Chapter 3

Federal Programs Affecting Rural Health Services

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Chapter 3

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INTRODUCTION

Federal programs affect the availability and provision of rural health services in a multitude of ways. This chapter presents a brief overview of major health programs that fall into four categories:

1. *Programs whose primary function is to pay for direct health* services-specifically, Medicare and Medicaid. These two programs fund a substantial amount of rural health care, and consequently their policies can have a large effect on the availability and provision of services. [1]
2. *Federal block grant programs that provide States with resources to fund and provide services. Three* major programs that affect health care generally-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—are described here.
3. *Federal programs whose primary purpose is to augment the health resources mailable to underserved areas and populations.* Most of these programs, which augment personnel, facility, and planning resources, are administered through the U.S. Department of Health and Human Services' (DHHS's) Health Resources and Services Administration (HRSA).
4. *Health policy and research.* The Federal Government has recently undertaken to consolidate some health research and policy efforts, including efforts focused on rural health. Notable current efforts include those of the Agency for Health Care Policy and Research and the Office of Rural Health Policy.

Table 3-1 presents recent appropriation figures for block grant and health resources programs.

HEALTH CARE FINANCING PROGRAMS

Medicare

Medicare is a Federal health insurance program that serves approximately 34 million elderly and disabled persons and has an estimated 1990 outlay of $108 billion (146,201). It is divided broadly into two parts, distinguished by their financing mechanisms. Part A (Hospital Insurance) is financed through Social Security taxes and covers hospital inpatient, skilled nursing facility, and home health services. Part B (Supplementary Medical Insurance) is financed through a monthly premium and general revenues and covers outpatient and physician services and nonhospital medical equipment. Table 3-2 summarizes Medicare's basic medical care coverage and the basic limits and copayments it imposes.

Because Medicare pays for the health care services used by a large proportion of the population, and because its payment and regulatory policies are often used as models by other third-party payers, it can have a major effect on health care providers. In addition, Medicare explicitly distinguishes between rural and urban providers when paying for services. The discussion below briefly describes some of these payment policies.

Hospital Inpatient Payment

Basic Payment Methods--Hospitals are reimbursed for inpatient services provided to Medicare beneficiaries according to a prospective payment system (PPS), under which a hospital is paid a freed amount for treating each patient (Public Law 98-21).[2] This payment amount is linked to the primary diagnosis of the patient and the diagnosis-related group (DRG) to which the patient is assigned. The system is based on averages and is intended to foster efficiency; if a hospital is able to keep its own costs

[1] A number of other Federal programs also finance or provide direct health care (e.g., the Department of Veterans Affairs and the Civilian Health and Medical Program of the Uniformed Services). However, their policies have much less impact on rural health services and are thus not described here. The Indian Health Service also provides and funds services to the significant proportion of the rural population who are Native Americans; this program is the topic of a previous OTA report and is not described in this chapter (*616*).

[2] Certain specialty hospitals (psychiatric, cancer, rehabilitation and children's hospitals) are exempt from the prospective payment system.

Table 3-l—Appropriations for Selected Federal Programs Affecting Rural Health Services: Fiscal Years 1980, 1988, 1989, and 1990

	Appropriation ($ millions)			
	1980	1988	1989	1990
Block grant programs				
Maternal and Child Health Service s	NA	526.57	554.27	553,63
Preventive Health and Health Services	NA	85.21	84.26	83,18
Alcohol, Drug Abuse, and Mental Health Services.	NA	643.20[b]	805.59[b]	1,192.85[b]
Other programs that affect health care facilities and services				
Community Health Centers	259.96	415.31[c,d]	435.36[c]	458.89[c]
Migrant Health Centers	37.63	43.47	45.65	47.37
Black Lung Clinics	3.80	3.26	3.22	3.65
Rural Health Care Transition Grant Program	NA	NA	8.89	17.76
Programs **that affect health personnel supply and distribution**				
National Health Service Corps[e]	153.58	42.61	47.77	50.72
Area Health Education Centers	21.0	17.23	17.03	18.13
Border Health Education Centers[f]	NA	NA	NA	3.93
Advanced Nurse Training Programs	12.0	16.76	17.29	12.77
Advanced Nurse Traineeships	13.0	12.45	12.84	13.50
Allied Health Grants and Contracts	5.14	0	0	0.74
Interdisciplinary Traineeships for Rural Areas[f]	NA	NA	.80[f]	2.21
Nurse Anesthetist Traineeships and Programs	NA	0.77	0.79	1.13
Nurse Practitioner and Nurse Midwifery Programs	13.0	11.49	11.85	13.43
Nursing Special Projects	15.0	11.68	12.05	12.85
Nurse Undergraduate Scholarships	NA	NA	NA	2.95
Physician Assistant Training Programs	9.10	4.60	4.54	4.79
Family Medicine Residencies[g]/General Dentistry[h]	36.50	35.41	34.98	36.69
Family Medicine Departments (Undergraduate)	9.50	6.70	6.62	6.68

KEY: NA = not applicable.

[a]Excludes **appropriation** for program administrative support.
[b]The Alcohol and Drug Abuse Treatment and Rehabilitation (ADTR) block grant was combined with the Alcohol, Drug Abuse, and Mental Health Services (ADMS) block grant in 1989 (Public Law 100-609, as amended by Public Law 101-93). Fiscal year 1988 and 1989 figures in this table include appropriations for both ADMS and ADTR block grants, while the 1990 appropriation represents the new combined appropriations.
[c]Includes Infant Mortality Initiative funds.
'Includes .$12.25 million reprogrammed from the National Health Service Corps (NHSC) Field Program to Community Health Centers (CHCs) to pay the salaries of NHSC assignees in CHCs. Portions of the original NHSC Field Program appropriations were reprogrammed in this manner from 1983 through 1988.
'Includes appropriations for National Health Service Corps Scholarship, Loan Repayment, and Field programs.
'New program in 1990. The Interdisciplinary Traineeships for Rural Areas Program was also appropriated $0.80 million in fiscal year 1989 for a study of rural health manpower and education needs.
[g]Includes funds for faculty development, predoctoral training, and residency training.
[h]Until 1990, general dentistry training funds were part of the appropriation for family medicine training. Fiscal year 1990 appropriations in this table include appropriations for both programs.

SOURCE: Office of Technology Assessment, 1990.

lower than the average costs represented by the DRG payment, it may keep the difference.

The basic DRG rates are adjusted according to a myriad of factors that depend on the location of the hospital, among other things, to determine the final payment amount. As summarized in box 3-A, total Medicare inpatient payments received by a hospital over the course of a year are the sum of:

. total DRG payments, which are the sum of the basic DRG payments, payments for transfer cases, and "outlier'' payments;
- additional payments for teaching and other activities; and
- pass-through payments for capital, direct medical education, and certain other expenses.

The components of the basic DRG payments differentiate explicitly between rural and urban hospitals. For each patient treated by the hospital, the basic DRG payment is the product of the basic standardized payment amount, the wage index, and

Table 3-2-Summary of Major Medicare Benefits, Copayments, and Coverage Limitations, 1990

Benefit	Copayments and coverage limitations
Part A benefits	
Hospital acute inpatient care	■ Coverage limited to 90 days per spell of illness,[a] plus 60-day "lifetime reserve. " ■ Coverage begins after patient pays .$592 deductible (per **spell of illness).** ■ **No** coinsurance for days 1 through 60. Patient must pay coinsurance equal to 25% of deductible for days 61 through 90. ■ Patient pays coinsurance equal to 50% of deductible for each of the 60 "lifetime reserve" days. After lifetime reserve is used up, patient is responsible for 100% of the hospital bill.
Psychiatric inpatient care	■ Same as acute inpatient but limited to 190 total days of coverage.
Skilled nursing facility care	■ Limited to 100 days of care per spell of illness. ■ Patient must pay coinsurance equal to 1/8 of hospital deductible after day 20 ($74 in 1990). ● Does not cover custodial-only care in a nursing facility. ■ Patient must have been hospitalized for at least 3 consecutive days within past 30 days for benefit to apply.
Home health services[b]	■ Patient must be homebound and in need of only part-time or intermittent nursing (no limit on other visits). ■ Does not cover custodial services (e.g., housekeeping, cooking, bathing). ■ Services must be furnished under a physician's plan of care. ■ No coinsurance or deductible for most home health services; 20% coinsurance on new durable medical equipment.
Hospice services	■ Limited to 210 days of hospice care for terminally ill patients. ■ Patient must pay coinsurance equal to 5% of drug costs or $5, whichever is less. ■ Patient must also pay coinsurance equal to 5% of Medicare's cost for daily respite care services, up to a limit equal to the hospital inpatient deductible. ■ Patient must give up the right to most other Medicare benefits to receive hospice services (this election is revocable).
Part B benefits	
Physician and other medical services	■ Patient pays 20% coinsurance on allowed charges after initial annual part B deductible (deductible is $75 in 1990). ■ Patient pays any part of bill that exceeds allowed charge if physician does not accept assignment (up to a maximum). ■ Benefit includes only diagnostic and treatment services; most preventive services not covered.[c]
Hospital outpatient care	■ Patient pays 20% coinsurance on charges after meeting part B deductible.
Ambulatory surgical center (ASC) care	■ Patient pays 20% coinsurance on applicable ASC payment amount after meeting part B deductible.
Mental health services	■ Subject to $250 annual Medicare payment limit.

