

*Issues in Missouri Health Care 2011*

Assuring an Adequate Health Care Workforce in  
Missouri's Medically Underserved Areas

## **Acknowledgement**

This is one in a series of issue papers on critical health care issues facing Missouri and the nation prepared by Health Management Associates, Inc., a national health care policy research and consulting firm, and made possible by funding from the Missouri Foundation for Health and the Healthcare Foundation of Greater Kansas City. The papers are intended to provide nonpartisan expert analysis in an accessible format that will contribute to the public dialogue on the state of health care in Missouri. Questions should be directed to Thomas McAuliffe, Policy Analyst, Missouri Foundation for Health, 314.345.5574, [tmcauliffe@mffh.org](mailto:tmcauliffe@mffh.org).

## Issue Statement

This paper addresses two issues: First, the challenges Missouri faces in establishing and maintaining an adequate health care workforce to meet the needs of rural and other medically underserved areas; and second, the opportunities federal health care reform offers Missouri to expand the availability of appropriately qualified health care providers in medically underserved areas of the state.

## Background

Many states with sizable rural populations struggle to attract and maintain an adequate supply of medical providers, including nurses, primary care doctors, specialists, mental health professionals, and dentists. Pending demographic shifts also raise concerns about the future supply and distribution of adequately trained health care workers—caregivers who will be needed to provide for the health care needs of aging and culturally diverse populations, particularly in rural and other medically underserved areas. Nationally, 15 percent of rural residents are elderly compared to 12% of urban residents, and that percentage is expected to grow as more Baby Boomers turn 65.<sup>1</sup> Additionally, there are a growing number of people of Hispanic descent found in rural areas of the U.S.<sup>2</sup>

Missouri and many other states and their local communities have made numerous efforts to attract and retain health care professionals in rural and other underserved areas, with varying degrees of success. With the recent passage of national health care reform, known as the Patient Protection and Affordable Care Act (ACA), Missouri has a number of opportunities to leverage federal resources to expand the availability of providers to work in medically underserved areas.

This issue brief describes the health care workforce and health professional shortage areas in Missouri, and highlights provisions in the ACA that are designed to help states expand the supply and distribution of appropriately trained health care professionals to eliminate professional health care shortages in medically underserved areas.

## Missouri's Health Care Workforce<sup>3</sup>

Health care plays a significant role in the economy of the nation and in Missouri as well. Nearly 10 percent of Missouri's workforce was employed in the health care sector in 2009, higher than the U.S. rate of 8.7 percent, ranking the state 11th in the nation. In addition, Missouri is a national leader in annual medical school graduates. While the state comprises 1.9 percent of the

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1 The National Advisory Committee on Rural Health and Human Services. 2008. The 2008 Report to the Secretary: Rural Health and Human Services Issues. Retrieved October 18, 2010, from <ftp://ftp.hrsa.gov/ruralhealth/committee/NACreport2008.pdf>.

2 These statistics were based on the county-based definition of rural used by the Office of Management and Budget (OMB). A rural county in a non-metropolitan county, which has no cities with more than 50,000 residents.

3 All statistics and data referenced in this section were retrieved October 18, 2010, from <http://www.statehealthfacts.org/profileind.jsp?cat=8&rgn=27>, unless otherwise noted.

nation's total population, it produces 2.7 percent of the medical school graduates in the U.S. Missouri ranks second in exporting physicians trained in-state to other parts of the country.

### Supply of Health Care Professionals

Despite its prominence as a physician training ground, Missouri has fewer physicians (all specialties combined) and primary care physicians (family medicine, general internal medicine, or pediatric medicine) per 100,000 population than the U.S. as a whole. The state also has much lower rates of physician assistants and dentists. At the same time, the state is well above national rates for nursing professionals (registered nurses and nurse practitioners).

- *Physicians and Physician Assistants:* Missouri had 308 non-federal physicians per 100,000 population in 2008, compared to 330 per 100,000 for the U.S. The Missouri and U.S. rates for primary care physicians per 100,000 population were 116 and 128, respectively. With only 11 physician assistants per 100,000 population, compared to the U.S. rate of 24, Missouri ranked 47<sup>th</sup> in this health care workforce indicator.
- *Dentists:* Missouri had 63 dentists per 100,000 in 2008 compared to 78 per 100,000 for the U.S. The state is currently ranked 33<sup>rd</sup>.
- *Nursing Professionals:* In contrast, Missouri's nursing workforce was relatively stronger than that of the U.S. In 2009, Missouri ranked 9<sup>th</sup> in the proportion of registered nurses, with a rate of 1,038 per 100,000 population. The U.S. rate was 842 per 100,000. Missouri also ranked 24<sup>th</sup> in the proportion of nurse practitioners, with 75 per 100,000, compared to the U.S. rate of 51 per 100,000.

