

Part I

Summary

Chapter 1

Summary and Options

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INTRODUCTION AND SCOPE

This report is about access of people in rural America to basic health care services.

The 1980s witnessed rural economic decline and instability, major changes in Federal health programs, and increasing concern about the long-term viability of the rural health care system. This concern prompted the Senate Rural Health Caucus and the Ranking Minority Member of the Senate Committee on Labor and Human Resources to request that OTA assess the availability of health services in rural communities, the problems rural providers face, and the remedial strategies that might be influenced by Federal policy.¹

This report focuses on trends in the availability of primary and acute health care in rural areas and factors affecting those trends.² The rest of this chapter summarizes OTA's findings and conclusions on rural health care availability and presents options for congressional consideration. Many of these options bear some similarity to proposals by others to improve rural health care services, although the details may differ considerably. The remainder of the report examines in detail the issues faced by rural facilities providing health services and by physicians and other rural health personnel. To provide examples of how these issues may play out, it also discusses in more depth two specific groups of services: maternal and infant health services and mental health services.

Although the affordability of health care is an important factor in access to care by rural residents, the fundamental issue of uninsured populations and uncompensated care is beyond the scope of this report, since it encompasses the urban as well as the rural health care system and has broad ramifications. Moreover, even if it were possible to enable all patients to adequately compensate providers, policy-makers would still find it necessary to consider

measures to overcome the special access problems of underserved areas and populations. Thus, the report does not discuss in depth either health insurance coverage or health care financing. Instead, it considers these factors in terms of their influence on the availability and financial viability of providers.

Two other important issues are also beyond the scope of this report. First, the importance of rural health care providers as sources of employment and income is not addressed here, although it is a vital issue in many rural communities. Second, this report does not examine the quality of rural health care in any detail, although it is clear that the quality implications of rural health interventions deserve scrutiny. But such an examination would have to proceed with care. By necessity, an evaluation of the quality of a service provided in rural areas must be measured against the implications of having no locally available service at all.

PROBLEMS AND CONSIDERATIONS IN RURAL HEALTH CARE

The Health and Health Care Access of Rural Residents

During this century, the rural population has become an increasingly smaller proportion of the total U.S. population (figure 1-1). As of 1988, about 23 percent of the U.S. population lived in nonmetropolitan (nonmetro) counties (631). About 27 percent of the U.S. population lives in "rural" areas as defined by the Census Bureau (places of 2,500 or fewer residents) (632), and slightly more than 15 percent of the population is rural by both definitions.³ Throughout this report, "rural" refers to nonmetro areas unless otherwise stated.

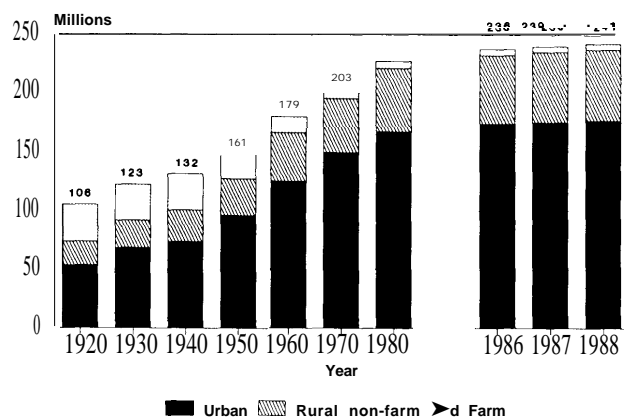
Rural residents are characterized by relatively low mortality but relatively high rates of chronic disease. After accounting for expected differences

¹Two other reports prepared in connection with this assessment have already been published: *Defining 'Rural' Areas: Impact on Health Care Policy and Research* (released July 1989), and *Rural Emergency Medical Services* (released November 1989).

²The report does not examine issues relating to the Indian Health Service (IHS) or health-care access for Native Americans who receive their care from the IHS. Previously published OTA reports examined these issues in detail (616,624).

³See the related OTA staff paper for a detailed discussion of the implications of different definitions of "rural" and the applications of these definitions (255).

Figure 1-1—U.S. Rural and Rural Farm Population, Selected Years, 1920-88



^aBased on the Census Bureau's definition of the rural population.

^bThe rural population figures from 1950 on reflect definitional changes. Had the previous definition been used, the 1950 rural population would have been 60,948,000, or 40 percent of the total U.S. population.

SOURCE: Office of Technology Assessment, 1990. Data from U.S. Department of Commerce, Bureau of the Census, jointly with the U.S. Department of Agriculture, "Rural and Rural Farm Population: 1988," *Current Population Reports, Series P-20, No. 439* (Washington, DC: U.S. Government Printing Office, September 1989).

due to age, race, and sex distributions between urban and rural areas, mortality rates in rural areas are 4 percent lower than in urban areas (626). Two notable exceptions exist: in rural areas, infant mortality is slightly higher (10.8 v. 10.4 per 1,000 infants), and injury-related mortality is dramatically higher (0.6 v. 0.4 per 1,000 residents). Chronic illness and disability, on the other hand, affect a greater proportion of the rural than the urban population (14 v. 12 percent) (6.51).⁴ There is little overall difference between urban and rural residents in rates of acute illness.

Rural populations are unique in the extent of physical barriers they may encounter when obtaining health care. Even in relatively well-populated rural areas, the lack of a public transportation system and the existence of few local providers to choose from can make it difficult for many rural residents to reach facilities where they can receive care. *And persons living in low-density "frontier" counties—counties of six or fewer persons per square mile—can have geographic access problems of immense proportions. In these counties, predominantly located in the West, there is insufficient population density in many areas to adequately support local health services.*



Photo credit: Peter Beeson

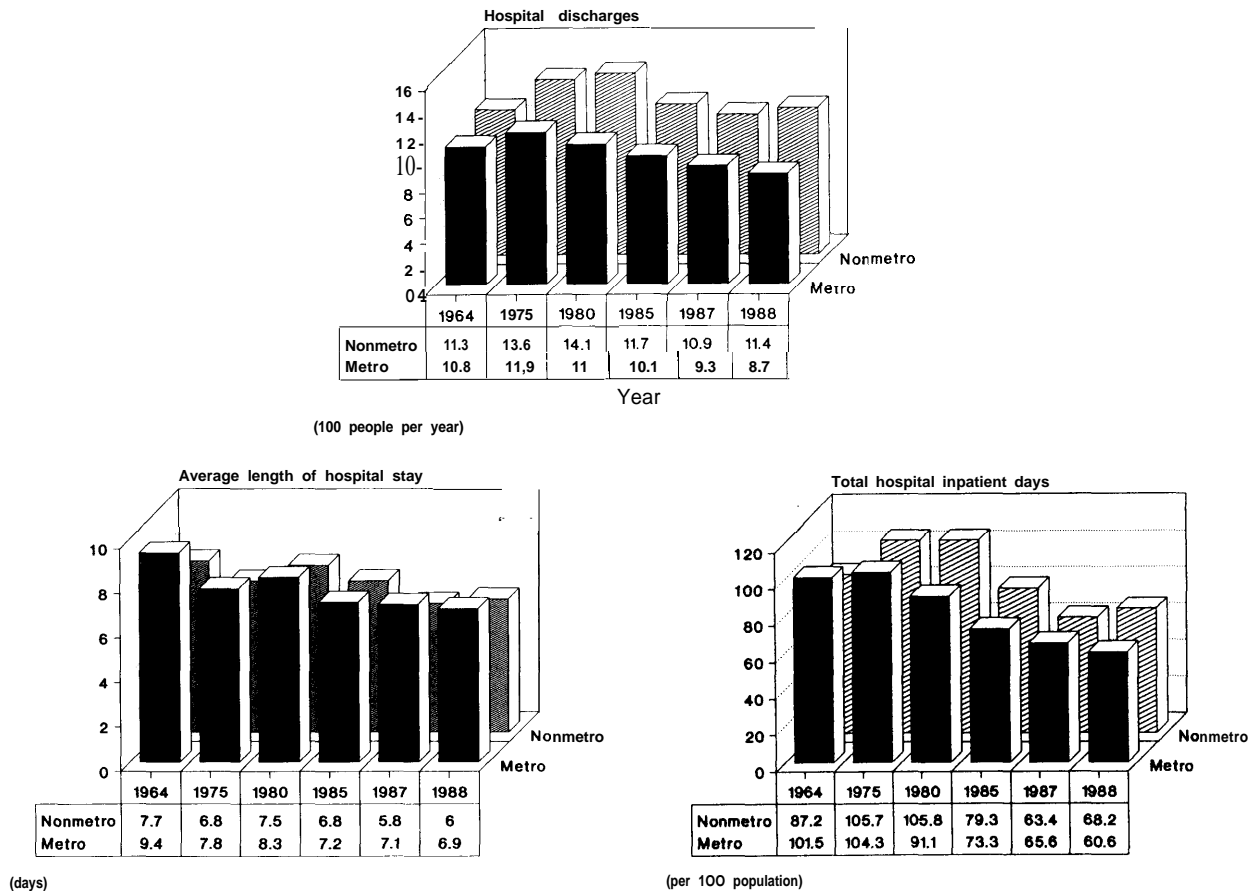
Farming communities were especially hard-hit by economic slowdowns during the early 1980s.

Economic barriers prevent many rural residents from receiving adequate health care and often outweigh strictly physical barriers. Rural residents have lower average incomes and higher poverty rates than do urban residents, and one out of every six rural families lived in poverty in 1987 (629). While some rural areas have prospered (e.g., areas that have become retirement havens), areas whose economies are based on farming and mining suffered real decreases in per capita income during the first half of the 1980s (106). Still other rural areas have been pockets of poverty for decades. These areas of persistent poverty are heavily concentrated in the South, where 25 million of the Nation's 57 million rural residents live, and where 4 out of every 10 rural residents are poor, elderly, or both (633).