[a] **"A "spell of illness"** begins with the first day of hospitalization and ends when the beneficiary has not been an inpatient in a hospital or skilled nursing facility for 60 consecutive days.
[b] Home health services are covered under both parts A and B.
[c] Exceptions are vaccine for pneumococcal pneumonia, vaccine for hepatitis B for high-risk individuals, routine Pap smears (as of July 1990), and preventive services provided to Medicare beneficiaries enrolled in health maintenance organizations.

SOURCE: Office of Technology Assessment, 1990. Information from Commerce Clearing House, Inc., Medicare and Medicaid Guide (Chicago, IL: Commerce Clearinghouse, Inc., 1990).

the DRG weight. The DRG weight depends only on the diagnosis of the patient. The standardized amount and the wage index, however, distinguish among hospitals on the basis of whether or not the hospital is located in a metropolitan statistical area (see box 3-A).

Additional payments are also made to certain hospitals for other costs specific to the type of hospital and the population it serves. These include:

- payments to account for the indirect costs to a hospital of providing medical education to physicians,

Box 3-A—Summary of Formula for Medicare Payment to Hospitals for Inpatient Care, January 1990

Total payments = *(1) total diagnosis-related group (DRG) payments + (2) additional payments + (3) pass-through payments*

(1) *Total DRG Payments = (a) regular DRG payments + (b) payments for transfers + (c) outlier payments*

(a) *Regular DRG payment* = standardized amount X wage index X **DRG** weight

- **The standardized amount varies by location, with the difference between nonmetro and "all other" metro areas scheduled to be gradually phased out. In 1989 these basic amounts were:**
  - **$3,396.56 in metro areas of over 1 million population;**
  - **$3,342. '79 in all other metro areas; and**
  - **$3,107.20 in nonmetro areas.**
- **The wage index applies only to the labor portion of the standardized amount (the labor portion is 74.4 percent of that amount). The 324 metro areas each have a unique wage index. There are also 48 nonmetro wage indexes, one for all the nonmetro counties in each State (Rhode Island and New Jersey have only metro areas).**
- **The DRG weight depends on the diagnosis of the patient. There are 474 separate weights.**

@J *Payments for transfers:*

- Hospitals receive a per diem payment for each day before a patient is transferred (up to the DRG payment).
- Per diem rate = regular DRG rate ÷ the national average length of stay for that DRG.

(c) *Outlier payments:*

- Payments are the greater of day or cost payment.
- Day payments are 60 percent of the per diem rate for that DRG for each day above a set day outlier threshold.
- Cost outliers payments are 75 percent of excess cost of case over set cost outlier threshold for that DRG in that hospital.
- Outlier payments are financed with a Federal set-aside of 5 to 6 percent of total DRG payments.
- Payments are financed from separate pools for metro and nonmetro hospitals.

(2) *Additional payments go only* to qualifying hospitals.

- The **teaching adjustment g&s to** teaching hospitals to compensate for the indirect costs of medical education. The payment is the total DRG payment times an adjustment factor; the adjustment factor equals approximately 7.7 percent for each 10 percent increase in the hospitals intern-and-resident-to-bed ratio.
- **The disproportionate share adjustment goes to hospitals serving high numbers of low-income patients. The factor for this adjustment is based not only on the proportion of low-income patients but also on a formula that differs depending on a hospital's location and size. Adjustment factors for small hospitals at-e generally lower than those for large hospitals.**
- The ESRD additional payment goes to hospitals serving end-stage renal disease patients with unrelated illnesses. The payment is a fixed amount per patient per week ($335) for inpatient dialysis services.

(3) *Pass-through payments go* to all hospitals incurring relevant costs.

- **Capital costs** (for rent, interest, depreciation) are paid at 85 percent of Medicare's share of actual costs.
- Direct costs of medical education programs (e.g., for residents' salaries) are reimbursed at a payment rate that equals a hospital-specific fixed amount per full-time equivalent (FTE) resident, times the current number of FTE residents, times Medicare's share of inpatient days.
- Direct costs of other hospital-based education programs are reimbursed for reasonable costs actually incurred.
- Other pass-through payments are made for reasonable organ procurement costs and for bad debts of **Medicare** beneficiaries.

SOURCE: Adapted from Prospective Payment Assessment Commission, Washington, DC, "Hospital Payment Under PPS During **FY** 1990," unpublished briefing document, 1989.

. payments to hospitals serving a disproportionate share of low-income patients, and
- payments for the costs of serving end-stage renal disease patients with unrelated illnesses.

Although a few rural hospitals are teaching hospitals, and some are eligible for the disproportionate share payments, urban hospitals are more likely than rural ones to provide these services and to qualify for the additional payments or adjustments (491).

Finally, hospitals are reimbursed for capital and other "pass-through' expenses that are not affected by the DRG rate. In the initial years of PPS, hospitals were reimbursed at cost for the Medicare share of their capital expenses, but in the past few years hospitals have not been able to recoup fully these expenses due to congressionally mandated limits on Medicare payment. In 1990, capital is reimbursed at 85 percent of Medicare's share of the cost (140).

Payments to Special Categories of Hospitals— Four categories of rural hospitals qualify for special consideration under PPS: rural referral centers, sole community hospitals, Essential Access Community Hospitals, and Rural Primary Care Hospitals.

Rural referral centers (RRCs) are usually large, tertiary-care rural hospitals that serve a wide geographic area. To qualify for the designation, hospitals must meet certain size and referral characteristics (see box 3-B). RRCs are assumed to have cost profiles more similar to urban facilities than to other rural hospitals. Thus, their DRG payments are based on the standardized amount applicable to metropolitan areas of fewer than 1 million residents, rather than being based on the lower rural standardized amount.

The initial legislation stipulated that RRCs must be recertified every 3 years to continue to qualify for higher payments. Subsequent legislation (Public Law 99-509, Public Law 101-239) made qualification automatic for all current RRCs until October 1, 1992. As of April 1990, 245 rural hospitals were designated RRCs (448).

Sole *community hospitals (SCHs)* represent the other end of the rural hospital spectrum. These are hospitals, usually small, that are presumed to be the sole source of local inpatient hospital care because of their isolated location, weather conditions, travel conditions, or the absence of other hospitals (see box 3-B). Because the closure of these hospitals would leave their Medicare patients without a local source of care, they qualify for special consideration.

Effective April 1, 1990 (Public Law 101-239), hospitals that are designated SCHs receive Medicare PPS payments that are the highest of:

. the full Federal PPS rate,
. 100 percent of a target amount based on the hospital's 1982 costs, or
. 100 percent of a target amount based on the hospital's 1987 costs.[3]

An additional payment maybe provided if the SCH experiences a decrease of more than 5 percent in its total inpatient discharges due to circumstances beyond its control. Unlike other hospitals, SCHs are reimbursed for 100 percent of Medicare-related capital costs.

As of April 1990, 375 hospitals were designated SCHs (448). Some hospitals that could qualify for this designation have not sought it because until the new SCH payment options were passed in late 1989, their payments were higher under the usual PPS rates (488). These eligible but undesignated hospitals are now also eligible to receive payment under SCH rules, as are small (fewer than 100 beds) rural hospitals for whom Medicare patients make up 60 percent of the total caseload[4] (Public Law 101-239).

Essential Access Community Hospitals (EACHs) and Rural Primary Care Hospitals (RPCHs) are new designations, introduced in 1989 (Public Law 101-239). RPCHs will be small facilities providing emergency and very limited inpatient care that will initially receive cost-based reimbursement. (An alternative payment system specific to these facilities is to be developed.) EACHs are envisioned as larger facilities that provide backup to primary care hospitals; designated facilities will automatically qualify for SCH payment rules (as described above) (Public Law 101-239). EACH and RPCH designations will be limited to hospitals in only a few States (see ch. 8). No designations had been made as of April 1990.

[3]Prior to April 1990, SCHs were paid on a prorated basis in which only 25 percent of the per-case payment was based on regional DRG rates; the remaining 75 percent was based on the hospital's actual costs.

[4]Small rural hospitals in which Medicare patient days are 60 percent or more of total patient days also qualify, even if their actual proportion of Medicare patients is less than 60 percent (Public Law 101-239).

Box 3-B-Qualifying Criteria for Rural Referral Centers and Sole Community Hospitals

A hospital qualifies as a *rural referral center if* it is located in a nonmetro area and meets any one of the following three specifications (42 CFR 412.96).

1. It has 275 or more beds.
2. It has:
   a. at least 50 percent of its Medicare patients referred from other hospitals or from physicians not on the hospital's staff,
   b. at least 60 percent of its Medicare patients residing more than 25 miles from the hospital, and
   c. at least 60 percent of the services it furnishes to Medicare beneficiaries furnished to those who live more than 25 miles from the hospital.
3. It has:
   a. annual inpatient discharges equal to at least:
   —5,000 discharges (for nonosteopathic hospitals),
   —3,000 discharges (for osteopathic hospitals), or
   -the median number of discharges for urban hospitals located in the same region;
   b. a case mix index[1]--a measure of the medical complexity of patients treated-equal to at least:
   —the national median case mix index for all urban hospitals, or
   -the median case mix for urban hospitals located in the same region, excluding hospitals with approved teaching programs; and
   c. it meets at least one of the following three criteria:
   —more than 50 percent of the hospital's medical staff are specialists,
   —at least 60 percent of discharged inpatients reside more than 25 miles from the hospital, or
   —at least 40 percent of inpatients have been referred either from physicians not on the hospital's staff or from other hospitals.

To qualify as a sole *community hospital (SCH),* a hospital must meet one of the following four sets of specifications (42 CFR 412.92).

