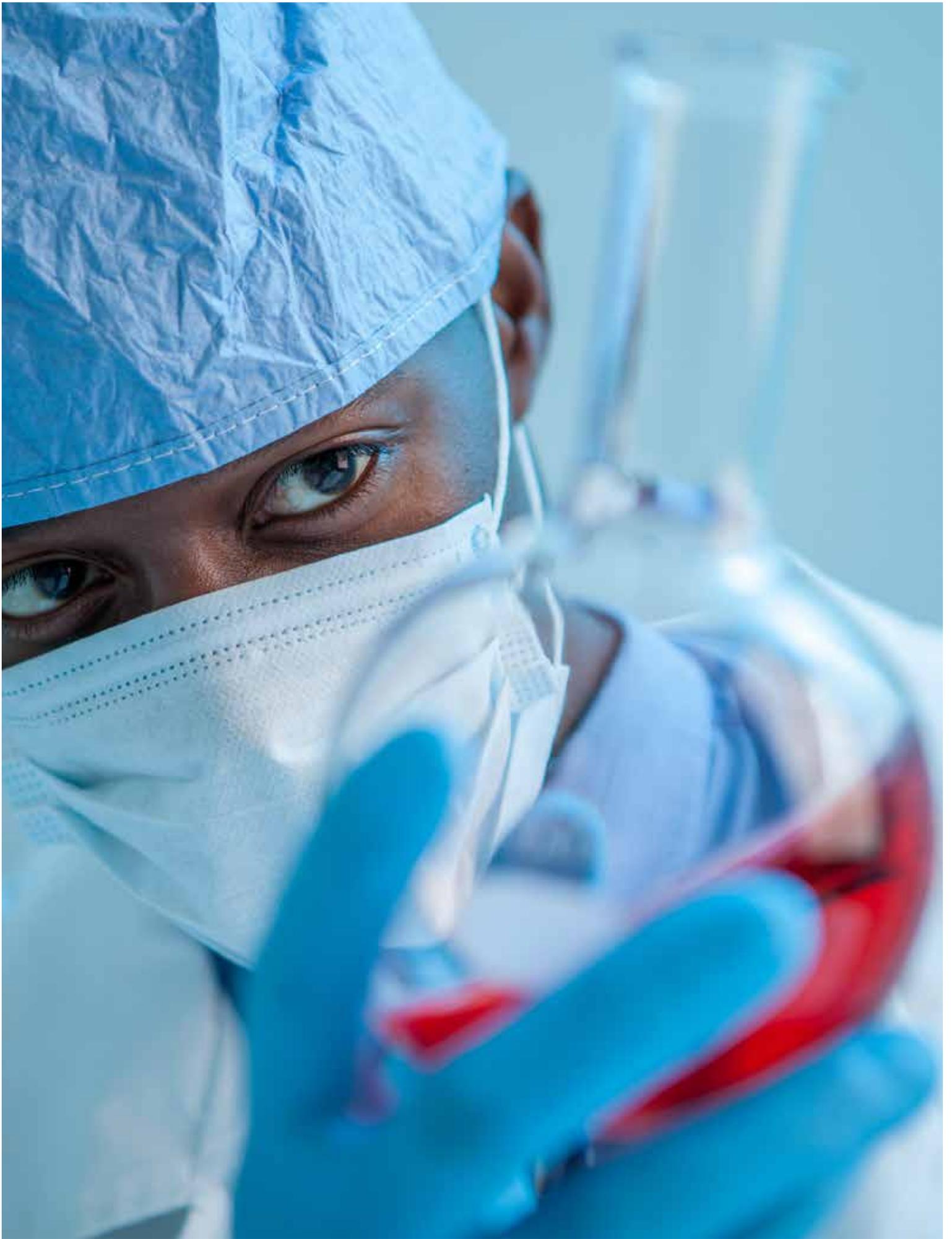
---

‘Everyone has to work at the top of their license.’

Rather than looking solely at cost, the new model reimburses health care providers on the basis of outcomes, including hospital readmission rates and patient mortality.<sup>24</sup> This creates an incentive for providers to keep patients who have recently undergone treatment out of the hospital. It encourages providers to lean less on inpatient hospital care and more on outpatient treatment at doctors’ offices and ambulatory health care facilities. It also drives more opportunities for follow-up treatment, often provided by midlevel workers, such as occupational and physical therapy outside a hospital setting.

