Introduction and Background

The IOM report “Quality Through Collaboration: The Future of Rural Healthcare” recognizes that “an adequate supply of properly educated health care professionals is critical to meeting the health needs of rural and frontier communities,” and dedicates an entire chapter to human resources for supporting healthcare needs in rural communities (Institute of Medicine, 2005). Historically many of the programs addressing rural healthcare workforce needs have focused on physicians and nurses. These efforts have more recently broadened to address a broader spectrum of health care providers including dentists, pharmacists, EMS and allied health professionals (Advisory Committee on Interdisciplinary, Community-Based Linkages, 2005).

Allied health professionals are a key component of the rural health care delivery system. Allied health workers can be defined as: health care practitioners with formal education and clinical training who are credentialed through certification, registration and/or licensure. They collaborate with physicians and other members of the health care team to deliver high quality patient care services for the identification, prevention, and treatment of diseases, disabilities and disorders. The diversity and specialization of health care has created the need and use of various allied health services that enhance and extend health care. As a result, allied health occupations and services are imperative to the health care delivery systems and the overall health of the nation (Health Professions Network, 2007).

Allied Health professionals comprise the majority of the health care workforce, and include more than 85 distinct occupations. Some of the most common allied health professions in rural health care delivery include physical and occupational therapists, clinical laboratory technicians, radiology technicians, health information technicians, respiratory therapists, optometrists, and registered dietitians. Allied health professionals include over 6 million providers of the 11 million health care workforce in the United States. Allied Health professionals typically attend a minimum of 2 to 4 year educational programs either at community colleges or universities. Most allied health professions also have a certification process, typically at a national level. In addition, many allied health professions are subject to varying licensure requirements depending on the state in which they practice. A sample of the types of educational and certification requirements for a variety of allied health professionals is shown in the grid below (All Star Directories, 2008):

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Education</th>
<th>Certification</th>
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</thead>
<tbody>
<tr>
<td>Physical Therapist</td>
<td>Masters required, majority of schools and new</td>
<td>National Physical Therapist Examination (NPTE). Other state board requirements may also apply</td>
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<tr>
<td></td>
<td>graduates Doctoral prepared (DPT).</td>
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<tr>
<td>Physical Therapist Assistant</td>
<td>2-year associate degree from accredited</td>
<td>Licensing requirements vary from state-to-state. Most states require passage of a state examination, CPR and First Aid certification, and completion of a minimum number of fieldwork hours.</td>
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<td></td>
<td>program required.</td>
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<tr>
<td>Occupational Therapy</td>
<td>As of 2007 Masters degree required.</td>
<td>National certification examination from the National Board for Certification in Occupational Therapy (NBCOT). Other state board requirements may apply</td>
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<tr>
<td>Profession</td>
<td>Education Requirements</td>
<td>Licensing/Exams/Registration</td>
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<tr>
<td>Respiratory Therapists</td>
<td>2-year associate’s degree or 4-year bachelor’s degree programs. Most respiratory therapists obtain a four-year or higher degree from an accredited institution. However, there are associate’s degree and certificate programs that can get you started. All states, except Alaska and Hawaii, require respiratory therapists to obtain a license in order to practice.</td>
<td>National exam to become a Certified Respiratory Therapist (CRT). After passing this exam, you can decide to sit for two additional tests to become a Registered Respiratory Therapist (RRT).</td>
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<tr>
<td>Clinical Laboratory Scientist/Medical Technologist</td>
<td>Four-year bachelor’s degree program in Medical Technology or Clinical Laboratory Science.</td>
<td>Clinical laboratory scientists must pass a national certification examination given by The American Society for Clinical Pathology (ASCP), the National Credentialing Agency for Laboratory Personnel (NCA), American Medical Technologists (AMT), or the American Association of Bioanalysts (AAB). California, Florida, Georgia, Hawaii, Louisiana, Montana, Nevada, North Dakota, Rhode Island, Tennessee, and West Virginia all require licensure of individuals. Other states require licensure of clinical laboratories.</td>
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<tr>
<td>Medical Records/HIT Technician</td>
<td>Medical records and health information technicians entering the field usually have an associate degree from a career college or community college. Experienced technicians may specialize in coding, particularly Medicare coding, or in cancer registry. Most coding and registry skills are learned on the job. Some schools offer certificates in coding as part of the associate degree program for health information technicians.</td>
<td>Most employers prefer to hire Registered Health Information Technicians (RHIT) or Registered Health Information Administrators (RHIA), who must pass a written examination offered by the American Health Information Management Association (AHIMA). To take the examination, a person must graduate from a 2-year associate degree program accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).</td>
</tr>
<tr>
<td>Radiologic Technologists</td>
<td>Radiologic technician program options include: - 1-year certificate or diploma - 2-year associate’s degree - 4-year bachelor’s degree Upon completion of an associate degree, opportunities exist to continue education and obtain a bachelor's degree. A bachelor’s or master's degree in one of the radiologic technologies is desirable for supervisory, administrative, or teaching positions.</td>
<td>In 2005, 38 states required radiologic technologists and technicians to be certified. Graduation from an accredited program in medical radiography or radiologic sciences satisfies academic eligibility to apply to take the national certifying examination given by the American Registry of Radiologic Technologists (ARRT).</td>
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<tr>
<td>Dietician/Nutritionists</td>
<td>Dietitian qualifications are a 4 year degree in dietetics or nutrition with a 9 - 12 month internship or completion of a coordinated undergraduate program that combines classroom and clinical experience.</td>
<td>Most states require licensure or certification. The Commission on Dietetic Registration (CDR) offers national certification and testing which earns dietitians the title Registered Dietitian (RD).</td>
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</tbody>
</table>