1. The hospital is more than 35 miles from other similar hospitals.[2]
2. The hospital is between 25 and 35 miles from other similar hospitals, and meets one of the following conditions:
   a. no more than 25 percent of the total residents or Medicare beneficiaries in the hospital's service area are admitted to other similar hospitals;
   b. the hospital has fewer than 50 beds but (because it does not provide certain specialty services and consequently beneficiaries must seek care outside the area for these services) is unable to meet the "25 percent" criterion above; or
   c. other similar hospitals are inaccessible for at least 1 month of each year because of local topography or severe weather conditions.
3. The hospital is between 15 and 25 miles of other similar hospitals, but it is inaccessible for at least 1 month of each year because of local topography or severe weather conditions.
4. The hospital was a Medicare-designated SCH at the time that PPS was implemented. (Because of this "grandfather" clause, many hospitals currently designated as SCHs do not meet any of the first three criteria (739).)

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[1] The case mix index is a measure of the costliness of the cases (patients) treated by a particular hospital relative to the cost of the national average of all Medicare hospital cases.

[2] Congress in 1989 (Public Law 101-239) modified the eligibility requirements for SCHs to reduce the number of miles an SCH must be from another hospital from 50 to 35 miles. (The Secretary of the Department of Health and Human Services (DHHS) may designate SCHs that are less than 35 miles from another hospital according to criteria to be developed by DHHS.) In addition, under this law, the Secretary of DHHS must develop and promulgate new distance criteria based on travel time.

Payment for Outpatient Care

Payment to Ambulatory Surgical Centers—An ambulatory surgical center (ASC) operates exclusively for the purpose of providing surgical services to patients not requiring hospitalization. To receive Medicare payments, an ASC must be certified by the program, and the services for which it bills Medicine must be approved for provision in that setting. ASC services are reimbursed according to a fee schedule that categorizes each approved procedure into one of six rate categories, depending on the complexity of the service (53 FR 31468). Only about 15 percent of ASCs are in rural areas (99), probably because such facilities rely on high service volumes.

Hospital Outpatient Payment—Unlike **ASCs,** hospitals are not limited to any specific set of procedures or services that can be provided to outpatients.[5] Nonsurgical hospital outpatient services (and some surgical ones) are reimbursed at the lesser of either actual charges for the service or the hospital's reasonable costs of providing the service (as reported to Medicare on the hospital's annual cost reports). Payment for most outpatient surgical services (i.e., those that can also be performed by ASCs) is based on the lesser of two amounts:

1. reasonable costs or charges, whichever is lower; or
2. a 50/50 percent blend of the above rate and the ASC rate for that service (490).

Payment to Physicians

Physicians are reimbursed for covered services rendered to Medicare beneficiaries on a fee-for-service basis. At present, Medicare's ''approved charge" for a service is set at the lowest of:

- **the actual billed charge;**
- **the physician's customary charge for the service, based on that physician's prior billings to the Medicare carrier; or**
- **the prevailing charge for that service, based on comparable physicians' prior billing for the same service in that region (615).**[6]

Four major factors may lead to urban/rural Medicare physician payment differences:

1. *Physician specialty distribution—Historically,* for any given service, general and family practitioners have had lower charges and received lower Medicare reimbursements than practitioners in other specialties (475). Since these types of physicians are disproportionately located in rural areas (see ch. 10), rural physicians' average charges and reimbursments are correspondingly lower than those of urban physicians.
2. *Type of physician services-Historically,* surgical services have yielded higher charges and payments than counseling and other consultative services (475). Since most physicians who perform specialized surgical services are located in urban areas (see ch. 10), average physician charges and payments may be correspondingly lower in rural than in urban areas.
3. *Patients' ability to pay-Rural* residents have lower average incomes than urban residents (see ch. 2). To the extent that rural physicians charge their patients correspondingly less than urban physicians do, these lower charges are reflected in lower 'customary and prevailing' charges and lower Medicare reimbursements.
4. *Physician location in understaffed areas—* Physicians practicing in federally designated "high priority" rural Health Manpower Shortage Areas (HMSAs) are paid an additional 5 percent above the approved charge for each service reimbursed by Medicare (Public Law 100-203). As of January 1991, the bonus will increase to 10 percent and will apply to all rural HMSAs (Public Law 101-239) (see ch. 13).

Beginning in 1992, Medicare will gradually switch from the current "reasonable charge" payment system to a fee schedule, in which payment for a service is based on a national rate (which is then adjusted according to geographic location). Under the new system, the payment will be the lesser of the

[5]It is possible for a hospital to have its outpatient department certified as an ASC (47 FR 34082), but because of the more rigid Payment method and restrictions on procedures that can be performed under ASC rules, it is probable that few hospitals have done so.

[6]If a physician agrees to accept ''assignment''—i.e., accept reimbursement from Medicare as payment in full—he or she cannot bill the beneficiary for any amount over the 20 percent coinsurance and any remaining deductible. If the physician does not accept assignment, his or her expected full payment is not bound by the amount of the approved charge, and the beneficiary is liable for any difference between the physician's actual charge and the allowed charge (up to a maximum), in addition to the coinsurance and deductible. Physicians may decide whether to accept assignment on a case-by-case basis. Alternatively, a physician can elect to be a ''participating physician'' by agreeing to accept assignment on all Medicare claims for the next 12 months.

actual charge or the fee schedule amount. Once the new system is fully implemented, payment amounts will not depend on the specialty of the physician concerned (Public Law 101-239). Ii-ban/rural differences in Medicare payments to physicians for a given service will still exist, however, for three reasons. First, the new payment system includes an explicit geographic adjustment factor, under which services provided in an area with low physician practice costs will be paid at a lower rate than services in higher-cost areas (Public Law 101-239). Second, to the extent that rural physicians charge less than urban physicians *and less* than the fee schedule amounts, payments will also be less. Third, the HMSA bonus will continue to apply under the new system.

Medicaid

Medicaid is a federally aided, State-administered program that provides medical assistance to an estimated 24 million low-income people (146). Operating within Federal guidelines, each State designs and administers its own Medicaid program. Thus, although the Federal Government sets some minimum standards, Medicaid eligibility requirements, services offered, and methods and levels of payment to providers vary widely among the States. The Federal Government pays 50 to 80 percent of each State's Medicaid expenditures, based on State-specific matching formulas (which are related to State per capita income) (199). Total Medicaid outlays in 1990 are projected to be approximately $71 **billion,** of **which the Federal share will be $40 billion (199).**

Medicaid policies can have different effects on urban and rural residents resulting from three factors: eligibility criteria, reimbursement methods, and physician participation differences. There is no direct way to measure urban/rural differences in Medicaid status based on published data; virtually all data on Medicaid are State-based.

Eligibility

Individuals are 'categorically eligible' for Medicaid if they have low incomes and fall into one of five categories: aged, blind, disabled, members of families with dependent children, or first-time pregnant women. These individuals generally become eligible for Medicaid through enrollment in another public assistance program.[7] For example, all persons receiving payments under the Aid to Families with Dependent Children program (AFDC) are automatically eligible for Medicaid. In addition, Medicaid eligibility in most States is extended to all aged, blind, and disabled individuals (including children) who receive cash assistance under the Federal Supplemental Security Income (SSI) program. (To be eligible for SSI, an individual must be disabled and must have available income and resources no higher than established limits.) Fourteen States, however, exercise the so-called "209(b)' option by linking Medicaid eligibility for SSI beneficiaries to State standards that are more restrictive than Federal standards (610).[8]

Congress has been expanding Medicaid eligibility since 1984 to include many individuals-particularly pregnant women and infants-who would not otherwise meet income and categorical standards. As of July 1990, all States are required to extend Medicaid eligibility to pregnant women and young children whose family incomes are within 133 percent of the Federal poverty level (Public Law 100-360). In addition, 14 States have chosen the option, introduced in 1987 (Public Law 100-239), to make eligible pregnant women and infants with incomes up to 185 percent of the Federal poverty level (table 3-3) (26O,418,61O).

Eligibility for Medicaid varies a great deal among the States, particularly for individuals whose Medicaid eligibility is based on their eligibility for AFDC. In 1989, the State AFDC income eligibility levels for a family of three ranged from 14 to 77 percent of the Federal poverty level (table 3-3) (260). Thus, with the exception of pregnant women and infants, individuals in different States who are equally poor can differ enormously in their Medicaid eligibility.

Until October 1990, when new Federal requirements go into effect, family structure also affects Medicaid eligibility. Poor two-parent families cannot qualify for AFDC in many States, and thus in the

[7]States have the option to make some other groups categorically eligible as well (e.g., individuals who are eligible for public assistance but not receiving it, some individuals who lose public assistance eligibility due to increased income, and disabled children who would be eligible for assistance if institutionalized.)

[8]The "209(b)" option permits States t. retain the more restrictive level of benefit eligibility that existed in these States prior to the Federal implementation of the SSI program.

