ACU Workforce Column: Expanding and Supporting the Health Care Workforce

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Trends and Anticipated Challenges in Health Care

With implementation of the Patient Protection and Affordable Care Act (PPACA), health insurance coverage will expand to an additional 34 million people in the United States.[1] In addition, the PPACA calls for increasing the number of patients served in federally qualified health centers (FQHCs) from 20 million to 40 million. When the Commonwealth of Massachusetts mandated health insurance in 2006, primary care wait times increased, even though the state had the country's second highest ratio of primary care physicians to population, the third highest ratio of nurse practitioners to population, and a robust network of community health centers (CHCs).[2,3]

For FY 2012, the Obama administration increased its target goal for primary care clinicians in health professional shortage areas by nearly 42% compared to FY 2010.[4] Insurance expansion is expected to put additional demands on the primary care workforce, as the use of services by the 46.3 million people who are presently uninsured is likely to rise.[4] President Obama has recognized this challenge and called for an immediate and long-term expansion of the nation's primary care physicians, nurse practitioners, and physician assistants.

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Coincident with this increased demand, primary care providers will face increasing patient diversity and complexity, accelerating adoption of new technology, heightened focus on measures of success and accountability, and an urgent need to provide interprofessional education (IPE) to facilitate collaborative care. This column seeks to highlight some of the efforts currently underway to address these challenges that might also serve as models to others who also seek to expand and support the health care workforce. These efforts include new approaches to education, mentoring, residency programs, and leadership training.

Educating a Diverse Health Care Workforce

The Florida State University College of Medicine was founded in the year 2000 with a mission to ". . . educate and develop exemplary physicians who practice patient-centered health care, discover and advance knowledge, and respond to community needs, especially through service to elder, rural, minority and other underserved populations." This was a revolution of sorts in health care, and it was this compelling mission that convinced the leaders of the state to write the statute that formed the Florida State University College of Medicine (FSUCOM) in 2000.

Many characteristics of the college have been developed to fulfill this mission: a large family medicine department, a dedicated geriatrics department, a robust rural health program, and regional campuses throughout the state of Florida. In addition, FSUCOM students learn the medical disciplines in the outpatient setting with clerkships that are taught one-on-one in physicians' offices and practices. Instead of being assigned to a team, each student is assigned to an attending physician during each rotation. This has allowed for student immersion into six different medical communities throughout the state.[5]

While FSUCOM teaches medical students to provide care for underserved minority patients, creating opportunities for main campus faculty to provide clinical care for these patients has been challenging. Increasing budget pressures have demanded increased financial output from clinical work and caring for the *mission fit* population is usually not financially profitable. The result is *mission drift*; the medical institution is not engaged in the care of underserved patients to the extent desired. This is a very difficult problem for Black, Mexican American, Puerto Rican, and Native American faculty, as they are the principal defenders of the mission; they spend the most time in clinical endeavors to help the underserved.[6] Increased clinical activities of minority faculty can decrease underrepresented minority faculty in higher levels of academic leadership, such as full professor and chair. As is the case in most family medicine departments, minority faculty are assigned more clinical responsibilities than nonminority faculty.[7]

The Florida State University College of Medicine is dedicated to solving this problem. Among its many planned activities are targeted faculty development for minority faculty, formal instruction on institutional culture and values, and workshops designed to assist interested minority faculty members with scholarly productivity.

Mentoring New Health Care Providers

Mentoring is a beneficial relationship for mentees, mentors, and organizations. Reported benefits of effective mentoring for mentees include greater job and career satisfaction, research productivity, and teaching effectiveness; professional socialization; higher salaries; and more promotions.[8–10] Mentors report greater personal and job satisfaction, knowledge and skills, visibility and recognition within their organizations, career success and revitalization, and an expanded network with new colleagues in comparison with those who have not been mentors.[9–11] Moreover, organizations benefit from mentoring relationships through more productive and satisfied personnel and increased organizational commitment and retention.[9]

Effective mentoring encompasses both *career and psychosocial functions*.[12] Career functions (such as coaching, increasing positive exposure and visibility, and providing protection and challenging assignments) help mentees learn the ropes and facilitate professional advancement. Psychosocial functions (including providing opportunities for role-modeling, offering praise and encouragement, and providing counseling and friendship) build trust and strengthen interpersonal bonds in the relationship. One study identified learning facilitation as another important function of mentoring.[13] Learning facilitation through mentoring may reflect the recognition that in today's complex world, it is simply not possible for one mentor to have all the answers; instead, mentors can facilitate learning, recommending where to go or with whom to develop relationships to get necessary information, resources, and support.

