New York State’s Community Health Center Workforce: A Mixed-Methods Analysis

May 2012
(last revised March 2013)
# TABLE OF CONTENTS

**Executive Summary** .......................................................................................................................... 3  
Project Overview.................................................................................................................................... 3  
Methods.................................................................................................................................................. 3  
Key Findings.......................................................................................................................................... 3  
Conclusion/Recommendations..................................................................................................................... 5  

**Introduction** ....................................................................................................................................... 6  
History and Impact of Community Health Centers in the United States ............................................. 6  
Community Health Centers in New York State ..................................................................................... 7  
Project Overview.................................................................................................................................... 7  

**Methods** ............................................................................................................................................. 8  
Quantitative Method ............................................................................................................................... 8  
Qualitative Method ............................................................................................................................... 8  

**Results** ............................................................................................................................................... 10  
Summary of Quantitative Results ......................................................................................................... 10  
Qualitative Results ............................................................................................................................. 10  

**Conclusion/Recommendations** .......................................................................................................... 17  

**References** ......................................................................................................................................... 18  

**Appendix A: Description of Partner Organizations** ......................................................................... 20  

**Appendix B: The Community Health Center Workforce in New York (Final Report)** ................. 23  

**Appendix C: Interview Questions** ..................................................................................................... 84  

**Appendix D: Focus Group Questions** ................................................................................................. 85
EXECUTIVE SUMMARY

Community Health Centers (CHCs) are community-based, patient-directed organizations that serve populations with limited access to health care by providing them with comprehensive and efficient primary care. Due to the demonstrated success of CHCs in improving patient outcomes and lowering costs, the federal government aims to substantially increase the number of people served through these organizations.¹ This expansion will create workforce challenges, including in New York State where CHCs play a significant role in the provision of primary care.

Project Overview
The purpose of this report is to document findings from research to understand the CHC workforce in New York State. The research was conducted by the City University of New York (CUNY) in partnership with the Community Health Care Association of New York State (CHCANYS) and the University of Albany’s Center for Health Workforce Studies (CHWS). The New York Alliance for Careers in Health (NYACH) and the New York City Workforce Development Corporation (WDC) provided support for the project.

Methods
For this study, a mixed-methods approach, incorporating both quantitative (i.e., survey) and qualitative (i.e., interview and focus group) methodologies, was used. The quantitative portion of the study, a statewide survey of CHCs, illuminated staffing patterns (e.g., types of health professionals employed, recruitment, retention) within the participating CHCs. This portion of the study was conducted by the CHWS, with findings detailed in the report entitled The Community Health Center Workforce in New York.²

The qualitative portion of the study included interviews and focus groups with executives from CHCs across New York State. The interviews and focus groups were centered on three topic areas:

- The workforce implications of changing trends in health care;
- The composition of their current workforce, and anticipated changes in that workforce; and
- Current and anticipated skill shortages in CHCs and implications for hiring, training and advancement.

Interviews were conducted with executives from four large CHCs based in New York City. Following the interviews, two focus groups (of CHC representatives) were conducted during the October 2011 Statewide Conference and Clinical Forum of CHCANYS members.

Key Findings
Quantitative Results
The statewide survey highlighted the role of CHCs as holistic service providers that employ a broad range of health occupations to meet patient needs. Although the workforce issues faced by CHCs varied depending on their size and geographic location, some general workforce patterns emerged. Survey results indicated that, overall, medical assistants were the most commonly employed health professionals in CHCs, followed by LPNs and family practitioners. CHCs reported experiencing the most difficulty with recruiting psychiatrists,
obstetricians/gynecologists, psychiatric nurse practitioners, and geriatric nurse practitioners. General internists, licensed practical nurses, and medical assistants were the most difficult health professionals to retain.

**Qualitative Results**
Similar to the study’s quantitative results, the qualitative results highlighted the variability among CHCs. Despite this variance, several key themes emerged:

**Theme 1: General Organization of Clinical Teams**
Patient care was provided by clinical teams, often focused on the management of chronic diseases, with a primary care provider (i.e. pediatrician, family practitioner) at the center of the team. Typical clinical team members varied by site (and, sometimes, by medical diagnosis), but teams generally included a medical assistant and/or an LPN. Job titles for ancillary staff (e.g., community health workers) were similar across the participating CHCs, yet there was diversity in the job functions and qualifications of these staff members.

Recruitment and retention are challenging for CHCs, which use a variety of strategies to attract and retain staff. While respondents discussed the value of loan repayment and higher salaries as key incentives, they also emphasized the importance of careful recruitment and creating a positive work environment. One challenge is finding staff who are bilingual and/or culturally competent. High position turnover for registered nurses, licensed practical nurses, medical assistants, and front desk staff was attributed to the challenging work demands in CHCs.

**Theme 2: Professional Development**
Both in the interviews and focus groups, CHC representatives indicated that there has been some success in offering clinical/internship experiences in the community health setting, primarily for medical residents and medical assistants. Clinical/internship experiences in nursing have proven more challenging to implement and sustain.

Most of the centers reported that they were providing training for their staff, particularly in the area of information technology. General recommendations for future staff development included training programs focusing on customer service, computer skills, using electronic health records, and chronic disease management. Other topic areas deemed important included training for peer educators and community health workers, documentation, patient relations, and patient accounting.

Overall, participants were in favor of the development and implementation of career ladder opportunities for their staff, although not all of the participating CHCs had such opportunities in place.
Theme 3: Health Care Trends
Two main health care trends were discussed: 1) the recent focus on technology; and 2) the impact of Medicaid redesign and health reform. Although most of the centers represented had completed implementation of an electronic health record (EHR) system, the sites varied on how they accomplished the roll-out and maintained their systems. There was concern that achieving “full implementation” of the EHR would require additional staff (users) in the future.

Community health center leaders were asked to discuss future directions for their facilities, in light of state-level initiatives spurred by the federal health reform movement (e.g., New York State’s organization of a Medicaid Redesign Team). Several primary considerations emerged from this discussion: the impact of anticipated changes on payment structure and funding; the increasing influence of the Patient-Centered Medical Home model; and recommendations for changes that would allow staff to practice at the top of their professional capabilities.

Theme 4: Expansion and Future Directions
Anticipated increases in patient volume have prompted some CHCs to contemplate, plan, and develop new programs to respond to the growth. Although some CHCs were working to increase their physical space and service capacity, there was serious concern that personnel shortages would present future problems.

Conclusion/Recommendations
Community health centers (CHCs) have a long-standing history of providing quality, culturally competent care to underserved communities. The current study is in line with ongoing federal and state-level efforts to expand the reach of CHCs. Key findings and recommendations from this study, which investigated the CHC workforce in New York State, include the following:

1) New York State’s CHCs vary in their workforce compositions and approaches to workforce issues, but they also share many characteristics, including: a pressing need for bilingual staff; support for increased flexibility in workforce models and scopes of practice for ancillary personnel; the existence of robust internal training programs; and a desire to enhance training, educational, and career ladder opportunities at their centers. Ongoing collaborations with organizations such as CHCANYS and CUNY will enhance the ability of CHCs to provide tailored, cost-effective training, as well as educational and career advancement opportunities.

2) Successful approaches for recruiting and retaining staff included fostering a family-like environment and providing incentives, but challenges remain in identifying, recruiting, and retaining bilingual staff. Future research and support is needed in this area, to ensure that CHCs can continue to provide culturally competent care to their diverse patient populations.

3) CHC representatives indicated general support for increased workforce flexibility, including allowing providers and ancillary staff to perform at the highest level within their scopes of responsibility.
INTRODUCTION

History and Impact of Community Health Centers in the United States
For over forty years, community health centers (CHCs) have broken many barriers to health care access in America’s poorest communities, while also customizing their services to meet the needs of the communities they serve. CHCs are community-based, patient-directed primary care organizations that serve populations with limited access to medical services, by providing them with comprehensive and efficient primary care. Health centers serve anyone requiring care, regardless of insurance status or ability to pay.3-5 As health care costs continue to rise, there is an increasing demand for the services provided by community health centers.

Since the nation’s first health centers opened in the 1960s, federal legislation has facilitated significant growth in the number of health centers. Today, there are 1,200 CHCs at over 8,000 service delivery sites nationwide, which provide health care to approximately 20 million people.4 Studies have shown that CHCs offer:

- Efficient and cost-effective care, which reduces or eliminates the need for more expensive services such as emergency room visits and avoidable hospital stays. CHCs provide significant cost savings to the Medicaid program, while delivering quality care to low-income patients enrolled in Medicaid.4,6-9
- Higher rates of preventive care services (e.g., immunization, cancer screenings) for Medicaid-insured and uninsured CHC patients, as compared to their counterparts who receive preventive care in non-CHC settings.4,10
- High quality care for chronically ill patients, including screening, diagnosis and management of chronic illnesses such as diabetes, asthma, heart and lung disease, depression, cancer, and HIV/AIDS.4,11
- Reduction in race/ethnicity-related and income-related health disparities in perinatal care (i.e., prenatal, postpartum and newborn care), low birth weight, and infant mortality.4,12-14

Today, CHCs face numerous challenges in providing effective care to their patient populations. For example, patients between the ages of 45 to 64 who are chronically ill and living in poverty, a population with significant health care needs, represent one of the fastest growing segments of the CHC service population. In response to the growing demand for care, CHCs have rapidly increased their capacity, doubling the number of patients served between 2000 and 2009;8 similarly, from 1998 to 2011, CHCs doubled the number of uninsured patients served.4 Health centers now serve one out of seven individuals receiving Medicaid and one in six uninsured individuals nationally,15 including one in five of the low-income uninsured.16 Demand is at an all-time high, and health centers are responding by expanding their reach and building the workforce and facilities to answer the need.

Tomorrow’s challenges loom even larger. The nation’s CHCs are expected to face a shortage of approximately 16,000-19,000 providers and 12,000-14,000 nurses by the year 2015.17 Experts also predict that, unless the Affordable Care Act (ACA) is successful in significantly expanding health insurance coverage, more than 56 million Americans (i.e., one of every five non-elderly individuals) will be uninsured by the end of the decade. Many of these individuals will seek health care at CHCs. Even with full implementation of the ACA, approximately 22 million
individuals (nearly 8% of the non-elderly population) will be without insurance by 2019.\textsuperscript{18} In addition, disparities in health outcomes persist for racial/ethnic minorities, who comprise a large proportion of the CHC patient population.\textsuperscript{4}

Affordable and accessible health care can transform the neediest communities by narrowing health disparities, eliminating low birth weight, reducing chronic disease, and lowering the incidence of unnecessary hospitalizations. In this vein, the federal government has committed $11 billion to fund CHC expansion as part of health reform, with the goal of doubling the current capacity of CHCs— to serve 40 million people— by the year 2015.\textsuperscript{8,19}

**Community Health Centers in New York State**

CHCs are an important part of New York’s primary care delivery system. According to the Community Health Care Association of New York State (CHCANYS), the association that represents New York’s CHCs, there are more than 60 CHCs serving 1.4 million people (at approximately 500 sites) across the state.\textsuperscript{20} Although CHCs face particularly difficult challenges in recruiting and retaining well-qualified staff,\textsuperscript{17} little is known about the workforce challenges impacting New York State’s CHCs. The current study sought to address this knowledge gap.

**Project Overview**

The City University of New York (CUNY) set out to understand the health care workforce in community health centers, because of anticipated employment growth in these settings and because CHCs are at the forefront of innovation as the health care sector undergoes transformation. The purpose of this report is to present findings from this research, which was conducted in partnership with the Community Health Care Association of New York State (CHCANYS) and the University of Albany’s Center for Health Workforce Studies (CHWS); a description of each partner organization is provided in Appendix A. Project support was provided by the New York Alliance for Careers in Health (NYACH) and the New York City Workforce Development Corporation (WDC).

The increasing importance and influence of community health centers in the national and state-level healthcare landscape demonstrates the timeliness of this study. Community health centers will continue to be at the heart of health reform, particularly with respect to ensuring access to high-quality care for underserved and vulnerable populations.
METHODS

For this study, a mixed-methods approach, incorporating both quantitative (i.e., survey) and qualitative (i.e., interview and focus group) methodologies, was used. This approach allowed the research team to capture important numerical data (e.g., full-time equivalents [FTEs], current and projected vacancy rates) while also allowing us to delve into topics that lend themselves to a conversational approach (e.g., anticipated impact of health care trends). A mixed methodology such as this generally provides richer data than the use of either a quantitative or qualitative approach alone.

The current report presents a summary of the quantitative findings, excerpted from the Center for Health Workforce Studies (CHWS) report entitled *The Community Health Center Workforce in New York,* along with full results from the subsequent qualitative interviews and focus groups with community health center (CHC) personnel.

**Quantitative Method**

A full discussion of the methods used for the quantitative portion of the study can be found in the August 2011 *Community Health Center Workforce in New York* report, which is included as Appendix B of the current report. Following is a summary of the survey method.

A survey on workforce issues was distributed to 63 CHCs across New York State in March 2011. A response rate of 63% was achieved, with 40 CHCs returning the survey. The responding CHCs were geographically representative of the population of CHCs in New York State. CHCs were categorized by size (small, medium or large, as determined by number of total full-time equivalents [FTEs]) and location (New York City or upstate; rural or urban).

Respondents provided data on a variety of staffing issues for 28 clinical occupations/professions in five categories: primary care, nursing, behavioral health, oral health, and ancillary care. Data were collected on topics such as current and projected FTEs, recruitment, retention, desired support services, and the need for bilingual staff.

**Qualitative Method**

The qualitative portion of the study included both interviews and focus groups. Results of the *Community Health Center Workforce in New York* survey informed the overarching topical areas addressed during the interviews and focus groups, which included:

- The workforce implications of changing trends in health care;
- The composition of their current workforce, and anticipated changes in that workforce; and
- Current and anticipated skill shortages in CHCs and implications for hiring, training and advancement.

Interviews were conducted with executives from four large CHCs based in New York City, over the course of approximately one month (from July 2011 to August 2011). Interviewees were selected for their expertise and knowledge of the CHC landscape, as evidenced by their long tenures as leaders in the CHC arena. Interviews were conducted by staff from the City University of New York (CUNY), Center for Health Workforce Studies (CHWS) and
Community Health Care Association of New York State (CHCANYS). The questions that guided the interview discussions are provided in Appendix C.