Perhaps most significantly for middle-tier occupations, the new fee structure creates new pressure to optimize labor efficiency. Health care providers don’t want registered nurses handling tasks like patient billing that can be done by a medical assistant, for example. “Now that we have value-based care, everybody’s job is [shifting],” explained one hospital executive. “Everyone has to work at the top of their license.” With bachelor’s degree-level health care workers performing fewer middle-tier tasks, demand for middle-tier workers will continue to grow.





# EDUCATION AND TRAINING

**N**o one can predict just how these complex trends will play out in coming years. But together they point to resilient and perhaps increased demand for middle-tier workers. The tasks performed by licensed practical nurses, physical therapist assistants, and emergency medical technicians, among other midlevel personnel, are all but impossible to automate. And as the Covid-19 pandemic has proven, health care providers continue to rely on these workers even in difficult times when strong headwinds batter the rest of the industry.

The question looming for New York City: are education and training providers poised to generate an adequate supply of middle-tier health workers?

New Yorkers interested in working in a health care profession can choose among a wide array of training providers across the city and beyond: two- and four-year colleges in the City University of New York (CUNY) system, two- and four-year campuses of the State University of New York (SUNY), dozens of private and nonprofit colleges, proprietary trade schools, employer-provided training, and union training, among other options.

Some learners come straight out of high school; others are midcareer adults who have been working in a different field or health care workers who want to move up to a better job. Some programs last just a few weeks; others require at least two years of coursework and often take longer for students who are working full or part-time. Some learners seek degrees—some positions require them. Others focus on certifications or licensure—credentials earned

by passing a third-party exam developed by a industry group or state or local government agency. Indeed, many health care professionals, in New York and elsewhere, refer to middle-tier employment as “certification jobs.”

Programs also vary widely in cost and quality. Consider a student living in the Astoria section of Queens who wants to become a medical assistant. She can narrow her choices somewhat by deciding to train at an accredited college rather than, say, a trade school. But even then, according to the US Department of Education’s College Scorecard, she faces a choice among some 30 institutions, public, private, for-profit, and nonprofit.<sup>25</sup>

---

Also expensive are nondegree programs ineligible for state or federal financial aid.

Many of the city’s public colleges offer middle-tier health training at a relatively low cost, but completion rates, too, are often low. Graduation rates tend to be better at private colleges, but at the cost of higher tuition. Also expensive for learners are nondegree programs, whether at colleges or trade schools, that are ineligible for state or federal financial aid. Still other education and training programs—offered by employers, unions, and community-based organizations—come with few if any costs for learners. For a small sampling of what’s available, see figure 9.

## ESSENTIAL WORKERS

FIGURE 9. A dozen programs

A selection of New York City college and noncollege education and training programs that prepare learners for middle-skill health care jobs or help middle-skill health care workers improve their position in the labor market

|           | SPONSOR   | JOB                          | DESCRIPTION  | CREDENTIAL EARNED   | COST AND FUNDING  |
|-----------|---|------------------------------|--|---|---|
| EMPLOYERS | Northwell Health  | Central sterile technician   | A registered apprenticeship program sponsored by the city's largest private employer in partnership with the 1199SEIU Training and Employment Funds. After 200 hours of noncredit classroom instruction at LaGuardia Community College and 400 hours of on-the-job training at Northwell Health, learners sit for a certification exam to qualify as sterile processing technicians. Those who complete an additional 600 hours of on-the-job training earn an apprentice certificate. <sup>27</sup> | <ul style="list-style-type: none"> <li>Central sterile technician certification</li> <li>US Department of Labor apprentice certificate</li> </ul> | No cost to students   |
|           | Empress EMS   | Emergency medical technician | A 12-week noncredit program offered by a privately owned emergency medical service combines lectures, online learning, hands-on instruction and a 10-hour internship. Prepares learners to sit for the state EMT certification exam. <sup>28</sup>   | EMT certification   | \$2,000; students eligible for public workforce system training subsidies |
|           | Hospitals, nursing homes, home health care facilities in partnership with 1199SEIU League Training and Employment Funds | Various                      | Some 600 employers contribute a percentage of their total annual payroll to a training fund that covers college tuition and other education costs for union members. In 2020, the fund disbursed more than \$32 million for 6,440 learners to study at CUNY, SUNY, and private colleges. Tuition benefits range from \$8,000 to \$17,000 per student per year.   | Various   | Up to 24 college credits per year free of cost for students               |
| UNION     | 1199SEIU League Training and Employment Funds   | Various                      | A union training fund partners with three CUNY colleges and two suburban institutions to prepare union members to enter associate and bachelor's-degree programs. Entry-level health care workers move through Health Careers College Core Curriculum (HC4) in a cohort, completing prerequisite courses and earning up to 36 college credits. <sup>29</sup>   |   | No cost to students   |
|           | 1199SEIU League Training and Employment Funds   | Environmental services staff | A three-hour online training in Covid-19 infection prevention and control. Designed for existing hospital and nursing home staff and laid-off cleaners from other industries. <sup>30</sup>  | Certificate of completion   | No cost to students   |