Rural residents are much more likely than urban residents to have no health insurance coverage (18.2

⁴These figures are age-adjusted and therefore cannot be explained by a greater proportion of elderly residents in rural areas.

Figure 1-2—Trends in Hospital Utilization by Metropolitan and Nonmetropolitan Residents, Selected Years, 1964-88



NOTE: Numbers are adjusted for age (i.e., account for differences in age distributions between metro and nonmetro areas). These data are based on interviews and thus include only patients who were discharged alive.

SOURCE: Office of Technology Assessment, 1990. Data from U.S. Department of Health and Human Services, Centers for Disease Control, National Center for Health Statistics, *Health, United States, 1982, 1988, and 1989* (Washington, DC: U.S. Government Printing Office, March 1983, March 1988, and March 1989).

v. 14.5 in 1986) (651).⁵ Among persons with incomes below the Federal poverty level, rural residents are less likely than urban residents to be covered by Medicaid (35.5 v. 44.4 percent in 1987) (530).

Health care utilization trends in rural areas have paralleled those in urban areas. Over time, people in both areas have increased the number of physician visits per person, although rural physician utilization remains below that for urban residents. Hospital

inpatient utilization by both urban and rural residents has declined (figure 1-2). Rural residents, however, still report more admissions and shorter hospital stays than do urban residents (651).⁶

The Availability of Rural Health Care

Rural health care availability in 1990 is better in many ways than that of 20 years ago. After years of hospital construction, the ratio of community hospital beds to population is now about the same in rural as in urban areas (4.0 and 4.1 per 1,000 residents,

⁵Includes only persons under age 65.

⁶Information on average length of hospital stay (ALOS) is available both from hospital reports (which include patients discharged dead) and from patient interviews. Until very recently, both ALOS in rural hospitals and ALOS reported by rural residents were lower than for their urban counterparts. Since 1987, rural hospitals have actually reported slightly higher ALOS than urban hospitals, although rural residents still report lower ALOS in interview data.

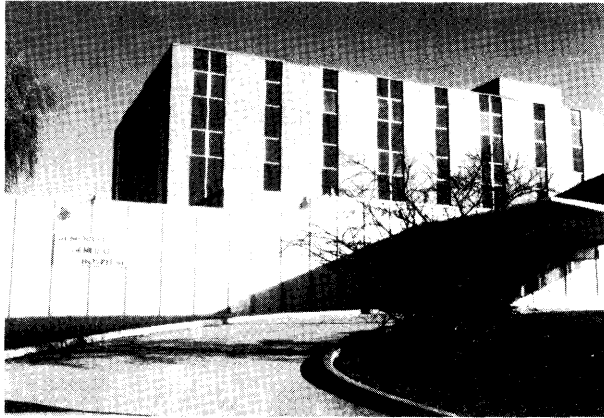


Photo credit: Peter Beeson

Not all rural hospitals that have closed in recent years have been small. Memorial General Hospital, a 256-bed facility in Elkins, West Virginia, closed in the mid-1980s.

respectively, in 1986). Federally funded community and migrant health centers (C/MHCs) provide subsidized care to poor residents through nearly 800 service sites in rural communities. Physician supply has been increasing for many years in both rural and urban areas; one out of every 440 people in the United States is now a physician.⁷

Nonetheless, the future prospect for rural health care in the absence of intervention is grim. *Rural America cannot support its present complement of hospitals, and the hospitals are going broke.* By 1987, rural hospitals as a group had higher expenses than patient care revenues, and small rural hospitals had higher expenses than revenues from all sources. Hospitals faced with continuing financial difficulties and no alternative forms of survival will continue to close, including some facilities that are the only reasonable source of care in their communities. Rather than drawing local patients back to local care, many small community facilities will continue to lose wealthier patients to more distant urban hospitals and clinics. Local facilities will be left to contend with low occupancy rates and a high proportion of patients who cannot pay the full costs of their care. A lack of incentives and models for developing appropriate networks of care may result in an increasingly fragmented health service delivery system.

Rural areas are finding it increasingly difficult to recruit and retain the variety of qualified health personnel they need. In some isolated and ‘unattractive’ areas, an absolute lack of providers may become a chronic situation. The number of areas designated by the Federal Government as primary care Health Manpower Shortage Areas (HMSAs) has not changed significantly since 1979. *And in 1988, 111 counties in the United States, with a total population of 325,100, had no physicians at all (665).* Half a million rural residents live in counties with no physician trained to provide obstetric care; 49 million live in counties with no psychiatrist. States overwhelmingly rate health personnel shortages as a top problem area and a top focus of State rural health activities (627).

No single strategy is appropriate to all rural areas or all health care providers. Rural North Dakota is not the same as rural Mississippi. Rural health problems and issues vary dramatically by region, State, and locality. The success of strategies to address these problems will also vary, and some strategies that are vital to a few communities may offer little to others. Furthermore, even in a single State or locality, multiple approaches are more likely than single strategies to obtain results.

The Federal Government cannot fix all rural health problems. It cannot force community consensus, or create new structures directly adapted to local needs, or overcome all State-level barriers to change. But it can create an environment that facilitates these activities, it can furnish the information States and communities need to know before undertaking them, and it can be the catalyst for great improvements in the rural health care system.

The Federal Role in Rural Health

The States are heavily dependent on the Federal Government for assistance in maintaining and enhancing rural health care resources; nearly one-half (44 percent) of their resources for rural health activities (e.g., personnel recruitment) come from Federal sources (627). Federal health insurance programs such as Medicare are a large additional Federal investment in rural health care.

⁷This number is calculated from table 1-2, which includes only MDs. The number would be even greater if doctors of osteopathy were included.

The bulk of the Federal role in rural health is carried out through four different types of programs.⁸ First are health care financing programs—most notably, Medicare and Medicaid—which pay directly for health care services. Both programs differentiate in a number of ways between rural and urban providers and payment to those providers. Both programs also include special exemptions to general payment rules for certain rural facilities and services (e.g., physician services provided in certain HMSAs).

Second is the health block grant, under which the Federal Government allocates funds to States to spend on any of a variety of programs in a general topic area. Three major block grants influence rural health services: the Maternal and Child Health block grant; the Preventive Health and Health Services block grant; and the Alcohol, Drug Abuse, and Mental Health block grant.

Third are Federal programs for which enhancing rural health resources is an explicit goal. Box 1-A presents some major programs in this category.

A fourth critical Federal activity is that of coordinating, undertaking, and funding research on rural health topics. Major Federal agencies involved in this activity are the Office of Rural Health Policy (ORHP) and the Agency for Health Care Policy and Research.

A major challenge in designing Federal rural health policies is to identify those areas where residents' access to basic health care is sufficiently endangered to justify special protective measures. Endangered areas—those with chronic shortages of health personnel, for example—require special attention and ongoing subsidies of providers in order to ensure a basic level of adequate health care to area residents. Although the present HMSA and Medically Underserved Area (MUA) designations have shortcomings, *the basic concept of designating areas of personnel shortage and areas of poor health is sound. Extending this concept to encompass rural hospitals and other facilities would enable more appropriate targeting of Federal health funds to needy rural areas.*

Many rural areas are prospering and have sufficient health resources, although these resources may not always be available or provided in an efficient manner. Others have temporary health care prob-

Box 1-A—Federal Programs To Enhance Rural Health Resources

Federal rural health resource programs include:

- *the National Health Service Corps*, which (in addition to having some commissioned members) provides placement services, scholarships, and educational loan repayment for physicians and certain other health professionals willing to serve in certain designated HMSAs;
- *programs that provide grants to schools educating and training primary care providers* (e.g., family practitioners, physician assistants, and nurses);
- *the Federal Area Health Education Centers program*, which links medical centers with rural practice sites to provide educational services and rural clinical experiences to students, faculty, and practitioners in a variety of health professions;
- *the Community and Migrant Health Centers grant programs*, which are the Federal Government's most prominent activities to promote primary health care facilities in rural areas;
- *Primary Care Cooperative Agreements*, through which the Federal Government assists States that are assessing needs for primary health care and developing plans and information to address those needs; and
- *the Rural Health Care Transition Grant program*, established in 1988, which provides grants to small rural hospitals for strategic planning and service enhancement.

lems, and in still other areas health providers face financial crises because they are losing their most lucrative patients to urban hospitals and physicians. *In rural areas without critical and chronic problems of endangered access, Federal policies are more appropriately oriented towards measures to enhance the capabilities of providers, encourage their adaptation to changes in the health care environment, and ensure consistent and fair payment policies.* Appropriate measures may include technical assistance, occasional and temporary financial assistance, targeted financial incentives, and indirect supports.

A secondary problem for Federal rural health policies has been how to identify areas that require special protection, while accommodating the tremendous diversity in rural health issues and prob-

⁸Some other Federal programs also may play a significant role in promoting the health of rural residents (e.g., the Women, Infants, and Children food distribution program of the Department of Agriculture), but those programs are not detailed here.



Photo credit: Gail Mooney

Eight-bed Comfrey Hospital, Minnesota's smallest hospital, includes an operating room, outpatient clinic, and 24-hour emergency room.

lems in different areas of the country. *Effective targeting of Federal resources to rural areas requires the involvement of the States.* State involvement includes not only enlisting the assistance of State and local agencies in identifying critical areas but enabling States and localities to adopt and adapt programs tailored to their own needs. Nearly one-half of States—21 of 44 States responding to an OTA survey—already rely on their own designation criteria instead of (or in addition to) Federal criteria for identifying underserved areas.

