

Revised September 2006

National Rural Health Issues

Overview

As the landscape of rural America changes, so must the programs and resources available to support access to quality health care. Factors such as population size, age structure, health risk factors, economic development, racial and ethnic composition, technology, mix of health care providers, and regional and state variations are all impacting the health care needs of rural Americans and how they access health services. Given these changes and to better identify national rural health issues as well as state and regional variations regarding the issues, a national rural health survey was conducted of all State Offices of Rural Health (SORH) directors in June 2005. SORH directors were asked to identify rural health issues and concerns and to rank their concerns. Forty-nine of 50 SORH directors responded to the survey and reported that they are most concerned about small rural hospitals, physician recruitment and retention, the uninsured, and access to dental and mental health services and they ranked issues related to rural hospitals as their greatest concern. These issues are discussed within the context of rural health workforce, facilities, and special populations as part of this report.

NOSORH Priorities:

- 1) Small rural hospitals
- 2) Uninsured populations
- 3) Physician recruitment and retention
- 4) Oral health
- 5) Mental health
- 6) Emergency Medical Services
- 7) Health information technology

Characteristics of Rural

All rural areas in the U.S. are unique with extensive geographic and economic variation. When compared to urban populations; however, rural populations are often characterized as: being older and less educated; more likely to be covered by public health insurance; having higher rates of poverty, chronic disease, suicide, deaths from unintentional injuries and motor vehicle accidents; having no or little access to transportation; and having limited economic diversity. All of these issues create challenges and opportunities to improve the health of those living in the rural U.S. and they play a role in understanding some of the underlying causes associated with issues related to rural health workforce, health services, and special populations.

Rural Health Care Workforce Issues and Needs

While most rural communities in the U.S. already experience health care workforce shortages, the demand for health care workers nationwide is

The **National Organization of State Offices of Rural Health (NOSORH)** was developed to promote a healthy rural America through state and community leadership. The NOSORH engages in many activities to further its mission including providing leadership for national, state, and community based rural health activities.

State Offices of Rural Health (SORH) were established to help individual rural communities build health care delivery systems. They accomplish this by collecting and disseminating information, providing technical assistance, helping to coordinate rural health interests state-wide, and by supporting efforts to improve recruitment and retention of health professionals.

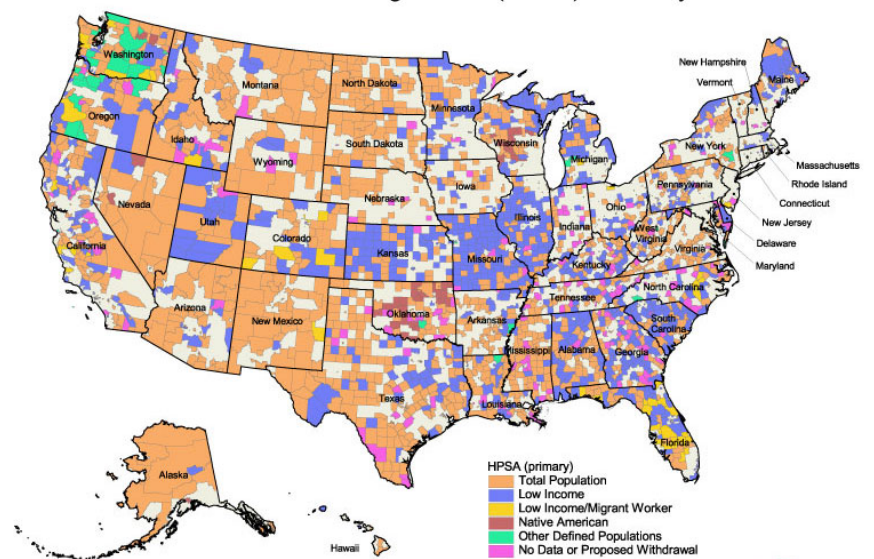
projected to grow faster than the supply. This shortage of health care workers can impact health care in a variety of ways, including: decreasing quality of care, decreasing access to care, increasing stress in the workplace, increasing medical errors, increasing workforce turnover/decreasing retention rates, and increasing health care costs.

Most rural areas, in particular those located in Southeastern states, are classified by the federal government as Health Professional Shortage Areas (HPSAs) for primary medical care. (See Map) A HPSA designation is made using a formula that includes a ratio of physician to population that is greater than 1:3,500. A population is considered “adequately served” when the ratio is 1:2,000. In 1997, more than 2,200 additional physicians would have been needed in non-metropolitan areas to eliminate HPSA designations.¹ SORH directors consider the workforce shortage to be one of the greatest issues facing rural health, in particular shortages related to physicians and nurses (Registered Nurses - RN and Licensed Practical Nurses - LPN).