The *developmental network model of mentoring* goes beyond traditional, hierarchical, one-on-one mentoring with an approach that promotes co-learning and mutual support.[14–16] In this newer model developed by Kram and Higgins,[15] people develop and cultivate a small group of individuals to whom they can turn for regular advice and support. This "personal board of directors" includes three types of facilitative relationships: people who help you get the job done; people who help you advance your career; and people who provide personal support for you. A network member may be involved in one or more of these functions; be inside or outside of the mentee's organization; and be senior, junior, or a peer to the mentee. The structure, nature, and quality of relationships within networks vary. Relevant factors to consider when assessing and developing one's network include the diversity of members in terms of gender, culture, geography, organizations, area of expertise, rank, and function; redundancy of relationships; interconnectivity among members; strength of connections; and connections to power and influence.

There are excellent free *resources* to facilitate effective mentoring. The Boston Children's Hospital Office of Faculty Development[17] has mentoring guidebooks for junior faculty and mentors. Materials focus on developmental networks. The University of Minnesota Clinical and Translational Science Institute[18] has an online course directed at preparing faculty from different disciplines to be effective research mentors. The course includes a toolkit with extensive resources. The Georgetown University National Center for Cultural Competence[19] has a set of resources that focus on mentoring as a strategy to increase racial and ethnic diversity among students and faculty in Mater-

nal and Child Health Training Programs. Resources include a literature review on the topic, a summary of conversations with underrepresented minority students and junior faculty on their experiences with mentorship, and a listing of recommended programs that provide mentoring to underrepresented minority students, trainees, and faculty in health-related fields.

Transition to Practice: Putting Education to Work

An important trend has developed in community health that responds directly to the need for highly skilled primary care providers and also addresses the documented challenges that many new nurse practitioners (NPs) experience when transitioning from the academic setting to clinical practice. Nurse practitioner residency training is expanding to primary care settings and, importantly, is largely centered in FQHCs and CHCs serving the un- and under-insured.

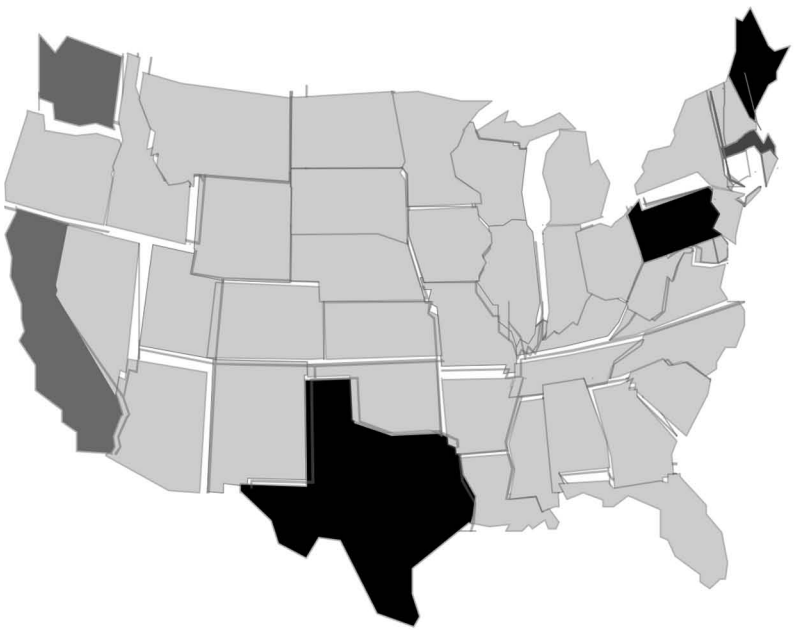
Nurse practitioner residency training helps to address the short- and long-term shortage of primary care providers for all populations in the U.S. Nurse practitioners are ideally suited as primary care providers for CHC and FQHC practice, given their focus on prevention, comprehensive care, and a holistic approach. Moreover, an NP residency can serve as the bridge from education to practice.[20] The 2010 Robert Wood Johnson/Institute of Medicine Report, *Future of Nursing: Leading Change, Advancing Health*, recommends residency training for new advanced practice registered nurses.[21] In addition, Section 5316 of the PPACA authorized a demonstration project to replicate the NP residency model that had been developed at Community Health Centers, Inc. (CHC, Inc.) in Connecticut.[22]

