



Connecticut's Allied Health Workforce: Challenges and Opportunities

A report by the Allied Health Workforce Policy Board

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Background

In 2004, Connecticut's legislature established the Connecticut Allied Health Workforce Policy Board (AHWPB) (Public Act 04-220) to conduct research and planning activities related to the allied health workforce. According to the legislation, the responsibilities of this board include:

1. Monitoring data and trends in the allied health workforce including, but not limited to:
 - a. The state's current and future supply and demand for allied health professionals; and,
 - b. The current and future capacity of the state system of higher education to educate and train students pursuing allied health professions.
2. Developing recommendations for the formation of an economic cluster for allied health professions.
3. Identifying recruitment and retention strategies for institutions of higher education with allied health programs.
4. Developing recommendations for promoting diversity in the allied health workforce including but not limited to racial, ethnic and gender diversity, and for enhancing the attractiveness of allied health professions.
5. Developing recommendations regarding financial and other assistance to students enrolled in or considering enrolling in allied health programs offered at public or independent institutions of higher education.
6. Identifying recruitment and retention strategies for allied health employers.
7. Developing recommendations about recruiting and utilizing retired nursing faculty members to teach or train students to become licensed practical nurses or registered nurses.
8. Examining nursing programs at institutions of higher education and developing recommendations about the possibility of streamlining the curricula offered in such programs to facilitate timely program completion.

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Introduction

In 2004, Connecticut's legislature established the Connecticut Allied Health Workforce Policy Board (AHWPB) (Public Act 04-220) to conduct research and planning activities related to the allied health workforce. The Board began meeting in March 2005 and issued its first report to the legislature in February 2006, followed by annual reports. Since 2004, the AHWPB has convened employers and educators in the healthcare fields to share their data on the workforce, knowledge about what shortages exist, and to make recommendations to the legislature on how to prepare the current and future workforce for industry demands.

The AHWPB has been monitoring reforms driven at the state and federal level, which will profoundly change the way in which healthcare will be delivered in Connecticut in the future. The implementation of the Affordable Care Act (ACA) combined with the growing healthcare needs of America's aging population and the utilization of new technologies is impacting the delivery of health care services. This report provides an update to the June 2014 ([link](#)) report, which highlights federal and state health care reforms as well as the supply and demand for health care workers and the challenges associated with preparing that workforce for the next generation of health care delivery. The report concludes with priority focus areas to address Connecticut's workforce challenges.

Reforms Impacting the Health Care Workforce

The Patient Protection and Affordable Care Act (H.R.3590) and the Health Care Education and Reconciliation Act (H.R.4872), together known as the Affordable Care Act (ACA), strive to achieve the "Three Part Aim": improving the experience of care for individuals, improving the health of populations, and lowering per capita costs. In order to achieve these goals, the existing payment models and health care delivery system need to be reformed.

The ACA aims to move the health care system away from its current episodic, fee-for-service payment approach and towards a coordinated model that is focused on delivering high-quality, low-cost care across the continuum of care. In addition to changing the method through which providers are paid for health care, it is also necessary to reform the way in which that care is delivered, i.e., reforming the delivery system by creating high-performing organizations of physicians and hospitals that use systems of care and information technology to prevent illness, improve access to care, improve safety, and coordinate services (<http://www.accountablecarefacts.org>). These changes will have a direct impact on the skills demanded of current and future workers in health care in both nonclinical and frontline positions (Alssid & Goldberg, 2013).

In 2011, a Health care Cabinet was established in Connecticut to advise the Governor and Lt. Governor on issues related to implementing ACA and the development of an integrated health care system for the state. In March 2013, the Governor's office received a \$2.8 million planning grant from the Centers for Medicaid and Medicare Innovation (CMMI) to develop a State Healthcare Innovation Plan. The State Innovation Model (SIM) plan focuses on achieving better health, while eliminating health disparities; improving health care quality and experience; and lowering health care costs (CT Healthcare Innovation Plan, 2013). In December 2014,

Connecticut was awarded \$45 million in federal funds to implement the SIM plan as part of \$620 million awarded to 11 states under the ACA.

In addition to planning for the implementation of the ACA, Connecticut is leading other reforms as well. Money Follows the Person (MFP) is a multi-million dollar federal demonstration grant, received by the Connecticut Department of Social Services in 2007. It is intended to rebalance the long-term care system so that individuals have the maximum independence and freedom of choice of where they live and receive services. There are several inter-related initiatives in MFP including workforce development; hospital discharge planning; long-term services; and nursing home right-sizing.

In 2011, building on the early work of MFP, Connecticut undertook a major planning effort related to long-term care known as Connecticut's Strategic Rebalancing Plan (Rebalancing). Rebalancing aims to increase choice of where people receive long-term services and supports while supporting cost efficiencies in the Medicaid program. In SFY 2014, of those receiving Medicaid long-term care services, 59% received care in a home or community-based setting, and 41% in an institution.¹ By 2025, Rebalancing goals would shift that ratio to 75% receiving long-term care in a home or community based setting, and only 25% in an institution.

The AHWPB is monitoring these efforts and has invited presentations throughout the year to align efforts impacting the workforce. In partnership with state sponsored efforts such as the SIM planning, Rebalancing, and MFP, the AHWPB can help position Connecticut businesses and workers for these changes by keeping state policy makers and stakeholders abreast of these efforts and providing recommendations for future action.

Additional Factors Affecting the Demand for Health Care Workers

A number of factors will impact the health care workforce in the years ahead. For instance, the model of care delivery will shape workforce demand. To the extent that medical homes are adopted, the clinical shortage could be lessened because of the reliance on other care providers and non-clinical staff. In addition, front line workers could see their roles and tasks expand without change in compensation or job advancement, and some employers may hire lower-paid and lower-skilled workers to reduce staff at higher levels (Wilson, 2014).

Employers interviewed for a 2014 Jobs for the Future study could not predict their staffing needs in the coming years in large part due to the uncertainty of the impact of health care reform. Major hospitals in Connecticut, Ohio, Virginia and other states announced cutbacks in 2013 due to the cuts in Medicare and Medicaid funding (Wilson, 2014). In many cases efforts were focused on training current staff to fill openings, not on developing external pipelines (Wilson, 2014). According to the report, experts claim that tens of millions of new patients will require an upsurge in hiring new workers, particularly in primary care (Wilson, 2014).

