

The Health Care Workforce in New York, 2012: Trends in the Supply and Demand for Health Workers

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The New York Health Workforce Data System The Center for Health Workforce Studies

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The Center for Health Workforce Studies is a not-for-profit research organization whose mission is to provide timely, accurate data and conduct policy-relevant research about the health workforce. The Center's work assists health, professional, and education organizations; policy makers and planners; and other stakeholders to understand issues related to the supply, demand, distribution, and use of health workers.

PREFACE

The Center for Health Workforce Studies routinely monitors health care employment patterns in New York as well as indicators of health worker shortage. This report, based on data between 2010 and 2012, presents a trend analysis of the health workforce in New York and provides key information at state and regional levels. The objectives of this report are to describe health care employment trends in New York using data about jobs by health setting and about health professionals and to identify the health professions and occupations in greatest demand currently and offer projections for future demand. The goals of this report are to assist policy makers and other stakeholders to target health workforce education and job training resources to address the most pressing needs; guide health workforce policies, including decisions about the capacity of health professions education programs; and inform current and prospective students about health care employment prospects and opportunities.

This report was prepared by David Armstrong, Robert Martiniano, and Jean Moore of the Center for Health Workforce Studies. The Center is an independent, not-for-profit research group based at the School of Public Health, University at Albany, State University of New York. The Center's mission is to provide timely, accurate data and conduct policy-relevant research about the health workforce. Support and funding for this report's research came from the 1199 Hospital League Health Care Industry Planning and Placement Fund, Inc. The analyses and conclusions in this report reflect the work of the center exclusively.

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I. EXECUTIVE SUMMARY

The health care delivery system in New York is undergoing rapid transformation, driven in part by state and federal health reform initiatives. It is expected that these efforts will lead to an increased emphasis on accessible, high quality, cost-effective primary and preventive health services. As more New Yorkers have access to health insurance, demand for basic health services is expected to increase dramatically.

The growth, stability, and competency of the state's health workforce, particularly in primary care settings, will be essential to the success of emerging models of care, such as patient-centered medical homes and health homes. At a time when health care systems are undergoing dramatic change, data and information about the health workforce can contribute greatly to informed decision making on health workforce development.

The health workforce—health care professionals working inside and outside of the health sector and others working in the health sector—is an important component of the nation's economy, representing more than 13% of all workers in the United States. Health sector employment is one of the fastest growing employment sectors in the country. It is projected to grow at twice the rate of all other sectors in the U.S. between 2010 and 2020. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

Health sector employment is a vital part of New York's economy. The resilience of health sector employment is most evident when studying the impacts of the recent recession. Between 2007 and 2011, health sector employment in New York increased by more than 60,000 jobs, while employment in all other sectors declined by almost 170,000 jobs. During that time period, ambulatory care, hospitals, nursing homes, and home health care employment all grew, with employment in home health care increasing the most, by over 30%. As the economy continues to recover from the recession, it is expected that health sector job growth will increase and the growing demand for health workers could precipitate future shortages in many health professions and occupations.

This report presents a wide array of data about the health workforce in New York. It describes trends in the state's health workforce by setting, occupation, and region.

KEY FINDINGS

Health sector employment is vital to New York's economy, particularly upstate New York.¹

Employment in the health sector accounted for more than 12% of total employment in New York in 2010. Between 1990 and 2011, health care employment in New York grew by more than 250,000 jobs, or more than 33%, while employment in all other sectors grew by about 90,000 jobs, or 1%. The difference between health care and non-health care job growth in regions outside of New York City was even more dramatic. In upstate New York, while employment in the health care sector grew by more than 31% between 1990 and 2011, employment outside of the health care sector declined by over 8% during that same period.

Not all health sector occupations saw consistent job growth in recent years. Total registered nurse (RN) jobs throughout New York rose by 6% between 2007 and 2011, including a large increase between 2010 and 2011. However, RN jobs in New York City declined between 2007 and 2011, including a substantial decline between 2008 and 2009.

Hospitals employ the largest share of health sector workers in New York.

In 2011, 42% of health sector jobs in the state were in hospitals. Most of the remaining health sector jobs were either in ambulatory care (30%) or nursing and personal care facilities (16%).

Statewide, jobs in home health care and ambulatory care grew the most between 2007 and 2011.

Jobs in home health care grew by almost 29,000, or 31%, and jobs in ambulatory care increased by more than 21,000, or 8%, between 2007 and 2011. During the same time period, jobs in hospitals increased by more than 10,000, or 2%, and jobs in nursing and personal care facilities increased by a little over 400, or less than 1%. Between 2007 and 2011, jobs in ambulatory care increased in all regions, jobs in home health care grew in nine out of 10 regions, jobs in hospitals increased in seven out of 10 regions, and jobs in nursing homes increased in six out of 10 regions.

Health care providers across New York report recruitment and retention difficulties for a wide array of professions and occupations.

- Hospitals reported the most difficulty recruiting and retaining clinical laboratory technologists, with a shortage of workers cited most often as the reason. Hospitals also noted a problem recruiting and retaining medical coders, with more than two-thirds of the responding hospitals indicating a shortage of these workers. Nurse managers were also difficult for hospitals to recruit, with a shortage of workers cited most often as the reason.

¹ All areas outside of the New York City region.

- Nursing homes across New York reported the most difficulty recruiting experienced RNs, minimum data set (MDS) coordinators, nurse managers, and directors of nursing. Human resource directors noted the most difficulty retaining certified nursing aides (CNAs), followed by experienced RNs, newly licensed RNs, licensed practical nurses (LPNs), and nurse managers.
- New York's home health agencies reported the most difficulties recruiting occupational therapists, respiratory therapists, experienced RNs, and speech pathologists, citing worker shortages as the primary reason for recruiting difficulties for most of these occupations. Survey respondents also reported difficulty retaining respiratory therapists, speech pathologists, experienced RNs, and personal care assistants.
- Community health centers reported the most difficulty recruiting psychiatric nurse practitioners (NPs) and psychologists, and reported the most difficulty retaining LPNs.
- Most health care providers reported little difficulty recruiting newly licensed RNs.

Primary care physicians² are not evenly distributed across the state, and are more likely to practice in urban areas compared to rural areas.

There were more primary care physician full-time equivalents (FTEs) per 100,000 population practicing in densely populated areas of the state compared to sparsely populated areas. The Long Island region had the highest number at 84.2 FTEs per 100,000 and the North Country region had the lowest at 60.6 FTEs per 100,000.

Between 2011 and 2012, there was little growth in the number of graduates from New York's RN education programs.

In 2012, there were 10,255 graduates from RN education programs in New York, an increase of 92 graduates (or nearly 1%) compared to 2011. All of the growth that did occur was from increases of bachelor's degree (BSN) completers³ and associate degree (ADN) graduates. Between 2011 and 2012, there was a 2% increase in ADN graduates. While the overall number of BSN graduates decreased slightly during that time, the decline was in the number of four-year BSN graduates. The number of BSN completers actually increased by more than 120 between 2011 and 2012.

Compared to 2010, a slightly higher percentage of RN education program deans and directors reported "many jobs" for new RN graduates in 2012, though this was still significantly lower than the percentage reporting "many jobs" in 2007.

In 2007, the vast majority of RN education program deans and directors reported a strong job market for their graduates. However, starting in 2009 and continuing through the 2012 survey, the percentage of RN education program deans and directors reporting "many jobs" for their

² For the purposes of this report, primary care physicians practice in ambulatory care settings and include the following specialties: family medicine, general practice, general internal medicine, general pediatrics, obstetrics and gynecology, and geriatrics. Primary care physicians in this report do not include physicians working in emergency rooms, inpatient hospital settings (e.g., hospitalists), or other settings where their services are inaccessible to the general public.

³ BSN completers are RNs who already hold an RN diploma or an associate degree in nursing and who continue their education to obtain a BSN.

graduates declined significantly. Although there was a slight increase in the percentage of RN education program deans and directors who reported “many jobs” in 2012 compared to 2010, the numbers were still significantly lower than they were in 2007.

Statewide, the most substantial job growth in health occupations between 2010 and 2020 is projected for home health aides, personal and home care aides, and RNs.

Between 2010 and 2020, the New York State Department of Labor (NYSDOL) projected almost 8,000 annual job openings for home health aides, more than 7,300 annual job openings for personal and home care aides, and over 5,700 annual job openings for RNs. It is important to recognize that these projections may not fully account for local factors that could impact job growth, such as hospital closures or bed reductions.

II. BACKGROUND

A. Overview

The health care delivery system in New York is undergoing rapid transformation, driven in part by state and federal health reform initiatives. It is expected that these efforts will lead to an increased emphasis on accessible, high quality, cost-effective primary and preventive health services. As more New Yorkers have access to health insurance, demand for basic health services is expected to increase dramatically.

The growth, stability, and competency of the state's health workforce, particularly in primary care settings, will be essential to the success of emerging models of care, such as patient-centered medical homes and health homes. At a time when health care systems are undergoing dramatic change, data and information about the health workforce can contribute greatly to informed decision making on health workforce development.

The health workforce—health care professionals working inside and outside of the health sector and others working in the health sector—is an important component of the nation's economy, representing more than 13% of all workers in the United States. Health sector employment is one of the fastest growing employment sectors in the country. It is projected to grow at twice the rate of all other sectors in the U.S. between 2010 and 2020. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

Health sector employment is a vital part of New York's economy. The resilience of health sector employment is most evident when studying the impacts of the recent recession. Between 2007 and 2011, health sector employment in New York increased by more than 60,000 jobs, while employment in all other sectors declined by almost 170,000 jobs. During that time period, ambulatory care, hospitals, nursing homes, and home health care employment all grew, with employment in home health care increasing the most, by over 30%. As the economy continues to recover from the recession, it is expected that health sector job growth will increase and the growing demand for health workers could precipitate future shortages in many health professions and occupations.

This report presents a wide array of data about the health workforce in New York. It describes trends in the state's health workforce by setting, occupation, and region.

B. Objectives and Goals

The objectives of this report are:

- To describe health care employment trends in New York using data on jobs by health setting and data on health professionals in the state; and
- To identify the health professions and occupations in greatest demand currently and offer projections for future demand.

The goals of this report are:

- To assist policy makers and other stakeholders to target health workforce education and job training resources to address the most pressing needs;
- To guide health workforce policies, including decisions about the capacity of health professions education programs; and
- To inform current and prospective students about health care employment prospects and opportunities.

C. Data Sources and Methods

All data sources for this report are cited unless the data are from primary data collection conducted by the Center for Health Workforce Studies and collaborating partners. The following is a list of data sources used in this report. When appropriate the methods used for calculating the rates in this report are also discussed.

1. Center for Health Workforce Studies

- Surveys of Human Resources Directors in Health Care

The Center, in conjunction with statewide and regional provider organizations, conducts annual surveys of human resources directors from nursing homes, home health agencies, hospitals, and federally qualified health centers (FQHCs) and look-alikes⁴ across New York. The surveys ask about the professions and occupations that pose the greatest recruitment and retention problems. The provider organizations the Center collaborated with included: Healthcare Association of New York State, Community Health Center Association of New York State, Continuing Care Leadership Coalition at the Greater New York Hospital Association, New York State Association of Healthcare Providers, Inc., New York State Association of Counties, LeadingAge New York, and the Home Care Association of New York State, Inc.

Findings from these surveys are reported statewide and by NYSDOL regions. A list of counties and a map depicting the NYSDOL regions are included on pages 10 and 11. In instances where total responses for a region, either by setting or occupation, were less than five, no information was provided or contiguous regions were combined.

⁴ “Look-alikes” refer to organizations that meet the eligibility standards of an FQHC, but they do not receive federal grant funding. Look-alikes do receive many of the other benefits of being an FQHC, however.

Many home health agencies serve patients in multiple counties and these counties may be located in different NYSDOL regions. Consequently, information on recruitment and retention for home health agencies was reported in each region where service was provided.

- New York State RN Graduations, 1996-2013

The Center surveys RN education programs in New York annually to better understand trends in the supply of RNs in the state. The 2012 survey included questions about applications, acceptances, and graduations for that year as well as projected graduations through 2013.

- New York State Physician Licensure Re-registration Survey

With the support of the New York State Department of Health (NYSDOH) and assistance from the New York State Education Department (SED), the Center administers an ongoing survey of licensed physicians in New York. The survey is designed to collect basic information on demographic and practice characteristics of all licensed physicians in New York. These data are used to describe the supply of primary care physicians in New York. In this report primary care physicians refer to physicians who practice in ambulatory care settings and include the following specialties: family medicine, general practice, general internal medicine, general pediatrics, obstetrics and gynecology, and geriatrics. Primary care physicians in this report do not include physicians practicing in inpatient hospital settings (e.g., hospitalists) or other settings that make their services inaccessible to the general public. In this report, physicians are discussed in terms of full-time equivalents (FTEs). FTEs are calculated by dividing the number of hours a physician works a week by 40. FTEs are not allowed to exceed one.

2. U.S. Bureau of Labor Statistics (BLS) and the NYSDOL:

- Covered Employment and Wages Program (ES-202)

These data were used to describe regional changes in health care employment by setting. A number of conditions potentially affected the information reported, including closures, mergers, and expansions. Consequently, large changes in jobs in specific health sectors, i.e., hospitals, nursing homes, or home health care, may reflect a change in ownership or the service delivery system rather than workforce issues. These data are reported statewide as well as by NYSDOL region. These numbers are estimates and not whole numbers, therefore, the columns and rows in some tables in this report may not total exactly due to rounding. At times, ES-202 survey responses were not able to be placed into regions. Consequently, summing the regions will not add up to the statewide total.

- Occupational Employment Statistics (OES)

These data were used to describe changes in the number of jobs by occupation in New York, by NYSDOL regions, and for the New York City Primary Metropolitan Statistical Area (PMSA). OES estimates are based on a sample of employers. If too few employers responded to the survey, the numbers for some occupations may not be reported or may not reflect the actual count of jobs in those occupations. Additionally, estimates may fluctuate year-to-year based on response rates, especially for smaller geographical areas.

- Employment Projections

Employment projections used in this report reflect a count of the number of jobs in certain occupational categories and by health care setting. National, state, and regional projections are for the period 2010 to 2020.

Annual openings reflect both newly created positions in the occupation and turnover of workers in existing positions who retire, change jobs, or leave the occupation. Occupations with a small increase in the number of new jobs but a high number of annual openings typically reflect significant annual turnover within the occupation rather than expansion of the occupation.

3. State Education Department Licensure Data

The licensure data presented in this report reflect counts of licensed health care professionals in New York at five points in time: April 1, 2007; April 1, 2008; April 1, 2009, April 1, 2010, and April 1, 2011. State licensure data are a source of information on the supply of health professionals. Data are available from SED on the number of individuals licensed in a health profession. By law, SED licenses more than 25 health professions and individuals must secure a New York license before practicing in one of these health professions. Licensure data in a health profession represent the upper limit of the number of individuals in New York who can practice in a profession. It is important to recognize the limitations of these data; chiefly that some individuals who are licensed in a health profession may be working either less than full time or not at all in the profession, or may be working in the profession but in another state. Licensure data, however, can provide valuable information on major trends in the supply of health professionals in the state.

Counts by county are based on the mailing address in the licensure file, which could be either a home or a practice location. Additionally, certain individuals in the file may be licensed to practice in New York but live in another state.⁵

⁵ Note: The total listed in the report includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, while tables of licensees by region include only those individuals with an address in the region.

4. U.S. Census

Data from the 2010 U.S. Census and the 2006-2010 American Community Survey were used to describe selected population characteristics by NYSDOL regions. The population characteristics include total population, age structure, poverty, race/ethnicity, and education level. The education levels and education rates are for those age 25 and older.

5. New York State Community Health Indicator Reports

These data were used to describe the health of the population by NYSDOL regions. The health indicators include information on deaths, births, and hospitalizations. Both counts and rates are reported. Infant death rate is reported per 1,000 live births, total birth rate is reported per 1,000 females, age 15-44; teen birth rate is reported per 1,000 females, age 15 to 19; and low-birthweight rate and percent of late/no prenatal care is reported per 100 live births. Rates per 100,000 for adult asthma hospital admissions are based on population, age 18 and older. Rates per 100,000 for pediatric asthma hospital admissions are based on population, age birth to 17. All other rates per 100,000 for hospitalizations are based on the total population.

D. Terminology

The settings used in this report are based on the U.S. BLS North American Industry Classification System (NAICS) for the health care sector. The breakdown of settings within the health care sector is as follows:

- Hospitals (public and private);
- Nursing and personal care facilities (excluding residential, mental retardation, mental health and substance abuse facilities, and other residential care facilities);
- Home health care services; and
- Ambulatory care settings (excluding home health care services), including:
 - Medical and diagnostic laboratories;
 - Offices and clinics of doctors of medicine;
 - Offices and clinics of dentists;
 - Offices and clinics of other health practitioners;
 - Outpatient care centers; and
 - Other ambulatory health services.

This classification scheme provides standardization among the data sets presented but it has some limitations. By limiting the analyses to the NAICS health services industries, health care workers in hospital-sponsored ambulatory care sites may be included in hospital employment counts. In addition, health care professionals in industries outside of the settings listed, such as those in schools, insurance firms, or who are self-employed, are excluded from the health sector counts. The Center estimates that, nationally, one-fourth of the health care workforce is employed outside of the health care settings that are included in the health care sector defined by BLS.

Occupations are usually grouped by BLS OES categories. These occupational categories also have limitations. Prior to 2010, for example, registered nursing made no distinction between NPs, nurse midwives, and staff RNs. The nursing aides, orderlies, and attendants occupational category also includes multiple job titles, levels of training, and certifications.

There are some job titles in a health setting that may not necessarily reflect similar OES occupational classifications and this may cause some problems in reporting. For example, confusion may result from the differences in defining a home health aide as any individual providing services in the home or as one who completes home health aide certification requirements.

Also, throughout this report several abbreviations are used. The following is a list of the most common.

CNA	certified nursing aides
FPL	federal poverty level
FQHC	federally qualified health center
FTE	full-time equivalent
HIT	health information technology
LPN	licensed practical nurse
MDS	minimum data set coordinator
NP	nurse practitioner
RN	registered nurse
SW	social worker

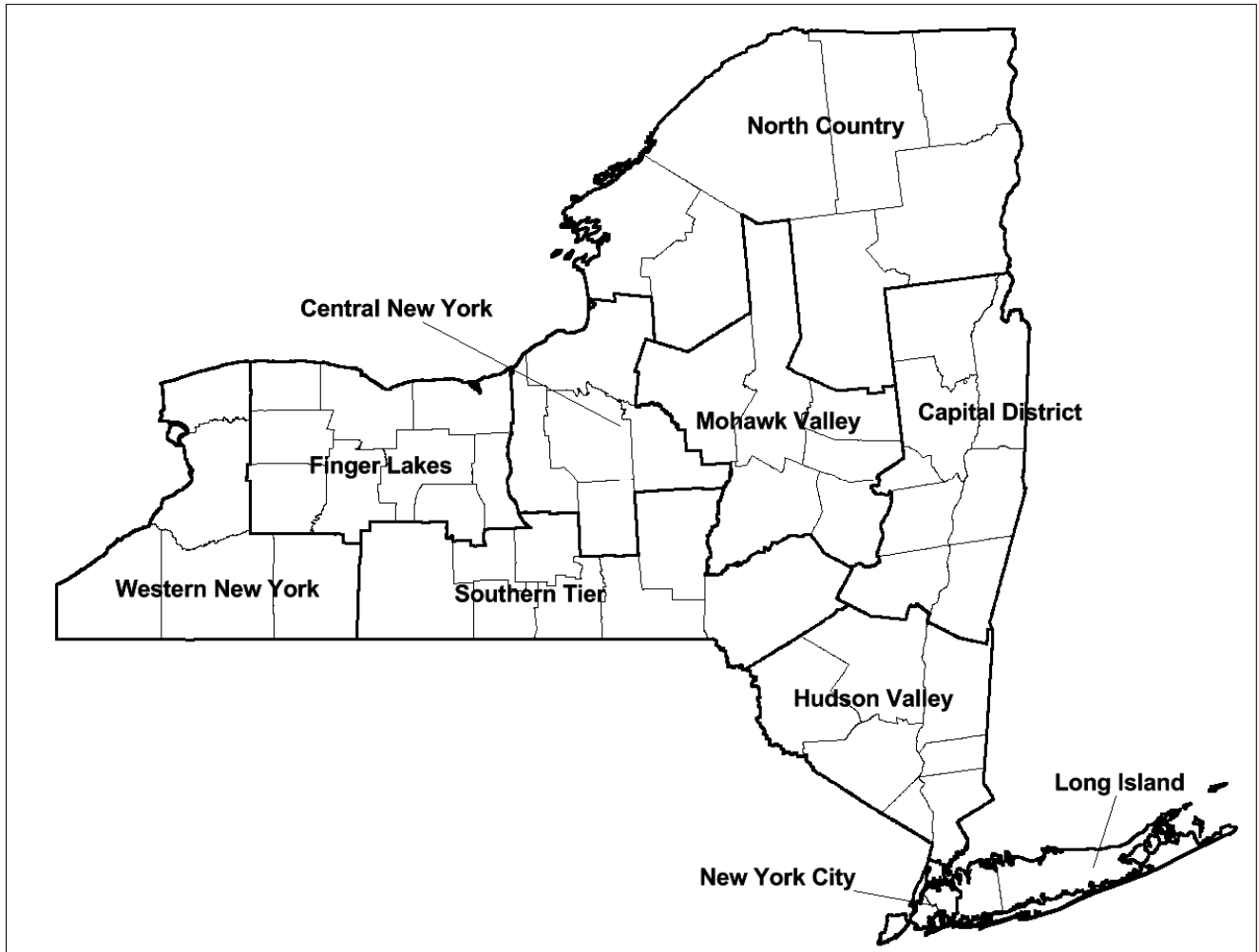
Geographic Areas

The NYSDOL regions (Exhibit 1) used in this report are:

- Capital District: The counties of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington.
- Central New York: The counties of Cayuga, Cortland, Madison, Onondaga, and Oswego.
- Finger Lakes: The counties of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates.
- Hudson Valley: The counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester.
- Long Island: The counties of Nassau and Suffolk.
- Mohawk Valley: The counties of Fulton, Herkimer, Montgomery, Oneida, Otsego, and Schoharie.
- New York City: The counties of Bronx, Kings (Brooklyn), New York (Manhattan), Queens, and Richmond (Staten Island).
- North Country: The counties of Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and St. Lawrence.

- Southern Tier: The counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins.
- Western New York: The counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara.

Exhibit 1
New York State Department of Labor Regions



III. THE HEALTH CARE WORKFORCE IN THE UNITED STATES

A. Total Employment

In 2010, there were more than 19 million jobs either in the health sector or in health occupations outside of the health sector, accounting for over 13% of the total U.S. workforce. Of those 19 million jobs in 2010, more than 14 million jobs, or nearly 11% of U.S. employment, were in the health sector, including both health and non-health-related occupations. The remaining 4 million jobs, or 2.8% of U.S. employment, were in health occupations outside of the health sector (Exhibits 2 and 3).

Exhibit 2
The U.S. Health Workforce, 2010 (in thousands)

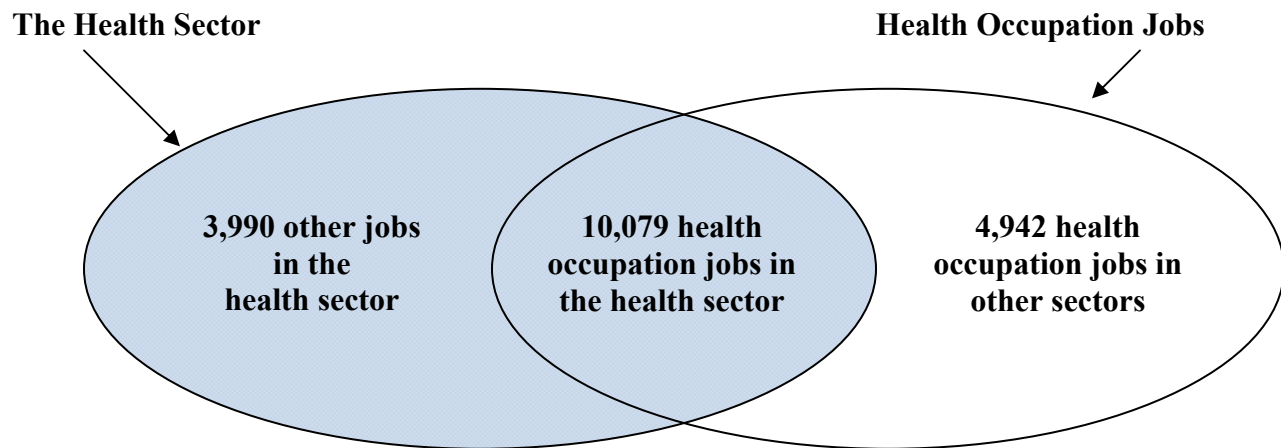


Exhibit 3
The U.S. Health Workforce, 2010 (in thousands)

Setting	Health Occupation Jobs	Other Jobs	Total
Health Care Settings	10,079.1	3,990.1	14,069.2
Other Work Settings	4,942.2	124,056.8	128,999.0
Total	15,021.3	128,046.9	143,068.2

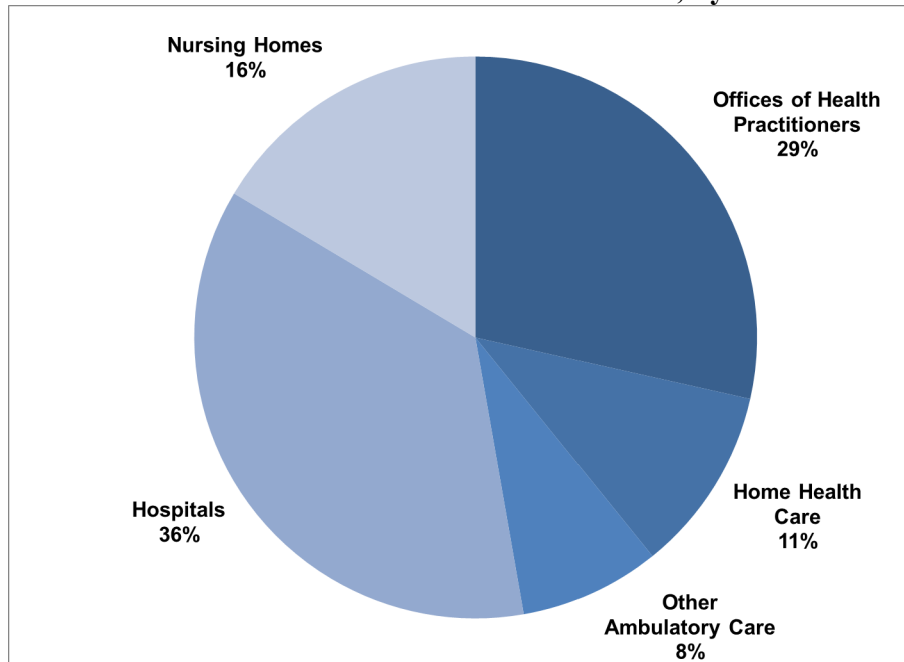
Setting	Number	Percent of Civilian Labor Workforce
Health Occupation Jobs in Health Care Settings	10,079.1	7.0%
Other Jobs in Health Care Settings	4,942.2	3.5%
Health Occupation Jobs in Other Settings	3,990.1	2.8%
Total U.S. Health Care Jobs	19,011.4	13.3%

Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020.

B. By Setting

Hospitals continue to employ the most health workers in the U.S. (36%) followed by offices of health practitioners (29%), nursing homes (16%), home health care (11%), and other ambulatory care (8%) (Exhibit 4).

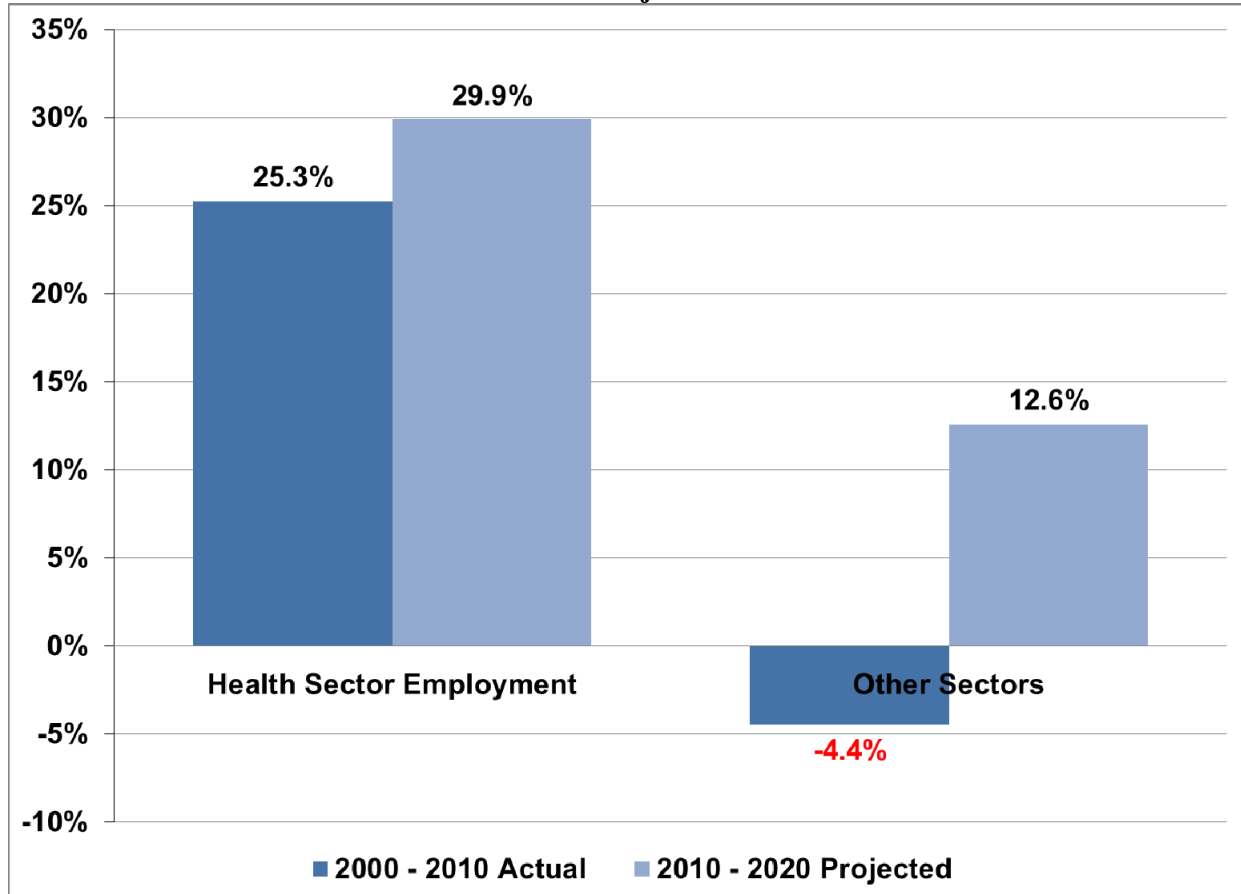
Exhibit 4
Percent Distribution of the Health Workforce in the U.S., by Health Settings, 2010



Source: 2010-2020 National Employment Matrix, Bureau of Labor Statistics

Between 2000 and 2010, employment in the country's health sector grew by more than 25% while other sectors decreased by 4%. It is projected that between 2010 and 2020, health sector employment will grow at a significantly higher rate than all other employment sectors. Health sector employment is projected to grow from over 14 million jobs in 2010 to nearly 18.3 million jobs in 2020, an increase of 30%, compared to only 13% growth for jobs in all other employment sectors (Exhibit 5).

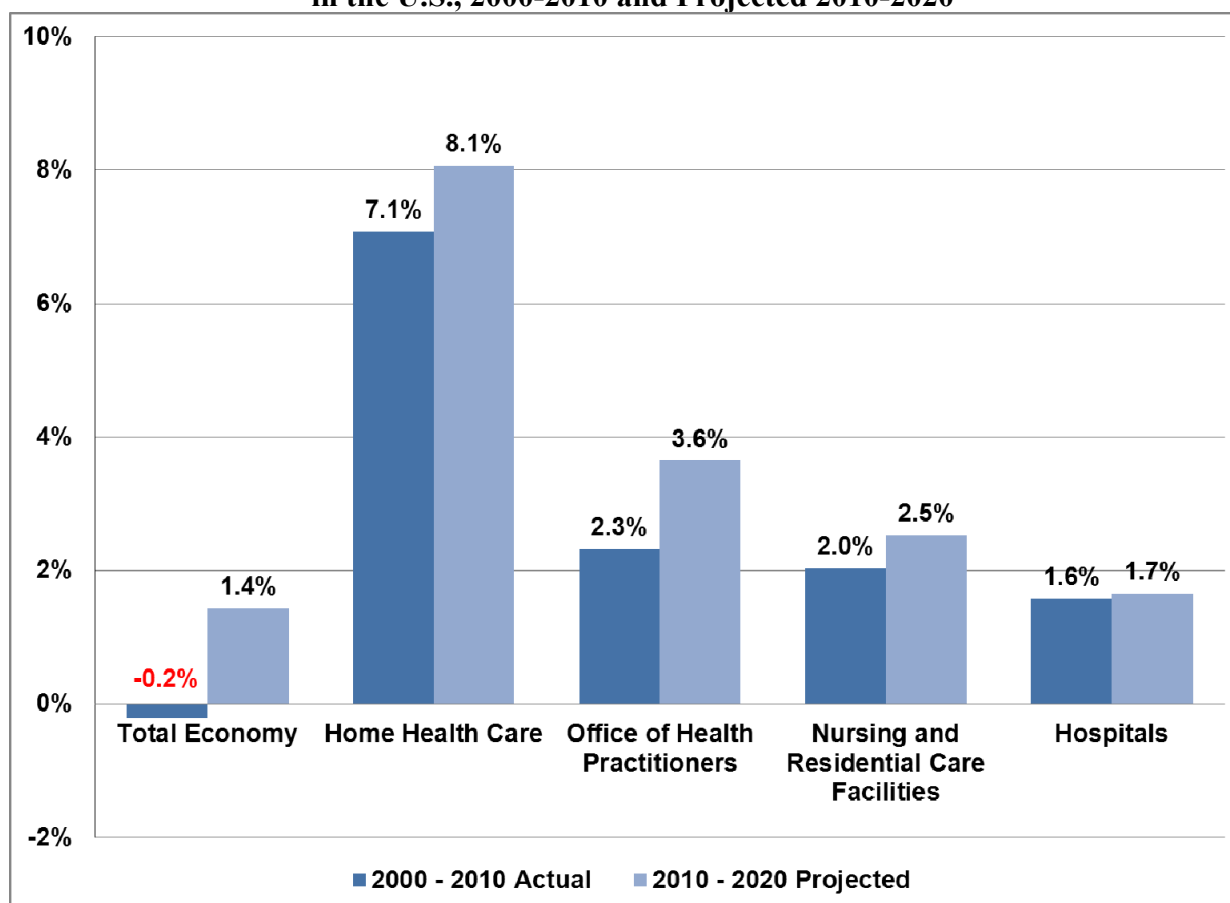
Exhibit 5
Job Growth in the Health Sector Compared to All Other Employment Sectors in the U.S., 2000–2010 and Projected 2010–2020



Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020.

Nationwide, home health care is projected to experience the fastest job growth across all health care settings, with an average annual growth of more than 8% between 2010 and 2020 (87,000 new jobs per year), surpassing the average annual growth for home health care between 2000 and 2010. In addition, jobs in offices of health practitioners are projected to grow by over 3% annually (139,000 new jobs) and jobs in nursing homes are projected to increase by more than 2% annually (60,000 new jobs) between 2010 and 2020. Jobs in hospitals are projected to grow by nearly 2% annually (94,000 new jobs) during the same period (Exhibit 6).

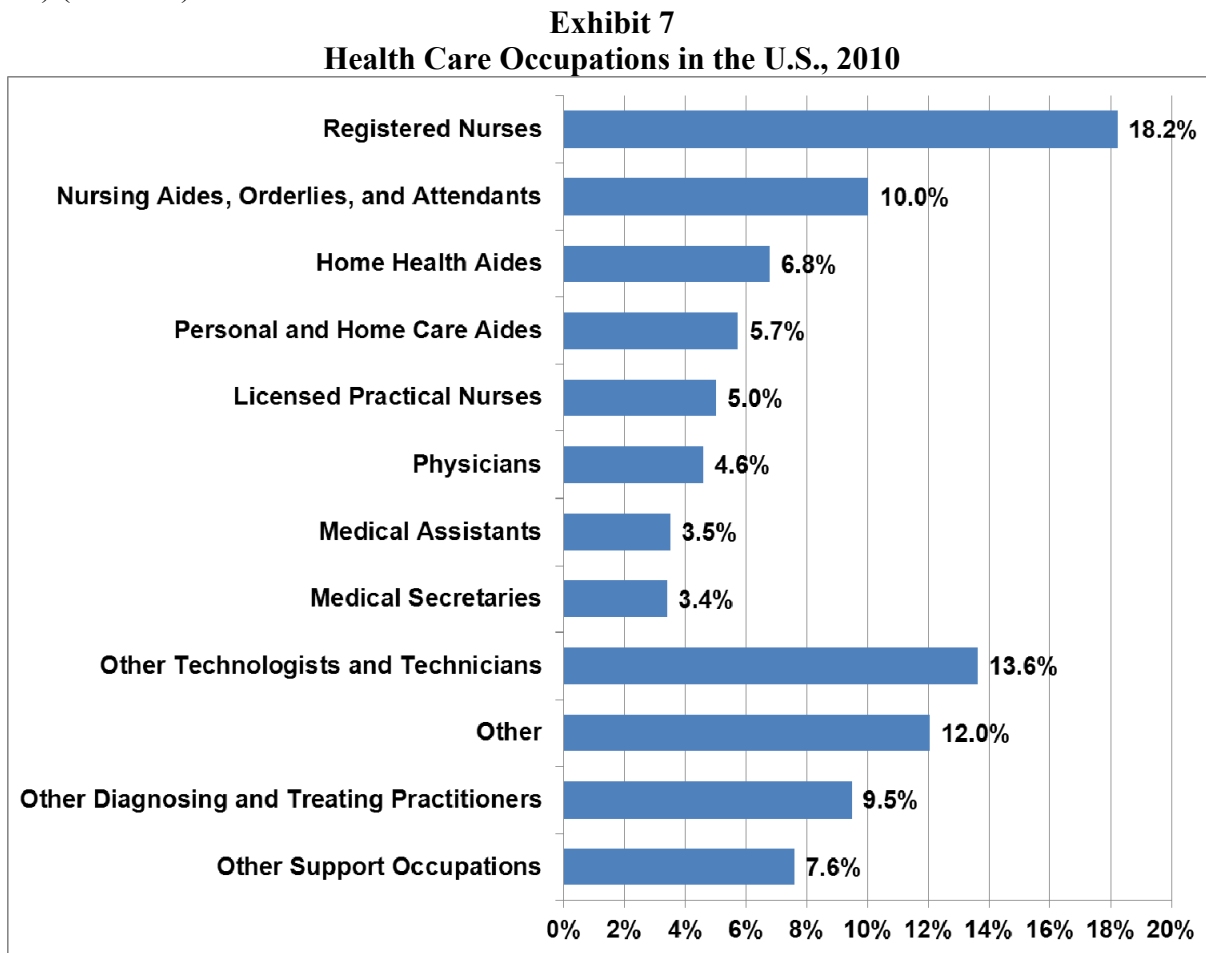
Exhibit 6
Average Annual Growth of Selected Occupational Settings in the Health Care Sector
in the U.S., 2000-2010 and Projected 2010-2020



Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020.