In 2007, CHC, Inc. created the first NP residency program in the United States for family nurse practitioners (FNPs) interested in pursuing a career in primary care. The CHC, Inc. FNP residency model comprises four components: precepted continuity clinics wherein the resident builds a panel of patients; specialty rotations that enable residents to participate in specialty care practices within and outside of CHCs; independent clinics, where residents have an opportunity to practice with less supervision and more autonomy by seeing patients assigned to them by another provider; and didactic education composed of weekly lectures and presentations on high volume/high risk problems.[20]

There are now nine FNP residency sites from Maine to California, four of which began in 2012.[23] (See Figure 1.)

In an effort to assess the replicability and scalability of the CHC model, Richert and Seagriff conducted a survey of the eight organizations that had launched residency programs using CHC's model to solicit their preliminary impressions of their formative experiences and program constructs.[23]

While each of the programs is similar in structure to the CHC model, the new sites have introduced new elements to meet local needs or expand the scope of the residency. Some of these include a commitment to inter-professional education and training; didactic sessions delivered to both NP and medical residents; elective rotations including inpatient rounding, call and resident-specific areas of interest; integration with medical and dental residencies for full inter-professional training; leadership



2007	**Middletown, CT** Community Health Center, Inc. establishes the first NP Residency (4 residents)
2009	**Worcester, MA** Family Health Center of Worcester (2 residents)
2011	**Philadelphia, PA** Puentes de Salud (1 resident)
	Austin, TX CommUnityCare and University of Texas, Austin School of Nursing (2 residents)
	Bangor, ME Penobscot Community Health Care (2 residents)
2012	**Los Angeles, CA** Union Rescue Mission Health Center and UCLA (2 residents)
	San Francisco, CA Glide Health Services and UCSF School of Nursing (2 Residents)
	Santa Rosa, CA Santa Rosa Community Health Centers (4 residents)
	Tacoma, WA Community Health Care (4 residents)

Figure 1. U. S. family nurse practitioner primary care residency programs.

building; and meetings with a psychologist regarding transition into their role and into community health.[23]

Participants in the new residency programs reported some early challenges and constraints, including adequate clinical space, full engagement of organization, impact on productivity goals, state-specific laws limiting prescriptive authority of residents, differentiating the role of students and residents, adequate support staff, and a sustainable funding model. [23]

The common themes that emerged are not surprising: funding is an important factor and frequent challenge, and there is growing interest and increased demand for NP residency programs. To meet this growing demand—for both NP residency programs and highly qualified primary care providers—successful implementation requires more than a commitment to training the next generation of FQHC Primary Care Providers. Nurse practitioner residency programs require stable clinical and financial scaffolding. Moreover, expansion will benefit from consistency and support across all programs.[23]

Leadership Training

Illinois Primary Health Care Association (IPHCA) is a nonprofit trade association of CHCs whose mission is to improve the health status of medically underserved populations by fostering the provision of high-quality, comprehensive health care that is accessible, community-directed, culturally sensitive, and linguistically competent. Thirty seven Illinois CHCs served a total of 1,098,483 patients in 2011 (HRSA UDS); 161,633 patients received oral health services.