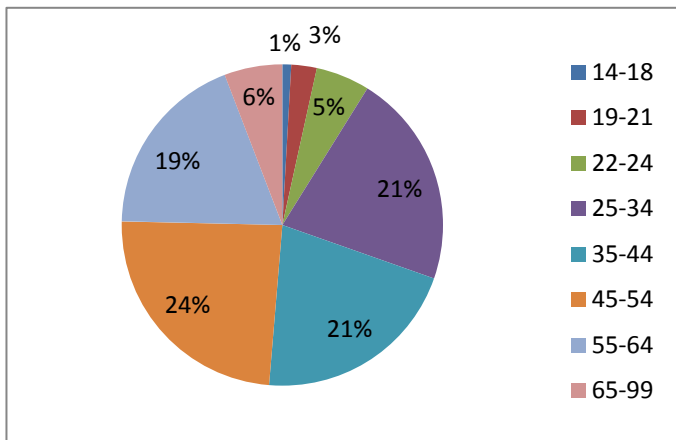
The Connecticut's hospital system continues to experience fundamental changes in its organizational form and the structure of its health care providers. Between 2009-2013, there were 13 attempts and seven successful hospital consolidations and/or partnerships, a substantial increase from the previous decade (Kaylin, 2013). Of

¹ Rebalancing: Medicaid Long-Term Care Clients and Expenditures. SFY 2014.

the 29 acute care hospitals in the state, 16 are now currently part of a larger hospital parent company, and some of the remaining 13 are affiliated with out of state hospital networks. These partnership and affiliations are causing uncertainty in hiring as operations are consolidated and the need for employees across different fields is under review.

The future demand for health care workers will be impacted by the current age of the workforce. As shown below in Table 1, health care related employment data by age indicated that 24% of employees are between the ages of 45-54 and 19% are between the ages of 55-64.²

Table 1. Connecticut Health Care Employment by Age 2013 Q4



Source: U.S. Census Quarterly Workforce Indicators (QWI)

A 2014 report by the Connecticut League for Nursing (CLN) suggests that in a recent survey of 1,661 registered nurses, 51% are 55 and older (CLN, 2013). As shown in Table 1, as demand increases in the years ahead, employers will need to be ready to replace almost 25% of their workforce.

Another factor that will impact the workforce and projected openings is Connecticut’s aging population which will require increased health care services, such as nursing and residential care. Connecticut is ranked second among states with the highest percentage of the population in both the ‘Aged 90 and Over’ and ‘Aged 65 and Over’ categories.³ In 2013, Connecticut population aged 65 and older was 15.2% of the overall population.⁴ In 2015, that percent is projected to increase to 15.98% and by 2020 it will be 18.12%.⁵

Health care needs related to an aging population will also require a shift in delivery models. For example, growth in long-term services and supports brought about through Rebalancing will shift the delivery of care from residential facilities toward community based services, redistributing the workforce from skilled nursing facilities

² U.S. Census Quarterly Workforce Indicators (QWI). Retrieved on 12.5.14.

³ State of CT Department of Social Services. 2013. Strategic Rebalancing Plan: A Plan to Rebalance Long Term Services and Supports 2013-2015.

⁴ US Department of Commerce, United States Census Bureau. Retrieved 1/29/14

⁵ CT State Data Center. CT Population Projections. Retrieved 12/5/14.

to home care agencies. This shift will require home care workforce to have a different set of skills, such as the ability to work autonomously, thereby making the type of care needed in the home will become more complex.

The Connecticut General Assembly's (CGA) Alzheimer's Task Force report found that 70% of individuals with Alzheimer's or related dementia reside in the community, and this is likely to increase the demand for home care services and supports (CGA, 2013). Of those with dementia who live in the community, 75% live with someone and the remaining 25% live alone (CGA, 2013). As the number of individuals with Alzheimer's in the United States is expected to increase substantially over the next few decades, the long term care workforce will need to expand in size to meet demand and receive enhanced training to provide better services.

Connecticut's Health Care Workforce: Supply and Demand Analysis in Key Industry Areas

Connecticut's health care workforce continues to be one of the largest in the state and is projected to continue growing over the next ten years. The CT Department of Labor reports that Health Care and Social Assistance is the largest sector in Connecticut.

Connecticut's total employment in October 2014 was 1,694,600, with employment in health related occupations was 265,000.⁶ The CT Department of Labor projects, the employment level for Health Care and Social Assistance occupations will increase to 331,339 by 2022, a 19.9% increase for the ten-year period.⁷

Table 2 highlights occupation projections for 2012-2022 indicating the number of projected openings and the percentage increase in those openings. Some occupations have significant numbers of new workers anticipated. Others may have high percentage changes over the ten-year period, but a smaller numerical change. For instance, registered nurses (RNs) show a high numeric change (5,249) while Occupational Therapy Assistants have a high percentage change of 35.4%, but only 174 projected new jobs over the ten-year period. The AHWPB has focused its analysis on occupations with high numeric change such as Personal Care Aides (PCAs), Physical Therapists (PTs), Medical Assistants (MAs) and Home Health Aides (HHAs). All of these workers will be critical to the full implementation of the ACA and the focus on primary care.

Data from the Health Resources and Services Administration (HRSA) suggests the demand for RNs and LPNs will be met in Connecticut if our current graduation rates continue through that time period. The HRSA model estimates, which are comparable to the Bureau of Labor Statistic's job growth estimates, show a slight over-supply of both professionals by 2025.

⁶ CT Department of Labor, CT Total and Healthcare Employment. October 2014.

⁷ CT Department of Labor, State of CT Industry Projections 2010-2020. Retrieved on 12/5/14.