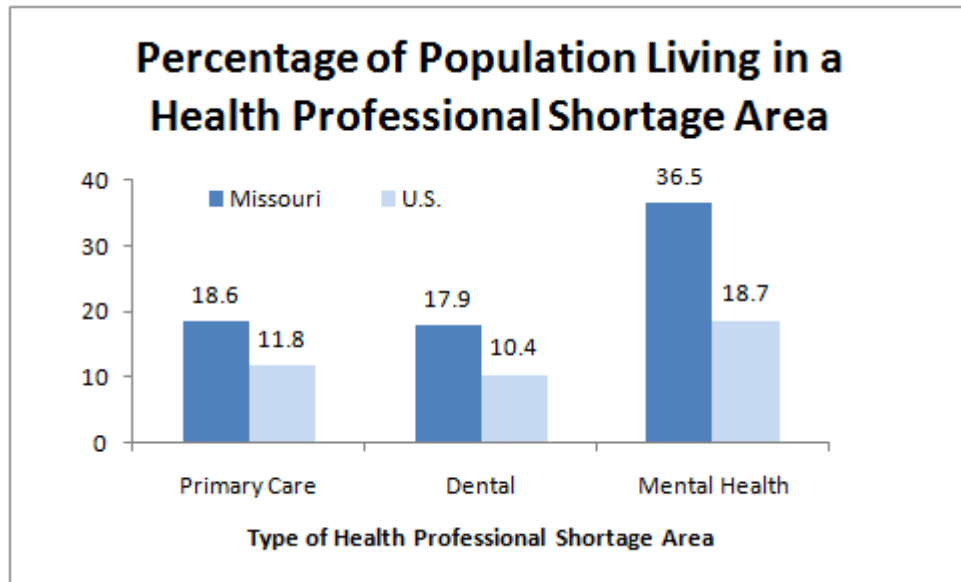
### Health Professional Shortage Areas

Health Professional Shortage Areas (HPSAs), which may be urban or rural,<sup>4</sup> are areas designated as having a shortage of primary care, dental, or mental health providers based on federal criteria for population-to-practitioner ratios.<sup>5</sup> Areas designated as primary care HPSAs have a population-to-practitioner ratio greater than 3,500:1. A dental HPSA is designated by a population-to-practitioner ratio greater than 5,000:1. A mental health HPSA has a population-to-core-mental-health-professional ratio that is at least 6,000:1, and a population-to-psychiatrist ratio that exceeds 20,000:1.

About 19 percent of Missourians, or more than one million people, were estimated to be living in a primary care HPSA in 2008. The estimate for the percentage living in a dental HPSA was comparable—almost 18 percent. U.S. rates are much lower: 11.8 percent and 10.4 percent, respectively. More than 2.1 million people—exceeding one-third of Missouri's population—lived in a mental health HPSA, compared to less than one fifth of the total U.S. population (Figure 1).

**Figure 1. Percentage of Population Living in a Health Professional Shortage Area, Missouri and U.S., 2008**

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- 4 An HPSA can also be designated for a population group (e.g., low income), or medical or public facility (e.g., rural health clinic, correctional facility).
  - 5 Other criteria may determine an HPSA designation, as set forth by the Health Resources and Services Administration. See <http://bhpr.hrsa.gov/shortage/hpsadesignation.htm>.



### Health Shortages in Missouri's Rural Communities

Although 40 percent of Missouri's population lives in a rural area, only 25 percent of the primary care physicians are located in rural areas.<sup>6</sup> Twenty-five counties in Missouri, all rural, have a population-to-primary-care-provider ratio that exceeds 3,500:1. Among urban counties, only one (Jefferson) has a ratio greater than 3,000:1, while one third of rural counties exceed this ratio. Most urban counties (75%) have ratios of less than 1,400:1.<sup>7</sup> The types of physicians most needed in rural Missouri are primary care doctors, general surgeons, and psychiatrists.<sup>8</sup>

### Contributing Factors to Shortages of Health Professionals in Rural Communities

While many inner city areas also face health care provider shortages—often related to high density, poverty, and crime—rural areas face very different challenges in attracting and retaining health care providers. The key challenges can be summarized as primarily professional and lifestyle factors:<sup>9</sup>

- *Professional*
  - Lack of backup and on-call provider coverage, often resulting in providers being on call 24/7 with little relief;
  - Professional isolation and lack of access to peers or specialists for consultation;
  - Limited medical infrastructure such as access to state-of-the-art diagnostic and other medical technologies, and lack of an integrated electronic health record system; and

6 Department of Health and Senior Services, Office of Primary Care and Rural Health. 2007. *Missouri Office of Rural Health Biennial Report 2006-2007*. Retrieved October 15, 2010 from <http://www.dhss.mo.gov/PrimaryCareRuralHealth/RuralHealthReport07.pdf>.

7 Ibid.

8 Conversation with Kathleen Quinn and Weldon Webb, Missouri Office of Rural Health, May 1, 2008.

9 Department of Health and Senior Services, Office of Primary Care and Rural Health. Op cit.

- Wide range of generalist skills required and the consequent lack of opportunity to specialize.
- *Lifestyle*
- Shortage of career opportunities for spouses;
  - Perceived lack of high quality competitive schools for children; and
  - Lack of cultural resources (e.g., theater, music, sports, dining, and shopping).

