

Literature Review: Healthcare Occupational Training and Support Programs under the ACA— Background and Implications for Evaluating HPOG

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Implementation, Systems and Outcome Evaluation of the Health Profession Opportunity Grants (HPOG) to Serve TANF Recipients and Other Low-income Individuals



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Overview

The Health Profession Opportunity Grants (HPOG) Program was established by the Affordable Care Act of 2010 (ACA) to provide training in high-demand health care professions to Temporary Assistance for Needy Families (TANF) recipients and other low-income individuals. The Administration for Children and Families (ACF) of the U.S. Department of Health and Human Services awarded grants to 32 organizations to develop career pathways programs in healthcare. ACF is using a multi-pronged evaluation strategy to assess the program implementation, systems change, outcomes and impact of these HPOG demonstration projects. Specifically, the HPOG National Implementation Evaluation and the HPOG Impact Study, which both use rigorous analysis methods, will inform ACF and the field about the most effective design and implementation strategies for achieving successful training and employment outcomes for these populations. This paper reviews the literature on the policy context of the HPOG program and the challenges and opportunities related to developing healthcare occupational training and support programs. It discusses the structure of the healthcare industry and trends in healthcare employment, implications of ACA for entry-level employment in healthcare, and resulting challenges and opportunities for training programs.

The literature shows that ACA coverage expansion will somewhat increase demand for covered services, hence caregivers, and in turn for more workforce training. ACA aims to reduce the costs of care through a greater emphasis on prevention and by restructuring the delivery system, including efforts that focus on the organization and development of the healthcare workforce. Current movements to redesign service delivery toward lower-cost caregivers, given renewed impetus by ACA, will also promote change. In addition, as the population ages and advances in medicine increase, the number of persons living with chronic medical conditions will grow. As a result, demand for supportive healthcare services is likely to expand as a means to complement and supplement physician services, staff automation of medical recordkeeping, and facilitate a shift from inpatient to ambulatory care.

Healthcare is the fastest growing industrial sector. Projections for healthcare employment show significant growth in demand across occupations and workplace settings. Important shortages of labor in healthcare occupations have been predicted, particularly for registered nurses but with some evidence for other direct care professionals, as well.

There are several challenges for workforce development policy posed by these increases in demand and potential labor shortages. There is a need to develop a strong pipeline for training to ensure a high-quality direct care workforce. However, many potential candidates are low-income workers without adequate basic skills to enter occupational training. Programs need to address tuition and support structures as well as include basic skill development components. The HPOG research agenda will help shed light on whether this untapped potential source of the future healthcare workforce—low-income workers—can be trained and placed into healthcare jobs. Results of the evaluation will contribute significantly to the literature regarding innovative approaches to address the supply side needs of the healthcare workforce.

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The Health Profession Opportunity Grants (HPOG) Program was established by the Patient Protection and Affordable Care Act of 2010 (ACA) to provide training programs in high-demand healthcare professions to Temporary Assistance for Needy Families (TANF) recipients and other low-income individuals.¹ In addition to providing opportunities for economic advancement, HPOG was also designed to meet the growing labor force needs of an ever-expanding healthcare industry. Beginning in 2010, the Administration for Children and Families (ACF) of the U.S. Department of Health and Human Services (HHS) provided five-year grants to 32 grantees in 23 states across the United States. HPOG grantees include post-secondary educational institutions, workforce investment boards (WIBs), state or local government agencies, and non-profit organizations. Five grantees are Tribal organizations.

ACF is using a multi-pronged evaluation strategy to assess the HPOG demonstration projects. This strategy includes the following components: (1) the HPOG Implementation, Systems and Outcome Project; (2) Evaluation of Tribal HPOG; (3) HPOG Impact Study; (4) additional impact studies of a subset of HPOG grantees through the Innovative Strategies for Increasing Self-Sufficiency (ISIS) project; (5) HPOG National Implementation Evaluation; and (6) University Partnership Research Grants for HPOG. These research and evaluation activities aim to provide information on program implementation, systems change, outcomes and impact.

This essay reviews the policy significance of the HPOG program and the challenges and opportunities related to developing healthcare occupational training and support programs. The discussion focuses mainly on entry-level healthcare and related social services occupations that are targeted by the majority of HPOG grantees. Focusing on this core group of healthcare professions,² the following sections summarize important contextual information regarding the ACA and on health occupations and jobs; discuss the complexity of healthcare occupations credentialing requirements; provide insight into the structure of current and future employment opportunities; and summarize key challenges and opportunities regarding developing and retaining a sufficient and high-quality healthcare workforce.

The Legislative and Workforce Policy Context: New Opportunities from the Affordable Care Act

The ACA creates new opportunities to improve access to quality healthcare services by expanding health insurance coverage to millions of people who have tended to rely on emergency care as their primary source of healthcare. A major aim is also to reduce the costs of care, both through the emphasis on prevention and by restructuring the delivery system in a variety of ways, including efforts that focus on the organization and development of the healthcare workforce.

¹ Authority for these demonstrations is included in ACA, Public Law 111-148, 124 Stat. 119, March 23, 2010, sect. 5507(a), “Demonstration Projects to Provide Low-Income Individuals with Opportunities for Education, Training, and Career Advancement to Address Health Professions Workforce Needs,” adding sect. 2008(a) to the Social Security Act, 42 U.S.C. 1397g(a). As used in this review “ACA” includes the modifications made by the Healthcare and Education Reconciliation Act of 2010, Pub L. 111-152, 124 Stat. 1029, enacted a week later.