Note: Some of these programs may have been suspended or changed format during the Covid pandemic.

|          | SPONSOR                               | JOB                                       | DESCRIPTION   | CREDENTIAL EARNED  | COST AND FUNDING  |
|----------|---------------------------------------|---|---|--|---|
| COLLEGES | LaGuardia Community College (CUNY)    | Medical assistant                         | A noncredit program for English language learners developed in partnership with employers convened by the city combines 368 hours of classroom instruction and lab work, 200 hours of contextualized English, and 100-hour paid internships. Prepares learners to earn up to four certifications. <sup>31</sup>   | <ul style="list-style-type: none"> <li>Medical assistant certification</li> <li>Electrocardiograph technician certification</li> <li>Phlebotomy technician certification</li> <li>CPR/first aid certification</li> </ul> | Costs covered by the public workforce system  |
|          | Kingsborough Community College (CUNY) | Emergency medical technician/paramedic    | Two linked programs, one noncredit, the other culminating in an associate of applied science degree. After 225 hours of noncredit evening classes, students sit for the state EMT certification test. Those who pass receive six credits toward a 60-credit paramedic degree. The AAS program is also open to EMTs who did not train at Kingsborough. <sup>32</sup> | <ul style="list-style-type: none"> <li>EMT certification</li> <li>Associate of applied science degree</li> </ul>   | <ul style="list-style-type: none"> <li>Noncredit EMT tuition and fees: \$1,040, NYC Department of Health stipend available</li> <li>Paramedic AAS tuition and fees: \$9,600, students eligible for federal and state financial aid</li> </ul> |
|          | Lehman College (CUNY)                 | Registered nurse                          | An online bridge program for registered nurses who lack bachelor's degrees. Entering students must have 60 college credits or an associate degree. They may study full-time or part-time as long as they finish in five years. Also included: online counseling. <sup>33</sup>  | Bachelor of science degree   | <ul style="list-style-type: none"> <li>Full-time tuition: \$3,465 per semester</li> <li>Part-time tuition: \$445 per credit</li> <li>Students eligible for state and federal financial aid</li> </ul>   |
|          | Monroe College                        | Practical nurse, registered nurse         | A for-profit college links three independent, credit-eligible programs. After one year of full-time instruction, students earn a certificate, and some leave the program to take full-time jobs. Another year of instruction leads to an associate degree. Final year culminates in a Bachelor of Science in Nursing degree. <sup>34</sup>                          | <ul style="list-style-type: none"> <li>Practical nursing certificate</li> <li>Nursing AAS and RN licensure</li> <li>Nursing BS</li> </ul>  | \$7,488 per semester; students eligible for federal and state financial aid   |
| OTHER    | ABC Training Center                   | Electrocardiograph/phlebotomy technicians | A proprietary trade school offers a 96-hour noncredit program leading to a certification exam. Learners choose full-time, half-day, or evening classes. <sup>35</sup>   | EKG/phlebotomy certifications  | \$1,700; students ineligible for state or federal financial aid   |
|          | International Development Institute   | Electrocardiograph technician             | A two-week noncredit program offered by a trade school combines 20 hours of classroom instruction and 20 hours of lab time. Prepares learners to sit for a national certification assessment and provides help searching for a job. <sup>36</sup>   | EKG technician certification   | \$1,500; learners ineligible for state or federal financial aid but eligible for public workforce system training subsidies   |
|          | Make the Road NY                      | Various                                   | A noncredit program offered by a community-based organization introduces English language learners to the allied health professions. Free transportation and career counseling. <sup>37</sup>   | Mental health first aid certificate  | No cost to students   |

Note: Some of these programs may have been suspended or changed format during the Covid pandemic.