The enormous diversity across States in rural health problems suggests that it is also appropriate to maintain a strong State role in designing and implementing solutions. But State capabilities to carry out this role successfully vary considerably. Federal coordination, technical assistance, and information are crucial to States and communities trying to address their rural health needs.

RURAL HEALTH SERVICES: ISSUES AND OPTIONS

Issues

The 1980s brought major changes to the Nation's rural community hospitals, as medical practices, technologies, and payment systems all acted to replace inpatient procedures with outpatient care

and as remaining inpatient care became increasingly sophisticated. Both rural and urban hospitals witnessed substantial declines in inpatient utilization (table 1-1). Changes in rural hospitals, however, were especially dramatic. Rural hospital occupancy rates⁹ in 1988 were only 56 percent, compared with over 68 percent for urban community hospitals (35). With lower inpatient admissions, rural hospitals have become more dependent on outpatient and long-term care revenue. By 1987, nearly one-half (46 percent) of rural hospital surgery was performed on outpatients. One-fourth of rural hospitals have long-term care units, and in these hospitals long-term care beds make up nearly one-half of the total beds (625).

These major declines in inpatient utilization, compounded by increasing amounts of uncompensated care, have undermined the financial health of many rural hospitals. From 1984 to 1987, the amount of uncompensated care delivered by rural hospitals increased by over 26 percent, to an average of more than \$500,000 per hospital by 1987 (30). Nonpatient sources of revenues—in many cases, tax subsidies—have become increasingly important to hospitals' financial viability. By 1987, nearly all rural hospitals had higher costs than patient care revenues; the smallest hospitals had costs higher than revenues from all sources (625).

⁹These occupancy rates are based on total hospital beds, including long-term care beds.

Table I-I--Characteristics of Metropolitan and Nonmetropolitan Community Hospitals, 1984-88

Characteristic	Year					Percent change 1984-88 ^a
	1984	1985	1986	1987	1988	
Number of hospitals						
Metro	3,063	3,058	3,040	3,012	2,984	-2.6%
Nonmetro	2,696	2,674	2,638	2,599	2,549	-5.5
Average number of beds/hospital						
Metro	256	252	248	246	246	-3.9
Nonmetro	86	86	85	83	83	-3.5
Total number of beds						
Metro	784,311	771,807	754,953	741,391	734,073	-6.4
Nonmetro	232,746	228,871	223,422	216,921	212,624	-8.6
Total admissions (millions)						
Metro	27.7	26.6	26.0	25.6	25.6	-7.7
Nonmetro	7.5	6.8	6.4	6.0	5.9	-21.0
Occupancy rate (percent)						
Metro	71.5	67.5	67.0	67.7	68.4	-4.3
Nonmetro	60.7	56.0	55.1	55.3	55.7	-8.2
Average length of hospital stay (days)						
Metro	7.4	7.1	7.1	7.2	7.2	-2.7
Nonmetro	6.9	6.8	7.1	7.3	7.4	7.2
Total number of inpatient days (millions)						
Metro	205.0	189.9	184.5	183.3	183.6	-10.4
Nonmetro	51.7	46.7	44.9	43.8	43.3	-16.1
Total outpatient visits (millions)						
Metro	173.1	178.9	189.0	198.5	217.3	25.5
Nonmetro	38.8	39.8	42.9	47.0	51.8	33.5
Total emergency visits (millions)						
Metro	57.3	58.4	59.9	61.2	63.6	10.9
Nonmetro	15.7	16.1	16.7	17.1	17.7	12.8
Outpatient surgeries as a proportion of total surgeries						
Metro	28.1	34.5	39.9	43.4	46.2	64.4
Nonmetro	26.3	34.7	42.1	45.9%	49.8	89.3

^aNumbers in this table do not correspond exactly to the percentage change in every case due to rounding of some table entries. See tables in ch. 5 for more detailed data.

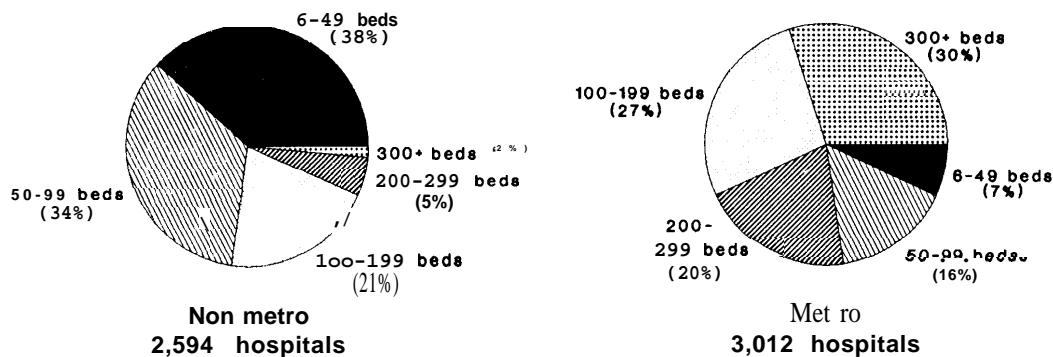
SOURCE: American Hospital Association, *Hospital Statistics* (Chicago, IL: 1985-89 eds.).

Nearly three-fourths of rural hospitals have fewer than 100 beds (figure 1-3). *These small hospitals are in particular difficulty; they have the fewest admissions, the lowest occupancy, and the highest expenses per inpatient day of all rural hospitals (625).*

Despite these trends, rural areas in general are still well-supplied with hospitals. In 1986, the ratio of community hospital beds to population was about the same in rural as in urban areas; in 14 States, bed-to-population ratios were higher in rural areas

(382). Most rural hospitals are within a reasonable distance of another hospital (over 80 percent are within 30 miles), but extreme regional differences exist; for example, hospitals are much farther apart in the less densely populated West (589).¹⁰ Although the mid-1980s witnessed a 5.5 percent decline in the number of rural hospitals (table I-1), most hospitals that have closed in recent years have been small facilities with low occupancy rates (692,693). Most communities in which hospitals closed appear to

¹⁰Eleven percent of rural hospitals are located in "frontier" counties (625).

Figure 1-3—Distribution of Community Hospitals^a in Metropolitan and Nonmetropolitan Areas, 1987

^aOTA's definition of community hospital differs slightly from the definition used by the American Hospital Association (see app. D for explanation of differences.)
SOURCE: Office of Technology Assessment, 1990. Data from the American Hospital Association's 1987 Annual Survey of Hospitals.

continue to have reasonable access to emergency and acute care.

In fact, one of the greatest problems rural hospitals face is the outmigration of rural residents to urban areas for care. Studies suggest that rural residents (especially young and affluent residents) have been increasingly seeking care outside their own communities, either to obtain specialized care not available locally or to obtain alternatives to locally available services (102b,134,237,590).

Problems faced by publicly funded facilities that provide primary care services are somewhat different from those faced by hospitals. From 1984 to 1988 the number of rural C/MHC service sites remained relatively constant, but patient visits to rural C/MHCs rose nearly 19 percent during this period (658). Most of the increase in utilization appears to be by rural residents unable to pay the full costs of their care. *By 1987, nearly one-half of all rural C/MHC users received discounted care.* Moreover, Medicaid-reimbursed visits constitute an increasing proportion of revenues, while the proportion of revenues from private pay patients has decreased (658). Consequently, C/MHCs remain

heavily dependent on Federal grant funds, which make up nearly one-half of total revenues.

Despite their heavy Federal dependence, rural C/MHCs receive 15 percent less Federal funding per patient served than do their urban counterparts (272). Factors such as differences in the complexity of care patients require may explain some of the difference in funding but have not been studied in detail.

Rural health care facilities have a number of options in adjusting to recent changes in the health care and fiscal environment, ranging from short-term options such as staff consolidation and reduction to longer term strategies such as diversification and participation in multifacility alliances. But many rural facilities have not successfully applied these strategies.

One major barrier to the successful implementation of strategies is simple lack of community and provider will, particularly in cases where groups have differing views on appropriate actions. But even when providers have a firm direction and commitment, they can be stymied by a lack of information on the success of alternative possible strategies, and the lack of community and provider



Photo credit: Tim Henderson

Great distances in areas of sparse population can limit the availability of even the most basic local rural health services.

technical expertise and financial resources to undertake strategic planning and other important steps. Other especially important structural barriers can include:

- *standards and requirements for Rural Health Clinics (RHCs) and C/MHCs*, including delays in the RHC certification process and C/MHC efficiency standards that may be difficult for small or isolated C/MHCs to meet;
- *regulations to prevent fraud and abuse* that may inhibit hospitals from engaging in some actions that would encourage physicians to practice in a rural area;
- *State licensure restrictions* that prevent hospitals from reducing the scope of services (e.g., converting to a facility that offers only emergency, subacute, and primary care); and
- *restrictions on public hospital activities* that prevent the 42 percent of rural hospitals that are publicly owned from providing services not expressly or implicitly permitted by their enabling statutes.

Federal intervention will have limited effect on some of these barriers. But the Federal Government can avoid policies that send contradictory messages to rural providers. For example, it maybe appropriate for many rural hospitals with low occupancy rates to reorient their services to place more emphasis on outpatient care. Any changes in Federal payment policies for ambulatory surgical services

that assumed an unrealistically low cost of providing such services, however, might dissuade these hospitals from making appropriate changes. Unintentional disincentives could be minimized by performing a detailed analysis of the impact of any proposed new payment system on rural providers before adopting such a system.

In addition to evaluating potential new health policies for their impact on rural facilities, the Federal Government could take a number of specific steps to identify and protect essential rural health services, and to enhance the abilities of all rural providers to respond appropriately to changes in the health care and economic environment. Options for undertaking these steps are presented below.

Options for Congressional Action

Identifying and Supporting Essential Rural Health Facilities

In some rural areas, particularly those with high poverty or very low population density, a single facility may be the only provider of some of the community's vital services. At a minimum, these vital services include basic emergency, primary, acute, and long-term care.

