

West Virginia State Health Plan

*Rural Health**

I. BACKGROUND

Definitions of “rural” vary. Two definitions commonly employed for planning, analytical, and policy purposes are those used by the Office of Management and Budget (OMB) and the Census Bureau. The OMB definition is indirect. It designates Metropolitan Statistical Areas (MSAs) as areas that include a city with more than 50,000 inhabitants or as urbanized areas with at least 50,000 inhabitants and a total MSA population of more than 100,000. All areas outside MSAs are nonmetropolitan and by implication rural. The Census Bureau definition is also indirect, but it is more specific in that smaller population units are used in the definition. It defines urban as those areas and populations of 2,500 or more persons. Areas and populations that are not urban are de facto rural.

Based on these definitions, about 20% of the U. S. population is rural. Following decades of decline, the rural population nationally has grown faster than the urban population in recent years. This results not from greater natural increase in rural areas (resident deaths continue to exceed births in many rural areas), but from increased migration from urban to rural areas. During the 1990s, there was a reversal of the historic rural to urban migration patterns that characterized the U. S. for most of this last century.

Rural domicile is associated with a number of demographic, social, economic, and health characteristics. Residents of rural areas typically have less education, are older and poorer, and have poorer health status and a larger number of chronic conditions than urban residents. Most of those living in rural areas usually do not have access to health care or supporting health-related social services equal to those of urban/suburban residents. Rural residents, for example, are more likely than urban residents to have no health insurance and to experience longer travel times when seeking care. Some rural areas struggle continuously to recruit, and then to retain, the qualified health care providers they need. Those living in rural areas are also more likely than urban dwellers to forgo needed care because of economic, transportation, or other barriers to access.

The organization and delivery of health care services in rural areas differ from those in urban areas. Rural families are far more dependent on the public health system and public clinics for health care. Managed care is less prevalent in rural areas. Given the population differences (older, sicker patients in rural areas, on average), limited and scattered distribution of resources, and the decreased ability to pay (less disposable income, lower insurance levels), managed care plans find it more difficult and expensive and less profitable to serve rural residents. Rural areas often do not have an adequate number and array of services to meet community needs. As the population ages and more chronic conditions arise within it, needs expand to include, in addition to primary and acute hospital care, a continuum of long-term care and related services, e.g., nursing homes, home health services, homemaker/companion services, therapies, senior housing alternatives, and hospice care. Low population density, long distances and travel times, limited reimbursement, and shortages of qualified providers impede the development of the full array of long-term care services needed in rural areas.

*Note: tables and maps referenced but not contained here may be viewed and obtained in their entirety at the West Virginia Health Care Authority.

II. SYSTEM ASSESSMENT

West Virginia is a rural state. The majority of its 1.8 million residents live in communities of fewer than 2,500 people. Based on prevailing Office of Management and Budget and Census Bureau definitions, about two-thirds (64%) of West Virginians live in rural areas. There is substantial evidence that health care resources are limited in the state's rural areas and that access to services is problematic. All except four of the state's 55 counties are designated (full or in part) Health Professions Shortage Areas (HPSAs) and/or Medically Underserved Areas (MUAs). The geographic areas designated as HSPAs and MUAs are shown on Maps AC-33 and AC-34.

Rural populations, and specifically residents of rural areas in West Virginia, differ significantly from the national norms in terms of demography, socioeconomic characteristics, health status and health care needs, and their access to care. The following discussion assesses some of the important similarities and differences found in West Virginia, statewide and in its sparsely populated rural areas, and how these similarities and differences are reflected in the functioning of the health care delivery system.

A. Demography and Socioeconomic Characteristics

Nationally, the elderly (age 65 and older) make up a larger proportion of the rural population, about 18% in rural areas compared with about 15% in urban areas.

- This pattern holds generally for West Virginia. More than 15% of the entire West Virginia population, urban and rural combined, is 65 years of age and older and is aging more rapidly than the national population. Only eight of the state's 55 counties meet the standard definition of urban, 34 are rural, and 13 have areas that qualify as both urban and rural. The percentage of the population that is 65 years of age and older among counties and communities in West Virginia varies from slightly less than 10% to more than 18% (Map AC-22).