Following the interviews, two focus groups were conducted during the October 2011 Statewide Conference and Clinical Forum of CHCANYS members. These focus groups were intended to provide additional insight into the topic areas covered during the Community Health Center Workforce in New York survey and the qualitative interviews. The questions that guided the focus group discussions are provided in Appendix D.

The recruitment and selection of focus group participants were conducted by CHCANYS staff, who distributed a request for volunteer participants in September 2011. Invited participants were selected from the group of individuals who responded to the request for volunteers. These invited participants included 7 Chief Executive Officers (CEOs)/Executive Directors (EDs) and 8 Human Resources (HR) executives. Selection was based on a goal of achieving representation by the size and location factors noted in Methods above. While the focus was on New York City employers, representatives were also included from upstate facilities. In addition, a concerted effort was made to reflect variation in center size. Each focus group was scheduled for 90 minutes. Focus groups were audiotaped and moderated by staff from CHWS, CUNY, and CHCANYS.

The first focus group included seven CHC CEOs/EDs, who were tapped to provide a global perspective on the current and future issues impacting CHCs. The participants included five of the originally invited participants and two additional volunteers. Participating CEOs/EDs represented CHCs from a variety of locations (New York City and upstate), of various sizes, and from both urban and rural communities.

The second focus group included six of the eight invited Human Resources (HR) executives, who were tapped to provide an in-depth analysis of the current and future CHC workforce. Similar to the CEO/ED group, the participating HR executives represented urban and rural CHCs from various locations and of various sizes.

Notes from the four interviews and notes/audio recordings from the two focus groups were reviewed to identify common themes. Interview and focus group notes were then consolidated and collated according to these themes, while noting apparent, significant areas of difference. The results of this analysis are presented in the following Results section.
RESULTS

The overarching goal of this two-part study was to gather timely data on workforce issues and challenges facing New York’s CHCs. Areas of inquiry included the workforce implications of changing trends in health care; the composition of their current workforce, and anticipated changes in that workforce; as well as current and anticipated skill shortages in CHCs, and implications for hiring, training and advancement. A summary of the quantitative results is provided below, followed by a full report on the study’s qualitative findings. Full results from the quantitative portion of the study can be found in the August 2011 Community Health Center Workforce in New York report, which is included here as Appendix B.

Summary of Quantitative Results

CHCs provide holistic services and include a broad range of health occupations to meet patient needs, as was reflected in the survey results. The study found the most common occupation in health centers to be medical assistants (average of 11 per CHC), followed by LPNs (7.7) and family practitioners (4.4). CHCs have the most difficulty recruiting psychiatrists, obstetricians/gynecologists, as well as psychiatric and geriatric nurse practitioners. Vacancy rates were highest for psychiatrists and psychiatric nurse practitioners, with one in four jobs being vacant. Vacancy rates for obstetricians/gynecologists, social workers, general internists, and family nurse practitioner jobs were also high, on average 15% or higher. CHCs reported the most difficulty retaining general internists, licensed practical nurses, and medical assistants.

Rural CHCs relied much more heavily on physician assistants to provide primary care services compared to their urban counterparts, in both upstate and downstate metropolitan areas. Not surprisingly, rural CHCs reported more difficulty recruiting all categories of primary care professionals compared to urban CHCs, while urban CHCs reported more difficulty retaining primary care providers.

An important finding of the survey was the variability of the workforce issues faced by CHCs, depending on their size and geographic location. Clearly, a one-size-fits-all approach would not be appropriate for workforce policy designed to address the needs of CHCs in New York. Given the importance of CHCs to the health care system in New York and to the success of health reform overall, this workforce merits regular, systematic monitoring. This will help ensure the availability of up-to-date and comprehensive information about the CHC workforce to inform policymakers and other stakeholders in New York.

Qualitative Results

Similar to the study’s quantitative results, the qualitative results highlighted the variability among CHCs. Despite this variability, general themes did emerge from the qualitative interviews and focus groups. The emergent themes are detailed below. Areas where the CHCs varied in their operations or viewpoints are also discussed.

Theme 1: General Organization of Clinical Teams

At the time of the study, patient care was provided by clinical teams with a primary care provider (i.e. pediatrician, family practitioner) at the center. The members of the team varied by site and, sometimes, by medical diagnosis, but generally included a medical assistant and/or an LPN. The
The most commonly cited rationale for this approach was the reimbursement structure and practice guidelines which require the direct involvement of a physician.

It was noted by several participants that care teams are often built around the management of chronic diseases, such as diabetes. As a benefit, they can provide case management while extending non-physician services to patients. One center described their team which included a Certified Diabetes Educator as well as, among others, a peer educator, nutritionist, pharmacist, or nurse depending on patient needs.

**Incentives – Recruitment and Retention**

The quantitative survey results highlighted the difficulties that CHCs faced in recruiting and retaining certain types of physicians (e.g., OB-GYNs and psychiatrists). The interviews and focus groups sought to elucidate the strategies that CHCs employ to enhance their recruitment and retention efforts. In the interviews, participants identified the recruitment incentives perceived as successful for attracting physicians to CHCs, such as loan repayment. Other site directors also noted that loan repayment was being used by at least one social worker and one physician assistant. Other financial incentives for retention, such as salary structure and pay for performance, were only mentioned once. Generally, a careful recruitment process and a collaborative work environment were seen as key to identifying and keeping staff.

There were several reasons cited as barriers to attracting staff to a CHC: geographical location (i.e., urban, upstate), competition with hospitals for qualified staff, the perception of the community health setting as being less ideal than a hospital-based job, and the lack of awareness of the CHC setting as an employment option. However, one of the biggest barriers to attracting the “right” staff is the difficulty in finding workers who are bilingual and culturally competent. Nearly every participant identified one professional category that had been difficult to hire, such as psychiatrists, nutritionists, and social workers but, most especially, nurses. In addition to attracting these staff, participants also identified the challenges in keeping staff once hired. High position turnover for registered nurses, licensed practical nurses, medical assistants, and front desk staff was attributed to the challenging work demands in CHCs.

**Job Function and Definition**

Interview and focus group participants described job functions as they relate to delivering patient care in CHCs. Although the job titles were similar, there was diversity in job functions. For example, registered nurses at one center were functioning at a managerial level; at another center, RNs provide direct care or care coordination. Consequently, job function influenced the required education for RNs sought to perform at these different levels.

Interview participants described the role of ancillary staff as extending the services of the clinical team through patient education, guidance, and follow-up. Although there was overlap in their positions, there was variety in the educational requirements for and roles of the patient navigator, community health worker, case manager, and health educator in the community health setting. Most centers were looking for these team members to have some college education, if not a bachelor’s degree. The functions of these varied roles include supporting patients with chronic disease management, prenatal outreach, HIV/AIDS outreach, and connecting patients to needed services.
Theme 2: Professional Development

Clinical and Post-graduate Experiences

Both in the interviews and focus groups there was consensus that there has been some success (although not universal) in offering clinical experiences in the community health setting, primarily for medical residents and medical assistants. These training experiences were considered beneficial to the centers, as they provided trained professionals with exposure to the environment and opportunities to develop skills specific to the setting. These training experiences resulted from contractual arrangements with medical schools for the residents and proprietary schools for medical assistants.

The quantitative survey results indicated that some CHCs were interested in serving as clinical rotation sites for providers and allied health professionals in training. The qualitative results corroborated these findings, although some CHCs who have previously served as clinical sites reported less success in offering clinical training experiences for nursing students/graduates. There were several reasons cited as to why this has been difficult to implement. Only a few of the centers reported having a relationship with nursing programs. Despite having an agreement, none were able to report having the arrangement materialize. Secondly, there has been difficulty in identifying personnel able to supervise nursing students. The general impression was that nursing schools struggled with faculty shortages, which make it difficult for them to provide instructional staff for on-site supervision. In addition, because of the managerial role of nurses at one of the centers, one HR executive reported that there was no one available on-site to supervise clinical rotations. Another HR executive suggested that a “win-win relationship” in which both parties benefited would be ideal. He then provided the example of the CHC providing expanded clinical training capacity while schools provide tuition support or some other educational opportunity for CHC staff. There was the general impression that nursing students were not aware of training or work opportunities in CHCs and that clinical placement would be a way to increase exposure.

Training Needs

Most of the CHCs reported that they were providing training for their staff. The duration of the training programs for new employees varied by position and center, from a few days to one week of customized, site-specific training. There was specific training for health information technology. Other training needs for specific skills were identified; however, these had not yet been addressed.

For the use of health information technology (HIT) in the health centers, most of the training was being provided internally. At one center, the nurse managers are serving as HIT trainers and at another center all employees were trained by internal “superusers.” Internal training seems to have benefited some of these health centers and they are preparing for next steps. For example, one site indicated that because their training and refresher program was so robust, they were planning to open a technology-based training facility. At another facility, their training needs had reduced because of their implementation and compliance with “meaningful use” since 2007. However, there was interest in training for the analysis, interpretation and utilization of data that was now available as a result of this implementation, indicating that the skills and supportive training needs continued to evolve.
During an interview, one CEO indicated that medical assistants many times lacked needed skills and additional training was provided in areas such as phlebotomy, taking vital signs, and documenting chief complaints. As a result, this senior administrator considered starting a training program for medical assistants. Another site director indicated that continuing medical education was needed for LPNs but did not specify topics.

There was concern that clinical staff would continue to struggle with the balance required between data entry and patient contact. In the HR executive focus group, there was talk of the relationship between provider and patient and the challenge of maintaining contact while being efficient. Recommendations for provider training were connected to practicing in a collaborative care model. Another recommendation made was to educate the medical assistant in the specific functions that will enable providers to stay on schedule and reduce the amount of time patients spend with the physician.

In the HR Executive focus group, one of the concerns raised was the anticipated need for patient education, particularly around the use and management of electronic health records and health literacy in general. There was some discussion concerning who should be responsible for informing patients, so that patient expectations are managed and there is increased understanding of the changes. Patients should be aware of their rights, responsibilities, and their new role in managing personal health data. Although there was no consensus reached, it was suggested that front-desk staff or supporting clinical staff (i.e., medical assistants) be responsible for communicating the changes. Both groups would also need training to take on this responsibility.

There were general recommendations for staff development and those that were position specific. Topics recommended as targets for training included customer service skills, computer skills, and the use of electronic health records. There was also interest in training in chronic disease management, specifically culturally appropriate diabetes education, asthma management, and the needs of special populations such as people who are homeless or patients with cancer.

One participant also described training for the role of peer educator, a six week program with a stipend. Other topics that were considered important were documentation, patient relations, and patient accounting. There was also a recommendation that both front and back office staff need to understand the tasks associated with each other’s roles to improve data collection, patient record management, and claims processing. For community health workers, there was interest in training for community engagement, physical assessment, and interpersonal skills.

Career Ladders
Overall, participants had a favorable impression of supporting staff with career ladder opportunities within their setting, although not all had developed pathways. One HR executive described a training program that was offered to staff, but indicated that there was an internal competitive hiring process for the job opening. Examples of existing and recommended models of training and promotion were discussed. The positions which were focused on included front desk staff, community health workers, and medical assistants (See Figures 1, 2, and 3). Career ladders for medical assistants were most widely discussed in the HR focus group, both as existing models and those recommended as possible career pathways.

There were mixed results reported on the successes of existing models such as one where medical assistants attended an associate’s degree level nursing program. Participants expressed
concern that once an LPN went to school to become a registered nurse, they frequently left their employer. There was also concern that the LPN to RN pathway was not ideal, due in part to the difficulty that many LPNs faced with meeting the admissions criteria for entry into an RN program, as well as the time needed to complete an RN program.

Specific recommendations were made regarding professionalization, incentives and promotion, strategies for recruiting eligible staff, and retention of valued employees. One center director recommended a review and development of career ladders for jobs that were related but were not well defined (e.g., community health worker, patient navigator). A comprehensive plan for reviewing and developing career ladder possibilities would include the following tasks: assessment of current staff members’ skills; evaluation and restructuring of job descriptions; and development of training programs.

**Figure 1**
Career Ladders for Front Desk Staff

**Figure 2**
Career Ladders Community Health Workers

**Figure 3**
Career Ladders for Medical Assistants

---

**Theme 3: Health Care Trends**

**Technology**

Although most of the centers represented had completed implementation of an electronic health records system, the sites varied on how they accomplished the roll-out as well as the maintenance of the system. One site reported an internal “train the trainer” model, another
reported needing trainers, whereas another indicated that they kept a trainer from the initial start-up to provide continuous and ongoing support for the staff. Again, these approaches reinforce the concept that developing staff internally has been effective. However, there was concern that EHR requirements and “full implementation” would mean that additional staff (users) would be needed in the future.

With respect to emerging technologies, one participant (representing a rural CHC) forecasted the value of telemedicine as a way to share specialists between CHCs. Such resource-sharing would alleviate the need for duplication in services, and would address the geographic barriers that limit access to care for many rural patients.

Medicaid Redesign and Health Reform
In light of the governor’s appointment of the Medicaid Redesign Team Workgroups in New York State, CHC leaders were asked to discuss future directions for their setting and best case scenarios for change. Three primary themes emerged during this discussion: anticipated changes to payment structure and funding, implementation and use of the Patient-Centered Medical Home (PCMH) and recommendations for change in scopes of responsibilities.

One center director indicated that they were to lose family planning funding, which would change their payment structure from grant-based to a Medicaid reimbursement program. It was anticipated that this change would likely impact undocumented and uninsured patients who are not Medicaid eligible. Another center director anticipated the challenges ahead with changes to Medicaid reimbursement and discussed possible strategies. She indicated that care coordination, documentation of cost savings, and tracking outcomes are of paramount importance.

In the interviews, challenges and benefits of the PCMH were discussed. One participant stated that the PCMH would become the standard of care. Another executive expressed concern that in pursuing PCMH designation, there was difficulty in identifying hospital and provider partners. However, one center, which had already received the designation, reported having greater flexibility and creativity with staffing plans.