At present there are several programs aimed at identifying (and supporting) facilities providing one or more of these services, specifically the C/MHC grant programs and Medicare's payment exceptions for designated RHCs, Sole Community Hospitals (SCHs), Essential Access Community Hospitals, and Rural Primary Care Hospitals. The assumption of each of these programs is that Federal subsidies or special exceptions to payment rules will enable services to be provided to populations whose health care access might otherwise be severely impaired. Existing programs, however—most notably the SCH program—imperfectly identify these facilities. Furthermore, each program has its own unique criteria that may not be relevant to other applications. One potential direction for Federal policy is to undertake a more concerted effort to identify (option 1) and protect (suboptions 1A-1C) a broad range of essential facilities.

Option 1: Develop criteria to identify health facilities that provide essential emergency, primary, acute, and long-term care in specified rural areas, and develop programs to provide support for these facilities.

The Department of Health and Human Services (DHHS) could be directed, with assistance from the States, to make a comprehensive effort to develop criteria that could be used to designate essential facilities and services, which would then be eligible for a variety of Federal and State protections. Criteria could distinguish among facilities for which no reasonable alternatives exist, facilities for which alternatives exist but are more distant or otherwise less accessible, and all other facilities. Programs using the facility designations thus might be applied to either the most narrowly or the more broadly defined group of “essential” facilities.

Designation criteria for essential facilities might include:

- distance/time to nearest comparable and nearest higher level service or facility, considering geographical and transportation limitations;
- level of medical underservice and indigence of the area population;
- institution’s area market share and measures of community acceptance (e.g., utilization patterns);
- evidence of plans or actions by the facility to serve critical unmet needs of the local community; and
- other relevant factors (e.g., number of Medicare beneficiaries served).

From the State perspective, Federal criteria often seem inflexible and not adaptable to relevant local conditions. *To minimize this problem, the development of designation criteria should include the input and active involvement of State governments.* State flexibility would be further enhanced by the establishment of:

- . *minimum criteria* to aid the Federal Government in basic and fair allocation of funds among States; and
- . *less restrictive criteria* to enable States to use and modify the designations for their own purposes, and to enable more flexibility in the application of Federal programs to variously identified facilities.

Some of the difficulties of applying detailed criteria from the perspective of the Federal Government could be avoided by requiring States to actually apply the criteria and make the designations (see option 2). The Federal role could be restricted to technical support and assistance, reviewing and

approving designations and affirming that the designated facilities were eligible for relevant Federal programs. Facilities, once designated, could also be periodically “recertified” in order to remove those facilities no longer meeting the criteria.

Option 1A: Provide direct grants and subsidies to eligible facilities.

These could include:

- *Time-limited subsidies* to maintain operations, and to plan and implement strategies to change the scope or delivery of services (e.g., 1- to 3-year grants through an expanded Rural Health Care Transition Grant Program).
- *Continued grant support and/or special alterations in public sources of reimbursement* to maintain and enhance operations for facilities deemed unable to achieve self-sufficiency due to isolation or high levels of unreimbursed care. For example, designated hospitals could continue to receive reimbursement exceptions under the Medicare program. Alternatively, the SCH exception could be phased out altogether, and general subsidy grants analogous to those provided to C/MHCs could be made available to all eligible hospitals, separating the subsidies from the Medicare program.

Option 1B: Require the Farmers Home Administration (FmHA), the Department of Housing and Urban Development (HUD), and other Federal agencies to give special attention to the needs of essential rural health facilities when making available loans to institutions for capital improvement.

Many essential rural hospitals and clinics may lack adequate access to capital for diversifying services and converting facilities to other functions. Many of these providers’ basic facilities and equipment also may need upgrading to maintain quality of care and conform to Federal and State regulations. Increased availability of capital through FmHA direct and guaranteed loans and HUD loan guarantee programs could help to ensure the financial stability and presence of these facilities.

Option 1C: Protect essential facilities from Federal fraud and abuse regulations that inhibit their ability to recruit and retain physicians or to be acquired by physicians.

Close organizational association with physicians may be the only financially feasible strategy for long-term survival for some rural facilities, and for essential facilities the benefits of financial stability may sometimes outweigh the dangers of potential conflicts of interest. A specified 'safe harbor' from fraud and abuse regulations, or a legislative exemption to these laws, could provide for the arrangements these facilities might make to ensure the availability of a local physician (e.g., free onsite office space). In addition, specified "safe harbor" practices could encompass the purchase of small, failing hospitals by local physicians wishing to ensure the availability of this resource. Whole or partial physician ownership of health care facilities may be an especially attractive option in the case of small "alternative licensure" facilities that provide mostly primary, emergency, and subacute care.

To guard against abuse of this exemption, restrictions could specify that incentives be independent of the number of patients the physician refers to the facility, or that a facility wishing to acquire a physician practice could not exclude other local physicians from its staff. Also, facilities could be precluded from listing recruitment and retention costs on their Medicare cost reports.

Option 2: Provide assistance to States to help them identify essential facilities, remove regulatory barriers applying to these facilities, and offer State-based financial support to a more flexible set of designated facilities.

Option 2A: Provide time-limited (1- to 3-year) grants for the development of State-designated offices of rural health to enable States to better support rural health efforts.

The Federal ORHP is an important part of the Federal effort to assess rural health program needs and respond to information needs. Organizations that can carry out equivalent duties at the State level are likewise important. As of February 1990, 19 States had instituted (and 5 more had plans for) State-designated offices of rural health (426,627). (Locations of existing offices were almost evenly divided between State agencies and nonprofit organizations.) Thirty-four States reported the existence of legislative or executive task forces or committees to address State rural health issues (627). Thirteen States, however, have neither an office of rural health nor a State rural health task force.

Option 2B: Provide time-limited or ongoing grants to States to help them undertake specific activities relating to essential and other rural health facilities.

Such grants could enable States to:

- identify and designate essential facilities and services;
- monitor the financial condition of essential facilities and services, protect against undesirable closure, and examine the comparability and acceptability of the nearest health care facilities;
- provide technical assistance to enhance leadership and management skills, support strategic planning, encourage reconfiguration of services and cooperative affiliations with other institutions, and recruit critical staff;
- help subsidize existing statewide capital financing sources and/or uncompensated care pools, making them more accessible to essential facilities;
- encourage special local tax initiatives and the creation of health service districts, where appropriate, to maintain and expand services;
- study the impact of Federal and State regulations on essential facilities, disseminate information clarifying State and Federal regulatory requirements, and develop model State legislative and regulatory language; and
- identify areas without access even to essential primary and other care facilities, and provide funds to establish new facilities in these areas.

Encouraging Comprehensive and Coordinated Rural Health Care

Rural patients and providers are often both physically and professionally isolated. As a result they may be unable to obtain consultation and information and unaware of appropriate alternative sources of care. They may receive little feedback and few resources from regional providers.

Option 3: Award small Federal grants to projects whose goal is the development of model rural health care networks.

Short-term demonstration and development grants could be awarded by DHHS to States or nonprofit organizations to:

- identify special basic care need areas in geographically remote and persistent poverty com-

munities, identify minimum service needs, and create and evaluate the effectiveness of service networks in those areas;

- identify regional needs and service resources for comprehensive and integrated care in regions *not* designated as special basic care need areas, and create and demonstrate integrated care networks in those regions; and
- develop regional referral networks for specific services and population groups needing particular attention, using (and expanding) the perinatal network model.

Some aspects of this option are already in place; for example, under Primary Care Cooperative Agreements, States can receive funds to help identify needs in underserved areas. Private organizations, however, cannot receive funds directly at present for this purpose.

As an alternative to a new funding program, the Rural Health Care Transition Grant program could be expanded. A proportion of these grant funds could be directed specifically to funding for consortia of hospitals and other providers wishing to develop model arrangements for transferring and referring patients, and for enhancing local care through periodic specialty clinics and continuing education seminars.

Longer Term Assessment of the Future of the Rural Health Care Delivery System

Innovative responses to existing barriers to change include measures to modify State hospital licensure laws to permit the operation of facilities that provide less than full-service hospital care. Two examples are Montana's Medical Assistance Facilities and California's proposal for basic facilities whose license category would depend on the extent of services they offer. The Federal Government has taken similar steps with the enactment of the Omnibus Reconciliation Act of 1989 (Public Law 101-239), which permits Medicare payment to small rural facilities that are designated Rural Primary Care Hospitals (RPCBs) in a limited number of States. But the RPCB is not necessarily the only or the best model for all rural areas, and the ability of other facility models to be eligible for Medicare and Medicaid payment remains highly uncertain.

The need for such "alternative licensure" facilities, the variety of proposals, and the potential importance of these facilities to the rural health care

system warrant a comprehensive and ongoing analysis to ease their incorporation into the system. Adapting the system to accommodate these facilities introduces a myriad of questions: how to pay for the services they provide, how to integrate them into a comprehensive and coordinated system of care, and how to ensure that they continue to provide services vital to their communities. Answering these questions requires the input and coordination of information from a variety of Federal and State agencies.

The recently established ORHP and the National Advisory Committee on Rural Health were created, in part, to address such issues. At present, ORHP has a very small staff and a wide range of responsibility; the Advisory Committee considers a similarly broad range of issues and meets only four times each year. These limitations at present prevent an immediate, intense examination of the structure of the rural health care system.

Option 4: Establish a short-term (18-24 month) advisory task force whose purpose is to examine the future of rural health delivery systems and to provide guidance on the implementation of new service delivery structures.