In theory, this variety of training programs should provide ample supply for the industry, as well as choices for learners. But in practice, it can make it even more difficult to ensure that supply matches demand. And even with these diverse options, many New York health care employers feel that CUNY has a unique responsibility.

With some 500,000 students spread across 25 campuses, CUNY is the city's largest institution of higher education, funded by taxpayer dollars and committed to providing opportunity for less-advantaged New Yorkers.

Twelve colleges in the CUNY system offer a total of 39 applied associate degree programs and 10 undergraduate certificate programs in health care and nursing. Together, these credit-eligible programs produced some 1,400 graduates in 2018.

CUNY also offers a variety of noncredit programs that prepare workers for jobs that require some postsecondary training but not a degree, such as EMTs and certified nursing assistants. In a typical semester, according to CUNY estimates, these noncredit courses enroll more than 2,000 learners preparing for middle-tier health care jobs.<sup>26</sup>

The CUNY system faces two challenges in training New Yorkers for careers in health care.

The first is volume: does supply match demand? It can be difficult for a single school to get this right, and it's even harder for a vast, decentralized system like CUNY. University authorities have no means of assessing industry-wide need across the city, and they have no power to coordinate a strategic, systemwide response—no ability to adjust or regulate the number of graduates who emerge from dozens of duplicative and overlapping programs at 12 colleges.

---

## Innovations in the field take too long to make their way into curricula.

The second challenge, according to health care employers, is keeping up with shifts in the rapidly evolving health care labor market. How has the pandemic changed what kind of workers are needed in New York hospitals and nursing homes? What are the effects of new technology, or an aging population, or the growing preference for home care? Employers need graduates with up-to-date skills, and demand can change dramatically from year to year or even month to month.

Health care employers across New York report that CUNY and other education and training providers often fall short in this regard. Some schools make more of an effort than others to engage employer partners. Employer-educator collaboration can vary from program to program even at a single institution. But all too often, employers say, innovations in the field take too long to make their way into curricula. Educators and employers communicate poorly, if at all, and many graduates lack the skills they need to succeed on the job.

"Where do the schools get information about what skills are required?" Northwell's Deirdre Duke asks. "What competencies does a medical assistant have to have in a doctor's office today?" What's needed is changing, often rapidly, she says, and educators "need constant employer or clinician input to have a real-time sense of the skills required."





# RECOMMENDATIONS

It's beyond the scope of this paper to offer detailed recommendations for public policy or for New York education and training providers. But three challenges stand out as worthy of attention—further analysis and action in the years ahead.

**CUNY coordination.** All CUNY colleges with health care programs maintain relationships of some kind with health care employers. Many of the city's largest care providers and the health care workers union 1199SEIU partner with CUNY to provide instruction or supplement classroom work with clinicals and other on-job-training. But few people on either side of the equation feel that these ties are strong or deep enough to keep college programs up-to-date or connect students with the labor market.

What's needed at CUNY starts with a more strategic, systemwide approach. Health care employers want better ways to communicate their changing labor needs, not college by college or program by program, but holistically to the university. Campuses shouldn't have to compete with one another to attract the attention of hospitals and secure work-based learning opportunities. And the university needs better mechanisms to monitor citywide labor market alignment—for the sake of students seeking jobs and for the New York economy.

Collaboration of the kind that's needed rarely comes easily for educators or employers. But New York City's rapidly changing health care labor market demands a more strategic approach—better communication and coordination among the CUNY system's dozens of competing health care programs.

**Medicaid reimbursements.** Several health care employers in New York reported that they were eager to hire more highly skilled workers and pay them better, for the sake of their businesses as well as to provide opportunity. But low Medicaid reimbursement rates—the legally stipulated dollar amounts that Medicaid pays hospitals, home health care agencies, and doctors' offices to provide services—hold down wages for existing workers and make it difficult to recruit others into the profession.