C. By Occupation

Of the total health care workforce in the U.S. in 2010, RNs (18%) were the single largest health occupation, followed by nursing aides, orderlies, and attendants (10%) and home health aides (7%) (Exhibit7).



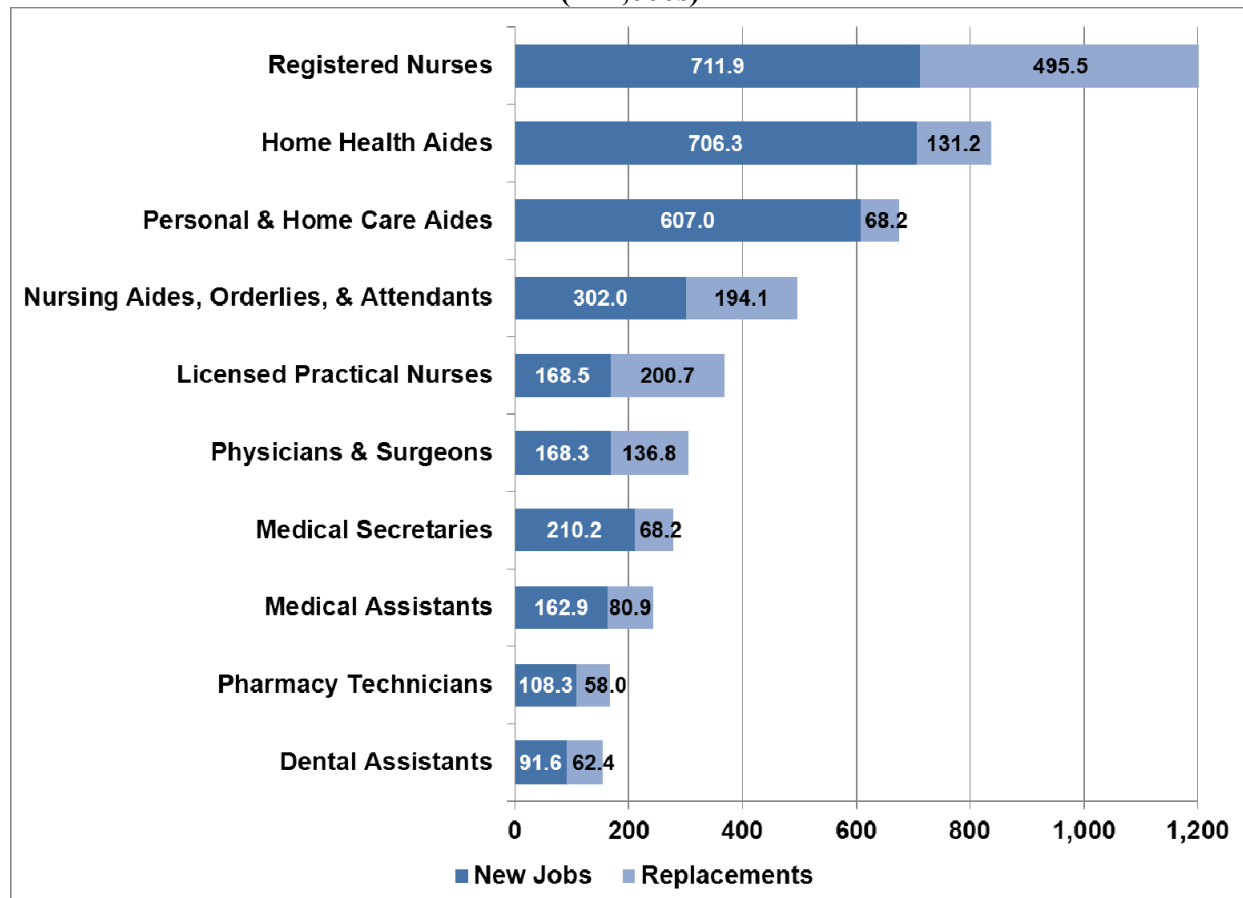
Source: 2010-2020 National Employment Matrix, Bureau of Labor Statistics

Jobs for both personal care aides and home health aides are projected to increase substantially between 2010 and 2020, by 71% and 69%, respectively. The projected fastest growing health occupations include:

- Personal care aides (71%);
- Home health aides (69%);
- Veterinary technologists and technicians (52%);
- Physical therapy assistants (46%);
- Diagnostic medical sonographers (44%);
- Occupational therapy assistants (43%);
- Physical therapy aides (43%);
- Medical secretaries (41%);
- Marriage and family therapists (41%); and
- Physical therapists (39%).

Between 2010 and 2020, more than 1.2 million new RNs will be needed nationwide, including almost 500,000 to replace RNs leaving the profession. During the same period, nearly 840,000 home health aides; about 675,000 personal and home care aides; almost 500,000 nursing aides, orderlies, and attendants; and nearly 370,000 LPNs will be needed to fill new and existing jobs (Exhibit 8).

Exhibit 8
Selected Health Occupations with the Largest Projected Job Need in the U.S., 2010-2020
(in 1,000s)



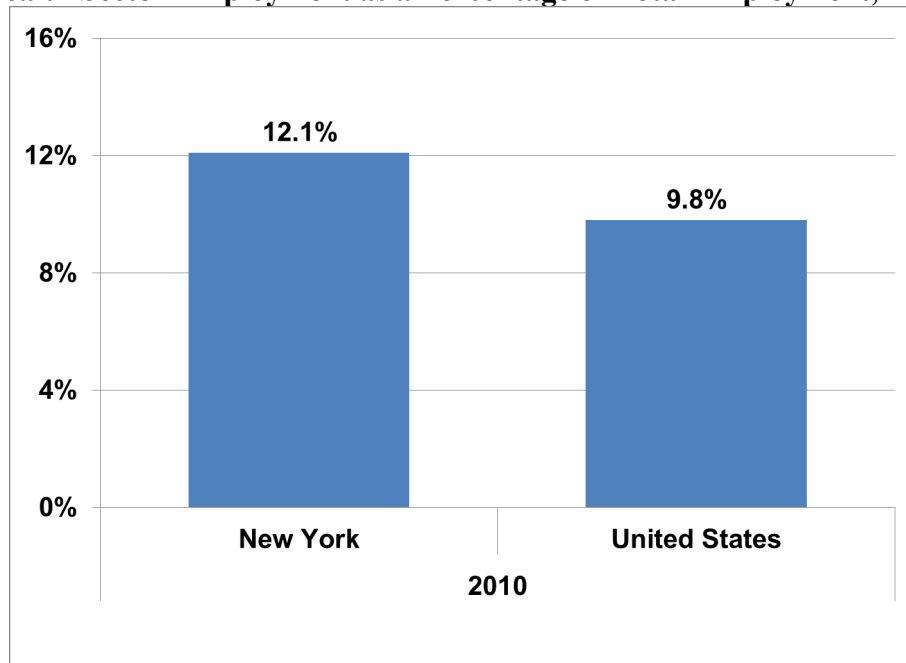
Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2010 and projected 2020.

IV. NEW YORK HEALTH SECTOR EMPLOYMENT

A. Total Employment

Employment in the health sector accounted for more than 12% of total employment in New York in 2010, somewhat higher than the national level. This did not include those health professionals working in other employment sectors outside the health sector (Exhibit 9).

Exhibit 9
Health Sector Employment as a Percentage of Total Employment, 2010

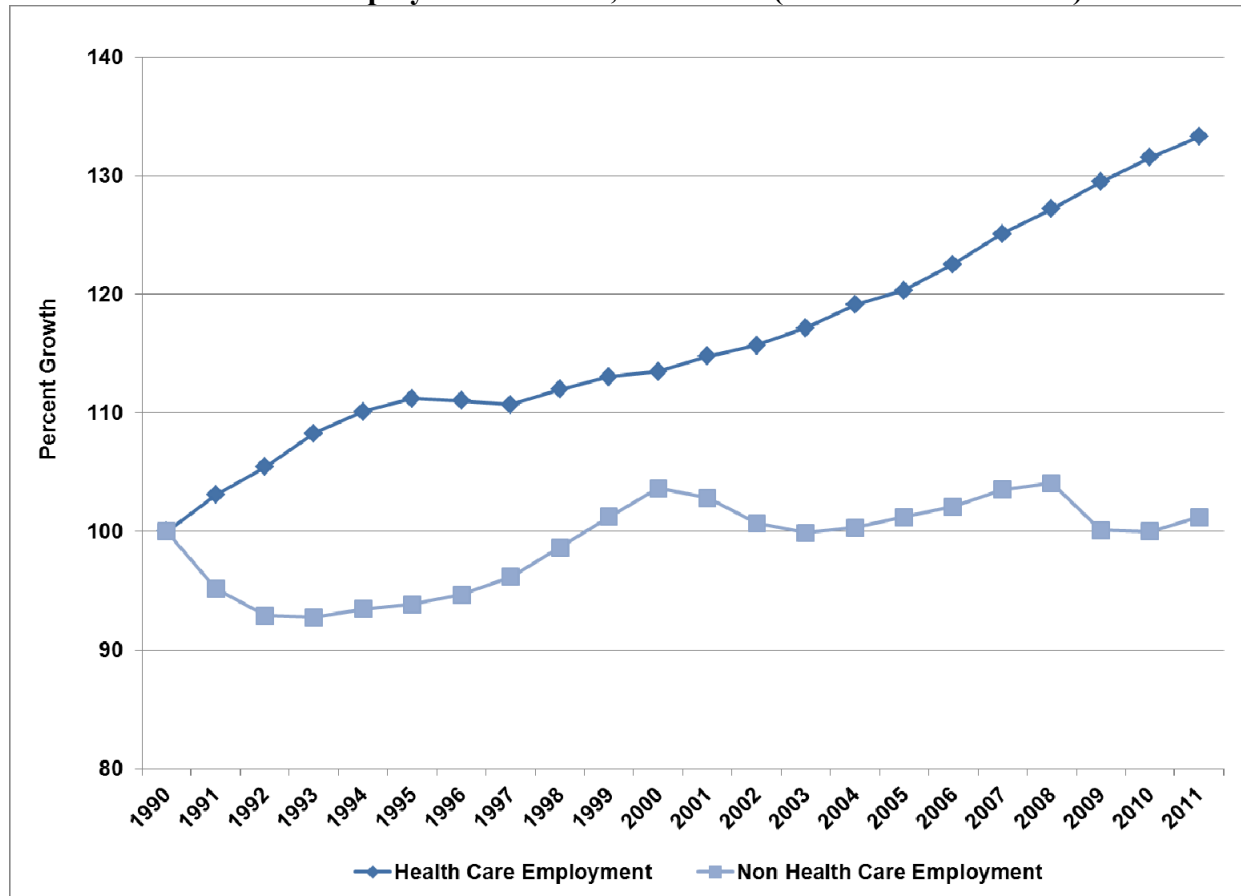


Source: Bureau of Labor Statistics, Current Employment Statistics, Employment, Hours, and Earnings National Database and State and Metro Area Database

Between 1990 and 2011, health care employment in New York expanded by more than 250,000 jobs, or over 33%, while employment in all other sectors grew by about 90,000 or 1%. Between 2008 and 2009, employment outside of the health care sector declined by over 290,000 jobs, while employment in the health care sector increased by over 17,000 jobs, or nearly 2%.

Additionally, in the 10 years between 2001 and 2011, overall employment in New York declined by slightly over 1% while employment in health care increased by more than 16% (Exhibit 10).

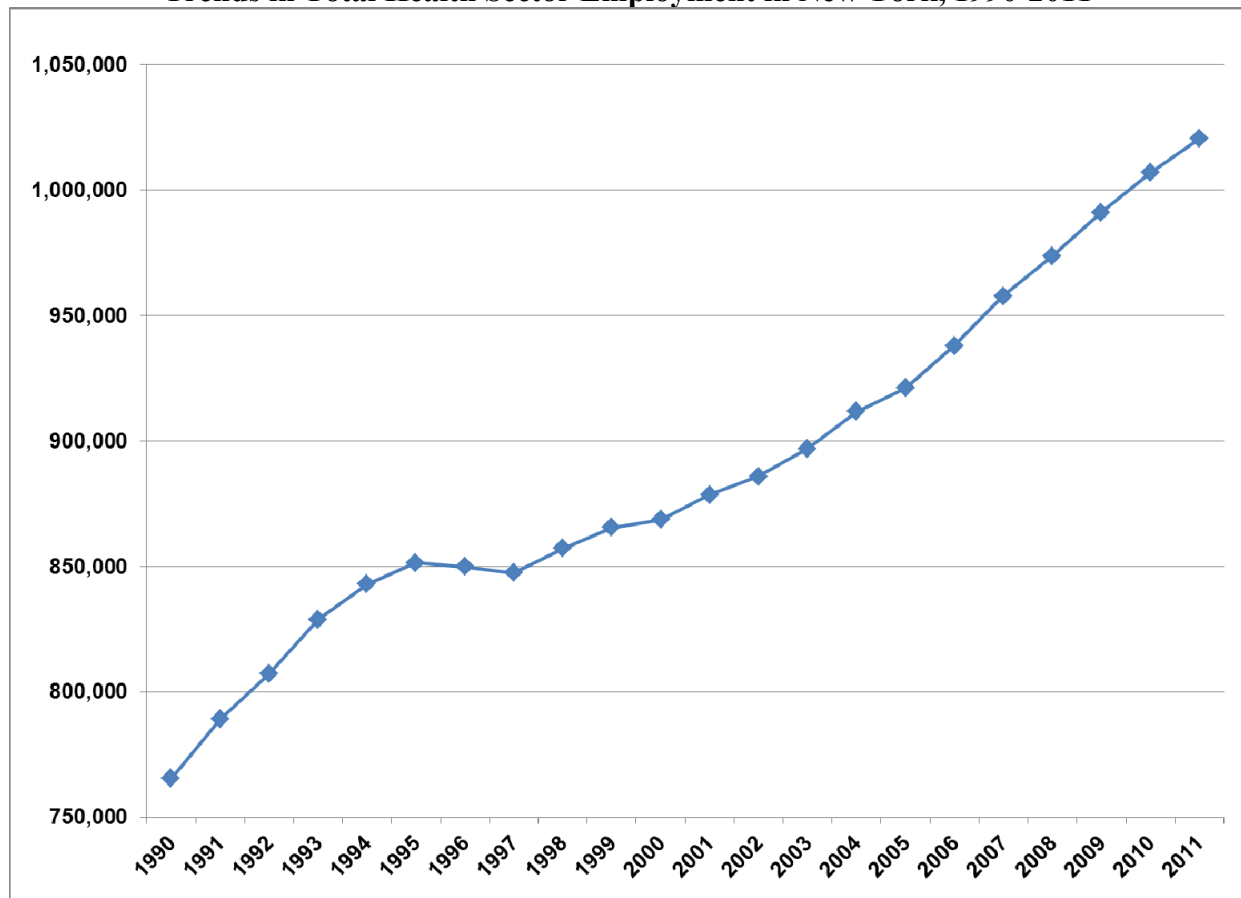
Exhibit 10
New York Employment Growth, 1990-2011 (Standardized to 1990)



Source: NYS Department of Labor, ES-202

After leveling off between 1994 and 1996, health sector employment in New York has grown rapidly, adding more than 170,000 jobs. The average annual growth in the health sector since 1997 has been more than 1% (Exhibit 11).

Exhibit 11
Trends in Total Health Sector Employment in New York, 1990-2011

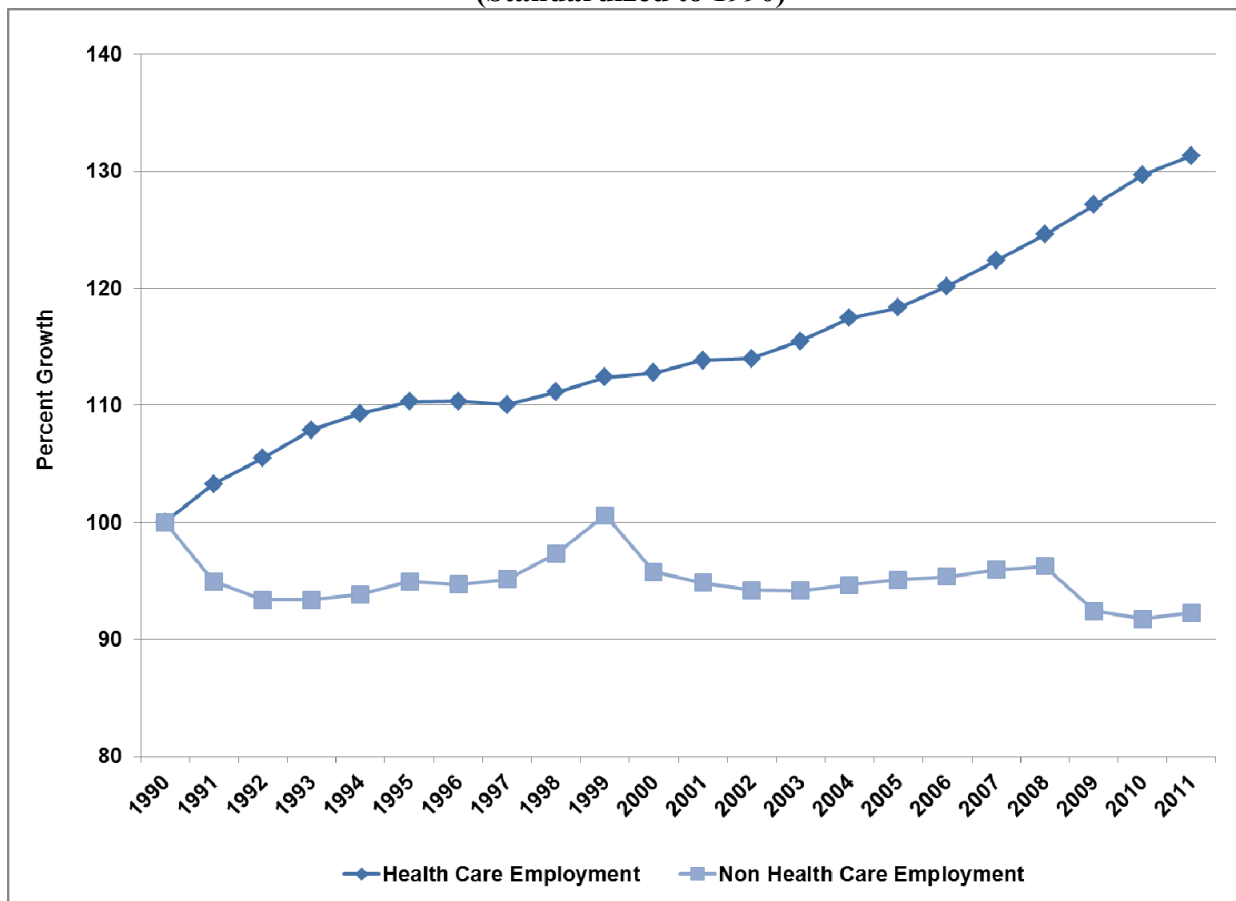


Source: NYS Department of Labor, ES-202

Employment Growth in Regions Outside of New York City⁶

The difference between health care and non-health care job growth was even more dramatic in regions outside of New York City. While employment in the health care sector grew by more than 31% between 1990 and 2011 in upstate New York, employment outside of the health care sector declined by over 8% during that same period. Between 2000 and 2008, employment outside of health care remained relatively steady, albeit below the 1990 employment figures, but in 2009, employment dropped significantly in non-health care sectors in areas outside of New York City (Exhibit 12).

Exhibit 12
Employment Growth in Regions Outside of New York City, 1990-2011
(Standardized to 1990)



Source: NYS Department of Labor, ES-202

⁶ For New York City employment growth, please see page 47, Exhibit 39.

B. Primary Care Physicians

There were over 15,000 primary care physician FTEs practicing in New York in 2010, or 79.9 per 100,000 total population. Forty-two percent (42%) of them practiced general internal medicine, 23% were in family and general practice, and 22% were in general pediatrics. There were nearly 47.3 obstetricians/gynecologists (ob/gyns) per 100,000 women age 15-44 and 77.6 general pediatricians per 100,000 for children age birth-17 (Exhibit 13).

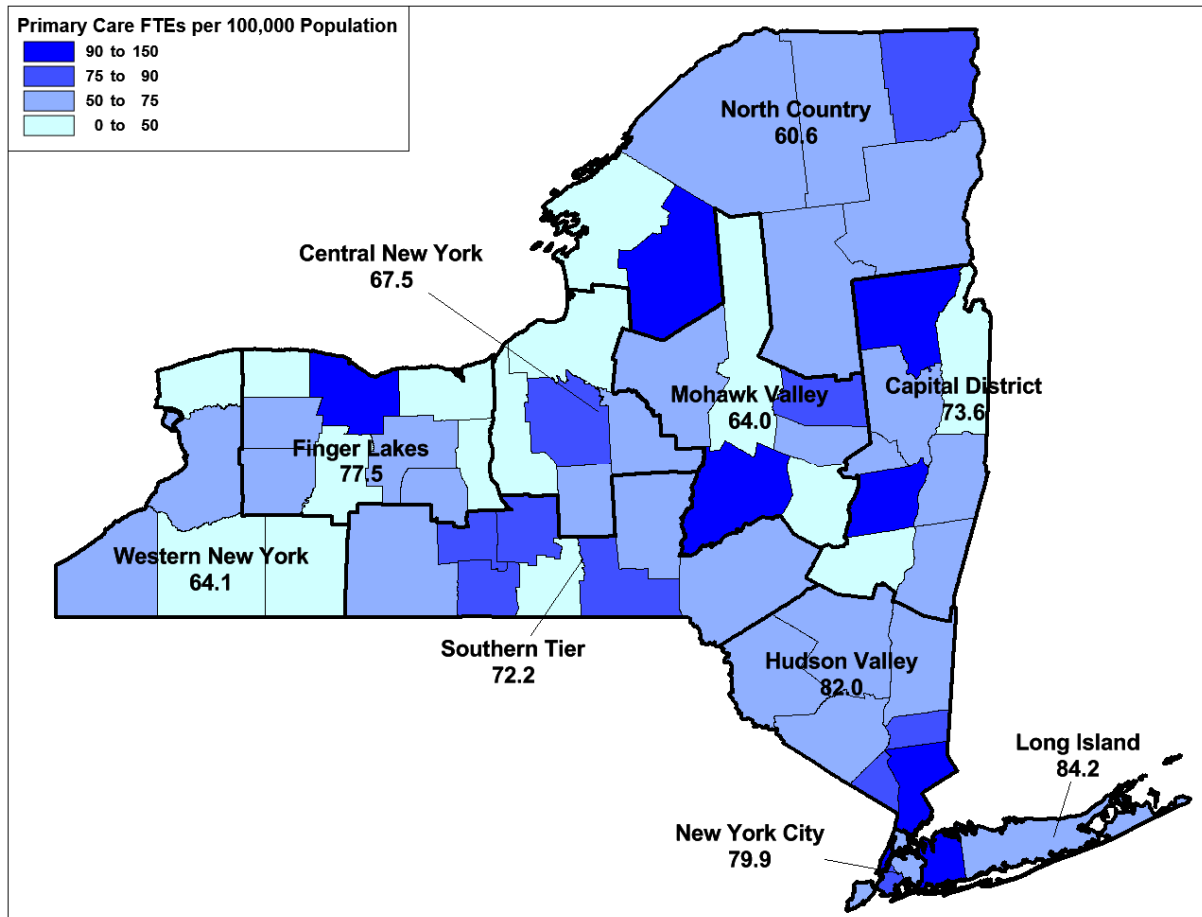
Exhibit 13
Primary Care FTEs in New York, by Specialty, 2010⁷

Specialty	Primary Care FTEs	Per 100,000 Population
Family/General Practice	3,509	18.1
Internal Medicine (General)	6,575	33.9
Geriatrics	123	0.6
Obstetrics/Gynecology	1,917	47.3
Pediatrics (General)	3,358	77.6
Total	15,482	79.9

⁷ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Primary care FTEs were not evenly distributed among regions in the state. The Long Island region had the highest number with 84.2 FTEs per 100,000 total population and the North Country region had the lowest with 60.6 FTEs per 100,000 (Exhibit 14).

Exhibit 14
The Number Primary Care FTEs Per 100,000 Population in New York, 2010



C. By Setting

Between 1990 and 2011, employment in the health care sector increased by more than one-third in New York. Employment in home health care (173%) almost doubled between 1990 and 2011, while employment in both ambulatory care settings (excluding home health care) and nursing home and personal care facilities significantly increased during that same period, by 79% and 52%, respectively. Employment in hospitals decreased by 2% between 1990 and 2011 (Exhibit 15).

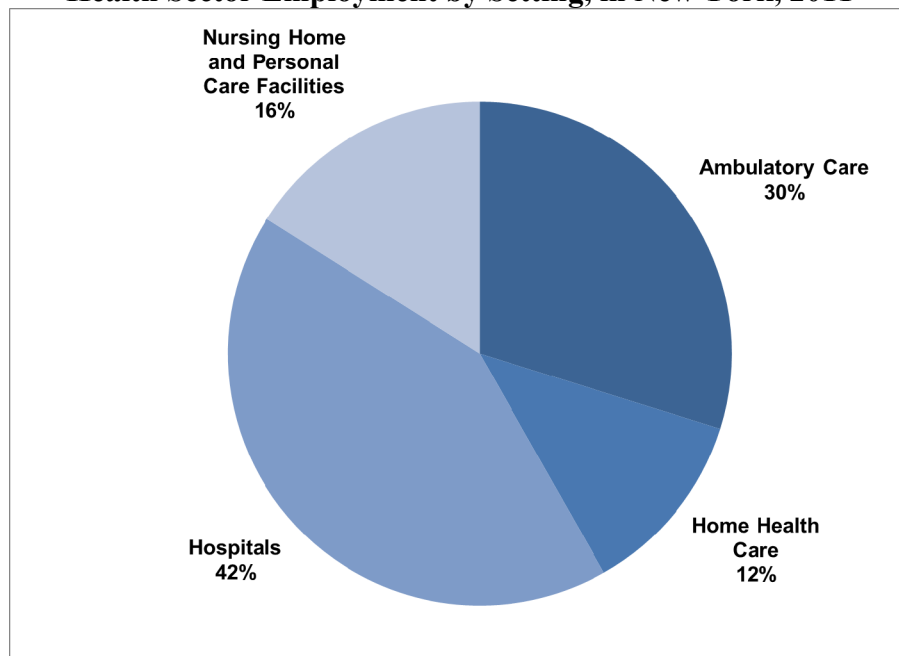
Exhibit 15
Change in Health Sector Employment in New York, 1990-2011

Setting	1990	2011	Number Change	Percent Change
Hospitals	439,900	430,380	-9,520	-2.2%
Ambulatory Care (Excluding Home Health)	170,000	304,422	134,422	79.1%
Nursing Home and Personal Care Facilities	107,800	163,521	55,721	51.7%
Home Health Care	44,800	122,100	77,300	172.5%
Total	762,500	1,020,423	257,923	33.8%

Sources: NYS Department of Labor, ES-202; U.S. Bureau of Labor Statistics, Current Employment Statistics

Hospitals employed the largest share of workers in the health sector in New York in 2011 (42% of all health sector employees), while other health sector employees worked in ambulatory care (30%), nursing and personal care facilities (16%), and home health care (12%) (Exhibit 16).

Exhibit 16
Health Sector Employment by Setting, in New York, 2011



Sources: NYS Department of Labor, ES-202

D. By Region

Health sector employment in New York grew by over 6% between 2007 and 2011. In 2011, the New York City region had more than 441,000 health sector jobs and the Long Island region had more than 164,000 health sector jobs, reflecting increases of 6% and 12% since 2007, respectively. The North Country region had the second largest percentage increase in health sector employment (7%) (Exhibit 17).

Exhibit 17

Total Health Sector Employment in New York, by Department of Labor Region, 2007-2011

Region	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Capital District	52,416	53,249	54,136	54,521	55,320	2,904	5.5%
Central New York	36,251	36,578	37,061	37,093	37,367	1,116	3.1%
Finger Lakes	57,799	59,232	60,192	60,999	61,889	4,090	7.1%
Hudson Valley	105,832	107,364	108,778	110,546	111,655	5,823	5.5%
Long Island	146,661	150,712	153,830	161,395	164,628	17,967	12.3%
Mohawk Valley	26,221	26,609	26,942	27,195	27,019	798	3.0%
New York City	418,453	424,135	430,901	435,264	441,651	23,198	5.5%
North Country	16,594	16,858	17,244	17,564	17,784	1,190	7.2%
Southern Tier	27,173	27,852	28,173	28,648	28,925	1,752	6.4%
Western New York	69,790	70,241	71,034	71,456	71,384	1,594	2.3%
Total	959,028	975,126	990,956	1,006,782	1,020,423	61,395	6.4%

Sources: NYS Department of Labor, ES-202

The Long Island region had the highest number of health care jobs per capita in 2011 with 5,790.1 jobs per 100,000 population, followed by the Mohawk Valley region with 5,425.1 jobs per 100,000 population. The North Country had the lowest number of health care jobs per 100,000 population in 2011 with 4,096.4 jobs. The Mohawk Valley had the highest percent of health care jobs to total jobs in 2011 (14%), followed by Long Island and Hudson Valley regions. Between 2007 and 2011, the number of health care jobs per capita increased by slightly more than 6% between 2007 and 2011 (Exhibit 18).

Exhibit 18
Total Employment and Health Sector Employment in New York, by
Department of Labor Region, 2007-2011

Region	2007			
	Total Population	Jobs Per 100,000		% Employment in Health Care
		Total Employment	Health Care Employment	
Capital District	1,059,922	47,853.8	4,945.3	10.3%
Central New York	772,682	45,320.6	4,691.6	10.4%
Finger Lakes	1,190,296	46,106.3	4,855.9	10.5%
Hudson Valley	2,268,554	39,533.0	4,665.2	11.8%
Long Island	2,864,793	42,778.2	5,119.4	12.0%
Mohawk Valley	491,188	40,232.0	5,338.3	13.3%
New York City	8,310,212	43,802.2	5,035.4	11.5%
North Country	429,092	36,256.3	3,867.2	10.7%
Southern Tier	646,623	42,445.3	4,202.3	9.9%
Western New York	1,389,415	45,174.8	5,023.0	11.1%
Total	19,422,777	44,021.0	4,937.6	11.2%
Region	2011			
	Total Population	Jobs Per 100,000		% Employment in Health Care
		Total Employment	Health Care Employment	
Capital District	1,079,400	45,709.3	5,125.1	11.2%
Central New York	791,654	42,574.4	4,720.1	11.1%
Finger Lakes	1,217,867	44,137.1	5,081.8	11.5%
Hudson Valley	2,303,209	37,507.5	4,847.8	12.9%
Long Island	2,843,252	42,049.2	5,790.1	13.8%
Mohawk Valley	498,038	38,154.3	5,425.1	14.2%
New York City	8,244,910	44,412.0	5,356.7	12.1%
North Country	434,142	34,587.5	4,096.4	11.8%
Southern Tier	655,708	40,157.2	4,411.3	11.0%
Western New York	1,397,017	44,033.5	5,109.7	11.6%
Total	19,465,197	43,379.5	5,242.3	12.1%

Sources: NYS Department of Labor, ES-202; U.S. Census

1. Hospital Employment

Between 2007 and 2011, overall hospital employment in New York increased by more than 10,000 jobs, or over 2%. The Long Island region experienced the largest percentage increase in hospital employment (20%) between 2007 and 2011, followed by the North Country region (11%). The Long Island region also experienced the largest growth in the number of new hospital jobs, with slightly more than 10,800 new jobs, followed by the Finger Lakes region with an increase of more than 1,800 hospital jobs. The New York City, Hudson Valley, and Western New York regions experienced a decline in hospital jobs between 2007 and 2011 (Exhibit 19).

Exhibit 19
Change in Hospital Employment in New York, by Department of Labor Region, 2007-2011

Region	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Capital District	22,074	22,413	22,980	23,057	23,541	1,467	6.6%
Central New York	12,540	12,686	12,706	13,133	13,202	662	5.3%
Finger Lakes	27,022	27,984	28,252	28,258	28,916	1,894	7.0%
Hudson Valley	39,895	40,341	40,243	39,765	39,311	-584	-1.5%
Long Island	53,690	55,514	57,061	62,646	64,558	10,868	20.2%
Mohawk Valley	12,078	12,318	12,450	12,501	12,359	281	2.3%
New York City	204,949	206,914	206,996	200,675	198,908	-6,041	-2.9%
North Country	8,320	8,481	8,764	8,991	9,190	870	10.5%
Southern Tier	12,371	12,672	12,906	12,943	13,319	948	7.7%
Western New York	27,170	27,847	27,864	27,348	27,071	-99	-0.4%
Total	420,125	427,188	430,237	429,323	430,380	10,255	2.4%

Sources: NYS Department of Labor, ES-202

2. Ambulatory Care

Employment in ambulatory care settings (excluding home health care) increased by almost 8% between 2007 and 2011, adding over 21,700 jobs. The Finger Lakes, North Country, and Western New York regions saw the largest percentage increases. All of these regions grew by 9% or more between 2007 and 2011. The number of ambulatory care jobs in New York City increased by more than 8,700 during the same period (Exhibit 20).

Exhibit 20
Change in Ambulatory Care Services Employment (Excluding Home Health Care)
in New York, by Department of Labor Region, 2007-2011

Region	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Capital District	16,511	16,659	16,905	17,222	17,461	950	5.8%
Central New York	13,119	13,338	13,632	13,414	13,644	525	4.0%
Finger Lakes	15,074	15,645	15,981	16,457	16,505	1,431	9.5%
Hudson Valley	38,333	38,821	39,449	40,676	41,085	2,752	7.2%
Long Island	58,512	59,293	59,836	61,385	62,110	3,598	6.1%
Mohawk Valley	6,380	6,524	6,476	6,646	6,635	255	4.0%
New York City	99,221	101,157	102,035	105,439	108,007	8,786	8.9%
North Country	4,701	4,853	5,020	5,103	5,137	436	9.3%
Southern Tier	7,463	7,572	7,550	7,703	7,740	277	3.7%
Western New York	21,684	22,370	22,725	23,372	23,640	1,956	9.0%
Total	282,664	288,219	291,956	299,278	304,422	21,758	7.7%

Sources: NYS Department of Labor, ES-202

3. Nursing and Personal Care Facility Employment

Employment in nursing and personal care facilities⁸ in New York increased slightly between 2007 and 2011, with six of the 10 regions in New York experiencing increases in the number of jobs and the remaining four experiencing decreases in the number of jobs. The Hudson Valley and Long Island regions added over 700 jobs while New York City saw a decline of more than 1,300 jobs. Both the Western New York and Central New York regions experienced significant declines of more than 700 and 400 jobs respectively (Exhibit 21).

Exhibit 21
Change in Nursing and Personal Care Facility Employment in New York,
by Department of Labor Region, 2007-2011

Region	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Capital District	10,925	11,188	11,191	11,194	11,240	315	2.9%
Central New York	9,368	9,281	9,347	9,142	8,929	-439	-4.7%
Finger Lakes	12,181	12,183	12,519	12,811	12,746	565	4.6%
Hudson Valley	20,016	20,111	20,083	20,605	20,742	726	3.6%
Long Island	23,697	23,918	24,238	24,244	24,399	702	3.0%
Mohawk Valley	6,359	6,365	6,618	6,632	6,561	202	3.2%
New York City	54,891	55,120	55,205	54,439	53,554	-1,337	-2.4%
North Country	2,946	2,936	2,911	2,937	2,920	-26	-0.9%
Southern Tier	6,306	6,595	6,637	6,901	6,733	427	6.8%
Western New York	16,387	15,427	15,655	15,844	15,644	-743	-4.5%
Total	163,107	163,175	164,421	164,753	163,521	414	0.3%

Sources: NYS Department of Labor, ES-202

⁸ Includes nursing care facilities and community care facilities for the elderly and excludes residential mental retardation, mental health and substance abuse facilities, and other residential care facilities.

4. Home Health Care

Between 2007 and 2011, employment in home health care in New York grew by nearly 29,000 jobs, with the New York City region accounting for the majority of the increase with a 37% jump in home health care jobs. Outside of New York City, the Hudson Valley region experienced the next largest increase in home health care employment, growing by more than 2,900 jobs between 2007 and 2011, or 39%. The North Country region saw the only decrease, losing 89 jobs during the same period (14%) (Exhibit 22).

Exhibit 22
Change in Home Health Care Services Employment in New York,
by Department of Labor Region, 2007-2011

Region	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Capital District	2,906	2,989	3,060	3,049	3,078	172	5.9%
Central New York	1,224	1,273	1,377	1,404	1,593	369	30.1%
Finger Lakes	3,522	3,420	3,441	3,473	3,722	200	5.7%
Hudson Valley	7,588	8,091	9,003	9,499	10,517	2,929	38.6%
Long Island	10,762	11,987	12,696	13,120	13,561	2,799	26.0%
Mohawk Valley	1,404	1,402	1,398	1,416	1,464	60	4.3%
New York City	59,392	60,944	66,665	74,711	81,182	21,790	36.7%
North Country	627	588	549	532	538	-89	-14.2%
Southern Tier	1,032	1,013	1,079	1,102	1,133	101	9.8%
Western New York	4,549	4,597	4,790	4,892	5,030	481	10.6%
Total	93,132	96,544	104,342	113,429	122,100	28,968	31.1%

Sources: NYS Department of Labor, ES-202

E. By Occupation

1. Current Employment Data

Changes in the number of health care jobs in New York between 2007 and 2011 varied by occupation. While these data represented positions and not individuals or FTEs, they may be useful in identifying trends in occupations or job titles.