The wide variety in the type of professional services needed and scope of training required to provide the spectrum of care is one of the challenges rural communities face when working to address workforce needs for allied health services. There are over 1,000 educational programs for Allied Health professionals nationally, which enroll over 30,000 students annually. Many allied health careers are also among the fastest growing professions (Bureau of Labor Statistics, 2006).
Although it is common knowledge that rural health care facilities face challenges in attracting and retaining qualified professionals to meet their allied health needs, consistent data regarding workforce shortages for allied health professions in rural communities is not readily available (Mueller, K.J., 2003).

Issues

Lack of Allied Health Workforce Data

Rural shortages of certain health care providers, such as physician, nurses, nurse practitioners, physicians, dentists, and mental health care providers are typically well documented. However, despite the fact that similar rural shortages in allied health are commonly acknowledged, consistent data is unavailable at the national or state levels to quantify the issues. Studies measuring outcomes of inclusion of allied health in the patient care process are limited and discipline specific. This further limits knowledge related to the impact of allied health as a member of the health care team. Federal funding under for the Title VII Health Professions Workforce Information and Analysis program, which supports the compilation and analysis of data on the nation’s health workforce, was eliminated in FY 2006, further hampering efforts to evaluate and access aggregate workforce issues for allied health.

Varying Practice Regulations, Requirements and Reimbursement

The role of each allied health discipline differs based on the regulations governing the practice of that particular discipline which is often individualized to each state. Entry into practice of each discipline may also be varied. Practice can also be regulated based on referrals of health care providers and consideration of insurance reimbursement. The presence of allied health often depends of the value of the service by the population and by the providers.

The diversity and specialization of health care has created the need and use of various allied health services that enhance and extend the delivery of health care. Outcomes based reimbursement depends on using what ever possible to help the population achieve better health and decreased relapse and hospitalizations. Standards of care are uniform regardless of rural or urban setting, and providers are held to that standard regardless of resources available. Appropriate levels of service may not always be possible due to the lack of allied health resources, and fear of legal recourse could prevent providers from practicing in rural areas due to the lack of allied health services.

Rural and frontier areas have significant health care professional shortage areas which directly impact the development of collaboration and use of allied health care professionals. When providers are not available to order the services, the services cannot be performed regardless of the need. Recruitment and retention of allied health care decreases when health care providers leave due to financial and reimbursement issues.

