CHAPTER 5: OVERVIEW OF OTHER STATES' RURAL HEALTHCARE INITIATIVES

In the previous chapter, we described various rural healthcare service delivery models and discussed their advantages and disadvantages. In this chapter we describe the specific initiatives that Wyoming and other states have used to address their rural healthcare needs. In the next chapter, we will describe how these initiatives fit into a rural healthcare model for Wyoming.

The Request for Proposal issued by the Wyoming Healthcare Commission indicated that the contractor should identify at least three states that are similar to Wyoming in terms of demographics and medical care needs and identify the innovative solutions to rural healthcare issues that these states have used that would apply to Wyoming. In our proposal, we suggested that we would look at the three states suggested in the Request for Proposals – New Mexico, North Dakota and Vermont. We reviewed these states' rural healthcare initiatives as well as other states' rural healthcare initiatives to determine how they might be relevant to Wyoming. We also reviewed a number of states' strategic plans related to rural health services. These included plans from Georgia, Minnesota, Nevada, Oklahoma and Tennessee.

Appendix 7 provides a summary of rural healthcare initiatives for New Mexico, North Dakota, Vermont and other selected states. We provide detailed information about these states' programs in this matrix, and discuss those features that are relevant to Wyoming in the remainder of this section. Appendix 7 provides the full reference for the programs discussed in this section.

Overview of Chapter

This chapter provides information on rural healthcare initiatives in Wyoming and other states and provides specific information in the areas of:

- Non-emergency transportation
- Mobile services
- Education, training, recruitment and retention of healthcare professionals
- Telemedicine
- Licensure, scope of practice and cross-training
- Economic access
- Funding

Non-Emergency Transportation

The rural and rugged nature of Wyoming makes transportation difficult for many of the state's residents, making access to healthcare a challenge. Transportation is an even greater

challenge for senior citizens and the poor. Of relevance to Wyoming are some interesting solutions to providing transportation for healthcare access, such as:

- Several regional transport agencies in Vermont coordinate transportation for medically necessary travel for those who are Medicaid eligible.
- BlueCross BlueShield of North Dakota awarded a grant to conduct a feasibility study on the use of public school transportation for healthcare access in southwestern North Dakota.
- Washington has had success using school buses for senior transportation.
- The Brazos Valley Health Partnership in Texas has created a hub and spoke non-emergency transportation system for the six rural communities surrounding semi-urban Brazos County. Two vans provide transportation within rural areas, while a third van transports patients from the rural communities to Brazos County.

Mobile Services

Mobile services programs offer a way to address problems of geographic isolation and lack of transportation faced by some rural residents. Mobile units can provide primary care, including preventive and disease management services. A mobile mammography unit from South Dakota, for example, currently serves northeastern Wyoming.

Other states have developed mobile services programs. Some examples include:

- Covenant Health System in Lubbock, Texas has a mobile services program that includes a mobile dental van in New Mexico for children and a primary care mobile clinic.
- Vermont used a Health Resources and Services Administration Rural Health Outreach Grant to provide healthcare and health education services to rural residents using a mobile unit called "VanGo." Vermonters who are in need of health services, but are unable to access services because of transportation, finances or lack of knowledge of availability of services can use the "VanGo" unit. The target population includes families with infants and young children, senior citizens and those who are underinsured or uninsured.
- University of Southern California has a Mobile Dental Clinic that visits elementary and high schools to provide dental services such as x-rays, cleanings, fluoride treatments and extractions.

- A mobile clinic in an underserved-county of rural Virginia provides mental health services to women two days a week.

- The Navajo reservation uses Federal breast and cervical cancer screening program funds to subsidize a mobile mammography unit.

Education and Training, Recruitment and Retention of Health Professionals

In this section, we discuss current Wyoming efforts to educate and train, recruit and retain physicians and other health professionals. We also highlight particular features of Federal and other states' efforts that Wyoming may want to consider.

Current education and recruitment activities are best understood as recurring efforts to communicate with individuals who might be interested in becoming rural healthcare professionals throughout their careers. We identified efforts by the Federal government, state governments and other organizations that reflect the career stage at which the effort affects the individual:

- K-12 education and college
- Professional education
- Residency
- Recruitment and placement
- Retention

Federal Efforts

The Federal Health Resources and Services Administration (HRSA) has several programs intended to encourage healthcare professionals to practice in rural areas. The Bureau of Health Professions (BHP), for example, provides grants for Area Health Education Centers (AHECs). These centers are academic-community partnerships that train healthcare providers in sites and programs that are responsive to State and local healthcare needs.[121] Health career enhancement and recruitment programs for K-12 students are emphasized. BHP also funds a rural nursing internship and residency grant program, training programs in medicine and dentistry[122] and loan repayment programs for nurses.[123] The National Health Service Corps provides scholarships and loan repayment for healthcare professionals who work in rural or underserved areas for specified periods, and provides assistance in

[121]United States Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Health Professions, "Area Education Centers." Available online: http://bhpr.hrsa.gov/ahec.
[122] United States Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Health Professions, "Medicine and Dentistry." Available online: http://bhpr.hrsa.gov/medicine-dentistry/default.htm.
[123] United States Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Health Professions, "Nursing." Available online: http://bhpr.hrsa.gov/nursing.

recruiting and placement when professional education is completed.[124] The Office of Rural Health Policy (ORHP) provides grants for state Offices of Rural Health, as well as for network development and other programs.[125] Many of these programs participate in rural recruitment efforts. These mechanisms can provide an additional incentive for recruitment and retention of professionals.

Wyoming's Efforts

Education and training of health professionals is an essential tool for states to increase the supply of health professionals in rural areas. For education and training to be successful in encouraging providers to practice in rural areas, it must expose them to rural healthcare practice. Wyoming is a member of the WWAMI consortium (Washington, Wyoming, Alaska, Montana and Idaho) that works cooperatively on educational issues to improve healthcare access in rural areas.[126] WWAMI's efforts include a training consortium, telemedicine, remote education, rural residency rotations and other efforts to train and support rural healthcare professionals. In the absence of a medical school in Wyoming, students from Wyoming can attend the University of Washington School of Medicine under a cooperative arrangement through WWAMI. The WWAMI program also has a Rural Health Research Center that performs policy-related research on issues related to rural healthcare.

The University of Wyoming sponsors two Family Practice Residency Programs in Cheyenne and Casper that have three purposes: medical education, physician supply and community health.[127] These residency programs, which are not affiliated with a medical school, are approved by the Accreditation Council for Graduate Medical Education. The program in Casper has 24 approved resident positions, 18 of which were filled as of August 31, 2004, and six (eight according to ACGME website) supervising physicians. The program in Cheyenne has 18 approved resident positions, all of which were filled as of August 31, 2004, and five (seven according to ACGME website) supervising physicians. Residents of the program in Cheyenne receive their ambulatory training at the University-owned clinic in Cheyenne, with rotations to the Weston County Health Services, and their inpatient hospital experience primarily at the VHA Hospital, with rotations to United Medical Center. Residents of the program in Casper receive their ambulatory training at the Community

[124] United States Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Health Professions, "National Health Service Corps." Available online: http://nhsc.bhpr.hrsa.gov/about.

[125] United States Department of Health and Human Services, Health Resources and Services Administration (HRSA), Office of Rural Health Policy, "Funding." Available online: http://ruralhealth.hrsa.gov/funding.

[126] Wyoming WWAMI Medical Education, "What is WWAMI?" Available online: http://uwadmnweb.uwyo.edu/wwami/.

[127] University of Washington School of Medicine, "Family practice residencies in Wyoming join UW network," *Online News*, (November 14, 2003), Volume 7, Number 44. Available online: http://depts.washington.edu/mednews/vol7/no44/family.php.

Health Center of Central Wyoming – a Federally Qualified Health Center – and their inpatient hospital experience at Wyoming Medical Center, with rotations at Primary Children's Medical Center in Salt Lake City and the University of Utah Medical Center Weston County.[128]

In other states, medical schools often develop programs and create incentives for students to study in their states and remain there during and after their residencies are complete. Wyoming's lack of a medical school precludes directly implementing some professional education efforts that other states have implemented. However, Wyoming might be able to work cooperatively with the University of Washington School of Medicine to expand Wyoming teaching sites. For example, the WWAMI Idaho Track Program allows third year medical students to complete all third-year clerkships in the state of Idaho.[129] In addition to the Wyoming clerkship sites currently available to third and fourth year medical students, described below, a Track Program in Wyoming similar to Idaho's might increase the number of new physicians who are willing to remain in Wyoming after their education is complete.

The WWAMI program is successful in introducing medical students and residents to medical practice in Wyoming. For example, the WWAMI Rural/Underserved Opportunities Program (R/UOP) provides first year medical students with four weeks of hands-on experience in clinical practice in a rural Wyoming community. Wyoming also currently has the following six clerkship sites:

- Buffalo- Family Medicine
- Powell- Family Medicine
- Jackson- Internal Medicine
- Sheridan VHA- Internal Medicine
- Rock Springs- Obstetrics and Gynecology
- Cheyenne- Obstetrics and Gynecology

Wyoming is developing psychiatry and neurology clerkships and planning surgery and pediatrics clerkships for the future. Wyoming also has a WWAMI Rural Integrated Training Experience (WRITE) clerkship site in Powell. This clerkship requires students to remain in one location and is based on an integrated approach to primary care; the students complete their entire family medicine clerkship and large portions of psychiatry, medicine and pediatrics at this site.[130]

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[128] Accreditation Council for Graduate Medical Education, "Reports- List Programs by Sponsor." Available online: http://www.acgme.org/adspublic/.

[129] University of Idaho, "Special Programs." Available online: http://www.webs.uidaho.edu/wwami/programs.htm.

[130] University of Washington School of Medicine, *Wyoming WWAMI*, (September 2004).