When prompted, focus group participants made specific recommendations for changes to scope of practice that would benefit their operations. These suggestions were to broaden existing practices for licensed professionals in New York State, specifically in nursing. In one of the interviews, an administrator cited unionization of positions as one of the barriers to flexibility in scope of responsibilities (i.e., the union title classifications tend to narrowly define, and in some instances restrict, duties). Administrators suggested expanding the role of the LPN to cover more outpatient service and administration of medication. It was also suggested that medical assistants be allowed to give vaccines and administer medication as well. Other recommendations were made regarding reimbursement, including perhaps allowing providers to conduct group visits. Participants recognized that buy-in from groups such as the New York State Nurses Association should be pursued. Also suggested was a review of practices in other states to see how scopes of responsibilities vary and a review of training needs or regular recertification for those whose jobs would change.
Theme 4: Expansion and Future Directions
Anticipation of increased patient volume has prompted some of the CHCs to contemplate, plan, and develop programs to meet the growth. One interviewee indicated that their facility was expanding services for the increase seen due to hospital closures. Another center recently broke ground to build a new facility and recently acquired an existing building. Although physical space and services were being increased, there was serious concern that, given the present difficulty hiring, staffing qualified personnel would present problems for CHCs in the future.
CONCLUSION/RECOMMENDATIONS

Community health centers (CHCs) have a long-standing history of providing quality, culturally competent care to underserved communities nationally and in New York State. The current study is in line with ongoing efforts to support and bolster the important work of CHCs. It also demonstrates the value of partnerships between New York State’s CHCs, CHCANYS (the professional association representing the state’s CHCs), academic institutions such as CUNY, and research organizations such as the Center for Health Workforce Studies (CHWS).

One key finding from this study is that New York State’s CHCs vary in their workforce compositions and approaches to workforce issues. Despite their idiosyncrasies, CHCs also share many characteristics, including: a pressing need for bilingual staff; a supportive attitude towards increased flexibility in workforce models and scopes of practice for ancillary personnel; the existence of robust internal training programs; and a desire to collaborate with external partners to enhance training, educational, and career ladder opportunities at their centers.

With respect to staffing, the study highlighted approaches that proved successful for recruiting and retaining staff. These included: fostering a family-like environment that values open communication; providing incentives (e.g., pay-for performance, attractive benefits packages); and making use of external incentive-based programs (e.g., loan repayment). It is important to note that these approaches alone have not eliminated the difficulties that CHCs have encountered with identifying, recruiting, and retaining bilingual staff. Future research and support is needed in this area, to ensure that community health centers continue to be successful in providing culturally competent care to their surrounding communities.

CHC representatives indicated general support for increased workforce flexibility, including allowing providers and ancillary staff to perform at the highest level within their scopes of practice. Representatives of CHCANYS, CUNY, and CHWS were actively involved in the work of the Medicaid Redesign Team’s Workforce Flexibility and Scope of Practice Work Group. The work of this group has the potential to spur innovation in the workforce models that CHCs employ to deliver quality, community-based care.

Many opportunities exist for enhancing training, educational, and career ladder offerings within New York State’s CHCs. Ongoing collaborations with organizations such as CHCANYS and CUNY will enhance the ability of CHCs to provide tailored, cost-effective training and educational opportunities. For example, CUNY has designed a credited, college-level certificate to train incumbent frontline healthcare workers (e.g., medical assistants, community health workers, frontline mental health personnel) as care coordinators/health coaches. The training program is intended to enhance workers’ job skills and expands their knowledge base. It also provides an opportunity for upgrading and career mobility which will help to retain this important cadre of frontline workers. CHCANYS and the community health centers that the association represents could be key partners in this effort.

CHCs are poised for an exciting and challenging future, as care increasingly moves to community-based settings. This report highlights key workforce issues impacting New York State’s CHCs, and can inform efforts to support the work of this growing healthcare sector.
References


10. Dor A, Pylypchuck Y, Shin P, Rosenbaum S. Uninsured and Medicaid Patients’ Access to Preventive Care: Comparison of Health Centers and Other Primary Care Providers (Research Brief #4). Washington, DC: Geiger Gibson/RCHN Community Health Foundation


Appendix A
Description of Partner Organizations

City University of New York (CUNY)

The City University of New York is the nation’s largest urban university, comprised of 11 senior colleges, 7 community colleges, an honors college, a graduate school, a law school, as well as schools of professional studies, biomedical education, journalism and public health. Each year more than 271,000 students enroll in credited courses, and another 270,000 enroll in adult and continuing education programs.

CUNY offers more than 150 credited certificate and degree programs in health and human services fields at the undergraduate and graduate levels, including nursing and allied health. The university also offers over 50 non-credit continuing education programs in these fields. Each year, through this expansive network of health professional programs, CUNY prepares a large pool of qualified, culturally diverse personnel dedicated to providing quality healthcare services to all New Yorkers.

Passage of the federal Patient Protection and Affordable Care Act (ACA) is accelerating changes in the healthcare delivery system, including trends toward community-based services, patient-centered care, care coordination among multiple providers and transitions across care settings, a multi-disciplinary team approach, incorporation of new technologies such as electronic health records, and accountability for the total care of the patient. Stakeholders in the healthcare field are mounting efforts to project short and long-term demand and to identify the programs and curricula that are needed to implement the new models of service delivery. CUNY is working closely with unions, employers, and industry associations on a number of collaborative efforts at the local, state and national levels to analyze workforce needs as they unfold and to prepare the University to offer the most up-to-date training and education programs. CUNY also collects, analyzes and disseminates university-wide and college-specific data on enrollment, retention, graduation, licensing, demographics, employment and earnings of students in nursing and other health professions programs, and produces reports on related workforce issues.

Given the University’s role and reputation as a leader in public education, CUNY is consistently and actively involved in local, state and federal policy initiatives, such as New York State’s Medicaid Redesign Team.
Community Health Care Association of New York State (CHCANYS)

Mission
CHCANYS’ purpose is to ensure that all New Yorkers, including those who are medically underserved, have continuous access to high quality community-based health care services including a primary care home. To do this, CHCANYS serves as the voice of community health centers as leading providers of primary health care in New York State. As New York State’s Primary Care Association, CHCANYS works closely with more than 60 federally qualified health centers (FQHCs) and FQHC Look-Alikes that operate approximately 490 sites across the state. Serving 1.4 million New Yorkers, these FQHCs are central to New York’s health care safety net.

CHCANYS brings the full range of its experience and expertise to growing and strengthening New York’s FQHC network by drawing federal resources into the state, advocating for sound policy to support a strong primary care safety net, working to ensure FQHCs have the human and financial resources to serve an ever-growing number of patients, and developing and disseminating operational and clinical best practices, including those related to Patient Centered Medical Home, Health Information Technology (HIT) Meaningful Use, and the Health Home model.

Since its founding 40 years ago, CHCANYS has established itself both as the voice of New York State’s FQHCs and as the most appropriate avenue through which to coordinate training and support for health centers, because of its strong relationship with, immediate access to and deep understanding of health centers and their communities. Over the past year, CHCANYS has assumed an even more prominent role in the public policy arena, particularly at the State level, bringing expertise to ongoing reform of New York’s primary care system and working closely with leadership at the New York State Department of Health, including through its representatives on the governor’s Medicaid Redesign Team (MRT) and several MRT Work Groups, including the Workgroup on “Workforce Flexibility and Scope of Practice.”

CHCANYS is currently staffed by 30 highly-skilled individuals at offices in New York City and Albany who work to increase access to health care for all New Yorkers through a program of health policy leadership, regulatory reform, and grassroots advocacy, and who support community health centers with the tools and information necessary to maintain and improve existing programs, strengthen core services and build new programs. CHCANYS has a proven track record of addressing the needs of its FQHCs by sharing information and developing training modules on a variety of topics, enabling them to meet contractual reporting obligations, address regulatory changes, and standardize and improve care.

Major Activities
CHCANYS’ main program areas are: Policy and Advocacy; Statewide Health Information Technology; Clinical Quality Improvement; Workforce Development; the Health Center Network of New York; Health Center Support; Emergency Preparedness; and AmeriCorps/Community HealthCorps.
The Center for Health Workforce Studies, established in 1996, is based at the School of Public Health, University at Albany. The mission of the Center is to provide timely, accurate data and conduct policy-relevant research about the health workforce. The Center’s research supports and promotes health workforce planning and policymaking at local, regional, state, and national levels. The Center systematically studies the health workforce and brings great academic rigor to this important field. As such, the Center has established itself as one of the country’s leading research centers of excellence in this area. The Center was recognized and supported in this effort as one of only six centers nationally to have been awarded a cooperative agreement with the federal Department of Health and Human Services between 1998 and 2007.

The Center conducts studies at the local, state, regional, and national levels. These research studies are supported by the federal government, states, and local agencies; foundations; and health provider associations. Research results are presented at national conferences and professional meetings, and in articles and reports. The Center is often called upon for data and information and the Center’s director and staff are frequent speakers on health policy and the health workforce. The Center’s research activities include the following broad areas:

- Collecting, analyzing, and presenting health workforce data;
- Studying the impact of changing demographics in health care on the supply, demand, and use of health workers;
- Assessing the relationship between the health workforce and access, quality, and costs of health care;
- Advising local, state, regional, and national policy makers on health workforce issues and approaches to collecting and analyzing health workforce data;
- Analyzing current supply and demand and forecasting future supply and demand for specific disciplines and specialties; and
- Providing technical assistance to health and education organizations on current and projected health workforce issues.

The Center is a national leader in conducting workforce studies for medical and professional, professional associations, government agencies, payers, and provider groups. The Center has a well-earned reputation in the public and private sectors for delivering significant value to its clients. This value is derived from the Center’s professional and experienced staff, insights into the issues that clients face, rigorous approach to analyzing and solving problems, and commitment to independence, innovation, and integrity. The Center provides access to a team of researchers with extensive knowledge of health workforce issues, workforce modeling, data analysis, and state-of-the-art survey methods.
The Community Health Center Workforce in New York

August 2011

The Center for Health Workforce Studies
School of Public Health, University at Albany
State University of New York
One University Place, Suite 220
Rensselaer, NY 12144-3445
(518) 402-0250
http://chws.albany.edu/

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

An adequate supply of appropriately trained health workers is essential to both access and quality of health care. Community health centers (CHCs), located in underserved communities and serving high need populations, face particularly difficult challenges in the recruitment and retention of well-qualified staff, particularly in times of health workforce shortages. CHCs are also key to the success of recent health reform initiatives. To better understand the health workforce of CHCs, the Center for Health Workforce Studies, in collaboration with the Community Health Care Association of New York State (CHCANYS) and the City University of New York (CUNY), conducted a study of the CHC workforce in New York. This report describes findings from a survey of the federally qualified health centers (FQHC) and FQHC lookalikes that are CHCANYS members in New York. The survey asked about staffing levels, recruitment and retention difficulties, and the support services that CHCs would like CHCANYS to offer to assist with recruitment and retention. The purpose of the study was to inform CHCs, CHCANYS, CUNY, and other stakeholders about the composition of the CHC health workforce and the recruitment and retention issues that CHCs face.

The Center for Health Workforce Studies at the School of Public Health, University at Albany, conducted the research and produced this report. The Center is a not-for-profit research organization with a mission to provide timely, accurate data and conduct policy-relevant research about the health workforce. Several Center staff members contributed to the development of this report, including Sandra McGinnis, Robert Martiniano, and Jean Moore.
Table of Contents

EXECUTIVE SUMMARY ........................................................................................................ 4
Background ...................................................................................................................... 4
Methods .......................................................................................................................... 4
Key Findings .................................................................................................................. 5

THE CHC WORKFORCE .................................................................................................... 9
Background ...................................................................................................................... 9
Methods .......................................................................................................................... 9
Results ............................................................................................................................ 10
  The Primary Care Workforce ......................................................................................... 17
  The Nursing Workforce ............................................................................................... 27
  Behavioral Health Providers ......................................................................................... 33
  Oral Health Providers ................................................................................................... 38
  Ancillary Providers ......................................................................................................... 45
  Reported Workforce Support Needs ............................................................................. 53

CONCLUSIONS ................................................................................................................. 60
EXECUTIVE SUMMARY

Background
The health care delivery system in New York is undergoing rapid transformation, driven in part by the state’s Medicaid Redesign Plan and by the anticipated implementation of health care reform initiatives included in the federal Patient Protection and Affordable Care Act. It is expected that these changes will lead to an increasing emphasis on accessible and cost-effective primary and preventive health care services. Community health centers (CHCs) are an integral part of the state’s primary care service delivery system. CHCs are also key to the success of recent health reform initiatives.

CHCs are located in underserved communities and serve high need populations. They face particularly difficult challenges in the recruitment and retention of well-qualified staff, especially in times of health workforce shortages. To better understand the health workforce of CHCs, the Center for Health Workforce Studies, in collaboration with the Community Health Care Association of New York State (CHCANYS) and the City University of New York (CUNY), conducted a study of the CHC workforce in New York. This report describes findings from a survey of the state’s CHCs that asked about staffing levels, recruitment and retention difficulties, and the support services that CHCs would like CHCANYS to offer to assist with recruitment and retention.

Methods
Data for this report were drawn from a survey conducted by the Center for Health Workforce Studies of CHCs, federally qualified health centers (FQHCs), and PQHC lookalikes that are CHCANYS members in New York. The surveys were sent to 65 CHCs in New York in March 2011. Of these, 40 CHCs (63%) responded, although five did not complete the survey in its entirety. The responding CHCs were not appreciably different in their geographic distribution from all CHCs in New York.

The survey asked the CHCs about currently filled and vacant full-time equivalents (FTEs) for 28 clinical occupations and professions in the areas of primary care, nursing, behavioral health, oral health, and ancillary care, as well as the difficulty of recruitment and retention for each of these providers on a 5-point scale. The survey also asked the CHCs about their anticipated number of budgeted FTEs as of December 31, 2011. Finally, the survey asked the CHCs what support services they would like CHCANYS to offer to assist with recruitment and retention of health professionals and what languages other than English they needed in order to provide culturally competent care.

Responses were analyzed overall and by size and location of the CHC. The size variable was calculated based on the number of total FTEs reported in the 28 categories included on the survey. We defined small CHCs as those with fewer than 30 FTEs in these categories, medium CHCs as those with 30 to 49 FTEs, and large CHCs as those with 50 FTEs or more. Location

1 (The recruitment scale ranged from 1—not at all difficult to 5—extremely difficult; while the retention scale ranged from 1—very turnover to 5—extreme turnover. Both scales are best used for comparative rankings of the most and least difficult occupations to recruit and retain rather than being interpreted literally.)
was based on New York City/upstate location and rural/urban status. New York City included the five boroughs of New York City, while the rest of the state was defined as upstate. Rural/urban status was determined based on the status of the county where the main site was located according to the Ebert's typology.2

Vacancy rates were calculated by dividing the number of vacant FTEs for each occupation across all CHCs by the number of total FTEs (vacant plus filled) for that occupation across all CHCs.2

Data on anticipated increases or decreases in staffing are likely to be underestimates as many CHCs did not complete this section of the survey. The numbers given are from the CHCs that reported these plans, but others that had these plans may have skipped the section. When it is said that “nine CHCs anticipated adding positions for dental assistants” this should be interpreted as “nine CHCs reported plans to add dental assistants” or “at least nine CHCs planned to add dental assistants.” These numbers are not presented as percentages because the valid denominator is not known (i.e., if the question remained blank, we don’t know if it was because of an absence of any plans or because the question was skipped).