Table 2. CT Occupational Projections 2012-2022

Sample Health Care Occupations	2022			
	2012 Employment	Projected Employment	Number Change	% Change
Health Diagnosing and Treating Practitioners	68,090	79,200	11,110	16.3
Personal Care Aides	23,244	32,090	8,846	38.1
Registered Nurses	35,985	41,234	5,249	14.6
Nursing, Psychiatric, and Home Health Aides	32,472	37,003	4,531	13.9
Home Health Aides	8,251	11,446	3,195	38.7
Medical Assistants	7,312	9,315	2,003	27.4
Licensed Practical and Licensed Vocational Nurses	8,845	10,422	1,577	17.8
Physical Therapists	3,919	5,094	1,175	30.0
Nursing Assistants	22,781	23,921	1,140	5.0
Emergency Medical Technicians and Paramedics	3,193	4,172	979	30.7
Nurse Practitioners	2,659	3,428	769	28.9
Occupational Therapy and Physical Therapist Assistants and Aides	1,722	2,334	612	35.5
Physician Assistants	1,716	2,270	554	32.3
Pharmacy Technicians	3,457	4,004	547	15.8
Radiologic Technologists	2,561	2,985	424	16.6
Diagnostic Medical Sonographers	999	1,382	383	38.3
Occupational Therapists	1,819	2,185	366	20.1
Dental Assistants	4,181	4,534	353	8.4
Medical and Clinical Laboratory Technicians	1,500	1,835	335	22.3
Pharmacists	3,027	3,333	306	10.1
Medical Records and Health Information Technicians	1,400	1,653	253	18.1
Health Technologists and Technicians, All Other	1,022	1,274	252	24.7
Phlebotomists	1,638	1,856	218	13.3
Physical Therapist Aides	622	833	211	33.9
Physical Therapist Assistants	537	738	201	37.4
Occupational Therapy Assistants	491	665	174	35.4
Family and General Practitioners	1,390	1,558	168	12.1
Dietitians and Nutritionists	815	954	139	17.1
Medical and Clinical Laboratory Technologists	2,357	2,496	139	5.9

Source: CTDOL Occupational Projections 2012-2022. 2014

Much of the health care workforce requires education beyond high school, and will need to be trained in Connecticut's institutions of higher education. In 2013, Connecticut public and private colleges and universities graduated over 4,500 students in health care related programs. As shown in Table 3, while most occupational areas have sufficient graduates to meet the ten year demand, a number of occupations need focused attention for recruitment to meet projected openings. These occupations include diagnostic medical sonographers, medical records and health information technicians, and radiologic technologists and technicians.

Table 3. Occupational Projections and Related CT College and University Graduation

Occupation	2012	2022	Number Change	% Change	Annual Salary	Education Required	2013-2014 CT Grads
Psychiatrists	981	1,115	134	13.7	182,149	D	N/A
Physical Therapists	3,748	4,538	790	21.1	81,538	D	188
Physician Assistants	1,716	2,270	554	32.3	104,450	M	109
Occupational Therapists	1,819	2,185	366	20.1	81,807	M	98
Registered Nurses	35,985	41,234	5,249	14.6	75,929	A	914
Radiation Therapists	324	372	48	14.8	96,194	A	93
Respiratory Therapists	1,236	1,414	178	14.4	67,239	A	89
Cardiovascular Technologists and Technicians	607	790	183	30.1	65,782	A	N/A
Diagnostic Medical Sonographers	999	1,382	383	38.3	78,863	A	38
Radiologic Technologists	2,561	2,985	424	16.6	63,677	A	3
Occupational Therapy Assistants	491	665	174	35.4	59,210	A	81
Physical Therapist Assistants	537	738	201	37.4	55,310	A	42
Emergency Medical Technicians and Paramedics	3,193	4,172	979	30.7	41,157	PC	39
Surgical Technologists	1,153	1,458	305	26.5	54,653	PC	18
Licensed Practical and Licensed Vocational Nurses	8,845	10,422	1,577	17.8	55,412	PC	173 ¹
Medical Records and Health Information Technicians	1,400	1,653	253	18.1	41,116	PC	6
Health Technologists and Technicians, All Other	1,022	1,274	252	24.7	54,258	PC	60

Source: CTDOL; CT Office of Higher Education 2013-2014 Graduation Data (Educational level code: D=doctorate; M=master's; B=bachelor's; A=associates; pc=post-secondary certificate).

¹ January 2014 Graduation

A number of key occupational areas need attention in order to implement the ACA and support an effective continuum of care. These areas—primary care and public health, behavioral health, long-term services and supports, and health information technology and management, all contribute to a holistic health care system ready to serve individuals across the age spectrum and in community and skilled care facilities. Examples of educational programs aligned to these high need areas are offered throughout this section and a full list is available in the AHWPB's *Inventory of Health care Initiatives in Connecticut 2015*.

Primary Care/Public Health

A cornerstone of the state's SIM plan is supporting the transformation of primary care to the Advanced Medical Home (AMH). Under this model, a primary care team coordinates the entirety of a person's care. The model includes five core components: whole-person centered care; enhanced access; population health management; team-based coordinated care; and evidence-informed clinical decision making (Connecticut Health Innovation Plan, 2013). In order to promote full implementation of the AMH model, the state will need to encourage professionals to collaborate across primary, acute, specialist, community and social care as well as between fields such as primary care/public health and behavioral health providers.

The state's SIM plan notes that the education of primary care physicians must be a priority for three reasons: 1.) The greatest unmet demand for health professionals is for primary care physicians; 2.) The draw of specialty care has pulled doctors away from primary care; and 3.) Even with other primary care practitioners on the team, there is no substitute for having a critical number of primary care physicians (Connecticut Health Innovation Plan, 2013). Data from the SIM plan shows demand for physicians will grow more rapidly than supply resulting in shortages of more than 20,000 physicians nationwide, with demand for physicians in Connecticut in double digit percentages.

Data suggests that the number of nurse practitioners and physicians' assistants will grow rapidly and could mitigate the projected shortage of physicians if this workforce is effectively integrated into the primary care delivery system (US Department of Health and Human Services, 2013). In 2014, the Connecticut legislature passed Public Act 12 which allows APRNs who have been licensed and practicing in collaboration with a physician for at least three years to practice independently. This new legislation can help to meet the demand for primary care services.

In addition to primary care physicians, the AMH will require an array of other health care professionals including registered nurses and physician assistants as well as support personnel such as community health workers and patient navigators to provide coordinated care. The American Hospital Association's roundtable of clinical and health system experts recommended that all health care professionals should be educated with the context of inter-disciplinary clinical learning teams. They noted it will be critical but challenging to re-educate the current workforce to work in a team-based model of care (American Hospital Association, 2013).