The Wyoming Legislature determines the number of students that are selected each year for the WWAMI program. Recent legislative action increased the number of students selected for this program from 10 to 12 per year for 2005 and to 16 for 2007. It also shortened the three year "payback" by one year for students who complete a three year residency training at one of Wyoming's Family Medicine residency sites.[131]

Wyoming also participates in the Western Interstate Compact for Higher Education (WICHE). Students selected to enroll in a professional school out-of-state will pay residency tuition out-of-state under the WICHE program.[132] The State of Wyoming subsidizes the student's cost due to the out-of-state institution. Students are not expected to pay Wyoming back for the opportunity to participate in WICHE and there is no requirement that they practice their profession in the State.[133] In other states such as Nevada there are payback agreements. Nevada's program requires graduates to repay 25 percent of the grant amount over 5-10 years as well as to return to Nevada to practice their profession for as many years as they received grant support.[134]

At least 28 states, including Wyoming, have Area Health Education Centers (AHECs) funded by Federal grants.[135] AHECs seek to identify students in grades K-12 with the ability and interest to become healthcare professionals and to provide them with learning opportunities. The University of Wyoming Colleges of Health Sciences WWAMI Medical Education Program and the Office of Multicultural Affairs offer a seven-week program for students who have completed their junior and senior year in high school to foster and encourage their interest in the medical profession. The program, known as U-DOC, offers students a preview of college life; they take an overview of pre-med curriculum, explore medicine as a career, learn about the various physician specialties and get exposure to clinical medicine through a physician mentor.[136]

Wyoming's Office of Rural Health contracts with the Wyoming Health Resources Network (WHRN) for assistance in recruiting healthcare providers with a recruiting grant from the Federal Bureau of Health Professions.[137] The Wyoming Health Resources Network also works with the National Health Service Corps to recruit eligible rural providers. The Wyoming Department of Health has assisted physicians who have requested a "Conrad 30"

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[131] University of Washington School of Medicine, *Wyoming WWAMI*, (September 2004).
[132] University of Wyoming, College of Health Sciences, "WICHE and WWAMI." Available online: http://uwadmnweb.uwyo.edu/hs/upao/WICHEWWAMI.html.
[133] Dr. Philip Dubois, University of Wyoming President, "Wyoming Healthcare Commission Meeting Minutes," (August 23, 2004).
[134] Western Interstate Commission on Higher Education, "Professional Student Exchange Program (PSEP)." Available online: http://wiche.state.nv.us/PSEP_Facts.htm.
[135] United States Department of Health and Human Services, Health Services and Resource Administration, Bureau of Health Professions, "Area Health Education Centers." Available online: http://bhpr.hrsa.gov/ahec.
[136] University of Washington School of Medicine, *Wyoming WWAMI*, (September 2004).
[137] Wyoming Health Resources Network, "Welcome to WHRN." Available online: http://www.whrn.org.

J-1 Visa Waiver.[138] Federal law requires that foreign physicians seeking to pursue graduate medical education or training in the United States must obtain a J-1 Exchange Visitor Visa.

Impact of Wyoming's Efforts to Date

Since 1996, the Wyoming Health Resources Network has participated in the placement of 77 permanent healthcare providers, including 44 physicians, 21 physician assistants and 12 nurse practitioners, in 20 of the 23 Wyoming counties.[139] The 44 physicians represent approximately 13.5 percent of the 325 primary care (family practice, internal medicine, general practice and pediatrics) physicians in Wyoming.[140] They also represent approximately 12 percent of the 377 newly licensed physicians in Wyoming during those years; however, this figure includes physicians in all specialties, in all areas of the State and even physicians who practice in other states but who maintain a Wyoming license.

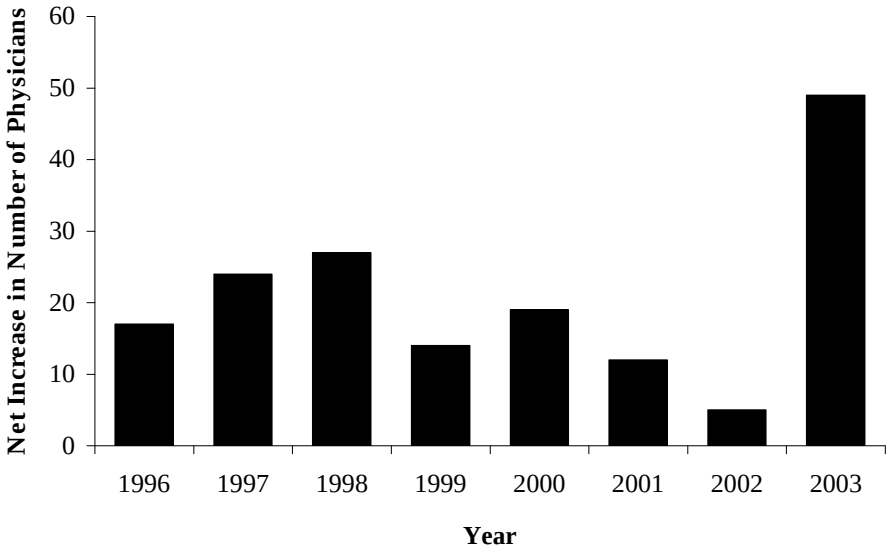
It is very difficult to assess the impact of retention efforts through statistical analysis. Many different factors affect any provider's decisions regarding where to practice and when to move or retire. However, the number of physicians licensed in Wyoming has increased every year since at least 1996, based on 2003 data. Although licensure data is only an imperfect indicator of the number of physicians actually practicing in Wyoming, the steady growth in licensed physicians is an indication that, overall, the recruitment and retention efforts are having some success. There has been substantial publicity recently regarding physicians who cannot afford to practice because of high malpractice insurance rates.[141] Such publicity could be perceived as an impediment to recruiting physicians in Wyoming. However, the number of physicians who have allowed their Wyoming licenses to lapse has decreased in three of the past four years, after peaking in 1999. In fact, Wyoming issued more new physicians' licenses in FY 2003 than in any of the past ten years.[142]

Figure 5.1 displays the estimate net gain in direct patient care licensed physicians in 1996 through 2003 based on data compiled by the Wyoming Legislative Service Office in July 2004. This figure must be interpreted with caution. The net increase in licenses for 2003 does not necessarily indicate an increase in full-time equivalent practicing physicians. The increase in licensed physicians may be the result of licenses granted to out-of-state

[138] Wyoming Office of Rural Health, "Conrad 30 program receives first applications," (April 2003). Available online: http://wdh.state.wy.us/sorh/April%202003.htm. Also, National Rural Recruitment and Retention Network, "J1 Visas." Available online: http://www.3rnet.org/docs/j1.asp.
[139] Wyoming Health Resources Network, "Welcome to WHRN." Available online: http://www.whrn.org.
[140] Don Richards and Matthew Sackett, "Wyoming Legislative Research Office Research Memo, Re: Wyoming Hospital and Physician Data," (July 8, 2004).
[141] Casper Star Tribune, "Opposing sides ready amendment campaigns," (August 26, 2004). Available online: http://www.casperstartribune.net/articles/2004/08/25/news/wyoming/41a93fc86126a8f687256efb005cb309.txt.
[142] Don Richards and Matthew Sackett, Wyoming Legislative Service Office, "Wyoming Hospital and Physician Data," Research Memo, (July 8, 2004).

physicians practicing telemedicine and locum tenens physicians who temporarily fill vacant positions.

Figure 5.1: Net Annual Increase in Wyoming Licensed Direct Patient Care Physicians[143]



Data recently compiled by the Wyoming Medical Society suggests that in the past year it has experienced a net loss in membership. According to Wyoming Medical Society membership statistics, since 2003 at least 55 physicians have left the state, retired early or cut back on critical services, such as obstetrics, while 22 new physicians became Wyoming Medical Society members in 2003 and 13 new members have joined as of early July 2004. The Wyoming Medical Society and the Wyoming Hospital Association recently contracted with the Wyoming Health Resources Network to assess current physician vacancies throughout the State. That assessment indicates that that there are currently 132 openings in a variety of primary care and specialty physician positions.[144]

In terms of the nursing supply, the number of nurses employed in Wyoming increased rapidly from 1992 to 1998, but the rate of increase has slowed during the past five years.[145] This decrease may due the wage rate for nurses in Wyoming; Wyoming's average hourly

[143] Ibid.

[144] Memo on Physician Workforce from Wendy Curran, Executive Director, Wyoming Medical Society and Robert Kidd, President, Wyoming Hospital Association, to members of the Wyoming Legislator, (July 7, 2004).

[145] William Glover, "Registered Nurses in Wyoming Fact Sheet," Wyoming Department of Employment Research and Planning, (June 18, 2004).

wage for registered nurses in 2002 was $20.19, compared to $23.47 in Colorado and $22.54 in Utah.[146] Wyoming's average wage for registered nurses ranked 45th out of 50 states.

Other Rural States' Efforts

The efforts of other rural states to educate and train, recruit and retain health professionals are very similar to those of Wyoming. Many states have a wide variety of educational assistance programs for healthcare professionals, including scholarships, tuition assistance, and loan repayment for graduates who work for a specified period in a rural or underserved area. Some states also have programs to provide similar assistance for rural residencies, including for primary care physicians and dentists, while many states use Medicaid funding for graduate medical education (GME), as discussed above.

Some states have professional education programs that include some content specifically related to rural areas, such as courses on practicing in rural areas and internships with rural health clinics.[147] West Virginia, New Mexico, North Dakota, Minnesota, Iowa, South Dakota, Wisconsin and Texas also have programs to help provide professional education to individuals in rural areas, such as field faculty, telemedicine and distance education.

Many state Offices of Rural Health conduct or contract for recruiting programs. They work with the National Health Service Corps, the Office of Rural Health Policy and other Federal programs. Some conduct special efforts such as attracting international medical school graduates and providing assistance with obtaining J-1 visas.

Other states have developed other programs designed to train and recruit physicians and other medical professionals. For example:

- Mississippi, New Mexico, North Dakota, Vermont and West Virginia have additional programs that identify students in the "pipeline" and recruit them into healthcare training and professions. New Mexico and Mississippi, for example, have programs that explicitly seek to identify and recruit students from rural areas, who presumably understand the realities of rural life and are more likely to return to a rural area when they complete training.

