report from the Minnesota Department of Health

The Need for Alternative Licensing for Rural Minnesota Hospitals

Report of the Rural Health Advisory Committee to the State Legislature

December, 1996
Minnesota Department of Health
Community Health Services Division
Office of Rural Health and Primary Care

Pursuant to 1995 Minn. Laws Chap. 234 Art. 8 Sec. 55

The Need for Alternative Licensing for Rural Minnesota Hospitals

December, 1996

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The Rural Health Advisory Committee also thanks individuals who served on subgroups of the Rural Hospital Study Work Group: Lynn Clayton , Rush City, MN; Richard Failing, Hallock, MN; Gary Larson, Little Falls, MN, Ernest Ruiz, M.D., Minneapolis, MN; Allen Vogt, Grand Marais, MN; Ruth Vortherms, Le Sueur, MN.

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January 6, 1997

To Interested Parties:

On behalf of the Minnesota Department of Health (MDH), I am forwarding this Rural Health Advisory Committee report on *The Need for Alternative Licensing for Rural Minnesota Hospitals* to the Legislature. This report was required by Laws of Minnesota 1995, Chapter 234, Article 8, Section 55. The department appreciates the Rural Health Advisory Committee's thoughtful recommendations on preserving access to rural hospital and emergency care.

The recommendations on participating in the development of a single, national rural primary care hospital license appear sound and reasonable. We will be happy to work with the Legislature to craft a joint resolution supporting the alternative rural hospital licensing model developed by the Committee and its ad hoc Rural Hospital Study Work Group. We will aggressively advocate for changes at the federal level, and agency staff will continue to lay the ground work for implementation of this licensing option, if it is passed at the federal level.

Regarding RHAC's recommendations on targeting state support for rural hospitals, I concur with the recommendation that the state health department develop a more comprehensive system of criteria that will better identify hospitals that are critical-to-access and vulnerable hospitals. MDH staff have already begun to work on this project.

Incorporating the new criteria that result from the study on critical-to-access and vulnerable hospitals into the existing Sole Community Hospital Program will require statutory amendments. Upon completion of the study, MDH will pursue amendments to the criteria that are consistent with the history and legislative intent of this grant program. As recommended, we will restructure the program to enable us to encourage and assist the state's Sole Community Hospitals to improve their viability.

The RHAC recommendations to the Legislature on increasing support for and restructuring the Rural Hospital Planning and Transition Grant program have promise. We believe that refocusing the program may better encourage genuine transition in a time when the rural health care delivery system is undergoing tremendous change. We look forward to hearing the legislative discussion on this issue. In addition, the MDH will conduct a formal review of the state Sole Community Hospital and Rural Hospital Planning and Transition grant programs in 1997. These evaluations may add additional insight into refining programs to preserve access to rural health care.

Another of RHAC's recommendations is to require inclusion of sole community hospital and physicians priveleged at those hospitals in all managed care networks involving state funds. I understand the committee's concerns and recognize the need to preserve access in rural Minnesota. The existing requirement that health maintenance organizations provide access to primary care services (which includes hospital care) within 30 miles or 30 minutes, and that health plans contract with designated Essential Community Providers demonstrate the state's commitment. The state should be concerned that consistency between our policy directives and our role as a purchaser of health care services is maintained. We will be happy to cooperate with the Legislature in addressing this issue.

Although the Commissioner has no authority over public program reimbursement, we do have a legislative directive to support efforts to secure higher reimbursement for rural health providers, through the Office of Rural Health & Primary Care. We will be happy to share RHAC's recommendations with the Health Care Financing Administration and the Minnesota Department of Human Services and support the federal Congressional delegation's or the state Legislature's efforts to address reimbursement issues.

In response to last year's Rural Health Advisory Committee report, MDH's Division of Facility and Provider compliance has evaluated federal certification provisions for hospitals, nursing homes, home care, and hospices. The Department has found that changes in the licensure systems would require not only changes in state law, but also a federal waiver of the Medicare and Medicaid requirements. No state has yet received a waiver for an integrated regulatory model, and it is unclear whether the Secretary of Health and Human Services has the authority to waive federal requirements for reasons other than considerable cost savings. Therefore, the MDH will monitor efforts in this area nationally, continue to streamline licensing and certification through administrative changes, and, as resources permit, continue to evaluate the feasibility of obtaining a waiver for a consolidated licensing system.

