

Chapter 14

Conclusions: The Availability of Health Personnel in Rural Areas

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Conclusions: The Availability of Health Personnel in Rural Areas

SUPPLY OF HEALTH PERSONNEL

Although the supply of health professionals is relatively lower in rural than in urban areas, it is probably nonetheless adequate in many rural areas. Some rural areas, however, continue to have severe shortages of health professionals, even in the face of recent growth in national supply. Their situation is likely to worsen unless targeted efforts are made to attract health care providers. Other rural areas may also face inadequate supply in the future due to slower growth in national supply and competing demand for primary care providers in urban areas.

Physician supply has increased over time in both urban and rural areas. In fact, during the past decade, the most populated rural (nonmetropolitan) counties experienced even greater growth in physician supply than did urban counties. However, *rural areas in general still have fewer health professionals per capita than does the Nation as a whole, and the least populated counties have the fewest. In 1988*, for example, rural counties had fewer than one-half as many patient care MDs per capita as did urban counties, and small rural counties¹ had fewer than one-fourth as many. Between 1979 and 1988, rural counties with fewer than 10,000 residents had a 17 percent increase in the number of patient care physicians per capita, compared with 25 percent in the largest rural counties and 24 percent in the United States as a whole (686). Reductions in the number of new National Health Service Corps (NHSC) placements may further slow the diffusion of physicians to less populated rural areas.

Most rural physicians are primary care physicians.² Unlike most other specialties, the future supply of primary care physicians is in danger. Projected shortages will disproportionately affect smaller rural areas.

Although the exact number and location of communities with acute or persistent physician

shortages are impossible to determine, evidence shows that a substantial number exist:

- In 1988, 111 counties, all of which were rural, had *no* professionally active physician (511).
- As of December 1988, over 16 million people (29 percent of the U.S. rural population) were residing in federally designated rural primary care Health Manpower Shortage Areas (HMSAs). In comparison, only 9 percent of urban residents were located in urban primary care HMSAs (665,686). If residents of qualifying but undesignated areas were included, the numbers would be even larger. Rural HMSAs are concentrated in the South and in the West North Central and Mountain States.
- Nearly 1,800 primary care providers (physicians or midlevel practitioners) would be needed to eliminate rural primary care provider shortages in designated HMSAs (665).
- The number of rural primary care HMSAs has not changed appreciably during the past decade.

Current national shortages of midlevel practitioners (MLPs),³ registered nurses (RNs), and allied health professionals (AHPs), along with projected national shortages of dentists, will similarly have a disproportionately negative effect on smaller rural communities. The shortage of these personnel, coupled with future declines in primary care physician supply, may have serious implications for the availability of basic health care in some rural communities.

Assessing rural health personnel availability, particularly for nonphysicians, is severely hampered by lack of national data. There are no recent national data available on the rural/urban distribution of AHPs. Data on licensed practical/vocational nurses (LP/VNs) are also old, and national data on nurse vacancies generally are limited to hospital and nursing home settings. Information on the distribu-

¹Nonmetro counties with fewer than 10,000 residents.

²Osteopathic physicians makeup a substantial proportion of these primary care physicians, particularly in small rural counties.

³Includes nurse practitioners, physician assistants, certified nurse-midwives, and certified registered nurse anesthetists.

tion of physician assistants (PAs), certified nurse-midwives (CNMs), and optometrists is only available by community size and does not permit rural/urban distinction. It is therefore impossible to integrate or compare data on the distribution of these professionals with data on physicians. The common belief that PAs are more likely than physicians to locate in rural areas, for example, cannot be confirmed with currently available data.

IDENTIFYING SHORTAGE AREAS: FEDERAL AND STATE EFFORTS

To target limited resources effectively, Federal and State governments must be able to identify needy areas. Although much progress has been made during the past decade in developing criteria for this purpose, Federal and State governments need to coordinate and expand their efforts in order to identify shortages of a wider range of health professionals in a manner more sensitive to local conditions.