Table 3-3-Some Basic Eligibility Characteristics of State Medicaid Programs

State	AFDC-related eligibility cutoff level (per month) (1989)		SSI-related eligibility more restrictive than Federal requirements (1988)	Has medically needy program (1989)	Covers families with 2 unemployed parents (1989)[a]	Coverage for pregnant women and infants (1990)	
	In dollars (family of 3)	As percent of Federal poverty level				Income eligibility level as percent of Federal poverty level[b]	Age cutoff for covered infants
Alabama	118	14				100	1
Alaska	809	77				100	3
Arizona	293	35				100	3
Arkansas	204	24		x		100	6
California	663	79		x		185	1
Colorado	421	50				75	1
Connecticut	534	64	x	x		185	6
Delaware	333	40				100	3
District of Columbia	393	47		x		100	3
Florida	287	34		x	x	150	6
Georgia	376	45		x		100	4
Hawaii	557	58	x	x	x	185	7
Idaho	304	36				75	1
Illinois	342	41	x	x		100	1
Indiana	288	34	x			100	3
Iowa	394	47		x		185	6
Kansas	401	48		x		150	5
Kentucky	218	26		x	x	125	2
Louisiana	190	23		x		100	6
Maine	632	75		x		185	5
Maryland	377	45		x		185	2
Massachusetts	579	69		x		185	5
Michigan	572	68		x		185	3
Minnesota	532	64	x	x	x	185	5
Mississippi	368	44				185	5
Missouri	285	34	x			100	3
Montana	359	43		x		100	1
Nebraska	364	43	x	x		100	3
Nevada	330	39				75	7
New Hampshire	496	59	x	x		75	1
New Jersey	424	51		x	x	100	5
New Mexico	264	32				100	4
New York	539	64		x	x	185	1
North Carolina	266	32	x	x		150	6
North Dakota	386	46	x	x		75	1
Ohio	321	38	x			100	2
Oklahoma	471	56	x	x		100	2
Oregon	412	49		x		85	4
Pennsylvania	384	46		x	x	100	3
Rhode Island	517	62		x	x	185	6

(continued on next page)

past they have not been able to qualify for Medicaid (table 3-3) (610). Since poor two-parent families are disproportionately located in rural areas (see ch. 2), poor rural residents have been less likely than poor urban residents to be Medicaid-eligible.

States have the option to offer Medicaid to "medically needy" individuals-those who: 1) would be categorically eligible for Medicaid except that their income and resources are too high, and 2) have high medical expenses. In the 35 States (and the District of Columbia) that have medically needy programs, these individuals become eligible for Medicaid once they have spent enough on medical care to reduce their net resources to State-established limits. Each State may designate its own medically

Table 3-3-Some Basic Eligibility Characteristics of State Medicaid Programs-Continued

State	AFDC-related income eligibility cutoff level (per month) (1989) In dollars (family of 3)	As percent of Federal poverty level	SSI-related eligibility more restrictive than Federal requirements (1988)	Has medically needy program (1989)	Covers families with 2 unemployed parents (1989)[a]	Coverage for pregnant women and infants (1990) Income eligibility level as percent of Federal poverty level[b]	Age cutoff for covered infants
South Carolina	403	48				185	6
South Dakota	366	44				100	2
Tennessee	365	44		x		100	6
Texas	184	22		x		130	4
Utah	502	60	x	x		100	2
Vermont	629	75		x		185	6
Virginia	291	35	x	x		100	2
Washington	492	59		x		185	7
West Virginia	249	30		x		150	7
Wisconsin	517	62		x	x	82[d]	1
Wyoming	360	43				100	1

ABBREVIATIONS: AFDC = Aid to Families With Dependent Children.

[a]As of October 1990, all States will be **required to make** eligible for AFDC (and Medicaid) all families who would be eligible for AFDC under current rules except that the principle wage-earner is unemployed (Public Law 100-485).

[b]As of April 1990, all States must make eligible for Medicaid all pregnant women and infants up to age 1 whose incomes are no more than 133 percent of the Federal poverty level (Public Law 101-290). All children born after September 1990 whose family incomes are within this amount must also be made eligible through the age of 6. (Although this new standard is a Federal mandate, in fact it may take some time for many States to actually come into compliance with the new law.)

SOURCES: I. Hill, National Governor's Association, Washington, DC, unpublished memorandum, May 11, 1989; U.S. Congress, Congressional Research Service, Medicaid Source Book: Background Data and Analysis, House of Representatives Committee Print No. 100-AA (Washington, DC: U.S. Government Printing Office, November 1988).

needy income and resource standards, but these standards cannot exceed 133 percent of the State's AFDC income and resource standards (610). Thus, even in the States that offer medically needy programs, Medicaid eligibility under these programs varies with AFDC standards.

Covered Services

As a condition of matching funding, the Federal Government requires State Medicaid programs to cover certain basic inpatient, outpatient, and long-term care services for their categorically eligible populations (table 3-4). States also have the option to cover additional services.

In general, any services covered under the program must be made available to all Medicaid recipients, but several major exceptions to this rule exist. First, States with medically needy programs may provide more limited coverage for these individuals than for categorically eligible individuals, although in fact almost none do so (475). Second, under apart of Medicaid known as the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program, children can receive a broad range of screening and followup services not available to other Medicaid beneficiaries. And third, States in some cases may obtain waivers to the usual rules, enabling them to offer certain services to a specified population (e.g., the elderly). Under one Medicaid waiver program, for instance, States may provide a wide range of community-based services necessary to keep people who would otherwise reinstitutionalized in their homes.

Compared with Medicare, Medicaid offers a much broader range of services, but it also places much stricter limits on their use. Some important types of limits[9] are:

- Mechanisms to control *the use of hospitals*—Particularly important are limits on the length

[9]Some of these limits—e.g., on ambulatory care visits to physicians—do not apply to children receiving services under the EPSDT program.

Table 3-4-Services Covered Under Medicaid

Mandatory services
- Inpatient hospital services
- Outpatient hospital services
- Physician services
- Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) for children[a]
- Family planning services and supplies
- Laboratory and X-ray procedures
- Adult skilled nursing facility care
- Home health care services for adults
- Rural health clinic services
- Services of certified nurse-midwives

Optional services
- Additional home health services
- Additional dental services
- Services of chiropractors, optometrists, podiatrists, and other licensed practitioners
- Clinic services
- Other diagnostic, screening, preventive, and rehabilitative services
- Drugs
- Intermediate care facility services
- Eyeglasses, prosthetic devices, and orthopedic shoes
- Home and skilled nursing facility care for children
- Private duty nursing
- Inpatient psychiatric care for children
- Physical, occupational, and speech therapies
- Inpatient services to elderly persons in mental disease or tuberculosis facilities
- Other medical or remedial care recognized under State law, including transportation and emergency services

[a]EPSDT is a program within Medicaid that combines outreach, health screening, followup care for detected conditions, and case management. Each State is required to offer EPSDT services to all Medicaid-eligible children and youth under 21.

SOURCE: U.S. Department of Health and Human Services, Health Care Financing Administration, Medicare and Medicaid Data Book, 1988 (Baltimore, MD: U.S. DHHS, April 1989).

of hospital stay and total number of days of care covered annually. In 1986, 11 States limited the number of days of hospital care for which they would pay (653). Restrictions ranged from limits of 12 to 60 days a year and 14 to 30 days for each admission or spell of illness. In addition, 12 States restrict the ability of patients to readmitted to the hospital on weekends or on days preceding the day an operation is scheduled. Ten States limit the number of hospital outpatient visits a year that will be reimbursed.

- *Restrictions on physician visits—As* of 1986, 44 States and the District of Columbia limited the annual number of physician visits covered by Medicaid (653). Six States limit the number of reimbursable office visits (limits range from 12 to 48 visits a year); 3 States limit the number of home physician visits; 1 State limits the number of emergency room visits per year; and 6 other States limit the total number of physician visits provided for other than hospital inpatient care, with limits ranging from 12 to 24 visits per year. In addition, 10 States limit physician visits in the hospital, and 11 limit visits in long-term care facilities (653).
- *Prior authorization and second opinion restriations—Many* States require recipients to receive permission from Medicaid before receiving certain services--e.g., elective surgery, care provided in certain settings, or psychiatric services. Statesman also require the opinion of a second physician before a patient may undergo certain procedures (653).

Many other limits on specific services exist as well. Some States limit the number of particular services provided (e.g.psychiatric visits, eye exams). States also impose limits on institutional and home-based long-term care services, therapy services, home medical equipment, and the number and types of prescription drugs that me covered (653).

Reimbursement

***Hospital Care*—**Most States now pay for hospital care based on some kind of prospectively set rate per day, per discharge, or per admission (table 3-5). States use a wide variety of methods to set these rates, including selective contracting, hospital-specific negotiated rates, DRG-based methods, and past hospital costs (610). Only three States (Delaware, West Virginia, and Wyoming) base their Medicaid payment for inpatient care to a patient on that patient's actual incurred costs; one additional State (Utah) does so only for rural hospitals (343a).

Medicaid payment methods for hospital outpatient services are even morevaried, ranging from fee schedules and other forms of prospective rates to payments based on either costs or charges.[10] Only Delaware and Wyoming pay for both inpatient and outpatient services based on hospitals' actual costs.

[10]As used here, "costs" refer to actual costs of treating patients (e.g. staff salaries, supplies, depreciation). "Charges" are the prices hat hospitals assign to services when billing patients orpayers. Charges are not necessarily directly related to costs.