We commend the Rural Health Advisory Committee on its study of preservation of access to emergency medical care. We share the committee's interest in developing a state-wide trauma registry and will be happy to work with the Emergency Medical Services Regulatory Board (EMSRB) on this activity. Previously, the EMS section in the MDH had made significant achievements on developing a Trauma Plan for the state of Minnesota and exploring a trauma registry; however, cuts in federal funding caused us to curtail efforts in this area. We continue to be interested in this topic and supportive of efforts in this area.

We appreciate RHAC's approach toward addressing problems with rural EMS issues. Modifying the Model Criteria and Guidelines for Trauma and Stabilization Facilities and addressing ambulance personnel issues is a responsibility of the EMSRB. Development of helicopter intercepts is a responsibility of the Regional EMS projects, and we encourage them to undertake further planning for coordination of ground and air services. I support RHAC's recommendations and will pass them on to the EMSRB.

I congratulate the Rural Health Advisory Committee and its Rural Hospital Study Work Group for their hard work and look forward to your future efforts to improve access to quality health care for all Minnesota citizens.

Sincerely,

Anne M. Barry
Commissioner

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Executive Summary

Introduction

As rural communities struggle to preserve access to hospital-based services, they face a variety of challenges. Demographic changes in the population and economic stagnation in rural communities combined with difficulties recruiting and retaining health care providers, public program reimbursement restrictions, changing physician practice patterns, and aging facilities affect the viability of Minnesota's small rural hospitals.

Minnesota ranks second only to Texas in its number of small, rural hospitals (Wellever, Moscovice, and Chen, 1993). Twenty-one of Minnesota's small rural hospitals have closed since Medicare reimbursement changed to a prospective payment system in 1983; 12 of these closures were in the 1990s. Two state-designated Sole Community Hospitals, which receive grant funds based on net income losses and location in isolated rural areas, have closed in the past two years. Of the 110 rural hospitals in 1996, 50 had average daily census of less than or equal to five, and 22 of less than or equal to three. Forty rural hospitals are financially troubled or distressed. With the changes taking place in the health care marketplace and the increased emphasis on cost containment, Minnesota's small rural hospitals will continue to face tremendous challenges. It is a critical time for rural health care, and the need for genuine transition of some rural Minnesota hospitals is apparent.

Purpose

This report addresses access to hospital care in rural Minnesota and the need for alternative licensing models for small rural hospitals. The Rural Health Advisory Committee (RHAC) through its Rural Hospital Study Work Group (RHSW) and the Office of Rural Health and Primary Care (ORHPC) examined trends in hospital utilization, access to obstetrics and emergency care, demographics of rural populations, the financial status of rural hospitals, hospital closure trends, and the health resources of the communities. The RHSW considered the goals of an alternative licensing program for Minnesota; features of existing national models; networking and minimum staffing requirements; and ways to promote integration of services in rural Minnesota communities.

The RHSW concluded that alternative rural hospital licensing models proposed by Congress are a viable option for some, but not all, small Minnesota hospitals. Therefore, the Work Group explored several other options for preserving access to quality hospital-based services and emergency care in rural Minnesota through flexible, participatory approaches that maintain community self-determination on health care issues.

Access to Hospital Care in Rural Minnesota

In examining access to health care, the RHSW concluded:

- Loss of significant populations in rural counties has moderated since the 1980s. Population trends include increases in rural counties near the Twin Cities, along the southeastern border with Wisconsin, and in the northern corridor region. Populations are generally expected to decline along the southern and western borders of the state and in portions of the Arrowhead region, and the Medicare-eligible population is expected to grow in the northern corridor and the southeast border counties. The demographer's projections do not account for the special health care needs related to the seasonal influx of tourist and migrant populations in many Minnesota communities.

- Indicators of hospital utilization, including average daily census, and inpatient admission rates show substantial decline in the past five years. Hospitals in the five outstate Regional Coordinating Board (RCB) regions showed substantial increases in the outpatient admissions and percentage of their total revenues. Some small, rural hospitals are beginning to limit their obstetrics and emergency room services.

- All but four of Minnesota rural hospitals have full-time emergency departments. Costs of maintaining 24-hour coverage of emergency room services is one of the major problems faced by small rural hospitals. About 77 percent of ambulance personnel in the state are volunteers, with the vast majority of volunteer personnel serving in rural areas. Hospitals are geographically sparser in northern Minnesota, and portions of 14 Minnesota counties. Air ambulances are within 150 miles of all but two very small portions of the state in northwest and northeastern Minnesota.