During the past five to seven years, there has been significant expansion of oral health services at Illinois CHCs. This has been driven by need and funding through the Illinois Children's Health Care Foundation, state agencies, and federal initiatives. The majority of Illinois CHCs provide oral health services at one or more of their sites. The IPHCA has seen an increase in the recruitment of oral health providers at Illinois CHCs. This has in turn increased the need for oral health providers who can assume leadership roles.

A review of the literature suggests that dental education programs traditionally have a strong focus on clinical competencies and were limited in leadership competencies. The lack of leadership development resulted in many dental clinics' inability to thrive, especially during poor economic times. The research pointed out that the dental clinics that did flourish had dental directors who demonstrated competence in leadership and management. The IPHCA recognized the specific challenges encountered by safety-net dental clinics and theorized that traditional models of management techniques would not suffice for dental directors working within CHCs. The IPHCA identified the gaps in learning from dental directors themselves through a survey and interviews. Both resulted in validating a need for developing leadership training for dental directors.

In 2010–11, in partnership with the University of Illinois School of Public Health, the Health Resources and Services Administration (HRSA) funded the Mid-America Center for Public Health Practice, and the IPHCA developed and implemented two rounds of leadership training for clinicians serving as medical directors or aspiring to

assume such roles at CHCs. In addition, IPHCA was able to secure a mini-grant to plan and implement the first training.

The IPHCA formed a task force composed of four CHC dental directors, IPHCA staff, and a medical director to plan the dental director-focused training. They provided guidance on the development of the agenda and materials, and served as presenters. In addition, the DentaQuest Foundation supported the recruitment of nationally recognized speakers and the University of Illinois School of Public Health provided expertise for evaluation. This two-day training included discussions on the role of the dental director, management principles, and dental operations (including scheduling, finance and quality improvement). Additional topics were covered through case study discussions. Overall, the 37 attendees from six Midwest states provided a positive evaluation.

The training was very successful and the IPHCA plans to continue the training annually. An abstract about this training model and curriculum was presented at the 2012 National Network for Oral Health Access conference. The IPHCA plans to add a mentoring component and is also considering a combined medical and dental directors leadership training to promote integration of services in the patient-centered medical home model.

Opportunities for the Future

In September 2012, HRSA demonstrated the nation's commitment to "interprofessional education and collaborative practice among health professionals" through the selection and funding of a new Coordinating Center for Interprofessional Education and Collaborative Practice. "The University of Minnesota will receive $4 million over five years to promote expertise in interprofessional education and collaborative practice, particularly in medically underserved areas. Nationally recognized leaders in the field will lead the coordinating center, which will include partnerships with other training and health delivery sites around the country.[24,25]

"'Health care delivered by well-functioning coordinated teams leads to better patient and family outcomes, more efficient health care services, and higher levels of satisfaction among health care providers," said HRSA Administrator Mary K. Wakefield, Ph.D., R.N. "We all share the vision of a U.S. health care system that engages patients, families, and communities in collaborative, team-based care. This coordinating center will help us move forward to achieve that goal.'"[25]

Frederick Chen MD, MPH, and Senior Advisor to the HRSA Bureau of Health Professions underscored the value and importance of this endeavor, asserting that "we need to ensure our health professionals are trained to work effectively in these new delivery systems. That means training . . . in a different way and in different models—teaching them what it means to work together and giving them practical experience in clinical settings where interprofessional practice is happening. In this way, IPE is very much aligned with our national strategy to create a better health system." [26]

Similarly, new approaches to education, mentoring, residency programs, and leadership training are very much aligned with our national strategy to create a better health system, and to ensure high-quality health care is available to everyone.

