

West Virginia State Health Plan

*Access**

I. BACKGROUND

Access to appropriate medical care is universally problematic. Dimensions and magnitude of the problem vary widely, but there is hardly a community that does not have a substantial number of people who have difficulty obtaining needed health services. Moreover, the problem appears to be getting worse. Nationally, more than 43 million people, nearly 16% of the population, lack health insurance. The number of uninsured has continued to grow in recent years, even as employment has reached record levels and the national economy has strengthened. This discontinuity, troubling enough today, does not bode well for future periods of economic difficulty or for those communities with less-than-average economic growth and prosperity.

When evaluating access to health care, it is easy to confuse the availability of care—the physical presence or existence of a service—with the ability of an individual or a population to obtain that service. Generally, availability refers to service capacity, as indicated by material inventories, personnel, equipment and facility counts, and financial resources. Access, though related, refers to the timely use of health services to achieve the expected, or best possible, result.

Access often is measured by the presence or absence of barriers (or facilitators) that affect an individual's or a population's ability to enter the health care system. Common measures used to evaluate access include geographic (location) factors, temporal factors, socioeconomic factors, organizational factors, architectural factors, information/knowledge factors, and evidence of use of specific services by specific populations such as high at-risk groups.

Analyzing access in all of its dimensions should identify gaps, deficiencies, and surpluses in service capacity, as well as specific problems likely to affect receipt of care. Primary care clinics not having evening or weekend hours or not located near established transportation routes, for example, may hinder residents from receiving primary care. Not having timely access to preventive and primary care in turn may result in sicker patients requiring more intensive, expensive hospital inpatient care. Some barriers can be removed by nonclinical intervention: by scheduling clinics and other primary care services at times convenient for patients, by rerouting public transportation, or by offering reimbursement or vouchers for taxis for transportation to health care services.

Maintaining or improving access to health services is often a question of balancing competing interests, costs, and values. A policy seeking to improve access may have to be weighed against concerns about potentially adverse cost consequences, quality effects, patient and provider acceptability, and continuity of care. Pursuing improved access without regard to any other consideration, for example, may result in:

- **Inefficient operations.** If several hospitals in a defined service area offer the same service, regardless of actual (absolute) need, on average fewer units of service are provided at each facility. Unit costs are likely to be far higher than they would otherwise be if the services were delivered in one hospital and economies of scale were achieved.

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

- **Adverse quality effects.** There is a strong correlation between volume and outcome for a number of health services: generally, the higher the program volume, the better the outcome. Having multiple low-volume cardiac surgery programs instead of one large, efficient program, for example, tends to decrease professional and program proficiency and, in so doing, threaten quality.
- **Overuse of services.** Efforts to improve access may result in unnecessary use of services. Health care costs are likely to rise unnecessarily if service use is inappropriate. Quality, too, may be affected adversely.

Given the rugged, mountainous terrain, a limited highway system that makes travel comparatively difficult, low population density reflected by many small pockets of population scattered throughout the state, relatively poor health status generally, the designation of much of the state as medically underserved, a comparatively old and aging population, and low levels of private health insurance coverage, most West Virginians appear to face serious obstacles in obtaining needed services.

II. SYSTEM ASSESSMENT

A. Demography and Health Status

Most demographic, geographic, social, economic, and health indices suggest that access to health care is a substantial problem in West Virginia, and is not likely to improve soon absent dramatic intervention.

1. Population Characteristics

By almost any commonly used measure, the population is comparatively old and is aging more rapidly than residents of neighboring states and the nation. As shown in Tables AR-1 and AR-2, and in recent (1996 and 1997) West Virginia Bureau for Public Health annual vital statistics reports:

- The average age statewide was 38.1 years in 1997, compared with 34.9 years for the nation as a whole. The average age differential between West Virginia and the U. S. has increased significantly in recent years and is continuing to grow.
- More than 16% of the population was between 50 and 64 years of age in 1997, compared with less than 14% nationally. This disparity, too, is growing.
- More than 15% of the state population was 65 years of age or older in 1997, compared with less than 12% nationally. This divergence is also growing.
- There has been a net decrease in population over the last 50 years and during the last decade. This results from both lower than average birth rates and net migration from the state.
- Nationally, there has been notable population growth in many rural areas over the last decade, but this pattern is not yet evident in West Virginia, where nearly two-thirds (64%) of the population live in sparsely populated rural areas and population counts continue to decrease.