Existing Federal designations can identify shortage areas nationwide according to a single set of basic criteria. However, they have a number of limitations:

- Medically Underserved Area (MUA) designations have not been reviewed since 1981.
- The incentive to apply for designation has probably decreased due to the reduced availability of Federal resources that flow to designated areas and to a lack of State and local resources needed to identify areas. In 1986, for example, there were 95 rural counties not designated as HMSAs although they qualified on the basis of whole-county physician-to-population ratios (511).⁴
- Federal criteria do not currently take into account measures of health care access such as the level of insurance coverage in the area, which can have a significant impact on the availability of services to the population.
- HMSAs and MUAs are very general measures and cannot adequately identify local shortages of particular providers or specific types of services (e.g., obstetric care).

Even with a more coordinated and active Federal designation program, State involvement will be

critical. State criteria and designations are more likely than Federal designations to be sensitive to the needs of specific areas, address specialty shortages, and respond quickly to changes in local conditions.

Programs that use provider-based designations such as the HMSA to target resources should recognize the vulnerability of small rural areas to dedesignation. Small rural areas can lose their designation, and all associated resources, with the gain of even a single physician. One way to ensure that the effects of these programs are long-lasting might be to provide time-limited incentives that are tied only to the initial designation status of the area. Alternatively, designation status might be maintained for a specified "grace period" after changes that would otherwise precipitate dedesignation have occurred.

RECRUITMENT AND RETENTION OF RURAL HEALTH PERSONNEL

The future availability of health personnel in rural areas depends on two factors. First, a sufficient number of health professionals must be appropriately trained to practice in rural areas (e.g., trained as generalists or primary care specialists). Second, rural areas must be able to attract and retain these personnel.

Personal and professional concerns play at least as great a role as financial concerns in the location decisions of health professionals. Educational, financial, and other interventions must therefore work in concert to improve the attractiveness of rural practice. Strategies that have demonstrated effectiveness in improving the recruitment and retention of rural health personnel in the past include:

- rural-oriented health professions training,
 - . selective recruitment of students with rural backgrounds or with interest in rural practice,
 - . service-contingent scholarship and loan repayment programs, and
- networks to provide continuing education and professional consultation to health professionals in remote areas.

The Federal role in these strategies can be direct (e.g., placing personnel in underserved areas) or an indirect role of initiation and encouragement (e.g., through support of rural health professions educa-

⁴MDs only.

tion and State loan repayment or scholarship programs).

Educational Strategies

Educational strategies can enhance the supply of rural health professionals by overcoming some of the personal and professional barriers to rural practice. These barriers include a lack of opportunities for professional consultation, continuing education, or career advancement. Educational interventions can also help health professionals feel more confident practicing in semi-isolation. The Federal Government can pursue educational strategies by targeting its health education resources to primary care and rural-oriented programs and by supporting rural continuing education efforts.

The supply of rural physicians is greatly dependent on the supply of primary care physicians, but existing trends increasingly result in medical students' seeking other specialties. The current trend away from primary care medical specialties is linked to professional and financial concerns of medical graduates, as well as to reduced availability of residency training slots. Targeted Federal funding for primary care undergraduate and graduate medical training programs can give these programs a greater advantage, but such funding has decreased in recent years. Weighting Medicare funding for graduate medical education would probably have an even greater impact on the redistribution of resources towards primary care specialties, although it would probably encounter some political opposition.

To increase the supply of *rural* primary care physicians, targeted funding could be used to develop and expand rural-oriented training programs, which have been effective in placing their graduates in underserved rural areas. Current Federal funding for primary care medical training supports some rural-oriented training programs, but there is neither a specific set-aside nor a specific set of curricular requirements for these programs. To ensure effectiveness, rural program funding might be tied to specific curricular components and/or to some measure of outcome (e.g., proportion of graduates placed in rural areas).

Educational strategies are also key in the recruitment and retention of many nonphysician health personnel. If more training programs were located in (or provided some training in) rural sites, more rural students could be recruited. If access to advanced

nursing education in rural areas were improved, rural practice might be more attractive to nurses, and the supply of advanced practitioners (e.g., NPs, CNMs, and certified registered nurse anesthetists) could increase. These practitioners, along with PAs, are crucial providers in rural areas without enough physicians.