It should be noted that the findings of the study overall are descriptive, and it is not possible, given the nature of the study, to make inferences or conclusions as to why the workforce is distributed in the manner described.

The key findings from the analysis of survey responses are highlighted below.

**Key Findings**

- The CHCs that responded to the survey averaged 64 staff members (median = 43) in the specific categories queried, with a range of two to 311.

- The health care workers employed in the greatest numbers by these CHCs (in descending order) were medical assistants, licensed practical nurses (LPNs), family physicians, registered nurses (RNs), dental assistants, nurse practitioners, social workers, physician assistants, and dentists.

- Almost one-third of CHC providers were primary care providers (30%), and just over one-third were in the category of nursing providers (36%).

- The most difficult occupations to recruit (an average of >3 on a scale of 1=not at all difficult and 5=extremely difficult) were psychiatrists, geriatric nurse practitioners,

---

1 Ebert's typology, defined in state Public Health Law, defines counties as rural if the county's total population is less than 200,000.

2 The vacancy rates were calculated across all CHCs rather than calculating a vacancy rate for each CHC and averaging them because the latter method resulted in some highly skewed figures as a consequence of some CHCs having 100% vacancy rates for some occupations.

3 Primary care is defined as family/general practice physicians, internists, Ob/Gyns, pediatricians, adult nurse practitioners, pediatric nurse practitioners, family nurse practitioners, geriatric nurse practitioners, physician assistants, and midwives.

4 Nursing categories included RNs, LPNs, medical assistants, and certified nursing aides.
obstetrician/ gynecologists (Ob/Gyns), and psychiatric nurse practitioners. Occupations with relatively little recruitment difficulty (an average of <2) were dental assistants, medical assistants, and certified nursing aides.

- The most difficult retention was reported for LPNs (2.44), followed by internists (2.29) and medical assistants (2.26). The least difficult retention was reported for dental hygienists (1.61).

- CHCs reported an average vacancy rate of 25% for psychiatrists and psychiatric nurse practitioners. Ob/Gyns, social workers, internists, and family nurse practitioners were also particularly problematic, with average vacancy rates of over 15%.

**Primary Care**

- Almost 43% of primary care providers working in small CHCs were family physicians or internists, compared to only 29% in medium CHCs and 34% in large CHCs. Physician assistants were more heavily relied upon in the larger CHCs, where they represented 21% of reported primary care providers.

- Rural CHCs relied much more heavily on physician assistants to provide primary care compared to urban CHCs, in both upstate and New York City. Rural CHCs also had far fewer Ob/Gyns and pediatricians.

- Rural upstate CHCs reported the most difficulty recruiting every type of primary care professional, as shown in Table 4. New York City CHCs generally reported the least difficulty recruiting primary care professionals, with the exception of pediatricians, pediatric nurse practitioners, family nurse practitioners, geriatric nurse practitioners, and midwives. In contrast, however, rural upstate CHCs tended to have the easiest time retaining their primary care providers, except for family physicians and internists.

**Nursing**

- The ratio of RNs to primary care providers was highest in medium-sized CHCs and New York City CHCs.

- New York City CHCs relied much more heavily on medical assistants and employed fewer LPNs and RNs compared to upstate CHCs (both rural and urban).

**Behavioral Health**

- New York City CHCs relied heavily on social workers, who constituted fully half of their behavioral health workers. Case managers constituted another one-quarter. Similarly,

---

Although these statements seem inconsistent, CHC size was not strongly correlated with location. Although urban CHCs probably had larger sites, rural CHCs were likely to have multiple sites so that the total staff size of the rural CHCs was sometimes fairly large.
rural upstate CHCs relied heavily on social workers and almost as many case managers. Rural upstate CHCs, however, had more psychologists and psychiatric nurse practitioners on staff and did not employ psychiatrists. Urban upstate CHCs had a behavioral health profile that was heavily skewed to substance abuse counselors, who constituted over 40% of their behavioral health staff.

**Oral Health**

- New York City CHCs had, by far, the highest proportion of dentists and lowest proportion of dental assistants among their oral health providers. Rural upstate CHCs had the lowest proportion of dentists and the highest proportion of dental assistants. Urban upstate CHCs had the highest proportion of dental hygienists in their oral health workforce.

- Nearly one-quarter of CHCs reported plans to increase the number of budgeted positions for dental assistants.

**Ancillary Providers**

- Nutrition educators were considerably more common in urban upstate CHCs than in either New York City or rural upstate CHCs. In contrast, health educators were almost exclusively used in New York City CHCs, where they were the most common type of ancillary provider. HIV counselors were found in urban CHCs (both upstate and New York City), but not in rural CHCs. Patient health navigators were overwhelmingly found in urban upstate CHCs, and although they were the most common type of ancillary providers in rural upstate CHCs, they were found in much smaller numbers.

**Reported Workforce Support Needs**

- Twenty-six percent of CHCs reported they would like CHCANYS to offer student internships to medical students to assist CHCs' recruitment efforts, while 23% reported they would like CHCANYS to offer nursing internships and 21% reported they would like CHCANYS to offer internships for medical assistants.

- Demand for student internships was generally highest in large CHCs, followed by small CHCs. The least demand for student internships was in medium-sized CHCs.

- One-third of CHCs reported they would like SEARCH clinical rotations for doctors of medicine physicians (MDs) and 23% reported they would like SEARCH clinical rotations for dentists.

- Rural upstate CHCs did not report interest in SEARCH clinical rotations for any providers except nurse practitioners, MDs, and doctors of osteopathic medicine (DOs). SEARCH clinical rotations for nurse practitioners were not desired by many New York City or urban upstate CHCs, but the most desired SEARCH clinical rotations for both New York City and urban upstate CHCs were MDs (but not DOs) and dentists.
• Over half of CHCs indicated they would like CHCANYS to offer recruitment materials, a loan repayment program, credentialing, e-mail alerts of employment opportunities, and linkages to academic institutions.

• All retention supports cited in the survey (clinical training, administrative training, billing and coding training, workflow training, staff satisfaction surveys, and lunch and learn series) were desired by at least half of CHCs.

• The majority of urban upstate CHCs (60%) were interested in hosting an administrative mentorship, yet only 17% of New York City CHCs and no rural upstate CHCs reported interest in hosting such a mentorship.

• Language needs varied, as expected, by CHC size and location. Among all sizes and locations, however, by far the top language need was Spanish.
THE CHC WORKFORCE

Background

The health care delivery system in New York is undergoing rapid transformation, driven in part by the state’s Medicaid Redesign Plan and by the anticipated implementation of health care reform initiatives included in the federal Patient Protection and Affordable Care Act. It is expected that these changes will lead to an increasing emphasis on accessible and cost-effective primary and preventive health care services. Community health centers (CHCs) are an integral part of the state’s primary care service delivery system. CHCs are also key to the success of recent health reform initiatives.

CHCs are located in underserved communities and serve high need populations. They face particularly difficult challenges in the recruitment and retention of well-qualified staff, especially in times of health workforce shortages. To better understand the health workforce of CHCs, the Center for Health Workforce Studies, in collaboration with the Community Health Care Association of New York State (CHCANYS) and the City University of New York (CUNY), conducted a study of the CHC workforce in New York. This report describes findings from a survey of the state’s CHCs that asked about staffing levels, recruitment and retention difficulties, and the support services that CHCs would like CHCANYS to offer to assist with recruitment and retention.

Methods

Data for this report were drawn from a survey conducted by the Center for Health Workforce Studies of CHCs, federally qualified health centers (FQHCs), and FQHC lookalikes that are CHCANYS members in New York. The surveys were sent to 85 CHCs in New York in March 2011. Of these, 40 CHCs (63%) responded, although five did not complete the survey in its entirety. The responding CHCs were not appreciably different in their geographic distribution from all CHCs in New York.

The survey asked the CHCs about currently filled and vacant full-time equivalents (FTEs) for 28 clinical occupations and professions in the areas of primary care, nursing, behavioral health, oral health, and ancillary care, as well as the difficulty of recruitment and retention for each of these providers on a 5-point scale. The survey also asked the CHCs about their anticipated number of budgeted FTEs as of December 31, 2011. Finally, the survey asked the CHCs what support services they would like CHCANYS to offer to assist with recruitment and retention of health professionals and what languages other than English they needed in order to provide culturally competent care.

Responses were analyzed overall and by size and location of the CHC. The size variable was calculated based on the number of total FTEs reported in the 28 categories included on the

1 (The recruitment scale ranged from 1 = not at all difficult to 5 = extremely difficult; while the retention scale ranged from 1 = very easy to 5 = extremely difficult. Both scales are best used for comparative rankings of the most and least difficult occupations to recruit and retain rather than being interpreted literally.)
survey. We defined small CHCs as those with fewer than 30 FTEs in these categories, medium CHCs as those with 30 to 49 FTEs, and large CHCs as those with 50 FTEs or more. Location was based on New York City/upstate location and rural/urban status. New York City included the five boroughs of New York City, while the rest of the state was defined as upstate. Rural/urban status was determined based on the status of the county where the main site was located according to the Ebert’s typology.¹

Vacancy rates were calculated by dividing the number of vacant FTEs for each occupation across all CHCs by the number of total FTEs (vacant plus filled) for that occupation across all CHCs.²

Data on anticipated increases or decreases in staffing are likely to be underestimates as many CHCs did not complete this section of the survey. The numbers given are from the CHCs that reported these plans, but others that had these plans may have skipped the section. When it is said that “nine CHCs anticipated adding positions for dental assistants” this should be interpreted as “nine CHCs reported plans to add dental assistants” or “at least nine CHCs planned to add dental assistants.” These numbers are not presented as percentages because the valid denominator is not known (i.e., if the question remained blank, we don’t know if it was because of an absence of any plans or because the question was skipped).

It should be noted that the findings of the study overall are descriptive, and it is not possible, given the nature of the study, to make inferences or conclusions as to why the workforce is distributed in the manner described.

Results

Total Staffing

The CHCs that responded to the survey averaged 54 FTEs (median = 43) in the specific categories queried (primary care, nursing, behavioral health, oral health, and ancillary), with a range of two to 311. The distribution is shown in Figure 1.

¹ Ebert’s typology, defined in state Public Health Law, defines counties as rural if the county’s total population is less than 200,000

² The vacancy rates were calculated across all CHCs rather than calculating a vacancy rate for each CHC and averaging them because the latter method resulted in some highly skewed figures as a consequence of some CHCs having 100% vacancy rates for some occupations.
Figure 1. Number of FTEs (Total Staff) in Responding CHCs in New York

The health care workers employed in the greatest numbers by CHCs (in descending order) were medical assistants, licensed practical nurses (LPNs), family physicians, registered nurses (RNs), dental assistants, nurse practitioners, social workers, physician assistants, and dentists. Figure 2 shows the average number employed in each occupation at responding CHCs. Only one CHC reported employing a geriatric nurse practitioner, three reported using certified nursing aides, and five reported using psychiatric nurse practitioners.
Figure 2. Average Number Employed by CHCs in New York, in Descending Order

- Medical assistants: 11.0
- LIPAs: 7.7
- Family practitioners: 4.4
- PA: 4.1
- Dental assistants: 4.0
- Nurse practitioners: 3.9
- Social workers: 3.5
- Physician assistants: 2.7
- Dentists: 3.4
- Pediatricians: 2.6
- Case managers: 2.2
- Internists: 2.1
- Dental hygienists: 1.5
- Optometrists: 1.2
- Dental hygienists: 1.1
- Medical assistants: 0.9
- NPs: 1.0
- NPs: 1.0
- HIV Counselors: 0.9
- Substance abuse counselors: 0.7
- Psychiatrists: 0.7
- Psychologists: 0.7
- Community health workers: 0.6
- Psychiatric H/Ps: 0.3
- Certified nursing aides: 0.2
Staffing by Category

Figure 3 shows the percentage of health care workers employed in CHCs that provided five major categories of services. Almost one-third of CHC health care workers were primary care providers (30%) and over one-third were nursing staff (36%).

![Figure 3. CHC Workers in New York by Provider Category](image)

Note. This figure is based on the sum of providers in each category across all CHCs. Elsewhere in the report, the average percent of providers in each category is calculated by averaging the percentages reported by each CHC in that category.

Recruitment and Retention

As mentioned previously, on a comparative basis, the most difficult occupations to recruit (an average of >3 on a scale of 1=nost difficult and 5=extremely difficult) were psychiatrists, genetic nurse practitioners, OB/Gyns, and psychiatric nurse practitioners. Occupations with relatively little recruitment difficulty (an average of <2) were dental assistants, medical assistants, and certified nursing aides.

No occupation averaged more than a 3 for retention difficulty (1=no turnover; 5=extreme turnover). The most difficult retention was reported for LPNs (2.44), followed by internists (2.29) and medical assistants (2.26). The least difficult retention was reported for dental hygienists (1.61).