- Minnesota's Health Education Industry Partnership seeks to bring health employers, educators and government partners together to develop relevant, forward-thinking healthcare education programs. Two current innovative programs include a multi-sector partnership to develop training for community

[146] William Glover, Wyoming Department of Employment, Registered Nurses in Wyoming Fact Sheet, (June 18, 2004).
[147] Debra M. Phillips, "TICKS Repel, Remove, Recognize," (June 11, 1999). Available online: http://www.ruralfamilymedicine.org/educationalstrategies.

health workers focusing on minority communities and a program that emphasizes increasing the number of nursing faculty to increase the capacity of the educational system.[148]

- The University of Vermont developed three HIV/AIDS clinics in rural areas across the state. Rural primary care physicians report interest in "mini-residencies" within these clinics to stay up-to-date with current HIV/AIDS information.

- West Virginia and Vermont have conducted research to determine which types of efforts are most effective in attracting healthcare professionals to rural areas.[149]

- Colorado's Health Professions Loan Repayment Program repays qualified educational loans up to $70,000. This program is funded by the Health Professional Shortage Area community in which the provider will be working and with matching funds from the National Health Service Corps.

- North Dakota has a 50/50 state and community match loan repayment program. This program is available to individuals in their last year of training or to physicians already practicing in a medical shortage area.

- Montana and West Virginia have loan repayment programs that are funded using student fees.

- Some states and local communities have conducted targeted efforts such as providing a "red carpet" tour of the area and helping a professional's spouse to find local employment.[150]

Although providing funding for education and training can be a large incentive for practitioners to work in rural areas and with underserved populations, this sometimes is not enough to attract the number and type of providers needed for rural communities. Many rural areas have a limited ability to economically sustain a provider and his or her family. Also, some physicians in rural areas may be unable to provide "high risk" services because of potentially high malpractice insurance costs. Wyoming has recently studied the issue of

[148] Office of Rural Health & Primary Care, Minnesota Department of Health, "Minnesota's Rural Health Plan," (2004). Available online: http://www.health.state.mn.us/divs/chs/rhpc/cah/rhplan2004.pdf.
[149] James M. Full, FACHE, Chief Executive Officer, "Physician Recruitment Strategies for a Rural Hospital," American College of Healthcare Executives. Available online: http://www.ache.org/mbership/AdvtoFellow/CASERPTS/physrecruit99.cfm.
[150] James M. Full, FACHE, Chief Executive Officer, "Physician Recruitment Strategies for a Rural Hospital," American College of Healthcare Executives. Available online: http://www.ache.org/mbership/AdvtoFellow/CASERPTS/physrecruit99.cfm.

malpractice insurance costs and has, for example, increased Medicaid reimbursement rates for these "high risk" services.[151]

Other states have developed the following non-educational financial incentives.[152]

- Oregon offers a $5,000 income tax credit for certain health professionals serving rural communities. Five other states, including Alabama, Georgia, Louisiana, Montana and Virginia also use tax credits as an incentive to attract providers.

- Illinois awards grants to physicians practicing obstetrics in rural shortage areas to cover the cost of malpractice insurance. Maine also provides subsidies to similar providers.

- Some states make providers immune from liability when providing charity care.

- West Virginia's Board of Risk and Insurance Management offers preferred and high-risk premiums to providers who cannot find affordable coverage in the private market.

Retention of Current Rural Medical Professionals

A critical factor in the retention of health professionals in rural areas is the concordance between health professionals, their families and their communities.[153] Many states have identified problems related to practicing in rural areas, such as:

- Long hours and lack of backup coverage for vacations, sick time, etc.

- Lack of educational opportunities, including difficulty in keeping up with continuing education requirements

- Lack of resources for consultation and referral

- Financial difficulties of rural practice

[151] Electronic mail correspondence with Teri Green, Medical Policy Coordinator, Wyoming Office of Medicaid, (November 4, 2004).
[152] We understand that Wyoming may not be able to consider some of these options because they are prohibited by the State's constitution. [Source: undated memo from the Wyoming Healthcare Commission]
[153] State of Nevada, Department of Human Services, "Strategic Plan for Rural Health Care in Nevada," (October 2002) p. 79. Available online: http://www.hr.state.nv.us/shcp/documents/RuralHealth_Documents/NVReportAppendix/NV-Report-FINAL.pdf.

In our research of Wyoming's and other states' programs, we found limited information on specific efforts to retain existing rural providers, as differentiated from recruiting new providers. Some states and Canadian provinces have developed solutions such as:

- Locum tenens coverage to provide backup coverage for a rural provider to enable him or her to take vacations, attend conferences and continuing education, and other absences[154]
- Rotation of rural clinicians through academic hospital services with locum tenens backup to update their skills[155]
- Medical teleinformatics[156] and outreach education to help rural providers maintain and update their skills[157]
- Practice support, such as billing and office space, by hospitals[158]
- Enhanced Medicaid payments to providers in certain areas, or even direct payments for on-call services and bonuses for retention in rural areas[159]
- Informal networks to discuss the problems of isolation, lack of access to care, inadequate reimbursement rates and the effects of poverty, faced by rural pediatricians and family physicians
- After-hours telephone triage programs. In Colorado, the After Hours Telephone Care Program at Children's Hospital in Denver provides telephone triage and advice to patients of physicians who subscribe to the service.[160] The program has been effective in reducing after-hours call, which improves quality of life for

[154] University of New Mexico School of Medicine, Health Sciences Center, "Locum Tenens Program." Available online: http://hsc.unm.edu/som/outreach/locum/.
[155] University of Kentucky, College of Medicine, "Rural Health Care and Education." Available online: http://www.mc.uky.edu/medicine/education/rural.asp.
[156] Medical teleinformatics is the use of telephone lines, computers and e-mail to transfer medical education and information. [Source: Rural Family Medicine, "Teleinformatics—A Simple, Affordable Approach." Available online: http://www.ruralfamilymedicine.org/educational%20strategies/teleinformatics.htm.]
[157] National Rural Health Association, "Physician Recruitment and Retention," (November 1998). Available online: http://www.nrharural.org/dc/issuepapers/ipaper13.html.
[158] State of Nevada, Department of Human Services, "Strategic Plan for Rural Health Care in Nevada," (October 2002). Available online: http://www.hr.state.nv.us/shcp/documents/RuralHealth_Documents/NVReportAppendix/NV-Report-FINAL.pdf.
[159] Lynn Haley, "B.C.'s new rural bonus plan would save gov't money too," *The Medical Post*, (September 19, 2000). Available online: http://www.medicalpost.com/mpcontent/article.jsp?content=/content/EXTRACT/RAWART/3631/02A.html.
[160] The Children's Hospital, "After Hours Telephone Care Program." Available online: http://www.thechildrenshospital.org/public/cs/detail.cfm?RecordID=98

physicians, and may contribute to prolonging physicians' practice life.[161] Anecdotally, subscribing physicians in the Casper area have reported that the program has made a positive difference in their practice.

Education and Training, Recruitment and Retention Issues Specific to Dentists

Nationally, several sources indicate a growing shortage of dentists. A 2002 survey conducted by the American Dental Association indicated that 37 states consider their current supply of practicing dentists inadequate in one or more regions in the state.[162] Several trends seem to confirm the shortages cited by the state dental associations that participated in this survey; these include:

- The number of dentists relative to the nation's population has been in decline since 1990, when the ratio reached its highest point.[163]
- Retirement rates among dentists have increased and hours of practice have declined.[164]
- Only 4,000 dentists have been produced annually since 1990, compared to 6,000 per year in the 1970s and 1980s.[165]
- In the 1990s, more than 30 percent of graduates were foreign students, most of whom were not expected to practice in the United States.[166]

To address these issues, Wyoming has enacted several policies. The State joined a consortium with Nebraska, Kansas and South Dakota to fund education of dental students for rural practice. Wyoming's dental licensure regulations also allow Canadian dentists to become licensed without additional requirements. The Wyoming Dental Association, which works with the University of Nebraska on a cooperative arrangement for dental training, has recently been awarded a $360,000 Federal recruiting grant and is considering development of a loan repayment program for rural dentists.[167]

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[161] Phone call from Steven Poole, MD, After Hours Telephone Care Program January 16, 2005.
[162] American Dental Association, "2002 Survey of Regional Dentist Workforce Distribution," (2002).
[163] Department of Health and Human Services, Centers for Medicare and Medicaid Services, "Access of Low-Income Children to Necessary Dental Services," (January 18, 2000). Available online: http://www.cms.hhs.gov/states/letters/smd118a1.pdf.
[164] Ibid.
[165] Ibid.
[166] SM Nainar, "Pediatric Dental Practice: Reconstruction or Disintermediation," *ASDC Journal of Dentistry for Children 67, no. 2,* (2002).
[167] Billings Gazette, "Dental health program receives low marks," (May 8, 2003). Available online: http://www.billingsgazette.com/index.php?id=1&display=rednews/2003/05/08/build/wyoming/32-dental-health.inc.

Other states have also developed initiatives aimed at training and recruitment of dentists:[168]

- Colorado provides practice start-up grants to dental facilities and practitioners who agree to serve children who qualify for the State Children's Health Insurance Program or Medicaid.

- Minnesota created a program to reimburse retired dentists for the cost of license renewal and malpractice insurance if they perform 100 hours of volunteer dentistry in a year. Georgia, Oregon, Maine and South Carolina have enacted similar initiatives.

- Vermont established a program that subsidized a dental practice in return for the dentist's commitment to treat a specified volume of Medicaid patients. Local community partners used state and private foundation grants to purchase dental equipment and cover start-up costs. The program provides access to dental care for the community, including Medicaid recipients.