According to one researcher, "Medicaid pays hospitals and doctors less than 60 percent of what private insurers pay."<sup>38</sup> Indeed, Avik Roy of the Foundation for Research on Equal Opportunity writes, "Medicaid reimbursement rates are so low that hospitals, on average, lose money on every Medicaid patient they treat."<sup>39</sup> The all too predictable results: not just unequal health care for rich and poor, but also chronic shortages, particularly of home health workers at a time when the population is aging and demand for home health care is expected to explode.

Reformers across the political spectrum concur that Medicaid reform is long overdue, but that's where agreement ends, and change of the scope and scale that's needed will require reforms at both state and federal levels.<sup>40</sup> What's clear in New York: demographic pressures are building, and midlevel health care workers are bearing the brunt of public inaction.

**Recognition.** Few middle-tier workers in any field get the respect they deserve from the public or policymakers, and the challenge may be particularly acute in health care, where not even registered nurses get the recognition usually bestowed on doctors.

Midlevel health care workers are all but invisible to many patients and their families. Though often highly skilled, they are viewed as less educated and less sophisticated than even a newly minted four-year college graduate. And government funding priorities, both state and federal, skew heavily against them, providing far more support for traditional higher education than for the hands-on alternatives, often provided outside a college setting or in a nondegree program, that midlevel workers look to for the skills they need to succeed on the job.

What's needed starts with public policy: more attention for community colleges and nondegree training programs, especially those with a proven track record of placing graduates in well-paying jobs.

Colleges need to focus more intentionally on assessing the skills each older learner brings to the table and helping them chart the shortest path to a more highly skilled, better-paying job. Campuses should make accommodations for midcareer students: classes scheduled for working adults and student services better tailored to their needs. And learners in a hurry to acquire skills and get back to the workplace need help covering the cost of short, job-focused education and training programs.

But what's needed doesn't end there.

In spring 2020, when the Covid crisis first terrorized the city, thousands of New Yorkers dropped whatever they were doing every evening at 7 p.m. and went to their windows and rooftops to cheer for health care workers,

---

New Yorkers went to their windows and rooftops to cheer for health care workers, shouting, clapping, and banging pots and pans.

shouting, clapping, and banging pots and pans. Midlevel health care jobs haven't gotten any easier and won't, even when the pandemic subsides. Middle-tier health care workers are just as essential today as they were a year ago, and they deserve more respect.

## CONCLUSION

The aging of the population and the aftereffects of the Covid pandemic are sure to reshape the health care sector, perhaps dramatically, in years to come. What exactly this will mean for midlevel workers is impossible to predict, but it seems safe to say that middle-tier health care jobs are not going anywhere and it will remain essential for education and training providers to pay careful attention to shifting middle-tier demand.

Middle-tier health care jobs provide essential opportunities for the two-thirds of the US population without bachelor's degrees—a first rung in a growing, in-demand field and an important avenue for upward mobility. They proved their resilience during the Covid crisis even as the rest of the labor market took a historic hit. And however the health care sector evolves in coming years, middle-tier workers are likely to be at the center of any change.

## APPENDIX

## INTERVIEWS AND FOCUS GROUP PARTICIPANTS

**EMPLOYERS**

Lisa Brandon-Colon, director of training and volunteer services, BronxCare Health System  
 Susan Brett, chief operating officer and senior vice president, People Care  
 LaRay Brown, chief executive officer, One Brooklyn Health System  
 Ivonettea Cesserra, senior recruiter, Montefiore Medical Center  
 Nerissa Chin, director of labor and employee relations, Montefiore Medical Center  
 Deirdre Duke, senior advisor, labor relations, Northwell Health  
 Coraminita Mahr, vice president, Northwell Health  
 Ivelesse Mendez-Justiniano, chief learning officer, NYC Health + Hospitals  
 Kelly Reilly, vice president, pediatrics and chief learning officer, nursing, Maimonides Medical Center  
 James Rolla, senior vice president, Partners in Care  
 Thomas Smith, chief nursing officer and senior vice president, Maimonides Medical Center  
 Andrea Thomas-Randall, associate executive director of home care services, Sunnyside Community Services