---

10 Primary care category included family/general practice physicians, internists, OB/Gyns, pediatrics, adult nurse practitioners, pediatric nurse practitioners, family nurse practitioners, genetic nurse practitioners, physician assistants, and midwives. Nursing category included RNs, LPNs, medical assistants, and certified nursing aides. Behavioral health category included psychiatrists, psychologists, psychiatric nurse practitioners, social workers, case managers, and substance abuse counselors. Oral health category included dentists, dental hygienists, and dental assistants and technicians. Ancillary staff category included nutritionists/nutrition educators, health educators, HIV counselors, patient health navigators, and community health workers.
Table 1. Average Reported Recruitment and Retention Difficulty by Occupation, in Descending Order of Recruitment Difficulty

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatrists</td>
<td>3.58</td>
<td>2.21</td>
</tr>
<tr>
<td>Geriatric nurse practitioners</td>
<td>3.36</td>
<td>2.01</td>
</tr>
<tr>
<td>Ob/Gyns</td>
<td>3.24</td>
<td>2.04</td>
</tr>
<tr>
<td>Psychiatric nurse practitioners</td>
<td>3.20</td>
<td>2.21</td>
</tr>
<tr>
<td>Dentists</td>
<td>3.00</td>
<td>2.11</td>
</tr>
<tr>
<td>Family physicians</td>
<td>2.98</td>
<td>2.11</td>
</tr>
<tr>
<td>Social workers</td>
<td>2.80</td>
<td>2.00</td>
</tr>
<tr>
<td>Psychologists</td>
<td>2.78</td>
<td>2.19</td>
</tr>
<tr>
<td>Nutrition educators</td>
<td>2.73</td>
<td>1.95</td>
</tr>
<tr>
<td>Internists</td>
<td>2.70</td>
<td>2.29</td>
</tr>
<tr>
<td>Pediatric nurse practitioners</td>
<td>2.67</td>
<td>1.95</td>
</tr>
<tr>
<td>Family nurse practitioners</td>
<td>2.65</td>
<td>2.06</td>
</tr>
<tr>
<td>RNs</td>
<td>2.65</td>
<td>2.10</td>
</tr>
<tr>
<td>Midwives</td>
<td>2.57</td>
<td>2.00</td>
</tr>
<tr>
<td>Adult nurse practitioners</td>
<td>2.52</td>
<td>2.07</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>2.44</td>
<td>1.84</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>2.34</td>
<td>1.84</td>
</tr>
<tr>
<td>Substance abuse counselors</td>
<td>2.30</td>
<td>2.00</td>
</tr>
<tr>
<td>LPNs</td>
<td>2.27</td>
<td>2.44</td>
</tr>
<tr>
<td>Patient health navigators</td>
<td>2.24</td>
<td>1.75</td>
</tr>
<tr>
<td>Community health workers</td>
<td>2.18</td>
<td>2.00</td>
</tr>
<tr>
<td>Health educators</td>
<td>2.15</td>
<td>1.89</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>2.15</td>
<td>1.84</td>
</tr>
<tr>
<td>Case managers</td>
<td>2.04</td>
<td>1.96</td>
</tr>
<tr>
<td>HIV counselors</td>
<td>2.00</td>
<td>1.95</td>
</tr>
<tr>
<td>Dental assistants</td>
<td>1.88</td>
<td>1.73</td>
</tr>
<tr>
<td>Medical assistants</td>
<td>1.34</td>
<td>2.26</td>
</tr>
<tr>
<td>Certified nursing aides</td>
<td>1.33</td>
<td>1.79</td>
</tr>
</tbody>
</table>

Vacancies

Vacancy rates were calculated by dividing the number of vacant FTEs for each occupation across all CHCs by the number of total FTEs (vacant plus filled) for that occupation across all CHCs. These rates were high for many occupations, with 23% of budgeted FTEs for psychiatrists currently vacant, 15% of budgeted FTEs for Ob/Gyns currently vacant. Internists, psychiatrists, family nurse practitioners were also particularly problematic, with more than 12% of budgeted FTEs vacant. Vacancy rates for geriatric nurse practitioners were low despite a high reported difficulty of recruitment.

11 The vacancy rates were calculated across all CHCs rather than calculating a vacancy rate for each CHC and averaging them because the latter method resulted in some highly skewed figures as a consequence of some CHCs having 100% vacancy rates for some occupations.
Anticipated Growth

Most CHCs anticipated adding budgeted positions by the end of 2011. Figure 5 shows the number of CHCs anticipating adding staff in each occupation. Nearly one-quarter of CHCs (23%) planned to add positions for dental assistants and family/general physicians, while another 20% planned to add positions for medical assistants, LPNs, and RNs.
Figure 5. Number of CHCs Anticipating Increasing FTEs by Occupation, in Descending Order

- Dental assistants: 9
- Family/general physicians: 9
- Medical assistants: 5
- LPNs: 5
- RNs: 5
- Dentists: 6
- Social workers: 5
- Dental hygienists: 4
- Mushrooms: 4
- Internal medicine physicians: 3
- Nutrition educators: 3
- Psychiatric nurse practitioners: 3
- Psychiatrists: 3
- Physician assistants: 3
- Family nurse practitioners: 3
- Nurse practitioners: 3
- Pediatricians: 3
- Case managers: 2
- Psychologists: 2
- Patient health navigators: 1
- Health educators: 1
- Geriatric nurse practitioners: 1
- OB/GYNs: 1
- Community health workers: 1
- HIV counselors: 1
- Substance abuse counselors: 1
- Certified nursing aides: 1
- Adult nurse practitioners: 1

0 2 4 6 8 10
The Primary Care Workforce

For the purposes of this report, the primary care workforce category includes family/general practice physicians, internists, Ob-Gyns, pediatricians, adult nurse practitioners, pediatric nurse practitioners, family nurse practitioners, geriatric nurse practitioners, physician assistants, and midwives. Throughout this section, the composition of the primary care workforce is compared by CHC size and location.

The average number of primary care providers per CHC varied by CHC size. Small CHCs averaged 5.3 primary care FTEs (median = 6.0), while medium-sized CHCs averaged 10.1 (median = 9.1), and large CHCs averaged 15.4 (median = 25.5). There was less variation by CHC location. New York City CHCs averaged 18.8 primary care FTEs (median = 8.0), while urban upstate CHCs averaged 18.5 (median = 12.3) and rural upstate CHCs averaged 19.3 (median = 11.0) (Figure 6).

Figure 6. Mean and Median Number of Primary Care Providers Per CHC, by size and Location

Primary care providers constituted, on average, 32% of the health care FTEs at CHCs, although this varied by size. The smallest CHCs averaged 42% primary care FTEs, while medium-sized CHCs averaged 26% and large CHCs averaged 31%. These averages varied by CHC location. New York City CHCs averaged 36% primary care, while urban upstate CHCs averaged 28% and rural upstate CHCs averaged 28% (Figure 7).
Figure 7. Average Percentage of Workforce Constituted by Primary Care, by CHC Size and Location

Note: This is the average of the percentages reported by each CHC, not an average of the total workforce across all CHCs.

Figure 8 shows the percentage of primary care providers employed by small, medium, and large CHCs by profession. Almost 43% of primary care providers working in small CHCs were family physicians or internists, compared to only 29% in medium CHCs and 34% in large CHCs. Physician assistants were more heavily relied upon in the larger CHCs, where they represented 21% of reported primary care providers.
As shown in Figure 9, rural CHCs relied much more heavily on physician assistants to provide primary care compared to urban CHCs, either upstate and New York City. Rural CHCs also had far fewer OB/Gyns and pediatricians.

**Figure 9. Distribution of Primary Care Providers by Profession, by Location**
The percentage of primary care providers by specialty dedicated to obstetrical/gynecological care (Ob/Gyns and Midwives), pediatric care (pediatricians and pediatric nurse practitioners), and other primary care is shown in Figure 10 by CHC size. Ob/Gyns and midwives together constituted similar percentages of the primary care workforce in all CHCs regardless of size, but pediatricians and pediatric nurse practitioners together constituted a larger percentage of primary care providers in small CHCs (26%) and a smaller percentage in medium and large CHCs (21% and 19%, respectively).

**Figure 10. Specialty of Primary Care Providers, by CHC Size**

The percentage of primary care providers dedicated to obstetrical/gynecological and pediatric care is shown in Figure 11 by location. Ob/Gyns and midwives together constituted the largest percentage of the workforce in urban upscale CHCs (22%) and the smallest percentage in rural upscale CHCs (5%). Pediatricians and pediatric nurse practitioners together constituted a larger percentage of primary care providers in New York City CHCs (24%) and the smallest percentage in rural upscale CHCs (7%).
Reliance on nurse practitioners, physician assistants, and midwives rather than on physicians varied by CHC size, as shown in Figure 12. Generally, the larger CHCs had more nurse practitioners and physician assistants per physician. This was not true of the ratio of nurse practitioners to family physicians and internists, which was highest in medium-sized CHCs. Also, the small CHCs staffed more midwives than Ob/Gyns.

Figure 12. Ratios of Nurse Practitioners and Physician Assistants to Primary Care Physicians, by CHC Size and Specialty
Reliance on nurse practitioners, physician assistants, and midwives rather than on physicians varied by location, as shown in Figure 13. Upstate CHCs (regardless of rurality) used more nurse practitioners per family physician and internist than New York City CHCs, while rural upstate CHCs used the most physician assistants per family physician and internist. New York City CHCs used the most pediatric nurse practitioners per pediatrician, followed by urban upstate CHCs. Rural upstate CHCs used the most midwives per Ob/Gyn, by far, although the numbers were very small (2.39 Midwives to 1 Ob/Gyn), and New York City CHCs used more midwives per Ob/Gyn than urban upstate CHCs.

Figure 13. Ratios of Nurse Practitioners, Physician Assistants, and Midwives to Primary Care Physicians, by Location and Specialty

![Chart showing ratios of nurse practitioners, physician assistants, and midwives to primary care physicians by location and specialty.]

As seen in Table 2, among the primary care professions, physicians tended to be more difficult to recruit than nurse practitioners and physician assistants. The exception was pediatricians, who were among the easiest primary care professionals to recruit. The greatest retention problems were reported for internists, while pediatricians were the easiest profession to retain.\(^\text{12}\)

\(^{12}\) It should be noted, however, that there was relatively little variation, with the spread between the most and least retention difficulties only being 0.45 points.
Table 2. Average Reported Recruitment and Retention Difficulty for Primary Care Professions, in Descending Order by Recruitment Difficulty

<table>
<thead>
<tr>
<th>Profession</th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric nurse practitioners</td>
<td>3.36</td>
<td>1.91</td>
</tr>
<tr>
<td>Obstetrics/Gynecology</td>
<td>3.24</td>
<td>2.04</td>
</tr>
<tr>
<td>Family physicians</td>
<td>2.98</td>
<td>2.11</td>
</tr>
<tr>
<td>Internists</td>
<td>2.70</td>
<td>2.29</td>
</tr>
<tr>
<td>Pediatric nurse practitioners</td>
<td>2.87</td>
<td>1.95</td>
</tr>
<tr>
<td>Family nurse practitioners</td>
<td>2.65</td>
<td>2.00</td>
</tr>
<tr>
<td>Midwives</td>
<td>2.57</td>
<td>2.00</td>
</tr>
<tr>
<td>Adult nurse practitioners</td>
<td>2.52</td>
<td>2.07</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>2.38</td>
<td>1.84</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>2.15</td>
<td>1.84</td>
</tr>
</tbody>
</table>

Small CHCs almost always reported easier recruitment and retention of primary care providers than medium-sized CHCs, and large CHCs reported the most difficult recruitment and retention of primary care providers. In some cases, these differences were quite dramatic. The exceptions were that small CHCs reported more difficulty recruiting pediatric nurse practitioners and midwives than their medium and large counterparts.

Table 3. Reported Difficulty of Recruitment and Retention of Primary Care Providers, by CHC Size

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
</tr>
<tr>
<td>Family physicians</td>
<td>2.50</td>
<td>2.91</td>
</tr>
<tr>
<td>Internists</td>
<td>2.22</td>
<td>2.73</td>
</tr>
<tr>
<td>Obstetrics/Gynecology</td>
<td>2.43</td>
<td>3.25</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>2.00</td>
<td>2.67</td>
</tr>
<tr>
<td>Adult nurse practitioners</td>
<td>2.13</td>
<td>2.50</td>
</tr>
<tr>
<td>Pediatric nurse practitioners</td>
<td>3.00</td>
<td>2.40</td>
</tr>
<tr>
<td>Family nurse practitioners</td>
<td>2.50</td>
<td>2.63</td>
</tr>
<tr>
<td>Geriatric nurse practitioners</td>
<td>4.00</td>
<td>2.67</td>
</tr>
<tr>
<td>Midwives</td>
<td>2.00</td>
<td>2.10</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>3.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Rural upstate CHCs reported the most difficulty recruiting every type of primary care professional, as shown in Table 4. New York City CHCs generally reported the least difficulty (with the exception of pediatricians, pediatric nurse practitioners, family nurse practitioners, geriatric nurse practitioners, and midwives). In contrast, however, rural upstate CHCs tended to have the easiest time retaining their primary care providers, except for family physicians and internists.
Table 4. Reported Difficulty of Recruitment and Retention of Primary Care Providers, by Location

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New York City</td>
<td>Urban</td>
</tr>
<tr>
<td>Family physicians</td>
<td>2.74</td>
<td>3.00</td>
</tr>
<tr>
<td>Internists</td>
<td>2.57</td>
<td>2.67</td>
</tr>
<tr>
<td>Ob/Gyns</td>
<td>3.05</td>
<td>3.29</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>2.29</td>
<td>2.13</td>
</tr>
<tr>
<td>Adult nurse practitioners</td>
<td>2.33</td>
<td>2.43</td>
</tr>
<tr>
<td>Pediatric nurse practitioners</td>
<td>2.64</td>
<td>2.14</td>
</tr>
<tr>
<td>Family nurse practitioners</td>
<td>2.53</td>
<td>2.40</td>
</tr>
<tr>
<td>Geriatric nurse practitioners</td>
<td>3.20</td>
<td>2.33</td>
</tr>
<tr>
<td>Physicians assistants</td>
<td>2.00</td>
<td>2.13</td>
</tr>
<tr>
<td>Midwives</td>
<td>2.64</td>
<td>2.17</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

The highest vacancy rates for the category of primary care providers were for Ob/Gyns (17.8%), internists (14.2%), and family nurse practitioners (12.9%). In contrast, positions budgeted for geriatric nurse practitioners and pediatric nurse practitioners were almost always filled.

Figure 14. Vacancy Rates for Primary Care Providers by Profession, in Descending Order
The positions most likely to be vacant, however, varied dramatically by CHC size, as shown below in Table 5. The highest proportions of unfilled positions reported by small CHCs were for midwives and Ob/Gyns, while among medium CHCs the most vacancies were for family nurse practitioners, family physicians, and physician assistants. In large CHCs, the most vacancies were for Ob/Gyns and internists.