Quinnipiac University has opened the Center of Medicine, Nursing and Health Sciences to support team-based professional training. The new *Frank H. Netter MD School of Medicine* received preliminary accreditation on October 2, 2012, and was licensed by the State of Connecticut to award MD degrees on October 3, 2012. The

charter class of 60 students, which matriculated in August of 2013, was joined by a second class of 90 students in August 2014. Subsequent classes will increase in size pending approval by the accrediting body, eventually reaching 125 students. The school will have as one focus the training of primary care physicians as part of interprofessional health care teams. Connecticut AHEC facilitates the Interprofessional Education Program (IPE), which aims to cultivate an interdisciplinary environment where medical, nursing, pharmacy, and pre-health professional students interact and care for patients as a team. This type of training will be critical to ACA implementation, as well as integration of other health care professionals with physicians in the provision of care.

The medical assistant (MA) position is the single largest occupational category in primary care, comprising about 500,000 workers nationwide, with 7,312 in Connecticut.⁸ Because no license is required, the training of MAs ranges from short term certificate programs to associate degrees. MAs work under the supervision of a physician, nurse practitioner or physician assistant handling clerical (reception, filing, appointments) and clinical (preparing patients for exams and taking vital signs). These positions are expanding with additional duties in practice administration including supervision, scheduling and routing of patients, coaching patients to manage disease, and other duties. The expanded role of the MA is particularly seen in clinics that have taken on the role of patient centered medical homes (Wilson, 2014). Asnuntuck Community College for instance, educates registered MA students on balancing theory and hands-on practice needed to work in the field, with imbedded instruction on electronic medical records.

The ACA is also promoting the utilization of new and emerging occupations such as the CHW and PN. The Connecticut Department of Public Health, in their *Healthy Connecticut 2020: State Health Improvement Plan*, calls for an investment in these emerging occupations. However, the opportunity for training and employing workers in new occupations to improve care and lower costs is limited by the lack of reimbursement for activities such as patient navigation and care coordination (Wilson, 2014).

The community health worker (CHW) as defined by the American Public Health Association is a frontline public health worker who is a trusted member of the health care team and/or has a close understanding of and the ability to communicate with the community served. CHWs are responsible for helping individuals and communities adopt healthy behaviors through outreach and conducting educational programs. Some CHWs provide information on available resources, offer social support and informal counseling, advocate for individuals and community health needs, and provide services such as first aid and blood pressure screening. There is no standard education or training required for this position. CHWs are employed by hospitals, medical practices, and community health centers in both rural and urban areas (Alssid & Goldberg, 2013). In Connecticut, CHWs were key to the success of connecting 197,878 people to the state's health insurance marketplace. Acting as navigators, the CHWs provided direct outreach to underserved populations to help them sign up for health insurance through the marketplace (Southwest AHEC, Heinrich 2014).

In 2012, Southwestern AHEC distributed two surveys to CHWs and their employers to better understand the characteristics and roles of CHWs in Connecticut, and their met and unmet training needs and employment status. Though the sample size of CHWs was low (43), the data collected showed that the majority of CHWs had

⁸ CT Department of Labor, State of CT Industry Projections 2010-2020. Retrieved on 12/5/14.

at least some college education, and those with a bachelorette degree or more was 28%. The employers who responded to the survey (97) expected their employees to have interpersonal skills, knowledge of the community, bilingual skills and knowledge of the health care field as a foundation in addition to communication, organizational and advocacy skills (Alvisurez, Clopper, Felix, Gibson & Harpe, 2013). AHEC is offering CHW training throughout the state, supported by Connecticut Department of Public Health. In the last three years, over 100 CHWs received training and field experience. Beginning in spring 2015, Capital Community College, Gateway Community College and Housatonic Community College will be offering a CHW certificate.

The patient navigator (PN) is a relatively new position gaining in importance due to the ACA's mandate to coordinate patient services. These frontline workers act as coordinators bringing together resources and managing paperwork associated with care. Primarily these workers are employed in hospitals and clinics to assist patients and families to navigate the health care system. There is no clear educational path to becoming a PN. Some employers hire those with clinical experience, some may hire social workers, and others may hire laypeople who are untrained, but who have helped others through the health care system. The Bureau of Labor Statistics has only recently tracked this field, and more data will be available in the future (Alssid & Goldberg, 2013).

In fall 2014, Mitchell College began offering a Bachelor of Science Degree in Health Science. The program includes a multidisciplinary curriculum that exposes students to the underlying biology, chemistry and psychology of human health and the application of these sciences to applied fields like sports medicine and behavioral medicine. Graduates of the program will find employment opportunities as PNs and health care advocates in hospitals, health clinics, and health maintenance organizations.

Gateway Community College began offering a PN program in 2013 that teaches students to proactively guide patients through local health care systems to achieve optimal health outcomes. Students participate in 24 hours of classroom training and 24 hours of observational clinical activity shadowing PNs at work.

Behavioral Health

Behavioral health is another area of health care that will see an increase in demands for service since the passage of the ACA. Effective January 1, 2014, all individual health plans and those sold to small businesses must offer a comprehensive package of benefits that includes mental health and substance abuse treatment and prescription drugs, and key interventions for children, youth and adults used by behavioral health professionals (Consumer Reports, 2013). This may create greater demand for mental health services on a system already overwhelmed by the needs of children, minorities and other underserved populations.

According to Jobs for the Future's 2011 *Connecticut Healthcare Workforce Assessment* prepared for the AHWPB, many employers anticipate demand will rise across the board in behavioral health due to health care reform and aging baby boomers who tend to be more comfortable seeking behavioral health services than their parents. Finding direct care professionals with masters' degrees and or higher as well as high-level managers with the requisite certifications and experience is anticipated to be a large challenge (Holm, Quimby & Dorrer, 2011).

The behavioral health field includes the diagnosis, treatment, rehabilitation and recovery of persons with mental health, substance use conditions, or both. Behavioral health is a diverse subsector with significant employment opportunities in the for-profit, nonprofit and state government sectors. There are many employment opportunities for psychiatrists, occupational therapists, pharmacists, social workers, psychiatric and other advanced care nurses.