Examining a few national health workforce shortage trends that will have a profound impact on rural populations and exacerbate the current rural health workforce shortages, the following examples were identified:

- If health care consumption patterns and physician productivity remain constant over time, the aging population will increase the demand for physicians per thousand population from 2.8 in 2000 to 3.1 in 2020. Demand for full-time-equivalent RNs per thousand population would increase from 7 to 7.5 during this same period.²
- Minority and female physicians have a greater propensity than do non-minority and male physicians to practice in urban communities. Meanwhile the percentage of physicians that are minorities and women is increasing.³
- The Bureau of Health Professions projects that there will be a 33-44% increase in demand for physicians, 41 percent for RNs, and 46 percent for LPNs from 2000 to 2020.⁴

Health Professional Shortage Areas (HPSA) - Primary Medical Care



Source: Health Resources and Services Administration - HRSA, Bureau of Health Professions, 2004.
 Note: Alaska and Hawaii are not to scale.



¹ Health Resources and Services Administration, Office of Rural Health Policy. Retrieved 12/10/05 at http://www.shepscenter.unc.edu/research_programs/rural_program/phy.html.

² U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions. (February 2004). Retrieved 12/11/05 at <http://bhpr.hrsa.gov/healthworkforce/reports/changedemo/default.htm>

³ *ibid.*

⁴ *ibid.*

- The Bureau of Labor Statistics projects that between 2000 and 2010, an additional 1.2 million (50 percent increase) nursing aides, home health aides, and persons in similar occupations will be needed to (a) cover the projected growth in long-term care positions and (b) replace departing workers. However, the pool - largely women between 25 and 50 without post-secondary education - from which such workers have traditionally been drawn, continues to shrink.⁵
- According to the Bureau of Health Professions, there is an acute shortage of pharmacists in the U.S. In February 1998, there were 2,670 unfilled full and part-time positions in the U.S. as compared to 6,920 in February 2000. Adding to this, enrollment rates in U.S. schools of pharmacy declined during this period.⁶
- In 1970, women accounted for 13 percent of the nation's pharmacists as compared to 2000 when they were 46 percent of the nation's pharmacists. Women tend to elect part-time work as pharmacists.⁷
- From 1990 to 1999, there was a 46 percent increase in the number of prescriptions dispensed from hospitals.⁸

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Rural Health Care Facilities' Issues and Needs

Rural health care facilities include a wide variety of services along the continuum of care: nursing home, assisted living, home health, hospital, clinic, chiropractic, oral health, mental/behavior health, emergency, pharmacy, and optometry. Given the roles, economic impact, and financial issues facing some of these health care facilities, SORH directors determined that they are most concerned about small rural hospitals, emergency medical services (EMS), behavioral/mental and oral health services.

Small Rural Hospitals. The configuration of health services within communities varies greatly; however, for those communities with a small rural hospital, the hospital typically serves as the health care "hub" or multi-service provider. Therefore, sustaining the hospital often times results in maintaining access to a continuum of local health care services. In addition, since the hospital is frequently one of the largest employers in small rural communities, the hospital's financial viability impacts the economic health of the community overall.

Rural hospitals have evolved into multi-service providers in response to the changing needs of the populations they serve and to improve the hospitals' financial viability through service diversification. Service diversification can be compared to corporations that diversify in order to limit their risks and maximize their opportunities due to market changes. Since small rural hospitals

⁵ U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions. February 2004. Retrieved 12/11/05 at <http://bhpr.hrsa.gov/healthworkforce/reports/changedemo/default.htm>. at <http://bhpr.hrsa.gov/healthworkforce/reports/nursinghomeaid/nursinghome.htm>

⁶ Department of Health and Human Resources, Bureau of Health Professions. The Pharmacists Workforce: A study of the Supply and Demand for Pharmacists. (December 2000). Retrieved 12/22/05 at <ftp://ftp.hrsa.gov/bhpr/nationalcenter/pharmacy/pharmstudy.pdf>

⁷ *ibid.* at <ftp://ftp.hrsa.gov/bhpr/nationalcenter/pharmacy/pharmstudy.pdf>

⁸ *ibid.*

have limited markets and therefore limited to no economies of scale, most of their market changes are in the form of changes in reimbursement and regulations for the services they provide.

Small rural hospitals are most dependent on Medicare reimbursement; however, those with attached nursing homes can be equally dependent on Medicaid. When reimbursement for services decreases, hospitals must consider their financial ability to continue the services. Using the example of hospitals with a nursing home, as Medicaid reimbursement decreases for nursing home care and makes this branch of business no longer self-sustaining, small rural hospitals must either subsidize the service through other programs and/or resources or eliminate the service. In some instances, the hospital must close.