Table 5. Vacancy Rates for Primary Care Providers by CHC Size

<table>
<thead>
<tr>
<th></th>
<th>Small (&lt;30)</th>
<th>Medium (30-49)</th>
<th>Large (50+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family physicians</td>
<td>7.8%</td>
<td>17.5%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Internists</td>
<td>0.0%</td>
<td>12.9%</td>
<td>15.7%</td>
</tr>
<tr>
<td>Ob/Gyns</td>
<td>35.5%</td>
<td>0.0%</td>
<td>18.9%</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>17.4%</td>
<td>10.5%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Adult nurse practitioners</td>
<td>0.0%</td>
<td>7.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Pediatric nurse practitioners</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Family nurse practitioners</td>
<td>0.0%</td>
<td>17.8%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Geriatric nurse practitioners</td>
<td>N/A</td>
<td>N/A</td>
<td>0.0%</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>28.4%</td>
<td>14.4%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Midwives</td>
<td>55.6%</td>
<td>0.0%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Note: Categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing one of the three columns to order them by.

Similarly, vacancies varied by location. In New York City CHCs, the occupations with the highest vacancy rates were reported for Ob/Gyns, family physicians, and midwives, while in urban upstate CHCs the occupations with the highest vacancy rates were internists and family nurse practitioners. Internists and physician assistants were the occupations with the highest vacancy rates in rural upstate CHCs.
Table 6. Vacancy Rates for Primary Care Providers by Location

<table>
<thead>
<tr>
<th></th>
<th>New York City</th>
<th>Urban Uptown</th>
<th>Rural Uptown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family physicians</td>
<td>14.1%</td>
<td>9.7%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Internists</td>
<td>10.5%</td>
<td>24.4%</td>
<td>20.2%</td>
</tr>
<tr>
<td>Ob/Gyns</td>
<td>19.8%</td>
<td>16.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>7.7%</td>
<td>3.8%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Adult nurse practitioners</td>
<td>7.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Pediatric nurse practitioners</td>
<td>4.5%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Family nurse practitioners</td>
<td>7.4%</td>
<td>18.2%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Geriatric nurse practitioners</td>
<td>N/A</td>
<td>0.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>2.0%</td>
<td>16.0%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Midwives</td>
<td>13.9%</td>
<td>8.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the job columns to order them.

The number of CHCs that anticipated increases or decreases to budgeted positions, by profession, is shown below in Figure 15. Nearly one-quarter of CHCs (nine out of 40) reported plans to increase the positions budgeted for family physicians by the end of the year, and 10% reported plans to increase the positions budgeted for midwives. One CHC reported plans to add a family physician when they did not currently have one, one CHC reported plans to add a pediatrician when they did not currently have one, and other CHCs reported plans to add an adult nurse practitioner, pediatric nurse practitioner, and geriatric nurse practitioner when they did not currently have such positions. One CHC that did not have a midwife planned to add one, but another CHC planned to eliminate their only midwife position.
Figure 15. Number of CHCs Reporting Plans to Reduce or Increase Budgeted Positions, by Profession, Ordered by Plans to Increase

The Nursing Workforce

As per the survey, nursing categories included RNs, LPNs, medical assistants, and certified nursing aides. Throughout this section, the composition of the nursing care workforce is compared by CHC size and location.

The average number of nursing care FTEs\(^\text{13}\) per CHC varied by CHC size. Small CHCs averaged 5.9 nursing FTEs (median = 7), while medium-sized CHCs averaged 16.6 (median = 16), and large CHCs averaged 40.2 (median = 28). There was less variation by CHC location. New York City CHCs averaged 22.9 nursing FTEs (median = 15.3), while urban upstate CHCs averaged 23.1 (median = 18.3) and upstate rural CHCs averaged 23.0 (median = 10.0) (Figure 16).

\(^{13}\) Nursing providers include RNs, LPNs, medical assistants, and certified nursing aides.
The category of nursing care providers constituted, on average, 36% of the health care FTEs at CHCs, although this varied by size. Small CHCs averaged 33% nursing FTEs, while medium-sized CHCs averaged 43% and large CHCs averaged 32%. There was little variation by CHC location. New York City CHCs averaged 35% nursing staff, while urban upstate CHCs averaged 38% and rural upstate CHCs averaged 35%.

**Figure 17. Average Percentage of Workforce Constituted by Nursing Staff, by CHC Size and Location**

Note: This is the average of the percentages reported by each CHC, not an average of the total workforce across all CHCs.
The ratio of RNs to primary care providers was highest in medium-sized CHCs and New York City CHCs, as shown below in Figure 18.

**Figure 18. Ratio of RNs to Primary Care Providers, by CHC Size and Location**

![Bar chart showing ratio of RNs to primary care providers by CHC size and location.](chart)

*Note: When presenting a ratio of one job category to a provider category (i.e., multiple jobs) it results in very low ratio numbers, which may be instructive nevertheless.*

Figure 19 shows the percentage of nursing staff employed by small, medium, and large CHCs by profession. The percentage of nursing staff that was RNs or certified nursing aides did not differ much by CHC size, but small and large CHCs tended to use more medical assistants and fewer LPNs than medium-sized CHCs.

**Figure 19. Distribution of Nursing Staff by Title, by CHC Size**

![Bar chart showing distribution of nursing staff by title and CHC size.](chart)
Figure 20 shows the significant differences in the distribution of nursing staff by location. New York City CHCs relied much more heavily on medical assistants and employed fewer LPNs and RNs compared to CHCs upstate where there was a large reliance on LPNs.

**Figure 20. Distribution of Nursing Staff by Title, by Location**

Reported difficulty of recruitment was inversely proportional to professional level, with the most difficult recruitment cited for RNs and the least difficult for medical assistants and certified nursing aides. Retention, however, was reported to be most difficult for LPNs, followed by medical assistants.

**Table 7. Reported Difficulty of Recruitment and Retention of Nursing Staff, in Descending Order of Recruitment Difficulty**

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNs</td>
<td>2.05</td>
<td>2.19</td>
</tr>
<tr>
<td>LPNs</td>
<td>2.27</td>
<td>2.44</td>
</tr>
<tr>
<td>Medical assistants</td>
<td>1.34</td>
<td>2.26</td>
</tr>
<tr>
<td>Certified nursing aides</td>
<td>1.33</td>
<td>1.79</td>
</tr>
</tbody>
</table>

Large CHCs had the most difficulty recruiting RNs and LPNs, compared to medium-sized and small CHCs, but large CHCs had the easiest time recruiting medical assistants. Retention varied by provider type, as shown in Table 8.
Table 8. Reported Recruitment and Retention Difficulty, by CHC Size

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
</tr>
<tr>
<td>RNs</td>
<td>2.38</td>
<td>2.50</td>
</tr>
<tr>
<td>LPNs</td>
<td>2.38</td>
<td>2.18</td>
</tr>
<tr>
<td>Medical assistants</td>
<td>1.63</td>
<td>1.40</td>
</tr>
<tr>
<td>Certified nursing aides</td>
<td>1.50</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Table 9 shows that urban upstate CHCs had the most difficulty recruiting RNs, while New York City CHCs had the most difficulty recruiting LPNs. Retention of RNs and LPNs was the least challenging for rural upstate CHCs.

Table 9. Reported Recruitment and Retention Difficulty, by Location

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New York City</td>
<td>Urban</td>
</tr>
<tr>
<td>RNs</td>
<td>2.32</td>
<td>3.44</td>
</tr>
<tr>
<td>LPNs</td>
<td>2.35</td>
<td>2.20</td>
</tr>
<tr>
<td>Medical assistants</td>
<td>1.38</td>
<td>1.22</td>
</tr>
<tr>
<td>Certified nursing aides</td>
<td>1.63</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

The highest vacancy rates at CHCs were reported for LPNs, followed by RNs. There were no unfilled vacancies for certified nursing aides, reflecting their very limited use in CHCs.

Figure 21. Vacancy Rates for Nursing Staff, by Title

[Diagram showing vacancy rates for RNs, LPNs, Medical assistants, and Certified nursing aides]
Vacancy rates were highest for RNs in medium-sized and urban upstate CHCs, highest for LPNs in small CHCs and CHCs in New York City and in urban upstate areas, and highest for medical assistants in small and urban upstate CHCs, as shown in Table 10.

<table>
<thead>
<tr>
<th>Size</th>
<th>Location</th>
<th>RNs</th>
<th>LPNs</th>
<th>Medical assistants</th>
<th>Certified nursing aides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
<td>9.4%</td>
<td>14.6%</td>
<td>8.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Large (50+)</td>
<td>New York City</td>
<td>12.8%</td>
<td>12.2%</td>
<td>2.7%</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>Urban Upstate</td>
<td>4.8%</td>
<td>6.0%</td>
<td>2.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Rural Upstate</td>
<td>1.6%</td>
<td>9.3%</td>
<td>2.4%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Quite a number of CHCs (eight out of 40, or 20%) planned to increase the number of budgeted positions for RNs, LPNs, and medical assistants, although four CHCs reported plans to reduce the number of budgeted LPN positions (Figure 22). One CHC that did not have RNs on staff planned to add them. One CHC that did not have LPNs on staff planned to add them. And two CHCs that did not have medical assistants on staff planned to add them.

**Figure 22. Number of CHCs Reporting Plans to Reduce or Increase Budgeted Positions, by Occupation, Ordered by Plans to Increase**
Behavioral Health Providers

According to the survey, the behavioral health provider category included psychiatrists, psychologists, psychiatric nurse practitioners, social workers, case managers, and substance abuse counselors. Throughout this section, the composition of the behavioral health workforce is compared by CHC size and location.

The average number of behavioral health FTEs per CHC varied by CHC size. Small CHCs averaged 1.7 behavioral health FTEs (median = 0.4), while medium-sized CHCs averaged 2.8 (median = 2.0), and large CHCs averaged 17.1 (median = 11.7). There was also variation by CHC location. New York City CHCs averaged 10.8 behavioral health FTEs (median = 3.0), while urban upstate CHCs averaged 5.1 (median = 2.5) and rural upstate CHCs averaged 5.3 (median = 4.4) (Figure 23).

Figure 23. Mean and Median Number of Behavioral Health Providers per CHC, by Size and Location

Behavioral health providers constituted, on average, 10% of the health care FTEs in CHCs, although this varied by size. Small CHCs averaged 9% behavioral health providers, while medium-sized CHCs averaged 7% and large CHCs averaged 13%. There was also variation by CHC location. New York City CHCs averaged 12% behavioral health care, while urban upstate CHCs averaged 7% and rural upstate CHCs averaged 5%.
Figure 24. Average Percentage of Workforce Constituted by Behavioral Health, by CHC Size and Location

Note: This is the average of the percentages reported by each CHC, not an average of the total workforce across all CHCs.

Figure 25 shows the percentage of behavioral health providers employed by small, medium, and large CHCs, by profession. The behavioral health workforce in small CHCs was comprised of a high percentage of substance abuse counselors, while the workforce in medium CHCs relied heavily on case managers, and the workforce in large CHCs consisted of a large percentage of social workers.

Figure 25. Distribution of Behavioral Health Staff by Title, by CHC Size
The distribution of behavioral health staff also varied by CHC location (Figure 26). New York City CHCs relied heavily on social workers, who constituted fully half of their behavioral health workers, and another one-quarter were case managers. Similarly, rural upstate CHCs were staffed heavily with social workers and almost as many case managers. Rural upstate CHCs, however, were staffed with more psychologists and psychiatric nurse practitioners and did not employ psychiatrists. Urban upstate CHCs had a behavioral health profile that was heavily skewed to substance abuse counselors, who were over 40% of their behavioral health staff. These CHCs had the fewest higher-level providers (only 3% psychiatrists, no psychologists, and less than 1% psychiatric nurse practitioners).

Figure 26. Distribution of Behavioral Health Staff by Title, by Location

Not surprisingly, the most difficult recruitment was reported for psychiatrists, followed by psychiatric nurse practitioners. These two groups were also the most difficult to retain, followed closely by psychologists.

Table 11. Average Reported Difficulty of Recruitment and Retention of Behavioral Health Providers, in Descending Order by Recruitment Difficulty

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatrists</td>
<td>3.58</td>
<td>2.21</td>
</tr>
<tr>
<td>Psychiatric nurse practitioners</td>
<td>3.20</td>
<td>2.21</td>
</tr>
<tr>
<td>Social workers</td>
<td>2.80</td>
<td>2.00</td>
</tr>
<tr>
<td>Psychologists</td>
<td>2.78</td>
<td>2.19</td>
</tr>
<tr>
<td>Substance abuse counselors</td>
<td>2.30</td>
<td>2.00</td>
</tr>
<tr>
<td>Case managers</td>
<td>2.04</td>
<td>1.00</td>
</tr>
</tbody>
</table>
The small CHCs almost always reported more difficulty with recruitment and retention of behavioral health providers, while large CHCs reported the least difficulty. The exception to this pattern was case managers, who were easiest to recruit in small CHCs and hardest to recruit in large CHCs (Table 12).

### Table 12. Average Reported Difficulty of Recruitment and Retention, by CHC Size

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>4.33</td>
<td>3.33</td>
</tr>
<tr>
<td>Psychologists</td>
<td>3.75</td>
<td>2.20</td>
</tr>
<tr>
<td>Psychiatric nurse practitioners</td>
<td>3.75</td>
<td>2.80</td>
</tr>
<tr>
<td>Social workers</td>
<td>2.75</td>
<td>2.25</td>
</tr>
<tr>
<td>Case managers</td>
<td>1.87</td>
<td>1.86</td>
</tr>
<tr>
<td>Substance abuse counselors</td>
<td>2.25</td>
<td>2.20</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Urban upstate CHCs reported much less difficulty recruiting and retaining behavioral health providers than either New York City or rural upstate CHCs.

### Table 13. Average Reported Difficulty of Recruitment and Retention, by Location

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New York City</td>
<td>Urban Upstate</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>3.75</td>
<td>3.14</td>
</tr>
<tr>
<td>Psychologists</td>
<td>3.25</td>
<td>1.00</td>
</tr>
<tr>
<td>Psychiatric nurse practitioners</td>
<td>3.50</td>
<td>1.75</td>
</tr>
<tr>
<td>Social workers</td>
<td>2.05</td>
<td>2.75</td>
</tr>
<tr>
<td>Case managers</td>
<td>2.07</td>
<td>1.86</td>
</tr>
<tr>
<td>Substance abuse counselors</td>
<td>2.42</td>
<td>1.83</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Psychiatric nurse practitioners had the highest vacancy rate of any behavioral health occupation in CHCs. Psychologists and case managers had the lowest (Figure 27).
In small CHCs, psychologists were the occupation with the highest vacancy rate, followed by social workers. In medium-sized CHCs, the occupation with the highest vacancy rate was substance abuse counselors, while in large CHCs, it was psychiatric nurse practitioners. The occupation with the highest vacancy rates in New York City CHCs was psychiatric nurse practitioners, while vacancy rates in urban upstate CHCs were higher for psychiatrists than for any other occupation. In rural upstate CHCs, vacancy rates were highest for psychologists.