In behavioral health, career ladders are more difficult to create for those at lower education levels without a professional degree. A person can work in direct care as a Social and Human Service Assistant with a high school diploma and community college certificate. With an associate's degree, one can work as a Drug and Alcohol Counselor or Mental Health Worker. A Master's of Social Work is needed for entry-level clinical positions in public and private systems (Holm, Quimby & Dorrer, 2011). In order to work as a Therapist, Social Worker or Psychologist, students must pursue a bachelor's degree, but more often a master's degree or doctorate is required. For instance, a school psychologist who can work in private practice or in school settings is required to have a master's degree and educational coursework to be eligible for the initial educator certification from the State Department of Education, and additional course credits and years of experience for the professional certificate (Coddington, Rosenberg & Wolf, 2011).

A number of our colleges and universities are working to address the demand for behavioral health professionals. Central Connecticut State University's Department of Counseling and Family Therapy prepares master's level students for careers in Marriage and Family Therapy, School Counseling, and Professional Counseling. The Professional Counseling program includes tracks in Mental Health Counseling, Rehabilitation Counseling and Addictions Recovery Counseling. The courses are designed to develop student competence in the application of theory-based counseling and therapy models and addressing the concerns of diverse client populations, while the practicum and clinical internship provide students with opportunities to apply their skills in a field-based setting under close supervision. Fairfield University provides master's degrees in Clinical Mental Health Counseling, School Counseling and Marriage and Family Therapy, with practicum and clinical internships at over 60 clinical training locations across the state.

During the 2014 legislative session, PA 14-115 called for the creation of a Behavioral Health Clearinghouse. The clearinghouse, being created by the Office of the Health Care Advocate, will be comprised of two major elements: a website with educational information for consumers facing behavioral health issues themselves or with someone else; and a toll free phone line that is staffed by clinicians who can respond to consumer and practitioner inquiries, identify what services consumers may be in need of and identify an appropriate provider in the consumer's area and insurance plan. The goal is to ensure "warm transfers" so that any caller gets an appointment with an appropriate provider, if desired. The clearinghouse is expected to be operational by January 2015.

ACCESS Mental Health Connecticut (Access to all of Connecticut's Children of Every Socioeconomic Status – Mental Health Connecticut) is a new initiative with the goal of improving access to treatment for children with behavioral health needs while promoting productive relationships between primary care and child psychiatry. ACCESS Mental Health CT is designed to support primary care physicians by offering phone consults including

education on assessment, treatment, and access to community resources for youth with mental health needs. A team of providers offer a free phone consult and assistance in finding community behavioral health services.

This emphasis on behavioral health services will have an impact on the training needs of front line health care workers. The MetroHartford Alliance for Careers in Healthcare (MACH), a project of the Workforce Solutions Collaborative of Greater Hartford, is currently working with employers to identify the type of training required for all clinical and administrative front line staff, who interface with patients with behavioral health issues, and with Capitol Region Education Council (CREC) to develop a curriculum framework to address that need.

Long-term Services and Supports

The need for long-term services and supports is rapidly growing to address Connecticut's aging population. The results of the Rebalancing efforts estimate the need for up to 9,000⁹ additional jobs for direct care workers over the next five years. These direct care workers can work in a variety of settings including congregate housing, assisted living facilities, residential care homes, community companion homes, community living arrangements, and hospice. They may be employed by a home health care agency, a homemaker-home health aide agency, a homemaker-companion agency or be privately hired (CT General Assembly, 2013). Federal and state Medicare and Medicaid reimbursement guidelines determine which services and workforce an individual can hire. Connecticut waiver programs offered through the Connecticut Departments of Social Services, Developmental Services and Mental Health and Addiction Services offer additional home and community-based services.

Occupational titles, roles and responsibilities of direct care workers vary slightly based on setting and Medicare and Medicaid reimbursement guidelines. A Personal Care Assistant (PCA) provides physical assistance to help the consumer carry out the activities of daily living (ADLs) like bathing, dressing, and eating. Other duties may include housework, shopping, and paying bills. Most PCAs are employed by home health care agencies and consumer employers. The PCA position is expected to grow 38.1% from 2012 to 2022.¹⁰ A PCA has significant flexibility in their scope of work compared to other direct care workers. This position can be done in the home, community, or at the consumer's job.

Existing models through Medicare and Medicaid allow for PCA services through the Connecticut waiver system. Many of these waiver programs have a wait list that inhibits people in need from receiving immediate support. Budget language was passed in the 2014 Connecticut legislative session that categorizes PCA services as an entitlement through Medicaid instead of a being accessed through a waiver. This is expected to increase our demand for PCAs.

A Collective Bargaining Agreement (CBA) between the State of Connecticut PCA Workforce Council and the New England Healthcare Employees Union, District 1199, is in effect from July 1, 2013-June 30, 2016. Approximately 7,000 PCAs whose wages are paid by the Department of Social Services or the Department of Developmental Disabilities are covered under this agreement.

⁹ Connecticut Commission on Aging: Direct Care Workforce Development- Strategic Plan, February 2012.

¹⁰ CT Department of Labor, State of CT Industry Projections 2012-2022. Retrieved on 12/5/14.

As stated in the CBA, there will be a Training and Orientation Fund administered by a PCA Training Fund Committee. The CBA also states that effective 1/1/14, \$200,000 shall be allocated to the Fund; effective 7/1/14 \$350,000 shall be allocated to the Fund; and effective 7/1/15 \$400,000 shall be allocated to the Fund. The Fund may be used to support an orientation program for PCA workers with the goal of increasing their understanding of the PCA programs, the rights and responsibilities of PCAs and consumers, and communication between the consumer employers and PCA workers following hire.

The Fund Committee, in conjunction with the PCA Workforce Council, will develop and implement a training plan for classes and programs to be offered throughout the State for incumbent PCAs. The skills training shall be developed around core competencies approved by the Council with input and recommendations from a variety of stakeholders.

The PCA Workforce Council is planning to release an RFP in early 2015 for the oversight and management of the Training and Orientation Fund. The 1199 Training Fund expects to respond to the RFP and will apply to oversee and manage the Fund.