- The number of RN jobs grew by more than 9,100, or 6%;
- The number of medical assistant jobs increased by 3,600, or 20%;
- The number of medical and health services manager jobs increased by 3,250, or 14%;
- The number of nursing aides, orderlies, and attendant jobs increased by more than 3,100, or 3%;
- The number of home health aide jobs declined by more than 11,500, or by 8%; and
- The number of social worker jobs declined by nearly 4,000, or by 7% (Exhibit 23).

Exhibit 23

Change in the Number of Jobs in Selected Health Occupations for New York, 2007-2011

Occupation	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Physician Assistant	7,400	7,890	8,570	9,220	9,690	2,290	30.9%
Pharmacy Technicians	12,790	13,470	14,010	14,340	15,730	2,940	23.0%
Medical Assistants	17,750	19,000	19,710	20,950	21,360	3,610	20.3%
Pharmacists	15,310	16,020	16,290	16,660	17,820	2,510	16.4%
Physical Therapists	11,710	12,780	13,320	13,740	13,490	1,780	15.2%
Medical and Health Services Managers	24,090	25,150	26,680	27,260	27,340	3,250	13.5%
Medical and Clinical Laboratory Technologists	9,690	10,230	10,250	10,460	10,820	1,130	11.7%
Respiratory Therapists	5,310	5,530	5,380	5,810	5,900	590	11.1%
Radiologic Technologists and Technicians	12,050	12,880	13,360	13,120	13,310	1,260	10.5%
Medical Records and Health Information Techs	8,630	9,200	9,140	9,630	9,520	890	10.3%
Dietitians and Nutritionists	4,190	4,380	4,400	4,520	4,620	430	10.3%
Dental Assistants	16,590	16,210	16,160	16,730	17,760	1,170	7.1%
Registered Nurses	166,990	168,850	165,730	169,710	176,180	9,190	5.5%
Medical and Clinical Laboratory Technicians	7,590	7,180	7,610	8,240	7,920	330	4.3%
Nursing Aides, Orderlies, and Attendants	98,540	100,340	100,410	99,620	101,650	3,110	3.2%
Licensed Practical & Licensed Voc. Nurses	47,120	46,160	45,130	45,100	47,950	830	1.8%
Physical Therapy Assistants/Aides	6,120	6,580	6,380	6,480	6,040	-80	-1.3%
Dental Hygienists	9,960	10,670	10,760	9,710	9,690	-270	-2.7%
Speech-Language Pathologists	9,300	10,080	10,370	8,340	8,870	-430	-4.6%
Occupational Therapists	7,700	7,520	7,180	7,100	7,300	-400	-5.2%
Medical Secretaries	10,470	10,860	9,560	9,530	9,900	-570	-5.4%
Occupational Therapy Assistants/Aides	2,510	2,600	2,480	2,320	2,370	-140	-5.6%
Surgical Technologists	5,320	5,150	5,170	4,800	5,000	-320	-6.0%
Social Workers	55,740	59,890	58,650	55,990	51,790	-3,950	-7.1%
Home Health Aides	145,490	131,700	129,200	137,830	133,980	-11,510	-7.9%
Nuclear Medicine Technologists	1,300	1,450	1,340	1,230	1,090	-210	-16.2%
Cardiovascular Technologists and Technicians	3,640	3,300	2,940	2,760	2,960	-680	-18.7%
Dietetic Technicians	1,310	1,030	1,120	1,190	1,060	-250	-19.1%

Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics

2. Licensure Data for Selected Health Professions in New York

Between 2007 and 2011, the number of licensed RNs increased by more than 15,300, or by 6%, in New York. Clinical lab technicians and technologists had the largest percentage increases during the same period. Physician assistants, speech-language pathologists, and NPs saw greater than 20% increases in the numbers licensed between 2007 and 2011 (Exhibit 24).

Exhibit 24
Changes in the Number of Licensed Individuals in Selected Health Service Professions in New York, 2007-2011⁹

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technician	1,384	1,886	2,386	2,300	2,098	714	51.6%
Clinical Laboratory Technologist	10,377	13,217	15,016	15,118	14,808	4,431	42.7%
Physician Assistants	8,660	9,157	9,685	10,168	10,688	2,028	23.4%
Speech-Language Pathologists	12,400	13,066	13,689	14,222	14,981	2,581	20.8%
Nurse Practitioners	13,534	14,139	14,862	15,395	16,268	2,734	20.2%
Respiratory Therapists	4,732	4,971	5,114	5,279	5,534	802	16.9%
Occupational Therapists	9,615	9,889	10,226	10,320	10,650	1,035	10.8%
Pharmacists	20,405	20,467	21,269	21,863	22,431	2,026	9.9%
Occupational Therapy Assistants	3,657	3,713	3,777	3,856	3,981	324	8.9%
Dental Hygienists	9,672	9,870	10,052	10,200	10,449	777	8.0%
Physical Therapy Assistants	4,579	4,662	4,838	4,957	4,943	364	7.9%
Physical Therapists	18,420	18,752	19,427	19,987	19,845	1,425	7.7%
Registered Nurses	255,382	259,694	265,964	269,947	270,691	15,309	6.0%
Licensed Practical Nurses	69,342	71,381	71,477	69,568	71,239	1,897	2.7%
Dietitians/Nutritionists	4,800	4,736	4,832	4,934	4,918	118	2.5%
Social Workers	50,055	49,469	49,147	48,430	50,391	336	0.7%

Source: NYS Education Department, Office of Professions

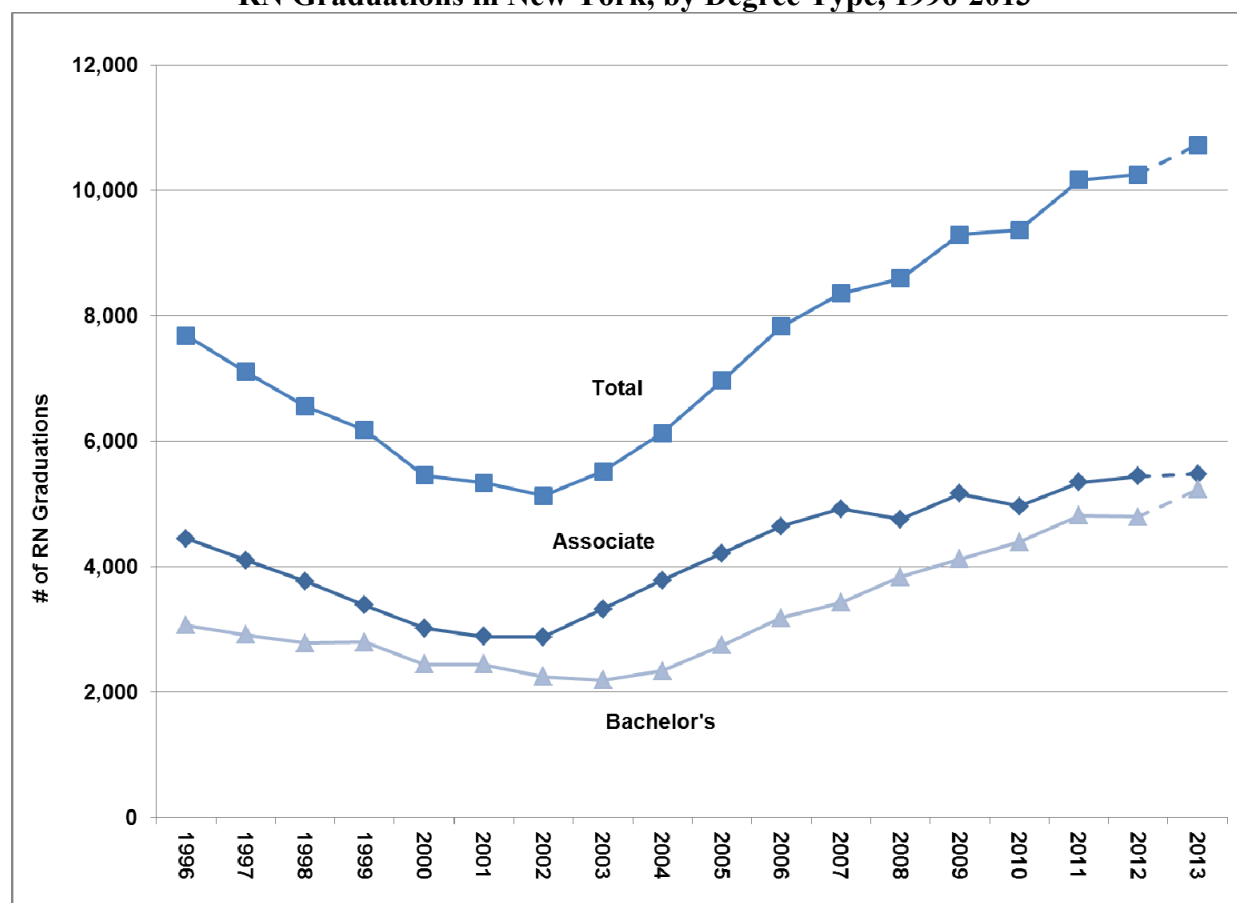
⁹ Note: This total includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, while tables of licensees by region include only those individuals with an address in the region.

F. Trends in New York RN Education, 1996-2013

The Center surveys RN education programs in New York annually to better understand trends in the supply of RNs in the state. The 2012 survey included questions about applications, acceptances, and graduations for that year as well as projected graduations through 2013. Of the 124 RN education programs in New York, 116 returned the surveys for a 94% response rate in 2012. Data for the eight non-respondents were imputed from previous surveys; consequently, the following data reflect enrollment and graduations for all RN education programs in the state. (The full report, *Trends in New York Registered Nurse Graduations, 1996-2013* may be found on the Center's Web site: <http://chws.albany.edu>.)

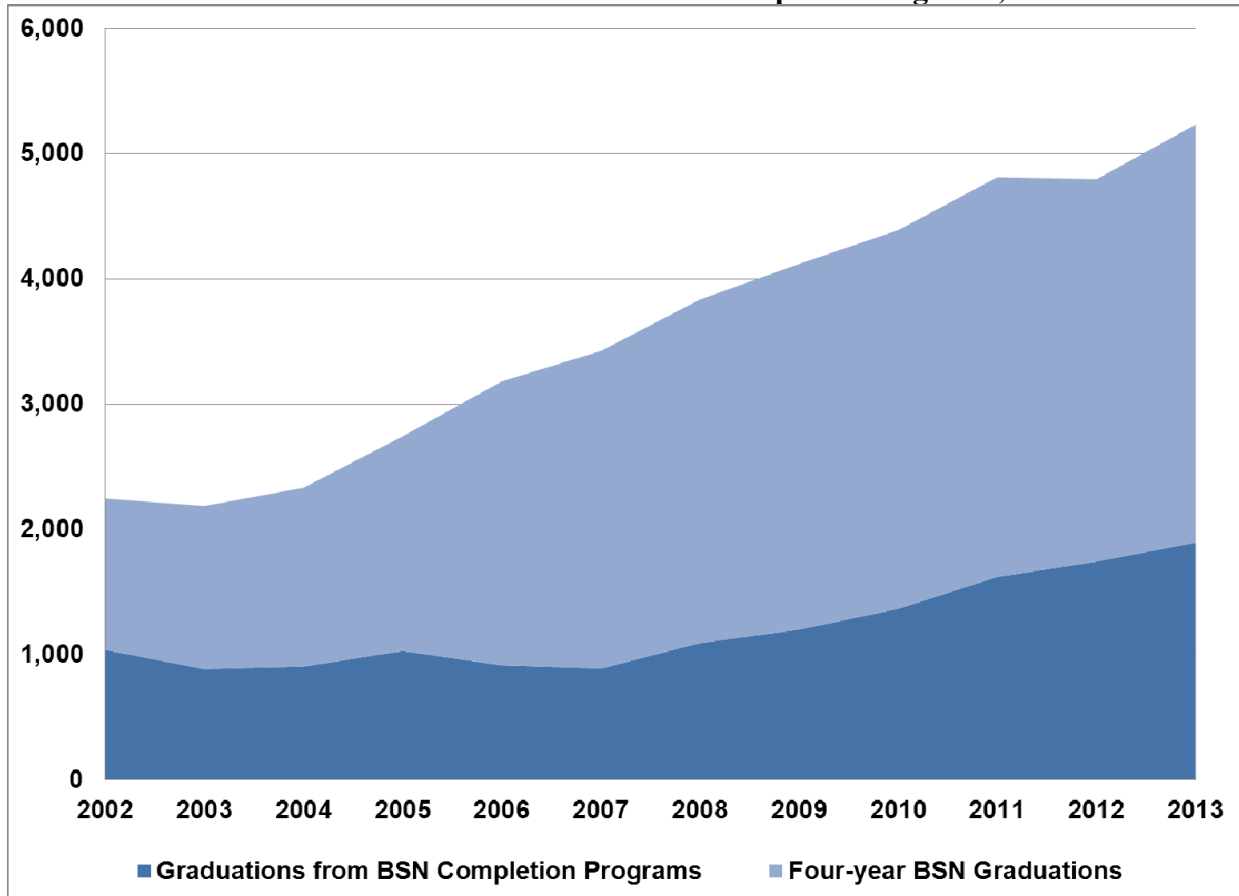
There was little growth in the number of graduates from New York RN education programs between 2011 and 2012. All of the growth that did occur was attributed to increases in bachelor's degree in nursing (BSN) completers and associate degree in nursing (ADN) graduates. In 2012, there were 10,255 graduates from RN education programs in New York, an increase of 92 graduates (or nearly 1%) compared to 2011. Between 2011 and 2012, there was a 2% increase in ADN graduates. While the overall number of BSN graduates decreased slightly during that time, the decline was in the number of four-year BSN graduates. The number of BSN completers actually increased by more than 120 between 2011 and 2012 (Exhibit 25).

Exhibit 25
RN Graduations in New York, by Degree Type, 1996-2013



Since 2007, the proportion of graduates from BSN completer programs has comprised an increasing share of total RN graduates in New York. In 2012, BSN completers accounted for just over 36% of total BSN graduates and 17% of overall RN graduates, up from 26% and 11%, respectively, in 2007 (Exhibit 26).

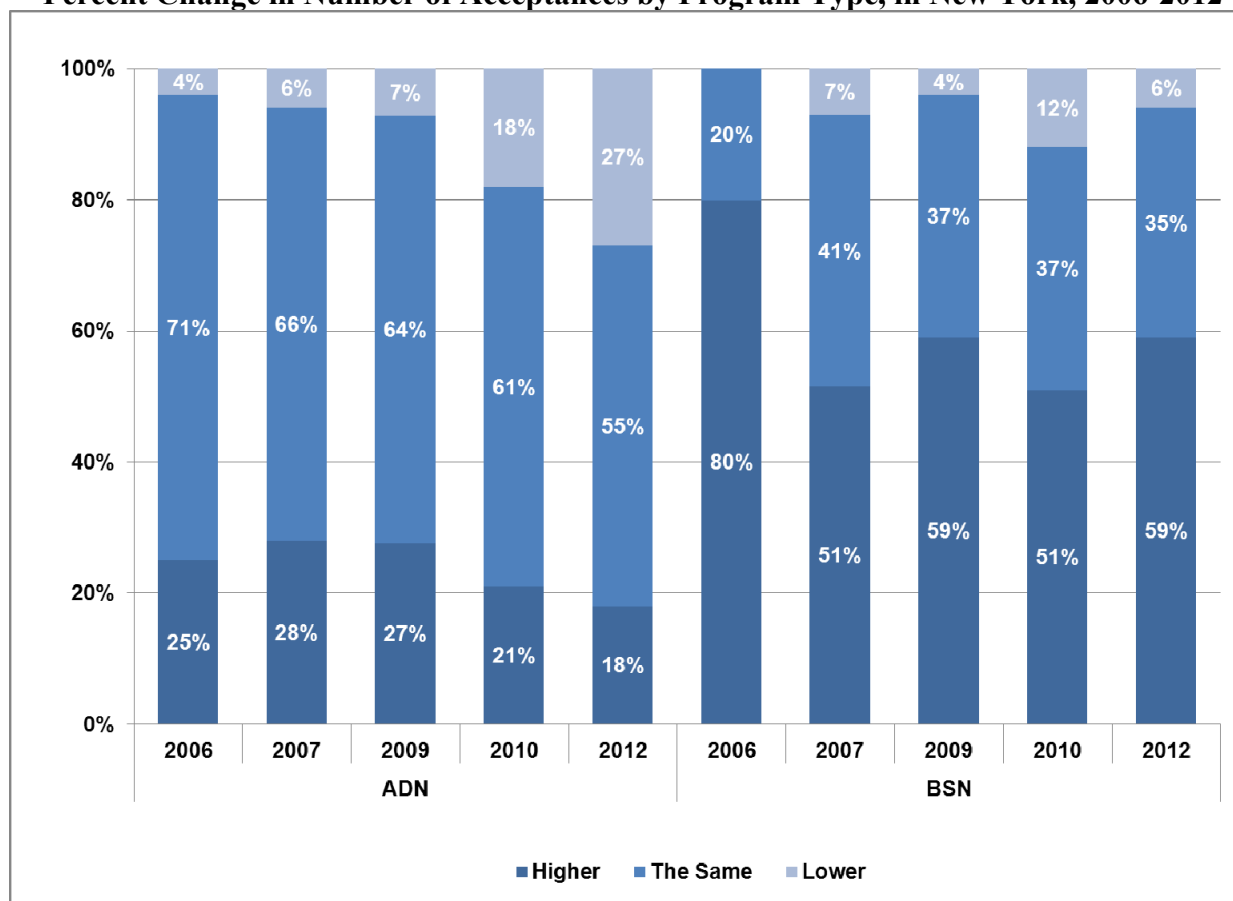
Exhibit 26
Graduations from BSN Four-Year and BSN Completer Programs, 2002-2013



A higher percentage of RN education program deans and directors reported an increase in acceptances in 2012 compared to 2010, fueled by a growth in acceptances to BSN programs. Thirty-eight percent of RN education program deans and directors reported more acceptances to their programs in 2012 than in 2011. In comparison, only 34% of program deans and directors reported more acceptances to their programs in 2010 compared to 2009. Nearly 60% of deans and directors of BSN programs (including BSN completer programs) reported more acceptances to their programs in 2012 than in 2011, compared to just 51% of BSN program deans and directors who reported more acceptances in 2010 than in 2009 (Exhibit 27).

Exhibit 27

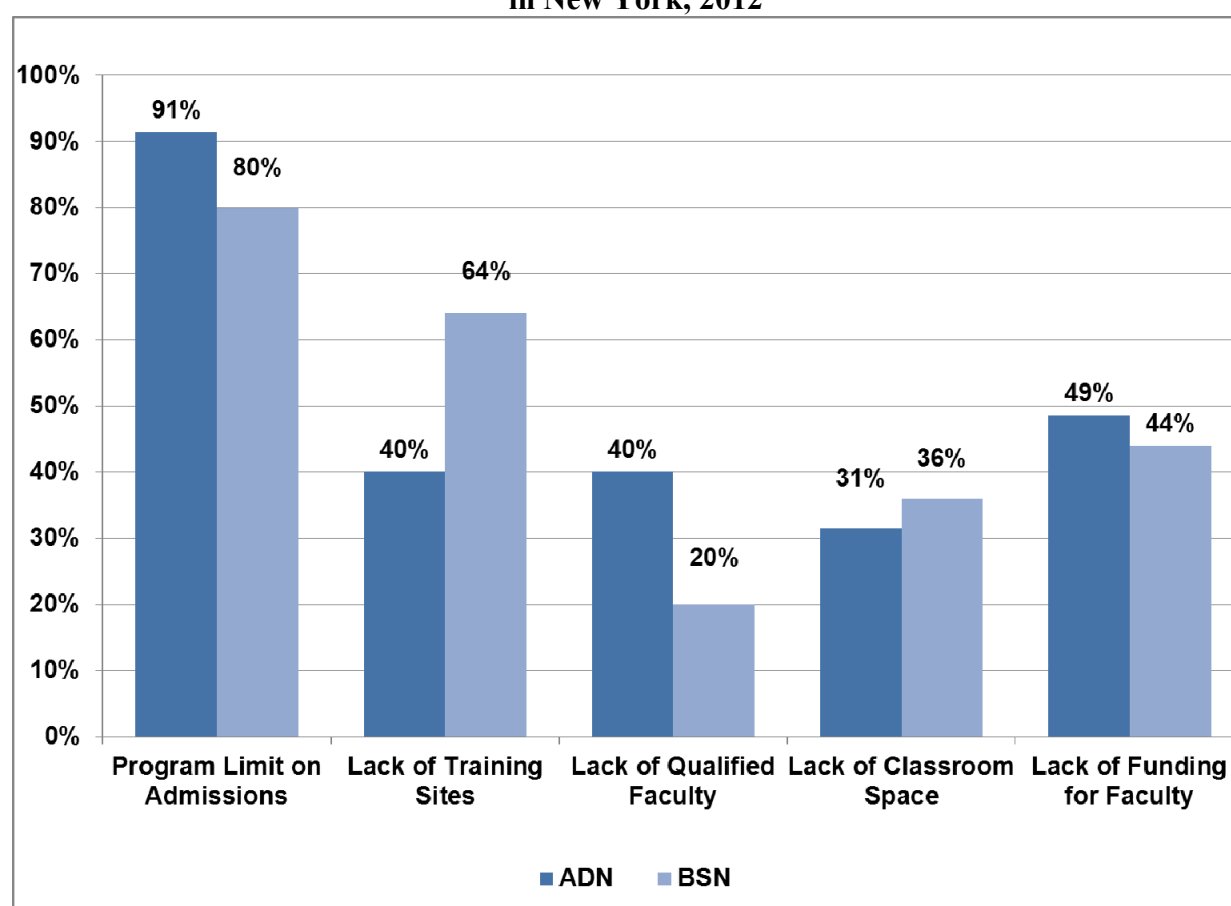
Percent Change in Number of Acceptances by Program Type, in New York, 2006-2012



More qualified applicants were denied admission to RN education programs in 2012 than any year since 2005. Despite an increase in acceptances to RN education programs in 2012, an estimated 2,900 qualified applicants¹⁰ were turned away from New York's RN education programs in 2012. This is the highest number of qualified applicants turned away since 2005, when almost 3,000 qualified applicants were turned away.

Limits on program admissions and lack of clinical training sites were the primary reasons RN education program deans and directors cited for turning away qualified applicants. In 2012, 91% of ADN and 80% of BSN deans and directors reported turning away qualified applicants due to limits on program acceptances (Exhibit 28).

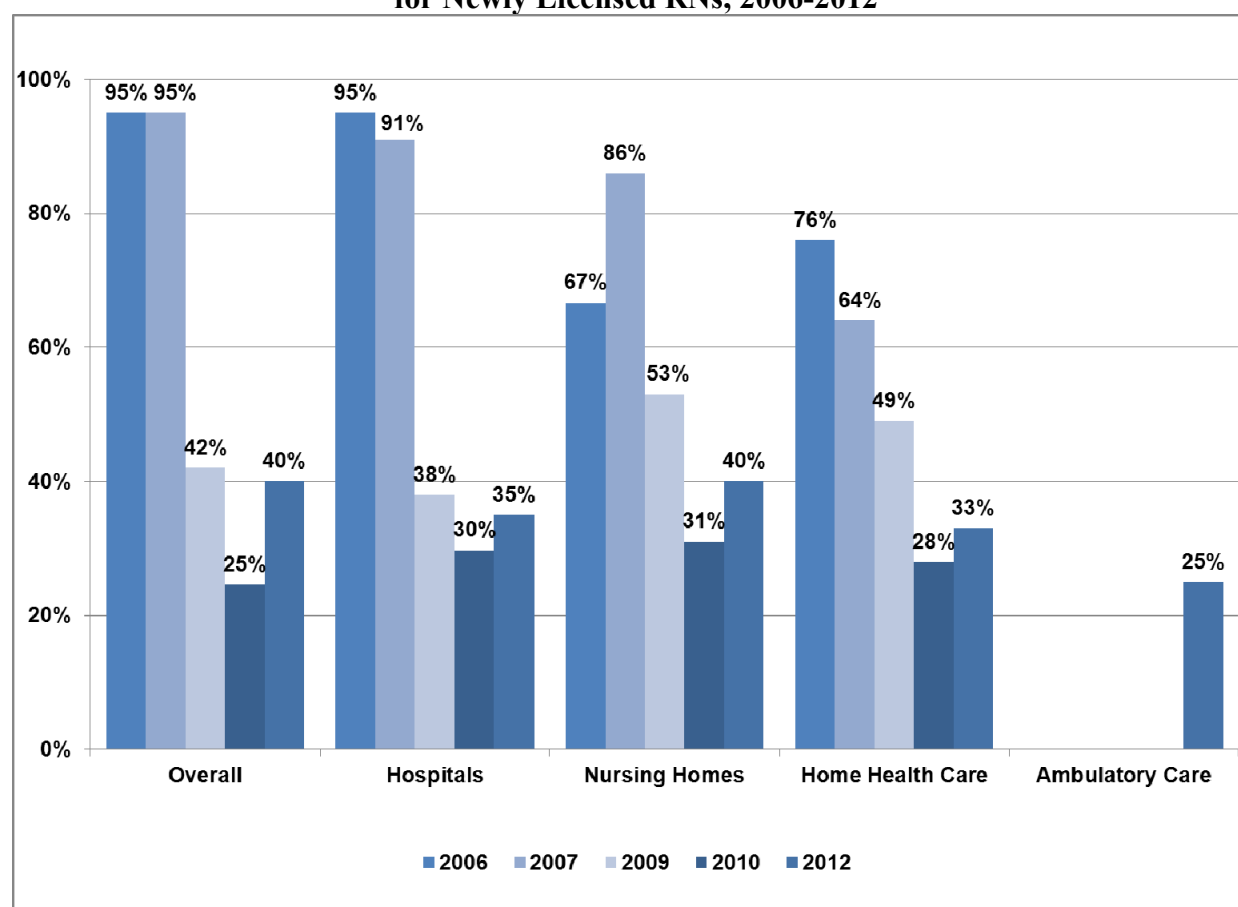
Exhibit 28
Reasons for Turning Away Qualified Applicants by Sponsorship and by Degree Type, in New York, 2012



¹⁰ Since applicants may seek admission to more than one RN education program, these numbers do not represent an unduplicated count of qualified applicants turned away by RN education programs in the state.

Compared to 2010, a slightly higher percentage of RN education program deans and directors reported “many jobs” for new RN graduates in 2012, though this was still significantly lower than the percentage reporting “many jobs” in 2006 and 2007. The majority of RN education program deans and directors in 2006 and 2007 indicated a strong job market for their graduates, with more than 90% reporting “many jobs” for newly trained RNs. Starting in 2009, however, and continuing through 2012, the percentage of RN education program deans and directors who reported “many jobs” for their graduates declined dramatically. Although there was a slight increase in the percentage of program deans and directors who reported “many jobs” in 2012 compared to 2010, the numbers were still significantly lower than in 2006 and 2007. These trends persisted across all health care settings. Nevertheless, BSN program deans and directors reported a stronger job market for their graduates than deans and directors of ADN programs (Exhibit 29).

Exhibit 29
Percent of RN Program Directors in New York Reporting “Many Jobs”
for Newly Licensed RNs, 2006-2012



G. Demand for Workers

The Center, in conjunction with statewide and regional provider organizations, conducts annual surveys of human resources directors from nursing homes, home health agencies, hospitals, and FQHCs and look-alikes¹¹ across New York. The surveys ask about the professions and occupations that pose the greatest recruitment and retention problems. The provider organizations the Center collaborated with included: Healthcare Association of New York State, Community Health Center Association of New York State, Continuing Care Leadership Coalition at the Greater New York Hospital Association, New York State Association of Healthcare Providers, Inc., New York State Association of Counties, LeadingAge New York, and the Home Care Association of New York State, Inc.

¹¹ “Look-alikes” refer to organizations that meet the eligibility standards of an FQHC, but they do not receive federal grant funding. Look-alikes do receive many of the other benefits of being an FQHC, however.

1. Hospitals

In 2012, across the state, 129 hospitals, or approximately 67%, responded to the survey. New York hospitals reported the most difficulty recruiting clinical laboratory technologists, with a shortage of workers cited most often as the reason. Hospitals also noted a problem recruiting medical coders and nurse managers, whereas CNAs, clinical laboratory technologists, and nurse managers were the most difficult occupations to retain (Exhibit 30).

Exhibit 30

New York Hospital Recruitment and Retention Difficulties for Selected Occupations, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.0	2.7	32%	34%	32%	25%
Clinical Laboratory Technicians	3.2	2.2	43%	18%	26%	20%
Clinical Laboratory Technologists	4.0	2.6	73%	20%	46%	33%
HIT Analysts	3.3	2.2	50%	30%	20%	17%
HIT Program Managers	3.2	2.2	54%	30%	34%	19%
HIT Technical Support	2.7	2.0	31%	17%	17%	14%
Licensed Practical Nurses	1.6	1.6	26%	19%	24%	19%
Medical Assistants	1.9	1.8	24%	14%	18%	15%
Medical Coders	3.9	2.5	69%	19%	47%	20%
Nurse Practitioners	3.4	2.5	42%	23%	45%	40%
Occupational Therapists	3.2	2.4	43%	19%	28%	25%
Pharmacists	3.0	2.2	45%	19%	47%	31%
Physical Therapists	3.4	2.2	48%	30%	49%	25%
Physician Assistants	3.3	2.5	38%	20%	39%	32%
Radiological Technicians	2.3	2.1	25%	18%	30%	24%
Radiological Technologists	2.2	2.0	26%	17%	39%	25%
Registered Nurses						
-Newly Licensed RNs	1.8	2.2	30%	19%	28%	26%
-Experienced RNs	3.4	2.4	54%	30%	38%	42%
-Nurse Managers	3.8	2.6	58%	29%	38%	38%
Speech Pathologists	3.3	2.5	48%	14%	22%	21%

2. Nursing Homes

In 2012, 223 nursing homes in New York responded to the survey for a response rate of 35%. Nursing homes across the state reported the most difficulty recruiting experienced RNs, MDS coordinators, nurse managers, and directors of nursing. Nursing homes noted the most difficulty retaining CNAs, followed by experienced RNs, newly licensed RNs, LPNs, and nurse managers (Exhibit 31).

Exhibit 31
New York Nursing Home Recruitment and Retention Difficulties
for Selected Occupations, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	2.7	3.3	20%	32%	16%	16%
Clerical	1.8	1.9	3%	6%	7%	6%
Dietitians/Nutritionists	3.0	2.2	19%	8%	6%	17%
Licensed Practical Nurses	3.0	2.9	33%	17%	12%	12%
Medical Billers	2.6	2.0	12%	10%	5%	8%
Occupational Therapists	3.4	2.4	23%	27%	13%	5%
Occupational Therapy Assistants	3.2	2.4	20%	21%	12%	6%
Personal Care Assistants	2.5	2.6	16%	15%	3%	7%
Physical Therapists	3.4	2.5	25%	28%	15%	3%
Physical Therapy Assistants	3.1	2.4	22%	20%	12%	2%
Registered Nurses						
-Newly Licensed RNs	2.5	3.0	16%	24%	16%	6%
-Experienced RNs	3.6	3.1	30%	36%	27%	7%
-MDS Coordinators	3.6	2.6	28%	25%	12%	5%
-Nurse Managers	3.6	2.9	29%	32%	19%	9%
-Directors of Nursing	3.5	2.5	25%	19%	14%	7%
Rec. Therapists/Activities Directors	2.7	2.1	9%	12%	9%	7%
Respiratory Therapists	3.0	2.6	15%	20%	8%	3%
Social Workers						
-Licensed Clinical SWs	2.9	2.4	13%	14%	11%	6%
-Licensed Master's SWs	3.1	2.5	15%	18%	13%	6%
Speech Pathologists	3.2	2.5	22%	19%	8%	6%

The survey found that:

- More than one-third of nursing homes (36%) reported difficulty hiring part-time workers.
- About 15% of nursing homes reported difficulty recruiting bilingual workers. The language most frequently needed was Spanish.
- Nursing homes reported difficulty hiring RNs (49%), LPNs (39%), and CNAs (34%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (54%), LPNs (47%), and CNAs (39%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (48%), LPNs (41%), and CNAs (37%) for weekend shifts.
- Most nursing homes (88%) were not planning to expand or reduce services next year.

3. Home Health Agencies

In 2012, 91 home health agencies in New York responded to the survey for a response rate of about 42%.¹² Home health agencies reported the most difficulties recruiting occupational therapists, respiratory therapists, experienced RNs, and speech pathologists, citing worker shortages as the primary reason for recruiting difficulties. Survey respondents reported difficulty retaining respiratory therapists, speech pathologists, experienced RNs, and personal care assistants (Exhibit 32).

Exhibit 32
New York Home Health Agency Recruitment and Retention Difficulties,
for Selected Occupations, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.5	2.6	36%	16%	16%	10%
Home Health Aides	2.9	2.8	40%	29%	20%	7%
Licensed Practical Nurses	2.6	2.2	5%	28%	19%	6%
Occupational Therapists	3.9	2.9	42%	32%	30%	7%
Personal Care Assistants	2.5	3.0	21%	31%	14%	3%
Physical Therapists	3.6	2.6	32%	36%	26%	8%
Registered Nurses						
-Newly Licensed RNs	2.4	2.8	12%	23%	28%	9%
-Experienced RNs	3.7	3.0	35%	43%	34%	12%
Respiratory Therapists	3.8	3.3	44%	26%	26%	0%
Social Workers						
-Licensed Clinical SWs	3.1	2.6	19%	23%	17%	10%
-Licensed Master's SWs	3.3	2.8	22%	20%	24%	12%
Speech Pathologists	3.7	3.1	42%	33%	17%	3%

The survey of home health agencies found that:

- Thirty-four percent (34%) reported difficulty hiring part-time workers.
- Forty percent (40%) indicated difficulty hiring bilingual workers. Three-fourths of these reported that Spanish was the language most needed.
- More than one-third (36%) indicated difficulty hiring workers for off-shifts.
- More than one-third (36%) indicated they anticipated expanding services in the next year and 51% reported they had no plans to either expand or reduce services next year.

¹² For purposes of this report, home health agencies include certified home health agencies, long-term home health care programs, and hospices.

4. Federally Qualified Health Centers and Look-alikes

Forty-nine percent of all FQHCs and look-alikes (49%) responded to the survey in 2012. Respondents reported the most difficulty recruiting psychiatric NPs and psychologists, and reported the most difficulty retaining LPNs (Exhibit 33).

Exhibit 33
New York FQHCs and Look-alikes Recruitment and Retention Difficulties,
for Selected Occupations, 2012

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.5	2.0
Case Managers	2.3	2.1
Certified Nursing Aides	2.1	2.4
Community Health Workers	2.3	2.4
Dental Assistants	2.5	2.2
Dental Hygienists	2.7	1.9
Dentists	3.4	2.0
Health Educators	2.2	1.9
HIV Counselors	2.1	2.1
Licensed Practical Nurses	2.8	2.7
Medical Assistants	1.8	2.6
Midwives	2.7	1.6
Nurse Practitioners		
-Adult NPs	2.5	2.1
-Family NPs	2.9	2.1
-Geriatric NPs	3.2	1.8
-Pediatric NPs	2.7	2.0
-Psychiatric NPs	4.3	2.2
Nutrition Educators	3.3	2.1
Patient Health Navigators	2.1	2.1
Physician Assistants	2.1	1.9
Psychologists	3.8	2.3
Registered Nurses	3.2	2.3
Social Workers		
-Licensed Clinical SWs	3.0	2.1
-Licensed Master's SWs	2.4	1.9
Substance Abuse Counselors	2.3	2.1

In 2012, 71% of FQHCs and look-alikes indicated plans to expand services and none indicated plans to reduce services. Also, 64% of centers reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

H. Projected Job Growth

Between 2010 and 2020, the NYSDOL projects almost 8,000 annual job openings for home health aides in the state; more than 7,300 annual job openings for personal and home care aides; and over 5,700 annual job openings for RNs (Exhibit 34).

Exhibit 34
Employment Projections for Health Care Occupations¹³
in New York, including New York City, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Home Health Aides	138,790	200,650	61,860	44.6%	7,980
Personal and Home Care Aides	128,230	191,480	63,250	49.3%	7,350
Registered Nurses	178,470	203,360	24,890	13.9%	5,720
Nursing Aides, Orderlies, and Attendants	102,560	112,930	10,370	10.1%	2,360
Social Workers	56,110	63,280	7,170	12.7%	2,050
Licensed Practical Nurse	49,160	55,920	6,760	13.8%	1,990
Medical and Health Services Managers	28,250	30,470	2,220	7.9%	910
Medical Assistants	21,600	26,790	5,190	24.0%	850
Pharmacists	17,640	21,030	3,390	19.2%	790
Dental Assistants	17,540	21,150	3,610	20.6%	730
Pharmacy Technicians	15,520	19,620	4,100	26.4%	680
Emergency Medical Technicians and Paramedics	14,650	17,970	3,320	22.7%	620
Clinical, Counseling, and School Psychologists	13,920	15,600	1,680	12.1%	610
Physical Therapists	14,970	19,180	4,210	28.1%	600
Radiologic Technologists and Technicians	13,340	15,920	2,580	19.3%	470
Dental Hygienists	9,660	12,260	2,600	26.9%	450
Physician Assistants	9,850	11,550	1,700	17.3%	360
Speech-Language Pathologists	9,920	11,570	1,650	16.6%	360
Medical and Clinical Laboratory Technologists	10,890	11,850	960	8.8%	310
Occupational Therapists	8,770	10,220	1,450	16.5%	310
Medical Records and Health Information Technicians	9,650	10,760	1,110	11.5%	300
Dietitians and Nutritionists	5,360	5,970	610	11.4%	250
Psychiatric Aides	11,870	12,760	890	7.5%	240
Medical and Clinical Laboratory Technicians	8,070	8,750	680	8.4%	230
Respiratory Therapists	5,930	6,830	900	15.2%	200
Diagnostic Medical Sonographers	3,600	4,810	1,210	33.6%	180
Surgical Technologists	5,040	5,300	260	5.2%	120
Cardiovascular Technicians and Technologists	3,000	3,590	590	19.7%	110

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

¹³ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

V. REGIONAL PROFILES

A. New York City

The New York City Department of Labor region includes the five counties in New York City: Bronx, Kings (Brooklyn), New York (Manhattan), Queens, and Richmond (Staten Island).