- Michigan developed a public-private partnership between its Medicaid program and a commercial dental plan to deliver care to low-income children under the age of 21. Dental reimbursements for services are identical to those in the commercial plan, providing access to all dentists who accept the private insurance for Medicaid recipients.

- Connecticut developed a contracting program between private sector dentists and health centers (e.g., Federally Qualified Health Centers and Rural Health Centers). This program allows individual dentists to negotiate the terms of their involvement in providing services to health center patients. Consequently, health center patients have access to dental care when they otherwise might not.

Education and Training, Recruitment and Retention Issues Specific to Nurses

Nurses are another key component of the healthcare delivery system. Nationally, the Health Resources and Services Administration (HRSA) estimates that the supply of Registered Nurses (RNs) falls six percent short of demand. HRSA's supply and demand projections indicate that this shortage will grow to 12 percent by 2010 and 20 percent by 2020 if unaddressed. At a state level, 30 states currently have HRSA-defined shortages. Although Wyoming is not on this list, HRSA projects an RN shortage in the State by 2020.[169]

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[168] We understand that Wyoming may not be able to consider some of these options because they are prohibited by the State's constitution. [Source: undated memo from the Wyoming Healthcare Commission]

[169] United States Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center For Health Workforce Analysis, "Projected Supply, Demand, and

For calendar year 2003, the Wyoming Department of Employment reported that the State had 2,633 employed RNs licensed by the State Board of Nursing. In that year, hospitals, ambulatory care facilities and nursing facilities employed 80 percent of the State's RNs. The remaining 20 percent worked in various industries, including educational services, social assistance and public administration.[170]

Across industries, the 2002 average annual wage for an RN in Wyoming was $28,743. This wage varied by industry of employment. Hospitals paid the highest average RN annual wage, $31,102; the hospital industry employed 62 percent of the State's RNs. The lowest average annual wage for an RN working in a medical setting was $23,225, for RNs working in ambulatory healthcare services. Nine percent of Wyoming's RNs worked in this setting.[171]

Although Wyoming has added licensed RNs to its work force in each of the ten years preceding 2004, the rate of growth has declined. In 1994, the State had a net increase of 355 RNs; in 2002, the State had a net increase of 47 RNs. Furthermore, Department of Employment data suggests that there is a net decrease in experienced nurses. In 2001, for example, only 65 percent of the RNs who began working in Wyoming had three or more years of experience. In comparison, 89 percent of the RNs leaving Wyoming to seek employment elsewhere had that much experience.[172] The net decrease in nurses is reflected in the lack of applicants for Public Health Nursing positions throughout the State.[173]

Wyoming's nursing salaries may contribute to this apparent decrease in the experienced nursing workforce. In 2002, Wyoming ranked 45th lowest of the 50 states in nursing salaries. Although Wyoming's average hourly wage was on par with neighboring Nebraska, Montana and South Dakota, it fell behind Idaho, Utah and Colorado by several dollars per hour. In addition, experienced nurses moving to Wyoming from neighboring states took an average pay cut of nearly $20,000 in 2001. Nurses leaving Wyoming to seek work in a neighboring state during the same year received an average raise of more than $13,000.[174] The University of Wyoming School of Nursing recently received a three-year grant from the Federal government intended to encourage more Wyoming nurses to work toward four-year degrees. The grant also will provide nursing students with public health competencies.

Shortages of Registered Nurses: 2000-2020," (July 2002), p. 2-4. Available online: ftp://ftp.hrsa.gov/bhpr/nationalcenter/rnproject.pdf.

[170] William Glover, "Registered Nurses in Wyoming Fact Sheet," Wyoming Department of Employment Research and Planning, (June 18, 2004) p. 1-4 and Addendum. Available online: http://doe.state.wy.us/lmi/staff/GloverNursingSummit.pdf.

[171] Ibid.

[172] Ibid.

[173] This information came from comments from Public Health Nurses in Big Horn County.

[174] William Glover, "Registered Nurses in Wyoming Fact Sheet," Wyoming Department of Employment Research and Planning, (June 18, 2004) p. 1-4 and Addendum. Available online: http://doe.state.wy.us/lmi/staff/GloverNursingSummit.pdf.

The University is collaborating on the grant with Western Wyoming Community College and Central Wyoming College.[175] The nursing school also works with the Wyoming Area Health Education Center to encourage young students to consider healthcare careers.[176]

Other states have designed programs aimed at training and recruiting nurses. For example:

- Washington Health Foundation has funded a one-year specialist training project at rural Lake Chelan Community Hospital. This project is intended for new graduates and experienced RNs who are entering rural nursing for the first time. This project hopes to create a broad-based rural nursing curriculum, covering six-subspecialty areas of nursing commonly encountered in acute care family practice medicine. The challenge for rural nurses is to accomplish all these broad based proficiencies across all six areas of nursing and incorporate them into their scope of practice.

- Canada's Prince Edward Island initiated a comprehensive approach to ensure an adequate supply of nurses. The government created a C$10 million Health Care Stabilization Fund to create 85 new full and part-time nursing positions in the province. Some of these new nurses will be cross-trained to work in several areas of care. They also believe that the increase in staffing will increase flexibility in scheduling on weekends and holidays, allowing for more work-life balance.

- Prince Edward Island created a Nurse Refresher Cost Assistance Program, which reimburses a $1,400 fee charged to nurses who must pass a nurse refresher program to reenter nursing.

- Haxtun, Colorado increased wages, signing bonuses and recruited nurses from the Philippines to address its nursing shortage. They believe this shortage exists because starting nurses in Haxtun earn on average $38,000, while starting nurses in nearby Denver earn $55,000. They have also encouraged:

  - Offering classes online to facilitate studying at home and eliminating commuting

  - Offering more benefits (i.e., more vacation time, shorter shifts)

[175] Wyoming Healthcare Commission, "Meeting Minutes," (October 25, 2004). Available online: http://www.wyominghealthcarecommission.org/reports.html.
[176] Mountain and Plains Partnership (MAPP), "Support from Wyoming," Available online: http://www.pftweb.org/PFT/MAPP/pft_mapp_more2.htm.

  - Targeting males and minorities, since more than 90 percent of nurses are female and white

- Richmond Virginia Hospitals announced $600,000 in grants and scholarships for students who enroll in licensed practical nursing programs in the Richmond and Northern Virginia areas. In exchange for funds, students are required to work in the area for a period of three to four years.

- Rural hospitals in Virginia contributed $25,000 to create a local nurse-training program that resembled a program in Richmond, so nurses could avoid the daily commute to Richmond to receive their training.

- North Carolina Center for Nursing sponsors a biennial Institute for Nursing Excellence, which:

  - Recognizes excellence in direct patient care

  - Develops leadership skills

  - Offers a weeklong professional retreat experience that recognizes exemplary RNs who have demonstrated excellence in their practice and professional roles[177]

- North Carolina Center for Nursing also launched a statewide campaign designed to promote interest in nursing among youth and minorities.

- Girl Scouts, Boy Scouts and Career Explorer programs in North Carolina developed nurse exploration patch programs.

- Florida's nursing loan repayment program is funded with licensure fees.

Additional Efforts That Wyoming May Consider

The Matrix in Appendix 7 shows other states are pursuing a number of programs that Wyoming has apparently not yet implemented but may consider.

When the Commission determines the priorities of competing needs for rural health access improvements, it can recommend particular directions for the Office of Rural Health and other organizations. These may include short-term recommendations such as recruiting for particular positions and long-term recommendations such as identifying potential medical

[177] North Carolina Center for Nursing, "Nursing Shortage Areas in North Carolina Hospitals," (February 2001), p. 16. Available online: http://www.nursenc.org/research/hospital1.PDF.

students among the Wyoming rural high school population. Useful recommendations are likely to focus on certain types of service and areas of the state where residents have inadequate access to those services.

In the short term, Wyoming may be able to apply for additional Federal grants, such as Rural Health Network Development Grants. All of Wyoming's bordering states except for Utah have received these grants.[178]

Wyoming lacks a medical school, which prevents implementing some professional education efforts that other states have implemented. For example, Wyoming has little or no control over the curriculum of the University of Washington School of Medicine. However, Wyoming can work cooperatively with the University of Washington School of Medicine to expand Wyoming teaching sites and rural residency programs.

Wyoming may be able to recruit University of Washington graduates from other states to practice in Wyoming. According to Wendy Curran, Director of the Wyoming Medical Society,[179] a number of WWAMI graduates have already returned to practice in Wyoming. Dr. Philip Dubois, University of Wyoming President, has urged closer coordination between the WICHE and WWAMI programs to avoid competition for students.[180] Others have urged the state to link WICHE education subsidies to an obligation to practice in the State and/or to repay some amount to the State.

Wyoming may be able to expand its retention efforts as well. At this time, we have no data on why providers have discontinued practicing in Wyoming. The State may identify providers who have let their Wyoming licenses lapse and conduct exit interviews. The interviews may help to determine what controllable factors may have contributed to the providers' decisions to leave the state or retire. Then the state may be able to address those factors and to identify providers "at risk" before they decide to leave or retire. Some methods may be based on other states' programs, such as New Mexico's rural locum tenens program.

Wyoming should also develop education, recruitment and retention programs designed specifically to address the myriad of nursing workforce issues – from wage rates, to workplace conditions and culture, to the special concerns about nursing and long-term care, especially in view of the projected growth in the State's elderly population.[181]

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[178] United States Department of Health and Human Services, Health Resources and Services Administration, Rural Health Policy, "Office of Rural Health Policy Grants by State." Available online: http://ruralhealth.hrsa.gov/Map/

[179] Wyoming Healthcare Commission, Meeting Minutes, (August 23, 2004).

[180] Wyoming Healthcare Commission, Meeting Minutes, (August 23, 2004).

[181] Wyoming Healthcare Commission, "Meeting Minutes", (October 25, 2004). Available online: http://www.wyominghealthcarecommission.org/reports.html.