Table 3-5-State Medicaid Hospital and Physician Reimbursement Methods, Fiscal Year 1987

State[a]	Hospital inpatient	Hospital outpatient	Physicians' services
Alabama	Prospective rate	Fee schedule	Prevailing charges
Alaska	Prospective rate	Prospective rate	Prevailing charges
Arkansas	Prospective rate	Fee schedule	Fee schedule
California	Prospective rate	Fee schedule[b]	Relative value scale
Colorado	Prospective rate[d]	Percent of costs[c]	Relative value scale
Connecticut	Prospective rate	Prospective rate	Fee schedule
Delaware	Cost-based rate	Reasonable costs	Fee schedule
District of Columbia	Prospective rate[e]	Prospective rate	Fee schedule
Florida	Prospective rate	Prospective rate	Fee schedule
Georgia	Prospective rate	Cost-to-charge ratio	Fee schedule
Hawaii	Prospective rate	Negotiated rate	Prevailing charges
Idaho	Prospective rate[e]	Reasonable costs	Relative value scale
Illinois	Prospective rate	Fee schedule	Fee schedule
Indiana	Prospective rate[e]	Reasonable costs	Prevailing charges
Iowa	Prospective rate[d]	Reasonable costs	Prevailing charges
Kansas	Prospective rate[d]	Fee schedule	Prevailing charges
Kentucky	Prospective rate	Percent of charges	Prevailing charges
Louisiana	Prospective rate	Reasonable costs	Prevailing charges
Maine	Prospective rate	Reasonable costs	Fee schedule
Maryland	Prospective rate	Prospective rate	Fee schedule
Massachusetts	Prospective rate	Prospective rate	Fee schedule
Michigan	Prospective rate[d]	Prevailing costs	Fee schedule
Minnesota	Prospective rate[d]	Prevailing charges	Prevailing charges
Mississippi	Prospective rate	Reasonable costs	Fee schedule
Missouri	Prospective rate	Percent of costs[c]	Fee schedule
Montana	Prospective rate[d]	Reasonable costs	Fee schedule
Nebraska	Prospective rate	Prevailing charges	Prevailing charges
Nevada	Prospective rate	Fee schedule	Fee schedule
New Hampshire	Prospective rate[de]	Reasonable costs	Fee schedule
New Jersey	Prospective rate[d]	Cost-to-charge ratio	Fee schedule
New Mexico	Prospective rate	Reasonable costs	Prevailing charges
New York	Prospective rate	Fee schedule	Fee schedule
North Carolina	Prospective rate	Percent of cost	Prevailing charges
North Dakota	Prospective rate[de]	Reasonable costs	Prevailing charges
Ohio	Prospective rate[d]	Reasonable costs	Fee schedule
Oklahoma	Prospective rate	Percent of inpatient rate	Prevailing charges
Oregon	Prospective rate[d]	Percent of cost	Fee schedule
Pennsylvania	Prospective rate[d]	Fee schedule	Fee schedule
Rhode Island	Prospective rate	Prospective rate	Fee schedule
South Carolina	Prospective rate[d]	Percent of cost	Relative value scale
South Dakota	Prospective rate[d]	Reasonable costs	Prevailing charges
Tennessee	Prospective rate	Reasonable costs	Prevailing charges
Texas	Prospective rate[d]	Reasonable costs	Prevailing charges
Utah	Prospective rate[df]	Percent of charges	Fee schedule
Vermont	Prospective rate	Reasonable costs	Fee schedule
Virginia	Prospective rate	Reasonable costs	Fee schedule
Washington	Prospective rate[d]	Prospective rate	Fee schedule
West Virginia	Cost-based rate	Fee schedule	Fee schedule
Wisconsin	Prospective rate	Prospective rate	Prevailing charges
Wyoming	Cost-based rate	Reasonable costs	Prevailing charges

[a] Arizona does not operate a fully fledged Medicaid program; its more limited medical assistance program operates as a demonstration program under waivers of certain Medicaid requirements.
[b] Negotiated rates.
[c] Percent of charges.
[d] Rates are weighted by diagnosis-related group.
[e] Current as of 1989.
[f] Rural hospitals are paid 95 percent of reasonable costs.

SOURCES: J. Leuhrs, National Governor's Association, Washington, DC, "Summary of State Medicaid Inpatient Hospital Coverage," memorandum to interested parties, Dec. 18, 1989; and U.S. Congress, Congressional Research Service, Medicaid Source Book: Background Data and Analyses, House of Representatives Committee Print No. 100-AA (Washington, DC: U.S. Government Printing Office, November 1988).

Box 3-C—Swing Bed Certification Requirements for Rural Hospitals

To be eligible for the swing-bed program, a hospital must:

- Be located in a rural area. In this program, ''rural' is defined according to the Census Bureau's definition (any geographic area not designated as urban in the most recent census).
- Have fewer than 100 certified inpatient beds (exclusive of bassinets and intensive-care beds).
- . Have received a certificate of need for the provision of long-term care services from its State health planning and development agency, if the State is one that requires such approval.

A hospital may not:

- Have in effect a 24-hour nursing waiver granted under the flexibility of personnel standards.
- Have had a swing-bed approval terminated within the 2 years prior to application (140).

A swing-bed hospital must meet certain standards for skilled nursing facility services in addition to the standards it must meet as an acute-care general hospital. Accordingly, such a hospital must provide, or arrange to have provided by others:

- . rehabilitative services (including physical therapy, occupational therapy, speech therapy, and audiology);
- dental services;
- social services;
- patient activities (provided by a qualified activities coordinator); and
- . discharge planning.

A swing-bed hospital must also meet requirements regarding patients' rights (140).

Physician Services-As of 1987, 30 States and the District of Columbia paid for physicians' services to Medicaid beneficiaries according to a set fee schedule; 4 of these States derived the fee schedule from a relative value scale (a scale that assigns weights to the various procedures) (table 3-5) (610). The remaining 20 States based payments on actual customary or prevailing charges, but since several of those States no longer regularly update their calculations of prevailing charges, actual fees maybe much lower than current charges (610).

Physicians accepting Medicaid reimbursement must agree to accept it as payment in full for covered services. In general, Medicaid fees are well below those paid by Medicare, which are in turn lower than those paid by the private sector.[11] Recent legislation **requires the Federal Government to more closely monitor State Medicaid rates for obstetric and pediatric services in order to ensure that rates for these services are not so low as to restrict access (Public Law 101-239). The impact of this mandate remains to be seen.**

Physician Participation

Little is known about urban/rural differences in Medicaid physician participation (i.e., physicians who accept at least some Medicaid patients). There are dramatic differences in participation across specialties; a 1984 survey found Medicaid participation to range from 97 percent among anesthesiologists to 60 percent among psychiatrists (394). Family practitioners had a relatively high participation rate in this survey (87 percent), with rates for pediatricians, internists, and general practitioners somewhat lower (80, 80, and 82 percent, respectively). Obstetrician/gynecologists had low rates (72 percent) that were second only to those of psychiatrists. A study of pediatricians found that the proportion who accepted Medicaid patients declined from 85 to 77 percent between 1978 and 1989, and only 56 percent of pediatricians in 1989 accepted new Medicaid patients without regard to their payment status (743).

Exceptions to Medicare and Medicaid Rules for Rural Facilities

The Swing-Bed Program

Acute care and long-term care have different goals and staffing needs; thus, the two generally have different certification requirements under the Medicare and Medicaid programs and must be provided by different institutions (or distinct parts of institutions). Under the swing-bed program, however, small rural hospitals that meet certain certification standards (see box 3-C) may use their beds interchangeably for acute- and long-term care and receive reimbursement in either case (Public Law 96-499). Medicaid permits swing beds to be used for

[11] In fact, Medicaid is prohibited by law from paying more for a service than Medicare would pay (*140*). Nonetheless, in a few cases Medicaid apparently does in practice pay more than Medicare does.

acute, skilled nursing, or intermediate care;[12] Medicare covers only acute and skilled nursing care.

For swing-bed care equivalent to the care provided in a skilled nursing facility (SNF), Medicare pays the same average rate per patient day as would be paid for routine SNF services under the State's Medicaid program. As of 1987, 983 hospitals were Medicare-certified to operate swing beds (625).

Rural Health Clinics

A facility certified by Medicare and Medicaid as a rural health clinic (RHC) is eligible for exceptions to normal payment rules governing services provided by midlevel practitioners-physician assistants (PAs), nurse practitioners (NPs), and certified nurse-midwives (CNMs). In most cases outside of RHCs, Medicare pays for services provided by these practitioners only when they are "incident to" the services of a physician. This statutory restriction has meant that midlevel practitioners who were not working under the direct supervision of a physician, or who were providing services normally provided by physicians (e.g., physical exams), could not receive Medicare reimbursement (617). Medicaid rules vary by State, but all States place some restrictions on midlevel practice. Under the Rural Health Clinic Act (Public Law 95-210), however, the services of these providers—including services normally provided by physicians--can be reimbursed by Medicare and Medicaid if they are provided in a certified RHC.[13]

RHCs may be provider-based—for example, the outpatient department of a hospital--or freestanding clinics and physicians' offices. To be certified as an RHC, a facility must be located in an underserved rural area, meet certain standards for physician supervision and minimum level of services offered, and have a midlevel practitioner on duty at least 50 percent of the time the clinic is open (see box 3-D). The services of clinical psychologists and clinical social workers are now also reimbursable if provided in a certified RHC, although these practitioners do not count towards the certification requirements.[14]

For freestanding RHCs, Medicare and Medicaid make interim payments for covered services at an all-inclusive rate per visit computed by Medicare (based on past costs), with an end-of-year adjustment to reflect actual costs. Total payments, however, cannot exceed a specified ceiling on average

Box 3-D—Rural Health Clinic Certification Requirements

To become certified as a rural health clinic under Medicare and Medicaid, a clinic must:

- be located in a Census-defined rural area that is also a federally designated primary care Health Manpower Shortage Area or Medically Underserved Area; [1]
- be engaged primarily in the provision of outpatient primary medical care;
- employ at least one physician assistant or nurse practitioner
- meet applicable Federal, State, and local requirements and Medicare and Medicaid health and safety requirements;
- be under the medical direction of a physician (who must be on site at least once every 2 weeks);
- have a midlevel practitioner-a nurse practitioner, physician assistant, or certified nurse-midwife--available to provide patient care services in the clinic at least 50 percent of the time the clinic is open;[2]
- provide routine diagnostic services (including clinical laboratory services);
- maintain health records on all patients;
- have written policies governing the services that the clinic provides;
- have available drugs, blood, and other supplies necessary to treat medical emergencies; and
- have arrangements with other providers and suppliers to ensure that clinic patients have access to inpatient hospital care and to other physician and laboratory services not provided in the clinic (Public Law 95-210).