This population profile suggests, if not predicts, higher levels of disease and disability, particularly chronic and disabling conditions associated with aging. It also suggests comparatively negative socioeconomic status for much of the population. It is possible that the reverse migration, the movement of population back to small communities and rural areas that has been seen elsewhere in recent years, will soon begin to be seen in West Virginia, but there is

no clear cut evidence of it yet. According to West Virginia Regional Research Institute, there is also evidence indicating that some West Virginia resident women are now delaying childbirth until relatively late in life; an event which may foreshadow an unexpected increase in birth rates.

2. Socioeconomic Characteristics

The West Virginia population is among the poorest in the nation. Per capita, median family, and average family income have been consistently well below that of neighboring states and the nation for decades. In 1997 average household income statewide was slightly less than \$33,000, compared with more than \$45,000 nationally, a 36% differential. The disparity in per capita income was even higher, nearly 40%. In recent years, more than 18% of the population has had family incomes lower than the federal poverty level, and nearly 10% of the population has received public assistance. Unemployment levels have decreased in recent years as national rates have fallen, but have remained considerably higher than national levels.

Education levels are lower than those nationally. About two-thirds of residents over 25 years of age are high school graduates, and only about 12% are college graduates. Low family income levels, high poverty rates, and lower-than-average education levels are correlated with poor health status and reduced access to care.

3. Health Status

As shown in Table AR-1 and Maps AR 1-25 and AC 1-20, traditional measures of personal and community health status are nearly uniformly negative in West Virginia. Mortality and morbidity are unexpectedly high for a broad range of conditions. Age-adjusted death rates for all major causes of death are substantially higher than national rates and higher for nearly all causes than rates in nearby states (Table AR-3, Maps AR 1-25). Exceptionally high death rates for heart disease, several forms of cancer, diabetes, chronic obstructive pulmonary disease, and septicemia are particularly troubling. Infant mortality has decreased steadily for several decades as the national rate has fallen, but remains above the national level and has fluctuated widely in recent years.

Findings from repeated personal health behaviors surveys suggest that personal behavior and lifestyle may account for a significant part of this differential. Those surveyed report high obesity levels, largely sedentary lifestyles, comparatively high tobacco use, and high hypertension prevalence.

In combination, these characteristics and circumstances suggest extraordinary healthcare needs: clinical, clinical support, and health education services. Given the limited resources available statewide, low private health insurance coverage levels, and low personal and family incomes levels, there is strong reason to believe that access to care is a challenge for an unusually high proportion of the population.

B. Health Services and Facilities

1. Hospitals and Surgery Centers

West Virginia's unusual geography and demography results in a distinct health care infrastructure. Including specialty facilities, the state has 62 licensed acute care community hospitals. Half of them (31 facilities) are small rural facilities, meaning that they have fewer than 100 beds and 5,000 admissions annually, and are located in communities with populations of fewer than 10,000. They are distributed among 36 of the state's 55 counties. Hospital locations are shown by type on Map AC-23. As shown, there are no community hospitals in 19 counties. Sixteen of the hospitals were designated as sole community hospitals, and six are critical access hospitals under the relatively new Medicare Rural Hospital Flexibility Program (Map AC-32). According to the West Virginia Rural

Health Plan, there are at least 11 other small rural hospitals that qualify as critical access hospitals and, given the opportunity to obtain higher Medicare payments, are likely to apply for designation. Additional facilities may qualify in the future.

Ambulatory surgical services are also provided in nine licensed outpatient surgery centers located outside of acute care hospitals. These facilities are concentrated in the more densely populated areas, principally Charleston, Huntington, and Morgantown. Several are dedicated to ophthalmologic surgery. Comparatively little is known about the services because, unlike hospitals and nursing homes, they do not report publicly utilization and related data.