Population

New York City's population had a higher percentage of people under the 100% and 200% federal poverty level than New York as a whole. New York City's population was also much more racially and ethnically diverse and somewhat younger compared to the state's population (Exhibit 35).

Exhibit 35
Selected Population Characteristics for the New York City Region, 2010¹⁴

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	8,175,133	N/A	N/A
Population Under 100% FPL Level	1,518,636	19.1%	14.2%
Population Under 200% FPL Level	3,049,580	38.4%	30.6%
Population Age Birth – 17	1,768,111	21.6%	22.3%
Population Age 65 and older	993,158	12.1%	13.5%
Population Female Age 15 – 44	1,911,858	23.4%	20.9%
Black/African American, non-Hispanic	1,874,089	23.2%	14.5%
Hispanic/Latino	2,281,115	28.2%	17.1%
Asian/Pacific Islander, non-Hispanic	1,013,781	12.5%	7.2%
American Indian/Native Alaskan, non-Hispanic	15,225	0.2%	0.2%
Two or More/Other	170,408	2.1%	1.8%
Less than High School Education	1,144,231	21.0%	15.6%
High School Education	1,399,195	25.6%	28.2%
College Degree or Higher	2,150,351	39.4%	40.3%

Source: U.S. Census

¹⁴ Education levels and rates are for those age 25 and older.

Health Status

Corresponding to the younger population, New York City had a lower number of deaths per capita and a higher birth rate than New York as a whole. However, New York City had much higher rates of asthma (both adult and pediatric), diabetes, and chronic lower respiratory disease hospitalizations than the state as a whole (Exhibit 36).

Exhibit 36
Selected Health Indicators for New York City Region, 2008-2010 (3-year Average)¹⁵

Health Indicator	Region		Statewide
	Number	Rate	Rate
Total Deaths	51,767	622.9	748.6
Deaths Due to Heart Disease	19,482	233.3	239.6
Deaths Due to All Cancers	12,321	148.3	179.9
Deaths Due to Diabetes	1,644	19.8	18.6
Total Births	121,168	63.4	60.9
Teen Births	7,649	29.0	24.0
Low-birthweight Births	10,572	8.7	8.2
Late/No Prenatal Care	8,495	7.4	5.9
Infant Deaths	583	4.8	5.2
Adult Asthma Hospitalizations	17,162	265.9	178.2
Pediatric Asthma Hospitalizations	8,615	463.9	289.5
Diabetes Discharges (Primary Diagnosis)	22,253	267.8	203.3
Chronic Lower Respiratory Disease Hospitalizations	37,142	446.9	392.6
Heart Disease Hospitalizations	101,452	1,220.8	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

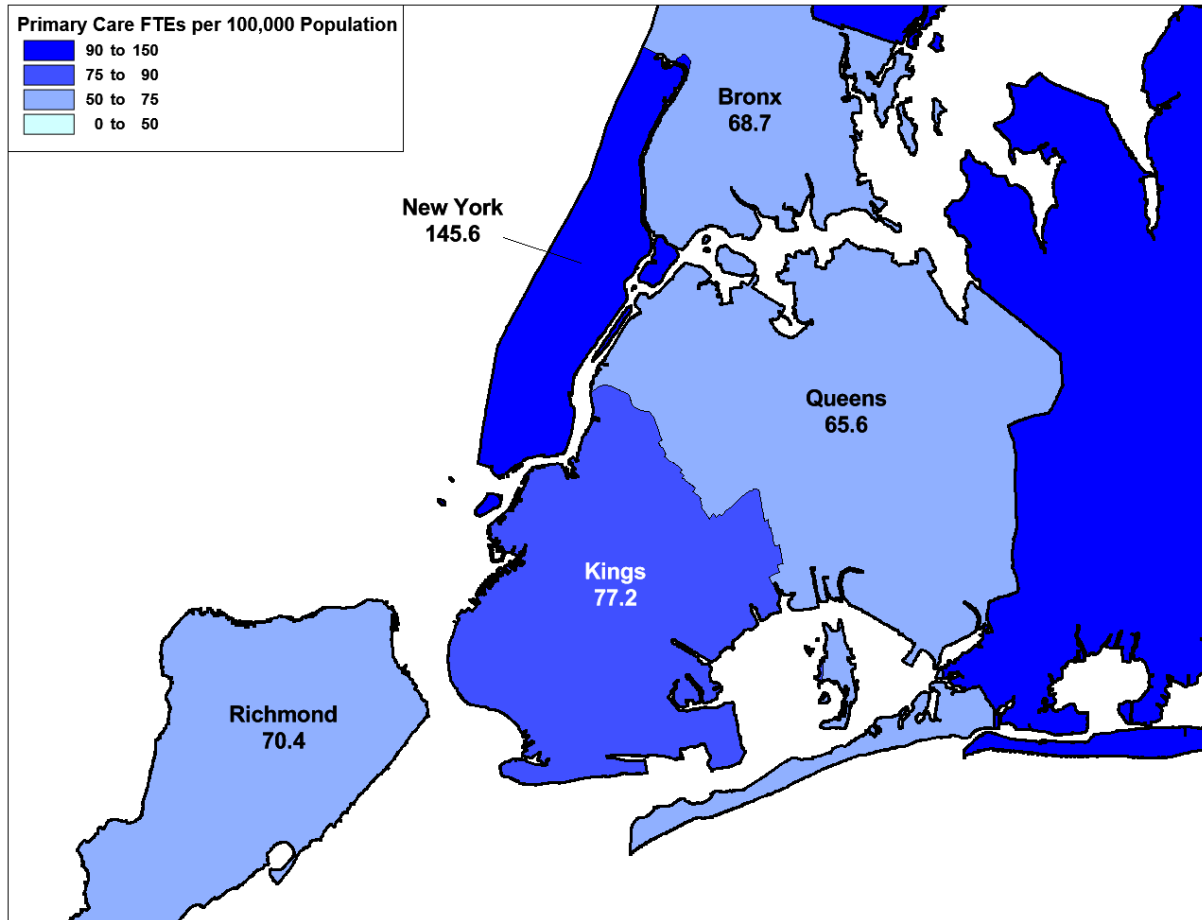
There were almost 7,000 primary care physician FTEs practicing in the New York City region. Slightly less than half of them (49%) practiced general internal medicine and nearly 23% practiced general pediatrics. There were 85.5 primary care physicians per 100,000 population in New York City, higher than the statewide rate of 79.9 per 100,000. The county of New York had the most primary care physicians per 100,000 population (145.6) and Queens had the least (65.6) (Exhibits 37 and 38).

¹⁵ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 37
Primary Care FTEs in the New York City Region, by Specialty, 2010¹⁶

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	1,081.0	13.2	18.1
Internal Medicine (General)	3,416.6	41.8	33.9
Geriatrics	67.3	0.8	0.6
Obstetrics/Gynecology	844.6	44.2	47.3
Pediatrics (General)	1,581.3	89.4	77.6
Total	6,990.7	85.5	79.9

Exhibit 38
The Number of Primary Care FTEs Per 100,000 Population
in the New York City Region, 2010



¹⁶ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

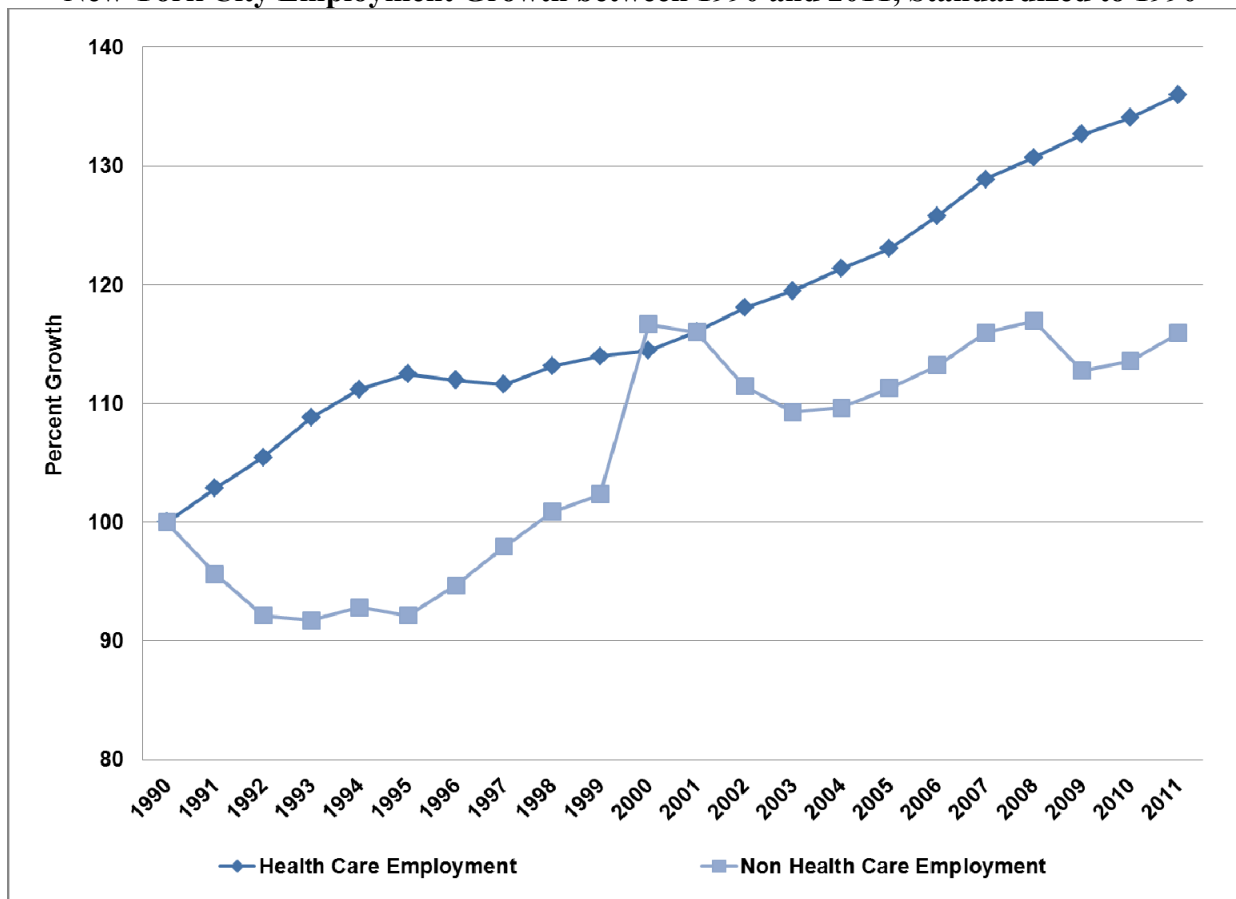
Employment

Total Employment

Between 1990 and 2011, employment in the health sector in New York City grew steadily with the largest increase occurring between 1990 and 1995. Employment in all other sectors saw sporadic growth with declines between 1990 and 1995, but substantial growth between 1995 and 2000 and between 2004 and 2008. From 2008 and 2009, employment in sectors outside of health care declined, but has since recovered.

Between 1990 and 2011, employment in the health sector in New York City rose by nearly 36%, while employment in all other sectors grew by almost 16% during the same period (Exhibit 39).

Exhibit 39
New York City Employment Growth between 1990 and 2011, Standardized to 1990

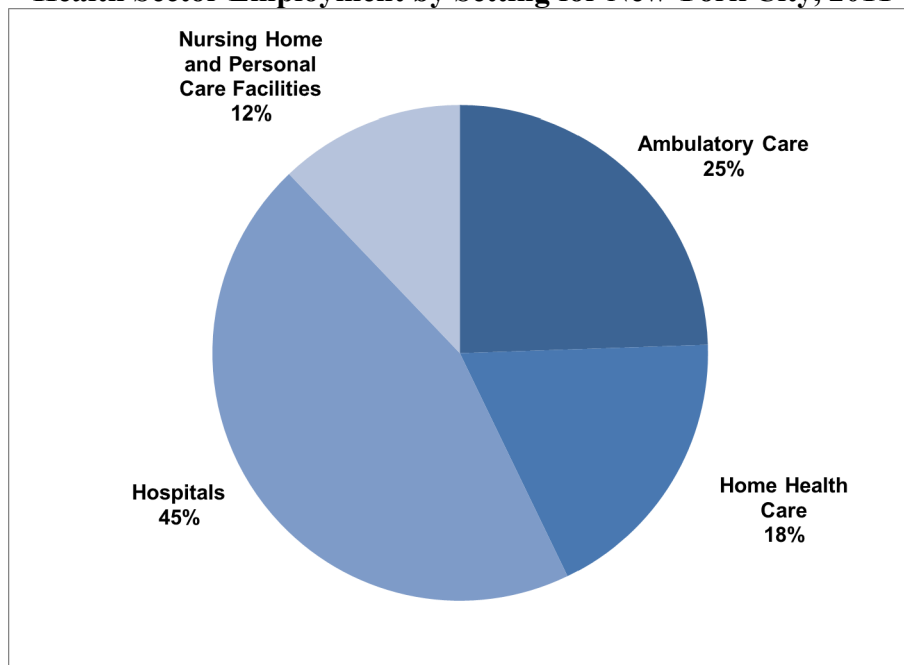


Source: NYS Department of Labor, ES-202

Employment by Setting

Hospitals continued to be the largest employer of New York City health workers in 2011, accounting for nearly one-half (45%) of all health care jobs. Ambulatory care settings and home health agencies followed, at 25% and 18%, respectively (Exhibit 40).

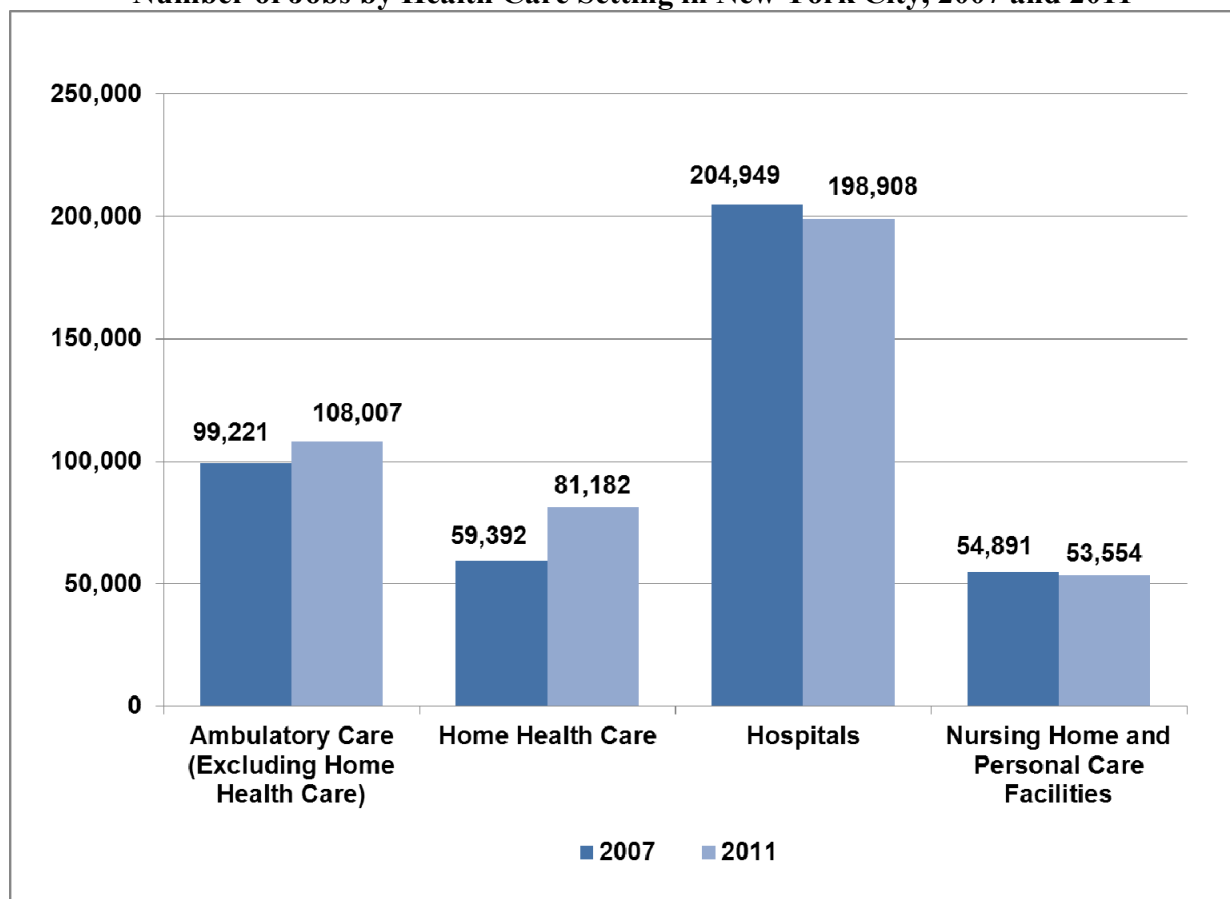
Exhibit 40
Health Sector Employment by Setting for New York City, 2011



Source: NYS Department of Labor, ES-202

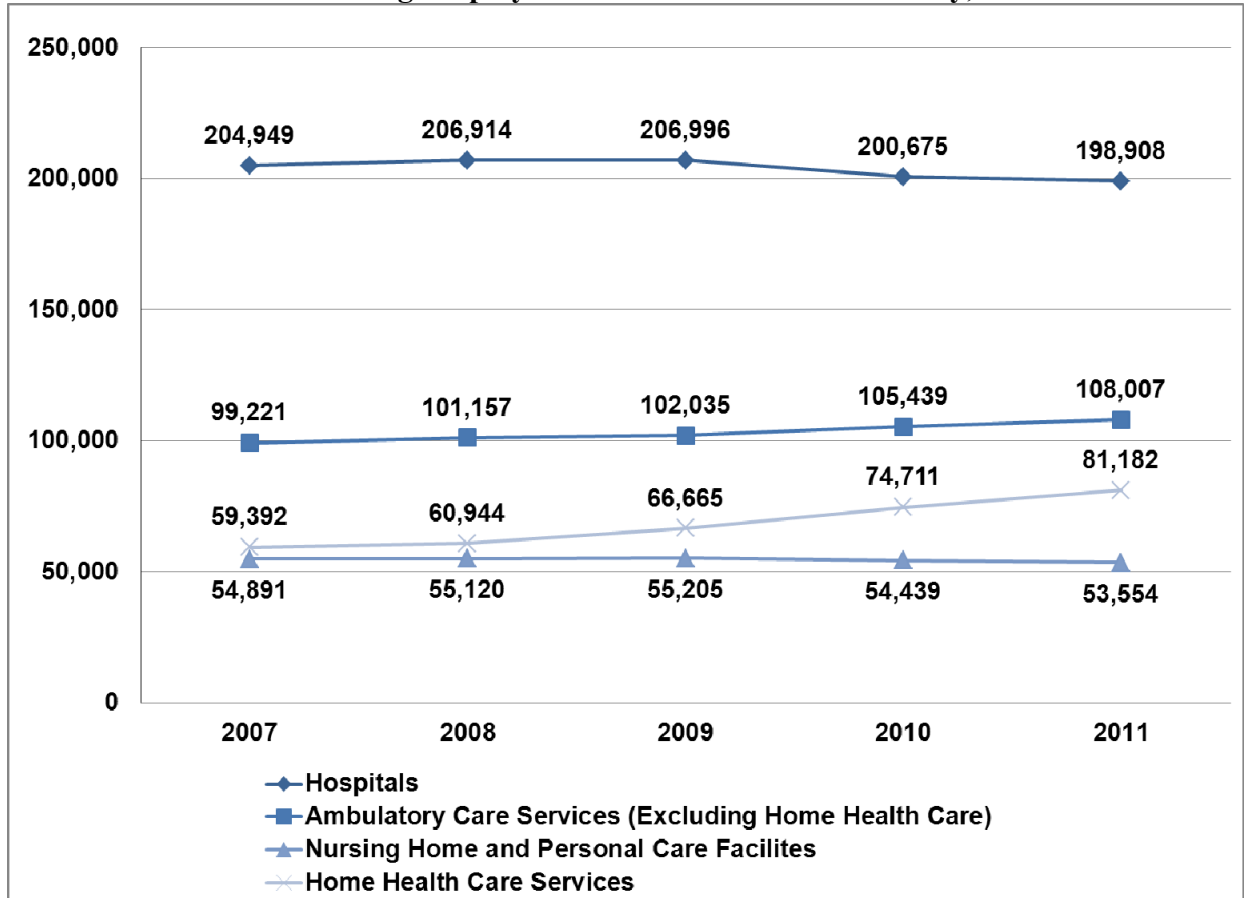
Between 2007 and 2011, health sector employment increased in New York City in ambulatory care and home health care. Hospitals and nursing homes were the only settings to lose jobs during this time period. Home health care jobs grew by more than 36% between 2007 and 2011. Ambulatory care settings experienced the next largest job growth (9%), while the number of jobs in hospitals and nursing homes declined by 3% and 2%, respectively (Exhibits 41 and 42).

Exhibit 41
Number of Jobs by Health Care Setting in New York City, 2007 and 2011



Source: NYS Department of Labor, ES-202

Exhibit 42
Health Care Setting Employment Trends for New York City, 2007-2011



Source: NYS Department of Labor, ES-202

Employment by Occupation

Between 2007 and 2011, changes in the number of health care jobs in the New York City PMSA¹⁷ varied widely by occupation. While these data represent positions and not individuals or FTEs, they were useful in identifying trends in occupations or job titles. A number of occupations experienced substantial increases in the number of jobs between 2007 and 2011, including:

- Nursing aides, orderlies, and attendant jobs, which increased by 3,800, or 7%;
- Pharmacist jobs, which grew by over 2,200, or 27%;
- Medical and health service manager jobs, which increased by almost 2,200, or 15%; and
- Physician assistant jobs, which grew by more than 1,000, or 29%.

More than half (57%) of the health occupations jobs in the New York City PMSA declined between 2007 and 2011, including:

- Home health aide jobs, which declined by over 10,000, or 10%;
- Medical secretary jobs, which declined by nearly 3,800, or 39%;
- Social worker jobs, which declined by more than 1,300, or 4%;
- Medical and clinical laboratory technician jobs, which declined by almost 1,200, or 23%; and
- RN jobs, one of the largest health occupations, which declined by 350, or 0.4%.

¹⁷ The New York City PMSA includes the following counties: Bronx, Kings, New York, Queens, Richmond, Westchester, Putnam, and Rockland.

Exhibit 43
Number of Jobs in Selected Health Occupations for the New York City PMSA, 2007-2011

Occupation	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Physician Assistants	3,540	3,910	4,250	4,580	4,560	1,020	28.8%
Pharmacists	8,410	8,700	9,220	9,680	10,640	2,230	26.5%
Dietitians and Nutritionists	2,380	2,500	2,430	2,450	2,900	520	21.8%
Medical Records and Health Information Techs	3,870	4,280	4,120	4,590	4,640	770	19.9%
Medical and Health Services Managers	14,500	15,540	17,070	17,070	16,690	2,190	15.1%
Pharmacy Technicians	7,230	6,860	6,770	6,760	8,270	1,040	14.4%
Respiratory Therapists	3,100	3,100	2,930	3,340	3,540	440	14.2%
Physical Therapists	6,600	7,130	7,410	7,450	7,470	870	13.2%
Medical Assistants	12,010	12,080	12,700	12,710	12,980	970	8.1%
Nursing Aides, Orderlies, and Attendants	54,630	58,280	58,930	58,670	58,430	3,800	7.0%
Medical and Clinical Laboratory Technologists	6,670	6,920	6,790	6,710	6,850	180	2.7%
Dental Assistants	9,550	9,510	9,310	9,360	9,730	180	1.9%
Registered Nurses	96,560	97,790	96,270	96,270	96,210	-350	-0.4%
Radiologic Technologists and Technicians	6,700	7,070	7,000	6,440	6,650	-50	-0.7%
Physical Therapy Assistants/Aides	3,040	3,300	3,240	3,280	2,980	-60	-2.0%
Licensed Practical Nurses	19,430	18,090	17,440	17,670	18,880	-550	-2.8%
Social Workers	33,480	35,890	35,490	34,350	32,160	-1,320	-3.9%
Occupational Therapists	4,150	3,860	3,870	3,880	3,890	-260	-6.3%
Surgical Technologists	3,090	3,070	3,070	2,910	2,870	-220	-7.1%
Home Health Aides	104,690	86,460	82,710	92,710	94,550	-10,140	-9.7%
Dental Hygienists	4,220	5,020	5,120	4,190	3,790	-430	-10.2%
Dietetic Technicians	420	390	410	460	370	-50	-11.9%
Nuclear Medicine Technologists	660	770	760	700	580	-80	-12.1%
Speech-Language Pathologists	4,710	4,980	5,380	3,780	4,000	-710	-15.1%
Occupational Therapy Assistants/Aides	1,160	1,120	1,010	910	930	-230	-19.8%
Medical and Clinical Laboratory Technicians	5,170	4,810	4,420	4,350	3,980	-1,190	-23.0%
Cardiovascular Technologists and Technicians	1,840	1,740	1,430	1,450	1,300	-540	-29.3%
Medical Secretaries	9,670	8,590	7,270	5,960	5,900	-3,770	-39.0%

Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics

Licensed Health Care Professionals

Between 2007 and 2011, the number of licensed RNs in New York City grew by more than 4,800, a nearly 9% increase. The number of licensed clinical laboratory technologists increased by over 1,000 during the same time period, a rise of 31%. Other professions that experienced a 20% increase in the number of licenses included clinical laboratory technicians, NPs, speech-language pathologists, physician assistants, and respiratory therapists (Exhibit 44).

Exhibit 44
Changes in the Number of Licensed Individuals in Selected Health Service Professions for New York City, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technicians	424	532	678	631	577	153	36.1%
Nurse Practitioners	2,644	2,821	3,068	3,263	3,541	897	33.9%
Clinical Laboratory Technologists	3,366	3,984	4,545	4,493	4,406	1,040	30.9%
Speech-Language Pathologists	3,138	3,356	3,572	3,744	3,972	834	26.6%
Physician Assistants	2,465	2,579	2,734	2,885	3,013	548	22.2%
Respiratory Therapists	1,162	1,227	1,243	1,331	1,402	240	20.7%
Occupational Therapists	2,431	2,554	2,695	2,771	2,911	480	19.7%
Dental Hygienists	1,531	1,573	1,638	1,704	1,775	244	15.9%
Pharmacists	4,965	5,006	5,281	5,503	5,709	744	15.0%
Occupational Therapy Assistants	865	870	898	944	992	127	14.7%
Physical Therapists	4,309	4,328	4,508	4,714	4,799	490	11.4%
Physical Therapy Assistants	1,009	1,005	1,061	1,085	1,104	95	9.4%
Registered Nurses	54,733	55,300	57,283	58,980	59,559	4,826	8.8%
Social Workers	18,146	17,745	17,917	18,353	19,175	1,029	5.7%
Dietitians/Nutritionists	1,441	1,407	1,444	1,477	1,489	48	3.3%
Licensed Practical Nurses	14,502	14,785	14,488	14,201	14,588	86	0.6%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the New York City reported the most difficulty recruiting medical coders, nurse managers, clinical laboratory technologists, HIT analysts, and NPs, with the primary reason cited as shortages of these workers. Physician assistants were the most difficult to retain, followed by clinical laboratory technologists and occupational therapists (Exhibit 45).

Exhibit 45
Recruitment and Retention Difficulties for Hospitals for Selected Occupations
in New York City, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	1.4	2.0	36%	20%	24%	24%
Clinical Laboratory Technicians	2.5	2.2	50%	17%	42%	17%
Clinical Laboratory Technologists	3.6	2.7	74%	22%	57%	17%
HIT Analysts	3.3	2.0	53%	16%	11%	21%
HIT Program Managers	3.1	1.9	53%	16%	21%	21%
HIT Technical Support	2.8	1.8	42%	16%	11%	21%
Licensed Practical Nurses	1.7	1.4	41%	18%	27%	18%
Medical Assistants	1.1	1.4	14%	7%	7%	7%
Medical Coders	4.2	2.6	74%	26%	52%	22%
Nurse Practitioners	3.3	2.4	40%	20%	55%	25%
Occupational Therapists	3.0	2.7	28%	17%	28%	17%
Pharmacists	3.0	2.1	35%	22%	39%	22%
Physical Therapists	3.2	2.1	32%	21%	37%	16%
Physician Assistants	3.2	2.9	17%	11%	33%	11%
Radiological Technicians	2.7	1.8	23%	0%	15%	0%
Radiological Technologists	2.2	2.0	36%	18%	36%	18%
Registered Nurses						
-Newly Licensed RNs	1.3	2.0	27%	23%	31%	19%
-Experienced RNs	3.1	2.0	65%	23%	35%	27%
-Nurse Managers	4.1	2.5	69%	23%	54%	31%
Speech Pathologists	2.9	2.1	35%	12%	18%	12%

Nursing Homes

Nursing homes in New York City reported that MDS coordinators were the most difficult to recruit followed by directors of nursing, licensed clinical social workers, nurse managers, and licensed master's social workers. Experienced RNs, newly trained RNs, LPNs, and nurse managers were the most difficult to retain (Exhibit 46).

Exhibit 46
Recruitment and Retention Difficulties for Nursing Homes for Selected Occupations in New York City, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	1.7	2.4	3%	18%	8%	8%
Clerical	1.8	2.1	5%	11%	0%	3%
Dietitians/Nutritionists	3.0	2.2	10%	19%	13%	3%
Licensed Practical Nurses	2.4	2.6	8%	23%	13%	10%
Medical Billers	2.8	2.3	11%	0%	6%	6%
Occupational Therapists	2.8	2.0	19%	12%	12%	0%
Occupational Therapy Assistants	2.7	2.1	17%	13%	13%	0%
Personal Care Assistants	2.4	2.1	13%	0%	0%	0%
Physical Therapists	2.7	2.2	15%	12%	12%	0%
Physical Therapy Assistants	2.6	2.1	19%	4%	12%	0%
Registered Nurses						
-Newly Licensed RNs	1.8	2.8	6%	6%	6%	12%
-Experienced RNs	3.0	2.9	16%	19%	11%	8%
-MDS Coordinators	3.5	2.4	12%	27%	6%	3%
-Nurse Managers	3.1	2.6	12%	18%	9%	9%
-Directors of Nursing	3.4	2.5	13%	13%	13%	4%
Rec. Therapists/Activities Directors	2.9	2.1	7%	10%	3%	0%
Respiratory Therapists	2.6	2.2	0%	9%	9%	0%
Social Workers						
-Licensed Clinical SWs	3.2	2.2	16%	16%	10%	3%
-Licensed Master's SWs	3.1	2.2	16%	13%	9%	3%
Speech Pathologists	2.8	2.1	18%	14%	5%	0%

Other information reported by nursing homes in the New York City region included:

- Twenty percent (20%) reported difficulty hiring part-time workers.
- Almost one-third (31%) reported difficulty hiring bilingual workers. The languages most frequently needed were Spanish and Russian.
- Nursing homes reported difficulty hiring RNs (27%), LPNs (16%), and CNAs (8%) for evening shifts.
- Nursing homes reported difficulty hiring LPNs (36%), RNs (33%), and CNAs (17%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (44%), LPNs (31%), and CNAs (19%) for weekend shifts.
- Most nursing homes (95%) were not planning to expand or reduce services next year.

Home Health Agencies

Home health agencies in New York City reported the most difficulty recruiting occupational therapists and speech pathologists, followed by physical therapists, dietitians/nutritionists, and experienced RNs. Speech pathologists were the most difficult to retain, followed by occupational therapists and physical therapists (Exhibit 47).

Exhibit 47

Recruitment and Retention Difficulties for Home Health Agencies in New York City, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.8	2.9	50%	17%	17%	17%
Home Health Aides	1.7	2.9	14%	14%	14%	14%
Licensed Practical Nurses	2.3	1.9	8%	17%	8%	17%
Occupational Therapists	4.2	3.3	50%	39%	33%	11%
Personal Care Assistants	1.6	2.2	0%	20%	20%	0%
Physical Therapists	4.0	3.2	47%	37%	32%	11%
Registered Nurses						
-Newly Licensed RNs	1.5	2.8	10%	20%	10%	20%
-Experienced RNs	3.5	2.5	26%	26%	26%	11%
Social Workers						
-Licensed Clinical SWs	2.8	2.4	21%	21%	7%	7%
-Licensed Master's SWs	3.2	2.9	26%	26%	32%	21%
Speech Pathologists	4.2	3.7	50%	56%	25%	0%

Other information reported by home health agencies in the New York City region included:

- One-fourth (25%) reported difficulty hiring part-time workers.
- Fifty-eight percent (48%) indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- Seventeen percent (17%) indicated difficulty hiring workers for off-shifts.
- Half (50%) indicated anticipating expanding services in the next year.

FQHCs

FQHCs in New York City reported the most difficulty recruiting psychiatric NPs, followed by psychologists and nutrition educators. FQHCs in New York City reported the most difficulty retaining medical assistants, community health workers, and LPNs (Exhibit 48).

Exhibit 48

FQHCs and Look-alikes Recruitment and Retention Difficulties for Selected Occupations in New York City, 2012

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.3	2.1
Case Managers	2.1	2.3
Community Health Workers	2.0	2.7
Dental Assistants	2.5	2.0
Dental Hygienists	2.5	1.5
Dentists	2.8	1.8
Health Educators	2.2	2.1
HIV Counselors	1.8	2.2
Licensed Practical Nurses	2.7	2.7
Medical Assistants	1.5	2.8
Midwives	2.4	1.6
Nurse Practitioners		
-Adult NPs	2.4	2.3
-Family NPs	3.0	2.4
-Pediatric NPs	2.8	2.2
-Psychiatric NPs	4.6	2.3
Nutrition Educators	3.6	2.2
Patient Health Navigators	1.7	2.4
Physician Assistants	1.9	1.8
Psychologists	4.0	2.3
Registered Nurses	3.2	2.2
Social Workers		
-Licensed Clinical SWs	2.8	2.2
-Licensed Master's SWs	2.2	2.0
Substance Abuse Counselors	2.2	2.4

Sixty-nine percent of FQHCs and look-alikes (69%) indicated plans to expand services, and none indicated plans to reduce services. Also, 69% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in New York City will be for home health aides (4,700), personal and home care aides (4,530), and RNs (2,170) (Exhibit 49).

Exhibit 49
Employment Projections for Selected Health Care Occupations¹⁸ for New York City, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Home Health Aides	77,570	114,570	37,000	47.7%	4,700
Personal and Home Care Aides	79,860	118,900	39,040	48.9%	4,530
Registered Nurses	68,000	77,400	9,400	13.8%	2,170
Social Workers	27,950	31,720	3,770	13.5%	1,030
Nursing Aides, Orderlies, and Attendants	41,130	45,380	4,250	10.3%	960
Licensed Practical and Licensed Vocational Nurses	13,740	15,560	1,820	13.2%	550
Medical and Health Services Managers	13,500	14,490	990	7.3%	430
Pharmacists	7,790	9,840	2,050	26.3%	410
Pharmacy Technicians	5,940	7,990	2,050	34.5%	310
Medical Assistants	8,020	9,940	1,920	23.9%	310
Clinical, Counseling, and School Psychologists	5,880	6,760	880	15.0%	280
Dental Assistants	6,560	7,950	1,390	21.2%	280
Physical Therapists	5,610	7,120	1,510	26.9%	220
Emergency Medical Technicians and Paramedics	6,070	7,030	960	15.8%	220
Radiologic Technologists and Technicians	4,620	5,540	920	19.9%	160
Medical and Clinical Laboratory Technologists	4,700	5,120	420	8.9%	130
Physician Assistants	3,910	4,380	470	12.0%	120
Medical Records and Health Information Technicians	3,750	4,160	410	10.9%	120
Occupational Therapists	3,310	3,810	500	15.1%	110
Dietitians and Nutritionists	2,120	2,350	230	10.8%	100
Speech-Language Pathologists	2,520	3,020	500	19.8%	100
Psychiatric Aides	4,250	4,660	410	9.6%	100
Respiratory Therapists	2,350	2,720	370	15.7%	90
Dental Hygienists	1,940	2,470	530	27.3%	90
Medical and Clinical Laboratory Technicians	2,670	2,830	160	6.0%	70
Diagnostic Medical Sonographers	1,240	1,660	420	33.9%	60
Surgical Technologists	2,270	2,370	100	4.4%	50
Cardiovascular Technologists and Technicians	850	990	140	16.5%	20

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

¹⁸ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

B. Capital District

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

Population

The Capital District region population was less racially and ethnically diverse than New York as a whole and also had a lower percentage of people below the 100% and 200% federal poverty level (Exhibit 50).

Exhibit 50
Selected Population Characteristics for the Capital District Region, 2010¹⁹

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	1,079,207	N/A	N/A
Population Under 100% FPL Level	109,380	10.6%	14.2%
Population Under 200% FPL Level	257,781	25.0%	30.6%
Population Age Birth – 17	229,116	21.2%	22.3%
Population Age 65 and older	157,929	14.6%	13.5%
Population Female Age 15 – 44	207,657	19.2%	20.9%
Black/African American, non-Hispanic	67,473	6.3%	14.5%
Hispanic/Latino	40,066	3.7%	17.1%
Asian/Pacific Islander, non-Hispanic	28,090	2.6%	7.2%
American Indian/Native Alaskan, non-Hispanic	2,625	0.2%	0.2%
Two or More/Other	21,727	2.0%	1.8%
Less than High School Education	74,742	10.2%	15.6%
High School Education	225,850	30.9%	28.2%
College Degree or Higher	304,853	41.7%	40.3%

Source: U.S. Census

¹⁹ Education levels and rates are for those age 25 and older.

Health Status

The Capital District region had a higher rate of deaths than the state as a whole, including a higher rate of deaths from all types of cancer. The Capital District had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 51).