Specific nonphysician programs to target might include:

- programs to upgrade rural LP/VNs to RNs;
- programs through which rural RNs can earn bachelor's degrees;
- programs to train rural RNs as NPs, nurse-midwives, and nurse anesthetists;
- PA training programs;
- rural-oriented dental education programs;
- crosstraining programs for certain AHPs; and
- multidisciplinary training programs with a rural focus.

Federal precedents exist for almost all of these programs, but few of them have a rural set-aside or specific standards for participating rural programs.

Although data are scarce, it appears that shortages of some AHPs are especially critical in rural areas. General rural shortages are compounded by the fact that many rural facilities cannot support specialized AHPs on a full-time basis. The training and use of multiskilled AHPs, however, are hindered by strict licensure requirements, inflexible hospital staffing requirements at both the State and Federal levels, and a lack of formal educational programs. To address these issues, training programs could coordinate with State licensing boards in examining new categories of AHP licensure; Federal and State authorities could examine facility staffing requirements; and Federal or State assistance could be provided to establish local training programs and support traineeships in rural community colleges or hospitals.

Continuing education, which is required for licensure of many health professionals, is particularly difficult to obtain in rural areas, either due to unavailability of accredited programs or the inability of rural practitioners to find temporary replacements while they attend programs. The Federal Area Health Education Centers (AHEC) Program provides a mechanism for addressing continuing education needs in rural areas, but its influence is not universal. Telecommunications can also be used to

provide continuing education, but programs are expensive to develop and do not exist for many types of health professionals.

Improved telecommunications networks can reduce professional isolation, improve quality of care, and improve personnel recruitment and retention by linking providers in remote areas to educational and consultative resources. A number of model networks are already in place. The equipment and training costs of starting such networks can prohibit their development and successful implementation, however, and support may be needed to extend the benefits of telecommunications to practices and facilities that lack them.

AHECs provide both rural-oriented clinical education experiences and continuing education for a variety of health professional trainees. The AHEC program is an excellent example of how Federal support can encourage State and local participation in activities addressing the geographic maldistribution of all varieties of health professionals. Existing AHECs might be used as coordination points for other Federal health professions distribution programs operating within or near their service areas (e.g., the NHSC and federally supported rural-oriented health professions training programs).

Financial and Professional Strategies

Health professions students may be dissuaded from primary care specialties by high levels of indebtedness, perceived higher incomes in the non-primary care specialties, and other concerns. In addition, the high costs of education and reduced availability of scholarship aid may prevent economically disadvantaged rural students from pursuing health careers and returning to practice in rural areas.

Strong financial incentives may be needed to attract new physicians and other health professionals to underserved rural areas. Remote communities will have increasing difficulty finding young physicians who are willing and financially able to establish a private practice. Programs that help students offset the high costs of education by direct financing (e.g., scholarship programs) or by absorbing accrued debt (loan repayment programs) would help to alleviate these problems. Such programs could be tied to a service obligation and/or to participation in rural-oriented training programs. The Federal Government has a history of involve-

ment in such programs, but its financial support has decreased considerably during the past decade.

Time-limited tax incentives, lump-sum bonuses, or other aid in practice for physicians, MLPs, and nurses in rural shortage areas may also help to offset education and practice expenses and income disincentives. Such incentives could be tied to a limited service obligation and could be recaptured if the individual were to leave the area before the end of his or her obligation.

The financial disadvantages of rural practice for physicians include fewer opportunities for salaried practice and perceived lower practice income. Rural practitioners may face additional expenses such as travel to service sites and to required continuing education programs. Also, since a higher proportion of rural than urban residents lack health insurance, private physicians in rural practice may handle higher volumes of uncompensated care.

Some Federal policies that address these financial disincentives are already in place. For example, Medicare's newly adopted method of paying physicians, the resource-based relative value scale, will probably increase primary care physicians' incomes, although its ultimate effect on rural physician supply remains uncertain.

Medicare bonuses for physician services delivered in rural primary care HMSAs can also ease the financial burden of rural practice for some physicians, but again, the actual impact of this program on rural physician availability is unknown. To improve the program's accountability and the ability to evaluate its effectiveness, reporting requirements and program evaluation could be made more rigorous (e.g., include evaluation of the characteristics of physicians who are availing themselves of the bonus). The effect of Medicare's bonus payments might be further improved if States provided similar bonuses under Medicaid, expanding both the strength of the incentive and the number of physicians it reaches.