Ideally, the task force, comprising both public- and private-sector experts in rural health and health care financing, would meet frequently and would advise DHHS and Congress. It could be coordinated with the current Advisory Committee—for example, by having representatives from the Advisory Committee serve as part of the short-term task force. The task force could be staffed by an augmented ORHP to eliminate duplication of effort.

The immediate objectives of the task force could include:

1. assisting DHHS in the development of criteria for identifying essential facilities (see option 1);
2. developing guidelines under which projects may demonstrate the feasibility of alternative facility and service delivery models and (if necessary) obtain waivers from Medicare and Medicaid certification requirements;
3. expanding and coordinating discussion on potential methods of payment to these facilities (e.g., prospective payment groups, integrated payment for physician and hospital services); and

4. providing directions for research and demonstration efforts supporting the development of model service delivery networks in rural areas (see option 6).

To ensure that the recommendations of the task force could be implemented, DHHS would need to maintain or develop complementary expertise. For example, DHHS staff might need to be able to:

- compile, analyze, and make available information on existing efforts to develop model service structures and networks;
- help States and local communities to identify regional needs and determine standards for acceptable access to comprehensive services; and
- participate in the development of both new projects to demonstrate innovative service and facility categories in rural areas (e.g., subacute care facilities) and networks involving such providers.

Addressing Information Needs

Option 5: Expand basic research on access to health care in rural areas.

Specific topics that DHHS could be encouraged or mandated to study include:

- Nationwide migration patterns of rural residents for health services outside their local communities, why they occur, and their impact on the economic viability of local health services (particularly obstetrics services).
- How travel distances and transportation limitations affect access to hospital care in rural areas.
- The costs to rural hospitals, under different conditions, of restructuring their organization and services in various ways (e.g., capital, operating, and regulatory costs of downsizing hospitals to alternative delivery models).
- The availability, accessibility, and general operating characteristics of rural C/MHCs, particularly those in persistent poverty and frontier regions; special problems these centers face; whether these centers are able to provide a sufficient scope of care, particularly obstetrics care; and how critical they are as a source of primary care.

Option 6: Expand funding to the Office of Rural Health Policy to administer an extended clearinghouse of information on innovations and successes in rural health delivery.

Many States and communities would like to investigate and implement improved forms of health service delivery but do not have, and are unable to purchase, the necessary knowledge and expertise. The Federal Government has a unique capability to act as a central point for information collection and dissemination. In addition, the Federal Government has an interest in providing assistance relating to State and local implementation of current programs in order to enhance the effective use of Federal funds.

ORHP's current efforts to develop an information clearinghouse could receive supplemental support to:

- contract researchers to develop extensive case studies of various rural service delivery innovations;
- work closely with private groups funding innovative rural health delivery demonstration projects to document and disseminate information on project activities and findings; and
- routinely analyze information collected on innovative strategies, identify those that appear to have the broadest benefit and transferability, and identify factors that will affect their applications in other areas.

RURAL HEALTH PERSONNEL: ISSUES AND OPTIONS

Issues

Availability of Personnel¹¹

Physicians—Physicians have historically been the cornerstone of the health care system, and physician supply has been increasing for many years in both rural and urban areas (table 1-2) (673). Despite the overall increase, however, rural areas have fewer than one-half as many physicians providing patient care as urban areas (91 v. 216 per 100,000 residents in 1985) (table 1-2) (673). In the least populated counties (those with fewer than 10,000 residents), there are only 48 physicians for every 100,000 people—about one physician for every

¹¹This report did NOT examine the availability of chiropractors or podiatrists.

Table 1-2—Physician-to-Population Ratios (MDs only) by County Type and Population, 1979 and 1988^a

	1979	1988	Percent change, 1979-88
Total MDs per 100,000 residents			
Metro	219.3	262.6	19.7
Nonmetro	87.2	108.5	24.4
50,000 and over	116.3	146.7	26.1
25,000-49,999	86.8	106.2	22.4
10,000-24,999	62.0	74.7	20.5
0-9,999	48.6	58.2	19.6
U.S. total	188.4	227.7	20.9
Patient care MDs per 100,000 residents^b			
Metro	174.3	215.6	23.7
Nonmetro	73.3	90.5	23.5
50,000 and over	97.5	122.2	25.3
25,000-49,999	73.3	89.9	22.6
10,000-24,999	52.0	61.3	17.9
0-9,999	40.5	47.5	17.4
U.S. total	150.7	187.2	24.3

^aMD data for 1988 are as of Jan. 1. Prior to 1988, data are as of Dec. 31.

^b1987 population estimates were used to calculate 1988 MD ratios. Prior to 1988, population estimates used were for the same year as MD data.

SOURCE: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Office of Data Analysis and Management, Rockville, MD, unpublished data from the Area Resource File system provided to OTA in 1989 and 1990.

2,000 residents. Over 100 U.S. counties have no practicing physicians at all (665).

The availability of primary care physicians in rural areas is of particular concern. Primary care physicians make up well over one-half of all physicians who provide patient care in rural areas (table 1-3), but these areas are increasingly competing with urban practices (such as those associated with health maintenance organizations) for primary care physicians. Osteopathic physicians (DOs), who constitute about 9 percent of the total U.S. physician population, make up a large proportion of rural primary care physicians. In small rural counties in some States, as many as three-fourths of the physicians are DOs (318).

Midlevel Practitioners--Nurse practitioners (NPs), physician assistants (PAs), and certified nurse-

Table 1-3-Availability of Primary Care Physicians by County Type and Population, 1988^a

	Primary care physicians ^b	
	Number per 100,000 residents	Proportion of all active physicians
Metro	86.8	38%
Nonmetro	55.3	57
50,000 and over	61.8	48
25,000 to 49,999	56.1	58
10,000 to 24,999	48.5	71
5,000 to 9,999	45.9	81
2,500 to 4,999	43.4	82
Fewer than 2,500	25.6	78
U.S. total	79.7	40

^aIncludes Jan 1, 1988 MD data and 1987 DO data.

^bPrimary care physicians include professionally active MDs in general/family practice, internal medicine, pediatrics, and obstetrics/gynecology; and all doctors of osteopathy in patient care.

^cProfessionally active physicians include physicians in research, administration, and teaching and physicians in Federal service.

SOURCE: U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Office of Data Analysis and Management, Rockville, MD, unpublished data from the Area Resource File System provided to OTA in 1989 and 1990.

midwives (CNMs) have become important medical care providers in rural areas and are the only licensed providers of primary health care in some areas with no physicians. Their small numbers are increasing, although there appears to be a very gradual trend toward specialization and urban practice even for these practitioners. The distribution of midlevel practitioners varies enormously by State; these professionals are most likely to be found in States with midlevel practitioner schools and in States that permit more independent practice.

Certified registered nurse anesthetists (CRNAs) are another midlevel profession that is especially important to small rural hospitals that wish to provide basic surgical services but cannot support or attract physician anesthetists. The national supply of CRNAs, however, appears to be in decline.

Nurses—Rural hospitals have markedly fewer registered nurses (RNs) and lower ratios of RNs to licensed practical/vocational nurses than do their urban counterparts (671). The proportion of RNs

who work in rural areas has decreased in recent years, and rural areas will probably continue to be at a disadvantage when competing for the shrinking national supply of nurses.¹² On average, nurses in smaller rural counties are considerably older than other nurses and are less likely to have baccalaureate nursing degrees, making upgrading to midlevel degrees (e.g., NJ?) more difficult.

Dentists—As with physicians, the number of dentists and the proportion of dentists entering specialty practice have increased considerably over the past two decades. However, rural areas have considerably fewer dentists per capita than urban areas, and projected future shortages of dentists are likely to worsen the situation (673,686). Despite the large number of dentists in general at the present time, there remains a small but constant demand for dentists in areas with chronic or occasional difficulty recruiting these practitioners.

Pharmacists—There has been no national census of pharmacists since the 1970s, and the number of pharmacists practicing in rural areas is unknown. The national supply of pharmacists is projected to increase (673). A handful of State studies suggest that urban/rural differences in distribution are less severe for pharmacists than for many other health professionals, but little is known about the existence of local areas of shortage.

Optometrists--Optometrists may be important providers of vision care in rural areas without ophthalmologists. One-third of all optometrists (and one-fifth of ophthalmologists) were practicing in communities of 25,000 or fewer residents in 1983 (42). As with pharmacists, the national supply of optometrists is increasing (673), although some local shortages may exist.

Allied Health Professionals—The allied health professions include a wide variety of laboratory personnel, therapists, technologists, emergency personnel, dental hygienists, and other professionals. A study by the Institute of Medicine, which examined 10 different allied health professions, predicted serious impending shortages in the national supply of physical and occupational therapists, radiologic technologists, and medical records specialists (288). The available anecdotal evidence and small-area studies suggest that some rural facilities are already suffering critical shortages of physical and occupa-

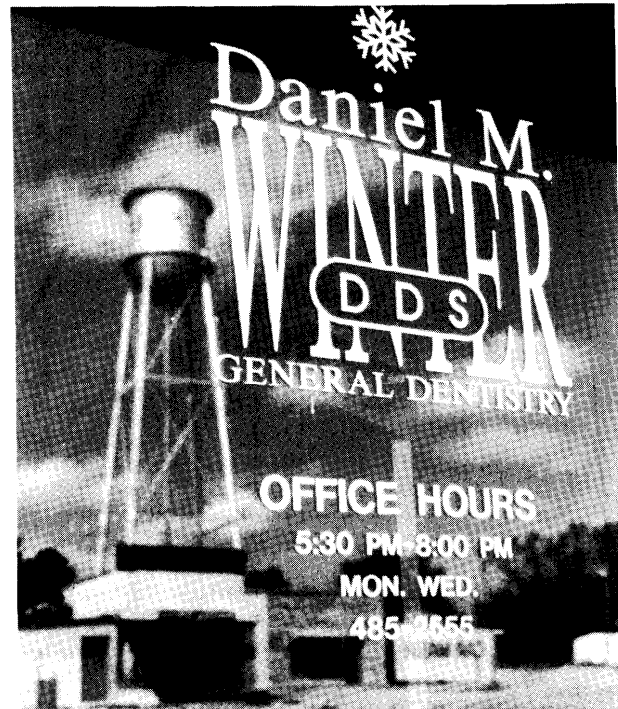


Photo credit: Peter Beeson

Some rural communities have limited access to basic dental services.

tional therapists and some radiologic and laboratory personnel.