Exhibit 51
Selected Health Indicators for the Capital District Region, 2008-2010 (3-year Average)²⁰

Health Indicator	Region		Statewide
	Number	Rate	Rate
Total Deaths	9,507	889.5	748.6
Deaths Due to Heart Disease	2,602	244.9	239.6
Deaths Due to All Cancers	2,365	221.3	179.9
Deaths Due to Diabetes	191	17.9	18.6
Total Births	11,246	54.2	60.9
Teen Births	800	21.1	24.0
Low-birthweight Births	892	7.9	8.2
Late/No Prenatal Care	522	5.0	5.9
Infant Deaths	69	6.1	5.2
Adult Asthma Hospitalizations	943	111.8	178.2
Pediatric Asthma Hospitalizations	315	139.6	289.5
Diabetes Discharges (Primary Diagnosis)	1,485	138.9	203.3
Chronic Lower Respiratory Disease Hospitalizations	3,970	371.4	392.6
Heart Disease Hospitalizations	11,629	1,088.0	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

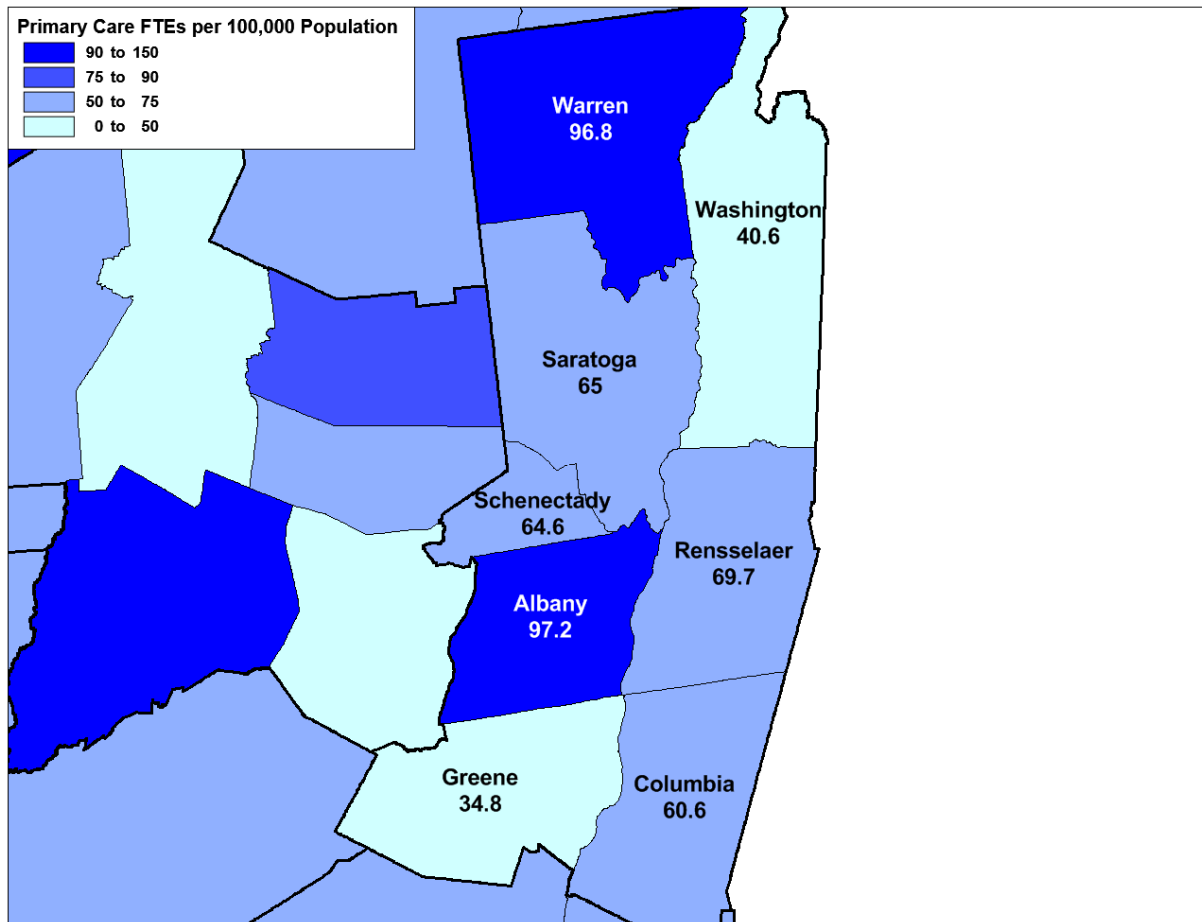
There were almost 800 primary care physician FTEs practicing in the Capital District region in 2010. More than one-third of them (38%) were in family or general practice and 30% were in general internal medicine. There were 73.6 primary care physicians per 100,000 population in the Capital District region, lower than the statewide rate of 79.9. Albany and Warren counties had the most with 97.2 and 96.8 per 100,000, respectively, while Greene County had the least with 34.8 per 100,000 (Exhibits 52 and 53).

²⁰ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 52
Primary Care FTEs in the Capital District Region, by Specialty, 2010²¹

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	302.5	28.0	18.1
Internal Medicine (General)	241.3	22.4	33.9
Geriatrics	5.3	0.5	0.6
Obstetrics/Gynecology	98.8	47.6	47.3
Pediatrics (General)	146.4	63.9	77.6
Total	794.3	73.6	79.9

Exhibit 53
The Number of Primary Care FTEs Per 100,000 Population, in the Capital District Region, 2010



²¹ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Between 2007 and 2011, health care employment in the Capital District region grew by over 2,900 jobs, or more than 5%. Jobs in hospitals increased by over 6% between 2007 and 2011. Meanwhile, jobs in ambulatory care (excluding home health care) and home health services both increased by nearly 6% during the same period. Employment in nursing home and personal care facilities increased by almost 3% between 2007 and 2011 (Exhibit 54).

Exhibit 54
Number of Workers by Health Care Setting in the Capital District Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	22,074	22,413	22,980	23,057	23,541	1,467	6.6%
Ambulatory Care (Excluding Home Health)	16,511	16,659	16,905	17,222	17,461	950	5.8%
Nursing Home and Personal Care Facilities	10,925	11,188	11,191	11,194	11,240	315	2.9%
Home Health Care Services	2,906	2,989	3,060	3,049	3,078	172	5.9%
Total	52,416	53,249	54,136	54,521	55,320	2,904	5.5%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011, the number of licensed RNs increased by nearly 400 and the number of LPNs grew by almost 300 in the Capital District region. A small decrease in the number of licensed physical therapy assistants also occurred in the region during that period. Respiratory therapists, clinical laboratory therapists, and physician assistants experienced the greatest percentage increases during this time (Exhibit 55).

Exhibit 55
Change in the Number of Selected Licensed Health Care Professions
in the Capital District Region, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Respiratory Therapists	309	320	344	360	370	61	19.7%
Clinical Laboratory Technicians	97	121	135	130	115	18	18.6%
Physician Assistants	523	552	575	593	612	89	17.0%
Nurse Practitioners	636	656	685	704	716	80	12.6%
Clinical Laboratory Technologists	783	879	949	924	876	93	11.9%
Speech-Language Pathologists	835	868	892	892	912	77	9.2%
Pharmacists	1,324	1,342	1,392	1,431	1,444	120	9.1%
Occupational Therapists	506	516	540	539	547	41	8.1%
Dental Hygienists	793	807	806	821	849	56	7.1%
Licensed Practical Nurses	4,971	5,117	5,087	5,064	5,245	274	5.5%
Occupational Therapy Assistants	292	298	295	292	308	16	5.5%
Physical Therapists	971	966	992	1,011	1,019	48	4.9%
Social Workers	2,330	2,247	2,268	2,320	2,415	85	3.6%
Dietitians/Nutritionists	284	291	297	300	294	10	3.5%
Registered Nurses	15,134	15,196	15,420	15,513	15,506	372	2.5%
Physical Therapy Assistants	366	347	355	355	339	-27	-7.4%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the Capital District region reported the most difficulty recruiting clinical laboratory technologists, followed by nurse managers and physician assistants. Physician assistants were the most difficult to retain, followed by clinical laboratory technologists and NPs (Exhibit 56).

Exhibit 56
Recruitment and Retention Difficulties for Hospitals in the Capital District Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.2	3.4	18%	45%	73%	45%
Clinical Laboratory Technicians	3.7	2.9	50%	0%	0%	10%
Clinical Laboratory Technologists	4.5	3.7	73%	18%	45%	55%
HIT Analysts	3.2	3.1	67%	22%	22%	22%
HIT Program Managers	2.2	2.6	67%	22%	22%	22%
HIT Technical Support	2.4	2.9	0%	0%	0%	0%
Licensed Practical Nurses	1.9	1.6	38%	25%	25%	25%
Medical Assistants	1.0	1.2	0%	0%	20%	0%
Medical Coders	3.3	2.5	50%	0%	0%	0%
Nurse Practitioners	3.4	3.7	64%	27%	27%	55%
Occupational Therapists	3.6	3.0	43%	29%	29%	29%
Pharmacists	2.4	2.5	36%	18%	45%	27%
Physical Therapists	3.2	3.0	55%	18%	45%	18%
Physician Assistants	3.9	3.9	60%	20%	20%	60%
Radiological Technicians	2.6	2.7	22%	22%	56%	33%
Radiological Technologists	3.1	2.9	27%	18%	73%	55%
Registered Nurses						
-Newly Licensed RNs	1.9	2.4	18%	27%	18%	27%
-Experienced RNs	3.5	3.2	45%	58%	55%	45%
-Nurse Managers	4.0	2.9	60%	80%	70%	50%
Speech Pathologists	2.9	3.0	29%	29%	29%	29%

Nursing Homes

Nurse managers were the most difficult to recruit and one of the most difficult to retain according to nursing homes in the Capital District region. The main reasons cited were competition for nurse managers and a shortage of them. Experienced RNs, MDS coordinators, and directors of nursing were also difficult to recruit. CNAs were the most difficult to retain, followed by experienced RNs and nurse managers (Exhibit 57).

Exhibit 57
Recruitment and Retention Difficulties for Nursing Homes
in the Capital District Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	3.0	3.8	13%	50%	29%	21%
Clerical	2.0	2.0	4%	9%	9%	4%
Dietitians/Nutritionists	3.5	2.2	24%	14%	5%	5%
Licensed Practical Nurses	3.5	3.2	22%	35%	30%	17%
Medical Billers	3.0	1.7	9%	54%	18%	9%
Occupational Therapists	3.3	2.1	33%	25%	33%	0%
Occupational Therapy Assistants	3.1	2.4	36%	27%	27%	0%
Personal Care Assistants	2.6	3.3	29%	43%	0%	14%
Physical Therapists	3.4	2.5	39%	39%	39%	0%
Physical Therapy Assistants	3.0	2.1	36%	27%	18%	0%
Registered Nurses						
-Newly Licensed RNs	3.1	3.2	20%	53%	20%	0%
-Experienced RNs	4.1	3.5	35%	39%	44%	4%
-MDS Coordinators	4.0	2.8	35%	29%	18%	6%
-Nurse Managers	4.2	3.4	46%	46%	32%	14%
-Directors of Nursing	4.0	2.8	44%	22%	28%	17%
Rec. Therapists/Activities Directors	2.9	2.5	17%	22%	17%	6%
Social Workers						
-Licensed Clinical SWs	3.0	2.6	15%	30%	10%	5%
-Licensed Master's SWs	3.2	2.4	11%	21%	11%	0%
Speech Pathologists	3.4	2.4	44%	22%	22%	0%

Other information reported by nursing homes in the Capital District region included:

- Fifty-eight percent (58%) reported difficulty hiring part-time workers.
- None reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring RNs (65%), CNAs (63%), and LPNs (56%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (67%), LPNs (61%), and CNAs (50%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (50%), LPNs (46%), and CNAs (39%) for weekend shifts.
- The majority of nursing homes (83%) were not planning to expand or reduce services next year.

Home Health Agencies

The response rates for home health agencies in the Capital District and Mohawk Valley regions were too low to analyze separately, so the responses for the two regions were combined for analysis. Experienced RNs were the most difficult to recruit and one of the most difficult to retain, with home health agencies indicating shortages of and competition for them as the main reasons. Dietitians/nutritionists were also difficult to recruit, while respiratory therapists were difficult to recruit and retain (Exhibit 58).

Exhibit 58
Recruitment and Retention Difficulties for Home Health Agencies in
the Capital District and Mohawk Valley Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	4.0	2.6	50%	38%	38%	13%
Home Health Aides	3.1	1.8	56%	22%	11%	0%
Licensed Practical Nurses	2.9	2.2	10%	30%	20%	10%
Occupational Therapists	3.7	2.7	36%	36%	18%	0%
Physical Therapists	3.5	2.3	33%	33%	17%	0%
Registered Nurses						
-Experienced RNs	4.3	3.5	85%	54%	31%	23%
Respiratory Therapists	3.8	3.8	60%	40%	20%	0%
Social Workers						
-Licensed Clinical SWs	3.5	3.0	25%	25%	38%	25%
-Licensed Master's SWs	3.4	3.0	27%	27%	27%	18%
Speech Pathologists	3.6	3.2	46%	27%	9%	0%

Other information reported by home health agencies in the Capital District and Mohawk Valley regions included:

- Thirty-nine percent (39%) reported difficulty hiring part-time workers.
- More than one-half (55%) indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- Two-thirds (67%) indicated difficulty hiring workers for off-shifts.
- Fifty-four percent (54%) indicated they anticipated expanding services in the next year and 23% reported they would not expand or reduce services next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 59).

Exhibit 59
FQHCs and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012²²

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

²² All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Capital District region will be for RNs (400), home health aides (330), and personal and home care aides (180) (Exhibit 60).

Exhibit 60
Employment Projections for Selected Health Care Occupations²³
for the Capital District Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Registered Nurses	12,090	13,840	1,750	14.5%	400
Home Health Aides	5,960	8,400	2,440	40.9%	330
Personal and Home Care Aides	3,330	4,870	1,540	46.2%	180
Licensed Practical and Licensed Vocational Nurses	3,460	3,920	460	13.3%	140
Nursing Aides, Orderlies, and Attendants	6,230	6,680	450	7.2%	130
Social Workers	3,350	3,730	380	11.3%	120
Emergency Medical Technicians and Paramedics	1,340	1,750	410	30.6%	70
Medical and Health Services Managers	1,790	1,900	110	6.1%	50
Clinical, Counseling, and School Psychologists	850	930	80	9.4%	40
Dental Hygienists	760	980	220	28.9%	40
Pharmacy Technicians	910	1,060	150	16.5%	40
Dental Assistants	800	970	170	21.3%	40
Medical Assistants	970	1,190	220	22.7%	40
Pharmacists	940	1,030	90	9.6%	30
Physical Therapists	860	1,090	230	26.7%	30
Physician Assistants	690	830	140	20.3%	20
Occupational Therapists	520	610	90	17.3%	20
Speech-Language Pathologists	760	890	130	17.1%	20
Medical and Clinical Laboratory Technicians	630	680	50	7.9%	20
Radiologic Technologists and Technicians	850	980	130	15.3%	20
Medical Records and Health Information Technicians	530	610	80	15.1%	20
Dietitians and Nutritionists	390	420	30	7.7%	10
Respiratory Therapists	300	340	40	13.3%	10
Medical and Clinical Laboratory Technologists	690	720	30	4.3%	10
Diagnostic Medical Sonographers	230	300	70	30.4%	10
Surgical Technologists	310	320	10	3.2%	10
Psychiatric Aides	630	670	40	6.3%	10
Cardiovascular Technologists and Technicians	180	220	40	22.2%	0

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

²³ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

C. Central New York

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

Population

The distribution of the population in the Central New York region by age roughly paralleled the state's distribution, including the percentage of females of child bearing age (age 15-44). The Central New York region, however, was significantly less racially and ethnically diverse than the state as a whole (Exhibit 61).

Exhibit 61
Selected Population Characteristics for the Central New York Region, 2010²⁴

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	791,939	N/A	N/A
Population Under 100% FPL Level	101,072	13.4%	14.2%
Population Under 200% FPL Level	230,348	30.6%	30.6%
Population Age Birth – 17	179,192	22.6%	22.3%
Population Age 65 and older	109,910	13.9%	13.5%
Population Female Age 15 – 44	158,860	20.1%	20.9%
Black/African American, non-Hispanic	53,566	6.8%	14.5%
Hispanic/Latino	24,029	3.0%	17.1%
Asian/Pacific Islander, non-Hispanic	16,273	2.1%	7.2%
American Indian/Native Alaskan, non-Hispanic	4,351	0.6%	0.2%
Two or More/Other	13,525	1.7%	1.8%
Less than High School Education	60,395	11.7%	15.6%
High School Education	165,397	32.1%	28.2%
College Degree or Higher	196,002	38.1%	40.3%

Source: U.S. Census

²⁴ Education levels and rates are for those age 25 and older.

Health Status

The Central New York region had a higher total death rate than the state as a whole, including all deaths due to cancer, and a slightly lower birth rate. While the overall birth rate was lower in Central New York than in the state, the teen birth rate was slightly higher. The Central New York region also had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 62).

Exhibit 62

Selected Health Indicators for the Central New York Region, 2008-2010 (3-year Average)²⁵

Health Indicator	Region		Statewide Rate
	Number	Rate	
Total Deaths	6,717	862.1	748.6
Deaths Due to Heart Disease	1,551	200.6	239.6
Deaths Due to All Cancers	1,642	210.7	179.9
Deaths Due to Diabetes	153	19.6	18.6
Total Births	8,855	55.7	60.9
Teen Births	837	26.1	24.0
Low-birthweight Births	656	7.4	8.2
Late/No Prenatal Care	324	3.7	5.9
Infant Deaths	57	6.4	5.2
Adult Asthma Hospitalizations	473	78.2	178.2
Pediatric Asthma Hospitalizations	190	108.9	289.5
Diabetes Discharges (Primary Diagnosis)	1,096	140.7	203.3
Chronic Lower Respiratory Disease Hospitalizations	2,590	332.4	392.6
Heart Disease Hospitalizations	8,341	1,070.5	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

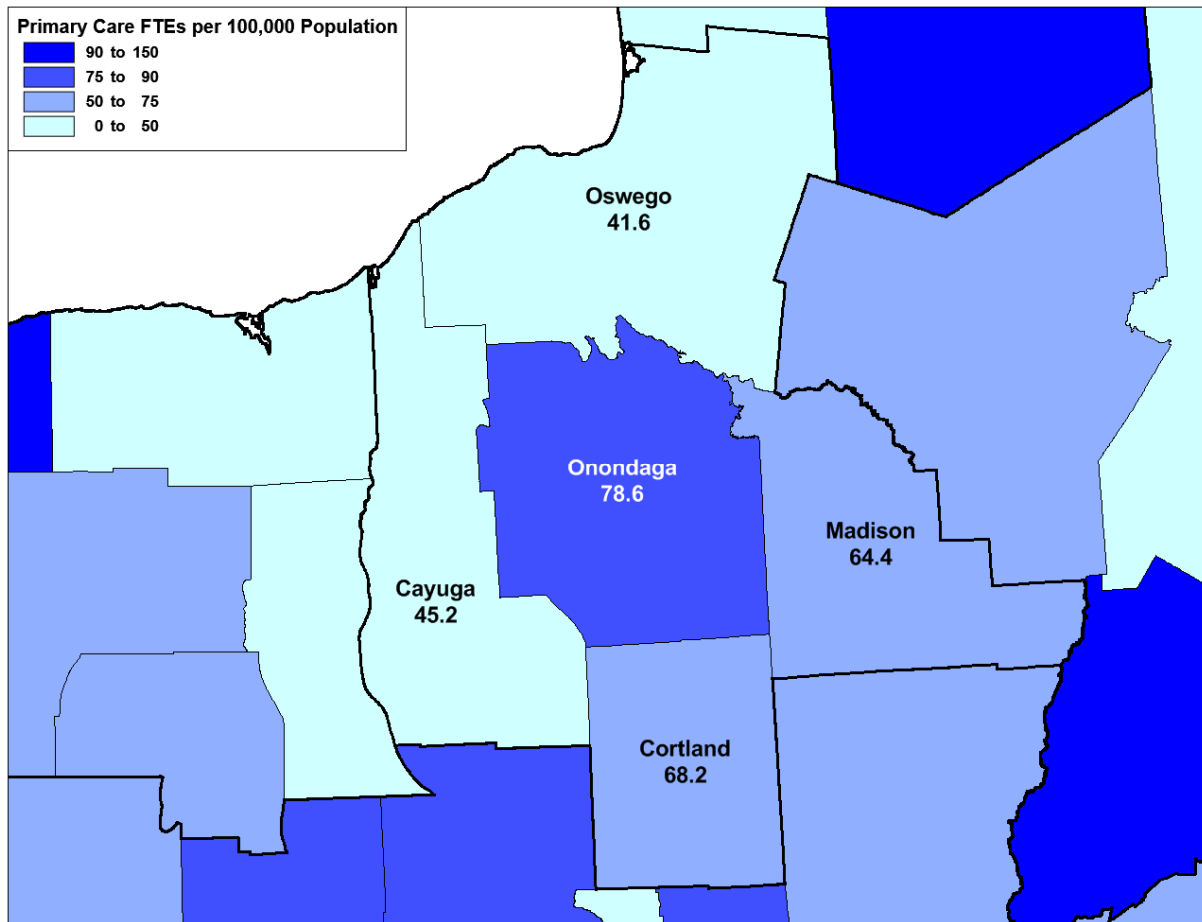
There were more than 530 primary care physician FTEs practicing in the Central New York region. Forty-three percent (43%) were in family or general practice, 25% were in general internal medicine, and another 18% were in general pediatrics. There were 67.5 primary care physicians per 100,000 population in the Central New York region, below the statewide rate of 79.9. Onondaga County had the most with 78.6 per 100,000 population, while Oswego County had the least with 41.6 per 100,000 (Exhibits 63 and 64).

²⁵ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 63
Primary Care FTEs in the Central New York Region, by Specialty, 2010²⁶

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	231.3	29.2	18.1
Internal Medicine (General)	130.8	16.5	33.9
Geriatrics	4.1	0.5	0.6
Obstetrics/Gynecology	70.3	44.2	47.3
Pediatrics (General)	98.3	54.9	77.6
Total	534.8	67.5	79.9

Exhibit 64
The Number of Primary Care FTEs Per 100,000 Population
in the Central New York Region, 2010



²⁶ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Between 2007 and 2011, health sector employment throughout the Central New York region grew by more than 1,100 jobs, or slightly more than 3%. Employment in home health services grew by more than 360 jobs, or 30%. Nursing home and personal care facilities lost over 400 jobs during the same period (Exhibit 65).

Exhibit 65
Number of Workers by Health Care Setting in the Central New York Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	12,540	12,686	12,706	13,133	13,202	662	5.3%
Ambulatory Care (Excluding Home Health)	13,119	13,338	13,632	13,414	13,644	525	4.0%
Nursing Home and Personal Care Facilities	9,368	9,281	9,347	9,142	8,929	-439	-4.7%
Home Health Care Services	1,224	1,273	1,377	1,404	1,593	369	30.1%
Total	36,251	36,578	37,061	37,093	37,367	1,116	3.1%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011 in the Central New York region, the number of licensed RNs grew by over 800, increasing by slightly more than 8%. During the same period, the number of LPNs increased by over 350, a rise of 7%; and the number of clinical laboratory technologists grew by 100, an increase of 34%. Between 2007 and 2011, there were slight decreases in the number of licensed dietitians/nutritionists and occupational therapy assistants (Exhibit 66).

Exhibit 66
Change in the Number of Licensed Individuals in Selected Health Professions
in the Central New York Region, 2009-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technicians	64	81	123	123	110	46	71.9%
Physician Assistants	302	326	339	370	405	103	34.1%
Clinical Laboratory Technologists	418	506	563	564	558	140	33.5%
Speech-Language Pathologists	424	445	467	471	489	65	15.3%
Physical Therapy Assistants	209	221	227	235	241	32	15.3%
Pharmacists	658	659	685	708	714	56	8.5%
Social Workers	1,164	1,144	1,182	1,217	1,263	99	8.5%
Registered Nurses	10,120	10,336	10,538	10,785	10,935	815	8.1%
Nurse Practitioners	923	931	941	959	992	69	7.5%
Licensed Practical Nurses	4,823	4,985	5,036	5,046	5,177	354	7.3%
Physical Therapists	686	678	699	724	721	35	5.1%
Occupational Therapists	287	295	294	307	298	11	3.8%
Respiratory Therapists	342	350	348	342	353	11	3.2%
Dental Hygienists	549	538	544	548	563	14	2.6%
Occupational Therapy Assistants	100	97	93	97	95	-5	-5.0%
Dietitians/Nutritionists	196	187	185	187	183	-13	-6.6%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

The response rates to the hospital surveys in the Central New York and Southern Tier regions were too low to analyze separately, so responses were aggregated for those two regions. Hospitals in the Central New York and Southern Tier regions reported the most difficulty recruiting NPs, followed by physical therapists and physician assistants. Hospitals in these two regions indicated they had the most difficulty retaining CNAs, followed by NPs and experienced RNs (Exhibit 67).

Exhibit 67
Recruitment and Retention Difficulties for Hospitals
in the Central New York and Southern Tier Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.2	3.0	20%	20%	10%	20%
Clinical Laboratory Technicians	3.6	2.5	40%	0%	0%	0%
Clinical Laboratory Technologists	3.4	2.2	78%	22%	33%	22%
HIT Analysts	2.5	2.5	17%	17%	33%	0%
HIT Program Managers	2.5	1.8	25%	0%	25%	25%
HIT Technical Support	2.0	2.2	20%	20%	0%	0%
Licensed Practical Nurses	1.5	1.9	13%	13%	13%	13%
Medical Assistants	2.4	2.2	40%	20%	20%	20%
Medical Coders	3.1	1.9	56%	11%	22%	11%
Nurse Practitioners	4.0	2.9	43%	43%	29%	43%
Occupational Therapists	3.5	1.6	63%	13%	13%	13%
Pharmacists	3.3	2.4	67%	11%	33%	22%
Physical Therapists	3.9	2.3	63%	25%	13%	13%
Physician Assistants	3.8	2.6	38%	38%	25%	25%
Radiological Technicians	1.8	1.8	0%	0%	0%	0%
Radiological Technologists	2.3	1.9	13%	13%	13%	25%
Registered Nurses						
-Newly Licensed RNs	2.1	2.7	22%	22%	22%	44%
-Experienced RNs	3.2	2.9	56%	22%	11%	56%
-Nurse Managers	3.4	2.5	63%	25%	13%	38%
Speech Pathologists	3.1	1.7	57%	14%	14%	14%

Nursing Homes

In the Central New York region, experienced RNs were the most difficult to recruit, followed by occupational therapists, LPNs, occupational therapy assistants, MDS coordinators, nurse managers, and licensed master's-trained social workers. CNAs were the most difficult to retain, followed by newly licensed RNs and licensed clinical social workers (Exhibit 68).

Exhibit 68
Recruitment and Retention Difficulties for Nursing Homes
in the Central New York Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	3.2	3.5	25%	38%	13%	13%
Clerical	1.7	1.8	8%	8%	0%	0%
Dietitians/Nutritionists	2.8	2.0	23%	23%	0%	0%
Licensed Practical Nurses	3.3	2.7	31%	38%	13%	13%
Medical Billers	2.6	1.8	11%	22%	11%	0%
Occupational Therapists	3.4	2.6	13%	13%	13%	0%
Occupational Therapy Assistants	3.3	2.4	0%	13%	13%	0%
Physical Therapists	3.2	2.4	11%	0%	22%	0%
Physical Therapy Assistants	3.0	2.3	11%	11%	22%	0%
Registered Nurses						
-Newly Licensed RNs	3.2	3.0	15%	39%	15%	0%
-Experienced RNs	3.6	2.6	38%	44%	31%	0%
-MDS Coordinators	3.3	2.0	39%	15%	15%	0%
-Nurse Managers	3.3	2.4	31%	38%	31%	0%
-Directors of Nursing	3.0	2.1	19%	19%	13%	0%
Rec. Therapists/Activities Directors	2.3	1.9	17%	0%	17%	8%
Social Workers						
-Licensed Clinical SWs	2.8	3.0	17%	8%	27%	0%
-Licensed Master's SWs	3.3	2.8	15%	8%	39%	0%
Speech Pathologists	2.6	2.5	29%	0%	0%	0%

Other information reported by nursing homes in the Central New York region included:

- Almost one-third (31%) reported difficulty hiring part-time workers.
- Only 6% reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring RNs (56%), CNAs (50%), and LPNs (38%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (81%), LPNs (56%), and CNAs (50%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (63%), LPNs (56%), and CNAs (50%) for weekend shifts.
- Most nursing homes (94%) were not planning to expand or reduce services next year.

Home Health Agencies

The response rates for home health agencies in the Central New York and Southern Tier regions were too low to analyze separately, so responses were combined for these two regions.

Experienced RNs were the most difficult to recruit, followed by occupational therapists, respiratory therapists, and licensed clinical social workers. Newly licensed RNs were the most difficult to retain, followed by speech pathologists, home health aides, and experienced RNs (Exhibit 69).

Exhibit 69
Recruitment and Retention Difficulties for Home Health Agencies
in the Central New York and Southern Tier Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.0	2.6	25%	0%	8%	0%
Home Health Aides	2.7	3.1	25%	25%	25%	0%
Licensed Practical Nurses	2.4	2.3	0%	31%	15%	0%
Occupational Therapists	3.6	2.9	30%	20%	20%	0%
Physical Therapists	3.3	2.3	0%	17%	25%	8%
Registered Nurses						
-Newly Licensed RNs	3.0	3.5	13%	13%	13%	13%
-Experienced RNs	3.7	3.1	7%	40%	40%	7%
Respiratory Therapists	3.6	3.0	20%	0%	0%	0%
Social Workers						
-Licensed Clinical SWs	3.6	3.0	0%	29%	0%	14%
-Licensed Master's SWs	2.8	2.5	8%	8%	8%	0%
Speech Pathologists	3.4	3.2	11%	11%	11%	0%

Other information reported by home health agencies in the Central New York and Southern Tier regions included:

- Almost one-half (47%) reported difficulty hiring part-time workers.
- Fourteen percent (14%) indicated difficulty hiring bilingual workers.
- Fifty-seven percent (57%) indicated difficulty hiring workers for off-shifts.
- One-third (33%) indicated they anticipated expanding services in the next year and 60% reported they would not expand or reduce services next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 70).

Exhibit 70
FQHCs and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012²⁷

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

²⁷ All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Central New York region will be for RNs (250), personal and home care aides (220), and home health aides (160) (Exhibit 71).

Exhibit 71
Employment Projections for Selected Health Care Occupations²⁸
for the Central New York Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Registered Nurses	8,030	9,040	1,010	12.6%	250
Personal and Home Care Aides	4,230	6,130	1,900	44.9%	220
Home Health Aides	3,270	4,460	1,190	36.4%	160
Licensed Practical and Licensed Vocational Nurses	3,360	3,800	440	13.1%	130
Nursing Aides, Orderlies, and Attendants	4,030	4,490	460	11.4%	100
Social Workers	2,330	2,580	250	10.7%	90
Medical and Health Services Managers	1,030	1,110	80	7.8%	40
Dental Assistants	710	850	140	19.7%	40
Medical Assistants	1,170	1,410	240	20.5%	40
Clinical, Counseling, and School Psychologists	600	660	60	10.0%	30
Physical Therapists	630	800	170	27.0%	30
Emergency Medical Technicians and Paramedics	620	800	180	29.0%	30
Pharmacists	730	770	40	5.5%	20
Physician Assistants	380	450	70	18.4%	20
Occupational Therapists	310	360	50	16.1%	20
Speech-Language Pathologists	340	400	60	17.6%	20
Dental Hygienists	500	630	130	26.0%	20
Radiologic Technologists and Technicians	680	790	110	16.2%	20
Pharmacy Technicians	710	790	80	11.3%	20
Medical Records and Health Information Technicians	650	720	70	10.8%	20
Dietitians and Nutritionists	280	300	20	7.1%	10
Respiratory Therapists	280	310	30	10.7%	10
Medical and Clinical Laboratory Technologists	460	500	40	8.7%	10
Medical and Clinical Laboratory Technicians	370	410	40	10.8%	10
Diagnostic Medical Sonographers	170	220	50	29.4%	10
Surgical Technologists	280	300	20	7.1%	10
Psychiatric Aides	320	350	30	9.4%	0

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

²⁸ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

D. Finger Lakes

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

Population

The Finger Lakes region had a similar age structure to New York State as a whole, but was less racially and ethnically diverse (Exhibit 72).

Exhibit 72
Selected Population Characteristics for the Finger Lakes Region, 2010²⁹

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	1,217,156	N/A	N/A
Population Under 100% FPL Level	148,275	12.8%	14.2%
Population Under 200% FPL Level	339,312	29.2%	30.6%
Population Age Birth – 17	273,752	22.5%	22.3%
Population Age 65 and older	173,533	14.3%	13.5%
Population Female Age 15 – 44	236,827	19.5%	20.9%
Black/African American, non-Hispanic	121,133	10.0%	14.5%
Hispanic/Latino	64,648	5.3%	17.1%
Asian/Pacific Islander, non-Hispanic	26,897	2.2%	7.2%
American Indian/Native Alaskan, non-Hispanic	3,361	0.3%	0.2%
Two or More/Other	19,434	1.6%	1.8%
Less than High School Education	95,554	11.9%	15.6%
High School Education	237,003	29.4%	28.2%
College Degree or Higher	331,027	41.1%	40.3%

Source: U.S. Census

²⁹ Education levels and rates are for those age 25 and older.

Health Status

The Finger Lakes region had a higher total death rate than the state as a whole, including all deaths due to cancer, and a slightly lower birth rate. While the overall birth rate was lower in the Finger Lakes region than in the state, the teen birth rate was slightly higher. The Central New York region also had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 73).

Exhibit 73
Selected Health Indicators for the Finger Lakes Region, 2008-2010 (3-year Average)³⁰

Health Indicator	Region		Statewide Rate
	Number	Rate	
Total Deaths	10,470	871.8	748.6
Deaths Due to Heart Disease	2,548	213.8	239.6
Deaths Due to All Cancers	2,517	209.6	179.9
Deaths Due to Diabetes	201	16.7	18.6
Total Births	13,470	56.9	60.9
Teen Births	1,195	26.0	24.0
Low-birthweight Births	1,019	7.6	8.2
Late/No Prenatal Care	444	3.6	5.9
Infant Deaths	92	6.8	5.2
Adult Asthma Hospitalizations	957	102.5	178.2
Pediatric Asthma Hospitalizations	259	96.8	289.5
Diabetes Discharges (Primary Diagnosis)	1,772	147.6	203.3
Chronic Lower Respiratory Disease Hospitalizations	3,675	306.0	392.6
Heart Disease Hospitalizations	15,533	1,293.4	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

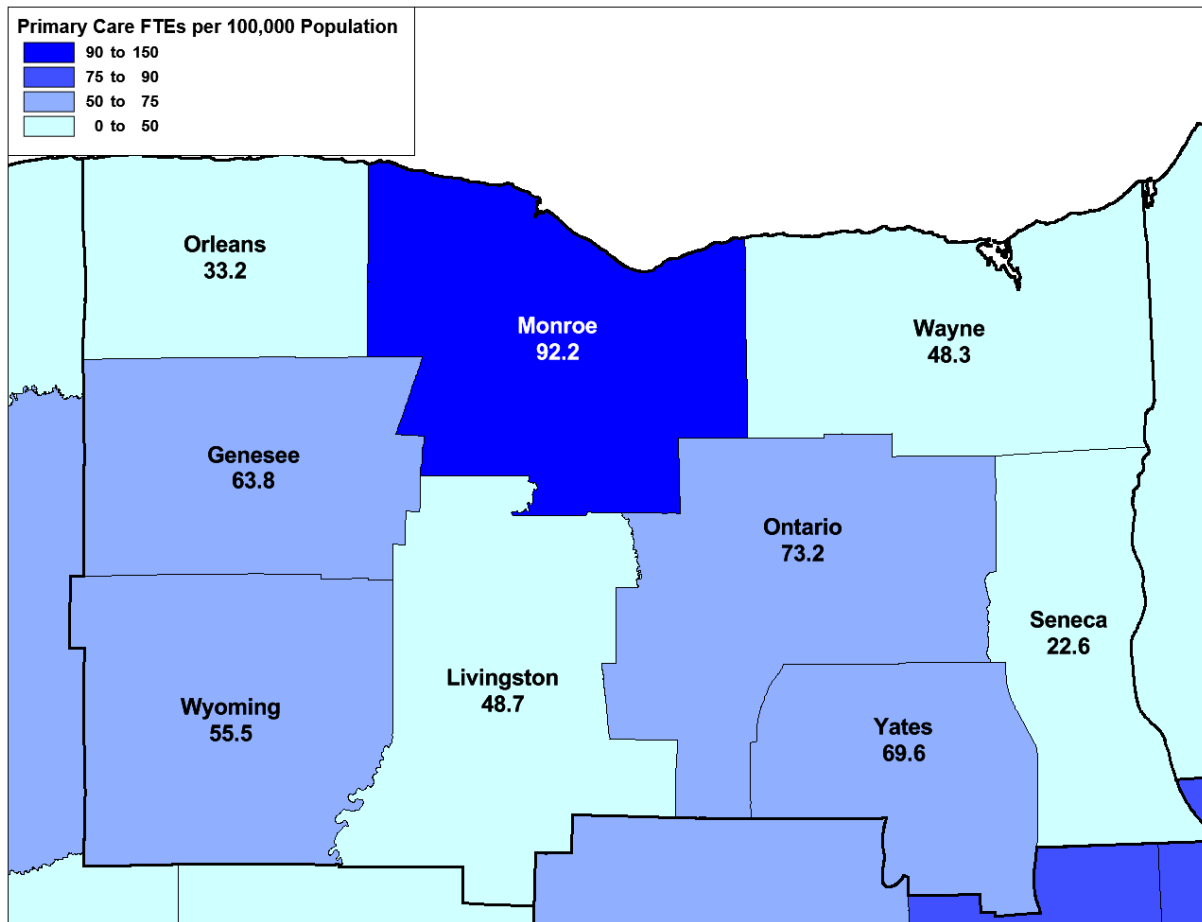
There were over 1,000 primary care physician FTEs practicing in the Finger Lakes region. Forty-two percent (42%) were in general internal medicine, 24% were in family or general practice, and another 21% were in general pediatrics. There were 77.5 primary care physicians per 100,000 population in the Finger Lakes region, slightly less than the statewide rate of 79.9. Monroe County had the most with 92.2 per 100,000 population, while Seneca County had the least with 22.6 per 100,000. Orleans also had a low rate of primary care physicians with 33.2 per 100,000 population (Exhibits 74 and 75).