Rural areas have experienced declines in available health care providers and subsequently, allied health services which are provider driven also have diminished in rural areas. Relocation of allied health providers can also be difficult when spousal employment is needed and specialized jobs are sparse. Rural areas have a high number of Medicaid and Medicare populations which may limit income for the allied health provider. State policy is varied in every state and with every discipline. Facilities that are needed to house the discipline, such as physical therapy, also may not be available.

Access to education and training programs

Access to education and training for allied health professionals can be difficult, even though many courses are now available online. Universities provide interactive class via the web and have electronic means of testing and receiving grading paper work. Many rural areas do not have an internet carrier that has the speed to support institutional programs that house the classes. This reduces the opportunity to train willing individuals already living in rural communities to gain the skills and certification to provide services. The availability of rural internship and/or practicum opportunities can also be limited, and having enough faculty to support training programs in rural areas adds an additional challenge. Once in practice, network support for collaboration of allied health professions can be sparse, leading to frequent on-call schedules. Professional support may not be available for isolated rural providers making practice in more urban areas a more attractive option.
Strategies

The solution to improving and restoring health to rural and frontier areas is multi-factorial and requires actions at every level as a partnership. Rural and frontier community members deserve the same access to health care as individuals in urban areas, including services from a team of professionals of which allied health is an imperative part. A team approach of educational institutions, health care providers and local, state, and federal government is needed to address the challenges in recruiting and retaining the necessary allied health professionals in rural communities. Examples of potential strategies to address the Allied Health workforce pipeline are listed below:

Educational Institutions

• Develop innovative interdisciplinary training programs to accommodate workforce needs in rural areas.
• Make training programs more assessable by using information technology or developing regionalized access points.
• Recruit from vo-technical programs, and give credit for high school programs.
• Expand health related educational courses offered that begin in high school that transfer to the college level.
• Enhance student recruitment programs to encourage health occupations.
• Engage in welfare to work programs and offer tuition waivers for those trying to establish a work career.
• Advertise programs through the media to attract potential students of all ages and offer programs to acclimate older students to the educational process.
• Provide resources and support for allied health students to ask questions, or seek advice and peer support.
• Increase the number of faculty available to support the demand for training health professions students.
• Enhance and expand the availability of clinical training sites in rural settings.

Rural Health Facilities

• Partner with educational institutions to develop programs that will allow students to continue current employment and family responsibilities while enhancing their careers.
• Develop career ladder training programs.
• Recruit professionals that could provide clinical training for potential students.
• Collaborate with local and state education agencies to expose elementary, junior high and high school students into health professional programs and careers.
• Work with State High School educational agencies to develop vocational educational opportunities as an entry to allied health careers.
• Partner with local economic development to create local opportunities. Search for links outside the realm of health care. Attach needs to economic growth and meet with industries and business that have not linked with health care previously.
• Enhance retention activities and increased opportunities to maintain Allied Health Professionals currently employed.
• Partner with local Foundations and businesses to offer tuition reimbursement and loan repayment incentives.

States

• Offer financial incentives to encourage allied health professionals to locate in rural underserved areas in the state. These incentives could include scholarships, loan repayment programs and tuition waivers to students from areas that lack in specific allied health professionals.
• Develop formal programs to ensure an adequate healthcare workforce, to include training, recruitment and retention.
• Support funding at the university level to enhance the availability of clinical instructors.
• Provide capital resources necessary to fund distance education programs.
• Develop statewide career ladder training programs through campus and distance learning options.
• Promote practice parameters that are national to reduce licensure problems with recruiting from other states.
• Support programs that link educational facilities and rural areas.
• Offer tax breaks to allied health professionals that practice in underserved areas, return to school for education that will fill needs and vacancies in these areas.
• Offer tax breaks to institutions that financially support training and recruitment of needed allied health care professionals to their area.
• Support the delivery and reimbursement of allied health via telemedicine.
• Develop formal Workforce Tracking Programs to collect and analyze allied health workforce trends and opportunities.
• Require public service providers who provide or could provide high speed internet to cover all of the state and offer incentives for those who extend into rural areas.