[1] Clinics serving populations who are undeserved can also q*. In addition, the Omnibus Reconciliation Act of 1989 (Public Law 101-239) gives State governors the discretion to designate eligible sites for rural health clinics that may not be federally designated as shortage areas.

[2] This requirement was reduced from 60 to 50 percent as of October 1989 (Public Law 101-239).

[12] In contrast t. skilled nursing care, intermediate care primarily requires personal care such as bathing, dressing, and feeding, rather than more medically intensive care (e.g., giving injections) that requires a trained nurse.

[13] Medicare coverage for CNMs in RHCs was added in 1989 (Public Law 101-239).

[14] Clinical psychologist services were added t. the law in 1987 (Public Law 100-203), and clinical social worker services were added in 1989 (Public Law 101-239).

payment per visit ($47.38 in 1990) (Public Law 100-203). For provider-based RHCs, payment by both Medicare and Medicaid is made according to a Medicare cost-based reimbursement formula with no ceiling on the reasonable costs (Public Law 95-210). In either case, reimbursement is to the clinic that employs the practitioner rather than directly to the practitioner.

HEALTH BLOCK GRANT PROGRAMS

This section briefly describes three Federal block grant programs that affect health services in both rural and urban areas. All were created by the 1981 Omnibus Budget Reconciliation Act (Public Law 97-35), which consolidated various sets of categorical grant programs into block grants. In each case, the block grant increased State discretion at the expense of Federal direction and oversight. All three block grants have since been amended to cover additional services. (Individual programs and their implications for rural areas are discussed in more detail in chs. 15 and 16.)

Maternal and Child Health Block Grant

Authorized under Title V of the Social Security Act and administered by HRSA, the Maternal and Child Health (MCH) block grant program provides health services to mothers and children. Instead of operating as an insurance program, the Federal grants are awarded to the States, which in turn fund public and private providers of maternal and child health care services (e.g., local health departments).

The MCH block grant consolidated a series of categorical Federal grants for:

- maternal and child health services (including prenatal care, family planning, well-child care, vision and hearing screening, dental care, immunization, and lead screening);
- services for disabled and other children with special health care needs;
- Supplemental Security Income services for disabled children;
- hemophilia treatment centers; and
- other programs aimed at specific groups or health problems (e.g., counseling for parents whose children were victims of Sudden Infant Death Syndrome).

The legislation creating the block grant eliminated most of the requirements for providing specific services. Fifteen percent of the total funding continued to be set aside for special demonstration projects, leaving 85 percent of appropriated funds to be allocated among the States. States were required to match every 4 Federal dollars received with 3 State dollars. An evaluation of the implementation of the block grant program by the General Accounting Office (GAO) found that States tended to spend their allotments in ways similar to prior patterns (612).

In 1986, Congress changed the funding formula to earmark certain funds for specific purposes. Under current law, abase amount ($478 million, an amount equal to the block grant's fiscal year 1985 appropriation) is allocated according to the original formula, with 85 percent distributed to the States and 15 percent set aside for demonstration grants (611). Amounts above that base, however, are allocated under a new formula. In 1989, 9 percent of the amount above the base was retained by DHHS to fund genetic screening projects. Two-thirds of the remaining amount over the base was allocated according to the 85 percent/15 percent formula. The remaining one-third was also allocated according to the formula but was earmarked for programs to develop primary health services for children and community-based service networks and case management services for children with special health care needs (611).

Within the non-earmarked portion of the MCH grant, States retain tremendous latitude in the use of funds. States determine both the distribution of funds among services and the eligibility criteria for individuals receiving those services. States may charge for the services provided. However, they may not charge mothers and children whose incomes are below Federal poverty guidelines, and charges for those with higher incomes must be based on a sliding scale reflecting income, resources, and family size (611).

Very little is known about who receives what type of services under the MCH block grant, largely because the Federal Government does not require the collection or reporting of data on such expenditures. This dearth of information is compounded by the lack of Federal requirements for minimum services and eligibility. Some self-reported information from States is available through an annual

survey conducted by the Public Health Foundation. According to this source, most (69 percent) MCH block grant funds allocated to the States are spent on personal health services, specifically for maternal and child health services (496). Most of the remainder (19 percent) are spent on services to children with special health care needs. No information is collected regarding the residence (urban or rural) of individuals receiving services that are funded through the MCH block grant.

Preventive Health and Health Services Block Grant

The 1981 legislation creating the Preventive Health and Health Services (PHHS) block grant consolidated funding for eight categorical grants:

- health education and risk reduction,
- comprehensive public health services,
- emergency medical services,
- home health demonstration services,
- rodent control,
- fluoridation programs,
- detection and prevention of hypertension, and
- rape crisis and prevention services.[15]

Subsequent legislation added several additional programs that could be funded under the PHHS block grant:

- prevention of chronic diseases,
- prevention and control of uterine and breast cancers,
- immunization services (including immunization of emergency workers against preventable occupational-exposure diseases, e.g., hepatitis), and
- serum cholesterol control projects (Public Law 100-607).

As with the MCH grant, each State retains its own decisionmaking authority over how the funds are distributed for the various services (with the exception of rape crisis and prevention services, which are covered by set-aside funds). The PHHS block grant is administered by the Centers for Disease Control (CDC).

PHHS grant allocations are based on the proportion of funds each State received under the categorical programs in the year before they were consolidated into the block grant. In fiscal year 1989, the PHHS block grant was $84.7 million. Of this, $3.5 million (the minimum specified amount) was set aside for rape crisis and prevention services and allotted to the States on the basis of population size (320).

Compared with the MCH block grant, a much greater proportion of PHHS money is spent on non-personal health services. In fiscal year 1987,61 percent of PHHS block grant funds allocated to the States were spent for personal health services, 10 percent for environmental health, and 16 percent for health resources (496). Of the specific categories of services covered by the block grant, programs for the detection and prevention of hypertension made up the single biggest expenditure category (19 percent). Health education/risk reduction and emergency medical services accounted for 17 and 15 percent of expenditures, respectively. In contrast, only three States funded home health agency demonstrations with PHHS block grant funds, accounting for only 0.1 percent of expenditures under the grant (496).

Alcohol, Drug Abuse, and Mental Health Services Block Grant

The Alcohol, Drug Abuse, and Mental Health Services (ADMS) block grant is administered, unsurprisingly, by the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). This block grant provides funds to States for prevention, treatment, and rehabilitation programs addressing alcohol and drug abuse; and for grants to community mental health centers for health services, including services for the chronically mentally ill, severely mentally disturbed children and adolescents, mentally ill elderly individuals, and other special populations.

The ADMS block grant has a lively recent legislative history. As with the other block grants, it was created in 1981 to consolidate funding for existing categorical programs (authorized by the Community Mental Health Centers Act of 1963, the Mental Health System Act of 1980, and the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970). The block grant itself was amended in 1986 to increase its authorization level; the same law also created a separate, new program of grants to States to supplement existing substance abuse treatment and reha-

[15]Replaced in 1986 by "victims of sex offenses and for prevention of sex offenses" (Public Law 99-654).

bilitation programs (Public Law 99-570). The 1988 Anti-Drug Abuse Act (Public Law 100-690) then consolidated the new substance abuse grant into the ADMS block grant. (This Act also authorized a mental health services demonstration program, under which 15 percent of appropriated funds for the program must be spent on projects in rural areas.)

Under the present block grant, about two-thirds of the overall Federal appropriation will be allocated for substance abuse programs and one-third for mental health service activities, although the proportions allotted to individual States may differ. The current formula for distributing funds to the States is based on each State's population of age groups at greatest risk for substance abuse and mental illness and on total taxable resources of each State. The formula gives weight to States with urban, young adult populations, who are presumed to be at especially high risk of substance abuse (Public Law 100-690).

The 1988 Act required each State to use at least 10 percent of its block g-rant allocation for substance abuse programs, services, and demonstration projects for women, particularly those who are pregnant or who have dependent children. At least 55 percent of the mental health allotment must be used for new community mental health services not available before fiscal year 1988.

In fiscal year 1989, the appropriation for the ADMS block grant was $805.6 million, of which 5 percent were reserved for data collection and services research. The remainder was allocated among the States, with an estimated $247 million allocated for mental health services and $529 million for substance abuse services (320).

PROGRAMS TO AUGMENT RURAL HEALTH RESOURCES

Health Personnel Programs[16]

National Health Service Corps

The purpose of the National Health Service Corps (NHSC), established in 1972, is to encourage health professionals to practice in designated HMSAs. The NHSC includes a small group of commissioned officers of the Public Health Service, who are salaried employees of the Federal Government and practice where they are sent by the Corps. The NHSC also includes a much larger group of health professionals who are placed in HMSAs by the NHSC but who are not actually commissioned members.