³⁰ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 74
Primary Care FTEs in the Finger Lakes Region, by Specialty, 2010³¹

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	230.4	18.9	18.1
Internal Medicine (General)	396.6	32.6	33.9
Geriatrics	8.2	0.7	0.6
Obstetrics/Gynecology	109.8	46.4	47.3
Pediatrics (General)	198.8	72.6	77.6
Total	943.8	77.5	79.9

Exhibit 75
The Number of Primary Care FTEs Per 100,000 Population
in the Finger Lakes Region, 2010



³¹ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Between 2007 and 2011, health sector employment throughout the Finger Lakes region grew by more than 4,000 jobs. Employment in hospitals increased by almost 1,900 jobs, or 7%, and employment in ambulatory care settings, excluding home health care, grew by more than 1,400 jobs, or nearly 10%, between 2007 and 2011 (Exhibit 76).

Exhibit 76
Number of Workers by Health Care Setting in the Finger Lakes Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	27,022	27,984	28,252	28,258	28,916	1,894	7.0%
Ambulatory Care (Excluding Home Health)	15,074	15,645	15,981	16,457	16,505	1,431	9.5%
Nursing Home and Personal Care Facilities	12,181	12,183	12,519	12,811	12,746	565	4.6%
Home Health Care Services	3,522	3,420	3,441	3,473	3,722	200	5.7%
Total	57,799	59,232	60,192	60,999	61,889	4,090	7.1%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011 in the Finger Lakes region, the number of licensed RNs increased by more than 1,100, or nearly 8%, while the number of LPNs increased by almost 500, or just over 8%. The number of social workers grew by more than 220, or nearly 11%, during the same time period. The number of licensed dietitians/nutritionists declined slightly between 2007 and 2011 (Exhibit 77).

Exhibit 77
Change in the Number of Licensed Individuals in Selected Professions
in the Finger Lakes Region, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technicians	33	45	71	71	65	32	97.0%
Clinical Laboratory Technologists	721	873	975	960	939	218	30.2%
Physician Assistants	529	566	588	625	642	113	21.4%
Respiratory Therapists	255	271	270	285	305	50	19.6%
Speech-Language Pathologists	864	907	946	978	1,022	158	18.3%
Physical Therapy Assistants	254	266	267	279	287	33	13.0%
Nurse Practitioners	1,269	1,304	1,351	1,365	1,413	144	11.3%
Social Workers	1,976	1,981	2,043	2,110	2,199	223	11.3%
Physical Therapists	902	919	949	967	990	88	9.8%
Pharmacists	985	977	1,025	1,036	1,071	86	8.7%
Licensed Practical Nurses	5,913	6,132	6,129	6,191	6,395	482	8.2%
Registered Nurses	14,587	14,717	15,178	15,502	15,704	1,117	7.7%
Occupational Therapists	576	578	592	601	614	38	6.6%
Occupational Therapy Assistants	209	213	223	226	222	13	6.2%
Dental Hygienists	1,011	1,018	1,023	1,032	1,049	38	3.8%
Dietitians/Nutritionists	261	249	257	256	247	-14	-5.4%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the Finger Lakes region reported the most difficulty recruiting and retaining clinical lab technologists, citing a shortage of workers and salary level as the main reasons for these difficulties. Hospitals also reported difficulties recruiting clinical laboratory technicians, occupational therapists, and experienced RNs and difficulties retaining occupational therapists and speech pathologists (Exhibit 78).

Exhibit 78

Recruitment and Retention Difficulties for Hospitals in the Finger Lakes Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.5	3.0	50%	50%	63%	38%
Clinical Laboratory Technicians	4.0	2.7	80%	20%	40%	40%
Clinical Laboratory Technologists	4.5	3.4	83%	17%	83%	67%
HIT Analysts	2.0	1.3	25%	25%	25%	25%
HIT Program Managers	2.0	1.0	0%	0%	0%	0%
HIT Technical Support	2.3	1.3	25%	25%	25%	25%
Licensed Practical Nurses	1.9	1.9	33%	44%	44%	44%
Medical Assistants	3.0	1.5	50%	25%	50%	25%
Medical Coders	2.6	2.4	50%	25%	25%	25%
Nurse Practitioners	3.6	2.7	50%	50%	38%	38%
Occupational Therapists	4.0	3.3	56%	33%	33%	44%
Pharmacists	2.8	2.1	63%	38%	38%	63%
Physical Therapists	3.9	2.9	50%	38%	38%	50%
Physician Assistants	3.6	2.7	50%	50%	50%	50%
Radiological Technicians	1.7	1.3	33%	33%	33%	33%
Radiological Technologists	1.6	1.2	29%	14%	14%	29%
Registered Nurses						
-Newly Licensed RNs	2.1	3.1	67%	44%	78%	56%
-Experienced RNs	4.0	2.6	89%	44%	89%	67%
-Nurse Managers	3.8	2.9	88%	63%	50%	38%
Speech Pathologists	3.7	3.3	50%	33%	33%	50%

Nursing Homes

Nursing homes in the Finger Lakes region reported the most difficulty in recruiting directors of nursing, experienced RNs, MDS coordinators, nurse managers, and physical therapists. They reported the most difficulty retaining CNAs, newly licensed and experienced RNs, and nurse managers (Exhibit 79).

Exhibit 79
Recruitment and Retention Difficulties for Nursing Homes
in the Finger Lakes Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	3.1	3.6	11%	32%	18%	18%
Clerical	1.8	1.9	0%	15%	8%	8%
Dietitians/Nutritionists	3.2	2.4	24%	19%	10%	10%
Licensed Practical Nurses	2.9	2.8	14%	32%	14%	4%
Medical Billers	2.9	2.2	13%	20%	7%	7%
Occupational Therapists	3.9	2.5	36%	32%	14%	0%
Occupational Therapy Assistants	3.7	2.5	37%	32%	16%	11%
Personal Care Assistants	3.3	2.8	13%	25%	0%	0%
Physical Therapists	4.0	2.6	43%	38%	10%	0%
Physical Therapy Assistants	3.7	2.9	26%	32%	11%	0%
Registered Nurses						
-Newly Licensed RNs	3.1	3.4	23%	23%	27%	9%
-Experienced RNs	4.2	3.3	44%	41%	41%	7%
-MDS Coordinators	4.2	2.9	36%	32%	9%	5%
-Nurse Managers	4.0	3.3	48%	48%	22%	7%
-Directors of Nursing	4.3	2.9	30%	30%	13%	4%
Rec. Therapists/Activities Directors	2.6	2.3	0%	19%	5%	5%
Respiratory Therapists	3.4	2.3	20%	20%	0%	0%
Social Workers						
-Licensed Clinical SWs	2.9	2.5	14%	18%	5%	9%
-Licensed Master's SWs	3.2	2.5	21%	26%	5%	0%
Speech Pathologists	3.3	2.8	24%	24%	6%	12%

Other information reported by nursing homes in the Finger Lakes region included:

- One-half (50%) reported difficulty hiring part-time workers.
- Only 11% reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring RNs (70%), LPNs (52%), and CNAs (44%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (70%), LPNs (67%), and CNAs (56%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (59%), CNAs (54%), and LPNs (50%) for weekend shifts.
- The majority of nursing homes (86%) were not planning to expand or reduce services next year.

Home Health Agencies

The number of responses for home health agencies in the Finger Lakes region was too low to analyze separately, so it was combined with the Western New York region for analysis. Home health agencies in the two regions indicated the most difficulty recruiting physical therapists, followed by experienced RNs, occupational therapists, and respiratory therapists. Home health aides, personal care aides, and experienced RNs were the most difficult to retain (Exhibit 80).

Exhibit 80
Recruitment and Retention Difficulties for Home Health Agencies
in the Finger Lakes and Western New York Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.3	2.3	31%	23%	15%	8%
Home Health Aides	3.4	4.0	50%	58%	42%	17%
Licensed Practical Nurses	2.6	2.8	0%	31%	15%	8%
Occupational Therapists	3.8	2.8	54%	46%	46%	23%
Personal Care Assistants	2.8	3.6	17%	67%	0%	0%
Physical Therapists	4.2	2.9	62%	62%	54%	15%
Registered Nurses						
-Newly Licensed RNs	3.3	3.2	50%	67%	0%	33%
-Experienced RNs	4.1	3.6	73%	53%	20%	20%
Respiratory Therapists	3.8	3.0	20%	40%	60%	0%
Social Workers						
-Licensed Clinical SWs	3.0	2.6	20%	40%	40%	0%
-Licensed Master's SWs	3.0	2.6	9%	27%	36%	9%
Speech Pathologists	3.5	2.6	25%	33%	17%	8%

Other information reported by home health agencies in the Finger Lakes and Western New York regions included:

- One-half (50%) reported difficulty hiring part-time workers.
- Thirty-one percent (31%) indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- Three-fourths (75%) indicated difficulty hiring workers for off-shifts.
- One-third (33%) indicated they anticipated expanding services in the next year, while 47% reported no plans to expand or reduce services next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 81).

Exhibit 81
FQHC and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012³²

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

³² All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Finger Lakes region will be for home health aides (390), RNs (370), and personal and home care aides (240) (Exhibit 82).

Exhibit 82
Employment Projections for Selected Health Care Occupations³³ for the
Finger Lakes Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Home Health Aides	8,890	11,630	2,740	30.8%	390
Registered Nurses	12,310	13,790	1,480	12.0%	370
Personal and Home Care Aides	4,200	6,320	2,120	50.5%	240
Licensed Practical and Licensed Vocational Nurses	4,140	4,530	390	9.4%	150
Social Workers	3,080	3,420	340	11.0%	100
Emergency Medical Technicians and Paramedics	1,410	1,830	420	29.8%	70
Medical and Health Services Managers	1,500	1,610	110	7.3%	50
Clinical, Counseling, and School Psychologists	890	960	70	7.9%	40
Dental Hygienists	970	1,180	210	21.6%	40
Dental Assistants	1,100	1,260	160	14.5%	40
Pharmacists	890	950	60	6.7%	30
Physical Therapists	940	1,140	200	21.3%	30
Medical and Clinical Laboratory Technologists	1,040	1,150	110	10.6%	30
Medical and Clinical Laboratory Technicians	1,200	1,290	90	7.5%	30
Pharmacy Technicians	1,030	1,120	90	8.7%	30
Medical Assistants	670	820	150	22.4%	30
Physician Assistants	640	720	80	12.5%	20
Occupational Therapists	680	770	90	13.2%	20
Speech-Language Pathologists	710	810	100	14.1%	20
Radiologic Technologists and Technicians	780	920	140	17.9%	20
Medical Records and Health Information Technicians	540	590	50	9.3%	20
Dietitians and Nutritionists	330	360	30	9.1%	10
Respiratory Therapists	320	360	40	12.5%	10
Diagnostic Medical Sonographers	250	330	80	32.0%	10
Surgical Technologists	290	300	10	3.4%	10

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010-2020

³³ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

E. Hudson Valley

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

Population

The Hudson Valley region had a lower percentage of individuals under the 100% and 200% federal poverty level compared to the state overall. The Hudson Valley region also had a higher percentage of people with a college degree or higher (Exhibit 83).

Exhibit 83
Selected Population Characteristics for the Hudson Valley Region, 2010³⁴

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	2,290,851	N/A	N/A
Population Under 100% FPL Level	211,061	9.6%	14.2%
Population Under 200% FPL Level	483,055	22.0%	30.6%
Population Age Birth – 17	561,120	24.5%	22.3%
Population Age 65 and older	313,168	13.7%	13.5%
Population Female Age 15 – 44	432,855	18.9%	20.9%
Black/African American, non-Hispanic	238,330	10.5%	14.5%
Hispanic/Latino	364,561	16.1%	17.1%
Asian/Pacific Islander, non-Hispanic	94,576	4.2%	7.2%
American Indian/Native Alaskan, non-Hispanic	2,990	0.1%	0.2%
Two or More/Other	39,379	1.7%	1.8%
Less than High School Education	184,449	12.3%	15.6%
High School Education	396,685	26.4%	28.2%
College Degree or Higher	679,685	45.2%	40.3%

Source: U.S. Census

³⁴ Education levels and rates are for those age 25 and older.

Health Status

The Hudson Valley region had a lower rate of total deaths than the state as a whole. The birth rate for teenage females was also lower than the state as a whole, but the birth rate for females age 15-44 was somewhat higher. The Hudson Valley region also had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 84).

Exhibit 84
Selected Health Indicators for the Hudson Valley Region, 2008-2010 (3-year Average)³⁵

Health Indicator	Region		Statewide
	Number	Rate	Rate
Total Deaths	16,249	710.3	748.6
Deaths Due to Heart Disease	4,785	210.0	239.6
Deaths Due to All Cancers	4,042	176.7	179.9
Deaths Due to Diabetes	325	14.2	18.6
Total Births	27,547	63.6	60.9
Teen Births	1,401	17.0	24.0
Low-birthweight Births	2,124	7.7	8.2
Late/No Prenatal Care	1,077	4.5	5.9
Infant Deaths	141	5.1	5.2
Adult Asthma Hospitalizations	2,107	121.7	178.2
Pediatric Asthma Hospitalizations	916	164.5	289.5
Diabetes Discharges (Primary Diagnosis)	3,378	147.7	203.3
Chronic Lower Respiratory Disease Hospitalizations	7,145	312.3	392.6
Heart Disease Hospitalizations	25,325	1,107.1	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

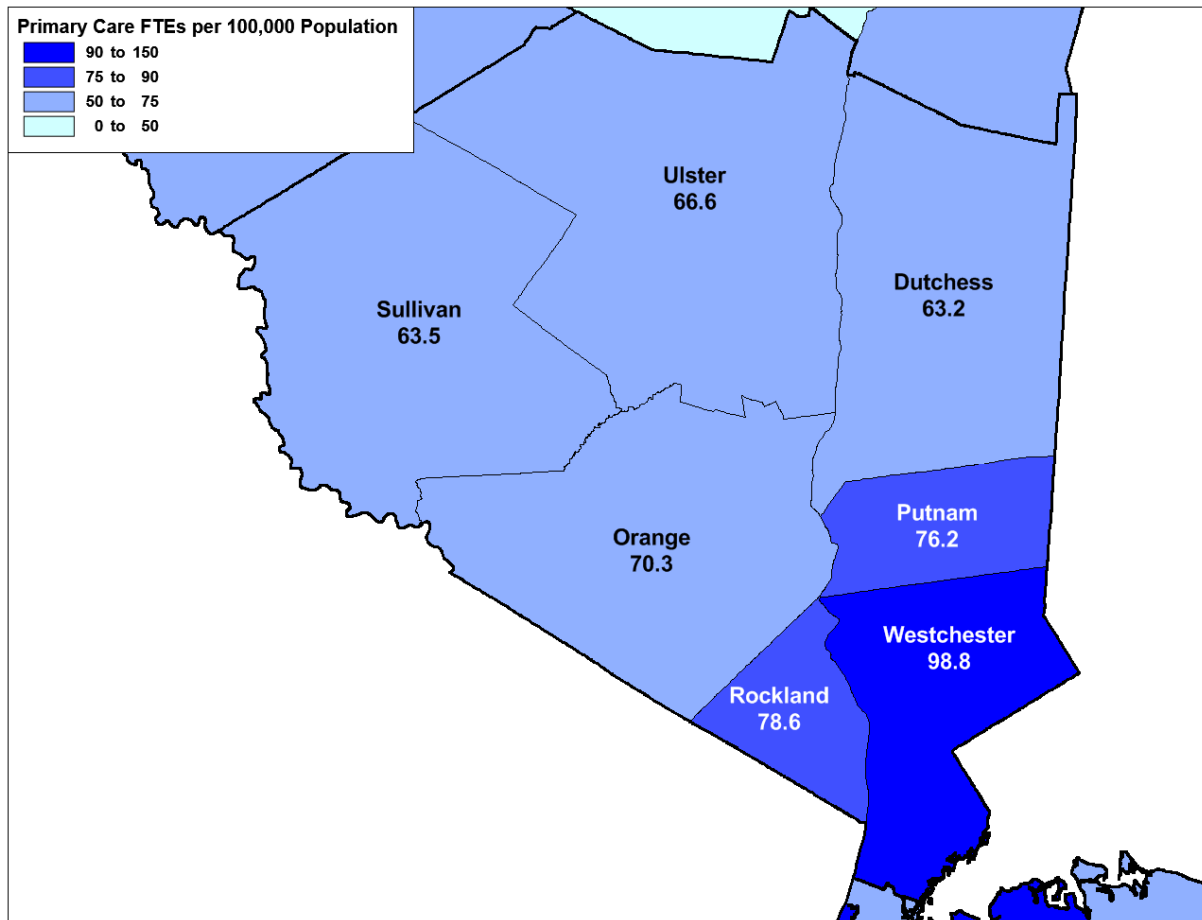
There were almost 1,990 primary care physician FTEs practicing in the Hudson Valley region. Forty-two percent (42%) were in general internal medicine, 23% were in general pediatrics, and another 21% were in general or family practice. There were 82.0 primary care physicians per 100,000 population in the Hudson Valley region, slightly above the statewide rate of 79.9. Westchester County had the most primary care physicians with nearly 100 per 100,000 population, while Dutchess County had the least with 63.2 per 100,000 (Exhibits 85 and 86).

³⁵ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 85
Primary Care Physicians in the Hudson Valley Region, by Specialty 2010³⁶

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	384.4	16.8	18.1
Internal Medicine (General)	788.9	34.4	33.9
Geriatrics	13.9	0.6	0.6
Obstetrics/Gynecology	255.9	59.1	47.3
Pediatrics (General)	436.3	77.8	77.6
Total	1,879.4	82.0	79.9

Exhibit 86
The Number of Primary Care FTEs Per 100,000 Population
in the Hudson Valley Region, 2010



³⁶ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Health sector employment in the Hudson Valley region increased by almost 6% between 2007 and 2011. All settings in the health sector experienced job growth between 2007 and 2011 except hospitals, with home health care having the largest percentage increase (39%) followed by ambulatory care (7%) (Exhibit 87).

Exhibit 87
Number of Workers by Health Care Setting in the Hudson Valley Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	39,895	40,341	40,243	39,765	39,311	-584	-1.5%
Ambulatory Care (Excluding Home Health)	38,333	38,821	39,449	40,676	41,085	2,752	7.2%
Nursing Home and Personal Care Facilities	20,016	20,111	20,083	20,605	20,742	726	3.6%
Home Health Care Services	7,588	8,091	9,003	9,499	10,517	2,929	38.6%
Total	105,832	107,364	108,778	110,546	111,655	5,823	5.5%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

The number of licensed RNs in the Hudson Valley region increased by over 1,100 between 2007 and 2011, or by 4%, and the number of licensed clinical laboratory technologists grew by more than 300, or by 28%. The number of speech-language pathologists (357), NPs (342), and LPNs (289) also significantly increased during that time period. The number of dietitians/nutritionists declined just slightly between 2007 and 2011 (Exhibit 88).

Exhibit 88
Change in the Number of Licensed Individuals in Selected Health Professions
in the Hudson Valley Region, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technicians	163	196	248	248	227	64	39.3%
Clinical Laboratory Technologists	1,108	1,291	1,434	1,433	1,419	311	28.1%
Speech-Language Pathologists	1,656	1,720	1,817	1,910	2,013	357	21.6%
Nurse Practitioners	1,603	1,674	1,759	1,838	1,945	342	21.3%
Occupational Therapy Assistants	634	654	680	710	751	117	18.5%
Physician Assistants	723	747	787	810	844	121	16.7%
Occupational Therapists	1,245	1,285	1,324	1,353	1,408	163	13.1%
Respiratory Therapists	585	610	610	624	645	60	10.3%
Physical Therapists	2,194	2,201	2,234	2,293	2,340	146	6.7%
Dental Hygienists	1,069	1,087	1,101	1,127	1,136	67	6.3%
Physical Therapy Assistants	465	461	483	503	494	29	6.2%
Licensed Practical Nurses	7,474	7,716	7,674	7,621	7,763	289	3.9%
Registered Nurses	30,658	30,769	31,300	31,875	31,788	1,130	3.7%
Pharmacists	1,958	1,949	1,998	2,030	2,021	63	3.2%
Social Workers	7,309	7,043	7,072	7,160	7,383	74	1.0%
Dietitians/Nutritionists	708	671	689	717	705	-3	-0.4%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the Hudson Valley region reported the most difficulty recruiting medical coders, followed by experienced RNs, physical therapists, and nurse managers. Medical coders were also the most difficult to retain, followed by CNAs and experienced RNs (Exhibit 89).

Exhibit 89

Recruitment and Retention Difficulties for Hospitals in the Hudson Valley Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.6	2.9	25%	13%	31%	13%
Clinical Laboratory Technicians	2.7	2.0	20%	10%	10%	10%
Clinical Laboratory Technologists	2.3	1.9	50%	8%	8%	33%
HIT Analysts	2.6	1.9	22%	11%	11%	11%
HIT Program Managers	2.4	2.3	38%	25%	13%	13%
HIT Technical Support	2.0	1.9	13%	13%	13%	13%
Licensed Practical Nurses	1.9	1.8	8%	8%	15%	8%
Medical Assistants	2.9	2.5	13%	0%	0%	0%
Medical Coders	4.1	3.4	100%	9%	82%	9%
Nurse Practitioners	2.7	2.4	21%	14%	21%	7%
Occupational Therapists	2.5	2.2	50%	7%	36%	29%
Pharmacists	2.5	2.0	46%	8%	62%	23%
Physical Therapists	3.4	2.5	79%	7%	79%	29%
Physician Assistants	2.9	2.2	11%	0%	0%	0%
Radiological Technicians	2.0	2.3	25%	25%	25%	50%
Radiological Technologists	2.0	2.1	15%	8%	8%	15%
Registered Nurses						
-Newly Licensed RNs	2.4	2.6	13%	13%	25%	13%
-Experienced RNs	3.8	2.8	38%	13%	31%	31%
-Nurse Managers	3.0	2.1	67%	13%	20%	40%
Speech Pathologists	2.5	2.2	46%	8%	23%	23%

Nursing Homes

Occupational therapists were the most difficult to recruit for nursing homes in the Hudson Valley region, followed by physical therapists, and nurse managers. Nurse managers were the most difficult to retain, followed by experienced RNs, personal care assistants and licensed master's-trained social workers (Exhibit 90).

Exhibit 90
Recruitment and Retention Difficulties for Nursing Homes
in the Hudson Valley Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	2.1	2.8	11%	17%	28%	22%
Clerical	1.6	2.0	7%	0%	20%	13%
Dietitians/Nutritionists	3.1	2.2	30%	20%	0%	20%
Licensed Practical Nurses	2.6	2.7	11%	28%	11%	17%
Medical Billers	3.1	2.6	13%	0%	0%	25%
Occupational Therapists	4.1	3.0	13%	25%	25%	13%
Occupational Therapy Assistants	3.5	2.6	11%	22%	11%	11%
Personal Care Assistants	2.8	3.2	20%	40%	0%	0%
Physical Therapists	4.0	2.8	22%	22%	11%	11%
Physical Therapy Assistants	3.6	2.6	30%	30%	20%	0%
Registered Nurses						
-Newly Licensed RNs	2.1	2.9	19%	19%	6%	39%
-Experienced RNs	3.5	3.3	39%	33%	22%	6%
-MDS Coordinators	3.5	2.8	29%	29%	21%	0%
-Nurse Managers	3.7	3.4	29%	14%	7%	7%
-Directors of Nursing	3.3	2.6	14%	7%	7%	29%
Rec. Therapists/Activities Directors	2.7	2.4	29%	7%	7%	7%
Social Workers						
-Licensed Clinical SWs	2.9	2.6	21%	14%	14%	14%
-Licensed Master's SWs	3.6	3.2	20%	20%	20%	20%
Speech Pathologists	3.3	2.9	14%	14%	14%	14%

Other information reported by nursing homes in the Hudson Valley region included:

- One-third (33%) reported difficulty hiring part-time workers.
- Only 11% reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring LPNs (20%), RNs (13%), and LPNs (7%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (47%), LPNs (40%), and CNAs (27%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (33%), CNAs (27%), and LPNs (20%) for weekend shifts.
- Most nursing homes (89%) were not planning to expand or reduce services next year.

Home Health Agencies

Home health agencies in the Hudson Valley region reported the most difficulty recruiting occupational therapists, followed by speech pathologists, and physical therapists.

Dietitians/nutritionists and speech pathologists were the most difficult to retain, followed by occupational therapists and licensed clinical social workers (Exhibit 91).

Exhibit 91
Recruitment and Retention Difficulties for Home Health Agencies in
the Hudson Valley Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.2	2.8	60%	20%	0%	0%
Home Health Aides	1.8	2.5	0%	33%	17%	0%
Occupational Therapists	4.2	2.7	50%	33%	33%	0%
Physical Therapists	3.1	1.9	14%	29%	14%	0%
Registered Nurses						
-Experienced RNs	3.0	2.5	20%	30%	30%	10%
Social Workers						
-Licensed Clinical SWs	2.7	2.7	29%	0%	14%	14%
-Licensed Master's SWs	3.0	2.6	25%	13%	13%	13%
Speech Pathologists	3.8	2.8	63%	25%	13%	13%

Other information reported by home health agencies in the Hudson Valley region included:

- One-fifth (20%) reported difficulty hiring part-time workers.
- One-half (50%) indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- One-fourth (25%) indicated difficulty hiring workers for off-shifts.
- Almost one-third (30%) indicated they anticipated expanding services in the next year, while 40% indicated they did not anticipate expanding or reducing services next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 92).

Exhibit 92
FQHC and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012³⁷

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

³⁷ All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Hudson Valley region will be for home health aides (700), RNs (660), and personal and home care aides (520) (Exhibit 93).

Exhibit 93
Employment Projections for Selected Health Care Occupations³⁸ for
the Hudson Valley Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Home Health Aides	12,660	18,060	5,400	42.7%	700
Registered Nurses	19,760	22,780	3,020	15.3%	660
Personal and Home Care Aides	8,940	13,420	4,480	50.10%	520
Licensed Practical and Licensed Vocational Nurses	6,270	7,390	1,120	17.9%	280
Nursing Aides, Orderlies, and Attendants	11,010	12,420	1,410	12.8%	280
Social Workers	5,970	6,830	860	12.6%	230
Medical Assistants	2,810	3,540	730	26.00%	110
Medical and Health Services Managers	3,020	3,330	310	10.3%	100
Dental Assistants	2,120	2,580	460	21.7%	90
Clinical, Counseling, and School Psychologists	1,830	2,020	190	10.4%	80
Physical Therapists	1,900	2,550	650	34.2%	80
Emergency Medical Technicians and Paramedics	1,630	2,090	460	28.2%	80
Pharmacists	1,570	1,820	250	15.9%	70
Dental Hygienists	1,490	1,900	410	27.5%	70
Speech-Language Pathologists	1,470	1,730	260	17.7%	60
Occupational Therapists	1,230	1,490	260	21.1%	50
Radiologic Technologists and Technicians	1,510	1,770	260	17.2%	50
Pharmacy Technicians	1,250	1,560	310	24.8%	50
Physician Assistants	810	1,020	210	25.9%	40
Psychiatric Aides	1,960	2,020	60	3.1%	40
Dietitians and Nutritionists	610	690	80	13.1%	30
Diagnostic Medical Sonographers	520	680	160	30.8%	30
Medical Records and Health Information Technicians	1,050	1,200	150	14.3%	30
Respiratory Therapists	760	890	130	17.1%	20
Medical and Clinical Laboratory Technologists	790	830	40	5.1%	20
Medical and Clinical Laboratory Technicians	740	800	60	8.1%	20
Cardiovascular Technologists and Technicians	460	570	110	23.9%	20
Surgical Technologists	500	520	20	4.0%	10

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

³⁸ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

F. Long Island

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

Population

The Long Island region had a lower percentage of individuals below the 100% and 200% federal poverty level than the state as a whole. The region also had a higher percentage of individuals with a college degree or higher (Exhibit 94).

Exhibit 94
Selected Population Characteristics for the Long Island Region, 2010³⁹

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	2,832,882	N/A	N/A
Population Under 100% FPL Level	148,494	5.4%	14.2%
Population Under 200% FPL Level	412,950	14.9%	30.6%
Population Age Birth – 17	669,250	23.6%	22.3%
Population Age 65 and older	406,474	14.3%	13.5%
Population Female Age 15 – 44	531,890	18.8%	20.9%
Black/African American, non-Hispanic	241,828	8.6%	14.5%
Hispanic/Latino	409,470	14.6%	17.1%
Asian/Pacific Islander, non-Hispanic	148,629	5.3%	7.2%
American Indian/Native Alaskan, non-Hispanic	3,336	0.1%	0.2%
Two or More/Other	35,117	1.2%	1.8%
Less than High School Education	198,197	10.4%	15.6%
High School Education	534,270	28.1%	28.2%
College Degree or Higher	845,148	44.5%	40.3%

Source: U.S. Census

³⁹ Education levels and rates are for those age 25 and older.

Health Status

The Long Island region had slightly higher rates of total deaths and deaths due to all cancers and heart disease than the state as a whole. While the overall birth rate was similar for the region and the state, the Long Island region had a significantly lower teen birth rate than the state as a whole. The Long Island region also had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 95).

Exhibit 95
Selected Health Indicators in the Long Island Region, 2008-2010 (3-year Average)⁴⁰

Health Indicator	Region		Statewide Rate
	Number	Rate	
Total Deaths	21,784	762.3	748.6
Deaths Due to Heart Disease	7,512	261.8	239.6
Deaths Due to All Cancers	5,356	187.4	179.9
Deaths Due to Diabetes	384	13.4	18.6
Total Births	31,963	60.1	60.9
Teen Births	1,358	13.5	24.0
Low-birthweight Births	2,494	7.8	8.2
Late/No Prenatal Care	1,223	4.1	5.9
Infant Deaths	139	4.3	5.2
Adult Asthma Hospitalizations	2,817	129.0	178.2
Pediatric Asthma Hospitalizations	1,313	194.8	289.5
Diabetes Discharges (Primary Diagnosis)	4,653	162.8	203.3
Chronic Lower Respiratory Disease Hospitalizations	9,817	343.5	392.6
Heart Disease Hospitalizations	42,632	1,491.9	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

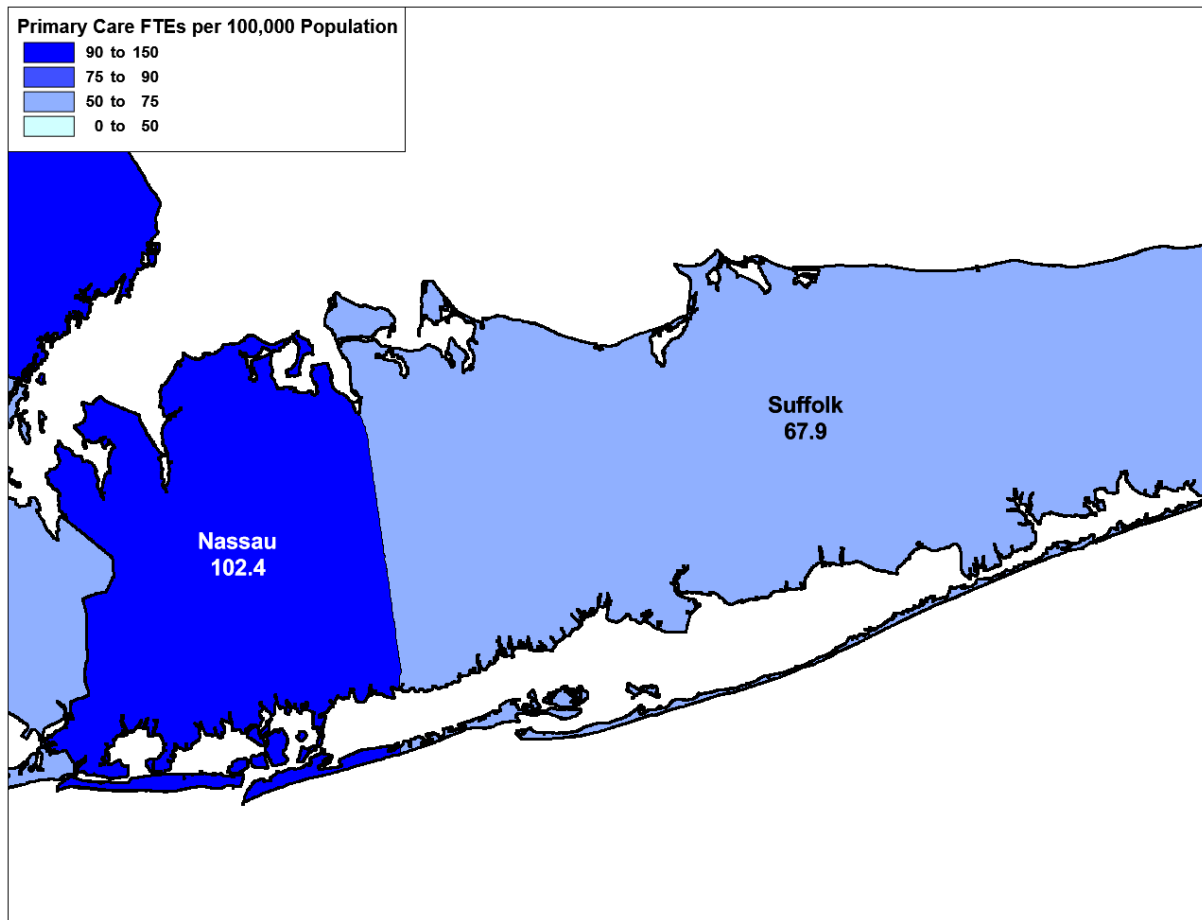
There were nearly 2,400 primary care physician FTEs practicing in the Long Island region. Forty percent (40%) were in general internal medicine, 24% were in general pediatrics, and another 23% were in general or family practice. There were 84.2 primary care physicians per 100,000 population in the Long Island region, above the statewide rate of 79.9. Nassau County had nearly 102.4 primary care physicians per 100,000 population, but Suffolk County only had 67.9 (Exhibits 96 and 97).

⁴⁰ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 96
Primary Care FTEs in the Long Island Region, by Specialty, 2010⁴¹

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	540.0	19.1	18.1
Internal Medicine (General)	948.5	33.5	33.9
Geriatrics	11.9	0.4	0.6
Obstetrics/Gynecology	304.5	57.3	47.3
Pediatrics (General)	579.1	86.5	77.6
Total	2,384.1	84.2	79.9

Exhibit 97
The Number of Primary Care FTEs Per 100,000 Population
in the Long Island Region, 2010



⁴¹ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Health sector employment in the Long Island region grew by over 12% between 2007 and 2011, adding nearly 18,000 jobs. Employment in home health care services grew the fastest, increasing by 26%. There was also growth in employment in hospitals (20%), ambulatory care (6%), and nursing homes and personal care facilities (3%) (Exhibit 98).

Exhibit 98
Number of Workers by Health Care Setting in the Long Island Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	53,690	55,514	57,061	62,646	64,558	10,868	20.2%
Ambulatory Care (Excluding Home Health)	58,512	59,293	59,836	61,385	62,110	3,598	6.1%
Nursing Home and Personal Care Facilities	23,697	23,918	24,238	24,244	24,399	702	3.0%
Home Health Care Services	10,762	11,987	12,696	13,120	13,561	2,799	26.0%
Total	146,661	150,712	153,830	161,395	164,628	17,967	12.3%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011, the number of licensed RNs on Long Island increased by nearly 2,400, or by 6%. During the same period, the number of clinical laboratory technologists grew by more than 500 (27%), and the number of physician assistants increased by almost 400, or by 25%. No professions declined in number between 2007 and 2011 (Exhibit 99).

Exhibit 99
Change in the Number of Licensed Individuals in Selected Health Professions in the Long Island Region 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technicians	222	283	371	352	323	101	45.5%
Clinical Laboratory Technologists	1,869	2,186	2,389	2,410	2,381	512	27.4%
Physician Assistants	1,698	1,803	1,896	1,987	2,120	422	24.9%
Occupational Therapy Assistants	341	355	377	396	413	72	21.1%
Speech-Language Pathologists	2,832	2,950	3,096	3,222	3,389	557	19.7%
Respiratory Therapists	830	861	898	936	983	153	18.4%
Nurse Practitioners	2,462	2,546	2,645	2,765	2,890	428	17.4%
Occupational Therapists	1,730	1,761	1,818	1,860	1,916	186	10.8%
Pharmacists	3,517	3,543	3,642	3,741	3,805	288	8.2%
Physical Therapists	3,115	3,154	3,273	3,342	3,367	252	8.1%
Registered Nurses	38,194	38,496	39,390	40,185	40,574	2,380	6.2%
Dietitians/Nutritionists	930	914	932	966	975	45	4.8%
Dental Hygienists	1,659	1,670	1,680	1,699	1,720	61	3.7%
Physical Therapy Assistants	928	933	968	973	958	30	3.2%
Social Workers	8,470	8,220	8,280	8,464	8,717	247	2.9%
Licensed Practical Nurses	8,816	8,943	8,814	8,718	8,884	68	0.8%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the Long Island region reported the most difficulty recruiting clinical laboratory technologists and medical coders, followed by HIT program managers and nurse managers, with a shortage of workers being cited as one of the main reasons for these difficulties. Speech pathologists were the most difficult to retain, followed by nurse managers and clinical laboratory technologists (Exhibit 100).

Exhibit 100
Recruitment and Retention Difficulties for Hospitals in the Long Island Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	1.7	2.6	22%	52%	15%	15%
Clinical Laboratory Technicians	2.8	2.6	30%	17%	26%	17%
Clinical Laboratory Technologists	4.6	3.0	76%	16%	64%	16%
HIT Analysts	3.9	1.8	71%	62%	19%	10%
HIT Program Managers	4.0	1.8	71%	62%	67%	10%
HIT Technical Support	2.9	1.6	29%	14%	19%	10%
Licensed Practical Nurses	1.4	1.3	20%	15%	15%	15%
Medical Assistants	1.4	1.3	16%	11%	11%	11%
Medical Coders	4.6	2.7	81%	23%	62%	19%
Nurse Practitioners	3.1	2.0	21%	17%	67%	58%
Occupational Therapists	2.8	2.2	27%	18%	23%	14%
Pharmacists	3.3	2.4	35%	19%	65%	23%
Physical Therapists	2.8	1.9	28%	60%	68%	16%
Physician Assistants	2.4	1.7	27%	19%	58%	27%
Radiological Technicians	2.1	2.5	16%	16%	16%	16%
Radiological Technologists	2.1	2.3	19%	19%	59%	19%
Registered Nurses						
-Newly Licensed RNs	1.8	1.7	25%	21%	21%	25%
-Experienced RNs	3.1	2.4	41%	56%	22%	26%
-Nurse Managers	4.0	3.2	26%	15%	22%	19%
Speech Pathologists	3.9	3.8	65%	17%	17%	13%

Nursing Homes

Nursing homes in the Long Island region reported the most difficulty recruiting occupational therapists and nurse managers, followed by occupational therapy assistants, physical therapists, and MDS coordinators. They indicated that CNAs and experienced RNs were the most difficult to retain, followed by LPNs, physical therapy assistants, and newly licensed RNs (Exhibit 101).