Another direct care worker is the Home Health Aide (HHA). HHAs may check pulse, temperature, and respiration; help with simple prescribed exercises; and assist with medication routines. Occasionally, they change non-sterile dressings, use special equipment such as a hydraulic lift, give massages and alcohol rubs, or assist with braces and artificial limbs, and any other tasks a Registered Nurse chooses to have a HHA perform. HHAs are expected to grow 38.7% from 2012-2022.¹¹ Initial training/certification is 75 hours through a state-approved training program, led by a qualified nurse. Trainings primarily take place at a DPH registered Home Health Aide Agency. HHAs are employed by home health care agencies, visiting nurse associations, social service agencies, residential care facilities, and temporary-help firms. Others work for home health departments of hospitals and nursing facilities, public health agencies and community volunteer agencies.¹²

HHAs are regulated by the Department of Public Health and are required to provide direct hands-on care every fifteen minutes, thereby restricting their work and making them less desirable for hire than other occupations such as PCAs, who can perform a greater variety of functions with less oversight. Many community colleges and other training providers in Connecticut have eliminated the HHA program from their offerings due to decreased demand for this specialized training. The AHWPB is monitoring trends with HHAs to determine whether or not employers anticipate future hiring as CTDOL data would suggest. We anticipate a shift among workers in the occupational categories associated with direct care workers as reforms and changes to waivers expand who can be hired and reimbursed for services.

In addition to the growing demand for services of direct care workers, the level of care needed will increase, impacting the training the workforce requires. For instance, we will need to increase the number of direct care health care professionals such as PCAs, MAs and others, and ensure they are competent to serve individuals with Alzheimer's and related dementias. However, there are few generally recognized and accepted quality

¹¹ CT Department of Labor, State of CT Industry Projections 2012-2022. Retrieved on 12/5/14.

¹² Department of Economic Community Development. Occupational Profile. Retrieved on 1/29/14.

standards to measure dementia care that professionals provide to Alzheimer's patients. During the 2014 legislative session, Public Act 14-194 was passed requiring all nursing facility staff to receive dementia training upon hire and annually thereafter, and the administrator must designate an employee to be a "dementia care coordinator". The legislation requires home health agencies, residential care homes, assisted living facilities, and licensed hospice organizations to provide dementia training to all staff who provide direct care upon hire. To begin to address this need, the AHWPB has facilitated an initiative with the Department of Labor, the Alzheimer's Association and a number of employer associations to offer train-the-trainer sessions to allow educators to train direct care workers state wide.

Health Information Technology/Management

The demand for health information technology (HIT) workers and HIT skills is driven by policies pre-dating the ACA including the Health Information Technology for Economic and Clinical Health (HITECH) Act passed in 2009. The bill authorized incentives for hospitals and other providers to adopt and "meaningfully use" electronic health records (EHRs). The ACA built on this platform by making EHRs central to the success of medical homes and coordination across providers (Wilson, 2014).

Health information technology is an area expected to grow over the next 3-5 years with the emphasis on electronic medical records and medical coding and billing. HIT professionals are expected to grow 18.1% from 2012-2022.¹³ Broadly speaking, the HIT field involves the comprehensive management of health information and its secure exchange between consumers, providers, government and quality entities, and insurers. Many argue that HIT plays a critical role in reducing paperwork, medical errors and health care costs, and improving the quality of care while providing a secure means for sharing confidential information.

Medical records and health information technologists who have earned a certificate are trained to collect patients' health information including medical history, symptoms, examination results, diagnostic tests, treatment methods, and all other health care provider services. Technicians organize and manage health information data by ensuring its quality, accuracy, accessibility, and security.¹⁴ They regularly communicate with physicians and other health care professionals to clarify diagnoses or to obtain additional information. Experienced medical records and health information technicians usually advance their careers by obtaining a bachelor's or master's degree or by seeking an advanced specialty certification. Technicians with a bachelor's or master's degree can advance and become a health information manager. The area of health informatics is also expected to grow. This position involves not only management and integration of data but analysis that puts that data to use for improving health care delivery (Wilson, 2014).

Recruitment consultants and hospital representatives interviewed in the 2014 Jobs for the Future report, express doubt that EHRs will create large new employment demands or that conversion to ICD-10, the new system of diagnostic billing codes will lead to significant hiring for medical coders (Wilson, 2014). Most employers prefer to hire credentialed medical record and health information technicians. However, while having proficiency in information technology is an important qualification for these professions, many of these

¹³ CT Department of Labor, State of CT Industry Projections 2012-2022. Retrieved on 12/5/14.

¹⁴ Bureau of Labor Statistics, <http://www.bls.gov/oco/ocos103.htm>. Retrieved 4/24/14.

positions also require clinical knowledge. Therefore, employers are training their internal workforce, particularly nurses to become HIT professionals as well as hiring new employees with the requisite technology and clinical skills.

This type of requirements will demand training in a new set of skills from the workforce. For example, some non-HIT workers such as medical assistants who perform administrative duties such as maintaining medical records as well as clinical tasks including recording patient vital signs and histories, will be front end users and require one type of training, while HIT professionals such as medical records and health information technicians who are responsible for compiling, processing and maintaining patient medical records will need more technology and clinical training to gain the necessary skills (Alssid & Goldberg, 2013). The Jobs for the Future report found that employers were looking for HIT and coding candidates with a solid grounding in health care concepts, including medical terminology, anatomy and physiology, strong detail orientation, good analytic skills, and the ability to work across disciplines. In addition, some employers were looking for acute care experience creating barriers in some cases for newly trained candidates without work experience (Wilson, 2014).

Connecticut colleges and universities are working to address the need for health information professionals. Connecticut's Office of Higher Education invested in the development of HIT coursework through the state's community colleges, public universities and Charter Oak State College. The five college pilot project (Capital, Norwalk and Northwestern Community Colleges, Eastern CT State University and Charter Oak State College) created and piloted coursework at the certificate, associate and bachelor degree levels leading to HIT occupations. The articulated pathway is intended to match employer demand with graduates of the colleges. It will be important for the Board of Regents to ensure these programs match employer requirements and alter the curriculum as technology and the health care system advances.