- Hospital closure clearly affects access to local health care services. Of Minnesota's 21 closures, residents of nine communities must travel more than 20 miles to hospital care. The most recent closures in Karlstad and Spring Valley involved designated Sole Community Hospitals and left some residents of the state more than 30 minutes from hospital care.

- Rural hospitals continue to experience financial difficulties. According to the Minnesota Hospital and Healthcare Partnership, 26 rural hospitals had experienced four or more net losses between 1987 and 1994, and 14 rural hospitals had experienced four or more net losses during those eight years and have a cumulative loss greater than ten percent of their 1994 equity.

- Rural communities have a disproportionate share of the state's Medicare population. In fact, more than one-third of rural hospitals across the state depend on Medicare for more than 50 percent of their revenue. It is likely that further decreases in Medicare reimbursement will impact Minnesota's rural hospitals substantially more than urban facilities and will create tremendous stress for the long-term care system.

- The social value of community hospitals is readily apparent. Health care facilities are also important to a rural community's economic development because of their ability to attract new businesses and retirees. As an indicator of the direct economic contribution of the health care industries to rural Minnesota communities, 24 of the 51 communities with small hospitals (average daily census of five or less) ranked health care as their first or second major employer.

- In structured interviews of administrators from the 23 Minnesota hospitals with an average daily census of three or less in July of 1995, the administrators stressed the importance of strategic planning, developing a continuum of care, establishing network relationships, and maintaining community support in ensuring continued viability of their hospitals. The inability to recruit and retain staff was a common challenge identified by hospital administrators. Other problems of these small hospitals include aging physical plants and a lack of access to capital, local economic difficulties, the inflexibility of federal regulations, and inadequate reimbursement through public programs.

Ensuring Access to Essential Health Care Services - New Models

Alternative Rural Hospital Licensing Models

Purpose

Congress has supported the development of "limited service rural hospital" programs to provide an alternative health care facility for rural communities that can no longer support a traditional hospital and are in danger of losing access to basic health care services. The strategy gives low-volume facilities greater flexibility in meeting the health care needs of the community by reducing regulatory requirements (e.g. staffing and ancillary services) and improving Medicare reimbursement. In exchange, the hospitals are required to limit their acute-care services and create networking arrangements with larger hospitals and other providers.

History

Over the past several years, the federal government has supported the development of two limited-service hospital models. The Medical Assistance Facility (MAF) is being tested in Montana under a federal waiver and the Rural Primary Care Hospital (RPCH) is available in seven states under the Essential Access Community Hospital Program (EACH). As of October 1996, there were approximately 40 RPCHs and MAFs in the eight states participating in the programs.

Both the MAF and the RPCH have been the subject of independent program evaluations sponsored by Health Care Financing Administration (HCFA). Both models were judged to have reversed the deterioration of health services in the communities they serve, expanded the supply of practitioners and services, improved the financial position of the facilities, and fostered the integration of community services to improve continuity and avoid duplication.

Current Federal Initiatives

Responding to the need for a national limited service rural hospital program, two new models that would have expanded the program to all 50 states were introduced in Congress in 1995 and 1996. Although these proposals have passed both houses of Congress, neither has been incorporated into law. The National Rural Health Association (NRHA), which represents a broad constituency dedicated to improving rural health care, has issued a policy paper on the need for a national limited service model and is working with the House Rural Health Coalition on drafting legislation for a national limited service hospital model to be introduced in 1997. U.S. Senator Rod Grams is drafting a Rural Health Improvement Act for introduction in 1997, which includes provisions for a national limited service rural hospital and incorporates some of the recommendations in this report.

The Need for an Alternative Licensing Model

A need for an alternative licensing model for rural hospitals exists in Minnesota. In 1996, the Rural Hospital Study Work Group surveyed the 23 rural Minnesota hospitals with an average daily census of three or fewer patients. Eighteen of the 23 administrators (78 percent) said that a limited service rural hospital model might be appropriate for their hospitals.

The RHSW closely reviewed the MAF and RPCH programs and the proposed legislation for national limited service hospital models and developed recommendations on the appropriate provisions for national limited service hospital legislation. The RHSW defined goals for a Minnesota alternative licensing model that are consistent with the federal models: provision for right-sizing of services to meet community needs, regulatory flexibility, enhanced Medicare reimbursement, encouragement for networking with larger health care systems, and integration of services. The RHSW stated that planning and implementation of such a model must involve community support and would require resources to effectively transition.