² This review primarily focuses on occupations that show both strong growth in expected employer demand as projected by U.S. Bureau of Labor Statistics (BLS) and also are commonly targeted by HPOG grantees. The memo employs BLS occupational categories and definitions.

There have been concerns about the supply of healthcare workers³ for some time. Even before the ACA, workforce shortages were expected to grow apace, given new needs from population aging, growing incidence of chronic disease, and the increasing specialization of medical care (Institute of Medicine 2008). The ACA's goal to increase the number of individuals with health coverage is widely expected to cause a further surge in demand starting mid-decade (Iglehart 2010). New supply-side initiatives are needed to meet this demand, as recognized by the ACA, as well as respond to enhanced pressures for better quality and more economical care (Ormond and Bovbjerg 2010). This is especially true for primary care and for patients with chronic conditions or in need of long-term care, where a range of supporting healthcare occupations play significant roles (Coleman et al. 2009). Many such positions offer good, entry-level targets for employment for low-income individuals. The whole of ACA's workforce provisions (Title V), notably including its new national healthcare workforce commission (sec. 5101), also recognizes a need to systematize and reorient federal healthcare workforce policies. The ACA presents both a challenge for workforce improvement but also an opportunity to inform federal policies for a fast growing economic sector.

The HPOG program is structured to meet dual goals of demonstrating new ways to increase the supply of healthcare workers while creating vocational opportunities for low-income individuals. The integrated structure advances prior policy approaches that separately addressed healthcare needs and low-income workforce development. For example, many federal agencies are involved in healthcare workforce policy and training, including the Health Resources and Services Administration (HRSA) and other agencies in HHS, the U.S. Department of Labor, and the U.S. Department of Education. However, historically, they have worked on these efforts separately (Congressional Research Service 2010). The ACA increases federal funding for healthcare training to expand incentives for individuals to enter the healthcare workforce, including more investment in education, training, and work supports, which might be particularly important to encourage low-income or disadvantaged individuals to pursue training.⁴

Healthcare and consumer advocates suggest that combining education funding streams and targeting disadvantaged individuals will draw more people into the healthcare workforce. The ACA provides new resources for states and entities who have invested in developing the healthcare workforce. Specifically, federal funds from the HHS Prevention and Public Health Fund are available for states and other entities to expand their healthcare workforce, including student loan repayment and forgiveness programs, as well as grants for enhanced training programs for a variety of healthcare professionals. The HPOG program awarded five-year grants to 32 grantees to expand available resources to economically disadvantaged

³ The literature, practitioners, and observers in the field describe health occupations in different ways. For simplicity, this essay uses the term "healthcare" workforce or worker. Terms in common usage for HPOG-targeted occupations include "healthcare support occupations" "allied health workers," "paraprofessionals," "direct care workers," "assistive personnel," and "front line caregivers." Nomenclature also varies across employment sector (e.g., hospital versus nursing home); type of healthcare service (e.g., long-term care versus chronic care); and by specialization (e.g., pediatrics versus geriatrics). The breadth of jobs that compose the healthcare sector also increases complexity to accurately classify occupations under singular terms (e.g., Health Information Technology versus Certified Nursing Assistant).

⁴ The ACA has also funded more traditional healthcare workforce training programs within HRSA. See Public Health and Prevention Fund Workforce Grants, http://www.hhs.gov/news/press/2010pres/09b/state_charts.html. In general, discretionary appropriations since the ACA have favored pre-existing programs relative to new programs created but not funded by the ACA itself (Redhead et al. 2013).

groups to enter the health care workforce. These grants, disbursed annually, totaled approximately \$67 million in each of the first three years of the program.

The HPOG resources facilitate the advancement of the paradigm where complex demand and supply side needs are concurrently addressed. The policy knits together low-income and healthcare workforce policy through strategies that enable individuals to obtain education and training for healthcare occupations needed by employers. The intended product of the grant funds is innovative training approaches that may be replicable. Resources are particularly targeted at strategies that increase healthcare workforce entry, meet education, training, certification, and professional development standards, and increase wages and benefits.

Structure of the Healthcare Industry

Healthcare is a very labor-intensive service industry. It constitutes the largest sector of the workforce or one of the largest, depending upon the definition applied. It is also the fastest growing sector in terms of number of workers. Health services and caregiving also blend into other social service occupations, depending upon circumstances and client needs, and the Census Bureau classifies them together as a single sector. The continuum of curative and supportive services ranges from clinical services such as annual physical exams to supportive services such as homemaking. Likewise, employers and employment opportunities exist along a wide continuum from hospitals and physicians' offices at the medical end, through long-term care facilities and physical therapy offices, to assisted living and retirement communities and day care at the social-support end.

Health services are delivered by workers with specialized training of varying levels, with educational degrees often defining a workforce category or industry component. Educational prerequisites range from multiple years of specialty training after medical school to quite short training courses for assistive professions or direct care workers. The service delivery activities and processes in the healthcare industry involve blending the labor of health practitioners who have appropriate levels of expertise with diagnostic and therapeutic technologies and other support positions as appropriate.

Health services may address acute, short-term needs, or the treatment or prevention of chronic and long-term conditions. The sector is unusual in that most revenue is generated by private or public health insurance, a substantial minority from patients' out-of-pocket payment, and some from other public programs or facilities (Centers for Medicare & Medicaid Services 2012). The insurance share of funding is highest for acute medical needs and lowest or non-existent for purely supportive services. Medicaid is the largest single payer for long-term care services. Most long-term care is financed by Medicaid or Medicare and next most by patient or family out of pocket payment, although the role of private long-term care coverage is growing.

Private and public health plan rules and payment allowances influence occupational opportunity, wages, and conditions of employment. Funding rules and customary practices have substantial influence on the delivery of care, including what occupations are allowed to deliver services.