Barriers to Rural Practice

Barriers to the availability and willingness of health professionals to locate in rural areas intervene at two levels. First, because rural areas often have populations too sparse or dispersed to support many subspecialty physicians, *an inadequate supply of primary care physicians and midlevel practitioners is a barrier to the availability of health care services in rural areas even if there is an oversupply of physicians overall.* Although the supply of physicians has grown dramatically in the past two decades, most of the increase has been among nonprimary care specialists. The backbone of the rural health care system, however, is primary care physicians—those who can provide a wide array of basic health services to small communities that cannot support a full complement of specialists. Recent Federal policies have addressed this barrier by redesigning Medicare payment to enhance payment for many primary care services. Further

¹²Nursing school enrollment actually increased slightly in academic year 1987-88, but long-term projections are still pessimistic.



Photo credit: Peter Beeson

Satellite clinics that are staffed part-time can be a vital source of primary care services in many rural communities.

Federal options discussed below include supporting primary care physician and midlevel education directly or through changes in Medicare reimbursement for direct medical education.

Second, within a given group of professionals (e.g., primary care physicians), *personal concerns, perceived lower financial rewards, professional isolation, and lack of preparation for rural practice prevent many practitioners from locating and staying in rural areas.* Strategies to address these barriers and concerns through rural-oriented training programs and direct financial incentives for rural practice have had some success in the past. Federal measures to address disincentives to rural practice have been in place for two decades, but during the 1980s their funding declined. Options for reinstating Federal interventions include targeting funding to rural-oriented health professions programs and offering direct incentives to health professionals through scholarships, educational loan repayment, and special payment or practice provisions that apply to health professionals in underserved rural areas. The Federal Government could also choose to enhance other resources available to rural practitioners (e.g., technical assistance, continuing education, long-distance consultation resources). *Combinations of strategies, rather than any single strategy, are likely to be the most effective in improving the availability of health professionals in rural areas.*

Options for Congressional Action

Influencing the Supply of Primary Care Physicians

Option 8: Reorient or augment existing Federal funding for graduate medical education to direct resources to primary care specialties (family practice, general internal medicine, general pediatrics, and obstetrics/gynecology).

Option 8A: Expand Federal grant funding for primary care undergraduate and graduate medical education.

The Federal Government provides grants to family practice, general internal medicine, and general pediatric residency programs, but these grants declined substantially between 1980 and 1988. Grants for the development, improvement, and maintenance of undergraduate departments of family medicine have also decreased in recent years. Targeted funding for primary care education is one strategy for overcoming some of the disincentives for specialty training in primary care.

Option 8B: Weight Medicare reimbursement for direct medical education costs to give preference to primary care specialties.

Medicare reimbursement to hospitals for direct graduate medical education expenses does not distinguish among specialties. By altering the payment formula to give greater weight, and thus provide greater resources, to specified primary care specialties, it may be possible to alter the mix of physician specialists without further increasing the total number of physicians. A difficulty in implementing this option would be that of developing an adequate rationale for the specific weights to be assigned to each specialty. An advantage, compared with option 8A, is that it could be adopted without increasing overall levels of funding.

Enhancing Training and Preparation of Rural Health Personnel

Option 9: Within Federal grant programs for primary care medical education, target funding to rural-oriented programs.

Option 9A: Target a fixed percentage of grant finds for graduate medical education specifically to programs that emphasize preparation for practice in rural and undersexed areas.

To be eligible for grants, programs could be required to encourage rural/underserved practice by incorporating into their curricula activities such as requiring rotations for residents in rural practice settings and providing enhanced training in mental health. Alternatively, eligibility for residency program grants could be made contingent on outcome--e.g., the demonstration that a requisite proportion of graduates were practicing in rural or underserved areas a year after graduation.

Option 9B: Target a percentage of grant funds for undergraduate medical education specifically to programs that emphasize preparation for primary care practice and for practice in rural and underserved areas.

Students entering undergraduate medical education with an interest in primary care often switch to subspecialty preferences by graduation. Undergraduate exposure to primary care practice in rural settings has been shown to positively influence the choice for rural primary care practice. Federal grant funds for undergraduate medical education could be targeted to programs providing such opportunities. Funding could also be targeted to schools serving areas of greatest need (e.g., allopathic and osteopathic medical schools in regions of low primary care physician supply), and funded programs could be targets for National Health Service Corps scholarship awards.

Option 10: Expand funding to training programs for midlevel professionals, giving preference to programs that emphasize preparation for rural practice.

Midlevel professionals are vital components of the rural health care system, but they are relatively few in number. Furthermore, the rise of HMOs and the expansion of other urban opportunities for midlevel professionals makes it more difficult for rural areas to recruit and retain these providers. Compared with funding for physician education, funding for midlevel training programs and continuing education is very limited. In 1988, only 11 rural-focused NP programs and 1 rural-focused CNM program were funded. Thirty-eight PA training programs are currently supported, many of which are required to develop and use methods designed to encourage graduates to work in health personnel shortage areas.

Current grant programs to health professions schools that train midlevel providers could be expanded and directed towards those programs that incorporate rural-oriented curricula, or that demonstrate success in placing graduates in rural and underserved areas.

Option 11: Provide grants and traineeships to rural-oriented multiple competency training programs for allied health professionals.

The availability of trained allied health personnel, and particularly of personnel who can perform more than one function, is becoming increasingly important to the survival of small rural hospitals. The small grant program currently authorized to fund multidisciplinary training programs does not explicitly include cross-training of allied health personnel.

To enhance the effectiveness of a cross-training program, continuation of funding could be contingent on an outcome requirement--e.g., training programs could be required to demonstrate that a substantial proportion of graduates were practicing in rural areas. The availability of traineeships might also enhance the effectiveness of a general program, by providing students from rural and underserved areas the financial incentive and capability to enroll in such a program.

Option 12: Expand funding for rural Area Health Education Centers, with special emphasis on training and continuing education of nonphysician health professionals.

The original AHEC concept was to develop multidisciplinary educational experiences. Although AHECs have become increasingly involved in such activities in recent years, most of their resources have been spent on physician education. AHECs are a model for encouraging State and local participation in activities addressing the geographic maldistribution of health professionals. The program is designed to create lasting networks that would eventually be supported entirely through State and local funds. To extend the usefulness of the AHEC model and encourage more comprehensive service delivery systems, future AHEC startup grants could be directed to programs that emphasize the training and continuing education of midlevel providers, mental health providers, and other nonphysician health professionals. AHEC "special initiative" funds could be targeted to existing AHECs for the same purposes. The authority for AHECs could be

expanded to enable nursing schools to receive AHEC funds directly.

Offering Direct Incentives for Rural Practice

Option 13: Expand the National Health Service Corps (NHSC) by increasing funding for both the State and Federal components of the NHSC Loan Repayment Program and by reinstating a targeted Scholarship Program.

In 1988, 29 percent of all rural residents were living in federally designated HMSAs (665). This number has not changed appreciably during the past 5 years, indicating a need for ensuring the availability of health professionals who have at least a short-term commitment to serving in these areas. Federal investment in the NHSC declined dramatically in the 1980s and is now embodied primarily in Federal- and State-administered loan repayment programs. The Federal Loan Repayment Program was funded at \$3.9 million in 1989 and that year recruited 112 professionals, mostly physicians. At present, there are only seven State NHSC Loan Repayment programs.¹³

The Loan Repayment program provides an incentive to recently graduated practitioners that is particularly appropriate for recruiting physicians and dentists, for three reasons. First, it does not require any commitments until the practitioner has finished his or her education, leading to less likelihood of default. Second, recipients are available almost immediately. Third, the level of indebtedness among medical and dental students has increased dramatically in recent years, and the pool of interested applicants to an expanded loan repayment program is likely to be large.

The State and Federal components of the loan repayment program have complementary advantages. The State program efforts are more localized than Federal efforts, and they attract providers who are willing to serve but want the assurance that they can carry out their service obligation within their State of residence. In addition, the program requirement that States match Federal funds encourages greater State participation in health personnel distribution activities.

Maintaining the Federal program would ensure that some obligated providers were available to serve in underserved areas in States without their

own loan programs, and it would attract providers interested in new locations.

Available data indicate that the original NHSC Scholarship Program, while expensive, was highly successful at placing providers in shortage areas. A renewed scholarship program would be especially appropriate for midlevel providers. Their relatively low educational costs (compared with those for physicians) lead to correspondingly lower educational indebtedness, making loan repayment a relatively weaker policy tool, while making a scholarship program less expensive for the Federal Government. Scholarships for other health professions students could be targeted to those from low-income, minority, or rural backgrounds. These students are somewhat more likely than others to practice in underserved areas after graduation, and they are less likely to be able to afford the economic burden of a health profession education.

Other measures could also be taken within both the Loan and Scholarship programs to enhance the capabilities of obligated professionals and to increase the likelihood that they would remain after their obligation expires. For example:

- Preference could be given to students who have enrolled in a program with a rural, primary-care-oriented curriculum.
- Participants could be permitted to serve their obligations at a single site regardless of any change in the area's designation status during their period of obligation.
- The NHSC could actively coordinate with other programs (e.g., the AHEC program) to ensure support for scholarship recipients during their education and periods of obligation. Support might include such features as rural preceptorship, practice management training, technical assistance, and continuing education.