Minorities are a smaller proportion of the rural population, about 9% in rural areas compared with about 14% in urban areas.

- The West Virginia minority population is small, less than 4%, statewide. Minority infant mortality rates are high. Minority health status, as measured by morbidity and mortality, appear to be generally consistent with that of the general population.

Poverty is more prevalent among the rural population nationally, nearly 16% in rural areas compared with slightly more than 13% in urban areas.

- The West Virginia poverty level statewide, urban and rural combined, is estimated to be nearly 19%, which exceeds the national rate for rural areas alone. Poverty levels in many West Virginia communities exceed 20%.

Poverty among rural children is more prevalent than among urban children, about 24% for rural children compared with about 22% for urban children.

- Precise poverty levels among West Virginia children are not known, but they appear to be significantly higher than those found nationally in rural areas. Although phase one of the new child health insurance

program is limited, qualification for it has been higher than expected, suggesting that poverty levels may be somewhat higher than assumed.

Rural incomes are lower than urban incomes, about \$18,527 per capita for rural areas compared with \$25,944 in urban areas in 1996.

- Family and per capita income in West Virginia statewide, urban and rural combined, is substantially lower than the respective national rural incomes alone. Consequently, rural West Virginians are much poorer than residents of rural areas nationally.

Rural unemployment is somewhat higher than urban levels, about 5.2% compared with about 4.9% in 1997.

- Unemployment levels throughout West Virginia have exceeded those of both urban and rural areas nationally in recent years.

B. Health Status and Insurance Coverage

Rural populations often report poorer health status than do urban populations; between one-fourth and one-third of those living in rural areas report fair or poor health compared with about one-fifth of those residing in urban areas. (Surveys of self-reported health status have varied widely in their conclusions, some of which have been contradictory.)

- There is no precise comparable data for the West Virginia rural population, but health conditions and health behaviors reported in the most recent (1996) statewide survey under the CDC Behavior Risk Factor Surveillance System (BRFSS) and currently available morbidity and mortality data suggest strongly that the health of West Virginians, on average, is much poorer than both urban and rural residents elsewhere.
- Age-adjusted mortality rates are high throughout West Virginia. Maps AC-6 through AC-20 show age-adjusted death rates by county for the five-year period 1992-1996. With few exceptions, e.g., pneumonia and influenza, the rates are exceptionally high in nearly all counties.

Physician-diagnosed chronic conditions are more prevalent among rural populations; nearly half (46.7%) of the adult rural population have one or more chronic condition(s) compared with 39.2% in urban areas.

- Precise data are not available to permit comparison of the prevalence of physician-diagnosed chronic conditions among West Virginia's urban and rural populations. The morbidity and mortality data, as well as the BRFSS survey data, suggest that the prevalence is high statewide and higher in the more sparsely populated rural areas than elsewhere.
- Maps AR-1 through AR-25 and AC-1 through AC-20 contain five-year (1992-1996) data that show very high levels of morbidity for cardiovascular diseases, several forms of cancer, diabetes, chronic obstructive pulmonary disease, and hypertension.

Rural populations have lower levels of private health insurance; in 1996 only about 54% of rural residents had private health insurance compared with about 63% of urban residents.

- The level of private health insurance is unusually low throughout West Virginia. In recent years it appears that only 40% to 45% of the population statewide has private health insurance, and the percentage appears to be decreasing. Private insurance coverage in rural areas of the state appears to be significantly lower than in the more urbanized areas, where employment levels are higher and private insurance is obtained as an employment benefit. See Table AR-1 for insurance coverage and HMO/managed care enrollment data.

Lack of health insurance is more prevalent in rural areas; in 1996 19.8% of the rural population was uninsured, compared with 16.3% in urban areas.

- Uninsured levels across West Virginia appear to be reasonable close to those found nationally. It has been estimated that between 16% and 18% of the population statewide have been uninsured in recent years. Precise data on comparative insurance levels in urban, rural, and mixed urban/rural counties are not readily available.

Fewer rural than urban workers have access to employer-sponsored health insurance coverage; rural farm workers are less likely than other workers to have employer-based health insurance coverage, regardless of setting.