Summary

Wyoming conducts several efforts to educate and train, recruit and retain healthcare providers who are in short supply. These efforts appear to be producing some results, but have not filled the gaps in some rural areas. Wyoming, like some other states, is trying to identify and assist students in grades K-12 who may be able and willing to consider careers in healthcare in rural areas. However, these are truly long-term efforts. Even if willing and able students survive the rigors of healthcare professional education, there is no guarantee that they will return to Wyoming, or to any rural area. It appears that to meet its rural healthcare needs, Wyoming must expand its short-term efforts as well as its long-term efforts. Further research is needed to identify challenges to these efforts and to develop Wyoming-specific solutions.

Telemedicine and Related Technology

For a rural state, a telemedicine infrastructure can mean overcoming geographic and economic access barriers to improve healthcare access and quality. With telemedicine, specialty care can be provided to rural residents who would have otherwise traveled extensive distances to receive care. Telemedicine can consist of training healthcare professionals via teleconference, medical consults and mental health therapy sessions. Telemedicine consults may be offered in the areas of disease management, obstetrics and gynecology, mental health and substance abuse, orthopedics, radiology, cardiology and dermatology.[182]

Two different kinds of technology make up most of the telemedicine applications in use today. The first, called "store and forwards", is used for transferring digital images from one location to another, for example, x-ray images. The other widely used technology, two-way interactive television (IATV), is used when a face-to-face consultation is necessary. It is usually between a patient and his or her provider in one location and a specialist in another location. Interactive television is also used to train healthcare professionals.[183]

Wyoming's Telemedicine and Related Technology Programs

Wyoming currently has several telemedicine efforts underway. Wyoming recently received Federal funding to develop telemedicine projects throughout the State. However, the supply of practitioners that will be involved in these projects may be limited; the Wyoming State Board of Medicine requires that physicians who practice through remote telemedicine

[182] Nancy Brown, "Telemedicine Coming of Age", (October 14, 2004), p. 2. Available online: http://tie.telemed.org/articles/tmcoming_of_age.asp.
[183] Nancy Brown, "Telemedicine Coming of Age", (October 14, 2004), p. 2. Available online: http://tie.telemed.org/articles/tmcoming_of_age.asp.

connections in Wyoming must be licensed in the State.[184] Currently, Medicaid will reimburse for telemedicine services, but to date the State has received very few claims for this service.[185] The State plans to form an advisory committee that will oversee the funding and development of telemedicine projects.

In September of 2004, Wyoming received Federal funding to develop telemedicine projects. The Office of Telemedicine partnered with the Center for Rural Health Research at the University of Wyoming to form the Wyoming Network for Telehealth (WyNETTE) to improve Wyoming healthcare access and quality, as well as enhance the overall climate for the integration of healthcare and technology.[186] The Institute of Rural Health at Idaho State University will provide consultation on the project.

The WyNETTE program will develop distance learning opportunities in cooperation with the University of Washington College of Medicine to assist rural providers in meeting continuing medical education requirements. The program will also identify telemedicine demonstration projects and develop a digital library of information on developing telemedicine applications. In addition, the WyNETTE program will provide education to providers and consumers on medical errors, patient safety and health information technology.[187]

Wyoming began implementing a computer-controlled remote dispensing system for certain drugs in 2001. This enables a provider in a rural clinic, for example, to prescribe drugs under the supervision of a pharmacist at a remote location, and for the patient to receive them while they are at the clinic.

Wyoming Medicaid also conducted a pilot program from December 2003 through June 2004 that targeted recipients with diabetes.[188] This pilot program used telemedicine technology to track participants' daily responses to a series of questions about their health status through a device that attached to the recipient's telephone. The responses to the questions were relayed directly to a database that nurses, who contracted with Medicaid, reviewed for risk factors. The nurses provided telephone support to the participants and called participants who were in need of follow-up care based on their responses to the daily questions. The pilot-program was funded through the Preventive Health and Safety Division, and Health

[184] Fran Cadez, Wyoming Department of Health, "Summary of Telemedicine Activities and Issues," (October 27, 2003).
[185] Information from telephone conversation with Teri Green, Medical Policy Coordinator, Wyoming Office of Medicaid (October 27, 2004).
[186] Center for Rural Health Research and Education, "CRHRE Update November 2004," Available online: http://www.health.uwyo.edu/CRHREnews/Nov2004%20News.htm
[187] Email from Fran Cadez, JD, MBA, Office of Telemedicine, Wyoming Department of Health (January 12, 2005).
[188] Information from telephone conversation with Michelle Harker, Medical Care Coordinator, Wyoming Office of Medicaid (October 26, 2004).

Hero Network supplied the telephone devices. An outcome study is under development, but anecdotal evidence suggests that the program was successful.[189]

The United States Veterans Health Administration (VHA) also utilizes telemedicine technology. In 2003, the VHA established a video conference link between the Wyoming Veteran's Home in Buffalo and the VHA Hospital in Sheridan for the provision of telepsychiatry services. Wyoming's VHA hospitals are interested in partnering with the State on future projects to enhance medical services to Wyoming veterans, especially psychiatric services in the Rock Springs and Green River area.[190]

There are several factors specific to Wyoming that complicates telemedicine development. Broadband coverage in the State is erratic, which severely limits access to telemedicine technology. There is no medical school in Wyoming. In addition, there is currently no State funding for telemedicine initiatives and Federal funding is extremely competitive.

Other Rural States' Telemedicine and Related Technology Programs

Other states have implemented programs and policies that encourage telemedicine initiatives. For example:

- More than 18 other states allow Medicaid reimbursement for telemedicine services (e.g., California, Montana, Nebraska and North Dakota). In Texas, for example, Medicaid pays physicians, advanced nurse practitioners, certified nurse midwives, Rural Health Clinics and Federally Qualified Health Clinics who participate in interactive video teleconferencing.

- In Montana, rural EMS units have been equipped with multi-media computers to help create a virtual EMS community. This equipment helps EMTs across the State participate in training, discuss issues with colleagues and trade tips on patient care or ambulance operations. They can fill out trip reports on the computer, giving emergency transportation services and the State access to emergency care data. The effort started in 1995 with grants from the Maternal and Child Health Bureau and the Office of Rural Health Policy. More than 100 EMS services are connected and the intent is to grow to 200.

- Several states, including California, Kentucky, Louisiana, Oklahoma and Texas enacted legislation that requires third-party payers to reimburse for telemedicine services.

[189] Cobbweb Associates, "State of Wyoming Department of Health Office of Medicare Health Buddy Report," (June 28, 2004).
[190] Fran Cadez, Wyoming Department of Health, "Summary of Telemedicine Activities and Issues," (October 27, 2003).

- Alabama, Montana, Nevada, Oregon, Tennessee and Texas permit a limited telemedicine license for physicians who hold an unrestricted license in their home state.

- Both California and Georgia's Insurance Commissioners were able to leverage their ability to prevent the merger of two large national insurance companies to gain additional funding for healthcare programs. Georgia's Commissioner, John Oxendine, approved a $16.4 billion merger between WellPoint Health Networks and Anthem after Anthem agreed to contribute $100 million over the next 20 years. This money will be used to expand rural health centers throughout the state. Anthem also agreed to provide Georgia with $26.5 million to build, supply and finance telemedicine centers at 36 rural hospitals and clinics and four teaching hospitals. Also, under this agreement, the new insurance company will cover all procedures conducted at the telemedicine centers. The new company expects the merger to lead to savings of $150 million in this year, and at least $250 annually in the future.[191]

Vermont's Telemedicine and Related Technology Programs

Vermont, in particular, has been developing its telemedicine programs since 1995, and by 1997 Vermont had 18 telemedicine sites around Vermont and northern New York connected to Fletcher Allen Health Care System in Burlington. Services in this system include rural trauma care, surgical support and follow-up, dermatology clinics, telepsychiatry and renal services. This system also increases access to both clinical care and medical education and training.

The University of Vermont College of Medicine (UVM) and Fletcher Allen Health Care conducted a pilot program to test a technology designed to increase the survival rate of critical patients who are transported via ambulance in rural areas. UVM received a $250,000 grant to fund the testing and installation of mobile telemedicine technology in an ambulance that services the academic medical center. A United States Department of Transportation appropriation funded the pilot program. This mobile telemedicine technology – officially called FAST STAR for Fletcher Allen Specialized Telemedicine for Supporting Transfer and Rescue – allows for one-way, full-motion video and two-way audio communication between a command center, located at Fletcher Allen, and an emergency medical services crew inside an ambulance. This technology has the potential to virtually place the trauma surgeon in the ambulance with the crew and the injured patient while it is en route to the medical center, thereby improving care and transport.

[191] Henry J. Kaiser Family Foundation, Daily Health Policy Report, "Health Care Marketplace – Anthem-WellPoint Merger Finalized After Deal To Give Georgia Funds for Rural Health, Medical Schools Completed," (December 1, 2004). Available online: http://www.kaisernetwork.org/daily_reports/rep_index.cfm?DR_ID=26995

Vermont also has a teletrauma project. This project uses a two-way interactive video telemedicine system to reduce disparities in clinical care and medical education by providing 24-hour access to trauma center specialty surgeons, neurosurgeons, vascular surgeons and pediatric surgeons and educating rural emergency transportation personnel and doctors, who have low volume and limited access to educational opportunities. The goals of the project include more extensive evaluation of the impact of telemedicine after rural trauma interventions upon outcomes, complications of trauma, transfer rates and the costs of care, including telemedicine system costs.

As a result of their extensive experience with telemedicine, Vermont has identified several challenges to successfully implementing telemedicine and related technology. These challenges are listed below. These challenges should be kept in mind when planning to implement or expand a telemedicine technology to provide healthcare services to rural areas.

- The technology has to work and be transparent so that users are not bothered with technological glitches.
- Physicians and other providers must be willing to accept new technology and the challenges it presents.
- Telemedicine programs that are driven by a real healthcare need are more sustainable.
- Clear goals, objectives, and measurements for monitoring the success of the program are necessary.
- Many states will not allow out-of-state physicians to practice unless licensed in their state.
- Physicians may fear malpractice suits and may be reluctant to accept the technology.
- Some telemedicine technologies require technical infrastructure, although a telephone line will suffice for others.