Barriers to Implementation

Despite the need for a limited service rural hospital option and the apparent willingness of a number of small, rural hospitals to convert, they are prevented from doing so in two ways. First, the state of Minnesota is barred from designing and implementing its own model by the need for and the unlikely prospect of receiving a federal waiver. Second, rural hospitals are excluded from participating in the federal program by a cap on the number of states that may participate in the EACH/RPCH program.

Policy Options

The policy options available to Minnesota for developing alternative rural hospital licensing models are: (1) develop an alternative rural hospital licensing model that is unique to Minnesota, (2) do nothing; wait for Congress to enact a national alternative rural hospital licensing program, and (3) participate in the design of a national alternative rural hospital licensing program; anticipate the features of the program and position the State and providers to take advantage of the program as soon as it is passed.

Rural Health Advisory Conclusions and Recommendation

An alternative licensing model would be a viable option to preserve access to health care services and encourage small, rural hospitals to right-size their services to meet the needs of their communities. Such a model could ease regulatory burdens and enhance Medicare reimbursement for small, rural hospitals that meet the eligibility criteria.

The RHAC recommends that the state Legislature pass a joint resolution: 1) endorsing the model proposed by the Work Group, and 2) authorizing the Commissioner of Health to participate with national organizations in the development of federal legislation for an alternative license for rural hospitals and to advocate for federal funding for state and local planning and implementation of an alternative rural hospital license. The Rural Health Advisory Committee further recommends that the Minnesota Congressional Delegation supports the passage of such legislation and the Commissioner of Health positions the department to take advantage of federal legislation for limited service rural hospital programs. If and when federal legislation is passed, the Commissioner should proceed with prompt implementation of the model.

Support for Hospitals that are Critical to Access or Vulnerable

As the Rural Hospital Study Work Group evaluated the need for and appropriateness of an alternative rural hospital model, they concluded that the limited service hospitals met the needs of certain communities very well, but were not the answer for all of the state's rural hospitals.

There is also a precedent for targeting federal and state support to other, somewhat larger rural hospitals that are critical to access. Among the grant programs designed to maintain access to acute inpatient and emergency care are the federal and state Sole Community Hospital programs. Other federal and state programs, such as the federal Rural Health Transition Grant Program and the state Rural Hospital Planning and Transition Grant Program, have made funds broadly available to rural hospitals to assist them in making changes in their services or delivery to better meet the health care needs of their communities.

Identification of Hospitals that are Critical to Access or Vulnerable

Limited state resources to preserve access to essential health care services argues in favor of developing a system of criteria to stratify hospitals in terms of how critical they are for access and whether they are at-risk or vulnerable. Currently, we identify eligible hospitals for the Sole Community Hospital designation based on distance from other hospitals, size of community, and financial losses. Although we can identify hospitals that are financially distressed or troubled, a more comprehensive formula is needed to accurately classify hospitals based on how critical they are to access and their vulnerability. RHSW members noted that additional criteria for identifying critical-to-access hospitals such as a county population's dependence on the hospital and percentage of receipts from public programs should be considered. Likewise, hospital vulnerability criteria should take into account availability of physicians, size of population being served, community support, and other relevant criteria.

Targeting of State Resources

The Rural Hospital Study Work Group argues that the state should assist critical-to-access hospitals in preserving essential acute, emergency, and long-term care services, as long as the community supports and is able to recruit physicians and other health care providers. On the other hand, vulnerable hospitals need more support to plan and implement conversion to a primary care hospital, to integrate services, and to assess emergency medical care needs and capabilities. Support for these efforts would ideally come from both state and federal sources. However, in light of the cut of the federal Rural Health Care Transition Grant funds, it is not probable that such funding will be appropriated for rural hospitals.