States and federal authorities also have considerable influence over the healthcare sector. Both the federal and state governments play a role in regulation of healthcare credentials and services. States have the constitutional authority to regulate commerce, occupations and businesses within their boundaries, and also can contribute to federal regulatory schemes such as setting reimbursement procedures under Medicaid.

Finally, labor unions can also affect occupational opportunity, wages and the conditions of employment, depending on the locality. In 2012, 14 percent of those employed in healthcare practitioner and technical occupations and almost 10 percent of those employed in health support occupations were represented by unions (Bureau of Labor Statistics 2012a).

Healthcare Occupations: Who the Workers Are

Healthcare occupations are marked by a high degree of specialization. They feature a more or less clearly defined hierarchy based largely on educational level, other credentials, and the extent to which they are involved in clinical care rather than social or supportive services. Licensure and credentialing play a very large role, which greatly influence potential career paths (see Exhibit 1).

Other clinical health professionals also diagnose and treat problems within narrower scopes of practice or using different modalities, including chiropractors, dentists, and podiatrists. Physician assistants and registered nurses can provide many of the same services that patients obtain from primary care physicians, particularly advanced practice nurses who have received additional education. A great many other occupations exist in the healthcare sector (Bureau of Labor Statistics 2010).

The Bureau of Labor Statistics (BLS) provides a helpful typology. Its system of Standard Occupational Classification (SOC) distinguishes three key broad occupational divisions involved in healthcare. First, “Healthcare Practitioners and Technical Occupations” play clinical roles (category 29-0000). Practitioners include not just physicians and nurses but also audiologists, chiropractors, and other advanced practitioners who also have high educational requirements. The technical occupations require substantial training and include clinical lab technologists, dental hygienists, and the like. Second, “Healthcare Support Occupations” typically work under the supervision of clinical practitioners. They include licensed practical nurses (LPNs), nursing assistants, and medical assistants, among others (SOC 31-0000). Much shorter education or training is needed for such occupations, which constitute the bulk of healthcare jobs.

Third, two other categories of workers, “Community and Social Services Occupations” and “Personal Care and Service Occupations” (SOCs 21-0000 and 39-0000), do not provide specifically healthcare-related services. However, some of them, such as social and human service assistants, speech-language pathologists, fitness workers, or personal care aides, may work in the healthcare sector. Their capabilities and services overlap with those of nursing assistants, for example, who assist residents or clients with the activities of daily living needed within long-term care and rehabilitation settings. Some health professionals occupy non-health positions; notably, physicians and registered nurses have many opportunities to work in administration, insurance, research, or the public sector in non-clinical roles.

Exhibit 1. Occupational Licensure, Certification, and Registration

Three terms commonly appear in discussions of credentialing. These **classic definitions** show the categories are complementary but distinct.

Licensure is mandatory and means permission under state law to engage in an occupation, based on documentation of credentials. Unlicensed activity within the defined occupational scope of practice is banned and may bring criminal sanctions.

Certification is voluntary and means an authority in the field, typically an expert private organization, declares the certified person is competent to practice because they have passed a test of relevant standards. Uncertified people are free to offer the same services. It is distinct from educational attainment in that it measures competence at the time of testing, not merely successful attendance during training. (“*Accreditation*” is a very similar term that normally means certification of an institution, often a school, or program; hospitals and some other providers are accredited by the private Joint Commission for the Accreditation of Healthcare Organizations.)

Registration means that a person has put their name on a roster that lets employers and the public know who is engaged in the listed occupation or activity. It serves to identify people and allow monitoring.

Practical nomenclature is not standardized. In ordinary usage, the terms overlap. Registered can mean licensed, as in registered nurse (RN). Certification can be essentially mandatory, akin to licensure, and it may be state controlled rather than private. Nursing assistants working in long-term care, for example, must meet minimum federal standards to provide services for which their employers are paid by Medicare or Medicaid. States oversee the certification of such certified nursing assistants (CNAs) and list approved individuals on registries that employers must check. Multiple organizations compete to certify or accredit the same or very similar occupations. People can sometimes engage in the same occupation on either a certified or registered basis. Hundreds of certifications exist in healthcare, and more are constantly being created.

Sources: Balasa (2007), Bianco (1999), CLEAR (2007), Olsen (1999).

Many people who work in healthcare are not health professionals and do not help take care of patients. These people are in administrative, clerical, and managerial occupations but happen to work within doctors’ offices, clinics, or healthcare facilities. HPOG grantee programs’ main target within these administrative positions is medical records administration and health information technology (HIT). People in such occupations are likely to have quite different career ladders than people trained in healthcare or its support.

Exhibits 2 and 3 present a set of healthcare support professions being targeted by HPOG grantees. Notable observations include:

- All direct-care positions play a supportive role to a clinician or other diagnostic/treatment professional.
- Individuals trained within a single health profession (e.g., CNA) may work in a range of healthcare settings (e.g., hospital or nursing home).
- Positions often have different occupational titles, varying by employment setting and specialized focus of the work, as well as idiosyncratic usage.
- Multiple training and education pathways exist for many occupations, which increases possible points of entry and advancement.
- Direct care occupations other than nurses typically do not require post-secondary degrees for employment.
- An increasing number of health sector positions require or prefer certification or licensure through an external professional assessment body.

The continual expansion in size and degree of specialization of supportive healthcare occupations is reflected in the modifications to the BLS occupational typology made between 2008 and 2010 (Emmel

and Cosca 2010). Changes include additional sub-categories, name modifications and regrouping of occupations, and changes in categories of credentialing and skill requirements. In all, hundreds of occupational categories exist which increases the complexity for workers and employers when identifying training and hiring needs.