2. Long-Term Nursing Care

There are 106 licensed commercial nursing homes statewide. In 1997, these facilities operated a total of 9,944 beds. There are an additional 536 long-term nursing care beds in state-owned public nursing homes, and 1,033 beds in community hospitals that have been converted from acute care use to Medicare skilled nursing home beds. There are a total of 10,791 Medicaid certified beds in all locations statewide. There has been a moratorium on commercial nursing home development for more than a decade, during which the only capacity increases permitted have been the conversion of excess acute care hospital beds to skilled nursing home use. These conversions have added substantially to the supply of nursing home beds and appear to have helped keep average nursing home occupancies within manageable levels. Average occupancy of the commercial nursing homes has been approximately 95% in recent years.

In addition to the commercial, public, and hospital-based nursing home beds, there are 65 licensed personal care homes statewide of four or more beds each. These homes operated a total of 2,443 licensed beds in 1997. As with some nursing home beds, some of the personal care beds are converted hospital beds that are operated as “distinct parts” of acute care community hospitals. There are also 652 licensed personal care beds located in larger residential board and care facilities around the state. Adding all licensed personal care beds brings the total licensed long-term care capacity to 14,608 beds, or about 53 beds per 1,000 persons over 65 years of age.

3. Health Departments and Primary Care Centers

There are nearly 150 primary care center and local health department service sites scattered around the state. They are shown on Maps AC-28 & AC-29. Collectively, they accommodate nearly 2.0 million patient encounters each year in the 54 local health department and 91 primary care service sites. As with many small rural hospitals, the primary care centers and the local health departments play a critical role in assuring minimal access to health care for many West Virginians. Unfortunately, they too face serious economic challenges. They survive on a combination of grant monies (federal, foundations, and other), state appropriations, and user fees. User fees are largely in the form of Medicare and Medicaid payments.

4. Health Care Personnel

As with sparsely populated rural areas in many states, health care personnel shortages are endemic in rural West Virginia. Recruitment efforts are well organized, collaborative, and ongoing. A wide array of scholarships, loans, loan repayment programs, and related efforts (e.g., the visa waiver program) are used to recruit and retain health care personnel, particularly physicians. Serious shortages persist, nevertheless. The large majority of the state is designated as either a Medically Underserved Area (MUA), a Health Professional Shortage Area (HPSA), or both. Areas designated as MUAs or HPSAs are shown in Maps AC-33 and AC-34. Only four counties are not wholly or in part designated as either a HSPA or a MUA. A large majority of the population live in underserved or shortage areas. Currently, there are requests pending for more than 200 health care professionals to meet identified needs in health manpower shortage areas of the state.

5. Behavioral Health Services

West Virginia has five psychiatric hospitals, 14 behavioral health centers, and 65 certified intermediate care facilities for the mentally retarded (ICF-MR). Two of the psychiatric hospitals (150 beds) are owned and operated by the state and two are privately owned and operated. In addition, about one-fourth (15) of the community hospitals have psychiatric services. In total, there are slightly more than 500 psychiatric beds statewide, 150 public beds and 357 private beds. The public health system serves between 60,000 and 70,000 persons annually.