Idaho's Telemedicine and Related Technology Programs

Idaho and Wyoming experience similar problems with lack of access to high-speed internet connections. Telehealth initiatives in Idaho have responded by adjusting telemedicine technology to the existing bandwidth environment. As a result, many of the telemedicine applications relate to continuing education and internet-based resource centers.

Telehealth Idaho is a research and service project based at Idaho State University Institute of Rural Health. The project is primarily funded through the Office for the Advancement of Telehealth. Telehealth Idaho seeks to increase access to physical, oral, and mental/behavioral healthcare and to develop a telehealth resource center. The program attempts to increase the number of providers through new and upgraded education, extend the reach of existing providers through telehealth-based consultation, supervision, case conferencing and home health, and preserve the existing workforce through professional support.[192]

Unlike Wyoming, the State has contributed some funding to the development of telemedicine programs.[193] Real Choices, a program that provides telehealth services and support to people with disabilities, receives funds from the Idaho Department of Health & Welfare. The program uses store and forward and interactive video technology to provide clinical services to patients, as well as administrative services and education for providers.

Alaska's Telemedicine and Related Technology Programs

Like Wyoming, access to health services in Alaska is complicated by long distances, low population density, harsh climate and terrain and lack of connecting roads. It is necessary for both patients and providers in Alaska to travel for healthcare services. However, travel is more complicated, dangerous and expensive than in other states. Although Alaska is the largest state, it rates 47th out of 50th in the nation for the number of road miles. The lack of connecting road systems results in 75 percent of Alaskan communities and 25% of Alaska residents being unconnected by road to a hospital.[194] These communities must depend on other modes of transport, such as plane, boat and snow machine to access basic medical services.

For these reasons, telemedicine is considered an important, cost effective and convenient solution to bring healthcare services to remote villages. In addition, telecommunications-based healthcare applications reduce professional isolation by extending medical information and healthcare education to rural healthcare providers. However, telemedicine initiatives must take into account Alaska's narrow bandwidth environment.

Narrow bandwidth applications scaled to Alaska's telecommunications infrastructure, like e-mail, internet-based access to healthcare information and medical libraries and internet-based access to consultative quality medical imaging technology can connect to remote

[192] Telehealth Idaho, "About Us." Available online: http://telida.isu.edu/telida/index.php

[193] Telemedicine Information Exchange. Telemedicine Programs Database. Available online: http://tie.telemed.org/programs/showprogram.asp?item=2596.

[194] Alaskan Federal Health Care Access Network, "Why Alaska Needs Telehealth." Available online: http://www.afhcan.org/default.aspx.

villages to medical services through interaction with a network of healthcare information and consultative and diagnostic capabilities.[195]

There have been several telehealth initiatives that attempted to use the State's existing telecommunications infrastructure. The Alaska Telemedicine Testbed Project used low-bandwidth technology to remotely deliver ENT services to rural villages.[196] Partners in this initiative found that narrow bandwidth, store and forward telemedicine applications and technologies were effective and that costs for deployment of equipment and training and support are justified compared with the current costs of travel to access services.

In addition, there have been initiatives to develop an improved telecommunications infrastructure. The Alaska Federal Health Care Access Network (AFHCAN) is a federal telehealth initiative sponsored by the Alaska Federal Health Care Partnership to develop an infrastructure for a statewide telecommunications network. The mission of the project is to improve access to healthcare for federal beneficiaries in Alaska through sustainable telehealth systems.

The AFHCAN telehealth project consists of 43 member organizations that provide access to healthcare services at 248 remote sites. The network has been used to provide ENT, pediatrics, dermatology and primary care services. Most sites are staffed by Community Health Aids (CHAs), rather than physicians or mid-level providers. The CHAs provide primary care under remote supervision of a physician or mid-level provider who is typically located at a regional health facility. The network has the capability to send data, digital images, video, and voice between healthcare providers and referring providers.

AFHCAN has continuously monitored the generally positive effects of the program on cost and access to health services. The program has resulted in cost savings for Alaska Medicaid as well as in decreased waiting times for appointments at regional medical facilities. The network has also been able to facilitate referrals to Anchorage for more specialized services.

Licensure, Scope of Practice and Cross-Training

States that have shortages of physicians or other practitioners in certain areas may be able to "extend" physicians by permitting a broader scope of practice for physician assistants, advanced practice nurses and licensed midwives, typically under defined supervision or collaboration arrangements with physicians. The scope of practice of these non-physician providers varies between states. Expanding scope of practice is frequently controversial.

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[195] Alaska Telemedicine Testbed Project, "Overview." Available online: http://appliedsci.uaa.alaska.edu/nlm/introduction.html.

[196] Frederick W. Pearce, "Alaskan Telemedicine Testbed Project." Available online: http://collab.nlm.nih.gov/tutorialspublicationsandmaterials/telesymposiumcd/2B-2.pdf.

Proponents argue that expanding access improves health quality; opponents argue that only physicians have the education and skills to provide certain services.

States' policies to expand the role of non-physician providers in rural areas include:

- Lifting restrictions that require non-physicians to work on-site at the same location as a physician, thus permitting them to practice in locations where there are no physicians
- Widening their scope of practice, that is, permitting them to provide more types of services and prescribe a wider range of drugs
- Cross-training providers to provide a wider variety of services

Wyoming's Licensure and Scope of Practice

Wyoming has already expanded the scope of practice of non-physician providers; physician assistants are allowed to practice independently, as long as they are able to contact and collaborate with a physician via phone or radio.

Nurse practitioners are independent practitioners; physician supervision is not required. However, until the Wyoming Legislature amended the nursing practice act, effective July 1, 2005, nurse practitioners had been required to develop a collaborative plan of care with a physician.[197]

Nurse Practitioners and physician assistants are also allowed to prescribe Schedule II-V medications, but prohibited from prescribing Schedule I medications.[198]

The Wyoming Medicaid program also pays for the services of these practitioners. Clinical psychologists and advanced practice nurses, including nurse practitioners and certified nurse midwives, bill Medicaid directly[199] while physician assistants are allowed to bill Medicaid via their supervising physicians. Although Wyoming has done a lot to expand the

[197] Wyoming Legislature, "2005 General Session Senate Files Index." Available online: http://legisweb.state.wy.us/2005/Engross/sf0093.pdf

[198] The Controlled Substances Act places all substances that are regulated under existing Federal law into one of five schedules. This placement is based upon the substance's medicinal value, harmfulness, and potential for abuse or addiction. Schedule I is reserved for the most dangerous drugs that have no recognized medical use, while Schedule V is the classification used for the least dangerous drugs. [Assisted Living Workgroup, "Assisted Living Workgroup Report to the U.S. Senate Special Committee on Aging," (April 2003) p. 377. Available online: http://www.aahsa.org/alw/appendixc.pdf.]

[199] Nurse Practitioners, Certified Nurse Midwives are reimbursed at 100 percent of the physician fee schedule. [Source: Centers for Medicare and Medicaid Services, "Wyoming State Medicaid Plan, Methods and Standards for Establishing Medicaid Rates- Other Types of Care, Payment of Services, Attachment 4.19B." Available online: http://www.cms.hhs.gov/medicaid/stateplans/State_Data/WY/4.19/Attachments/B/A_005.pdf]

role of non-physician providers, the State may be able to find other areas to expand their scope of work to provide additional services in rural areas that would otherwise require a physician.

Some states have also tried to improve access to mental health/substance abuse services through broadening the scope of practice of clinical psychologists. Clinical psychologists are an essential component of the mental health infrastructure in Wyoming. With so few psychiatrists in the State, clinical psychologists often serve as the sole mental health provider for some of Wyoming's residents. However, like most states, Wyoming prohibits psychologists from prescribing pharmaceuticals.[200] In addition, licensed Medicaid clinical social workers, however, cannot bill separately. Medicaid will pay for those services if billed by a physician. Medicare, however, allows clinical social workers to bill separately.

To increase the number of practicing physicians, Wyoming also allows volunteer licensure for physicians, physician assistants, nurses, dentists and dental hygienists, as long as these professionals are providing services to low-income populations in a not-for-profit setting.

Other Rural States' Licensure and Scope of Practice

Other state Medicaid policies vary substantially regarding non-physician providers. Some states, but not all, permit them to practice independently and to serve as primary care providers for patients in managed care.[201] This can provide an incentive to provide services in a rural area where there is less direct competition from physicians. Medicaid managed care administrators in several states have struggled with the question of how many beneficiaries to enroll per physician assistant. Their decisions have usually allotted to physician assistants 20-100 percent of the Medicaid patients assigned to a physician.[202] Presumably, lower limits on the allowable Medicaid enrollees could make practice economically difficult in some low-income rural areas.

Reimbursement policy can also encourage or discourage non-physicians to practice in a state. Medicare typically pays physician assistants 85 percent of the fee that it would pay a physician for the same service,[203] and other states have similar policies. Higher

[200] In February of 2003, the Wyoming legislature rejected a bill that would have allowed prescriptive authority for clinical psychologists. [Source: Ken Housman, "Small State Notches Big Prescribing Battle Victory," *Psychiatric N*ews, (March 7, 2003). Available: http://pn.psychiatryonline.org/cgi/content/full/38/5/1.]

[201] American Academy of Physician Assistants, "Physician Assistants as Medicaid Managed Care Providers," (June 1997). Available online: http://www.aapa.org/gandp/medman.html.

[202] Ibid.

[203] Centers for Medicare and Medicaid Services, "Non-Physician Practitioner Services," *Carriers Manual Part 3, Chapter XVI*. Available online: http://www.cms.hhs.gov/manuals/14_car/3b16000.asp. (Note that other policies apply to providers in managed care settings, Rural Health Clinics, Critical Access Hospitals and certain other settings.)

reimbursement for desired providers in designated areas is one option to encourage them to practice in rural areas.