Exhibit 2. Selected Health Occupations by Employment Volume, Training Pathways, and Credentialing

BLS Category	Employed 2010 (thousands)	Projected Net Employment Increase (2010-2020)	Median Wage/Salary (2010)	Degree Requirements for Training Program Entry	Educational Programs (site, duration)	Extent of Licensure / Certification
Registered Nurse SOC: 29-1141	2737.4	26%	\$64,690; \$31.10/hr	HS diploma or equivalent	Three major tracks: (1) College & university - BSN (2) Community & junior college - AS (3) Hospital diploma program	Required: National Council Licensure Examination (NCLEX-RN)
Licensed Practical/ Vocational Nurse SOC: 29-2061	752.3	22%	\$40,308; \$19.42/hr	HS diploma or equivalent	Vocational-technical schools, community or junior college	Required: National Council Licensure Exam (NCLEX-PN)
Psychiatric Aide, Orderly, Nursing Assistant SOC: 31-1013; 31-1014; 31-1015	1505.3	20%	\$24,010; \$11.54/hr	HS diploma or equivalent (varies by state and employer)	High school, vocational-technical center, community colleges, some nursing care facilities – CNA	Required for certified nurse assistants (CNAs): 75 hours minimum state-approved training and pass a competency evaluation
Dental Assistant SOC: 31-9091	297.2	31%	\$33,470; \$16.09/hr	HS diploma or equivalent	Two major tracks: (1) On the job (2) Community and junior colleges, trade schools, technical institutes - 1yr	Varies by state: Certified Dental Assistant (CDA) by Dental Assisting National Board (DANB) required for some functions
Medical Records and Health Information Technician SOC: 29-2071	179.5	21%	\$32,350; \$15.55/hr	HS diploma or equivalent	Community or junior college, hospital certificate, vocational-technical school, Armed Forces - 1yr	Varies by employer and state Specialized certification examples: AHIMA, AAPC, BMSC*
Medical Assistant SOC: 31-9092	527.6	31%	\$28,860; \$13.87/hr	None	Three major tracks: (1) On the job (2) Vocational-technical certificate - 1yr (3) Community/junior college - AS 2yrs	Not required; certification as a medical assistant is available
Pharmacy Technician/Aide SOC: 29-2052; 31-9095	334.4	32%	\$28,400; \$13.65/hr	HS diploma or equivalent (varies by state)	On the job training	Voluntary through private groups
Home Health & Personal Care Aide SOC: 31-1011; 39-9021	1878.7 (combined)	70%	\$20,170; \$9.70/hr	None	On the job training	75 hours minimum state-approved training and competency evaluation

Source: BLS (2013), O*net, <http://www.onetonline.org/>.

*American Health Information Management Association (AHIMA), American Academy of Professional Coders (AAPC), Board of Medical Specialty Coding (BMSC).

Note: excludes physicians, small categories of healthcare occupations, and many categories of social service occupations.

Exhibit 3 Highlighted Health Occupations Relevant for HPOG: Descriptive Characteristics

BLS Category	Other Terms and Acronyms in Common Use	Scope of Professional Activities	BLS SOC
Registered Nurse	RN, Coronary Care Unit Nurse, Hospice Registered Nurse, Psychiatric Nurse	Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Work under supervision of physician, although advanced practice nurses with additional education and certification may act more independently, depending upon state law.	29-1141
Licensed Practical/ Vocational Nurse	LVN, LPN, Lic'd Profess. Nurse, Pediatric LPN	Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions.	29-2061
Psychiatric Aide, Orderly, Nursing Assistant	Mental Health Orderly, Psychiatric Nursing Aide, Medical Orderly, Certified Nurse Aide, Certified Nursing Assistant	<u>Psychiatric Aide</u> : Assist impaired or emotionally disturbed patients, working under direction of medical staff. Assist with daily living activities, lead patients activities, or accompany to medical care. <u>Orderly</u> : Transport patients using wheelchairs, stretchers, or moveable beds. Maintain supplies or transport equipment. <u>Nursing Assistant</u> : Provide basic patient care under direction including feed, bathe, dress, groom, or move patients, or change linens.	31-1013; 31-1014; 31-1015
Medical Assistant	Chiropractic Assistant, Morgue Attendant, Orthopedic Cast Specialist	Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Take vital signs and medical histories, prepare patients for examination, draw blood, and administer medications as directed by physician.	31-9092
Home Health Aide, Personal Care Aide	Home Health Attendant, Home Hospice Aide	Provide routine individualized healthcare such as changing bandages and dressing wounds, and applying topical medications to the elderly, convalescents, or persons with disabilities at the patient's home or in a care facility. Monitor changes in health status.	31-1011; 39-9021
Dental Assistant		Assist dentist, set up equipment, prepare patient for treatment, and keep records.	31-9091
Medical Records and Health Information Technician	Cancer Registrar, Health Information Coder, Health Information Systems Technician, Medical Records Specialist	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the healthcare system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system.	29-2071
Pharmacy Technician, Aide	Pharmacist Assistant, Pharmacy Clerk, Prescription Clerk	Prepare medications under the direction of a pharmacist. May measure, mix, label, and record amounts and dosages of medications according to prescription orders.	29-2052; 31-9095

Source: BLS 2012b, additional material by authors.

Note: Positions are ordered by highest to lowest training requirements to obtain the associated credential or degree. Descriptions are generic; details vary considerably by state and by type of credential.