Exhibit 101

Recruitment and Retention Difficulties for Nursing Homes in the Long Island Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	2.0	2.7	8%	13%	13%	4%
Clerical	2.0	1.9	0%	5%	14%	5%
Dietitians/Nutritionists	2.4	1.9	6%	18%	6%	6%
Licensed Practical Nurses	2.5	2.6	4%	22%	13%	4%
Medical Billers	1.9	1.9	6%	22%	6%	0%
Occupational Therapists	3.0	1.9	6%	22%	6%	0%
Occupational Therapy Assistants	2.9	2.0	11%	22%	6%	0%
Personal Care Assistants	2.0	1.8	0%	13%	13%	0%
Physical Therapists	2.9	2.1	6%	28%	6%	0%
Physical Therapy Assistants	2.0	2.6	16%	21%	5%	0%
Registered Nurses						
-Newly Licensed RNs	2.0	2.6	5%	16%	11%	5%
-Experienced RNs	3.1	2.7	13%	25%	17%	0%
-MDS Coordinators	2.9	2.1	9%	27%	5%	0%
-Nurse Managers	3.0	2.4	10%	24%	5%	5%
-Directors of Nursing	2.7	2.2	18%	29%	0%	0%
Rec. Therapists/Activities Directors	2.4	2.1	4%	17%	9%	0%
Respiratory Therapists	2.4	2.5	9%	18%	0%	0%
Social Workers						
-Licensed Clinical SWs	2.3	1.9	0%	10%	20%	0%
-Licensed Master's SWs	2.5	2.1	0%	17%	13%	0%
Speech Pathologists	2.6	1.9	12%	12%	6%	0%

Other information reported by nursing homes in the Long Island region included:

- Twenty percent (20%) reported difficulty hiring part-time workers.
- Twenty percent (20%) reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring RNs (40%), LPNs (20%), and CNAs (8%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (40%), LPNs (28%), and CNAs (16%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (48%), LPNs (40%), and CNAs (36%) for weekend shifts.
- The majority of nursing homes (84%) were not planning to expand or reduce services next year.

Home Health Agencies

Home health agencies in the Long Island region reported the most difficulty recruiting occupational therapists, followed by dietitians/nutritionists and licensed master's-trained social workers. Home health agencies also indicated that physical therapists and experienced RNs were difficult to retain (Exhibit 102).

Exhibit 102
Recruitment and Retention Difficulties for Home Health Agencies in the
Long Island Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.2	2.0	14%	0%	33%	17%
Occupational Therapists	3.3	2.4	0%	0%	29%	0%
Physical Therapists	2.9	2.6	0%	29%	14%	0%
Registered Nurses						
-Experienced RNs	2.9	2.5	29%	14%	0%	0%
Social Workers						
-Licensed Clinical SWs	3.0	2.0	17%	17%	33%	0%
-Licensed Master's SWs	3.2	2.3	14%	17%	33%	0%
Speech Pathologists	2.9	2.3	29%	29%	14%	0%

Other information reported by home health agencies in the Long Island region included:

- No agency reported difficulty hiring part-time workers.
- Fifty-seven percent (57%) of home health agencies indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- Forty percent (40%) indicated difficulty hiring workers for off-shifts.
- Twenty-nine percent (29%) indicated they anticipated expanding services in the next year and 71% reported they would not expand or reduce services next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 103).

Exhibit 103
FQHC and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012⁴²

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

⁴² All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Long Island region will be for RNs (920), home health aides (790), and personal and home care aides (750) (Exhibit 104).

Exhibit 104
Employment Projections for Selected Health Care Occupations⁴³ for the
Long Island Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Registered Nurses	27,180	31,470	4,290	15.8%	920
Home Health Aides	13,150	19,320	6,170	46.9%	790
Personal and Home Care Aides	12,210	18,720	6,510	53.3%	750
Nursing Aides, Orderlies, and Attendants	15,810	17,620	1,810	11.4%	380
Licensed Practical and Licensed Vocational Nurses	7,150	8,450	1,300	18.2%	320
Medical Assistants	5,770	7,250	1,480	25.6%	240
Social Workers	5,740	6,620	880	15.3%	230
Dental Assistants	3,710	4,510	800	21.6%	160
Medical and Health Services Managers	4,110	4,480	370	9.0%	140
Physical Therapists	2,730	3,650	920	33.7%	120
Pharmacy Technicians	2,620	3,280	660	25.2%	120
Pharmacists	2,440	2,880	440	18.0%	100
Physician Assistants	2,300	2,750	450	19.6%	90
Dental Hygienists	1,790	2,300	510	28.5%	90
Radiologic Technologists and Technicians	2,340	2,840	500	21.4%	90
Emergency Medical Technicians and Paramedics	2,070	2,550	480	23.2%	90
Clinical, Counseling, and School Psychologists	2,040	2,250	210	10.3%	80
Speech-Language Pathologists	2,010	2,360	350	17.4%	80
Medical and Clinical Laboratory Technologists	2,040	2,340	300	14.7%	70
Medical Records and Health Information Technicians	1,300	1,480	180	13.8%	50
Dietitians and Nutritionists	710	790	80	11.3%	40
Occupational Therapists	1,270	1,460	190	15.0%	40
Respiratory Therapists	950	1,100	150	15.8%	40
Medical and Clinical Laboratory Technicians	1,210	1,430	220	18.2%	40
Psychiatric Aides	1,650	1,840	190	11.5%	40
Diagnostic Medical Sonographers	550	740	190	34.5%	30
Cardiovascular Technologists and Technicians	650	790	140	21.5%	20
Surgical Technologists	610	650	40	6.6%	10

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

⁴³ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

G. Mohawk Valley

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

Population

The Mohawk Valley region population was less racially and ethnically diverse and older than New York as a whole. The Mohawk Valley region also had a higher percentage of people below the 200% FPL and a lower percentage of people with a college degree or higher than the state as a whole (Exhibit 105).

Exhibit 105
Selected Population Characteristics for the Mohawk Valley Region, 2010⁴⁴

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	500,155	N/A	N/A
Population Under 100% FPL Level	69,607	14.6%	14.2%
Population Under 200% FPL Level	163,811	34.5%	30.6%
Population Age Birth – 17	107,952	21.6%	22.3%
Population Age 65 and older	81,755	16.3%	13.5%
Population Female Age 15 – 44	92,287	18.5%	20.9%
Black/African American, non-Hispanic	16,385	3.3%	14.5%
Hispanic/Latino	20,515	4.1%	17.1%
Asian/Pacific Islander, non-Hispanic	7,694	1.5%	7.2%
American Indian/Native Alaskan, non-Hispanic	892	0.2%	0.2%
Two or More/Other	7,269	1.5%	1.8%
Less than High School Education	48,423	14.3%	15.6%
High School Education	121,610	35.9%	28.2%
College Degree or Higher	106,683	31.5%	40.3%

Source: U.S. Census

⁴⁴ Education levels and rates are for those age 25 and older.

Health Status

The Mohawk Valley region had much higher rates of total deaths, deaths due to heart disease, and deaths due to cancer than the state as a whole. Despite having a lower birth rate than the state as a whole, the Mohawk Valley had a higher teen birth rate. The Mohawk Valley also had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 106).

Exhibit 106
Selected Health Indicators for the Mohawk Valley Region, 2008-2010 (3-year Average)⁴⁵

Health Indicator	Region		Statewide
	Number	Rate	Rate
Total Deaths	5,064	1,025.4	748.6
Deaths Due to Heart Disease	1,511	308.1	239.6
Deaths Due to All Cancers	1,137	230.2	179.9
Deaths Due to Diabetes	126	25.5	18.6
Total Births	5,288	57.3	60.9
Teen Births	499	27.1	24.0
Low-birthweight Births	388	7.3	8.2
Late/No Prenatal Care	257	5.0	5.9
Infant Deaths	35	6.6	5.2
Adult Asthma Hospitalizations	509	130.8	178.2
Pediatric Asthma Hospitalizations	178	169.9	289.5
Diabetes Discharges (Primary Diagnosis)	882	178.6	203.3
Chronic Lower Respiratory Disease Hospitalizations	2,379	481.7	392.6
Heart Disease Hospitalizations	7,791	1,577.6	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

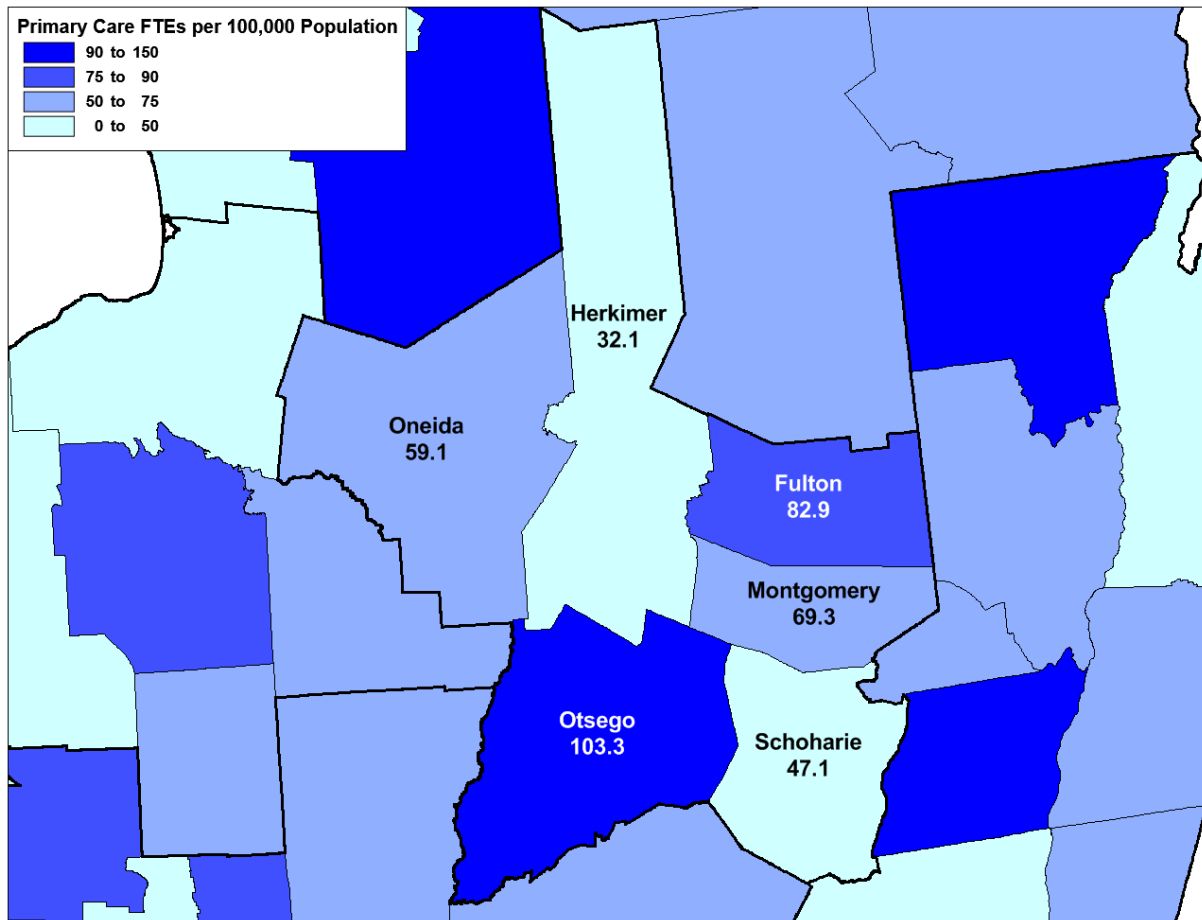
There were more than 300 primary care physician FTEs practicing in the Mohawk Valley region. Forty-two percent (42%) were in family or general practice and 31% were in general internal medicine. There were 64.0 primary care physicians per 100,000 population in the Mohawk Valley region, which was below the statewide rate of 79.9. Otsego County had the highest number with nearly 103.3 primary care physicians per 100,000 population and Herkimer County had the lowest with 32.1 per 100,000 (Exhibits 107 and 108).

⁴⁵ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 107
Primary Care FTEs in the Mohawk Valley Region, by Specialty 2010⁴⁶

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	134.1	26.8	18.1
Internal Medicine (General)	99.6	19.9	33.9
Geriatrics	4.9	1.0	0.6
Obstetrics/Gynecology	31.6	34.3	47.3
Pediatrics (General)	49.9	46.3	77.6
Total	320.2	64.0	79.9

Exhibit 108
The Number of Primary Care FTEs Per 100,000 Population in the Mohawk Valley Region, 2010



⁴⁶ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Health sector employment in the Mohawk Valley region increased by 3% between 2007 and 2011, adding almost 800 jobs. Employment in all health care settings rose, with jobs in home health care services increasing by more than 4% and jobs in ambulatory care settings increasing by 4% between 2007 and 2011 (Exhibit 109).

Exhibit 109
Number of Workers by Health Care Setting in the Mohawk Valley Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	12,078	12,318	12,450	12,501	12,359	281	2.3%
Ambulatory Care (Excluding Home Health)	6,380	6,524	6,476	6,646	6,635	255	4.0%
Nursing Home and Personal Care Facilities	6,359	6,365	6,618	6,632	6,561	202	3.2%
Home Health Care Services	1,404	1,402	1,398	1,416	1,464	60	4.3%
Total	26,221	26,609	26,942	27,195	27,019	798	3.0%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011, the number of licensed clinical laboratory technologists increased by 59, or by 22%, in the Mohawk Valley region. The number of licensed RNs grew by nearly 400 during the same period, or by almost 6%. The number of LPNs increased by 75, or by 2%, between 2007 and 2011. The number of occupational therapy assistants and clinical laboratory technicians declined during this time period (Exhibit 110).

Exhibit 110
Change in the Number of Licensed Individuals in Selected Health Professions in the Mohawk Valley Region, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Physician Assistants	151	155	174	182	192	41	27.2%
Respiratory Therapists	156	170	183	186	194	38	24.4%
Clinical Laboratory Technologists	273	317	348	343	332	59	21.6%
Speech-Language Pathologists	188	201	210	223	225	37	19.7%
Pharmacists	428	436	459	480	498	70	16.4%
Social Workers	601	610	625	640	681	80	13.3%
Dental Hygienists	250	249	257	265	283	33	13.2%
Nurse Practitioners	379	379	377	402	418	39	10.3%
Physical Therapists	314	316	326	341	339	25	8.0%
Registered Nurses	6,460	6,469	6,653	6,786	6,832	372	5.8%
Physical Therapy Assistants	195	205	209	210	204	9	4.6%
Occupational Therapists	306	295	305	309	320	14	4.6%
Dietitians/Nutritionists	88	87	83	89	90	2	2.3%
Licensed Practical Nurses	3,504	3,592	3,537	3,505	3,579	75	2.1%
Occupational Therapy Assistants	159	164	158	157	153	-6	-3.8%
Clinical Laboratory Technicians	81	89	99	87	77	-4	-4.9%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the Mohawk Valley region reported that clinical laboratory technologists were the most difficult healthcare profession to recruit and retain, with a shortage of workers cited as the main reason. Hospitals in the Mohawk Valley region also noted that physician assistants, NPs, and clinical laboratory technicians were difficult to recruit (Exhibit 111).

Exhibit 111

Recruitment and Retention Difficulties for Hospitals in the Mohawk Valley Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.6	2.6	27%	18%	27%	18%
Clinical Laboratory Technicians	4.0	2.5	50%	0%	50%	0%
Clinical Laboratory Technologists	4.6	3.0	78%	11%	22%	44%
HIT Analysts	3.1	2.3	29%	0%	0%	0%
HIT Program Managers	2.9	2.4	14%	0%	0%	14%
HIT Technical Support	3.2	1.7	33%	0%	0%	0%
Licensed Practical Nurses	1.6	1.8	0%	0%	11%	0%
Medical Assistants	1.6	1.6	0%	0%	0%	0%
Medical Coders	3.2	2.0	44%	0%	33%	22%
Nurse Practitioners	4.2	2.1	60%	0%	30%	30%
Occupational Therapists	3.8	2.6	50%	0%	25%	38%
Pharmacists	2.6	2.1	30%	0%	30%	30%
Physical Therapists	3.9	2.1	50%	10%	30%	30%
Physician Assistants	4.2	2.1	60%	0%	30%	30%
Radiological Technicians	3.0	2.5	33%	0%	50%	33%
Radiological Technologists	2.2	1.9	30%	0%	30%	20%
Registered Nurses						
-Newly Licensed RNs	2.1	2.4	27%	0%	27%	18%
-Experienced RNs	3.6	2.2	50%	0%	42%	42%
-Nurse Managers	3.4	2.1	55%	9%	27%	36%
Speech Pathologists	3.7	2.1	56%	0%	33%	33%

Nursing Homes

Nursing homes in the Mohawk Valley region reported the most difficulties recruiting physical therapists and speech pathologists, followed by experienced RNs, MDS coordinators, and nurse managers. CNAs were the most difficult to retain, followed by experienced RNs, nurse managers, and LPNs (Exhibit 112).

Exhibit 112
Recruitment and Retention Difficulties for Nursing Homes
in the Mohawk Valley Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	2.7	3.7	32%	32%	21%	32%
Clerical	1.4	2.1	0%	5%	11%	0%
Dietitians/Nutritionists	2.9	2.1	20%	20%	13%	0%
Licensed Practical Nurses	3.0	3.1	26%	47%	21%	26%
Medical Billers	2.1	2.2	7%	7%	7%	7%
Occupational Therapists	3.1	2.1	25%	31%	6%	19%
Occupational Therapy Assistants	2.7	2.3	20%	27%	7%	7%
Personal Care Assistants	2.1	2.8	22%	0%	11%	0%
Physical Therapists	3.7	2.5	31%	31%	19%	13%
Physical Therapy Assistants	2.9	2.2	20%	20%	7%	7%
Registered Nurses						
-Newly Licensed RNs	2.7	2.9	22%	44%	17%	11%
-Experienced RNs	3.6	3.3	30%	45%	25%	10%
-MDS Coordinators	3.5	2.8	50%	17%	17%	6%
-Nurse Managers	3.5	3.1	42%	32%	16%	11%
-Directors of Nursing	3.3	2.6	35%	12%	12%	6%
Rec. Therapists/Activities Directors	2.5	1.9	6%	6%	17%	6%
Respiratory Therapists	3.2	2.6	14%	29%	29%	0%
Social Workers						
-Licensed Clinical SWs	2.8	2.3	12%	6%	12%	6%
-Licensed Master's SWs	3.3	2.4	25%	8%	17%	17%
Speech Pathologists	3.7	3.0	33%	33%	25%	8%

Other information reported by nursing homes in the Mohawk Valley region included:

- Almost one-third (30%) reported difficulty hiring part-time workers.
- Eleven percent (11%) reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring RNs (50%), LPNs (35%), and CNAs (32%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (45%), LPNs (40%), and CNAs (32%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (35%), LPNs (30%), and CNAs (16%) for weekend shifts.
- Most nursing homes (85%) were not planning to expand or reduce services next year.

Home Health Agencies

The response rates for home health agencies in the Mohawk Valley and Capital District regions were too low to analyze separately so the responses for the two regions were combined.

Experienced RNs were the most difficult to recruit and among the most difficult to retain, with home health agencies indicating shortages and competition as the main reasons.

Dietitians/nutritionists were also difficult to recruit, while respiratory therapists were difficult to recruit and retain (Exhibit 113).

Exhibit 113
Recruitment and Retention Difficulties for Home Health Agencies
in the Mohawk Valley and Capital District Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	4.0	2.6	50%	38%	38%	13%
Home Health Aides	3.1	1.8	56%	22%	11%	0%
Licensed Practical Nurses	2.9	2.2	10%	30%	20%	10%
Occupational Therapists	3.7	2.7	36%	36%	18%	0%
Physical Therapists	3.5	2.3	33%	33%	17%	0%
Registered Nurses						
-Experienced RNs	4.3	3.5	85%	54%	31%	23%
Respiratory Therapists	3.8	3.8	60%	40%	20%	0%
Social Workers						
-Licensed Clinical SWs	3.5	3.0	25%	25%	38%	25%
-Licensed Master's SWs	3.4	3.0	27%	27%	27%	18%
Speech Pathologists	3.6	3.2	46%	27%	9%	0%

Other information reported by home health agencies in the Mohawk Valley and Capital District regions included:

- Thirty-nine percent (39%) reported difficulty hiring part-time workers.
- More than one-half (55%) indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- Two-thirds (67%) indicated difficulty hiring workers for off-shifts.
- Fifty-four percent (54%) indicated they anticipated expanding services in the next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 114).

Exhibit 114
FQHC and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012⁴⁷

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

⁴⁷ All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Mohawk Valley region will be for home health aides (180), personal and home care aides (170), and RNs (160) (Exhibit 115).

Exhibit 115
Employment Projections for Selected Health Care Occupations⁴⁸ for
the Mohawk Valley Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Home Health Aides	3,600	4,900	1,300	36.1%	180
Personal and Home Care Aides	2,980	4,490	1,510	50.7%	170
Registered Nurses	4,840	5,490	650	13.4%	160
Licensed Practical and Licensed Vocational Nurses	2,300	2,560	260	11.3%	90
Nursing Aides, Orderlies, and Attendants	3,330	3,670	340	10.2%	70
Medical and Health Services Managers	760	830	70	9.2%	30
Social Workers	960	1,040	80	14.3%	30
Pharmacists	420	480	60	14.3%	20
Dental Hygienists	320	410	90	28.1%	20
Radiologic Technologists and Technicians	490	590	100	20.4%	20
Emergency Medical Technicians and Paramedics	410	510	100	24.4%	20
Pharmacy Technicians	490	600	110	22.4%	20
Dental Assistants	330	390	60	18.2%	20
Occupational Therapists	290	320	30	10.3%	10
Speech-Language Pathologists	280	310	30	10.7%	10
Diagnostic Medical Sonographers	200	270	70	35.0%	10
Medical Records and Health Information Technicians	290	310	20	6.9%	10
Psychiatric Aides	500	510	10	2.0%	10
Medical Assistants	290	360	70	24.1%	10
Dietitians and Nutritionists	130	140	10	7.7%	0
Respiratory Therapists	160	180	20	12.5%	0
Medical and Clinical Laboratory Technologists	210	220	10	4.8%	0
Medical and Clinical Laboratory Technicians	110	110	0	0.0%	0
Cardiovascular Technologists and Technicians	90	110	20	22.2%	0
Surgical Technologists	90	90	0	0.0%	0

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

⁴⁸ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

H. North Country

The North Country includes the counties of Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and Saint Lawrence.

Population

The North Country region was less racially and ethnically diverse compared to New York as a whole. The North Country region also had higher percentage of people under the 200% FPL and a lower percentage of people with a college degree or higher than the state overall (Exhibit 116).

Exhibit 116
Selected Population Characteristics for the North Country Region, 2010⁴⁹

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	433,193	N/A	N/A
Population Under 100% FPL Level	58,115	14.6%	14.2%
Population Under 200% FPL Level	138,741	35.0%	30.6%
Population Age Birth – 17	95,132	22.0%	22.3%
Population Age 65 and older	58,715	13.6%	13.5%
Population Female Age 15 – 44	82,029	18.9%	20.9%
Black/African American, non-Hispanic	15,688	3.6%	14.5%
Hispanic/Latino	13,503	3.1%	17.1%
Asian/Pacific Islander, non-Hispanic	4,486	1.0%	7.2%
American Indian/Native Alaskan, non-Hispanic	3,992	0.9%	0.2%
Two or More/Other	6,745	1.6%	1.8%
Less than High School Education	39,517	14.0%	15.6%
High School Education	107,767	38.1%	28.2%
College Degree or Higher	86,454	30.6%	40.3%

Source: U.S. Census

⁴⁹ Education levels and rates are for those age 25 and older.

Health Status

The North Country region had higher rates of deaths and deaths due to cancer than the state as a whole. The North Country also had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 117).

Exhibit 117
Selected Health Indicators for the North Country Region, 2008-2010 (3-year Average)⁵⁰

Health Indicator	Region		Statewide
	Number	Rate	Rate
Total Deaths	3,688	856.7	748.6
Deaths Due to Heart Disease	977	228.0	239.6
Deaths Due to All Cancers	884	205.3	179.9
Deaths Due to Diabetes	86	20.0	18.6
Total Births	5,317	64.8	60.9
Teen Births	496	29.3	24.0
Low-birthweight Births	376	7.1	8.2
Late/No Prenatal Care	201	4.0	5.9
Infant Deaths	25	4.7	5.2
Adult Asthma Hospitalizations	342	100.8	178.2
Pediatric Asthma Hospitalizations	121	132.5	289.5
Diabetes Discharges (Primary Diagnosis)	663	154.0	203.3
Chronic Lower Respiratory Disease Hospitalizations	2,044	474.8	392.6
Heart Disease Hospitalizations	5,292	1,229.2	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

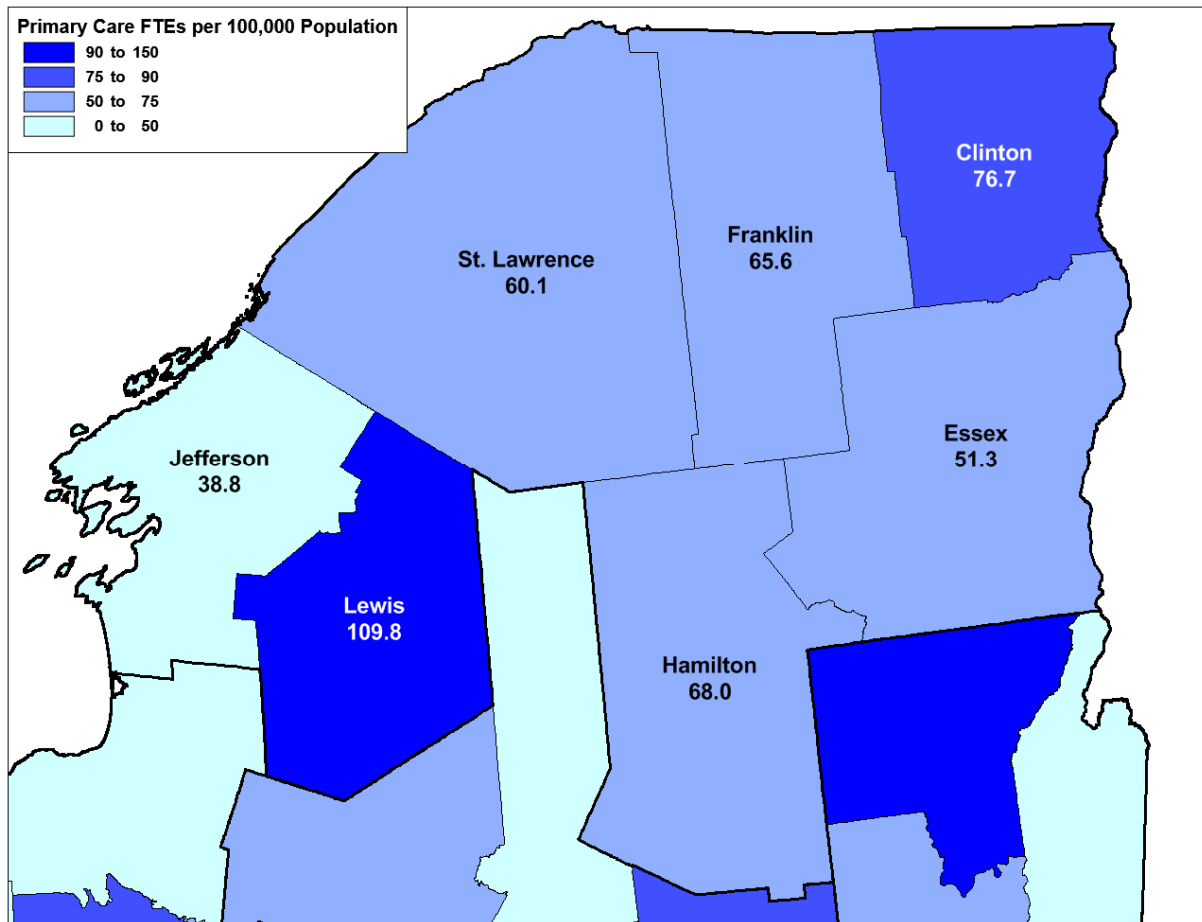
There were 262 primary care physician FTEs practicing in the North Country region. Forty percent (40%) were in family or general practice and 28% were in general internal medicine. There were 60.6 primary care physicians per 100,000 population in the North Country region, below the statewide rate of 79.9. Lewis County had the highest number with nearly 109.8 primary care physicians per 100,000 population and Jefferson County had the lowest with 38.8 (Exhibits 118 and 119).

⁵⁰ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 118
Primary Care FTEs in the North Country Region, by Specialty, 2010⁵¹

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	105.7	24.4	18.1
Internal Medicine (General)	73.7	17.0	33.9
Geriatrics	0.0	0.0	0.6
Obstetrics/Gynecology	37.7	45.9	47.3
Pediatrics (General)	45.3	47.6	77.6
Total	262.4	60.6	79.9

Exhibit 119
The Number of Primary Care FTEs Per 100,000 Population
in the North Country Region, 2010



⁵¹ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Total health sector employment in the North Country region grew by more than 7% between 2007 and 2011, adding 1,190 jobs. Employment in hospitals increased by more than 850 jobs, or by almost 11%, and employment in ambulatory care grew by more than 400 jobs, or over 9%. Jobs declined in both home health care services (-89) and nursing home and personal care facilities (-26) between 2007 and 2011 (Exhibit 120).

Exhibit 120
Number of Workers by Health Care Setting in the North Country Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	8,320	8,481	8,764	8,991	9,190	870	10.5%
Ambulatory Care (Excluding Home Health)	4,701	4,853	5,020	5,103	5,137	436	9.3%
Nursing Home and Personal Care Facilities	2,946	2,936	2,911	2,937	2,920	-26	-0.9%
Home Health Care Services	627	588	549	532	538	-89	-14.2%
Total	16,594	16,858	17,244	17,564	17,784	1,190	7.2%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011, the number of clinical laboratory technicians grew by 31% in the North Country region, while the numbers of clinical laboratory technologists and NPs both increased by 22%. The number of licensed RNs increased by 296 (6%) and the number of LPNs increased by 167 (7%) during the same period (Exhibit 121).

Exhibit 121
Change in the Number of Licensed Health Care Professions
in the North Country Region, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technicians	55	64	77	77	72	17	30.9%
Clinical Laboratory Technologists	204	239	254	245	249	45	22.1%
Nurse Practitioners	195	203	215	226	238	43	22.1%
Dental Hygienists	195	195	205	225	235	40	20.5%
Respiratory Therapists	66	69	69	69	79	13	19.7%
Speech-Language Pathologists	198	201	218	226	237	39	19.7%
Physician Assistants	174	180	191	191	200	26	14.9%
Occupational Therapists	119	123	129	132	136	17	14.3%
Physical Therapists	270	278	292	301	301	31	11.5%
Pharmacists	319	316	326	336	346	27	8.5%
Dietitians/Nutritionists	75	74	77	80	81	6	8.0%
Licensed Practical Nurses	2,507	2,607	2,604	2,591	2,674	167	6.7%
Registered Nurses	4,869	4,878	4,979	5,082	5,165	296	6.1%
Social Workers	364	342	366	375	383	19	5.2%
Physical Therapy Assistants	151	150	147	151	151	0	0.0%
Occupational Therapy Assistants	83	84	84	84	82	-1	-1.2%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the North Country region had difficulty recruiting a wide array of health professionals, including speech pathologists, nurse managers, pharmacists, clinical laboratory technologists, and occupational therapists. Occupational therapists were also the most difficult to retain, followed by nurse managers, pharmacists, physical therapists, and speech pathologists (Exhibit 122).

Exhibit 122

Recruitment and Retention Difficulties for Hospitals in the North Country Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.3	2.8	17%	33%	17%	17%
Clinical Laboratory Technicians	2.7	2.2	17%	0%	0%	0%
Clinical Laboratory Technologists	4.2	2.8	50%	0%	0%	33%
HIT Analysts	2.7	2.2	0%	0%	0%	0%
HIT Program Managers	3.3	2.5	25%	0%	0%	0%
HIT Technical Support	1.8	1.7	0%	0%	0%	0%
Licensed Practical Nurses	1.3	1.5	0%	0%	0%	0%
Medical Assistants	2.0	2.3	0%	0%	0%	0%
Medical Coders	3.5	2.3	33%	0%	17%	17%
Nurse Practitioners	3.8	2.6	50%	0%	17%	33%
Occupational Therapists	4.0	3.2	40%	0%	0%	0%
Pharmacists	4.2	3.0	50%	0%	0%	33%
Physical Therapists	3.8	3.0	33%	0%	17%	33%
Physician Assistants	3.7	2.7	43%	0%	29%	43%
Radiological Technicians	2.0	2.3	0%	0%	0%	0%
Radiological Technologists	1.7	1.7	0%	0%	0%	0%
Registered Nurses						
-Newly Licensed RNs	1.7	2.7	33%	0%	0%	50%
-Experienced RNs	3.8	2.8	67%	17%	0%	83%
-Nurse Managers	4.3	3.1	57%	29%	29%	71%

Nursing Homes

Nursing homes in the North Country reported the most difficulty recruiting occupational therapists, speech pathologists, nurse managers, directors of nursing, and medical billers. CNAs were cited as the most difficult to retain, followed by LPNs, newly licensed RNs, MDS coordinators, and directors of nursing (Exhibit 123).

Exhibit 123

Recruitment and Retention Difficulties for Nursing Homes in the North Country, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	2.7	3.3	36%	27%	0%	18%
Clerical	1.5	1.7	10%	0%	0%	0%
Dietitians/Nutritionists	2.8	2.0	20%	30%	10%	10%
Licensed Practical Nurses	3.1	3.0	27%	18%	9%	0%
Medical Billers	3.5	2.0	43%	14%	0%	0%
Occupational Therapists	4.0	2.8	50%	38%	0%	0%
Occupational Therapy Assistants	3.3	2.2	29%	14%	0%	14%
Physical Therapists	3.1	2.1	22%	22%	0%	0%
Physical Therapy Assistants	2.7	1.8	13%	0%	0%	0%
Registered Nurses						
-Newly Licensed RNs	1.7	3.0	10%	0%	0%	0%
-Experienced RNs	3.3	2.7	36%	36%	9%	9%
-MDS Coordinators	3.4	3.0	40%	20%	20%	0%
-Nurse Managers	3.7	2.6	25%	25%	38%	13%
-Directors of Nursing	3.5	3.0	14%	14%	43%	14%
Rec. Therapists/Activities Directors	3.0	2.8	0%	0%	0%	17%
Speech Pathologists	3.8	2.6	33%	50%	0%	17%

Other information reported by nursing homes in the North Country region included:

- Only 9% reported difficulty hiring part-time workers.
- No one reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring LPNs (44%), RNs (22%), and CNAs (11%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (68%), LPNs (56%), and CNAs (56%) for overnight shifts.
- Nursing homes reported difficulty hiring CNAs (44%), RNs (33%) and LPNs (33%) for weekend shifts.
- The majority of nursing homes (82%) were not planning to expand or reduce services next year.

Home Health Agencies

Home health agencies in the North Country region reported the most difficulty recruiting licensed master's-trained social workers, followed by experienced RNs, occupational therapists, and licensed clinical social workers. Speech pathologists were the most difficult to retain, followed by licensed master's-trained social workers, occupational therapists, and personal care assistants (Exhibit 124).

Exhibit 124
Recruitment and Retention Difficulties for Home Health Agencies in
the North Country Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.8	3.0	33%	17%	0%	33%
Home Health Aides	3.9	2.8	78%	11%	11%	11%
Licensed Practical Nurses	2.9	1.8	0%	44%	33%	0%
Occupational Therapists	4.0	3.6	67%	33%	17%	0%
Personal Care Assistants	3.7	3.6	67%	17%	17%	17%
Physical Therapists	3.7	2.2	33%	33%	0%	17%
Registered Nurses						
-Newly Licensed RNs	2.4	2.1	0%	13%	38%	0%
-Experienced RNs	4.2	3.0	50%	50%	30%	10%
Social Workers						
-Licensed Clinical SWs	4.0	2.3	20%	40%	0%	0%
-Licensed Master's SWs	4.8	3.7	57%	14%	14%	14%
Speech Pathologists	3.8	3.8	83%	33%	33%	0%

Other information reported by home health agencies in the North Country region included:

- Forty-six percent (46%) reported difficulty hiring part-time workers.
- Forty-four percent (44%) indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- Three-fourths (75%) indicated difficulty hiring workers for off-shifts.
- Eighteen percent (18%) indicated they anticipated expanding services in the next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 125).

Exhibit 125
FQHC and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012⁵²

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

⁵² All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the North Country region will be for personal and home care aides (140), RNs (120), and home health aides (100) (Exhibit 126).

Exhibit 126
Employment Projections for Selected Health Care Occupations⁵³ for
the North Country Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Personal and Home Care Aides	2,480	3,630	1,150	46.4%	140
Registered Nurses	3,850	4,310	460	11.9%	120
Home Health Aides	2,220	2,930	710	32.0%	100
Licensed Practical and Licensed Vocational Nurses	1,510	1,640	130	8.6%	50
Nursing Aides, Orderlies, and Attendants	2,070	2,230	160	7.7%	50
Social Workers	690	740	50	16.7%	20
Pharmacists	380	450	70	18.4%	20
Pharmacy Technicians	290	350	60	20.7%	20
Dental Assistants	400	470	70	17.5%	20
Medical Assistants	350	430	80	22.9%	20
Medical and Health Services Managers	500	530	30	6.0%	10
Clinical, Counseling, and School Psychologists	270	290	20	7.4%	10
Physical Therapists	290	350	60	20.7%	10
Emergency Medical Technicians and Paramedics	190	240	50	26.3%	10
Psychiatric Aides	690	700	10	1.4%	10
Dietitians and Nutritionists	120	140	20	16.7%	0
Physician Assistants	190	220	30	15.8%	0
Occupational Therapists	180	200	20	11.1%	0
Respiratory Therapists	80	100	20	25.0%	0
Speech-Language Pathologists	210	240	30	14.3%	0
Medical and Clinical Laboratory Technologists	210	230	20	9.5%	0
Medical and Clinical Laboratory Technicians	100	100	0	0.0%	0
Dental Hygienists	160	200	40	25.0%	0
Cardiovascular Technologists and Technicians	50	60	10	20.0%	0
Diagnostic Medical Sonographers	70	90	20	28.6%	0
Radiologic Technologists and Technicians	250	290	40	16.0%	0
Surgical Technologists	70	70	0	0.0%	0
Medical Records and Health Information Technicians	190	200	10	5.3%	0

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

⁵³ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

I. Southern Tier

The Southern Tier region includes the counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins.