C. Strengths-Weaknesses-Opportunities-Threats (SWOT) Analysis

1. Strengths

- Using a combination of state, federal, and private grant monies, West Virginia has developed an extensive network of primary care centers throughout the state. These centers, like the local health departments and the small rural hospitals, are critical elements in assuring access to needed primary care services and to the health care system generally.
- Several Medicaid Waiver (Section 1915(b)) programs have been developed and are now in place. Additional waivers or expansion of existing waivers could be sought.
- The Rural Health Systems Program (RHSP), established in 1996 to help maintain essential rural health services through restructuring the health care delivery system, via networking and system formation where possible, has been particularly helpful in preventing the closure of essential small rural hospitals (Map AC-31).
- Several rural health networks, notably the Southern Virginia Rural Health Network (SVRHN), the Eastern Panhandle Integrated Delivery System (EPIDS), and the North Central West Virginia Health Network (NCWVHN), have been established through the combined efforts of the West Virginia Center for Rural Health Development, the West Virginia Office of Community and Rural Health Services, and the West Virginia University Office of Rural Health (Map AC-30). This effort is also supported by the Rural Managed Care Demonstration Project at West Virginia University.
- The West Virginia Rural Health Educational Partnerships project supports clinical training of health care personnel in rural area facilities and services. The project helps provide care to residents in 13 underserved counties.
- The West Virginia Rural Health Access Program supports efforts to increase the supply of primary care providers in underserved areas, to strengthen the rural health care infrastructure, and to build service capacity.
- The West Virginia School Health Initiative brings comprehensive health education to 46 of the state's 55 counties. More than half of all the state's schools participate in the Healthy Schools Program. The School-Based Health Center Initiative supports school-based clinics in medically underserved areas of 12 counties. The clinics provide primary care and preventive health services. Several sites also provide mental health counseling and dental services.
- The Public Health in Transitions Project has helped stabilize and refocus the efforts of local public health systems.
- The use of telemedicine and telehealth technologies enables providers to practice state-of-the-art medicine in a number of locations.

2. Weaknesses

- Key elements of the rural health system infrastructure, i.e., the small rural hospital, local health departments, and the primary care centers, are fragile and weak economically. Many, if not most, have required special support and effort to remain viable. Their future remains uncertain.
- In many instances, existing health information systems do not collect and report data related to measures of access. Information for analyzing factors influencing access is limited.
- Many West Virginia communities and counties do not have adequate health resources, e.g., physicians, primary care centers, local emergency services, and hospitals, and there is little prospect of getting them soon.
- Data are needed from neighboring states to assess more precisely the magnitude of outmigration for health care by West Virginia residents.
- The lack of good public transportation services or of reimbursement for private transportation services may influence care-seeking behavior by some West Virginia residents.
- The lack of adequate health insurance is likely to deter many West Virginians from using the health care system.
- Reimbursement levels may not be sufficient to promote access. Financial incentives may be insufficient to encourage the private market to develop needed services.
- Managed care plans contract with hospitals that are accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO). Because small rural critical hospitals do not have to seek JCAHO accreditation, health plans may not have ready access to hospital services in certain counties, thereby adversely affecting access.

3. Opportunities

- Improved system integration and coordination may help improve access to services in rural areas.
- Health information systems can be developed and expanded over time to permit more effective planning and use of resources.
- Linking or merging existing data sets, e.g., hospital discharge data, population data, transportation data, and Medicaid data, could provide powerful insight into understanding service use and obstacles affecting access to care.

4. Threats

- Ultimately, a number of small essential rural hospitals may be forced to close if ways cannot be found to use their capacity, and support services, to meet legitimate unmet need.
- Unusually high dependence on public payments, largely Medicare and Medicaid, carries substantial, uncontrollable risk for providers of care and, consequently, for their patients and clients.
- Failure to improve access for at-risk populations may keep morbidity, mortality, and health care costs higher than expected or necessary.
- Legislators and other public officials may not be able (or willing) to provide additional financial support to maintain the stability to health programs and services that have limited support in the private market.
- Access may have to be balanced with other competing values, e.g., economic and quality considerations.

III. PROBLEM STATEMENT

Obstacles to obtaining needed medical care are multidimensional. This is particularly true in West Virginia with its distinctive demography, geography, and health care infrastructure. The essential resource base, the personnel, facilities, and equipment needed to provide care, simply does not exist in many communities. Where resources are readily available, the problem may be the inability to reach or to afford the services needed. In other cases, the limitation may be a lack of knowledge of the need to seek care or of how to do so effectively.

As is the case nationally, the fundamental problem affecting access to health care in West Virginia is the ability to afford, to reach, and to pay for care when it is needed. Affordability is especially problematic in rural areas. There is little that can be done in the near term to change the economics of health care in West Virginia; consequently, the practical question is how to ensure the stability of the existing health care infrastructure and that existing services and systems operate as efficiently as possible and are open to all. Planning policy should try to ensure that there is a reasonable opportunity to restructure the system in response to a changing health care market and to operate flexibly, consistent with protecting the public interest.