Characteristics of the Current Healthcare Support Workforce

Currently, the supportive healthcare workforce is composed overwhelmingly of women, typically without post-secondary education and earning low incomes. According to one source, 89 percent of healthcare workers are women and nearly half are African-American or Hispanic/Latino. Seventy-seven percent of healthcare workers were born in the U.S. and 23 percent were born outside the U.S (Paraprofessional Healthcare Institute 2013).⁵ Analysis of data from the Current Population Survey (CPS) indicates that many supportive healthcare workers have incomes sufficiently low to qualify for public benefits (e.g., SNAP and Medicaid). For example, 11 percent of all nursing aides had family incomes below poverty, but 18 percent of aides working in nursing homes and 19 percent of aides working in home healthcare had incomes below that level. These patterns have remained constant over the last decade (Robert Wood Johnson Foundation 2005).

Employers in Healthcare: Where the Jobs Are

Healthcare workers are employed by a range of entities. In 2010, there were more than 17 million people employed in the healthcare industry by approximately 600,000 employers. Almost three-quarters of healthcare employers are offices of physicians, dentists, or other health practitioners. These offices tend to be small and represent only about 28 percent of healthcare employment. Hospitals constitute only 1.3 percent of employers but employ 35 percent of all healthcare workers. Nursing homes are 3 percent of employers, yet employ 12 percent of workers. Healthcare jobs are found throughout the country, but are concentrated in metropolitan areas.⁶

Exhibit 4 presents information for the highlighted health occupations, by projected employment growth, median salaries, and the volume of employment. The occupations are those on which HPOG programs are focusing. Key points to note include:

- Targeted occupations are expected to increase at a rate greater than average, ranging from an increase of 20 percent to 70 percent between 2010 and 2020.
- Registered nurses are currently the largest category of health professionals highlighted. The second largest occupational cluster, home health and personal care aides, is the fastest growing direct care employment category, with a projected growth rate of 70 percent between 2010 and 2020.
- Hospitals are the major employer across all sectors and highlighted employment categories and are projected to continue to be in 2020. Ambulatory health services organizations (e.g. physician offices) are the second largest employment sector in 2020 for identified employment categories.

Importantly, growth trends in employment in hospitals have been leveling off in recent years, as the system has shifted toward disease prevention and delivery of care in communities as ways to decrease healthcare costs and improve the access to and quality of healthcare.

⁵ Precise figures vary by source and year of data.

⁶ These numbers are from the BLS Employment Projections Table 1.9 2010-20 Industry-Occupation matrix data, by industry. They can be accessed at http://www.bls.gov/emp/ep_table_109.htm.

Exhibit 4. Change in Employment within Highlighted Health Professions by Major Employment Setting from 2010 to 2020 (All numbers in thousands)

BLS Category	Hospital		Ambulatory Healthcare Services		Nursing and Residential Care Facilities		Home Healthcare Service		State & Local Government		Employment Service Firms	
	# in 2020	% Change '10-'20	# in 2020	% Change '10-'20	# in 2020	% Change '10-'20	# in 2020	% Change '10-'20	# in 2020	% Change '10-'20	# in 2020	% Change '10-'20
Registered Nurse	2,016.1	23.9	740.7	48.0	208.9	18.6	228.8	55.0	95.8	7.1	89.2	24.4
Licensed Practical/Vocational Nurse	179.0	8.2	272.6	47.9	318.1	17.9	120.6	72.1	36.3	6.7	48.2	25.0
Nursing Aide, Orderly, Nursing Assistant	475.8	13.2	134.7	58.7	986.1	19.8	84.3	72.1	56.5	7.6	46.0	25.0
Dental Assistant	2.1	11.9	372.1	32.1	0.1	19.3	n/a	n/a	n/a	n/a	2.9	2.9
Medical Records and Health Information Technician	79.7	13.2	78.3	35.9	19.4	17.4	9.0	72.1	5.6	6.5	2.3	25.0
Medical Assistant	84.9	22.8	557.4	33.1	8.8	26.0	2.6	72.1	6.5	6.5	5.7	25.0
Pharmacy Aides	3.2	12.7	0.9	45.0	0.1	27.8	0.2	72.1	0.3	7.1	n/a	n/a
Home Health and Personal Care Aide	21.0	27.2	677.5	7.8	596.2	51.4	665.9	92.9	32.9	16.4	41.2	36.0

Source: BLS 2010-20 Industry-Occupation matrix data, by industry, Table 1.9. Available at http://www.bls.gov/emp/ep_table_109.htm.

Secular Workforce and Employment Trends

Over the next several decades, as the population ages and advances in medicine increase, the number of persons living with chronic medical conditions and the need for healthcare workers will expand (Institute of Medicine 2008). It is questionable, therefore, whether the nation will have an adequate supply of workers in these occupations to meet the expected increase in demand (HRSA 2004). Shortages in supply for many supportive healthcare positions preceded ACA enactment, as predicted by the BLS and others based on changing demographics. Demand for supportive healthcare services is likely to outpace physician services as a means to increase physician alternatives, support automation of medical recordkeeping, and facilitate a shift from inpatient to ambulatory care. One report estimated that the nation will need between 5.7 million and 6.5 million long-term care nurses, nurse aides, and home health and personal care workers to meet the needs of baby boomers by 2050 (HRSA 2003). The increasing demand for direct care workforce results from changes in the composition of the current workforce as healthcare industry needs rapidly expand. Specifically, projected job growth may be as high as 50 percent over a decade, depending on the job category and location in the country; drivers include both growing demand and employee separations due to high workforce age and high turnover in some fields (Robert Wood Johnson Foundation 2005, Seavey and Marquand 2011).