A renewed NHSC would be a major investment. If this option were implemented, the program would warrant accompanying oversight (e.g., by the General Accounting Office) in its first years to ensure that funds were appropriately and efficiently administered.

Option 14: Encourage or require States to offer bonuses under Medicaid to physicians provid-

¹³The seven States are Minnesota, West Virginia, Texas, Florida, North Carolina, South Carolina, and New Mexico.

ing services in designated HMSAs, paralleling the current policy under Medicare.

This option would extend the benefits of increased access to Medicaid as well as Medicare beneficiaries. It would also increase incentives for physicians less likely to provide services to Medicare beneficiaries (e.g., pediatricians, obstetrician/gynecologists). Medicaid bonuses might be especially appropriate for physicians providing obstetric services in areas with shortages of obstetricians.

Option 15: Offer tax incentives to health providers in specified rural and underserved areas.

Direct and time-limited tax incentives for primary care providers (physicians and midlevel professionals) serving underserved populations might overcome perceived or real financial disincentives to locating and practicing in rural areas. Tax incentives could be offered to providers in all rural areas, but this policy could be expensive without improving availability in the areas of greatest need. If these incentives are linked to federally designated shortage or underserved areas, however, their continuation should not be dependent on the continued status of the designation (i.e., if the area is ‘redesignated’ during the term of the incentive, the incentive should not be removed).

Option 16: Allow a “grace period” before redesignating HMSA areas, populations, and facilities.

For HMSAs with small populations, the addition of a single physician (or the retention of an NHSC physician past his or her period of obligated service) can mean the loss of designated status. The sudden loss of resources dependent on continued designation (e.g., Medicare physician bonus payments, placement of NHSC personnel, and qualification as a Rural Health Clinic under Medicare rules) may produce unintentional negative consequences.

A “grace period” could encourage existing providers to stay while permitting the Federal Government to direct new available personnel to more needy areas. For example, if the addition of a provider in a designated HMSA raises the provider-to-population ratio above the allowable limit and the HMSA is targeted for redesignation during periodic review, that HMSA could be placed on a provisional list that received close monitoring. HMSAs on the list might receive no new resources but could continue existing resources linked to designation. If

at the end of the 2-year period the ratio was still above the allowable limit, that HMSA could be redesignated. Such a policy could be limited to primary care **HMSAs** or applied to all types of HMSAs.

Option 17: Authorize and implement a State rural health personnel grant.

A drawback to all rural health personnel programs operated from the Federal level is the inability to adapt strategies to local concerns and conditions. A State with a school to train physician assistants, for example, may most effectively address health personnel shortage problems by enhancing this school’s curricula and providing scholarships to its students. In another State, absolute health personnel shortages might be less a problem than the provision of specific services, such as obstetrics; such a State might find that paying malpractice premiums for rural obstetrics providers was a more effective strategy than direct recruitment of more physicians to rural areas. A broadly defined grant to States would transfer responsibility to the individual States to decide how they choose to allocate the funds among health professions programs and direct incentive programs to enhance the supply of health professionals in rural areas. Such a grant could either augment existing Federal programs or replace some of them.

Under a rural health personnel grant program, States could be allocated grant funds based on a formula developed by DHHS (e.g., percentage of population that is rural; number of rural residents living in underserved or personnel shortage areas). Within the grant, States could spend funds on any of a list of relevant specified activities such as:

- grants to State health professions schools with rural-oriented curricula;
- Medicaid payment incentives for services provided in underserved areas;
- Medicaid bonus payments for “disproportionate share” providers (those with unusually high caseloads of Medicaid and uninsured patients);
- scholarship and loan programs;
- other recruitment mechanisms (e.g., placement services, State tax incentives);
- purchase of malpractice insurance premiums for rural obstetrics providers (obstetricians, family practitioners, CNMs, NPs);

- innovative continuing education programs for rural professionals; and
- development of appropriate curricula and establishment of community training programs (e.g., in local hospitals and community colleges) for rural residents interested in one of the allied health professions, and for current allied health personnel wishing to extend their accreditation to more than one area.

The expertise among State governments regarding the administration of rural health programs varies considerably. Some States are capable of designing and administering a detailed array of incentive and grant programs, while others have much more limited capability at present. As a prerequisite to receiving funds under such a grant, States could be required to provide a plan outlining the activities to be funded and indicating that the State has an adequate administrative capability (e.g., an Office of Rural Health or analogous body) to carry out the funding activities. In addition, States could be required to provide the Federal Government with basic information on the programs actually funded over the preceding year as a prerequisite for renewing the grant. This information would not only enable some oversight of expenditures but would provide the basis for the Federal Government to assist in information transfer among States regarding innovative programs.

Removing Barriers to Midlevel Practice

Option 18: Require States to reimburse under Medicaid for the services of NPs and PAs in rural areas, as long as these services are permitted by State practice acts.

Current Federal policy requires States to reimburse under Medicaid for services provided by pediatric and family NPs (Public Law 101-269). It also allows States to exercise the option of reimbursing for other NP and PA services, and nearly one-half of all States now do so to some degree. The Federal policy requiring States to provide Medicaid reimbursement for CNM services provides a precedent for a more general policy. As with CNMs, Federal policy could prevent State Medicaid programs from requiring the direct personal supervision of a physician during the delivery of NP and PA services. Restricting the requirement to rural areas might provide an additional incentive for NPs and PAs to locate in these areas, while a broader policy

might encourage their expanded use in urban as well as rural settings.

This option carries weight only where State laws permit midlevel practitioners to operate under off-site supervision. The Federal Government has traditionally not dictated the scope of practice that States permit of their licensed health professionals. (Option 19 addresses a potential Federal role in the reexamination of State licensure restrictions.)

Option 19: Encourage DHHS to sponsor a conference to discuss models and guidelines for State nurse and medical practice act revision that would enhance the capabilities of midlevel practitioners to provide primary health care in rural and underserved areas.

Midlevel practitioners can provide a limited number of basic health services in areas not adequately served by physicians. Their ability to do so, however, is legally restricted in many States, particularly for PAs. A conference, sponsored by DHHS, would give representatives from different parts of the government and health care an opportunity to reevaluate the suitability of existing limits to midlevel practice. Participants might include experts from the medical, PA, and advanced nursing professions, representatives from State and Federal agencies, and representatives from other sectors of the health care industry. Guidelines developed by such a panel could help States evaluate and implement appropriate changes to their own regulations.

Improving the Information Base

Option 20: Improve monitoring of the Medicare Physician Bonus Payment Program to find out how well it works.

The Medicare physician bonus program was recently expanded to provide a 10-percent bonus for all physician services in all primary care HMSAs, in order to increase access to services for Medicare beneficiaries. It is not clear whether a 10-percent bonus on Medicare payment is sufficient to attract physicians to areas where they would otherwise not choose to locate, or whether it improves the retention of providers already in these areas. The Medicare caseload varies greatly from physician to physician, and the strength of the bonus incentive probably varies accordingly. To improve DHHS's ability to evaluate the program, carriers could be required to submit to the Health Care Financing Administration data regarding the number of physicians receiving

bonus payments and the distribution of services for which bonus payments are made.

Option 21: Establish a program, through the Bureau of Health Professions, to provide small grants and technical assistance to States and professional associations to establish and implement uniform data collection procedures among the health professions.

Better data on the supply and distribution of health professionals would improve the Federal Government's ability to monitor trends in the availability of these personnel in rural areas. Most professional associations collect data on the members of their profession, but these efforts are sometimes very limited, and the data are not compatible. States likewise collect data on licensed health professionals, and they may include some professionals not represented in professional association databases. To enhance these efforts with a minimum amount of Federal resources, the Bureau of Health Professions in the Health Resources and Services Administration could establish criteria for uniform data collection. The Bureau could then provide States and associations with technical assistance on survey sample selection methods or on census collection methods, make available startup funds, and offer other appropriate assistance (e.g., for hardware, software, and other resources).

TWO SPECIFIC SERVICES

*Issues and Options in Maternal and Infant Care*¹⁴

Fetal, infant, and maternal mortality are all disproportionately high in rural areas (647,650).¹⁵ *These* indicators of relatively poor rural maternal and infant health persist despite private and government-funded programs that have successfully reduced infant mortality in targeted areas. *Two potential contributors to the relatively poorer health of rural mothers and infants are the limited availability of obstetric providers and access to specialized care for women with difficult pregnancies and deliveries.*

The availability of rural obstetric providers has declined sharply in recent years, and over 500,000 residents of rural counties—many of them in the

South—are without any physicians who provide obstetric care. In many rural areas, physicians trained to provide obstetric services are not doing so. Unwillingness is often due to concerns about inadequate sources of backup, consultation, and referral that are shared by rural physicians in all specialties. In addition, however, many physicians are limiting or eliminating their obstetric practices as a direct consequence of the high cost of malpractice insurance and fears of lawsuits. These trends are particularly disturbing in rural areas because alternative sources of obstetric care may be a considerable distance away.

Where there are obstetric providers, they are usually general and family practitioners rather than obstetricians. And although rural hospitals are much more likely than urban hospitals to offer obstetric care, they are much less likely to offer specialized care. Consequently, rural women with complicated or high-risk pregnancies may have to travel considerable distances to receive specialized care. Regionalized perinatal care, successfully promoted in the past by Federal programs, can enhance access to specialty services when obstetric or neonatal emergencies arise, but regionalized systems of care have deteriorated over the past several years.