Table 14. Vacancy Rates by CHC Size and Location

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>0.0%</td>
<td>27.0%</td>
</tr>
<tr>
<td>Psychologists</td>
<td>45.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Psychiatric nurse practitioners</td>
<td>0.0%</td>
<td>40.8%</td>
</tr>
<tr>
<td>Social workers</td>
<td>16.7%</td>
<td>33.2%</td>
</tr>
<tr>
<td>Case managers</td>
<td>0.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Substance abuse counselors</td>
<td>0.0%</td>
<td>50.0%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Six CHCs (15% of those responding) reported they planned to increase the number of budgeted positions for social workers by the end of the year, and two of them did not presently employ social workers. No CHCs reported plans to change the number of their substance abuse counselor positions (Figure 28).
**Oral Health Providers**

According to the survey, the oral health provider category is comprised of dentists, dental hygienists, and dental assistants/aides/technicians. Throughout this section, the composition of the oral health workforce is compared by CHC size and location.

The average number of oral health providers per CHC varied by CHC size. Small CHCs averaged 3.5 oral health providers (median = 0.5), while medium-sized CHCs averaged 6.6 (median = 6.0), and large CHCs averaged 15.2 (median = 10.0). There was also variation by CHC location. New York City CHCs averaged 5.4 oral health FTEs (median = 4.0), while urban upstate CHCs averaged 11.4 (median = 7.0) and rural upstate CHCs averaged 16.6 (median = 10.4) (Figure 29).
Oral health providers constituted, on average, 16% of the health care staff at CHCs, although this varied by size. Small CHCs averaged 13% oral health providers, while medium-sized CHCs averaged 17% and large CHCs averaged 19%. There was also variation by CHC location. New York City CHCs averaged 10% oral health care, while urban upstate CHCs averaged 20% and rural upstate CHCs averaged 26% (Figure 30).

**Figure 30. Average Percentage of Workforce Constituted by Oral Health, by CHC Size and Location**

Note: This is the average of the percentages reported by each CHC, not an average of the total workforce across all CHCs.
The ratio of dentists to primary care providers was highest in medium-sized and urban upstate CHCs and lowest in large CHCs, as shown in Figure 31.

**Figure 31. Ratio of Dentists to Primary Care Providers, by CHC Size and Location**

![Bar chart showing ratio of dentists to primary care providers.](chart)

*Note: When presenting a ratio of one job category to a provider category (i.e., multiple jobs) it results in very low ratio numbers, which may be instructive nevertheless.*

Dental assistants constituted the largest percentage of oral health providers in both small and large CHCs. Dentists and dental hygienists were a larger percentage in medium-sized CHCs (Figure 32).
New York City CHCs had the highest proportion of dentists, by far, and the lowest proportion of dental assistants among their oral health providers, followed by urban upstate CHCs. Rural upstate CHCs had the fewest dentists and most dental assistants. Urban upstate CHCs had the most dental hygienists.
Not surprisingly, dentists were the most difficult oral health providers for CHCs to recruit and retain. Dental hygienists were more difficult to recruit than dental assistants, but slightly less difficult to retain.

Figure 34. Average Reported Recruitment and Retention Difficulty of Oral Health Providers, in Descending Order by Recruitment Difficulty

Dentists were the most difficult to recruit in large CHCs and the least difficult to recruit in small CHCs. Small CHCs also reported the least difficulty retaining dentists. Dental hygienists were more difficult to recruit and retain in small CHCs, however, and easiest to recruit and retain in medium-sized CHCs. This pattern was also true of dental assistant recruitment, but retention of dental assistants was most difficult in large CHCs.

Table 15. Average Reported Recruitment and Retention Difficulty by CHCs of Oral Health Providers, by CHC Size

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
<td>Large (50+)</td>
<td>Small (&lt;30)</td>
</tr>
<tr>
<td>Dentists</td>
<td>2.67</td>
<td>2.78</td>
<td>3.43</td>
<td>1.96</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>3.00</td>
<td>1.90</td>
<td>2.54</td>
<td>2.00</td>
</tr>
<tr>
<td>Dental assistants</td>
<td>2.33</td>
<td>1.40</td>
<td>2.03</td>
<td>1.87</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.
Recruitment of dentists was most difficult for rural upstate CHCs, while recruitment of dental hygienists was most difficult for New York City CHCs and recruitment of dental assistants was most difficult for urban upstate CHCs. Retention of all oral health providers was least difficult in rural upstate CHCs (Figure 35).

### Table 16. Average Reported Recruitment and Retention Difficulty by CHCs of Oral Health Providers, by Location

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th></th>
<th>Retention</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New York City</td>
<td>Urban</td>
<td>Rural</td>
<td>New York City</td>
</tr>
<tr>
<td>Dentists</td>
<td>2.94</td>
<td>3.00</td>
<td>3.14</td>
<td>2.33</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>2.75</td>
<td>2.00</td>
<td>2.29</td>
<td>1.81</td>
</tr>
<tr>
<td>Dental assistants</td>
<td>1.61</td>
<td>2.20</td>
<td>2.17</td>
<td>1.65</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Dentists had the highest vacancy rate at CHCs (8%), followed by dental assistants (6%) and dental hygienists (5%).

### Figure 35. Vacancy Rates at CHCs for Oral Health Providers, in Descending Order

- Dentists: 8.2%
- Dental assistants: 6.0%
- Dental hygienists: 5.1%
As seen in Table 17, vacancies for both dental hygienists and dental assistants were much higher in small CHCs than in medium-sized and large CHCs. New York City CHCs reported lower vacancy rates for dentists than for either dental hygienists or dental assistants. In contrast, vacancy rates for dental hygienists in both urban and rural upstate CHCs were low.

Table 17. Vacancy Rates for Oral Health Providers by CHC Size and Location

<table>
<thead>
<tr>
<th>Size</th>
<th>Dental</th>
<th>Dental hygienists</th>
<th>Dental assistants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (&lt;30)</td>
<td>0%</td>
<td>20.8%</td>
<td>22.1%</td>
</tr>
<tr>
<td>Medium (30-49)</td>
<td>5.8%</td>
<td>7.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Large (50+)</td>
<td>7.8%</td>
<td>3.1%</td>
<td>3.5%</td>
</tr>
<tr>
<td>New York City</td>
<td>4.7%</td>
<td>17.9%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Urban Upstate</td>
<td>15.3%</td>
<td>3.5%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Rural Upstate</td>
<td>4.3%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey, rather than arbitrarily choosing values in one of the six columns to order them.

Although a large number of CHCs (six, or 15%) reported plans to increase the number of their dentists, nearly as many (four, or 10%) planned to reduce budgeted positions for dentists. One CHC that did not employ a dentist reported plans to add a position for one. Five CHCs (12.5%) planned to increase positions for dental hygienists, while no CHCs planned to reduce such positions. Nine CHCs (22.5%, or nearly one-quarter) planned to increase positions for dental assistants, and of those, seven did not currently employ dental assistants.

Figure 36. Number of CHCs Reporting Plans to Increase or Reduce Oral Health Positions, in Descending Order by Plans to Increase

![Figure 36](image_url)
Ancillary Providers

As per the survey, the ancillary staff category included nutritionists and nutrition educators, health educators, HIV counselors, patient health navigators, and community health workers. Throughout this section, the constitution of the oral health workforce is compared by CHC size and location.

The average number of ancillary providers per CHC varied by CHC size. Small CHCs averaged 0.3 ancillary providers (median = 0), while medium-sized CHCs averaged 3.0 (median = 2.0), and large CHCs averaged 8.6 (median = 4.6). There was also variation by CHC location. New York City CHCs averaged 5.2 ancillary FTEs (median = 2.0), while urban upstate CHCs averaged 5.3 (median = 3.2) and rural upstate CHCs averaged 1.7 (median = 0.0) (Figure 37).

Figure 37. Mean and Median Number of Ancillary Providers Per CHC, by Size and Location

Ancillary providers constituted, on average, 6.1% of the health care staff at CHCs, although this varied by size. The smallest CHCs averaged 3% ancillary providers, while medium-sized CHCs averaged 7% and large CHCs averaged 7%. There was also variation by location. New York City CHCs averaged 7% ancillary care, while urban upstate CHCs averaged 7% and rural upstate CHCs averaged 3% (Figure 38).
Figure 38. Average Percentage of Workforce Constituted by Ancillary Care, by CHC Size and Location

Note: This is the average of the percentages reported by each CHC, not an average of the total workforce across all CHCs.

The ratio of specific ancillary staff to primary care providers by CHC size (Figure 39) was instructive. Medium-sized CHCs had proportionately more of every type of ancillary staff than small or large CHCs, except for HIV counselors (large CHCs had the same ratio as medium-sized ones) and patient health navigators (which appeared to be used almost exclusively by large CHCs). Among both small and medium CHCs, nutritionists/nutrition educators were the most commonly used type of ancillary staff, but in large CHCs patient health navigators were more common than any other ancillary title.
The ratio of specific ancillary staff to primary care providers by location was interesting (Figure 40). Nutrition educators were considerably more common in urban upstate CHCs than in either New York City or rural upstate CHCs. In contrast, health educators were almost exclusively used in New York City CHCs, where they were the most common type of ancillary provider. HIV counselors were found in the urban CHCs (both upstate and New York City), but not in rural CHCs. Patient health navigators were overwhelmingly found in urban upstate CHCs. Although patient health navigators were the most common type of ancillary providers in rural upstate CHCs, they were found in much smaller numbers.
Figure 40. Ratio of Specific Ancillary Providers to Primary Care Providers, by Location

Note: When presenting a ratio of one job category to a provider category (i.e. multiple jobs) it results in very low ratio numbers, which may be instructive nevertheless.

Most of the ancillary providers found in small and medium-sized CHCs were either nutrition educators/nutritionists or health educators. Patient health navigators were a larger percentage of the ancillary workforce in large CHCs (Figure 41).

Figure 41. Distribution of Ancillary Providers by Title, by CHC Size
In CHCs in New York City, nearly one-third of ancillary providers were health educators, and nearly one-quarter were HIV counselors. These providers constituted a much smaller percentage of the ancillary workforce in upstate clinics, however. The ancillary workforce in urban upstate clinics was dominated by patient health navigators and nutrition educators/nutritionists, while ancillary providers in rural clinics were most likely to be patient health navigators or community health workers (Figure 42).

![Figure 42. Distribution of Ancillary Providers by Title, by Location](image)
Nutritionists/nutrition educators were the most difficult ancillary providers to recruit, while community health workers were the most difficult to retain (Figure 41).

Figure 41. Average Reported Difficulty of Recruitment and Retention of Ancillary Providers, in Descending Order of Recruitment Difficulty

Note: When presenting a ratio of one job category to a provider category (i.e., multiple jobs) it results in very low ratio numbers, which may be inaccurate nonetheless.

Generally, small CHCs had the most difficult time recruiting ancillary staff (across all job categories), followed by large CHCs. Large CHCs had a slightly more difficult time than small ones recruiting nutrition educators, while medium-sized CHCs had the greatest difficulty recruiting community health workers and nutritionists/nutrition educators. Retention across all ancillary job categories was most difficult in the large CHCs. Small CHCs reported a high degree of difficulty recruiting both health educators and patient health navigators.

Table 18. Average Reported Difficulty of Recruitment and Retention by CHC Size

<table>
<thead>
<tr>
<th>Provider Category</th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
</tr>
<tr>
<td>Nutritionists/Nutrition educators</td>
<td>2.03</td>
<td>1.33</td>
</tr>
<tr>
<td>Health educators</td>
<td>3.00</td>
<td>1.00</td>
</tr>
<tr>
<td>HIV counselors</td>
<td>2.33</td>
<td>1.71</td>
</tr>
<tr>
<td>Patient health navigators</td>
<td>3.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Community health workers</td>
<td>2.25</td>
<td>1.33</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.
Recruitment of ancillary providers was most difficult in rural upstate CHCs, followed by New York City CHCs. Urban upstate CHCs reported the least difficult recruitment of all ancillary providers. In contrast, New York City CHCs reported the most difficult retention of these providers, followed by urban upstate CHCs. Retention of ancillary providers appeared least difficult in rural upstate CHCs.

Table 19. Average Reported Difficulty of Recruitment and Retention by Location

<table>
<thead>
<tr>
<th></th>
<th>Recruitment</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New York City</td>
<td>Urban Upstate</td>
</tr>
<tr>
<td>Nutritionists/Nutrition educators</td>
<td>2.81</td>
<td>2.43</td>
</tr>
<tr>
<td>Health educators</td>
<td>2.14</td>
<td>2.00</td>
</tr>
<tr>
<td>HIV counselors</td>
<td>1.92</td>
<td>1.86</td>
</tr>
<tr>
<td>Patient health navigators</td>
<td>2.20</td>
<td>1.87</td>
</tr>
<tr>
<td>Community health workers</td>
<td>2.18</td>
<td>1.75</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order items.

Although nutritionists/nutrition educators were reported as being relatively difficult to recruit, their vacancy rates were actually low compared to other ancillary providers. Patient health navigators had, by far, the highest vacancy rates, while HIV counselors had the lowest (Figure 42).

Figure 42. Vacancy Rates for Ancillary Providers, in Descending Order
Vacancy rates for ancillary providers varied by CHC size and location (Table 20). Small and rural CHCs reported no vacancies for these providers. In contrast, 25% of budgeted community health worker positions were vacant in medium-sized CHCs, and 40% of budgeted community health worker positions were vacant in urban upstate CHCs.

Table 20. Vacancy Rates for Ancillary Providers by CHC Size and Location

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
</tr>
<tr>
<td>Nutrition educators</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Health educators</td>
<td>0%</td>
<td>11.7%</td>
</tr>
<tr>
<td>HIV counselors</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Patient health navigators</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Community health workers</td>
<td>0%</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Figure 43 shows the number of CHCs that planned to reduce or increase the number of budgeted positions for ancillary staff. Of these, one CHC planned to introduce a position for a nutritionist/nutrition educator, when they did not currently have one, and one CHC planned to introduce a position for a patient health navigator, when they did not presently have one.