- Hospital discharge and payment data, as well as the use patterns of local health departments and primary care centers, suggest this pattern exists in West Virginia. Precise reliable data are not available to document it, however.

A disproportionate percentage of Medicare program enrollees reside in rural areas; in 1996 about 20% of the population resided in rural areas, but 23% of Medicare recipients lived in rural areas.

- About 18% of the West Virginia population are Medicare recipients, and Medicare payments are the largest single source of revenue to West Virginia health care programs. Health facility and service use across the state suggest strongly that there is a disproportionately high percentage of both Medicare and Medicaid recipients in rural West Virginia.

Notwithstanding the disproportionately high number of Medicare enrollees in rural areas and the reported poorer health status of the rural elderly population, Medicare expenditures are substantially lower in rural areas than in urban areas; in 1996 Medicare expenditures were about \$4,375 per beneficiary in rural areas compared with \$5,288 in urban areas, a 21% differential.

- The pattern exists in West Virginia, where rural charges are lower than average charges statewide and where rural residents are less likely to obtain as much of the more expensive inpatient Medicare services.

Rural poor populations are less likely to obtain health care coverage under the Medicaid program than are urban poor, even though the poor make up a higher percentage of the rural population than of the urban population; recent reports (before welfare reform initiatives) indicate that about 45% of the rural poor received Medicaid benefits compared with about 49% of the urban poor.

- The overall statewide reliance on the Medicaid program is exceptionally high in West Virginia. The existence of the urban-rural pattern described above may be inferred from health facility and health service use and payment data, but precise reliable data to assess the patterns fully or accurately are lacking.

C. Health Care Resources

Health care professionals are in short supply in rural areas; recent reports indicate that more than 40% of the rural population live in designated Primary Care Health Professional Shortage Areas (HPSAs).

- The shortage of critical health care professionals is more severe in West Virginia, particularly in the sparsely populated rural areas. Virtually all of the state's rural population reside in Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas (MUAs). There are 50 HPSA designated areas that include all or parts of 40 counties (Map AC-33).

Although about 20% of the U. S. population is rural, only about 10% of physicians practice in rural areas.

- The shortage of physicians in West Virginia's sparsely populated rural areas is severe. The state ranks about 30th nationally in the ratio of physicians to population, and there are unfulfilled requests for more than 120 primary care physicians to meet needs in underserved rural areas.

There is a disproportionately low number of physician specialists in rural areas; only about 10% of medical specialists practice in rural areas, compared with about 25% of family and general practice physicians.

- The physician shortage in West Virginia includes both primary care physicians and a wide range of specialists, particularly those specializing in chronic, rehabilitative, and geriatric diseases and conditions.

The majority of National Health Service Corps (NHSC) personnel are placed in rural areas; in 1996, 59% of NHSC placements were in rural areas and 41% in underserved urban areas.

- West Virginia's experience is more extreme than the national experience, largely because nearly two-thirds of the population is rural. The pending requests for service corps physicians are largely for service in underserved rural areas.

More than 40% of U. S. hospitals are located in rural areas; most are small, having fewer than 100 beds and limited services.

- Half (31 of 62) of West Virginia's acute care community hospitals are properly characterized as small rural hospitals (Map AC-23). They have fewer than 100 beds and offer a limited array of services.

Rural hospitals have been under severe economic pressures for nearly two decades, and nearly 400 were forced to close between 1980 and 1991; implementation of a number of state and federal initiatives appears to have cut the rate of closure, with only 10 rural hospitals reported to have closed in each of the last two years (1996-1997) for which official data have been compiled.

- The West Virginia experience is fully consistent with the national experience. A number of extraordinary efforts have been made to maintain the viability of essential small rural hospitals statewide. West Virginia's small rural hospitals remain very much in jeopardy, but none have been forced to close recently.

Rural health clinics (RHCs) and community health centers (CHCs), federally supported primary care centers, provide substantial health care services to rural populations, particularly those enrolled in the Medicare and Medicaid programs. The large majority of these, more than 4,000 centers nationwide, are located in rural areas, offering primary care services to more than 5.0 million rural residents annually.