Questions remain as to whether there is an overall health professional shortage or whether there are focused shortages of particular types of workers in specific geographic regions and professions. Assessing demand-side health workforce needs is difficult because there are many variables that determine adequacy and no single entity oversees healthcare workforce planning.⁷ Variables that make workforce planning difficult to estimate include regional maldistribution of health professionals, overspecialization of physicians, and the current and expected demographics of the health workforce and the population served. Few projection models are available to predict accurately what an adequate ratio of health professionals should be to the population served in a given area. Rapid changes in the supply and demand sides of the healthcare workforce require that models and estimates be continuously revised. For example, in 2007, Auerbach and colleagues revised their nursing supply estimates upwards to 2.5 million in 2020 when the number of working nurses grew six times faster than had been predicted between 2000 and 2004 (Auerbach et al. 2007). The authors identified a later age at first entry into nursing and an overall increase in interest in nursing as a profession as the key drivers of the change.

Addressing Factors that Contribute to Shortages in Healthcare Workforce Supply

The interrelated demand- and supply-side factors strongly suggest a need for more policy focus on expanding training programs and encouraging the development of more targeted and innovative strategies for training healthcare workers. Several of the key factors are highlighted here:

- ❖ **Accessible Programs for Trainees.** The rapid expansion of the healthcare field across several sectors has exceeded the rate at which a trained workforce can be developed. Developing a strong pipeline for training is a fundamental pre-requisite to developing a high-quality direct care workforce. The current training structure in some regions does not provide an adequate number of

⁷ For further discussion see Bovbjerg et al. (2009).

trained individuals to meet the current and growing demand. For example, nursing school enrollment is not growing fast enough to meet the projected demand for RNs, especially those with baccalaureate degrees (American Association of Colleges of Nursing 2012). A similar pattern has been identified in programs across the direct care workforce (Scanlon 2001). In lower-skill direct care workforce positions, potential trainees lack the educational pre-requisites and/or financial resources to enter training programs. Many potential trainees are unaware of and/or may not qualify for federal and state student aide resources through the local Workforce Investment Board One Stop Center, Pell grants, and other forms of scholarship and loan (Seefeldt 2008).

Training programs are also not adequately structured to accept a larger number of trainees. The largest body of literature reporting this trend addresses nursing programs (Institute of Medicine 2011). According to the American Association of College of Nurses (AACN), U.S. nursing schools turned away 75,587 qualified applicants from baccalaureate and graduate nursing programs in 2011–12 due to insufficient number of faculty, clinical sites, classroom space, clinical preceptors, and budget constraints. Almost two-thirds of the nursing schools responding to the association’s survey pointed to faculty shortages as a reason for not accepting all qualified applicants into their programs (AACN 2012). The importance of nurses and concerns about nursing shortages have received substantial policy attention in recent years, and the most recent information suggests progress on several fronts for nurses (HRSA 2013). Other non-physician healthcare professions have been slower to achieve policy attention and support (Alliance for Health Reform 2011). For them, information is less available, training opportunities seem less well supported, and shortage projections continue, as noted above (Seavey and Marquand 2011).⁸

- ❖ **Tuition and Supportive Services Funding Support for Low-Income Trainees.** The composition of the healthcare workforce continues to diversify. The number of white American-born women who have historically composed the largest group of healthcare workers is declining. Training programs and employers will only be successful if they engage a broader range of potential trainees. Concurrently, many potential candidates are low-income and therefore will require tuition and support structures that facilitate training participation. For example, many potential healthcare trainees do not have adequate math, literacy, and writing skills to enter occupational training and stable employment. The growing number of non-English speaking or limited English speaking healthcare staff increases communication challenges which lead to quality of care concerns (Chisman and Spangenberg 2005). Effective training programs will include basic skill development components versus solely focusing on the healthcare training components.
- ❖ **Complex Credential Requirements for Employment Entry and Retention.** The majority of healthcare professions, even lower skill level positions, require some level of credentialing to enter and/or maintain employment.⁹ Concurrently, many healthcare workers have low levels of

⁸ The National Direct Service Workforce (DSW) Resource Center was created in 2005 by the Centers for Medicare and Medicaid Services (CMS) to study and support improvements for professionals who assist people with disabilities and older adults to live independently. More information about the DSW Resource Center can be found at <http://www.dswresourcecenter.org/tiki-index.php>.

⁹ For examples of specific credentialing requirements see National Center for Competency Testing at <http://www.ncctinc.com/Certifications/>, National Council of State Boards of Nursing on National Nurse Aide

education and relatively little training (Smith and Baughman 2007, HRSA 2004, Yamada 2002). For the majority of positions highlighted in the present review, the BLS descriptions indicate that there are no or limited professional advancement opportunities in the absence of further formal education and credentialing. Variation in state requirements for credentialing may restrict mobility and reinforce limitations to advance. Healthcare workers, in low-wage and high physical demand positions, may lack both funds and time to participate in training for advancement. For example, one national survey of nursing aides by an industry advocate found that less than 8 percent were seeking advanced training (Wendt 2006). For current healthcare workers, many employers also do not have an incentive to provide training opportunities for advancement. To provide these opportunities, employers must find funding to support staff coverage for the staff member being trained and/or may not be structured to support additional staff in advanced positions after completion of advanced training.