**1199SEIU**

Jacqueline Alleyne, executive vice president, NY Presbyterian, 1199SEIU United Healthcare Workers East  
 Guadalupe Astacio, union organizer, People Care, 1199SEIU United Healthcare Workers East  
 James Chang, project manager, long term care, 1199SEIU Training and Upgrading Fund  
 Denise Cherenfant, director of education programs, 1199SEIU League Training and Employment Funds  
 Robert DeLauro, labor management consultant II, 1199SEIU Labor Management Project  
 Patrick Delices, research analyst, research and strategy, 1199SEIU Training and Upgrading Fund  
 Bibi Habib, workforce development manager, 1199SEIU League Training and Employment Funds  
 Denise Johnson, field coordinator, 1199SEIU National Benefit Fund  
 Eric Johnson, assistant director of fund sponsored education programs, 1199SEIU Training and Upgrading Fund  
 Maria Kecado, executive vice president, Mt. Sinai, 1199SEIU United Healthcare Workers East  
 Monica Landinez, home care organizer, 1199SEIU United Healthcare Workers East  
 Vilma Linares-Vaughn, deputy executive director, 1199SEIU League Training and Employment Funds  
 Elias Martoral, research assistant, long term care, 1199SEIU Training and Upgrading Fund  
 Karen Mejia, assistant director of health systems and hospitals, 1199SEIU League Training and Employment Funds  
 Francois-Edy Philippe, labor management consultant II, 1199SEIU Funds Labor Management Project  
 Clyde Riggins, director of health systems and hospitals, 1199SEIU Training and Upgrading Fund  
 Isabelle Rodriguez, administrative organizer, League of Registered Nurses division, 1199SEIU United Healthcare Workers East  
 Frances Sadler, assistant director for home care certification programs and grant-funded career ladder upgrade programs, 1199SEIU Home Care Industry Education Fund  
 Sandi Vito, executive director, 1199SEIU League Training and Employment Funds  
 Wayne Young, assistant director, 1199SEIU Home Care Industry Education Fund