Originally limited to physicians, the NHSC placement program was expanded to include a broad range of other health professionals as well, including midlevel practitioners (462). The majority of NHSC placements, however, are still physicians.

The placement program has three components: the Volunteer Program, the Scholarship Program, and the Loan Repayment Program. The Volunteer Program consists of health professionals who are recruited by the NHSC to serve in HMSAs but who are under no legal obligation to do so. These volunteers may either establish private practices or receive their salary from a variety of public and private employers. They are not counted as NHSC field personnel.[17]

Under the Scholarship Program, individuals entering medical (or other health professional) schools are awarded scholarships for their health professions education. In exchange for each year of scholarship received, the recipient is obligated to practice for 1 year in a designated high-priority HMSA (689). The minimum service obligation is 2 years (662). Since 1987, NHSC scholarships have been awarded only to a few students with extreme financial need (43 in 1989) (659).

The Federal NHSC Loan Repayment Program, enacted in December 1987 (Public Law 100-177), pays participants up to $20,000 a year toward their outstanding health profession educational loans. As with the Scholarship Program, participants must practice health care in a designated high-priority HMSA in order to meet the obligations of the program. Obligations are from 2 to 4 years, with longer obligations receiving higher annual payments. Applicants to the program must be in their last year of education to be eligible for consideration. Priority is given to applicants who are about to graduate as medical doctors, NPs, or CNMs (662). In 1989, 112 placements were made through the Federal Loan Repayment Program (659).

[16]Many of these programs are discussed in more detail in ch. 13.

[17]The same program also recruits personnel for the Indian Health Service.

A separate loan repayment program, administered though the NHSC, operates through the States (see ch. 13). States need not adhere directly to Federal HMSA guidelines when designating eligible areas to carry out the service obligation. Funds are limited, however, and in 1989 only seven States received funds under this program.

Until 1979, when the first large group of obligated NHSC scholarship recipients came out of the ''pipeline,' most field placements were volunteers. The NHSC field program (which pays for salaries, placement services, etc. for NHSC-placed personnel) had its highest level of funding in 1983, but decreases in total field personnel were not seen until years after funding was cut back, due to the long "pipeline' of the Scholarship Program. Field strength peaked in 1986 and has been declining since (659).

The NHSC directly paid the salaries of most field placements (both obligated and volunteer health professionals) until 1979, when it began to rely more on other employers and self-employment of physicians to support placements. In 1988, only 15 percent of NHSC field positions were federally salaried; the remainder received their salaries from community and migrant health centers, private practices, and other organizations.

Area Health Education Centers

The purpose of the Area Health Education Centers (AHEC) program is to attract and retain primary care professionals in shortage areas by linking academic health sciences centers with clinical sites in underserved urban and rural communities. Under this program, the Federal Government enters into cooperative agreements with AHECs to establish networks of health-related institutions (e.g., academic medical centers, hospitals, clinics, private medical offices) to provide educational services to students, faculty, and practitioners (Public Law 92-157) (677).

The original AHEC program began in 1972 and funded selected university medical schools under 5-year, incremental contracts, in which funding increased during the first 3 years and then decreased as programs became self-supporting (Public Law 92-157) (677). In 1981, the funding mechanism was changed to a cooperative agreement that required a substantial Federal role in the management of AHEC projects. Eligible recipients of AHEC funds include allopathic and osteopathic medical schools and groups of such institutions (677).

The Federal "seed money" may not exceed 9 years for an individual AHEC, and Federal funding is decreased after the fourth year. Each project must contribute at least 25 percent in matching funds from State or other sources. Eighteen projects in 21 States currently receive funding for planning, development, or operation (677). Federal AHEC Program awards in 1988 totaled $15.5 million.

Since the program began, 23 AHECs have graduated from Federal funding. These AHECs are still eligible for separate demonstration funds for "special initiative projects." In fiscal year 1988, $1.7 million was awarded to 28 such projects in 10 States (677).

The AHEC educational mission is very broad; specific programs implemented depend on the needs, desires, and resources of the participants. Programs have included clinical training rotations in underserved rural areas, establishing a Hispanic residency program in family medicine, training health professionals to work with Native Americans from various cultures, and facilitating health professions educational programs on such diverse subjects as occupational and agricultural health, primary care for Southeast Asian refugees, and family and spousal abuse (677).

Border Health Education Centers

The Border Health Education Centers program, authorized by the Omnibus Reconciliation Act of 1989 (Public Law 101-239), funds contracts with schools of allopathic and osteopathic medicine to create centers that will improve the supply and quality of personnel providing health services along the border between the United States and Mexico. Nonborder areas with large new immigrant populations may also receive funds under the program.

Other Health Professions Education and Training Programs

A number of other Federal programs, authorized under titles VII and VIII of the Public Health Service Act, provide support to institutions (through grants and contracts) and to students (through loans, loan guarantees, and scholarships) in the fields of medicine, osteopathy, nursing, dentistry, veterinary medicine, optometry, podiatry, pharmacy, public health, and graduate programs in health administration.

Health professions education programs--construction grants to schools and loans to students-were initiated in 1963 (Public Law 88-129) and 1964 (Public Law 88-581), in response to concerns that the United States faced a critical shortage of health personnel (319). Over the next decade, the programs expanded, becoming available to a greater number of schools and students and a broader range of health professionals. Grant programs to encourage special projects at health professions schools were also added (319).

In 1976, Congress began to refocus special project grants to emphasize training for primary care providers who would serve in underserved areas, and it began to replace broad scholarship programs with more limited scholarship and loan programs. Legislation in 1981 repealed all basic grants to health professions schools except schools of public health, and 1985 legislation extended funding authority for existing programs that address problems associated with improving the geographic and specialty distribution of professionals (319). Brief descriptions of current Federal health professions education and training programs follow.

Student Assistance Programs—The Federal Government funds a number of trainee programs in public health schools, public administration schools, preventive medicine departments, nursing schools, and hospitals. (These funds reach students through the institutions rather than directly.) The government also awards scholarships to some first-year health professions students through the Exceptional Financial Need Scholarship Program. Authorization exists for two student loan programs and one loan guarantee program, none of which have received appropriations in recent years (319).[18]

A new interdisciplinary training program was authorized in late 1989 (Public Law 101-239). Its purpose is to prepare health professionals for practice in rural areas where personnel are in short supply by training individuals from different health professions (e.g., pharmacists, physicians, and NPs) to work together in a rural setting. The program is explicitly focused on nonphysician personnel; no more than 10 percent of funds may be spent on training medical students (Public Law 101-239). No funds had been awarded as of April 1990, so the nature of the interdisciplinary programs that could develop is unknown.

Institutional Assistance Programs—The Federal Government provides grants to family medicine, pediatrics, general internal medicine, and general dentistry programs to support the planning, development, maintenance, and improvement of primary care undergraduate and graduate programs. Similar general support programs exist for physician assistant programs, public health schools, and health administration schools. Several institutional grants are also available to support nursing school programs for NPs and nurse-midwives, other advanced nursing training, and nursing faculty fellowships (319).

Two small institutional programs are targeted to the health professions education of minority and disadvantaged students. The Minority Education Program provides grants to four health professions schools for development of model education programs for minority individuals. The Disadvantaged Assistance Program provides grants and contracts to health professions schools and other organizations to help them identify, recruit, and prepare minority and disadvantaged students for health professions careers (319).

Special Projects-Section 788 of the Public Health Act authorizes funding for Special Education Initiatives/Curriculum Development, which includes grants and contracts to health professions institutions and other organizations for a variety of projects, including projects to provide support services to health professionals practicing in HMSAs. Special project grants are also available to nursing schools and other organizations to support projects to enhance nursing skills and knowledge (319).

Primary Care Facilities and Services

Community Health Centers

The Community Health Center (CHC) Program, authorized in section 330 of the Public Health Act and administered by HRSA's Bureau of Health Care Delivery and Assistance, provides grants to establish and to operate CHCs. These centers provide primary care services to designated medically underserved areas and populations. To receive Federal funding,

[18] The three programs are the Health Professions Student Loan Program and the Nursing Student Loan Program, which provide low-interest loans to health professions students, and the Health Education Assistance Loan Program, which provides a Federal guarantee for private-sector, market-rate loans.

CHCs must provide basic primary health services, including:

- physician services (and, where feasible, services of PAs and NPs);
- diagnostic laboratory and radiology services;
- preventive health services (including family planning, prenatal, and well-child care);
- emergency medical services;
- transportation services (as needed);
- preventive dental care; and
- where appropriate, pharmaceutical services.

In addition, CHCs may, where appropriate, provide the following supplemental health services:

- hospital services;
- home health services;
- long-term care services;
- rehabilitative services;
- mental health services;
- dental services;
- vision services;
- therapeutic radiology services;
- allied health services;
- public health services (including counseling, referral, and followup for social and nonmedical needs that affect health status);
- ambulatory surgical services;
- health education services; and
- services that promote the use of the above services, such as interpreters in CHCs that provide services to a large non-English-speaking population.

In 1988, the Federal CHC program supported 526 CHCs, of which 319 were in rural areas.[19] On average, each rural CHC provided nearly 35,000 patient visits in that year (see ch. 5) (658).

CHCs are required to seek third-party reimbursement (Medicaid, Medicare, private insurance) if available. They provide services on a sliding fee scale based on income and family size; families with incomes below the Federal poverty level receive free care.

Recent Federal appropriations for CHCs have included supplemental funding for the Government's Infant Mortality Initiative.[20] Funds from this initiative are to be spent on expanding health care systems for pregnant women and infants, enhancing the provision of primary and supplemental health services, and improving access to these services (320).