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EMS. EMS plays a critical role in meeting the health care needs of those in rural areas; however, there are substantial challenges in maintaining and/or recreating a system that is sustainable. Examples of issues currently facing EMS in the U.S. include: the high cost of providing services in sparsely populated areas, high fixed costs of operations, limited to no local tax support, low reimbursement rates, low patient volume, lack of access to training and/or medical supervision, organizational/management issues, reliance on local volunteers, inadequate/outdated equipment, and limited technology. In a 2000 survey, State EMS Directors indicated that their greatest EMS concerns are recruitment and retention of personnel, medical oversight, and financial issues.⁹

Adding to the issues identified above is the fact that the further a patient is from an emergency medicine facility, the more that a patient stands to benefit from higher levels of EMS. Although this is an acknowledged factor impacting quality of care and patient outcomes nationwide, rural EMS continues to be dominated by volunteer basic life support units, those with the lowest level of staff training and scope of services.

Factors that contribute to national EMS issues include:

- Decline in volunteerism
- Little to no compensation for EMS volunteers who must leave their jobs, families, and other commitments in order to serve their community
- Increased demand on EMS providers, both by consumers and in terms of training and certification requirements
- Risks and perceptions of increased liability associated with serving on local EMS
- EMS management and lack of physician oversight
- Lack of operational infrastructure for quality improvement, billing, training, and local health systems planning
- Limited funding for training, equipment, supplies, and vehicles
- Low reimbursement rates and reimbursement that is based on a per-call basis with little consideration for mileage and time spent
- On-going reliance on local fund raising

⁹ National Association of State EMS Directors. Challenges of EMS Services. June 22, 2000. http://www.nasemsd.org/rural_emergency_medical_servic.html

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Behavioral/Mental Health. As stated in the 1999 Surgeon General’s Report, “Mental Health is the successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to change and to cope with adversity.” The need to address issues related to mental health is reflected in the fact that mental health is identified as part of Healthy People 2010 as one of the top 10 high-priority public health issues in the United States.¹⁰ Not only are rural areas faced with behavioral/mental health issues associated with addressing the care needs of patients, but they must also address significant health care access issues. Lack of access to behavioral/mental health services in rural areas is primarily attributed to the shortage of health care providers (e.g. psychiatrists, psychologists, and social workers), lack of insurance and mental health/behavioral health and substance abuse insurance benefits parity, and low health care provider reimbursement rates.

Factors that signal a need to address mental/behavioral health issues include:

- Major depression is the leading cause of disability worldwide among persons age 5 and older.¹¹
- Suicide was the 11th leading cause of death in the U.S. in 2000.¹²
- Suicide rates for males 15 years and over increase as counties become less urban. The greatest variation is in the West where the rate for most rural counties is nearly 80 percent greater than the rate in urban areas.¹³
- An estimated 22.1 percent of Americans age 18 and older suffer from a diagnosable mental disorder in a given year.¹⁴
- According to the National Institute of Mental Health (NIMH), nearly 60 million Americans living in rural and frontier areas have mental health issues. The prevalence of mental illness, substance abuse, and disability in rural areas is equal to or greater than in urban populations.
- As stated in the National Rural Health Association’s 1999 report, *Mental Health in Rural America*, 79.5 percent of non-metropolitan counties in the United States do not have any mental health services (1990) and the average number of specialty mental health organizations in non-metropolitan counties is substantially lower than the average number in metropolitan counties. That same report went on to say, “current data show consistently lower availability of hospital-based inpatient and outpatient services, both psychiatric and substance abuse, in rural areas.”¹⁵
- In 1999, 87 percent of the designated mental health HPSAs in the U.S. were located in non-metropolitan counties.¹⁶

¹⁰ U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. <http://www.healthypeople.gov/LHI/Priorities.htm>

¹¹ National Institute of Health. <http://www.nimh.nih.gov/publicat/burden.cfm>

¹² National Institute of Health. <http://www.nimh.nih.gov/publicat/harmsway.cfm>

¹³ Ibid.

¹⁴ National Institute of Health. <http://www.nimh.nih.gov/publicat/numbers.cfm>

¹⁵ National Rural Health Association. At <http://www.nrharural.org/advocacy/sub/issuepapers/ipaper14.html>

¹⁶ Maine Rural Health Research Center, University of Southern Maine. October 2001. <http://muskie.usm.maine.edu/Publications/rural/wp23.pdf>

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Oral Health. Although oral health has historically been omitted when considering the health and wellness of populations, the interconnectedness of overall health and oral health is increasingly being recognized. Oral health care needs and issues of rural populations are significant, both in terms of need for care and access to care. Examining key rural oral health issues, the following items were identified¹⁷:

- There are .65 dentists per 1,000 people in non-metropolitan areas as compared to 1.05 in urban areas. As a result, rural areas are more likely to be designated as dental health professional shortage areas: 94 percent of all whole county dental HPSAs and 67 percent of partial county dental HPSAs are in rural counties in the U.S.¹⁸
- Rural residents are more likely to have lost all of their teeth as compared to their non-rural counterparts.
- Rural adults are significantly more likely than non-rural adults to have untreated dental decay (32.6 percent compared to 25.7 percent).
- Total tooth loss among seniors increases as the population becomes more rural.
- In 2001, 67.1 percent of urban residents had visited the dentist in the past year as compared to 58.3 percent in rural areas.
- Rural residents are less likely to have dental insurance as compared to their urban counterparts.
- Rural residents are less likely than urban residents to have access to fluorinated water supplies.
- Seven dental schools have closed since 1986 while three have opened.