Capital Community College, through a grant from the US Department of Health and Human Services, has offered a HIT program for two groups of individuals: IT professionals who have been downsized due to economic conditions or dislocation; and health care professionals such as nurses, paramedics, technicians and medical assistants who are seeking continuing education in IT for career advancement. Asnuntuck Community College now offers an ICD-10 training program for medical coding students as well as incumbent workers in the field to help them meet the coding requirements, and Sacred Heart University now offers a fully online graduate program in Health care Informatics. Capital Workforce Partners, through a USDOL H1B grant has been working with local employers and colleges to train and place HIT and coding professionals in the workforce.

The Continuing Education Department at Saint Vincent's College continues to offer numerous certificates in health care related fields, including HIT. Courses in preparation for the introduction of ICD-10 are currently underway and include a 30 credit program in health information technology. Graduates of this program will be eligible for certification from AHIMA.

Building A Skilled Workforce: Challenges Facing Individuals and Institutions

Meeting the demands of employers and the health care industry broadly poses challenges for the students who are pursuing or advancing their careers in health care, and the educational institutions that prepare them for those positions. It is critical that employers and educators come together, as they do with the Allied Health Workforce Policy Board, to fully discuss hiring trends and occupational requirements and align curriculum to those demands to overcome this disconnect between supply and demand.

Too many students entering the state's community colleges who are potential health care workers lack fundamental skills in literacy, math, science, and English, and require substantial developmental education to enter a post-secondary allied health program. About two-thirds of students entering community colleges and one-fifth of students entering state universities are placed into remedial and developmental math, English courses, or both. Common methods of remedial education are not successful for the majority of students. Only 8% of community college students taking remedial courses earn a credential within three years. Those who entered the health care field through certificate level programs often encounter great difficulty meeting the academic requirements of college degree programs, preventing them from advancing up the career ladders. Even when students have completed health care training programs, employers have a great deal of concern about the skills of newly trained staff and their ability to handle the technical requirements and social roles of health care workers. Employers contend that certification requirements do not necessarily guarantee that an applicant has the necessary skills for the job. In other instances, employers indicate that workers were technically prepared but not ready for the health care setting in which they would be working (Wilson, 2014).

Students of traditional college age and older, often have limited understanding of the availability and range of opportunities in health careers. While many training programs exist within the state, some of those programs and careers, such as nuclear medical technologists or laboratory technicians, go virtually unnoticed by traditional and nontraditional prospective students. The information can be confusing to students who would benefit from a coordinated campaign providing facts on career opportunities and the work setting of and educational requirements for allied health programs. Many of the state's colleges and universities such as Gateway Community College and St. Vincent's College offer summer camps to allow high school students to explore and prepare for health careers and support HOSA (Health Occupations Students of America) students inviting them to campuses for tours and presentations on health careers. AHEC produces a comprehensive occupational guide entitled *HOT Jobs* which is available online for all interested. These efforts are critical but would benefit greatly from a coordinated effort to ensure their reach statewide.

The existing workforce is also facing demands to enhance their skills, both technical and interpersonal to align with new quality measures. A premium is being placed on job readiness, problem solving and communication skills in addition to clinical skills to ensure holistic services for individuals. Though always important to employers, these skills now have a direct impact on customer service and payments making them essential components of their business models. As mentioned previously, the growing use of technology on the job places new demands on all positions. "Even for positions requiring less than a college education, the amount of

information that must be processed and relayed electronically is huge,” (Holm, Quimby & Dorrer, 2011). Current employees are expected to work to the top of their license or job description, often for no additional compensation.

Connecticut’s incumbent worker training program operated by the CT Department of Labor offers employers an opportunity to apply for matching funds to invest in exactly this type of professional development and career advancement for their current workers. For example, Connecticut Community Care Incorporated is using incumbent worker training funds to support a train-the-trainer initiative related to implementing clinical protocols, with Griffin Hospital providing high reliability training to their staff through the available funding.

As occupations become more advanced in health care, many professions are now requiring bachelors and advanced degrees, pushing individuals to pursue higher education or leave the field. Registered Nurses are now pursuing bachelor’s degrees in order to find employment and advance in their careers. The 2010 Future of Nursing Report (Institute of Medicine) concludes: “As patient needs and care environments have become more complex, nurses need to attain requisite competencies [including] leadership, health policy, system improvement, research and evidence-based practice, and teamwork and collaboration, as well as competency in specific content areas...Nurses also are being called upon to master technological tools and information management systems.”¹⁵

The report recommends increasing the proportion of nurses with bachelor’s degrees to 80% by 2020, and creating more “transition-to-practice residency programs.” The recent Connecticut League for Nursing survey found that of the 1,661 registered nurse respondents, 33% hold a diploma in nursing or associates degree and will have to complete a bachelors degree in the near future to maintain their positions (CT League for Nursing, 2013). The declining use of LPNs in hospitals has largely eliminated an attainable step between nursing assistant and registered nurse, and has put pressure on LPNs to advance their degrees or lose their positions (Wilson, 2014).

In order to address this demand for advanced degrees, Gateway Community College offers an LPN to RN Fast Track to support the seamless and expeditious progression of LPNs to achieve an associate’s degree in nursing (ADN). Western Connecticut State University (WCSU) and Central CT State University (CCSU) offer ADN to BSN programs to help meet this goal for advanced trained nurses. CCSU’s program is also supported through Capital Workforce Partners H1B grant in partnership with local hospitals and nursing homes.

Physical therapy is another area that now requires a doctorate for entry into the field, pushing workers who originally were able to practice with a master’s degree to complete further education or lose their license. University of Hartford’s Doctor of Physical Therapy program will produce its 16th year of graduates in 2014. Those holding a bachelor’s degree may apply for graduate admission to the DPT program, as well as first year undergraduates who can apply for direct entry into a combined BS/DPT track.

¹⁵ “Nurse of the Future Nursing Core Competencies”, Massachusetts Department of Higher Education Nursing Initiative. August 2010. <http://www.mass.edu/currentinit/documents/NursingCoreCompetencies.pdf>

Educational institutions also encounter challenges as they try to meet the varying and increasing demands of academic accrediting bodies and state licensing and program approval requirements. The SIM plan recommends the Department of Public Health work with schools and health care providers to better align licensing requirements with new industry demands and accreditation requirements (Connecticut Healthcare Innovation Plan, 2013). The SIM report further argues that students of different clinical disciplines have rarely been educated together and that future efforts should bring these students together particularly in subjects that pertain to population health and patient-centered care, and to have a significant portion of their training in clinical settings outside of institutions (Connecticut Healthcare Innovation Plan, 2013). This is the goal as mentioned earlier of inter-professional training, which is underway through the efforts of Connecticut AHEC and others.