Notes

1. Foster, RS. Estimated financial effects of the "Patient Protection and Affordable Care Act," as amended. Baltimore, MD: Centers for Medicare & Medicaid Services, 2010.
2. The Kaiser Family Foundation. Nonfederal primary care physicians per 1000 population, 2008. Chicago, IL: American Medical Association, 2008.
3. National Association of Community Health Centers. Key health center data by state, 2007, based on 2007 Uniform Data System. Washington, DC: U. S. Department of Health and Human Services, 2008.
4. Morriseey T. The Affordable Care Act's health workforce provisions: opportunities and challenges. Washington, DC: American Public Health Association, 2011.
5. DeNavas-Walt C, Proctor BD, Smith JC. Income, Poverty, and health insurance coverage in the United States: 2006. Washington, DC: US Census Bureau, 2007.
6. Fogarty JP, Littles AB, Romrell LJ, et al. Florida State University College of Medicine: from ideas to outcomes. Acad Med. Dec 2012 Dec;87(12):1699–704.
7. Fang D, Moy E, Colburn L, et al. Racial and ethnic disparities in faculty promotion in academic medicine. JAMA. 2000 Sep;284(9):1085–92.
8. Marbella AM, Holloway RL, Sherwood R, et al. Academic ranks and medical schools of underrepresented minority faculty in family medicine departments. Acad Med. Feb 2002;77(2):173–176.
9. Allen TD, Eby LT, Poteet ML, Lentz E, Lima L. Career benefits associated with mentoring for protégés: a meta-analysis. J Appl Psychol. 2004 Feb;89(1):127–36.
10. Bland CJ, Taylor AL, Shollen SL, et al. Faculty success through mentoring: a guide for mentors, mentees, and leaders. Lanham, MD: Rowman & Littlefield Publishers, 2009.
11. Ragins BR, Kram KE, (eds). The handbook of mentoring at work: theory, research, and practice. Thousand Oaks, CA: Sage Publications, 2007.
12. Allen TD, Lentz E, Day R. Career success outcomes associated with mentoring others: a comparison of mentors and nonmentors. J Career Develop. 2006;32:272–85.
13. Kram KE. Mentoring at work. Glenview, IL: Scot Foresman, 1985.
14. Fowler JL, Gorman JG. Mentoring functions: a contemporary view of the perceptions of mentees and mentors. British J Manage. 2005;16(1):51–7.
15. Higgins MC, Kram KE. Reconceptualizing mentoring at work: a developmental network perspective. Acad Manage Rev. 2001 Apr;26(2):264–88.
16. Kram KE, Higgins MC. A new approach to mentoring. New York, NY: The Wall Street Journal (Eastern edition), September 22, 2008.
17. DeCastro R, Sambuco D, Ubel PA, et al. Mentor networks in academic medicine: moving beyond a dyadic conception of mentoring for junior faculty researchers. Acad Med. 2013 Apr;88(4):488–96.
18. Boston Children's Hospital. Community of mentors. Boston, MA: Boston Children's Hospital, 2013.
19. University of Minnesota. Resources for research mentors. Minneapolis, MN: University of Minnesota, 2011.
20. Georgetown University. Mentoring—an evidence-based strategy to increase the number of students and faculty from racial and ethnic groups underrepresented in maternal and child health training programs. Washington, DC: Georgetown University, 2013.
21. Community Health Center Inc. Nurse practitioner residency training in FQHCs:

preparing tomorrow's primary care providers [PowerPoint slides]. Middletown, CT: Community Health Center Inc, 2009.
22. Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing. The future of nursing: leading change, advancing health. Princeton, NJ: Institute of Medicine, 2010.
23. Health Policy Alternatives Inc. Summary of patient protection and affordable care act. Washington, DC: American Cancer Society Action Network, 2010.
24. Richert A, Seagriff N. Assuring transition success: a scalable and replicable design for family nurse practitioner residency programs. Presented at: the 27th National Conference of the American Academy of Nurse Practitioners, Orlando (FL), Jun 2012.
25. Health Resources and Services Administration. New coordinating center will promote interprofessional education and collaborative practice in health care. Washington, DC. US Department of Health and Human Services, 2012.
26. The Josiah Macy Jr. Foundation. Interprofessional education and practice—bridging the gap. New York, NY: The Josiah Macy Jr. Foundation, 2012.