Needs of Rural Hospitals in Today's Health Care Marketplace

- A need to "right-size" hospital services to community needs and to transition to outpatient-based models of health care delivery or rural primary care hospitals. Hospitals are faced with the need to transition in ways that better meet the health care needs of their communities and require resources to do so.
- A need to assess emergency medical care capabilities regionally and upgrade medical staff training for emergencies. Comprehensive Advanced Life Support training should be encouraged for all medical staff, and hospitals should reassess emergency medical services resources in their regions.
- A need for integration of services. The RHSW envisioned a community-based integrated health care services model that provides for a seamless continuum of services resulting in: 1) reduction of fixed and variable costs; 2) improved utilization of staff; and 3) continuity of care that allows discharged patients to remain within the facility and the community.
- A need for regional collaboration. Regional assessment of health needs and joint planning may assist communities in creating arrangements that rationally reduce duplicative services and provide a continuum of care with or without physical co-location of facilities. Two of the chief concerns related to integrating facilities on a regional basis are the hospital (M.S. 144.551) and nursing home (M.S. 144A.071) moratorium statutes, which prohibit the establishment of new facilities or increases in bed capacity.
- A need to participate in managed care networks. Rural hospital administrators expressed concern about being excluded from participation in managed care networks, such as the Prepaid Medical Assistance Program (PMAP) and MinnesotaCare.
- A need to improve their reimbursement from public programs. Systematic reimbursement problems adversely affect rural hospitals' finances and ability to improve their physical plant and equipment.
- A need for a streamlined, coordinated licensing system. Duplicative licensing processes for the various parts of a system, i.e., hospitals, nursing homes, hospices and home care facilities, create unnecessary administrative burden for small, rural facilities.

Rural Health Advisory Committee Recommendations

1. *As a first step in systematically targeting the needs of rural hospitals, the Commissioner of Health should study and develop a hospital classification system that would identify those hospitals which are critical to access and vulnerable. The Commissioner of Health*

should review the criteria by which to designate critical-to-access and vulnerable hospitals, considering inclusion of such factors as:

- *geographic access*
- *hospital market share*
- *degree of medical underservedness within the area population*
- *volume of outpatient visits*
- *hospital service population size*
- *availability of physicians in the community*
- *financial indicators*

2. *The state should continue to support the Minnesota Sole Community Hospital Grant Program. The Commissioner of Health should: incorporate the revised criteria for critical-to-access and vulnerable hospitals in the grant program, based on completion of the study mentioned above; restructure the program to require grantees to demonstrate that they are making an effort to improve their viability; and further assess resources or assistance needed by these hospitals.*

3. The elimination of the federal Rural Health Transition Grant program affects the ability of hospitals to maintain access to cost-effective, quality health care services. To encourage hospital conversions, assessment of rural emergency medical care, and integration of services, the "seed money" provided by the federal government should be replaced with state funding.

   The state should continue to support the Minnesota Rural Hospital Transition Grant Program and restructure the grant program in the following ways:

   - *Given the reductions in federal support and the transition needs of Minnesota hospitals, funding for the Rural Hospital Planning and Transition Grant program should be increased by $1,750,000 annually to a total of $2 million. At least $1 million of this appropriation should be budgeted by the Office of Rural Health and Primary Care to fund the Rural Hospital Planning and Transition Grant Program, and approximately $1,000,000 to fund several comprehensive Rural Health Center demonstration projects.*
   - *Although awards should be made based on project merit, applications from critical-to-access hospitals and vulnerable hospitals should be weighted more heavily in the need criteria.*
   - *Priority should be given to projects that propose conversion, assessment or upgrading of emergency medical services, or integration of health care services.*
   - *Priority should be given to projects that demonstrate involvement or support of appropriate health care providers within 25 miles and other community stakeholders, such as Community Health Boards, Regional Coordinating Boards, Regional Development Commissions, local units of government, and consumers.*

- *The length of the grant period should be extended to two years for implementation projects and the dollar amount of the award should be increased to a maximum of $50,000 per year.*
- *A new category of grants should be added to the Rural Hospital Planning and Transition Grant Program to fund a demonstration of the Rural Health Center concept developed by the Work Group. A Rural Health Center is a partnership/merger/consolidation of two or more health facilities in a region. Projects would demonstrate the efficiencies of regional consolidation and be a precursor to a model for successful health service delivery under any future alternative licensing authority.*

  Funding/Application/Review for Rural Health Center
  Proposals for such projects would require a strategic plan that demonstrates involvement of appropriate health care providers within 25 miles and other community stakeholders, such as Community Health Boards, Regional Coordinating Boards, Regional Development Commissions, local units of government and consumers. Funds would be made available for one-year planning projects at a maximum grant amount of $30,000 each, with additional funds available for two-year implementation projects at a maximum grant amount of $200,000 each. Local matching dollars would be required. Project approval would constitute a waiver of the hospital and nursing home moratoriums and exemption from the $546,000 construction limit, as well as automatic qualification for the Contractual Alternative Payment Demonstration Project for Nursing Homes (Minnesota Statutes, section 256b.434). Grant recipients would be required to submit cost estimates for service consolidation, construction, and capital improvements.