## ENDNOTES

1. Jordan Allen et al., "Coronavirus in the US: Latest Map and Case Count," *New York Times*, February 16, 2021, <https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html>.
2. New York State Department of Labor, "Occupational Employment Statistics Survey," June 26, 2020, <https://labor.ny.gov/stats/lswage2.asp>. Our analysis focuses on workers in occupations classified by the US Bureau of Labor Statistics as "health care practitioners" or "health care support," along with a limited number of closely related occupations, such as medical secretaries. Our definition of health care workers is narrow and does not include related fields such as social work.
3. Unless otherwise cited, all quotations are from individual interviews conducted by the authors on Zoom in January 2021 or from the focus-group-like roundtable session organized by 1199SEIU for Opportunity America on November 18, 2020.
4. Author's calculation based on American Community Survey data.
5. New York State Department of Labor, "Occupational Employment Statistics Survey." There is no universally agreed-upon definition of "middle-skill" or "middle-tier" jobs. Other definitions, which take a broader or narrower view of what constitutes "significant training beyond high school," have estimated the number of middle-tier jobs in New York City as low as 355,000 or as high as 1 million. See Ofronama Biu and Lesley Hirsch, *The Supply of and Demand for Middle-Skill Jobs in New York City*, New York City Labor Market Information Service, summer 2017, <http://nyachnyc.org/wp-content/uploads/2017/08/LMIS-Middle-Skill-Jobs-in-New-York-City.pdf>; and Lucretia Murphy, Myriam Sullivan, and Lili Allen, *Closing the Skills Gap: Preparing New Yorkers for High-Growth, High-Demand, Middle-Skill Jobs*, JPMorgan Chase, 2014, <https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/documents/54841-JPMC-GAP-REP-AW6.pdf>.
6. The New York State Department of Labor issues data on minimum education requirements for occupations, as well as training requirements. We use NYSDOL data for New York City to determine which health care jobs are middle-tier. See New York State Department of Labor, "Employment Projections," July 20, 2020, <https://labor.ny.gov/stats/lspoj.shtm>.
7. "CNA Classes and Programs in New York," Registered Nursing, December 21, 2020, <https://www.registerednursing.org/certified-nursing-assistant/programs/new-york/>; and "Online Certified Nursing Assistant (CNA)," The City College of New York, Continuing and Professional Studies, February 16, 2021, <https://www.ccnyc.cuny.edu/cps/certified-nursing-assistant-cna>.
8. Amy K. Glasmeier, "Living Wage Calculator," Massachusetts Institute of Technology, February 16, 2021, <https://livingwage.mit.edu/>.
9. Burning Glass Technologies sorts midlevel jobs with a similar but slightly different typology. See Sara Lamback, Carol Gerwin, and Dan Restuccia, *When Is a Job Just a Job—and When Can It Launch a Career?: The Real Economic Opportunities of Middle-Skill Work*, Jobs For the Future and Burning Glass Technologies, June 13, 2018, [https://www.burning-glass.com/wp-content/uploads/BurningGlass\\_JFF\\_RealCareerLaddersReport.pdf](https://www.burning-glass.com/wp-content/uploads/BurningGlass_JFF_RealCareerLaddersReport.pdf).
10. "Career Map: Medical Assisting and Beyond," The Graduate Center at the City University of New York, April 16, 2017, [https://www.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/workforce/library/Careermap\\_medical\\_assistant.pdf](https://www.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/workforce/library/Careermap_medical_assistant.pdf). Salary data based on New York State Department of Labor, "Occupational Wages," <https://labor.ny.gov/stats/lswage2.asp>.
11. US Bureau of Labor Statistics, "Payroll Employment Down 20.5 Million in April 2020," *The Economics Daily*, May 12, 2020, <https://www.bls.gov/opub/ted/2020/payroll-employment-down-20-point-5-million-in-april-2020.htm>.
12. Andrew Donlan, "New York's Largest Private Employer Launches Home-Based Care Program," *Home Health Care News*, August 9, 2020, <https://homehealthcarenews.com/2020/08/new-yorks-largest-private-employer-launches-home-based-care-program/>.
13. US Bureau of Labor Statistics, "Occupational Outlook Handbook," <https://www.bls.gov/ooh/>.
14. US Bureau of Labor Statistics, "Medical Transcriptionists," Occupational Outlook Handbook, September 1, 2020, <https://www.bls.gov/ooh/healthcare/medical-transcriptionists.htm>.
15. US Bureau of Labor Statistics, "Fastest Growing Occupations," Occupational Outlook Handbook, September 1, 2020, <https://www.bls.gov/ooh/fastest-growing.htm>.
16. New York State Department of Labor, "Employment Projections."
17. Lauren Medina, Shannon Sabo, and Jonathan Vespa, "Living Longer: Historical and Projected Life Expectancy in the United States, 1960 to 2060," US Census Bureau, February 2020, <https://www.census.gov/library/publications/2020/demo/p25-1145.html>.
18. America Counts Staff, "2020 Census Will Help Policymakers Prepare for the Incoming Wave of Aging Boomers," US Census Bureau, December 10, 2019, <https://www.census.gov/library/stories/2019/12/by-2030-all-baby-boomers-will-be-age-65-or-older.html>.