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Rural Health Special Population Issues and Needs

Rural communities' economic, demographic, social, and geographic characteristics differ throughout the U.S. and influence the magnitude and types of health issues encountered and services available to address population needs. Some communities are diversifying their economies by attracting new industries or developing and reviving existing ones; others are offering new amenities that attract urbanites, nature enthusiasts, immigrants, or retirees; others have experienced little change; while some are realizing economic decline and population loss. Although variation exists across rural communities, the following are key indicators of the challenges many communities face:

- Changing Demographics
 - Those 65 years and older accounted for 14.6 percent of the rural population as compared to 11.9 percent in 2000.

¹⁷ National Rural Health Association. April 2005. Retrieved 12/11/05 at <http://www.nrharural.org/advocacy/sub/policybriefs/OralHealth3-05.pdf>

¹⁸ North Carolina Rural Health Research and Policy Analysis Center, University of North Carolina at Chapel Hill. The Impact of the Medicaid Budgetary Crisis on Rural Communities. August 29, 2003. Retrieved 12/11/05 at http://www.shepscenter.unc.edu/research_programs/rural_program/WP77.pdf

- Rural areas are aging rapidly due to aging-in-place, out-migration of young adults, and immigration of older persons from metro areas.
- Aging populations introduce a range of issues, such as transportation, housing, and health care associated with an increase in services related to chronic disease, disability, rehabilitation, and social services.
- Hispanics account for 4 percent of the rural population, but 25 percent of the growth. Much of this growth is from immigration.
- Hispanics have larger families, a higher proportion of adults of childbearing age, and a higher birth rate as compared to other racial and ethnic groups.

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- Medicaid Population

- In a 2003 study, 37 states reported that they were considering or had enacted reductions in provider reimbursement for Medicaid.¹⁹
- Rural nursing home patients are more likely to rely on Medicaid as their primary payer source: 68.7 percent of nursing home residents in isolated communities, 70.7 percent in small rural towns, 67.9 percent in large towns, and 66.7 percent in urban areas.²⁰
- A 1996 Office of Inspector General Report noted that 80 percent of the states reported that low dental usage among Medicaid recipients was due to the shortage of dentists willing to accept Medicaid.

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- Uninsured/Undersinsured

- The proportion of the non-elderly population covered by private health insurance (primarily employer-sponsored coverage) falls as the county of residence gets more remote, dropping from 74.6 percent for urban residents to 71.5 percent for residents of rural counties next to an urban county (rural adjacent) to 62.6 percent for residents of rural counties removed from any urban county (rural nonadjacent).²¹
- The percentage of people left without any health insurance--public or private--increases as the county of residence gets more remote: from 14.3 percent in urban to 17.5 percent in rural adjacent to 21.9 percent in nonadjacent areas.²²
- Disproportionately more rural residents than urban rely on individual insurance plans or insurance coverage purchased through small employers both of which often have high deductibles.²³

¹⁹ North Carolina Rural Health Research and Policy Analysis Center, University of North Carolina at Chapel Hill. The Impact of the Medicaid Budgetary Crisis on Rural Communities. August 29, 2003. Retrived 12/11/05 at http://www.shepscenter.unc.edu/research_programs/rural_program/WP77.pdf

²⁰ *ibid.*

²¹ Health Resources and Services Administration, Office of Rural Health Policy. at <http://ruralhealth.hrsa.gov/policy/Uninsured.htm>

²² *ibid.*

²³ *ibid.*

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Conclusions

A primary role of SORHs nationwide is to improve access to quality rural health services. In fulfilling this role, SORH directors around the U.S. determined that they are most concerned with issues related to rural health workforce, health care services, and the needs of special populations. Research suggests that this concern is warranted as: demand for health care workers is increasing while the supply is decreasing; rural health care facilities continue to be fragile, there are gaps in these services, and all of these rural health services are critical to the health and well-being of the U.S.; and the needs of rural populations are changing, however, the programs serving them are unable to meet their needs. While SORHs respond to a variety of rural health needs and issues, new health care policies and additional rural health programs and funding will be needed if states are to address these increasingly important rural health issues and concerns.