In some rural areas, women who are able—particularly those with higher incomes and private insurance coverage—are bypassing local facilities to deliver in distant hospitals offering sophisticated services. One result may be to leave local physicians and hospitals with an increasingly higher proportion of patients who cannot pay the full costs of their care. Rural physicians under these circumstances may find it particularly difficult to afford obstetric liability insurance, possibly prompting them to reduce their obstetric practices and further increasing the burden on remaining obstetric providers.

Federal maternal and infant health programs (e.g., Medicaid, the Maternal and Child Health block grant, and C/MHC funds) are especially important in rural areas, where the inability to pay for obstetric services is a serious problem. In 1982, rural deliveries accounted for nearly one-half of all uncompensated deliveries. C/MHCs are particularly important

¹⁴See also option 5 and personnel options generally (options 7 through 22).

¹⁵This finding holds true after adjusting for race and sex. Unadjusted rural infant mortality rates are actually lower than urban rates, because of the greater prevalence of white infants in rural areas.



Photo credit: Tim Henderson

Many rural community health centers attract a large cross-section of community residents and may be vital sources of local obstetric care.

sources of prenatal care for many rural women, because they accept all Medicaid patients and provide discounted care for low-income uninsured patients. *But the expense of malpractice insurance has reduced the ability of some federally supported C/MHCs to provide obstetric care* (289). Ensuring survival of essential rural C/MHCs (and their ability to provide obstetric services) is as important to maternal and infant health as ensuring survival of essential rural hospitals.

Option 22: Extend liability coverage under the Federal Tort Claims Act to C/MHC staff and contract providers engaged in obstetric care.

The Federal Tort Claims Act currently insures both commissioned officers of the NHSC and NHSC scholarship graduates who work as civilian employees of the Public Health Service. Many C/MHC obstetric providers placed through the NHSC, however, have no federally provided insurance coverage because they are paid through the center. Providing insurance coverage might increase the willingness of obstetric providers to join C/MHC staffs, to remain at these locations, and to continue to provide a full range of obstetric services to C/MHC patients.

Option 23: Enhance the information base for Federal rural maternal and infant health policy.

Option 23A: Investigate in more depth the urban and rural differences in perinatal health status indicators.

Whether the excess of rural fetal deaths is real or occurs because of differential reporting in rural and urban areas is unclear and deserves further investigation. The underlying cause of the excess mortality in late infancy likewise deserves to be investigated. Clarification of perinatal health status in rural areas would be useful in targeting programs. Programs to improve care for pregnant women might curb excess fetal deaths, while improved pediatric care could potentially reduce high mortality rates among older infants. Congress could direct the National Center for Health Statistics or the Agency for Health Care Policy and Research to investigate these issues.

Option 23B: Develop a database that would allow Federal policymakers to target resources to States and to their rural areas with perinatal health problems.

A number of programs have shown success in improving access to prenatal care in the past.¹⁶ The Federal Government could build on their success by targeting resources for such programs to areas with high-risk populations, high perinatal mortality, and a high proportion of women seeking late or no prenatal care. Such areas could be identified in part with information available on vital records (e.g., birth certificates). The National Center for Health Statistics, in the Centers for Disease Control, could undertake this activity.

Option 24: Enhance the DHHS Office of Maternal and Child Health's (MCH's) ability to provide useful information and technical support to rural maternal and infant care efforts.

Option 24A: Enable and encourage MCH to support additional demonstration projects in rural areas. Funded projects could evaluate the feasibility of innovative approaches to improving access to perinatal services in rural areas.

Demonstration projects funded through MCH could be used, for example, to compare the relative cost and effectiveness of bringing providers into isolated rural areas with providing transportation services to the patients themselves. Among the current MCH-funded rural projects is an evaluation of the use of an outreach consultation team of perinatal specialists to visit rural health districts

¹⁶Components of successful programs include: publicly supported obstetric providers, midlevel practitioners, perinatal transportation systems, interagency coordination, and use of outreach workers to recruit patients and provide followup and transportation.

(687). Demonstration project funding could be expanded to include more model projects that:

- employ nonphysician providers as rural out-reach workers,
- promote regional approaches to solve access problems,
- promote linkages of available perinatal resources, and
- incorporate home visits by nurses or paraprofessionals.

Projects could be required not only to evaluate the effectiveness but the costs of these models.

Option 24B: Provide additional funds (or earmark a proportion of future funds) to better allow MCH to offer technical assistance on request to States that are developing regionalized perinatal care services that include rural areas.

A perinatal care network is an essential component of a functional network of comprehensive health care services to rural residents. Resources from various Federal sources are available to help States develop regional and local networks and services. Greater availability of technical assistance from MCH might help States and communities use both Federal and local funds most effectively.

Issues and Options in Mental Health Care¹⁷

The prevalence of mental disorders in rural Americans is similar to that of their urban counterparts. Despite the similarity in mental health problems, the little information that exists suggests that rural areas have substantially fewer mental health resources than urban areas. Furthermore, where resources exist, they are likely to be narrower in scope.

As with other health facilities, mental health facilities face problems in serving populations spread over vast distances. In addition, they are caught between competing needs for services for the chronically mentally ill and services for acute and less serious conditions. Because recent Federal and State policies have tended to emphasize the former, the ability of many rural mental health providers to offer services such as suicide prevention, education, crisis intervention, support groups, and individual counseling for less severe mental health problems has waned. Furthermore, other sources of services



Photo credit: Peter Beeson

Access to local mental health services is severely limited in many rural areas.

(e.g., from nonprofit foundations) are less available to fill the vacuum in rural than in urban areas.

Rural mental health professionals face problems similar to those of other rural health professionals. They have fewer training opportunities, fewer colleagues with whom to consult and to discuss professional issues, and more diverse demands on their time than do their urban counterparts. Primary care physicians provide much of the mental health care in both urban and rural areas, but they receive relatively little training in mental health diagnosis and treatment. Master's level mental health professionals, paraprofessionals, allied professionals (e.g., the clergy), and volunteers are also vital providers of rural health services.

The severe shortage of psychiatrists and doctoral-level psychologists in rural areas, the proportion of mental health care provided by nonpsychiatric physicians, and the types of services likely to be most acceptable to rural residents all suggest that *integrating mental health and other health care is especially important in rural areas*. Social workers, psychologists, clinical psychiatric nurse specialists, and paraprofessionals play an important role in extending rural mental health services to those in

¹⁷See also option 12.



Photo credit: Peter Beeson

Staffing crisis hotlines is a possible mental health role for trained volunteers in rural areas.

need, and in linking these services with physical health services. These linkages may include such features as health and mental health clinics sharing a single service site, routine consultation between physicians and mental health center staff, or a full-time social worker providing counseling and educational services in a community health clinic or physician's office. Recent legislation has expanded the reimbursement available for certain "linkage" services, namely the mental health services provided by clinical social workers and psychologists in community health centers. Federal stimulation of linkage efforts themselves, however, has declined since the implementation of the mental health block grant in 1981.

Option 25: Provide grants to mental health professions training programs that include rural-oriented curricula and/or train professionals most likely to locate in rural areas.

For example, the provisions of Public Law 100-607, which provided special project grants to professional schools' training programs for clinical psychologists, could be extended to include masters' programs for social workers and clinical psychiatric nurse specialists. Or, grants under this law could be targeted or limited to projects emphasizing training for rural practice.

Option 26: Require States to reimburse under Medicaid for mental health services provided by midlevel mental health professionals to the extent that these services are permitted under State licensure law. Reimbursement could be limited to those services that were provided in HMSAs or MUAs and would be covered if provided by a physician.

In rural communities without psychiatrists or doctoral psychologists, primary mental health care is provided by either nonpsychiatric physicians or by midlevel mental health professionals (master's level clinical psychologists, clinical social workers, and clinical psychiatric nurse specialists). Current Federal policy covers reimbursement for the services of psychologists and social workers only in certified RHCs. Expanding the services for which midlevel mental health providers or their employers can receive reimbursement would probably increase access to these services in rural areas.

Option 27: Encourage the development of linkages between rural health and mental health services and professionals.

Greater enhancement of linkages might include measures to encourage case management, share building space, develop referral patterns, and make better informed decisions about patient care. "Linkage workers" could be expanded to include master's level nurse specialists. Federal initiatives of this kind are currently underway for health and substance abuse treatment, but a more permanent and consistent policy of linkages for substance abuse, mental health, and other health services could be adopted. Specific Federal strategies could include:

- reimbursement for linkage workers' services (e.g., social workers' services provided in physicians' offices, including consultative services provided to the physician);
- funding for the salaries of clinical social workers and other mental health providers in grants to federally funded C/MHCs;
- funding for inservice training, internships, and shared training sites; and
- requiring States to demonstrate that a portion of Federal mental health block grant funds is being used to support linkage efforts in rural areas as a prerequisite to continued block grant funding.

Option 28: Invest more resources in data collection and analysis activity oriented at urban-rural comparisons of mental health and substance abuse epidemiology, and at the availability of mental health services and personnel in rural areas.

The information available on rural mental health epidemiology and services is extremely thin and provides a poor basis for both monitoring mental health status and implementing Federal policies. Even the most basic national data on community mental health centers have been virtually nonexistent since 1981, and there are few reliable studies on mental health problems in rural areas. Congress could direct the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) to place more emphasis on these research activities (e.g., through the National Institute of Mental Health's recently created Office of Rural Mental Health).

Option 29: Encourage or require ADAMHA to fund projects intended to demonstrate the utilization of volunteers and paraprofessionals in service delivery.

One way to help address mental health personnel shortages is to include paraprofessionals and community volunteers in service delivery. However, little is known about effective ways to increase the use of these providers, their acceptance in the community, and the effectiveness of the services they provide. Incentives to be tested in the demonstration projects could include training programs for paraprofessionals and clergy, reimbursement for professional activities to develop and train community workers, and educational support for community workers in the form of tuition for college training.