19. Gregg Girvan and Avik Roy, "Nursing Homes and Assisted Living Facilities Account for 38 Percent of COVID-19 Deaths," Foundation for Research on Equal Opportunity, January 30, 2021, <https://freopp.org/the-covid-19-nursing-home-crisis-by-the-numbers-3a47433c3f70>.
20. Lana Peck, "Executive Survey Insights: Wave 4, Week Ending April 26, 2020," National Investment Center for Seniors Housing and Care, April 30, 2020, <https://blog.nic.org/executive-survey-results-for-week-ending-april-26-2020>.
21. "Economy May Be Down, but Digital Health Investments Boom," American Hospital Association Center for Health Innovation, <https://www.aha.org/aha-center-health-innovation-market-scan/2020-10-13-economy-may-be-down-digital-health-investments>.
22. Oleg Bestsenny et al., "Telehealth: A Quarter-Trillion-Dollar Post-COVID-19 Reality?," McKinsey and Company, May 29, 2020, <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality>.
23. "How the Health Care Landscape Will Change in 2021," American Hospital Association Center for Health Innovation, <https://www.aha.org/aha-center-health-innovation-market-scan/2020-12-22-how-health-care-landscape-will-change-2021>.
24. Tingyin T. Chee et al., "Current State of Value-Based Purchasing Programs," *Circulation*, 133(22), May 31, 2016. <https://www.ahajournals.org/doi/full/10.1161/CIRCULATIONAHA.115.010268>.
25. "College Scorecard," US Department of Education, custom search, February 12, 2021, [https://collegescorecard.ed.gov/search/?zip=11101&distance=10&cip4=5108&cip4\\_degree=c&cip4\\_degree=a&page=0&sort=completion\\_rate:desc&toggle=institutions](https://collegescorecard.ed.gov/search/?zip=11101&distance=10&cip4=5108&cip4_degree=c&cip4_degree=a&page=0&sort=completion_rate:desc&toggle=institutions).
26. Data provided by CUNY.
27. "Certified Sterile Processing Apprentice Program Celebrates Its First Graduating Class," Northwell Health, July 31, 2019, <https://jobs.northwell.edu/blog/2019/07/31/certified-sterile-processing-apprentice-program-celebrates-its-first-graduating-class/>.
28. "Empress Emergency Medical Services," December 30, 2020, <http://www.empressems.com>; and "Eligible Training Provider List," New York State Department of Labor, February 16, 2021, <https://applications.labor.ny.gov/ETPL/Search.faces>.
29. "Health Careers College Core Curriculum (HC4)," 1199SEIU League Training and Employment Funds, [https://www.1199seiubenefits.org/funds-and-services/training-and-employment/college-programs/health-careers-core-curriculum/?\\_ga=2.107833355.822339547.1612714471-823941227.1606331351](https://www.1199seiubenefits.org/funds-and-services/training-and-employment/college-programs/health-careers-core-curriculum/?_ga=2.107833355.822339547.1612714471-823941227.1606331351).
30. "Environmental Services: Infection Prevention and Control in the Time of COVID-19 (Online)," Ladders to Value, online course, <https://ltwio.org/courses/environmental-services-infection-prevention-and-control-in-the-time-of-covid-19/section/43/>.
31. "Apply for Training in the Healthcare Field," NYC Department of Small Business Services, <https://www1.nyc.gov/site/sbs/careers/healthcare-training.page>.
32. "KCC Paramedic Program Overview," Kingsborough Community College, <https://www.kbcc.cuny.edu/academicdepartments/alliedhealth/ems/program.html>.
33. "Fully Online Nursing RN to BS Program," Lehman College, School of Health Sciences, Human Services and Nursing, <https://www.lehman.edu/academics/health-human-services-nursing/nursing/rn-to-bs-program.php>.
34. "Progressive Option for Adult Learners (PN to RN to BS)," Monroe College, School of Nursing, <https://www.monroecollege.edu/academics/undergraduate-programs/school-nursing/progressive-option-adult-learners>.
35. "EKG and Phlebotomy Technician," ABC Training Center, <https://abctrainingcenter.net/ekgphlebotomy-technician/>.
36. "International Development Institute," <https://idinewyork.com/>; and "Eligible Training Provider List," New York State Department of Labor.
37. "Make the Road New York," <https://maketheroadny.org/>; and, specifically, "Free Bridge to Health Careers Course," Make the Road New York, June 10, 2020, <https://cb14brooklyn.com/wp-content/uploads/2014/12/Bridge-to-Health-Careers-Extended-Registration-Sept-2018.pdf>.
38. Avik Roy, "Why Medicaid Is a Humanitarian Catastrophe," *Forbes*, March 2, 2011, <https://www.forbes.com/sites/theapothecary/2011/03/02/why-medicaid-is-a-humanitarian-catastrophe/>.
39. Ibid.
40. Medicaid Redesign Team, *A Plan to Transform the Empire State's Medicaid Program: Better Care, Better Health, Lower Costs*, New York State Department of Health, 2011, [https://www.health.ny.gov/health\\_care/medicaid/redesign/docs/mrtfinalreport.pdf](https://www.health.ny.gov/health_care/medicaid/redesign/docs/mrtfinalreport.pdf).



737 8th Street, SE

Suite 201

Washington, DC 20003

[opportunityamericaonline.org](http://opportunityamericaonline.org)