## Efforts to Expand Missouri's Rural Physician Workforce

Several efforts have been under way in Missouri to increase the number of physicians locating their practices in rural areas. For example, the University of Missouri School of Medicine in Columbia has worked with the local Area Health Education Center (AHEC) to create a comprehensive "pipeline" program.<sup>10</sup> Fifteen undergraduate students were selected in their sophomore year, and committed to finishing medical school with the intention to practice in a rural area. Many special provisions were made for them, including exemption from taking the Medical College Admission Test (MCAT), mentoring and clinical rotations in rural areas working directly with physicians, financial assistance from federal grants, and financial and housing assistance from local hospitals. Community "ambassadors" also volunteered to provide social support and assistance to the medical students. The program had a placement function that matched graduates with communities and facilities needing their expertise.

Analysis of ten years of data from this effort showed mixed results. Of the 13 students who completed the program, only ten stayed in-state, with five of those currently practicing in communities with populations of fewer than 50,000. These numbers suggest a 33 percent success rate. The greatest weakness cited was a lack of rural residencies for the program, which hampers the strong connections formed during a doctor's medical residency program.

## Federal Health Care Reform

As a result of federal health care reform, states have more opportunities to pursue strategies to address the professional factors that may inhibit health professionals from practicing and permanently locating in rural or other underserved areas. The intent of Title V of ACA is to expand and retain a qualified health care workforce that can respond adequately to the health and medical needs of all Americans, with priority established for vulnerable populations including older adults, children, and the chronically ill and their families. Within these provisions, the ACA calls for tens of millions of dollars in federal grants and funding for improvements and demonstration projects. Beginning this year, states, communities, and educational and training institutions may compete for these dollars.

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<sup>10</sup> Conversation with Kathleen Quinn and Weldon Webb. Op cit.

Major subsections of Title V related to workforce include the following:<sup>11</sup>

- *Innovations in the Health Care Workforce:* The ACA promotes health care workforce innovations through establishment of a national health care workforce commission to coordinate efforts among federal agencies (Section 5101). The law establishes a grant program for states to plan and implement activities leading to health care workforce development strategies, with up to \$150,000 available per state partnership (Section 5102). The ACA also creates a federal Center for Workforce Analysis to establish a research agenda and award grants to state and regional centers to conduct local workforce analysis (Section 5103).
- *Increasing the Supply of the Health Care Workforce:* A major strategy for increasing the supply of health care professionals is an expansion of funding for the National Health Service Corps in the amount of \$1.5 billion over five years, beginning in 2011 (Section 5207). This funding will extend the Corps' student loan, loan repayment and loan forgiveness programs. Eligibility for these benefits is based on serving a minimum number of years in health professional shortage areas. Enhanced programs will target nursing, allied health, and public health professions.
- *Enhancing Health Care Workforce Education and Training:* The ACA provides an array of health workforce education and training opportunities. For example, grants will be available to develop and operate training programs, provide financial assistance to trainees and faculty, and enhance faculty development in family medicine, internal medicine, general pediatrics, and physician assistant programs (Section 5301). Federal grants will also support geriatric, mental and behavioral health, and dentistry education and training (Sections 5305-5307). Embedded in each of these provisions are stipulations to increase the racial and ethnic diversity of the health care workforce.<sup>12</sup>

A demonstration project will evaluate the use of alternative dental health care providers to expand access to routine dental care in rural and other underserved areas (Section 5304).

Grants will also be available to recruit and train community health workers. The grants will emphasize education and outreach in racially and ethnically diverse communities, and will support AHECs that target underserved populations (Section 5313).

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11 Unless otherwise referenced, descriptions of provisions in this brief have been summarized by HMA from the published legislation, retrieved April 14, 2010, from [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111\\_cong\\_bills&docid=f:h3590enr.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h3590enr.txt.pdf).

12 Andrulis DP, Siddiqui NJ, Purtle J, Duchon L. 2010. *Patient Protection and Affordable Care Act of 2010: Advancing Health Equity for Racially and Ethnically Diverse Populations*. Washington, DC: Joint Center for Political and Economic Studies.

- *Strengthening Primary Care and Other Workforce Improvements:* Several provisions in the ACA are related to strengthening the role of primary care in the health care delivery system. For example, beginning in 2011, primary care practitioners and general surgeons practicing in HPSAs will receive a 10 percent Medicare payment bonus for five years (Section 5501).

The ACA is expected to increase the participation of primary care physicians in Medicaid, the federal-state health program for low-income individuals, by requiring that Medicaid reimbursement rates for primary care services provided by primary care physicians be at least 100 percent of the Medicare payment rates in 2013 and 2014 (Section 1202). The federal government will finance 100 percent of the additional costs to states.

## **Conclusion**

The goal of national health care reform is to ensure that all Americans get the care they need to help them live to their fullest potential. Many provisions in the Patient Protection and Affordable Care Act seek to make the distribution of primary care providers, mental health specialists, and dentists more geographically equitable. This aspect of health care reform has potential to improve access to appropriate and cost-effective care for populations in historically medically underserved areas and, ultimately, improve the health and well-being of all Missourians—regardless of where they live, their age, or their ethnic/cultural background.