
A widely recognized and longstanding health workforce shortage exists in rural America as a result of both the overall relative shortage of health care professionals as well as their uneven distribution, being located less often in rural areas versus urban areas. While this is a recognized current problem, future projections of these shortages are even greater due to the aging of rural populations and the increasing relative shortage of these health care providers in the context of a growing and aging populous at large. Accordingly, the supply and complexity of available health care is often affected by regional and local population size. These demographic differences can both positively and negatively influence variables related to health care.

This maldistribution of healthcare providers is well established. The Graham Center has recently demonstrated a methodology by which this phenomenon can be studied at a local level as well as nationally (Rankin, 2011). Even within states or regions of relative adequacy of health care providers, pockets of severe shortages are found, often in rural nonmetropolitan areas. This has become a key concept as such information will aid in framing the discussion necessary to avoid generalizations which would otherwise overlook this critical issue with regard to both present access to care and the health workforce pipeline issues most affecting rural America.

Rural can be difficult to define. The National Rural Health Association “strongly recommends that definitions of rural be specific to the purposes of the programs in which they are used and that these are referred to as programmatic designations and not as definitions. Programs targeting rural communities, rural providers, and rural residents do so for particular reasons, and those reasons should be the guidance for selecting the criteria for a programmatic designation (from among various criteria and existing definitions, each with its own statistical validity). This will ensure that a designation is appropriate for a specific program while limiting the possibilities that other unrelated programs adopt a definition, which is not created to fit that program.” (Definition of Rural, Policy Statement, November 2005). Various uses and definitions for rural or nonmetropolitan areas play a key role in the analysis and discussion of the issues regarding provider shortages and qualification for programmatic interventions.

Rural America, its regions, and their populations also vary widely across the United States. Studies of population demographics and migration patterns demonstrate outward migration of younger people, such as in their twenties; and migration to rural areas highest early in the retirement process (Cromartie, 2009). This can be expected to dramatically influence the amount and scope of healthcare resource demand in rural areas in future years. “Measured in terms of relative change, populations in more remote (nonadjacent) nonmetro counties will experience the most dramatic changes from baby boomer migration” (Cromartie, 2009). Therefore, information of the changing demographics of those persons living in rural areas is also an essential component to understanding health workforce needs and planning. Age, demographics, language
and cultural issues, seasonal migration patterns, and recent trends in population dynamics each have a role in this analysis.

Living in nonmetropolitan areas has always included both benefits and challenges. The nature of particular factors playing a role in the recruitment and retention of workforce can change for example, with the advent of technology or within the context of the economy. One such predominant example this past decade has been the evolving use of the internet and related communication technology which has in some rural areas affected both healthcare and lifestyle. Other rural populations may in contrast, still remain without such technology such as applied telehealth or basic reliable internet access due to the digital divide. Similarly, a factor as simple as the price of gasoline can dramatically effect access to health care as well as the cost of healthy food. In similar ways then, the health workforce recruitment to these rural areas has been dramatically but often differentially updated by such technologies, many of which offer improved access to information and peers. Challenges remain and rural areas often can be found to remain disproportionally disadvantaged.

The delivery of healthcare in rural areas is affected by models designed to meet unique demands and opportunities and to have significant impact on the recruitment and retention of health workforce. Critical Access Hospitals, Rural Health Clinics and Federally Qualified Health Centers all help to meet the health needs of rural communities. Critical Access Hospitals evolved from the 1987 advent of the Medical Assistance Facility (MAF) model. The MAF project served as the basic model to create the current Critical Access Hospital (CAH). A Critical Access Hospital (CAH) “is a hospital that is certified to receive cost-based reimbursement from Medicare. The reimbursement that CAHs receive is intended to improve their financial performance and thereby reduce hospital closures. CAHs are certified under a different set of Medicare Conditions of Participation (CoP) that are more flexible than the acute care hospital CoPs” (Rural Assistance Center, raconline.org). Rural Health Clinics are “clinics certified to receive special Medicare and Medicaid reimbursement. The purpose of the RHC program is improving access to primary care in underserved rural areas. RHCs are required to use a team approach of physicians and midlevel practitioners such as nurse practitioners, physician assistants, and certified nurse midwives to provide services. The clinic must be staffed at least 50% of the time with a midlevel practitioner. RHC’s are required to provide out-patient primary care services and basic laboratory services.” (Rural Assistance Center, racoline.org). Federally Qualified Health Centers (FQHC’s) are a “type of provider defined by the Medicare and Medicaid statutes. FQHCs include all organizations receiving grants under Section 330 of the Public Health Service Act, certain tribal organizations, and FQHC Look-Alikes. Requirements for Indian Health Service funded FQHCs may differ from the requirements for FQHCs receiving Section 330 grants and for FQHC Look-Alikes” (Rural Assistance Center, raconline.org). FQHCs are unique in their design requirements both with regard to provision of services (dental, mental health, pharmacy) and the required complement of health workforce providers (e.g. regulatory requirement for nurse practitioners and/or physician assistant services). Public Health continues to have an important role in nonmetropolitan areas as can access to Indian Health Services or Veterans Administration related services.