- West Virginia has an extensive array of primary care centers. They are a critical part of the health care delivery system, particularly in the sparsely populated rural areas of the state. Locations of the centers by type are shown on Map AC-29. Collectively, they serve about 300,000 persons annually and reported nearly a million patient encounters in recent years (FY 98). About 70% of the encounters were with Medicare, Medicaid, and uninsured patients.

III. PROBLEM STATEMENT

West Virginia is largely rural, sparsely populated, with comparatively low population density (Map AC-21). The lack of roads and the condition of existing roads are a major problem hindering access to care in West Virginia. Only half of the roads are paved and more than 60% of the paved highways are rated fair, poor, or very poor for cross-section (width of lanes and shoulders and number of lanes) or alignment (grades and curves). The central part of West Virginia has no major east-west highway and travel on existing roads can result in prolonged travel times because of difficult and often hazardous terrain. Road conditions (measured by a "rideability" index) are associated with longer times to reach medical care.

Demographic and socioeconomic characteristics of the West Virginia rural population are generally more negative than those found among rural populations nationwide. Actual and perceived health status, personal health risk behavior, and access to resources are more problematic than in most rural areas (Maps AC-1 through AC-20). Given these and related conditions and circumstances, the basic question facing health care officials is how to preserve the stability of the existing rural health care infrastructure, while simultaneously working to transform and integrate the private and public health systems. This is a daunting task, but it differs only in degree from similar problems found elsewhere in rural communities nationwide.

IV. ANALYSIS

West Virginia has made significant progress in establishing responsive health care systems to serve its rural population. A rather extensive network of primary care centers and clinics has been developed statewide (Map AC-29), and concerted efforts have been made over a number of years to stabilize and to try to preserve essential community hospitals in rural areas (Map AC-23). Recently, extraordinary efforts have been made to stabilize and preserve the public health system, particularly the viability of local health departments (Map AC-28). Among other things, these efforts have included:

- direct appropriations for primary care centers and local health departments;
- regulatory relief for small rural hospitals by permitting the conversion of excess acute care beds to skilled nursing home beds, notwithstanding the moratorium on commercial nursing home development;

- assistance in health network formation, and
- assistance in qualifying and applying for enhanced Medicare payments under the Rural Hospital Flexibility Program and its predecessors.

All of these efforts have been productive and continue to help improve access to basic health services in rural West Virginia. Notable progress has also been made in devising innovative ways to better serve those living in underserved rural areas. Examples include:

- Rural Health Education Partnerships. The Partnerships consist of 13 training consortia of 149 community-based health, social, and education agencies; a 250-field faculty from 10 disciplines who are practicing local providers; and coverage of 47 of the state's most underserved counties. These arrangements have improved access to primary care for many rural residents.
- The Rural Hospital Flexibility Program. This program encourages the formation of rural health networks that foster cooperation among hospitals and other providers of care. It has enabled several small rural hospitals to continue to operate and serve their communities, even as they confront significant decreases in inpatient use and loss of revenue. Under this program, several hospitals have already been designated as Critical Access Hospitals (CAH) and a larger number of other designations are likely in the near future (Maps AC-23 and AC-32).
- West Virginia Community Voices. A W. K. Kellogg Foundation grantee, Community Voices works to improve health care for underserved populations, e.g., the uninsured, children, minorities, Medicaid recipients, and rural residents. This is a five-year project that will undertake community health development efforts in several counties and a number of services statewide.

V. ACTION STEPS

A number of steps could be taken to gain a better understanding how health status and the need for and use of health care services differs between the West Virginia rural and urban populations. Several studies, in particular, should be worthwhile:

- A. Conduct analyses to determine age- and gender-specific population-based use rates for urban and rural populations for hospital, nursing home, surgery center, health department, and primary care center use rates (zip code, GIS, or other community-level geographic aggregation would be necessary).
- B. Assess the practical effects of the practice (policy) of permitting and encouraging the conversion of rural hospitals for other health purposes. For example, both the positive and negative effects of the policy of maintaining a moratorium on nursing home development and permitting the conversion of excess acute care hospital beds to nursing home use should be examined fully.
- C. Assess the relationship between facility and program size and volume and treatment outcomes in the state's small hospitals and service programs. (This would be a long-term effort. See Part X below.)
- D. Evaluate potential unnecessary hospitalizations for ambulatory sensitive conditions. Many studies suggest that the availability of primary care centers and clinics are valuable in helping avoid hospitalization for conditions that, if treated in a timely fashion, can be managed effectively on an outpatient basis. (See Part X below.)