In 2002, New Mexico passed a bill that allows properly trained psychologists pharmaceutical prescribing authority.[204] In the spring of 2004, Louisiana also passed a similar bill.[205] Psychologists are allowed this authority, as long as they:

- Maintain an ongoing collaborative relationship with a healthcare practitioner who oversees the patient's general medical care
- Complete pharmacological training from an institution of higher education
- Pass a national certification examination that tests the knowledge of pharmacology in the diagnosis, care and treatment of mental disorders

States have also expanded their pool of providers by allowing special licenses for retired health professionals who volunteer their services. In many states, including Wyoming, to obtain a volunteer license a professional must show proof of license in good standing immediately prior to retirement. Health professionals with volunteer licenses are usually only allowed to provide pro bono services.

States and organizations have also found ways to expand access by cross-training providers to expand their scopes of practice. Cross-training allows one health professional discipline to provide basic services of another discipline. For example:

- In Red River, New Mexico paramedics were trained to provide preventive and primary care services. These specialists use a triage system in which they transport patients in need of emergency physician care, but treat others with less urgent medical needs.
- Wisconsin Medicaid trains nurses, dental hygienists, physicians, physician assistants and nurse practitioners to apply fluoride varnish to the teeth of Medicaid eligible children under the age of five.
- The Indian Health Service (IHS) has been at the forefront of cross-training between health professionals. For example a laboratory technician can be trained to perform basic x-rays or nurses being trained to provide allied health services.

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[204] American Psychological Association, "New Mexico Governor Signs Landmark Law on Prescriptive Privileges for Psychologists," (March 6, 2002). Available online: http://www.apa.org/practice/nm_rxp.html.

[205] Jennifer Daw Halloway, "Louisiana Grants Psychologists Prescriptive Authority," *Monitor on Psychology, Volume 35, Number 5*, American Psychological Association, (May 2004). Available online: http://www.apa.org/monitor/may04/louisianarx.html.

IHS has been able to accomplish this because they are exempt from state-licensing boards.

Economic Access

Although this Study's focus is not uncompensated care and the lack of insurance for some individuals, it is necessary to discuss the financing of healthcare and how that financing affects access to services.

Wyoming's Economic Access

Approximately 17 percent of Wyoming residents have no health insurance, making it difficult for some of these individuals to obtain other than emergency care. In addition, some uninsured individuals seek out care through the more expensive hospital emergency room setting.

Wyoming has several insurance programs to address access problems. Wyoming implemented the KidCare program in 1999,[206] which is the State Children's Health Insurance Program. The Wyoming Health Insurance Pool is an insurance program for high-risk individuals and there is also a Prescription Drug Assistance Program. Over 50,000 children and adults are covered through these programs.[207]
Wyoming currently operates the Coordinated School Health Project at six school pilot sites. These pilot sites are in schools in Sheridan, Converse, Fremont and Park Counties. Each site receives funding and technical assistance to enhance physical education, school health services, school nutrition services, a healthy school environment, family and community involvement in schools, school staff health promotion, comprehensive school health education, school counseling and psychological and social services. Gerry Maas of the Wyoming Department of Education, in describing the project, noted that, "The school[s] takes responsibility to obtain the kind of help each student and family needs. This results in healthier and academically successful students."[208] In addition, the pilot site in Park County plans to apply for grant monies to expand health services to the entire community by partnering with West Park hospital in Cody, which would supply a nurse practitioner to provide health services.[209]

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[206] Patricia Guzman, Wyoming Office of Medicaid, "State Children's Health Insurance Program (SCHIP) Fact Sheet, Wyoming SCHIP History," (July 2003). Available online: http://www.cms.hhs.gov/schip/factsheets/chpfswy.pdf.
[207] Information from electronic mail correspondence from Jeanne Scheneman, Kid Care CHIP Insurance Unit Manager, State of Wyoming Department of Health, (September 8, 2004).
[208] Gerry Maas, Wyoming Department of Education, *Comments Received from Members of Resources List*, (September 23, 2004).
[209] Information from telephone conversation with Gerry Maas, Wyoming Department of Education, (November 12, 2004).

The Interfaith-Good Samaritan social services agency in Laramie is helping to improve access to dental care for Medicaid eligible children in Albany County. The agency advances payment to dentists who provide services to Medicaid patients and then the dentists reimburse the agency after they receive payment from Medicaid. In another effort to improve access to healthcare, Interfaith-Good Samaritan acquired over $300,000 in medications from patient assistance programs of pharmaceutical companies for Albany County elderly individuals and persons with disabilities. Other organizations providing similar services include the Downtown Clinic in Laramie, the Albany County Medical Fund, the Peak Wellness Center and private physicians.[210]

Several Wyoming communities also have established free health clinics to provide services to those who would not otherwise have the means to obtain them. In Cheyenne, for example, the Cheyenne Crossroads Clinic provides primary care, dental and mental health services to homeless and low-income individuals. The clinic operates five mornings and one evening a week with a mix of contractual and volunteer providers. Federal grants and local donations fund the clinic. Donations of medications and services from local pharmacists, physicians and dentists also support the clinic.[211] Free health clinics also operate in Casper, Laramie and Jackson.

Other Rural States' Economic Access

Many other states have conducted studies related to the lack of access to healthcare created by lack of insurance. These studies recommend options ranging from insurance pools to maximization of Federal Medicaid revenues. For example:

- New Mexico uses school-based health centers to provide physical and behavioral healthcare services to Medicaid children and other adolescents.

- New Mexico proposed several options for rural and low-income assistance. These options include a state insurance pool for basic and catastrophic healthcare with limited benefits for those who cannot afford more comprehensive coverage. Employers who do not provide health insurance can be required to pay into the state insurance pool.

- Vermont implemented a Rural Health Outreach Grant to help community health clinics expand their services to the working poor.

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[210] Tom Martin, Executive Director, Interfaith-Good Samaritan, *Comments Received from Members of Resources List*, (October 1, 2004).

[211] United States Department of Health and Human Services, Health Resources and Services Administration, Bureau of Primary Health Care, Health Care for the Homeless Information Center, "Healthcare for the Homeless Directory," (September 2003). Available online: http://bphc.hrsa.gov/hchirc/directory/.

- Rochester, New York implemented a school-based dental program that reached 90,000 children.

- Iowa's school-based Dental Student Program reached 3,479 children in one school year, with 79 percent of these children receiving dental services from students.

- Many states are expanding their Medicaid and SCHIP programs in an effort to increase insurance coverage and are increasing outreach in rural areas to encourage people who qualify for these programs to sign up.

- Several states allow counties to impose sales taxes to support healthcare services and indigent care.

Medicaid Reimbursement and Access

The Wyoming Healthcare Commission is also evaluating opportunities to increase coverage of individuals under Medicaid waiver programs, as well as to fund certain trauma care and uncompensated catastrophic care. Any of these efforts, if implemented, will help improve access to healthcare services.

We also read frequently about the affects of public healthcare programs on access to healthcare services. Throughout the United States, physicians and other providers express concerns regarding the levels of reimbursement from Medicaid programs. In very recent years, physicians have also voiced considerable concern regarding Medicare reimbursement levels. Access to healthcare services will be affected if providers refuse to treat individuals who are Medicaid or Medicare beneficiaries.

Recipients in some areas of Wyoming may have issues related to access to physician services. We compared the county of origin of Medicaid recipients to the county in which they received physician services and found many instances where the Medicaid population of the county was obtaining the majority of their physician services in another county or out-of-state. We have anecdotal information that there may be access issues for Medicaid recipients in some counties. In addition, Public Health Nurses tell us that Medicaid recipients have difficulties obtaining dental services in these counties because most dental providers will not see Medicaid patients. Like other states, Wyoming is experiencing a shortage of dentists, in particular pediatric dentists.[212]

[212] "Dental Health Program Receives Low Marks," *Billings Gazette*, (May 8, 2003). Available online: http://www.billingsgazette.com/index.php?id=1&display=rednews/2003/05/08/build/wyoming/32-dental-health.inc

Wyoming Medicaid has implemented rate increases for both physicians and dentists to improve access. The Wyoming Medicaid Program increased physician fees 17 percent from 1998 to 2003.[213] According to research in 2003 comparing states' Medicaid payment levels, the Wyoming Medicaid Program's physician payments were more than 25 percent higher than the average payment rates for all Medicaid programs in the United States and were three percent more than Medicare's payment rates.[214] In addition, as described earlier, the Wyoming Legislature approved an increase of $4,650,000 to increase Medicaid payments for obstetric and gynecology services. With this increase Medicaid's payment rates for obstetric and gynecology procedures are equal to approximately 90 percent of usual and customary charges.[215] For dentists, Medicaid increased the fee schedule in 2000 for all dental services, with an additional increase for the top 20 dental procedures. Rates were increased significantly again in 2004.

Studies have demonstrated, however, that merely increasing rates – especially for dental services – does not always result in improved access to services. A study in North Carolina found that a 23 percent increase in the State's Medicaid dental fees "failed to influence the likelihood of participation and was associated with a very small increase in the number of Medicaid children seen each quarter by participating dentists."[216] Moreover, according to a 2000 General Accounting Office report of 40 state Medicaid agencies that increased dental rates, 15 reported no increase in dentist participation or dental utilization and 14 reported only marginal increases.[217]

Funding

Many of the initiatives described here require additional funding. States obtain funding for improvements to rural healthcare from several Federal agencies, from enhanced Medicare and Medicaid reimbursement, from state and local funds and from private sources. In this section, we describe examples of these funding sources.