Priority Areas and Recommendations

Over the past decade, the AHWPB has tracked trends in the allied health workforce and has brought together employers, educators and advocates to identify challenges and solutions to matching workforce supply and demand. With the growing complexity of the health care system and its changing financial and service delivery models, this continued due diligence can help Connecticut take advantage of opportunities that come from reforms while being watchful for obstacles ahead. The following recommendations represent important steps in ensuring Connecticut has a well trained health care workforce, and that employers have the skilled workers they need to provide high quality care.

Collect and Strategically Utilize Health care Workforce Data

The State must have the capacity and infrastructure (and resources) to collect, analyze and make timely use of critical health care workforce-related data to support effective planning and informed decision-making concerning health care workforce policy, strategy and related investments. This workforce data rests in several state agencies including the Office of Higher Education, the Board of Regents and the Department of Education, Labor, and Public Health, as well as others which have service needs information for specific target populations such as Departments of Social Services, Mental Health and Addiction Services, and Children and Families.

In Connecticut, a future portal for health care workforce information could contain, but not be limited to, the following data:

- **Department of Labor:** Quarterly Census of Employment and Wages (QCEW) Updated Quarterly; Local Employment Dynamics (LED) Updated Quarterly; Occupational Employment Statistics (OES) Updated Annually; Occupational Employment Projections; and Unemployment Insurance Data.
- **Board of Regents and Office of Higher Education:** Data from the Integrated Post Secondary Data System (IPEDS) that provides statewide higher education data by institution on student enrollment, course completion and graduation.
- **Department of Public Health:** Licensure and Certification Data for their health care practitioner occupations including but not limited to currently practicing physicians, nurses, occupational and physical therapists, behavioral health professionals and technician and technologist positions.

Recommendations:

- Develop and ensure the funding and infrastructure necessary to sustain an internet-based health care workforce data portal to provide efficient and effective access to key information (employment and wage data, labor market information, licensure and certification data, educational institutional capacity and limitations, socio-economic trends, demographics, performance-related information, and research studies) to inform strategy, planning, policy development and implementation, evaluation, etc.
- Use data collected from the portal to support development of a strategic plan to ensure the workforce matches employer needs, and the appropriate number and variety of programs exist to train the needed professionals. In particular, this plan should document the workforce needs in four primary areas of primary care, health information technology and management, behavioral health, and long term

services and supports; outline the career pathways in each area; and identify gaps in education supply versus occupational demand.

Support Pipeline of New and Incumbent Workers

Connecticut's institutions of higher education are graduating growing numbers of students from their health care programs. Many are starting at the beginning of their career ladders and will need guidance and support in order to pursue additional professional certifications and degrees. It is imperative that the Department of Education, Office of Higher Education and Board of Regents, which oversee these institutions, ensures that students are well informed of their occupational opportunities and are able to move seamlessly from one institution to the next, and from one step on the career ladder to steps which are both lateral and advanced.

Recommendations:

- Facilitate opportunities for employers and educators to meet on statewide and regional levels to discuss their staffing needs, and as well as challenges in training and retaining that workforce.
- Clearly articulate pathways from entry level training through to advanced degrees and certifications. Ensure that at each step of the career ladder that articulation agreements exist between institutions to ensure a seamless transition for students.
- Provide opportunities for students, particularly veterans and international students with health care experience, to participate in prior learning assessments in order to provide credit for past experience and accelerate their training and re-employment in health care professions.
- Work with Department of Public Health, employers and educators to determine whether current licensing requirements align with new industry demands and accreditation requirements and make any adjustments needed.

Create an Infrastructure to Support the Direct Care Workforce Engaged in Community Care

Connecticut is working to rebalance its long term services and supports from a highly institutionally-based system to a system that supports a person's choice to remain in their own homes or community. This transition is changing expectations for the provision of services to older adults and people with disabilities. It is expected that these positions will primarily be in home-based settings. Much more work needs to be done to develop an infrastructure to facilitate training and support for these workers to ensure they provide quality, person-centered care.

Recommendations:

- Establish guidelines for and develop a database that allows students and workers who are interested in community care work to register for employment, training and peer support.
- Develop a wide array of post-hire training opportunities for direct care workers to enhance their skills online and on-ground to accommodate different learning styles and work schedules. State agencies such as the Departments of Developmental Disabilities, Social Services, Public Health and the Board of Regents can be called upon to share their current offerings and collaborate to develop new courses to meet these needs.

- Investigate promising practices from Connecticut and other states related to workforce requirements and licensure, job matching and placement supports, scope of practice and roles, and wages and reimbursement.

Coordinate a Statewide Allied Health Workforce Outreach Campaign

While many training programs exist within the state, some of those programs and careers, such as nuclear medical technologists or laboratory technicians, go virtually unnoticed by prospective traditional and nontraditional students. A coordinated statewide outreach campaign, designed with input from all stakeholders, including the Departments of Education, Labor and Economic and Community Development, Workforce Investment Boards, Area Health Education Centers, the Nursing Career Center, America's Job Centers, Connecticut League for Nursing and the state's secondary and post-secondary institutions is needed. Current funding in each of these agencies' budgets can be leveraged to coordinate this effort.

Recommendations:

- The agencies should inventory their current outreach efforts and materials and develop a coordinated plan for engagement and distribution.
- The agencies should target information teachers and guidance counselors, and parents and students, particularly minority students, providing information on career opportunities
- The agencies should target information to unemployed adults and current and potential post-secondary students about career opportunities and the location of and educational requirements for allied health programs.

Conclusion

The AHWPB provides a vehicle for statewide collaboration and offers this report to inform policymakers and other stakeholders about the status of health care workforce and the initiatives and resources needed to ensure a strong health care delivery system today and into the future. It is imperative that the state is well informed, nimble in its response to opportunities and quick to address challenges that will have lasting effects on the workforce and communities. The AHWPB stands ready to work with state agencies, colleges and universities, Workforce Investment Boards, the legislature and Administration and other partners to meet these challenges.

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