Population

The Southern Tier region was less racially and ethnically diverse than New York as a whole. The Southern Tier region had a higher percentage of people with a high school degree and a lower percentage of people with a college degree or higher compared to the state overall (Exhibit 127).

Exhibit 127
Selected Population Characteristics for the Southern Tier Region, 2010⁵⁴

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	657,909	N/A	N/A
Population Under 100% FPL Level	91,255	14.6%	14.2%
Population Under 200% FPL Level	211,900	33.9%	30.6%
Population Age Birth – 17	137,047	20.8%	22.3%
Population Age 65 and older	102,306	15.6%	13.5%
Population Female Age 15 – 44	126,820	19.3%	20.9%
Black/African American, non-Hispanic	20,001	3.0%	14.5%
Hispanic/Latino	17,500	2.7%	17.1%
Asian/Pacific Islander, non-Hispanic	18,619	2.8%	7.2%
American Indian/Native Alaskan, non-Hispanic	1,388	0.2%	0.2%
Two or More/Other	11,824	1.8%	1.8%
Less than High School Education	51,035	11.7%	15.6%
High School Education	148,499	34.1%	28.2%
College Degree or Higher	159,026	36.5%	40.3%

Source: U.S. Census

⁵⁴ Education levels and rates are for those age 25 and older.

Health Status

The Southern Tier region had higher rates of total deaths, deaths due to cancer, and deaths due to heart disease than New York State as a whole. The Southern Tier region had a lower overall birth rate and a lower teen birth rate than the state overall. In addition, the Southern Tier had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 128).

Exhibit 128
Selected Health Indicators for the Southern Tier Region, 2008-2010 (3-year Average)⁵⁵

Health Indicator	Region		Statewide
	Number	Rate	Rate
Total Deaths	6,241	959.8	748.6
Deaths Due to Heart Disease	1,748	270.5	239.6
Deaths Due to All Cancers	1,474	226.7	179.9
Deaths Due to Diabetes	155	23.8	18.6
Total Births	6,622	52.2	60.9
Teen Births	582	22.2	24.0
Low-birthweight Births	490	7.4	8.2
Late/No Prenatal Care	233	3.6	5.9
Infant Deaths	39	5.9	5.2
Adult Asthma Hospitalizations	456	88.2	178.2
Pediatric Asthma Hospitalizations	169	126.7	289.5
Diabetes Discharges (Primary Diagnosis)	903	138.9	203.3
Chronic Lower Respiratory Disease Hospitalizations	2,477	380.9	392.6
Heart Disease Hospitalizations	7,380	1,135.0	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

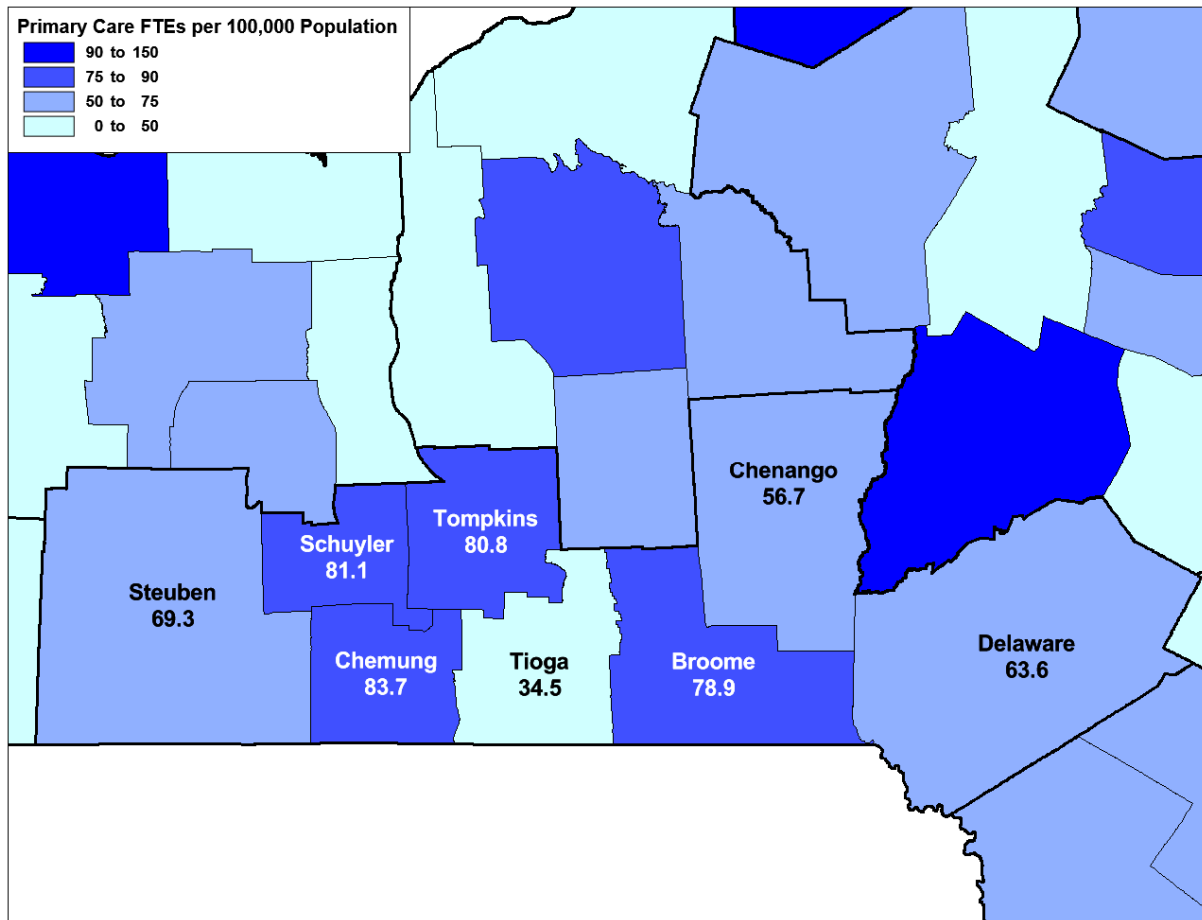
There were 475 primary care physician FTEs practicing in the Southern Tier region. Forty-three percent (43%) were in family or general practice and 33% were in general internal medicine. There were 72.2 primary care physicians per 100,000 population in the Southern Tier region, which was below the statewide rate of 79.9. Chemung County had the highest number with 83.7 primary care physicians per 100,000 population, followed by Schuyler County with nearly 81.1 per 100,000. Chenango County had the lowest with 56.7 per 100,000 (Exhibits 129 and 130).

⁵⁵ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 129
Primary Care FTEs in the Southern Tier Region, by Specialty, 2010⁵⁶

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	202.9	30.8	18.1
Internal Medicine (General)	158.3	24.1	33.9
Geriatrics	0.0	0.0	0.6
Obstetrics/Gynecology	58.8	46.4	47.3
Pediatrics (General)	54.9	40.1	77.6
Total	475.0	72.2	79.9

Exhibit 130
The Number of Primary Care FTEs Per 100,000 Population
in the Southern Tier Region, 2010



⁵⁶ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Between 2007 and 2011, health sector employment throughout the Southern Tier region grew by more than 1,750 jobs, over 6%. Employment in home health services had the largest percentage increase, growing by 101 jobs, or nearly 10%, and employment in hospitals increased by 948 jobs, or nearly 8%. Employment in nursing home and personal care facilities also grew by 427 jobs, or almost 7%, during the same period (Exhibit 131).

Exhibit 131
Number of Workers by Health Care Setting in the Southern Tier Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	12,371	12,672	12,906	12,943	13,319	948	7.7%
Ambulatory Care (Excluding Home Health)	7,463	7,572	7,550	7,703	7,740	277	3.7%
Nursing Home and Personal Care Facilities	6,306	6,595	6,637	6,901	6,733	427	6.8%
Home Health Care Services	1,032	1,013	1,079	1,102	1,133	101	9.8%
Total	27,173	27,852	28,173	28,648	28,925	1,752	6.4%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011, the number of licensed RNs increased in the Southern Tier region by 340, or by 5%, and the number of LPNs grew by 150, or by 5%. The number of clinical laboratory technologists increased by more than 80, or 30%, during the same period (Exhibit 132).

Exhibit 132
Change in the Number of Licensed Individuals in Selected Health Professions in the Southern Tier Region, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technologists	270	322	369	352	351	81	30.0%
Physician Assistants	181	194	197	210	227	46	25.4%
Speech-Language Pathologists	293	307	326	338	349	56	19.1%
Nurse Practitioners	488	496	507	540	546	58	11.9%
Clinical Laboratory Technicians	80	96	118	102	88	8	10.0%
Physical Therapy Assistants	188	198	214	215	206	18	9.6%
Social Workers	1,214	1,206	1,243	1,299	1,315	101	8.3%
Physical Therapists	428	434	450	456	461	33	7.7%
Occupational Therapists	266	271	280	278	284	18	6.8%
Respiratory Therapists	149	154	155	158	158	9	6.0%
Dental Hygienists	448	458	470	473	474	26	5.8%
Licensed Practical Nurses	2,963	3,032	3,080	3,049	3,113	150	5.1%
Registered Nurses	7,534	7,564	7,761	7,854	7,874	340	4.5%
Pharmacists	445	436	454	458	463	18	4.0%
Dietitians/Nutritionists	143	138	144	142	139	-4	-2.8%
Occupational Therapy Assistants	54	53	53	53	51	-3	-5.6%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

The response rates for hospitals in the Southern Tier and Central New York regions were too low to analyze separately, so responses were combined for these two regions. Hospitals in the Southern Tier and Central New York regions reported the most difficulty recruiting NPs, followed by physical therapists, physician assistants, and clinical laboratory technicians. Hospitals in these two regions indicated they had the most difficulty retaining CNAs, followed by NPs and experienced RNs (Exhibit 133).

Exhibit 133
Recruitment and Retention Difficulties for Hospitals
in the Southern Tier and Central New York Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.2	3.0	20%	20%	10%	20%
Clinical Laboratory Technicians	3.6	2.5	40%	0%	0%	0%
Clinical Laboratory Technologists	3.4	2.2	78%	22%	33%	22%
HIT Analysts	2.5	2.5	17%	17%	33%	0%
HIT Program Managers	2.5	1.8	25%	0%	25%	25%
HIT Technical Support	2.0	2.2	20%	20%	0%	0%
Licensed Practical Nurses	1.5	1.9	13%	13%	13%	13%
Medical Assistants	2.4	2.2	40%	20%	20%	20%
Medical Coders	3.1	1.9	56%	11%	22%	11%
Nurse Practitioners	4.0	2.9	43%	43%	29%	43%
Occupational Therapists	3.5	1.6	63%	13%	13%	13%
Pharmacists	3.3	2.4	67%	11%	33%	22%
Physical Therapists	3.9	2.3	63%	25%	13%	13%
Physician Assistants	3.8	2.6	38%	38%	25%	25%
Radiological Technicians	1.8	1.8	0%	0%	0%	0%
Radiological Technologists	2.3	1.9	13%	13%	13%	25%
Registered Nurses						
-Newly Licensed RNs	2.1	2.7	22%	22%	22%	44%
-Experienced RNs	3.2	2.9	56%	22%	11%	56%
-Nurse Managers	3.4	2.5	63%	25%	13%	38%
Speech Pathologists	3.1	1.7	57%	14%	14%	14%

Nursing Homes

Nursing homes in the Southern Tier region indicated that MDS coordinators were the most difficult to recruit for, followed by occupational therapy assistants, physical therapists, experienced RNs, speech pathologists, and nurse managers. CNAs were the most difficult to retain, followed by experienced RNs, LPNs, and occupational therapy assistants (Exhibit 134).

Exhibit 134
Recruitment and Retention Difficulties for Nursing Homes in the Southern Tier, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	3.3	3.9	53%	60%	27%	13%
Clerical	1.9	1.8	0%	0%	7%	7%
Dietitians/Nutritionists	3.6	2.4	43%	14%	14%	7%
Licensed Practical Nurses	3.7	3.1	33%	47%	20%	13%
Medical Billers	3.0	1.9	10%	10%	0%	0%
Occupational Therapists	3.9	3.0	33%	42%	17%	17%
Occupational Therapy Assistants	4.1	3.1	27%	9%	9%	18%
Physical Therapists	4.1	3.1	36%	43%	29%	7%
Physical Therapy Assistants	3.7	2.6	33%	22%	11%	11%
Registered Nurses						
-Newly Licensed RNs	3.3	3.0	31%	46%	39%	8%
-Experienced RNs	4.1	3.2	40%	60%	47%	13%
-MDS Coordinators	4.2	2.8	33%	33%	20%	7%
-Nurse Managers	4.0	2.8	43%	57%	29%	14%
-Directors of Nursing	3.7	2.5	31%	23%	31%	15%
Rec. Therapists/Activities Directors	2.7	1.8	8%	15%	8%	15%
Respiratory Therapists	3.0	2.8	40%	20%	20%	0%
Social Workers						
-Licensed Clinical SWs	2.8	2.4	9%	18%	9%	0%
-Licensed Master's SWs	3.8	2.7	30%	50%	10%	10%
Speech Pathologists	4.1	2.7	18%	27%	0%	9%

Other information reported by nursing homes in the Southern Tier regions included:

- Fifty-seven percent (57%) reported difficulty hiring part-time workers.
- Fourteen percent (14%) reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring RNs (64%), LPNs (54%), and CNAs (46%) for evening shifts.
- Nursing homes reported difficulty hiring RNs (62%), LPNs (50%), and CNAs (46%) for overnight shifts.
- Nursing homes reported difficulty hiring LPNs (33%), (23%), and CNAs (23%) for weekend shifts.
- Most nursing homes (93%) were not planning to expand or reduce services next year.

Home Health Agencies

The response rates for home health agencies in the Southern Tier and Central New York regions were too low to analyze separately, so responses were combined for these two regions.

Experienced RNs were the most difficult to recruit, followed by occupational therapists, respiratory therapists, and licensed clinical social workers. Newly licensed RNs were the most difficult to retain, followed by speech pathologists, home health aides, and experienced RNs (Exhibit 135).

Exhibit 135
Recruitment and Retention Difficulties for Home Health Agencies
in the Southern Tier and Central New York Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.0	2.6	25%	0%	8%	0%
Home Health Aides	2.7	3.1	25%	25%	25%	0%
Licensed Practical Nurses	2.4	2.3	0%	31%	15%	0%
Occupational Therapists	3.6	2.9	30%	20%	20%	0%
Physical Therapists	3.3	2.3	0%	17%	25%	8%
Registered Nurses						
-Newly Licensed RNs	3.0	3.5	13%	13%	13%	13%
-Experienced RNs	3.7	3.1	7%	40%	40%	7%
Respiratory Therapists	3.6	3.0	20%	0%	0%	0%
Social Workers						
-Licensed Clinical SWs	3.6	3.0	0%	29%	0%	14%
-Licensed Master's SWs	2.8	2.5	8%	8%	8%	0%
Speech Pathologists	3.4	3.2	11%	11%	11%	0%

Other information reported by home health agencies in the Southern Tier and Central New York regions included:

- Almost one-half (47%) reported difficulty hiring part-time workers.
- Fourteen percent (14%) indicated difficulty hiring bilingual workers.
- Fifty-seven percent (57%) indicated difficulty hiring workers for off-shifts.
- One-third (33%) indicated they anticipated expanding services in the next year.

FQHCs

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 136).

Exhibit 136
FQHC and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012⁵⁷

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

⁵⁷ All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Southern Tier region will be for RNs (210); home health aides (130); and personal and home care aides (110) (Exhibit 137).

Exhibit 137
Employment Projections for Selected Health Care Occupations⁵⁸ for
the Southern Tier Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Registered Nurses	8,160	9,000	840	14.1%	210
Home Health Aides	3,150	4,050	900	28.6%	130
Personal and Home Care Aides	2,310	3,190	880	38.1%	110
Nursing Aides, Orderlies, and Attendants	5,430	5,650	220	4.1%	90
Licensed Practical and Licensed Vocational Nurses	2,230	2,400	170	7.6%	80
Social Workers	1,650	1,760	110	6.7%	40
Medical and Health Services Managers	690	740	50	7.2%	30
Pharmacists	640	730	90	14.1%	30
Occupational Therapists	330	380	50	15.2%	20
Physical Therapists	470	570	100	21.3%	20
Speech-Language Pathologists	380	430	50	13.2%	20
Dental Hygienists	510	630	120	23.5%	20
Radiologic Technologists and Technicians	750	870	120	16.0%	20
Emergency Medical Technicians and Paramedics	500	620	120	24.0%	20
Pharmacy Technicians	470	560	90	19.1%	20
Dental Assistants	660	760	100	15.2%	20
Medical Assistants	450	530	80	17.8%	20
Clinical, Counseling, and School Psychologists	440	470	30	6.8%	10
Dietitians and Nutritionists	180	190	10	5.6%	10
Physician Assistants	270	310	40	14.8%	10
Respiratory Therapists	300	340	40	13.3%	10
Medical and Clinical Laboratory Technologists	370	400	30	8.1%	10
Surgical Technologists	300	320	20	6.7%	10
Medical Records and Health Information Technicians	430	470	40	9.3%	10
Psychiatric Aides	630	650	20	3.2%	10
Cardiovascular Technologists and Technicians	180	210	30	16.7%	0
Diagnostic Medical Sonographers	120	160	40	33.3%	0

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

⁵⁸ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

J. Western New York

The Western New York region includes the counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara.

Population

The Western New York region was less racially and ethnically diverse than New York as a whole. The Western New York region had a similar age structure and poverty levels compared to the state overall (Exhibit 138).

Exhibit 138
Selected Population Characteristics for the Western New York Region, 2010⁵⁹

Population Characteristics	Region		Percentage of Statewide Population
	Number	Percent of Regional Population	
Total Population	1,399,677	N/A	N/A
Population Under 100% FPL Level	194,271	14.3%	14.2%
Population Under 200% FPL Level	430,166	31.7%	30.6%
Population Age Birth – 17	304,257	21.7%	22.3%
Population Age 65 and older	220,995	15.8%	13.5%
Population Female Age 15 – 44	266,864	19.1%	20.9%
Black/African American, non-Hispanic	138,731	9.9%	14.5%
Hispanic/Latino	53,473	3.8%	17.1%
Asian/Pacific Islander, non-Hispanic	26,422	1.9%	7.2%
American Indian/Native Alaskan, non-Hispanic	9,226	0.7%	0.2%
Two or More/Other	20,430	1.5%	1.8%
Less than High School Education	112,245	11.9%	15.6%
High School Education	310,356	32.8%	28.2%
College Degree or Higher	349,315	37.0%	40.3%

Source: U.S. Census

⁵⁹ Education levels and rates are for those age 25 and older.

Health Status

The Western New York region had higher rates of total deaths, deaths due to all cancers, and deaths due to heart disease than the state as a whole. While the overall birth rate was lower in the Western New York region than in the state overall, the teen birth rate was higher. The Western New York region also had lower rates of asthma (both adult and pediatric) and diabetes hospitalizations compared to the state as a whole, but it should be noted that the state rates are inflated because the rates in New York City are high (Exhibit 139).

Exhibit 139
Selected Health Indicators for the Western New York Region,
2008-2010 (3-year Average)⁶⁰

Health Indicator	Region		Statewide Rate
	Number	Rate	
Total Deaths	14,261	1,025.2	748.6
Deaths Due to Heart Disease	3,949	284.6	239.6
Deaths Due to All Cancers	3,298	237.1	179.9
Deaths Due to Diabetes	356	25.6	18.6
Total Births	14,910	55.9	60.9
Teen Births	1,403	27.8	24.0
Low-birthweight Births	1,188	8.0	8.2
Late/No Prenatal Care	697	5.0	5.9
Infant Deaths	109	7.3	5.2
Adult Asthma Hospitalizations	1,116	102.3	178.2
Pediatric Asthma Hospitalizations	619	206.1	289.5
Diabetes Discharges (Primary Diagnosis)	2,493	179.2	203.3
Chronic Lower Respiratory Disease Hospitalizations	5,199	373.7	392.6
Heart Disease Hospitalizations	19,317	1,388.6	1,256.8

Source: New York State Community Health Indicator Reports, 2008 – 2010 (3-year Average)

Primary Care Physicians

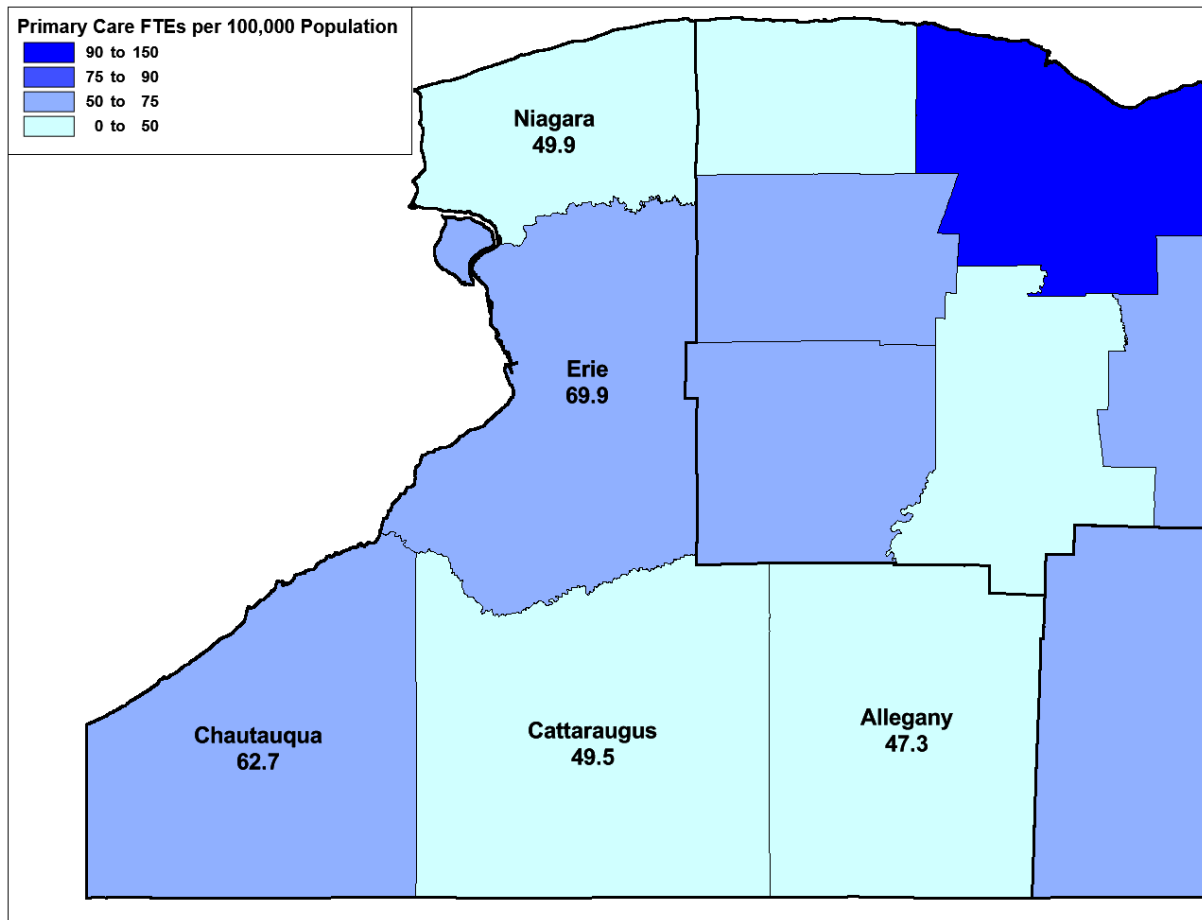
There were almost 900 primary care physician FTEs practicing in the Western New York region. Thirty-six percent (36%) were in general internal medicine and another 33% were in family or general practice. There were 64.1 primary care physicians per 100,000 population in the Western New York region, below the statewide rate of 79.9. Erie County had the highest number with 69.9 primary care physicians per 100,000 population and Allegany County had the lowest with 47.3 per 100,000 (Exhibits 140 and 141).

⁶⁰ Not all rates are based on the same denominator. See New York State Community Health Indicator Reports on page 9 for details.

Exhibit 140
Primary Care FTEs in the Western New York Region, by Specialty, 2010⁶¹

Specialty	Primary Care FTEs	Per 100,000	
		Region	State
Family/General Practice	297.0	21.2	18.1
Internal Medicine (General)	321.0	22.9	33.9
Geriatrics	7.8	0.6	0.6
Obstetrics/Gynecology	104.6	39.2	47.3
Pediatrics (General)	167.1	54.9	77.6
Total	897.4	64.1	79.9

Exhibit 141
The Number of Primary Care FTEs Per 100,000 Population
in the Western New York Region, 2010



⁶¹ All rates are per 100,000 total population except the obstetrics rate, which is per 100,000 women age 15-44 and the pediatrician rate, which is per 100,000 children age birth-17.

Employment

Total Employment

Between 2007 and 2011, health sector employment throughout the Western New York region grew by nearly 1,600 jobs, or by more than 2%. Jobs in home health care services increased by almost 11%, and jobs in ambulatory care increased by almost 2,000 jobs, or 9%. However, employment in nursing home and personal care facilities and in hospitals declined during the same time period (Exhibit 142).

Exhibit 142
Number of Workers by Health Care Setting in Western New York Region, 2007-2011

Setting	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Hospitals	27,170	27,847	27,864	27,348	27,071	-99	-0.4%
Ambulatory Care (Excluding Home Health)	21,684	22,370	22,725	23,372	23,640	1,956	9.0%
Nursing Home and Personal Care Facilities	16,387	15,427	15,655	15,844	15,644	-743	-4.5%
Home Health Care Services	4,549	4,597	4,790	4,892	5,030	481	10.6%
Total	69,790	70,241	71,034	71,456	71,384	1,594	2.3%

Source: NYS Department of Labor, ES-202

Licensed Health Care Professionals

Between 2007 and 2011 in the Western New York region, the number of licensed RNs increased by nearly 840, or nearly 5%, and the number of clinical laboratory technologists grew by 170, or over 34%. The number of LPNs increased by more than 250, or nearly 4%, during the same time period. The number of occupational therapy assistants decreased slightly between 2007 and 2011 (Exhibit 143).

Exhibit 143
Change in the Number of Licensed Individuals in Selected Health Professions
in Western New York, 2007-2011

Profession	2007	2008	2009	2010	2011	Change between 2007 and 2011	
						Number	Percent
Clinical Laboratory Technicians	145	169	196	192	196	51	35.2%
Physician Assistants	495	532	585	622	665	170	34.3%
Clinical Laboratory Technologists	755	888	969	988	983	228	30.2%
Physical Therapy Assistants	267	279	300	322	337	70	26.2%
Nurse Practitioners	1,045	1,079	1,139	1,164	1,212	167	16.0%
Speech-Language Pathologists	1,009	1,017	1,079	1,105	1,146	137	13.6%
Social Workers	1,798	1,786	1,829	1,916	2,038	240	13.3%
Dental Hygienists	1,028	1,045	1,071	1,090	1,131	103	10.0%
Respiratory Therapists	415	428	441	451	455	40	9.6%
Pharmacists	1,530	1,545	1,584	1,613	1,651	121	7.9%
Occupational Therapists	748	760	765	767	786	38	5.1%
Registered Nurses	18,040	18,011	18,408	18,815	18,876	836	4.6%
Licensed Practical Nurses	6,926	7,085	7,033	7,041	7,182	256	3.7%
Physical Therapists	1,232	1,235	1,255	1,267	1,274	42	3.4%
Dietitians/Nutritionists	312	306	312	318	316	4	1.3%
Occupational Therapy Assistants	607	613	603	586	602	-5	-0.8%

Source: NYS Education Department, Office of Professions

Demand for Health Workers

Hospitals

Hospitals in the Western New York region reported the most difficulty recruiting HIT program managers, followed by clinical laboratory technicians, clinical laboratory technologists, NPs, and physician assistants. Hospitals in Western New York indicated the most difficulty retaining CNAs, HIT analysts and program managers, NPs, and physician assistants (Exhibit 144).

Exhibit 144
Recruitment and Retention Difficulties for Hospitals
in the Western New York Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Working Conditions	Salary Levels	Geographic Location
Certified Nursing Aides	2.0	4.3	89%	67%	67%	67%
Clinical Laboratory Technicians	4.7	2.9	86%	86%	86%	86%
Clinical Laboratory Technologists	4.6	2.7	89%	67%	67%	67%
HIT Analysts	4.4	4.1	100%	71%	86%	71%
HIT Program Managers	4.8	4.0	100%	63%	75%	63%
HIT Technical Support	3.9	3.5	88%	63%	75%	50%
Licensed Practical Nurses	1.4	2.9	75%	63%	75%	63%
Medical Assistants	3.4	3.4	100%	71%	86%	86%
Medical Coders	4.1	3.2	78%	56%	67%	56%
Nurse Practitioners	4.6	4.1	86%	71%	86%	86%
Occupational Therapists	3.8	2.1	75%	63%	63%	63%
Pharmacists	3.1	2.0	88%	63%	75%	75%
Physical Therapists	3.9	2.2	78%	56%	67%	56%
Physician Assistants	4.6	4.1	86%	71%	86%	86%
Radiological Technicians	1.8	1.7	83%	83%	83%	83%
Radiological Technologists	2.8	1.6	56%	56%	67%	56%
Registered Nurses						
-Newly Licensed RNs	1.8	3.1	67%	11%	33%	22%
-Experienced RNs	3.4	2.1	67%	56%	78%	78%
-Nurse Managers	3.9	3.1	78%	56%	67%	78%
Speech Pathologists	2.8	1.5	25%	25%	50%	25%

Nursing Homes

Nursing homes in the Western New York region reported the most difficulty recruiting experienced RNs, followed by CNAs and directors of nursing. CNAs were the most difficult to retain, followed by experienced RNs, newly licensed RNs, LPNs, and respiratory therapists (Exhibit 145).

Exhibit 145
Recruitment and Retention Difficulties for Nursing Homes
in the Western New York Region, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Certified Nursing Aides	3.6	3.7	44%	48%	8%	16%
Clerical	1.6	1.7	0%	0%	4%	17%
Dietitians/Nutritionists	2.7	2.1	0%	18%	5%	5%
Licensed Practical Nurses	3.4	3.1	16%	44%	24%	20%
Medical Billers	2.5	1.9	11%	5%	0%	21%
Occupational Therapists	3.4	2.5	17%	33%	13%	4%
Occupational Therapy Assistants	3.1	2.3	13%	22%	13%	4%
Personal Care Assistants	2.3	2.4	17%	17%	33%	21%
Physical Therapists	3.4	2.6	21%	33%	8%	4%
Physical Therapy Assistants	2.7	2.9	23%	32%	14%	5%
Registered Nurses						
-Newly Licensed RNs	2.9	3.1	15%	20%	10%	0%
-Experienced RNs	3.9	3.2	29%	38%	29%	8%
-MDS Coordinators	3.4	2.6	25%	10%	5%	15%
-Nurse Managers	3.4	2.6	13%	13%	13%	17%
-Directors of Nursing	3.6	2.3	17%	11%	0%	11%
Rec. Therapists/Activities Directors	2.6	1.9	6%	6%	6%	24%
Respiratory Therapists	3.3	3.0	0%	29%	0%	11%
Social Workers						
-Licensed Clinical SWs	2.9	2.4	11%	0%	5%	16%
-Licensed Master's SWs	2.9	2.4	6%	13%	6%	19%
Speech Pathologists	3.4	2.8	18%	12%	6%	12%

Other information reported by nursing homes in the Western New York region included:

- More than one-half (52%) reported difficulty hiring part-time workers.
- Twenty percent (20%) reported difficulty hiring bilingual workers.
- Nursing homes reported difficulty hiring RNs (71%), LPNs (68%), and CNAs (68%) for evening shifts.
- Nursing homes reported difficulty hiring CNAs (58%), RNs (52%), and LPNs (50%) for overnight shifts.
- Nursing homes reported difficulty hiring RNs (65%), CNAs (63%), and LPNs (58%) for weekend shifts.
- Most nursing homes (84%) were not planning to expand or reduce services next year.

Home Health Agencies

The number of responses for home health agencies in the Western New York region was too low to analyze separately so it was combined with the Finger Lakes region for analysis. Home health agencies in the two regions indicated the most difficulties recruiting physical therapists, followed by experienced RNs, occupational therapists, and speech-language pathologists. Home health aides were cited as the most difficult to retain, followed by personal care assistants and experienced RNs (Exhibit 146).

Exhibit 146
Recruitment and Retention Difficulties for Home Health Agencies
in the Western New York and Finger Lakes Regions, 2012

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Other
Dietitians/Nutritionists	3.3	2.3	31%	23%	15%	8%
Home Health Aides	3.4	4.0	50%	58%	42%	17%
Licensed Practical Nurses	2.6	2.8	0%	31%	15%	8%
Occupational Therapists	3.8	2.8	54%	46%	46%	23%
Personal Care Assistants	2.8	3.6	17%	67%	0%	0%
Physical Therapists	4.2	2.9	62%	62%	54%	15%
Registered Nurses						
-Newly Licensed RNs	3.3	3.2	50%	67%	0%	33%
-Experienced RNs	4.1	3.6	73%	53%	20%	20%
Respiratory Therapists	3.8	3.0	20%	40%	60%	0%
Social Workers						
-Licensed Clinical SWs	3.0	2.6	20%	40%	40%	0%
-Licensed Master's SWs	3.0	2.6	9%	27%	36%	9%
Speech Pathologists	3.5	2.6	25%	33%	17%	8%

Other information reported by home health agencies in the Western New York and Finger Lakes regions included:

- One-half (50%) reported difficulty hiring part-time workers.
- Thirty-one percent (31%) indicated difficulty hiring bilingual workers. Spanish was the language most needed.
- Three-fourths (75%) indicated difficulty hiring workers for off-shifts.
- One-third (33%) indicated they anticipated expanding services in the next year and 47% reported they would not expand or reduce services next year.

Federally Qualified Health Centers

The response rates for FQHCs in areas outside of New York City were too low to analyze separately so the responses for all the areas outside of New York City were combined. FQHCs reported the most difficulty recruiting dentists, psychiatric NPs, and psychologists and the most difficulty retaining LPNs, RNs, and dental assistants (Exhibit 147).

Exhibit 147
FQHC and Look-alikes Recruitment and Retention Difficulties for Selected Occupations
for Upstate New York, 2012⁶²

Occupation	Average Assessment of Difficulty	
	Recruitment	Retention
Care Coordinators	2.7	1.8
Case Managers	2.4	1.8
Certified Nursing Aides	2.3	2.2
Community Health Workers	2.6	1.8
Dental Assistants	2.5	2.5
Dental Hygienists	2.9	2.4
Dentists	3.9	2.4
Health Educators	2.2	1.5
HIV Counselors	2.8	1.7
Licensed Practical Nurses	2.9	2.7
Medical Assistants	2.3	2.3
Midwives	3.2	1.7
Nurse Practitioners		
-Adult NPs	2.5	1.7
-Family NPs	2.7	1.9
-Geriatric NPs	2.8	1.5
-Pediatric NPs	2.7	1.8
-Psychiatric NPs	3.8	2.0
Nutrition Educators	3.0	2.0
Patient Health Navigators	2.3	1.7
Physician Assistants	2.5	1.9
Psychologists	3.3	2.0
Registered Nurses	3.2	2.5
Social Workers		
-Licensed Clinical SWs	3.2	2.0
-Licensed Master's SWs	2.8	1.7
Substance Abuse Counselors	2.5	1.7

Seventy-five percent of FQHCs and look-alikes (75%) indicated they had plans to expand services and none indicated plans to reduce services. Also, 58% of FQHCs reported they had difficulty hiring bilingual staff and almost all of these centers indicated that Spanish was the language most needed.

⁶² All areas outside of New York City.

Employment Projections by Health Occupation

Between 2010 and 2020, the largest numbers of average annual job openings projected in the Western New York region will be for RNs (460), home health aides (400), and personal and home care aides (320) (Exhibit 148).

Exhibit 148
Employment Projections for Selected Health Care Occupations⁶³ for
the Western New York Region, 2010-2020

Occupations	2010	2020	Change between 2010 and 2020		Average Annual Opening
			Number	Percent	
Registered Nurses	14,250	16,240	1,990	14.0%	460
Home Health Aides	7,890	10,890	3,000	38.0%	400
Personal and Home Care Aides	5,980	8,720	2,740	45.8%	320
Licensed Practical and Licensed Vocational Nurses	5,280	6,080	800	15.2%	220
Social Workers	3,900	4,380	480	12.3%	150
Pharmacy Technicians	1,600	1,940	340	21.3%	60
Pharmacists	1,340	1,530	190	14.2%	50
Dental Hygienists	1,210	1,530	320	26.4%	50
Dental Assistants	1,220	1,460	240	19.7%	50
Medical Assistants	1,210	1,510	300	24.8%	50
Medical and Health Services Managers	1,350	1,470	120	8.9%	40
Physical Therapists	1,140	1,450	310	27.2%	40
Speech-Language Pathologists	1,130	1,320	190	16.8%	40
Radiologic Technologists and Technicians	1,120	1,320	200	17.9%	40
Dietitians and Nutritionists	430	490	60	14.0%	30
Occupational Therapists	750	920	170	22.7%	30
Emergency Medical Technicians and Paramedics	640	850	210	32.8%	30
Medical Records and Health Information Technicians	960	1,070	110	11.5%	30
Physician Assistants	470	560	90	19.1%	20
Respiratory Therapists	480	540	60	12.5%	20
Medical and Clinical Laboratory Technologists	390	410	20	5.1%	10
Medical and Clinical Laboratory Technicians	600	630	30	5.0%	10
Cardiovascular Technologists and Technicians	230	280	50	21.7%	10
Diagnostic Medical Sonographers	250	330	80	32.0%	10
Surgical Technologists	350	370	20	5.7%	10

Source: NYS Department of Labor, Jobs in Demand/Projects, Long-term Occupation Projections, 2010 – 2020

⁶³ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2010 and the projected number of jobs in those categories in 2020. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.