IV. ANALYSIS

Standard health status measures, health system operational data, and the location of key health facilities and services are summarized in Tables AR-1 & AR-3 and Maps AR 1-25 & AC 1-20. Collectively, and in combination, these data suggest the following:

- There is considerable variation in health status across West Virginia. Analysis of mortality data by county reveals considerable variation by county and region of the state (Maps AC 1-20). These data are taken from county health profiles published by the West Virginia Bureau for Public Health in 1997. They show that although some rates have decreased over the last decade they remain uniformly high. Compared with the rest of the nation, relatively little progress has been made at the state, regional, or county level in improving health status over the last 10 to 15 years.
- There is also considerable variation by county and region in reported personal health behaviors such as tobacco use during pregnancy and seeking prenatal care.
- Although health status, health care seeking practices, and personal health behaviors vary considerably within the state, few counties have indices that compare favorably with national indices.
- Inpatient hospital use has decreased in recent years. Acute care discharges decreased statewide by 17.5%, from 258,895 in 1994 to 213,591 in 1997. The statewide use rate (discharges per 1,000 persons) decrease was slightly higher at 18%. Notwithstanding comparative poor health status and an aging population, this pattern of decrease is expected to continue. West Virginia inpatient use levels and rates (admissions/discharges, average lengths of stay, inpatient surgery rates) are considerably higher than those found nationally and in most neighboring states. Decreased dependence on inpatient acute care services is likely, regardless of the level of managed care penetration.
- Surgical rates are also considerably higher in West Virginia than expected. Some of this higher use is likely a function of the demographic profile of the population, but there is some evidence of higher-than-expected surgery levels for a number of high variation conditions (e.g., coronary bypass surgery, prostate surgery, carotid endarterectomy) where alternative therapies may be appropriate.

- Given the demographic and health status characteristics found statewide, nursing home use and use of all licensed long-term care services is somewhat lower than might be expected. While not certain, this may result from the control of nursing home bed supply through the moratorium on development that has been in effect (with the hospital acute care bed conversion) for more than a decade.
- Emergency department and outpatient visit rates in West Virginia acute care community hospitals are much higher than those found nationally and in most neighboring states. This is to be expected, given the shortage of physicians and other health care professionals in many communities and probably should be seen as positive under the circumstances.

V. ACTION STEPS

Consideration should be given to the following:

- Conduct detailed analyses to determine the age-, gender-, and geographic-specific use rates for major facilities and services (e.g., hospitals, nursing homes, surgery centers, primary centers, personal care homes) in order to begin to identify accurate use rates and patterns and to assess links between and among major services. This is necessary to permit a reasonably accurate assessment of access to care.
- Conduct an inventory of county/community health and health-related transportation services.
- Develop a systematic method of assuring that West Virginia (and all residents) obtains the maximum level of federal and private foundation monies for which it (they) qualify.
- Develop a core set of access measures that can be weighed against other values, e. g., quality and cost.
- When developed, incorporate core access measures and data reporting into the certificate of need review process to ensure that applicants/developers consider all relevant access considerations fully.
- Conduct population-based analytical studies of acute care hospital use modeled after the analyses outlined in the *Dartmouth Atlas of Health Care* and the Milliman & Robertson *Health Care Management Guidelines (Vol. 1)* to establish baseline planning benchmarks for key acute care services and facilities.

VI. POTENTIAL SOLUTIONS

Most of the factors substantially affecting access to health care in West Virginia are deeply entrenched economic and social problems that are likely to be changed only gradually over a number of years. The principal agents of change will be economic development, better and more universal education, and the reversal of recent migration and natality patterns. Strategies do need to be developed to address these issues, but change will come gradually and slowly.

Near-term approaches that may be productive are likely to involve steps to ensure the stability, efficiency, and operational flexibility of the existing health care system, especially the small rural community hospitals, the local health departments, and the primary care centers. This is likely to be achieved only through careful population-based planning that deals serially with the interconnected problems facing the state. Several of the studies listed above (Part V: Action Steps) would be particularly helpful in this regard.