VI. POTENTIAL SOLUTIONS

Given the distinctive demography and reported health status of the population, policy makers and health officials need to consider carefully how they can assure, to the extent practical, that critical components of the health care system function as an integrated whole. The vertical and horizontal integration that has taken place already, and the formation of coordinated regional networks (Maps AC-30 & AC-31), are steps in that direction. Providing economic and other incentives, e.g., regulatory exemption/relief under the right circumstances, to encourage the formation of such systems is advised. A key role for health care officials is to try to ensure that fairness and equity for all interested parties is not sacrificed in the movement to make the delivery system more efficient and responsive through consolidation and system integration.

VII. POLICY RECOMMENDATIONS

- A. Incorporate a prospective planning feature in the certificate of need program by developing and issuing annually, as an update of the State Health Plan, an assessment of service-specific needs statewide. (This assessment should be tied to the request for proposals/applications process discussed elsewhere.)
- B. Exempt rural health care providers from certificate of need and other regulatory controls for those activities that are consistent with the published state health plan or with the annual needs assessment update to the plan.
- C. WVHCA should consider developing and issuing each year an annual report that would include:
 - a summary of regulatory decisions for the previous 12 months;
 - a multiyear schedule for the review and analysis of the appropriateness of maintaining certificate of need controls for all covered services over a seven-year period;
 - an analysis of the appropriateness of maintaining certificate of need controls on at least two of the covered services/categories each year;
 - an analysis of the use of certificate of need review and planning in helping improve quality and access to care for the medically indigent during the previous year, and
 - an assessment of market changes statewide that may affect the need for continued regulation of selected health care services, facilities, and equipment.

VIII. FEASIBILITY

The difficulty of providing needed health services to rural populations is reasonably well understood. Most of the underlying problems are economic in nature and, absent substantial infusion of monies at the national level, are not likely to change soon. West Virginia health officials have been successful to date in shoring up the rural health care delivery system statewide. These efforts will need to continue unabated if the system is to remain stable.

Making further improvements, and making the most of existing resources and of those that are likely to become available, probably necessitates gaining a better, more complete understanding of health conditions and needs in the rural areas and how those needs differ from those in the more urbanized areas. The studies listed above as action steps should be useful in this regard.

IX. ACCOUNTABILITY

Maintaining and improving health service delivery in West Virginia is likely to involve the formation of additional regional networks and integrated delivery systems similar to the three networks (EPIDS, SVRHN, NCWHN) now active in the state (Maps AC-30 and AC-31). Accountability for the provision of rural health services can be improved most effectively by ensuring that roles and responsibilities of all parties are clearly assigned and understood, and that those to be held accountable for carrying them out are clearly identified and formally acknowledge their responsibilities.

X. ISSUES FOR THE FUTURE

- A. Examine relationships between program volume and outcomes in small hospitals and service programs.

There are strong correlations between program/service volume and outcomes for many hospital services. It is unclear whether small program volumes throughout much of West Virginia present real or potential quality (outcome) concerns. A few studies have concluded that most of these concerns and findings do not apply to small rural hospitals (Schlenker, Hittle, et al.). This issue is worthy of careful study, given the high inpatient use rates and high surgery rates.

- B. Evaluate potential unnecessary hospitalizations for ambulatory sensitive conditions.

Studies of ambulatory care sensitive conditions (ACSC) are useful in evaluating access to care and as a means of avoiding unnecessary hospital costs. Regional and community variations in hospitalizations for ACSC conditions may be an indication of differences in primary care availability, accessibility, or appropriateness. This issue, too, is worthy of careful study, given the high inpatient hospital use rates and high surgery rates statewide.

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World Wide Web Sites

National Rural Health Association

www.nrharural.org

Office of the Advancement of Telehealth, Health Resources and Services Administration, DHHS

www.telehealth.hrsa.gov

Office of Rural Health Policy, Health Resources and Services Administration, DHHS

www.nal.usda.gov/orhp

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