Figure 43. Number of CHCs Reporting Plans to Increase or Reduce Ancillary Positions, in Descending Order by Plans to Increase
Reported Workforce Support Needs

Twenty-six percent of the CHCs reported they would like CHCANYS to offer student internships to medical students to assist the CHCs' recruitment efforts, while 23% reported they would like CHCANYS to offer nursing internships and 21% reported they would like internships for medical assistants (Figure 44).

Figure 44. Percent of CHCs That Wanted CHCANYS to Offer Student Internships, by Field, in Descending Order

Demand for student internships was generally highest in large CHCs, followed by small ones, and least in medium-sized CHCs. The exceptions were internships for health educators and medical assistants.

Table 21. Percent of CHCs That Would Like CHCANYS to Offer Student Internships, by Size and Location

<table>
<thead>
<tr>
<th>Size</th>
<th>Medical</th>
<th>Nursing</th>
<th>Social work</th>
<th>Nutrition</th>
<th>Health educators</th>
<th>Medical assistants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (&lt;30)</td>
<td>30%</td>
<td>20%</td>
<td>10%</td>
<td>0%</td>
<td>22%</td>
<td>11%</td>
</tr>
<tr>
<td>Medium (30-49)</td>
<td>18%</td>
<td>18%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>18%</td>
</tr>
<tr>
<td>Large (50+)</td>
<td>36%</td>
<td>36%</td>
<td>21%</td>
<td>0%</td>
<td>7%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.
One-third of CHCs reported they would like SEARCH/clinical rotations for MDs and 23% reported they would like SEARCH/clinical rotations offered for dentists.

**Figure 45. Percent of CHCs That Would Like SEARCH/clinical Rotations, by Field, in Descending Order**

Compared to small and medium-sized CHCs, large CHCs were most likely to say they would like SEARCH/clinical rotations for MDs, DOs, and dental hygienists. Small CHCs were more likely than others to want SEARCH/clinical rotations for nurse practitioners, pediatricians, and psychologists/psychiatrists. The most desired rotations for small CHCs were nurse practitioners, MDs, physician assistants, and dentists, while the most desired rotations for medium-sized CHCs were dentists and MDs. Large CHCs were most likely to want rotations for MDs, DOs, and dentists.

Rural upstate CHCs did not report interest in SEARCH/clinical rotations for any providers except nurse practitioners, MDs, and DOs; rotations for nurse practitioners were, in contrast, not desired by many urban upstate or New York City CHCs. The most desired rotations for both New York City and urban upstate CHCs were MDs and dentists.
Table 22. Percent of CHCs That Would Like SEARCH/clinical Rotations, by Size and Location

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
<td>Large (&gt;50)</td>
</tr>
<tr>
<td>MDs</td>
<td>33%</td>
<td>18%</td>
<td>43%</td>
</tr>
<tr>
<td>DO</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
</tr>
<tr>
<td>Nurse practitioners</td>
<td>44%</td>
<td>0%</td>
<td>7%</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>33%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Dentists</td>
<td>20%</td>
<td>27%</td>
<td>21%</td>
</tr>
<tr>
<td>Dental hygienist</td>
<td>11%</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>11%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Psychologists/Psychiatrists</td>
<td>10%</td>
<td>9%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey, rather than arbitrarily choosing values in one of the six columns to order them.

Over half of the CHCs surveyed indicated they would like CHCANYS to offer support with recruitment efforts in the form of: recruitment materials, a loan repayment program, credentialing, e-mail alerts of employment opportunities, and linkages to academic institutions. The development of job descriptions and linkages to recruiters were less popular, but still desired by one-third or more of CHCs (Figure 46).

Figure 46. Percent of CHCs That Would Like CHCANYS to Offer Specific Recruitment Supports, in Descending Order
Small CHCs most wanted linkages to academic institutions, while medium-sized CHCs most wanted recruitment materials and credentialing. Large CHCs most wanted loan repayment programs. New York City CHCs placed the highest priority on recruitment materials, while urban upstate CHCs most often indicated recruitment materials and credentialing. Rural upstate CHCs were most likely to cite loan repayment programs, credentialing, and linkages to academic institutions.

Table 23. Percent of CHCs That Would Like Specific Recruitment Supports, by Size and Location

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-40)</td>
</tr>
<tr>
<td>Recruitment materials</td>
<td>50%</td>
<td>82%</td>
</tr>
<tr>
<td>Loan Repayment Programs</td>
<td>50%</td>
<td>55%</td>
</tr>
<tr>
<td>Credentialing</td>
<td>44%</td>
<td>73%</td>
</tr>
<tr>
<td>Linkages to recruiters</td>
<td>44%</td>
<td>27%</td>
</tr>
<tr>
<td>Linkages to academic institutions</td>
<td>80%</td>
<td>36%</td>
</tr>
<tr>
<td>Develop job descriptions</td>
<td>30%</td>
<td>55%</td>
</tr>
<tr>
<td>Receive e-mail alerts of employment opportunities for clinicians and administrative staff</td>
<td>44%</td>
<td>64%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

All retention supports cited in the survey were desired by at least half of the CHCs. As shown in Figure 47, billing and coding training were desired by the highest percentage of CHCs.

Figure 47. Percent of CHCs That Would Like CHCANYS to Offer Specific Retention Supports, in Descending Order

[Bar chart showing the percentage of CHCs that would like specific retention supports, with billing and coding training at 62%, clinical training at 59%, administrative training at 56%, lunch and learn series at 54%, workflow training at 51%, and staff satisfaction surveys at 51%]
The retention support most desired by small CHCs was administrative training (56%), followed by billing and coding training (50%). Medium CHCs most often cited a desire for clinical training, administrative training, billing and coding training, and workflow training (all 64%). Large CHCs showed the most interest in billing and coding training and a lunch and learn series (both 71%). Some differences by location were also evident, as shown in Table 24.

Table 24. Percent of CHCs That Would Like Specific Retention Supports, by Size and Location

<table>
<thead>
<tr>
<th></th>
<th>Size</th>
<th>Location</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small (&lt;30)</td>
<td>Medium (30-49)</td>
<td>Large (50+)</td>
<td>New York City</td>
<td>Urban Upstate</td>
<td>Rural Upstate</td>
</tr>
<tr>
<td>Clinical Training</td>
<td>44%</td>
<td>64%</td>
<td>24%</td>
<td>57%</td>
<td>70%</td>
<td>57%</td>
</tr>
<tr>
<td>Administrative Training</td>
<td>56%</td>
<td>64%</td>
<td>57%</td>
<td>57%</td>
<td>80%</td>
<td>29%</td>
</tr>
<tr>
<td>Billing and Coding Training</td>
<td>50%</td>
<td>64%</td>
<td>71%</td>
<td>55%</td>
<td>80%</td>
<td>71%</td>
</tr>
<tr>
<td>Workflow Training</td>
<td>40%</td>
<td>64%</td>
<td>57%</td>
<td>50%</td>
<td>80%</td>
<td>29%</td>
</tr>
<tr>
<td>Staff Satisfaction Surveys</td>
<td>44%</td>
<td>46%</td>
<td>57%</td>
<td>48%</td>
<td>60%</td>
<td>57%</td>
</tr>
<tr>
<td>Lunch and Learn Series</td>
<td>44%</td>
<td>45%</td>
<td>71%</td>
<td>48%</td>
<td>70%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey rather than arbitrarily choosing values in one of the six columns to order them.

Slightly over one-quarter (26%) of CHCs were interested in hosting an administrative mentorship training program for students, while more than 60% were not. The remaining 13% did not respond. Among CHCs indicating interest, it varied markedly by CHC size and location as shown in Figure 48.

Figure 48. Percent of CHCs Interested in Hosting an Administrative Mentorship Training Program for Students, by Size and Location
By far, the most common language CHCs reported they needed in their health centers was Spanish (78%). Creole, Mandarin, and French were also cited by at least 10% of CHCs. A few CHCs reported no language needs, but one of these indicated that they used a telephone interpretation service. A number of CHCs reported language needs not included in the survey; most commonly, Arabic, Russian, Ukrainian, and Burmese. Five percent of CHCs reported other language needs (Yiddish, Hebrew, Karen, Somali, and Vietnamese). ¹⁴

Figure 49. Languages Other Than English Needed to Provide Culturally Competent Care, in Descending Order

¹⁴ Only three CHCs did not indicate a response to any of the language questions, and two of them were small CHCs that may not have had any other language needs but neglected to mark "none." (Both of these small CHCs answered the questions immediately before and after the language questions.)
Not surprisingly, language needs varied by CHC size and location. Among all sizes and locations, the top language need was Spanish, but among small and large CHCs, Creole was the second most needed language, by 20% and 21%, respectively. In medium CHCs, however, Spanish was followed by Mandarin, Cantonese, Arabic, and Burmese (all 18%). In New York City CHCs, French was the second most often cited language need (29%), while in urban upstate CHCs Spanish was followed by Arabic and Burmese (both 20%), and in rural upstate Spanish was followed by Creole (14%).

Table 25. Languages Other Than English Needed to Provide Culturally Competent Care, by Size and Location

<table>
<thead>
<tr>
<th></th>
<th>Small (&lt;30)</th>
<th>Medium (30-49)</th>
<th>Large (50+)</th>
<th>New York City</th>
<th>Urban Upstate</th>
<th>Rural Upstate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>50%</td>
<td>91%</td>
<td>88%</td>
<td>83%</td>
<td>100%</td>
<td>43%</td>
</tr>
<tr>
<td>Creole</td>
<td>20%</td>
<td>9%</td>
<td>21%</td>
<td>22%</td>
<td>10%</td>
<td>14%</td>
</tr>
<tr>
<td>Mandarin</td>
<td>10%</td>
<td>18%</td>
<td>14%</td>
<td>17%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>French</td>
<td>10%</td>
<td>0%</td>
<td>7%</td>
<td>20%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>None</td>
<td>20%</td>
<td>9%</td>
<td>7%</td>
<td>4%</td>
<td>0%</td>
<td>43%</td>
</tr>
<tr>
<td>Cantonese</td>
<td>0%</td>
<td>10%</td>
<td>7%</td>
<td>9%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Arabic</td>
<td>0%</td>
<td>10%</td>
<td>7%</td>
<td>4%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Bengali</td>
<td>0%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Russian</td>
<td>0%</td>
<td>0%</td>
<td>7%</td>
<td>4%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>Ukrainian</td>
<td>0%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>Burmese</td>
<td>0%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
<td>20%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: Job categories are presented in the order in which they appeared in the survey; rather than arbitrarily choosing values in one of the six columns to order them.
CONCLUSIONS

Community health centers are key to the success of many health reform initiatives. It is critical to understand the size and composition of the workforce of CHCs and their recruitment and retention issues in order to assure their success at their mission of providing cost-effective quality care to underserved populations.

One vital finding of this report was the broad variability of workforce issues amongst CHCs of different sizes and geographic locations. Clearly, a one-size-fits-all approach is not appropriate for workforce policy as it relates to the needs of CHCs in New York.

Given the importance of CHCs to the health care system in New York and to the success of health reform overall, this workforce merits regular, systematic monitoring. This will help ensure the availability of adequate and current information about CHC workforce needs to policymakers and other stakeholders throughout the state.
Appendix C
Interview Questions

The following questions guided the interviews conducted with Chief Executive Officers/Directors of CHCs in the New York City area:

1. What staffing approaches do you currently use in service delivery?

2. How do workforce shortages affect your approach to staffing?

3. How does the use of health information technology affect your workforce? What HIT-related workforce challenges do you anticipate in the future?

4. What strategies do you use to address issues of diversity and cultural competency?

5. How will changes related to the Medicaid redesign plan and federal health care reform initiatives affect the strategic direction of your center in terms of the size and scope of services? What are the workforce implications of these changes now and in the future?

6. What changes in service delivery models do you anticipate in the future? (e.g. patient-centered medical home, chronic disease management, etc.) What staffing approaches offer the most promise for the future? Will workers need new skills?

7. What barriers prevent you from using workers more effectively? (e.g. limitations on scope of practice, other regulatory barriers, need for training etc.)

8. Are there viable career ladders that allow for advancement of existing workers? What are the barriers to advancement?
Appendix D
Focus Group Questions

The following questions guided the CEO/ED focus group discussion:
1. How has the composition of your workforce changed (or how will it change) in response to healthcare reform and its focus on:
   • Team-based models of care, with frontline workers in more prominent roles
   • Enhanced care coordination within facilities and across settings
   • Improving chronic disease management
2. Please share your experiences with serving as a clinical/internship site for health professions students/graduates.
   • What are the major barriers to administering clinical rotations/internships at your facility?
   • If you have not served as a clinical or internship site, would you be open to doing so? What additional resources would be needed? What barriers do you anticipate?
3. Please share your facility’s experiences with developing career ladder opportunities for incumbent workers.
   • What role (if any) does academic coursework play in your career ladder programs? Please specify if the coursework involved is credit-bearing or continuing education.
   • For facilities without a history of implementing career ladder programs, how open are you to developing career ladder opportunities? What additional resources would be needed? What barriers do you anticipate?
4. What effects, if any, have workforce flexibility regulations (e.g., scopes of practice) had on your ability to implement creative workforce models?

The following questions guided the HR focus group discussion:
1. How has the composition of your workforce changed (or how will it change) in response to healthcare reform and its focus on:
   • Team-based models of care, with frontline workers in more prominent roles
   • Enhanced care coordination within facilities and across settings
   • Improving chronic disease management
2. What are your most pressing staffing, recruitment and retention needs?
3. What are the most pressing training needs for your workforce? What partnerships do you currently have in place to meet those training needs?
4. Please share your facility’s experiences with developing career ladder opportunities for incumbent workers.
   • What barriers exist for advancement? (e.g., lack of basic academic skills)
   • What role (if any) does academic coursework play in your career ladder programs? Please specify if the coursework involved is credit-bearing or continuing education.
   • For facilities without a history of implementing career ladder programs, what additional resources would be needed to develop such programs? What barriers do you anticipate?
5. Please share your experiences with serving as a clinical/internship site for health professions students or graduates.
   • What are/were the major barriers to administering these programs at your facility?
   • If you have not served as a clinical or internship site, what additional resources would be needed to develop such opportunities? What barriers do you anticipate?