Grant Programs

The Federal Health Resources and Services Administration provides millions of dollars annually in grants for rural health outreach, network development, rural access to

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[213] Stephen Zuckerman, Joshua McFeeters, Peter Cunningham and Len Nichols, "Changes in Medicaid Physician Fees, 1998 – 2003: Implications for Physician Participation," *Health Affairs*, (June 23, 2003), p. W 4 - 3 74 to 384.
[214] Stephen Zuckerman, Joshua McFeeters, Peter Cunningham and Len Nichols, "Changes in Medicaid Physician Fees, 1998 – 2003: Implications for Physician Participation," *Health Affairs*, (June 23, 2003), p. W 4 - 3 74 to 384.
[215] Information from electronic mail correspondence with Teri Green, Medical Policy Coordinator, Wyoming Office of Medicaid (November 4, 2004).
[216] Michelle Mayer, et. al., "The Effects of Medicaid Expansions and Reimbursement Increases on Dentists' Participation," *Inquiry*, (Spring 2000), p. 41.
[217] Department of Health and Human Services, "August 17, 2000 response to General Accounting Office report," *Oral Health: Factors Contributing to Low Use of Dental Services by Low-Income Populations*, (September 2000), p. 13.

emergency medical devices, small rural hospital improvement, and frontier extended stay programs.[218] The Health and Human Services Department provides grants for health professional education and improvements to low-income persons that also help rural areas.[219] Other Federal agencies provide grants for programs in rural areas that can have significant impact on health, such as low-income housing programs and the Child and Adult Care Food Program.[220] (See Appendix 8 for a list of Federal grants relevant to rural healthcare access.)

Grants are also available from some foundations such as the Robert Wood Johnson Foundation.[221] Some of these grants are for research, others for education, and others for direct payment for part of the cost of healthcare services.

Wyoming has four grants from the Federal Office of Rural Health Policy, currently bringing in $885,894 annually:

- Rural Access to Emergency Devices (RAED) Grant Program
- Small Rural Hospital Improvement Grant Program
- State Office of Rural Health
- Rural Hospital Flexibility Grant[222]

Federal Loan Programs

The Federal government has many loan programs that can be used to encourage development of rural healthcare resources. For example, the United States Department of Agriculture (USDA) provides loan guarantees of up to $10 million through the Rural

[218] United States Department of Health and Human Services, Health Resources and Services Administration, "Funding." Available online: http://ruralhealth.hrsa.gov/funding/.
[219] For example, Health and Human Services Department, National Institute of Mental Health, "Mental Health Research Education Grants," (March 21, 2000). Available online: http://www.grants.nih.gov/grants/guide/pa-files/PAR-02-087.html. [See also, Agency for Health Care Research and Quality, "Grant Announcements." Available online: http://www.ahrq.gov/fund/grantix.htm.]
[220] United States Department of Agriculture, "Key Federal Funding Programs for Rural Areas." Available online: http://www.nal.usda.gov/ric/ricpubs/funding/federalfund/fedcont.htm. [See also, Department of Housing and Urban Development, Department of the Interior (Bureau of Indian Affairs).]
[221] Robert Wood Johnson Foundation, "Open Calls for Proposals." Available online: http://www.rwjf.org/applying/cfpOpen.jsp. [See also, for example, Harvard Pilgrim Health Care Foundation, Grant Guidelines, http://www.harvardpilgrim.org; Kaiser Family Foundation, http://www.kff.org; Pew Charitable Trusts, www.pewtrusts.com, The Commonwealth Fund, http://www.cmwf.org and W.K. Kellogg Foundation, http://www.wkkf.org.]
[222] United States Department of Health and Human Services, Health Resources and Services Administration, Rural Health Policy, "Office of Rural Health Policy Grants - Wyoming." Available online: http://ruralhealth.hrsa.gov/Map/Wyoming.htm.

Business-Cooperative Service (RBS) to develop businesses or industry, or to increase employment in rural areas.[223] USDA also provides both grants and loans through the Distance Learning and Telemedicine Grant and Loan Program under the Rural Utilities Service (RUS). The Department of Housing and Urban Development (HUD) manages the State Community Development Block Grant (CDBG) Program, which supports projects in smaller communities. The CDBG program covers a broad range of community development activities, including health-related projects. Funds may be used for a variety of purposes, including property acquisition; facility construction or rehabilitation; construction of streets, water and sewer facilities; planning activities and public services. The program also provides assistance to nonprofit entities for community development activities and to private, for-profit entities for economic development activities.[224] Other Federal programs can help rural healthcare facilities to obtain mortgage insurance, obtain land for public health purposes and acquire Federal surplus equipment and property.

Medicare and Medicaid

The Federal government pays for a large share of healthcare services through Medicare and Medicaid, which account for a substantial proportion of most rural healthcare providers' revenue. The Federal Medicare and Medicaid programs provide mechanisms that can be used to increase reimbursement to rural healthcare providers. These mechanisms can help to make hospitals and other providers in rural areas financially viable.

Enhanced Reimbursement

Enhanced reimbursement programs help keep healthcare providers financially viable in rural areas by offering enhanced reimbursement for certain types of providers such as Rural Health Clinics and Critical Access Hospitals.[225] Medicare permits cost-based reimbursement to Critical Access Hospitals in rural areas at a higher level than would be paid to other hospitals.[226] Medicare also provides enhanced emergency transportation reimbursement for most rural areas.[227] State Medicaid programs can implement similar mechanisms to provide

[223] United States Department of Agriculture, "Capital Assistance Funding: A Rural Health Resource Guide," (July 2004). Available online: http://www.nal.usda.gov/ric/richspub/capasist.htm.
[224] United States Department of Agriculture, "Capital Assistance Funding: A Rural Health Resource Guide," (July 2004). Available online: http://www.nal.usda.gov/ric/richspub/capasist.htm.
[225] United States Department of Health and Human Services, "Rural Health Services,." Available online: http://www.hrsa.gov/medicaidprimer/rural_health_part3only.htm.
[226] Centers for Medicare and Medicaid Services, "CMS Increases Payments and Expands Flexibility for Critical Access Hospitals in Rural Areas," (January 22, 2004). Available online: http://www.cms.hhs.gov/media/press/release.asp?Counter=948.
[227] Centers for Medicare and Medicaid Services, "Medicare Boosts Payments for Ambulance Services, Includes 'Super-Rural' Bonus," (June 30, 2004). Available online: http://www.cms.hhs.gov/media/press/release.asp?Counter=1100.

enhanced reimbursement to rural health clinics, rural physicians and rural hospitals.[228] Some Medicaid programs pay for services that improve healthcare availability in rural areas, such as telemedicine consultation, nurse hotlines, medical transportation and services provided by local health departments.

Wyoming Medicaid pays Critical Access Hospitals enhanced payments for outpatient hospital services and pays a fixed fee, with separate payments for mileage, for emergency transportation services. Wyoming Medicaid also follows Medicare's fee schedule methodology for paying physicians and recently increased Medicaid fees (see Economic Access section).

Graduate Medical Education Payments from Medicare and Medicaid

Medicare and Medicaid have also provided subsidies for graduate medical education (GME) at many hospitals and other providers. Wyoming, which does not have a medical school, has not used these funds for hospitals. However, the University of Wyoming sponsors two Family Practice Residency Programs in Cheyenne and Casper.

The residency program in Cheyenne has never received Medicare direct medical education payments, so the University of Wyoming funds the entire cost of the program. Community Health Center of Central Wyoming has been receiving add-on direct graduate medical education payment to its per visit FQHC payment rate from Medicare and Medicaid. However, Community Health Center has been notified by the Medicaid program that, according to the Centers for Medicare and Medicaid Services, Community Health Center is no longer eligible for the Medicare direct medical education payments. Therefore, these sources of Federal funding to help defray the costs of the residency program will no longer be available.

Local Funding Options

Local governments and businesses can help to bring healthcare resources to their communities. State or local government participation, such as Community Development Block Grants, is required for some Federal programs. Some communities have developed successful cooperative efforts involving state and local government, local healthcare providers, local businesses and educational institutions. For example, an island community off the Massachusetts coast raised $500,000 through property taxes to help its local hospital deal with its immediate emergency room deficit.[229]

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[228] United States Department of Health, Health Resources and Services Administration, "Opportunities To Use Medicaid in Support of Rural Health Services." Available online: http://www.hrsa.gov/medicaidprimer/rural_health_part3only.htm.

[229] Ira Moscovice and Walter Elias, "Using Rural Health Networks to Address Local Needs," AcademyHealth, (July 2003). Available online: http://www.academyhealth.org/ruralhealth/casestudies.pdf.

Cooperative efforts between government and other local organizations can solve some problems. A rural area in northern Michigan developed a program to train medical coders through cooperation between the state's employment security agency, a community college and a network of healthcare providers, using telemedicine technology to provide training at sites throughout the area.[230] Cooperative efforts between health foundations and local organizations have also been successful at increasing local funding for healthcare initiatives. For example, the Robert Wood Johnson Foundation's Community In Charge[231] and the W.K. Kellogg Foundation's Community Voices[232] programs provided matching grants to local communities across the United States, including rural communities, in an effort to find local solutions to improve healthcare access to low-income, uninsured individuals.

Other potential sources for funding include the state itself and large employers within the state. For example, the Canadian province of Alberta reimburses physicians for on-call time in rural areas with a "top up" of C$21 per hour above their fee-for-service reimbursement, up to a set limit.[233]

Summary

This chapter has provided a description of the features of some states' programs targeted to improve access to healthcare in rural areas that appear useful for Wyoming's consideration. In Appendix 6, we provide a matrix of State and Federal laws that affect rural healthcare access. In the next chapter of this report, we identify specific options for Wyoming's consideration and a model for implementation of those options.

[230] Ira Moscovice and Walter Elias, "Using Rural Health Networks to Address Local Needs," AcademyHealth, (July 2003). Available online: http://www.academyhealth.org/ruralhealth/casestudies.pdf.
[231] Robert Wood Johnson Foundation, Communities in Charge, "Development and Implementation Grants." Available online: http://www.communitiesincharge.org/Pages/Page6.htm
[232] W.K. Kellogg Foundation, Community Voices, "About Community Voices." Available online: http://www.communityvoices.org/About.aspx
[233] Alberta Medical Association, "Recommendations for a New Rural On-Call Remuneration Program." Available online: http://www.srpc.ca/alberta1.html.