Congress
• Reauthorize and increase funding for Title VII and VIII to support workforce development programs.
• Promote universal licensing and practice parameters of allied health to simplify requirement from state to state.
• Increase funding and grants available for the recruitment and retention of allied health professionals to the rural areas.
• Provide personal tax breaks for health care professional that practice in rural and underserved areas.
• Promote and fund research that evaluates the impact of allied health in rural areas as compared to urban areas that have these resources available.

Recommendations
The Institute of Medicine outlined key strategies and findings relating to rural healthcare workforce issues in their 2005 report Quality Through Collaboration (see below). The NRHA endorses the following recommendations aligning with the IOM report with a focus on allied health professionals:

IOM Recommendation

To target workforce training programs most effectively, federal, state, and local governments need better information on the current supply and types of health professionals. Data that would be particularly useful include the numbers of providers and provider hours of clinical practice, practice specialties, and sites of service. Financial and policy incentives at the federal and state levels could be put in place to facilitate the gathering, analysis, and retention of health professions workforce data that are comparable across states.

Allied Health Application

Although most states have some availability of workforce data on physicians and nursing professions. There is a particular lack of workforce data regarding allied health professions. What data is available is frequently inconsistent or not comparable from state to state. Financial and policy incentives for development of workforce data centers and increased health care workforce data development need to include a focus on allied health professions to best target programs and incentives in the workforce pipeline for this broader scope of health care professional.

IOM Recommendation

Congress should provide appropriate resources to the Health Resources and Services Administration to expand experientially based workforce training programs in rural areas to ensure that all health care professionals master the core competencies of providing patient-centered care, working in interdisciplinary teams, employing evidence-based practice, applying quality improvement, and utilizing informatics. These competencies are relevant to the many discipline-specific and multidisciplinary programs supported under Titles VII and VIII of the Public Health Service Act.
Allied Health Application

Title VII funding is a key resource to ensuring an adequate allied health workforce in rural communities. Title VII programs such as Area Health Education Centers (AHECs), interdisciplinary training programs, and workforce programs that recruit students from minority and underserved communities, all play a key role in the pipeline for engaging and recruiting allied health professionals. The Area Health Education Centers can also play a key role in helping engage and prepare K-12 students from rural communities with adequate educational preparation, and consideration of allied health professions as a viable career option.

IOM Recommendation

Schools of medicine, dentistry, nursing, allied health, and public health and programs in mental and behavioral health should:

- Work collaboratively to establish outreach programs to rural areas to attract qualified applicants.
- Locate a meaningful portion of the educational experience in rural communities. Universities and 4-year colleges should expand distance learning programs and/or pursue formal arrangements with community and other colleges, including tribal and traditionally African American colleges, located in rural areas to extend the array of rural-based education options while encouraging students to pursue higher levels of education.
- Make greater effort to recruit faculty with experience in rural practice, and develop rural-relevant curricula addressing areas that are key to improving health and health care, including the five core competencies (i.e., providing patient-centered care, working in interdisciplinary teams, employing evidence-based practice, applying quality improvement, and utilizing informatics), the fundamentals of population health, and leadership skills.
- Develop rural training tracks and fellowships that (1) provide students with rotations in rural provider sites; (2) emphasize primary care practice; and (3) provide cross-training in key areas of shortage in rural communities, such as emergency and trauma care, mental health, and obstetrics.

Allied Health Application

Training programs that include an emphasis on practice opportunities in rural communities are of key importance in developing an adequate allied health workforce. In addition, many allied health profession training programs can be amenable for working adults. Incorporation of a wide variety of strategies to engage and support working adults in selecting allied health as a career option, and to support current allied health professionals in furthering their education and skills will also be critical in addressing the allied health workforce pipeline.

References


places in rural America at risk of not being able to support adequate health services. *The Journal of Rural Health: Official Journal of the American Rural Health Association and the National Rural Health Care Association*, 19 (4), 450-460.