- ❖ **Meeting Health Service Needs.** Although the market for the healthcare workforce is national, shortages differ across and within states. More than 20 percent of the U.S. population, or 64 million people, live in areas designated by the federal government as health professions shortage areas, another 48 million lack access to dental care, and 77 million are without access to behavioral and mental health services, all disproportionately in rural areas.¹⁰ Provider supply may vary markedly across regions, especially for particular services, seemingly without relation to healthcare need (Dower and O’Neill 2011, Steinwald 2008). Shortages for the direct care workforce in rural versus urban areas have less often been measured than for physicians, but appear to exist (Brown et al. 2011, National Direct Service Workforce Resource Center 2009, HRSA 2004).
- ❖ **Meeting Employer Demand.** Simply producing more direct care healthcare professionals may not alleviate areas’ shortages if attention is not paid to where the workforce is produced. Individuals who seek direct care positions will increasingly have to relocate to regions where a greater number of positions are available, and projections of demand by state vary widely.¹¹ The composition of the healthcare workforce, largely low-income and female, may limit mobility to relocate for a position. Further, many of the areas, especially smaller underserved areas, with growing healthcare needs do not have adequate training programs to provide opportunities for local residents (HRSA 2004).
- ❖ **Workforce Turnover, Burnout, and Position Churning.** High vacancy rates and turnover among direct care or paraprofessional healthcare workers are a chronic problem, even in economic slowdown (American Health Care Association 2010, Seavey and Marquand 2011). States have often deemed nurse and home care aide recruitment and retention to be priority concerns, and a number have sought to promote training (Paraprofessional Healthcare Institute 2013). Low wages, few benefits, and difficult working conditions contribute to recruitment and

Assessment Program at <https://www.ncsbn.org/1721.htm> and National Health Career Association for Certifications for Allied Health Professions at www.nhanow.com/certifications.aspx.

¹⁰ These figures are regularly updated by HRSA. See “Shortage Designation: Health Professional Shortage Areas & Medically Underserved Areas/Populations,” available at <http://www.hrsa.gov/shortage/>.

¹¹ Projected rates of increase for 2018 by state vary from a low of 15 percent to a high of 53 percent. See Seavey and Marquand (2011).

retention problems for several professions in the direct care workforce. These conditions may be less acute in regions where large portions of the workforce are represented by labor unions. Studies corroborate findings that key environmental and extrinsic variables directly affect direct care staff turnover, including: wages and fringe benefits, adequacy of training, methods for managing workload schedules, opportunities for career advancement, respect from administrators, organizational recognition, workloads and staffing levels, clarity of roles, and participation in decision making (Wiener et al. 2009). When unaddressed, many of these challenges result in staff burnout due to the high physical, psychological, and organizational demands of the job (Fraher et al. 2005).

Healthcare workforce retention has long been a significant problem for many employers. Some healthcare positions entail limited pre-employment requirements and short-term training. Staff with limited training may have less skill to perform required functions and be more likely to be rated as having poor performance and leave a position or the field (Pindus et al. 2002). Nursing aides and other direct care staff have traditionally had extremely high turnover rates (Scanlon 2001). Common estimates for annual turnover range from about 50 percent to 100 percent of employees, varying by year and state of the economy (American Health Care Association 2010, Seavey and Marquand 2011). Studies cite limited training, lack of realistic preparation for the challenges of the positions, various stresses of direct patient care (e.g. shift work, emotional stress, physical toll), and job dissatisfaction as factors contributing to high turnover. Going beyond mere turnover, direct care workers have often left the occupation completely, with one study reporting a rate of almost 40 percent per year (Smith and Baughman 2007, Scanlon 2001). It is unclear how turnover rates will be affected by new demands being placed on healthcare workers as a result of healthcare reform.

Implications of ACA Coverage Expansion for Healthcare Workforce Training Programs

The ACA has begun to reshape the healthcare system, creating new prospects and potential challenges for healthcare workers (Robert Wood Johnson Foundation 2011). A core goal of the ACA to expand health insurance coverage has begun, as of October 1, 2013. Through both private employer-based, individual exchanges, and public safety net program coverage, the law seeks to ensure that all individuals receive a core minimum level of health coverage with which to obtain care. These expansions in the total number of individuals with health insurance coverage and the scope of services eligible for payment have direct implications for training and development of the healthcare workforce.

- ❖ **Increased Demand for Care.** The Congressional Budget Office (CBO) initially estimated that by 2016 the provisions set out in the ACA would reduce the number of uninsured by 32 million, and researchers from The Urban Institute made similar projections (Elmendorf 2011, Buettgens et al. 2010). Estimates of increases have since been reduced by about six million people in light of some states' decisions (to date) not to expand Medicaid (CBO 2013).¹² The expected increase remains very large.

¹² Non-expansion became a state option after the June 2012 Supreme Court decision, which mainly upheld the ACA but not mandatory Medicaid expansion.

Making healthcare services more available to this additional number of covered patients and better coverage even for previously insured people will increase the demand for care and place increased burden on the currently stressed healthcare system (Baicker et al. 2013, CMS 2010, Hofer et al. 2011). The precise volume of additional medical services under expanded coverage is unknown. However, experts have indicated that the current number of healthcare workers will be unable to meet the volume and scope of healthcare services demand (Ormond and Bovbjerg 2011). HPOG's approach of expanding the workforce through training and support services facilitates dual goals of meeting healthcare service demands and providing opportunity for a disadvantaged population that might not otherwise be able to enter this growing sector.

- ❖ **Downward Shift in Care Responsibilities.** New structures for the delivery of healthcare services facilitated by the ACA have yet to be determined. While the new model of healthcare service intervention will take shape over time, it is clear that collaboration and flexibility among providers will be fundamental. Physicians, nurses, and the range of healthcare support workers will be required to work in a more integrated environment, across institutions, and the demand for primary and supportive care will rapidly expand. This collaboration will be supported through enhanced use of technology and information sharing, which was the focus of the Health Information Technology for Economic and Clinical Health Act (HealthIT).