VII. POLICY RECOMMENDATIONS

Three potential changes in policy should be considered. They are

1. Modify the certificate of need program to promote “managed competition” where possible through features such as “batch” filing and processing of applications and a request for proposals/applications program for selected health services and facilities; refine the current moratorium on commercial nursing home development by adopting a managed competition feature, e.g., an annual report on operations and a periodic call for proposals, that would permit existing nursing homes to compete for any additional capacity or services that may be found to be needed; and provide a “level playing field” by covering all licensed surgery centers, with data submission requirements roughly equivalent to those placed on small rural hospitals.
2. Expand the existing Medicaid waivers to cover additional services (e.g., Section 1115), programs, and geographic areas, as has been done in several other states, where overall cost effectiveness can be demonstrated.
3. Develop data sharing agreements and protocols with neighboring states. There is considerable migration for care between West Virginia and neighboring states. For example, between 10,000 and 12,000 West Virginia residents are discharged from Virginia hospitals each year and substantial numbers also use Virginia surgery centers and nursing homes. Detailed patient origin and destination studies are needed to document the net effect of migration and how it might be addressed productively.

VIII. FEASIBILITY

West Virginia health care officials have given every indication, and tangible evidence, of their commitment to maintaining the stability of the existing health care infrastructure, the first step necessary to assuring and improving access to care for all residents. Extraordinary efforts have been taken to preserve the local public health system, the primary care centers, and small rural hospitals. The nature of these efforts, particularly the ability to gain the cooperation and support of a wide array of interested and potentially affected parties, suggests that similar efforts to maintain, and ultimately improve, access to care for all West Virginians should succeed.

IX. ACCOUNTABILITY

Accountability as used in this section means all interested parties accept or at least acknowledge that access to health care is a serious, endemic problem in West Virginia that is likely to require many years of concerted effort to address, much less resolve. Because there is necessarily such a strong reliance on the public health system (local health departments and publicly supported primary care clinics) and on both direct and indirect public support of the private health care system, responsibility and accountability for maintaining and improving access to care rests primarily with public officials and programs.

The most effective way to encourage other key interested parties to share this responsibility and to accept some measure of accountability is to establish a collaborative, population-based planning process that can assess fully the

current health care delivery system, public and private, and how it operates. This will entail a series of sequential analytical planning studies to establish baseline operations and measures and the current linkages among services and facilities. The results of these studies should become the foundation for policy formulation. True, practical accountability is likely to evolve from this process.

X. ISSUES FOR THE FUTURE

As outlined above, improving access to health care and the functioning of the West Virginia health care system generally is likely to require systematic planning to document the system as it now is and works, and to establish baseline measures and standards that can be used as benchmarks to assess change over time. Some of the studies that need to be undertaken as early as possible include:

- Systemwide patient origin and destination studies, augmented with data from neighboring states where it is available. (These data are available in useable form in Virginia and Maryland; the status of data collection and analysis in Ohio and Pennsylvania is uncertain.)
- Exploration of the use of geographical information systems (GIS) to integrate health and nonhealth databases as a tool for identifying access problems and the synergistic functioning of the health care services and programs generally.
- Analysis of acute care hospital use statewide using the *Dartmouth Atlas of Health Care* and the Milliman & Robertson *Health Care Management Guidelines (Vol.1)* to establish baseline-planning benchmarks. (A model analytical framework of the Milliman& Robertson analysis is included as Attachment 1 to the Coordinated Healthcare System issue statement.)

Bibliography

Publications

Virginia Hospital & Healthcare Association. *Patient Migration: Virginia/West Virginia Border: Does the State Line Influence Patient Choice?* Richmond, VA: Spring 1999, pp. 12-13.

West Virginia Rural Health Plan. Charleston, WV: Office of Community and Rural Health Services, West Virginia Bureau for Public Health, 1998.

West Virginia Health Profiles. Charleston, WV: Office of Epidemiology and Health Promotion, West Virginia Bureau for Public Health, 1997.

Data Sources

CDC Wonder/PC, CDC, PHS, U. S. DHHS

Virginia Health Information, Richmond, VA

West Virginia Health Care Authority, Charleston, West Virginia

West Virginia State Health Plan, MacQuest Consulting, 1999, Draft Issues Statements