DHHS also provides some CHCs with supplemental project grants and contracts to operate clinics to treat black lung disease in coal miners. These clinics operate at 58 CHC sites in 14 States and provide for the analysis, examination, and treatment of breathing and lung impairments in active and retired coal miners. In fiscal year 1988, the program provided services to an estimated 47,500 victims of black lung disease (611).

Migrant Health Centers

Like CHCs, migrant health centers (MHCs) are part of HRSA's primary care program. The MHC program closely parallels the CHC program. It provides grants both to establish and to operate centers, which must provide the same basic primary care services provided by CHCs. In addition to the supplemental services that may be provided by CHCs, MHCs may also provide:

- environmental health services (e.g., rodent control, field sanitation, sewage treatment);
- infectious and parasitic disease screening and control; and
- accident prevention programs (including prevention of excessive pesticide exposure).

The population that can receive MHC services is limited to migratory and seasonal agricultural workers and their families. In 1988, there were 118 MHC grant recipients operating clinics that served over 500,000 people (see ch. 2) (181). Many MHCs also receive funds from the CHC program. As with CHCs, MHC services are provided on a fee-for-service basis, with a sliding fee schedule applying to those without insurance who cannot pay the full charge for the services they receive. MHCs must accept patients covered by Medicare and Medicaid.

Primary Care Cooperative Agreements

The Public Health Service, under a program initiated in 1986, enters into primary care cooperative agreements (PCCAs) with individual State

[19] CHC figures here refer to the number of centers receiving Federal grant funds, not the total number of clinic sites. CHCs may have more than one clinic site.

[20] In 1990, Infant Mortality Initiative funds were folded into the total CHC pool for distribution. Previously these funds were awarded separately.

health departments and primary care associations.[21] PCCA grants are intended to facilitate the development of primary care services in underserved areas (both rural and urban). Recipients may use the grants to determine the need for primary care services and health professionals in underserved areas, and to assist in the recruitment and retention of health personnel and development of service delivery systems. As of 1989, 33 States had entered into PCCAs *(115a).*

PCCA participants enter into a formal agreement with the Federal Government based on a comprehensive plan developed by the State agencies for delivering primary care services in undeserved areas (656). In one State, for example, the activities funded under the State's 1988 PCCA included:

- a survey to determine the effect of malpractice liability costs on the delivery of obstetric services in frontier areas;
- the establishment of a task force and work plan to improve coordination between CHCs and local health departments (e.g., in order to achieve more effective outreach to low-income pregnant women and improve medical record-sharing);
- support for various information projects (e.g., helping a senior citizens group to develop and distribute health fact sheets statewide;
- preparing a manual of available health data for rural parts of the State;
- developing a database on perinatal needs;
- exploring the feasibility of better coordination among rural CHCs; and
- providing technical assistance to CHCs for physician recruitment, marketing of services, service linkage development, grant writing, and board training (701).

Acute-Care Facilities and Services

Rural Health Care Transition Grants Program

The Rural Transition Grants Program is a legislative newcomer that was created in the Omnibus Reconciliation Act of 1987 (Public Law 100-203). This program, administered by the Health Care Financing Administration (HCFA), is intended to help small,[22] rural, nonprofit hospitals and their communities adapt to the following circumstances:

- . changes in clinical practice patterns and service populations;
- excess acute-care capacity and declining ability to provide appropriate inpatient care staffing;
- . increasing demand for ambulatory and emergency services and the need for integration of community health services; and
- . the need for adequate access to emergency and inpatient care in areas where many underutilized hospital beds are being eliminated (Public Law 100-203).

The program was stimulated by the Minnesota Rural Health Transition Project (see ch. 6), which found that successful hospital transitions depended as much on the ability to perform an effective community needs assessment as on financial support (261). Transition Grant Program funds are intended to help rural hospitals examine the health needs of their service areas and plan and implement new services, coordinating services with other area providers when necessary. Eligible hospitals can apply for grants of up to $50,000 a year for up to 3 years.[23] Grant funds may not be spent on capital-related costs or to retire existing debts.

In 1989, HCFA received about 700 grant applications, one-third of which were from hospitals applying as part of hospital consortia (102).[24] HCFA awarded more than $8 million to 182 rural hospitals[25] in 45 States and Puerto Rico; funding to all grantees was for 1 year (102). Congress in late 1989 appropriated additional monies for the second year of grants for which the initial grantees are eligible, and also a new amount of grant funds for new hospital applicants (Public Law 101-239).[26] The agency is required to evaluate the grant program's effectiveness and ability to strengthen rural hospitals' administrative and financial capability (102).

[21] Primary care cooperative agreements are authorized under Section 333(@ of the Public Health Service Act.
[22] Fewer than 100 beds.
[23] Before Public Law 101-239 was passed in late 1989, hospitals were only allowed to request grant funding for a maximum of 2 years.
[24] HCFA encouraged more than one hospital from a consortium to apply in order to promote cooperative planning among rural hospitals.
[25] There were 155 grantee hospitals, 11 of which were consortia containing a total of 27 hospitals.
[26] In 1990, HCFA expected t. make new awards to approximately 185 additional hospitals (*102*).

RURAL HEALTH POLICY AND RESEARCH

A wide variety of Federal organizations with disparate mandates carry out some rural health research. For instance, HCFA, the Prospective Payment Assessment Commission, and the Physician Payment Review Commission have all undertaken studies of Medicare payment to rural physicians and hospitals. Other Federal organizations fund studies that are epidemiological or clinical in nature (e.g., studies of interventions to improve infant mortality). Some agencies have consolidated their rural research efforts; the National Institute of Mental Health established an Office of Rural Mental Health Research in early 1990, whose responsibilities will include administration of a Rural Mental Health Research Centers program (640,641).

Two Federal organizations have recently been established that have an especially strong and explicit link between rural health care policy and research. Descriptions of these two organizations follow.

Agency for Health Care Policy and Research

The Agency for Health Care Policy and Research (AHCPR) is the successor the National Center for Health Services Research and Health Care Technology Assessment, a long-established Federal health research organization. AHCPR was designated in 1989 to focus on the link between health research, evaluations of the effectiveness of health care interventions, and health policy (Public Law 101-239). Its authorizing legislation specified that the agency should pay particular attention to research, demonstration, and evaluation activities related to the delivery of health care services in rural areas.

AHCPR has carried out both intramural and extramural research on rural health topics for the past two decades. Studies funded in the 1970s evaluated a variety of approaches for building and strengthening rural health care delivery systems, while in the 1980s projects concentrated on rural hospital issues (e.g., costs and viability) and on the health care needs of specific populations (e.g., minorities, migrants, Native Americans) (463). In response to a congressional mandate, AHCPR supported a number of studies, presented at a conference in December of 1987, that seined as the foundation for a discussion of a rural health research agenda for the 1990s .

Funds allocated to AHCPR's rural health research activities were $679,000 in fiscal year 1989 and $2.5 million in fiscal year 1990 (463). Activities funded with 1989 funds included studies of:

- rates of hospitalization among CHC and non-CHC users in Maine;
- health care access for uninsured residents in Nebraska;
- use of alternatives to traditional health care services by rural elderly, poor, and black populations;
- urban/rural differences in the use of health and social services by elderly individuals;
- the effectiveness and success of various rural hospital management strategies; and
- variations in resource use, costs, and outcomes among obstetric providers in Washington.

Office of Rural Health Policy

The Office of Rural Health Policy (ORHP), established in August 1987,[27] is located within HRSA and advises the Secretary of DHHS on a variety of rural health issues, particularly those regarding Medicare and Medicaid payment, availability of health professionals, and access to care in rural areas (688). As a component of this activity, the Office provides staff support to a committee, composed of members of both the public and private sectors. This committee advises the Secretary of DHHS on the priorities and strategies that should be considered in addressing the problems of financing and providing health care in rural areas.

In addition, the Office administers the Rural Health Research Center grant program, manages some rural health demonstration grants, and serves as an information broker for rural health care research findings and evaluations of innovative approaches to rural health care delivery. Under the Rural Health Research Center grant program (authorized in Public Law 100-203), ORHP in September 1988 awarded grants to five university-based research centers to collect and analyze information, conduct applied research on rural health, and dis-

[27]Shortly after ORHP was established, Congress mandated its existence in legislation (Public Law 100-203).

seminate the results.[28] The activities being conducted by these centers include:

- establishing a clearinghouse for State-level information on rural health initiatives and State laws affecting rural health;
- documenting the distribution of registered nurses in rural areas and issues relating to rural nursing practices;
- tracking the geographic variation in per capita expenses of Medicare beneficiaries in rural areas;
- compiling a national rural health atlas reflecting the health status and health services available to rural residents;
- examining patterns of change in rural residents' use of hospital services;
- describing the condition and roles of rural hospitals;
- examining the availability of obstetric care in rural areas; and
- surveying rural migrants and Mexican nationals near the southwest border to determine their health care utilization patterns and financial accessibility to care.

The Omnibus Budget Reconciliation Act of 1989 (Public Law 101-239) appropriated funds for up to four research centers in addition to the five already receiving funding.

[28]The five centers receiving grants are: The Center for Rural Health Services at the University of No@ Dakota, Grand Forks; Marshfield Medical Research Foundation, Marshfield, Wisconsin; Health Services Research Center at the University of North Carolina, Chapel Hill; University of Washington School of Medicine, Seattle; and the University of Arizona School of Medicine, Tucson.