Some experts argue that cost reduction without compromising quality is key and will result in strong pressures for nurses and other healthcare workers to assume roles previously played by physicians (Robert Wood Johnson Foundation 2011). Another study contrasts with this projection, concluding that the ACA will not have noticeable effect on net levels of employment for three reasons: (1) the net new expenditures are too small relative to the overall size of the economy; (2) the negative effects on jobs of Medicare premium cuts and new taxes will be offset by the expansion of coverage through Medicaid and income-related subsidies that will likely increase employment; and (3) the new law will not affect most firms either because they already provide private insurance that meets federal standards or they are exempt from the new requirements because they employ fewer than 50 workers (Holahan and Garrett 2011).

The ACA's drive to increase coverage suggests the related need to expand and advance the healthcare workforce, for which the ACA provides funds through the Prevention and Public Health Fund. For 2010, funds totaled \$253 million to improve and expand the primary care workforce in addition to the HPOG program. Healthcare industry organizations are also working to understand avenues to adapt and improve the existing healthcare system to meet the ACA provisions (American Hospital Association 2010).

- ❖ **Promoting Development of Alternative Approaches to Care Delivery.** The ACA increases flexibility of healthcare services receipt. The expanded total number of patients, growing proportion of the population with aging related health service needs, and increasing number of patients with chronic health problems will require innovative approaches to healthcare delivery. The ACA lends the consumer greater control in using healthcare dollars in the market place. Many of these services will target supportive healthcare services that address chronic disease management or prevention and support activities of daily living. An expanded service delivery model will increase opportunities for supportive health services employment. Many of the healthcare professions targeted by HPOG would provide support for these healthcare service needs (Biles et al. 2005).

- ❖ **Catalyzing Improved Efficiency and Quality of Care.** Investing in healthcare workforce training and development is critical to meeting efficiency and quality standards. Broad healthcare system-level changes must be made to the type of professional providing specific services in order to meet cost requirements. This shift will expand the scope of services and opportunity for non-physician healthcare workers. Concurrently, rigorous training must be provided to ensure that these healthcare workers are able to provide a high quality of care. The work is physically and emotionally challenging and these pressures are currently exacerbated by the lack of a back-up workforce and manageable caseload size. Job preparation and continuing training frequently fail to prepare workers for these challenges. Strategies that provide employer-based support and satisfying work environments where staff feel engaged in the care delivery may increase an employee's interest in remaining in the healthcare workforce. Investing in the training and placement of staff benefits employers, and the broader healthcare system, through reduced turnover and increased worker productivity. Professional development supported by the ACA provisions supports participation within and across health disciplines by employees, employers, and training organizations. Advancement and professional development opportunities may come directly through employer on-the-job training or employer-funded training at an outside entity, or be pursued independently by the individual employee with external training resources. Collaborative partnerships between employers, professional organizations, and external training programs are increasing. However, these programs have been limited in time, resources, and scope and have not been equally developed across domains of the direct care workforce. Therefore, opportunity remains to continue developing these collaborative training resources (Yallowitz and Hofland 2008).

- ❖ **Support for Post-Secondary Vocational Education for Low-Income Populations.** To expand effectively the pool of trained healthcare workers, training programs may have to systematically incorporate supports for students who may not otherwise succeed. Low-income individuals, particularly those who may be single parents or who are the first in their families to attend college, may benefit from supports to help navigate the training system, select appropriate courses, and learn about occupational requirements and career pathways. Partnerships between training institutions, workforce development agencies, and social services agencies can be helpful in ensuring that those eligible for public benefits access those supports that can help them while in training, including financial assistance, tuition grants, child care, and other social services (Jacobson and Mokher 2009). The HPOG framework consciously considers these important supports as being integral to the occupational training (Alssid et al. 2002).

Conclusion and Implications for HPOG

The literature indicates that expanding the healthcare workforce will require significant action from employers, training institutions, and public agencies. In some instances, employers and industry leaders are learning that meaningful and lasting changes to ensure a skilled workforce must be generated through a new paradigm led by the healthcare industry and post-secondary educational institutions and systems. The ACA coverage expansion will significantly increase demand for care and, in turn, the workforce training system and the healthcare delivery structure. Pushes to redesign service delivery toward lower-cost caregivers will also promote change. However, healthcare employers cannot assume that the supply of new employees will be available when and where they are needed, and literature examining prior workforce dynamics does not speak to whether the types of future systemic changes needed to achieve all ACA goals will materialize. There is also an absence of rigorous analysis and research on the implications of increasing the number of economically disadvantaged individuals who enter healthcare training. The HPOG research agenda will help shed light on whether an untapped potential source of the future healthcare workforce—low-income workers—can be trained and placed into healthcare jobs.

This review suggests that the HPOG grantee programs, and all training programs focusing on healthcare employment opportunities, need to be aware of the specific healthcare labor market context in their area when developing and refining their programs. In particular, choices on occupational training opportunities should take into account differences in projected demand across areas and occupations, as well as varying licensing and certification requirements for each occupation. Increased projected demand for labor as a result of ACA implementation and existing and projected labor shortages in many healthcare occupations seem likely to improve many HPOG participants' chances in finding healthcare jobs. The HPOG program and ACF's multi-pronged evaluation strategy¹³ to assess the success of the program provide the opportunity to significantly contribute to the literature regarding innovative approaches to address the vast supply side needs of the healthcare workforce.

¹³ For more information on the HPOG evaluation portfolio see http://www.acf.hhs.gov/sites/default/files/opre/evaluation_portfolio_for_the_health_profession_opportunity_grants.pdf.

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