MLPs are well-suited for practice in low-density and underserved areas. The apparent recent trend among some MLPs toward urban practice is unfortunate for rural areas, particularly for those that may not be able to attract and support the services of physicians. ***Rural areas would probably be more attractive to MLPs if existing barriers to autono-***

mous practice were addressed. Such barriers include:

- limited opportunities for Medicare, Medicaid, and other third-party reimbursement;
- State restrictions on scope of practice and professional autonomy, especially for PAs;
- lack of access to continuing education in rural areas;
- malpractice liability insurance costs; and
- lack of acceptance by the medical profession.

Improved Medicare and Medicaid reimbursement for MLPs could increase the number willing and able to practice in remote settings. The Rural Health Clinics Act (Public Law 95-210), which promotes the use of MLPs by guaranteeing indirect Medicare and Medicaid reimbursement for their services, has not been implemented in many areas due to regulatory barriers, resistance from the medical profession, or simply through lack of interest or awareness of eligibility criteria.

Reimbursement policy needs to be carefully coordinated with State practice acts to allow for professional autonomy while maintaining quality and effectiveness through an adequate level of physician oversight. State regulatory changes could be guided by State or Federal models, and they could be influenced through Federal Medicaid policy.

Strategies for Acute and Chronic Shortage Areas

Even with an adequate supply of health professionals, many communities will continue to have great difficulty recruiting providers, either because they lack a sufficient population base to support a practice or because they are otherwise perceived to be unattractive locations. Such areas are unlikely to be able to maintain adequate health care access without some degree of State or Federal intervention.

The cornerstone of Federal efforts to address chronic health personnel shortages has been the NHSC. The NHSC has tremendous potential for improving the short-term and long-term supply of providers in such areas, but its effectiveness is presently limited by funding constraints. In December 1988 an estimated 4,104 primary care providers were needed to remove HMSA designations, 1,794

of these in rural areas. In 1988-89, however, the NHSC placed 750 volunteer or loan repayment physicians in HMSAs--only 18 percent of physicians needed to remove those shortages.⁵ The number of obligated scholars continues to wane; only 74 will be available for placement in 1991. Although MLPs at one time represented a substantial proportion of NHSC field staff, the NHSC has placed very few in recent years.

All elements of the program--scholarship, loan repayment, and volunteer--are needed to maximize the program's effectiveness. Loan repayment can attract health professionals with high debt loads (e.g., physicians and dentists) and can draw them to shortage areas immediately. Scholarships may be more effective for recruiting health professionals who spend less time in training and have lower debt loads. Scholarship programs also provide opportunities to students who would otherwise be unable to finance their education. To improve the retention of NHSC personnel, scholarships and loan repayment could be targeted to students in rural and primary care-oriented training programs and to students from rural and underserved areas. The volunteer program could be more effective if it offered additional incentives to providers locating in HMSAs, and if additional recruitment staff were available in the Federal and regional offices.

Many States are heavily involved in health professions recruitment. Because their efforts are more localized than federally administered programs, State loan repayment and scholarship programs might often be more effective in recruiting and retaining rural health professionals. They may also be in a better position to coordinate efforts from various entities in the State to provide ongoing support for personnel serving in shortage areas. The NHSC State Loan Repayment Program might enhance these efforts; however, this fledgling program has not been given an adequate trial and has not been able to demonstrate its full potential. In addition, under its current structure, this program limits the types of personnel States can recruit to those with high debt loads (e.g., certain physicians). If funds could also be used for scholarships, States could recruit a wider range of health professionals. The Federal components of the NHSC are important for placing personnel in areas not reached by State efforts.

⁵The proportion who were placed in nonmetro HMSAs is unknown.

In addition to the NHSC, the Federal Government could enhance personnel availability in rural areas of chronic shortage through policies that promote satellite clinics, particularly those staffed by MLPs,

in these areas. Such policies might include promoting Medicare certification of rural health clinics and encouraging States to overcome barriers to MLP practice.