Other organizations play a part in support of rural health services. The State Offices of Rural and Area Health Education Centers have assumed leadership roles in addressing the challenges
facing rural healthcare delivery. Both organizations have well demonstrated roles of developing partnerships; creating, delivering and managing programs; and providing resources and technical assistance that help meet the healthcare needs of rural Americans. Among other things, State Offices of Rural Health serve as a clearinghouse for collecting, analyzing and disseminating rural health information; coordinating health-related programs and activities within their state to avoid duplication of effort; identify Federal, state and non-governmental organization (NGO) resources and provide technical assistance regarding application and participation; encourage the recruitment and retention of health professionals in rural areas; and develop and strengthen Federal state and local partnerships that enhance rural health (National Organization of State offices of Rural Health, http://www.nosorh.org/about/mission.php ). The Area Health Education Center (AHEC) program was developed by Congress in 1971 to recruit, train and retain health professions workforce committed to underserved populations. The AHEC program helps bring the resources of academic medicine to address local community health needs (National AHEC Organization, http://www.nationalahec.org/About/AboutUs.asp). Additional programs such as the J-1 Visa Waiver program have also continued to have substantial impact in rural physician recruitment and workforce.

The creation of health care delivery systems in and among rural communities is often intentional while at the same time a dynamic process and a result of natural experiment. Rural systems are innately fragile due to a relative scarcity of resources and may not have the depth or duplication of services found in more metropolitan or less isolated systems. Personnel and programs required to provide a temporizing safety net to a sudden or unavoidable disruption in service are scarce in rural health systems. While metropolitan areas may be able to more often absorb the ebb and flow of service demand and provision, nonmetropolitan areas typically can neither afford the duplication necessary to bridge an expected transition in health workforce, such as the retirement of a provider, nor the fluxuation or innovation of new service requirements. If a service is dependent upon only one provider or a small team providing a particular service, dislocation of a single person can cause disruption of access and impact a more broad aspect of care in these more isolated or lean healthcare delivery systems.

Current recruitment and retention practices to achieve a quality health workforce include a variety of important key programs and activities. Examples include local efforts, regional and national programs as well as advocacy aimed to affect the factors and programs which allow for success.

3Rnet (www.3Rnet.org), a national network organization which advises based on annual surveys of recruitment and retention data, is an example of collaborative efforts in recruitment with pooling of resources and sharing of best practices. Analysis of recruitment and retention of healthcare workforce is also an ongoing area of study in the literature, including studies evaluating not only education but also aspects of the providers and the communities themselves.

Education has long been a recognized determinant of the availability of workforce and its distribution. Beyond training enough providers to reduce critical shortages, nonmetropolitan communities may have the added requirement of providers trained specifically with skills applicable to that rural setting. Examples include particular skills which may not be expected of a similar health care provider in an urban setting, the comfort level of that provider rendering such
services in an isolated or resource lean environment, and the lifestyle issues of that provider and their family. Evidence suggests for example that physicians trained in rural settings are more likely to practice in these settings following completion of residency training (Quin, 2011 and Maudlin, 2010). Intentional design of workforce education programs must be implemented, grown, and sustained to offset the existing shortages and increasing demand for quality rural health workforce.

Policy, regulation and economic factors can differentially affect both existing health care delivery systems and the education pipeline of those entering into health careers. Economic factors such as reimbursement and administrative issues such as reporting requirements can all have a disproportionate effect on rural health systems and workforce. The differences in implementation and their effects can be both profound and unexpected if rural is not considered at the time of rule design and implementation. Whether regarding direct healthcare delivery or educational programing, too often the special circumstance or implications for rural communities may not be taken into account or even considered. Again, the intentional nature of advocacy and having a voice for rural in can both improve these discussions and avoid unintended consequences which may be more difficult to reverse once set into rule. Priorities in advocacy efforts can be found in the National Rural Health Association 2011 Legislative and Regulatory Agenda to include proportional rural representation on all federal health care-related commissions task forces and advisory groups. A present and salient example contained within this document is the methodology for defining Health Professional Shortage Areas and Medically Underserved Population Designations.

Health workforce in rural areas must remain broadly defined. The entire team of providers and citizens both locally and as integrated with surrounding partners form the fabric of health care delivery for those living in that community. One component of health quality is dependent upon the entirety of the system and is particularly interwoven in a collaborative nature in rural systems. This may be particularly amplified in rural areas due to the relative lack of duplication of services and the coexisting relationships among the local health care providers themselves. For this reason, providers find natural collaboration within models that may look similar to modern concepts such as the Patient Centered Medical Home while the administration of such models may appear different. Creativity and flexibility have been necessary to develop what works best in individual community circumstances while serving similar purposes. Community medicine, integrated models of health, and patient access are frequently the natural result of the evolution of a small and local system. Local resources addressing local needs often takes shape in the form of ingenuity, creativity, and flexibility. At the same time, these small systems with limited resources and relative isolation may face challenges in adapting to the outside impact of abrupt changes such as enhanced regulatory requirements or standardized administrative expectations.

This paper serves as the introduction to a series of papers on rural health care workforce development through career pipeline programs and outlines issues involved in the recruitment and retention of a quality health workforce in rural areas. Issues to these subject can be intensely local while also when viewed globally, yield an important perspective to the necessary conversations and actions that must be taken to recognize common challenges, share best practices, and achieve common goals. The following papers currently available are:
Number 1: Physicians, November 2006

Number 2: Nursing, December 2005

Number 3: Pharmacists and Pharmacy Technicians, May 2006

Number 4: Oral Health, November 2006

Number 5: Behavioral Health, October 2008

Number 6: Rural Public Health, April 2007

Number 7: Rural Health Careers Pipeline: Kindergarten to 12th Grade Education, February 2006

Number 10: Hospital Administration, May 2007

Number 11: Allied Health, October 2008

Number 12: Physician Assistants, October 2008

Number 13: Emergency Medical Services, November 2005

Number 14: Issues of Preserving Rural Professional Quality of Life, May 2006

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