4. As managed care is extended into rural areas, the state should adopt policies that will protect access to inpatient hospital care for rural citizens. *The Legislature should require inclusion of sole community hospitals and physicians privileged at those hospitals in all managed care networks involving state funds, including the Prepaid Medical Assistance Program (PMAP), MinnesotaCare, the General Assistance Medical Care program, and the State Health Plan. In addition, the Legislature should require the state to reimburse these hospitals and physician clinics on an equitable basis.*

5. The Medicare and Medicaid payment systems inadequately reimburse small rural hospitals, which in turn affects their ability to upgrade physical plant and equipment. *The Legislature should authorize the Commissioner of Health to advocate for modification of the Health Care Financing Administration (HCFA) Prospective Payment system to explicitly recognize the higher average fixed costs per visit of low-volume rural hospitals, and for more equitable reimbursement for rural hospitals by HCFA and the Minnesota Department of Human Services that would not penalize them for lower historical costs and wages.The Rural Health Advisory Committee further recommends that the*

Minnesota Congressional Delegation advocate for and support legislation for such changes.

6. Current facility licensing does not reflect the organization of the market. A lack of coordination in licensing and certification processes create unnecessary administrative burden for facilities. *The Commissioner of Health should continue to streamline licensing and certification processes for health care systems by pursuing a consolidated licensing system for facilities under common ownership or management and seeking appropriate federal waivers to pilot such a project. The Commissioner of Health and the Minnesota Congressional Delegation should advocate for Congress to give broader waiver authority to the Secretary of Health and Human Services for issues related to rural health care.*

Preserving Access to Emergency Medical Care

In assessing the delivery of emergency medical care in Minnesota, RHSW examined hospital-based delivery services, focusing on the definition of "emergency room" in both acute-care hospitals and alternative rural hospitals; the staffing needs and issues in rural areas; and the role of telemedicine in various types of facilities.

The Rural Hospital Study Work Group defined its overall vision for the rural emergency medical care system in terms of its components, which constitute a hierarchy of emergency services capabilities across the continuum of prevention of injury and illness, pre-hospital, hospital, and follow-up care. For each of the components, the Work Group further defined the services, the location, requirements, staff/training needs, and barriers to implementation.

Based on their vision of a hierarchy of emergency services, the Work Group formed several guiding principles that they believe will assist in the development of the state's emergency services system.

- A system of emergency services should be developed in which hospital emergency rooms are required to be open 24-hours per day. In the absence of a 24-hour emergency room, the community should develop either trauma stabilization facilities in rural primary care hospitals; or urgent-care centers based in nursing homes, hospitals, or clinics, or free-standing emergency facilities. Protocols for stabilization and transfer of emergency patients should also be developed. Helicopter intercepts should be available.
- Trauma teams are crucial to delivering high-quality emergency care. Teams should include physicians, registered nurses (RNs), and nurse practitioners or physician assistants who are certified in advanced trauma or life support. The team should have access to laboratory and x-ray services and have a person trained in advanced life support for breathing difficulties. Although advanced life support-certified registered nurses, physician assistants, and nurse practitioners are highly capable of handling many trauma situations, the presence or timely availability of a physician with competence in care of the critically injured is crucial to providing high quality care. Ideally, a hospital trauma team should include two physicians in addition to other health care personnel. Minimum

staffing levels for a free-standing emergency facility should be a nurse practitioner or physician assistant who is qualified to provide advanced life support services with physician backup via telemedicine or telephone.

- Telemedicine may support emergency medicine by providing access to continuing education programs and consultation with specialists; however care of critically ill or injured patients in emergencies is a hands-on process, and as such, must be carried out by properly trained practitioners on the scene.

RHSW members reemphasized the need for a statewide trauma registry in Minnesota. The purpose of collecting Emergency Medical Services (EMS) data is to evaluate the emergency medical care of individuals with illnesses and injuries in an effort to improve access and reduce morbidity and mortality. Without appropriate information, it is difficult to know where to place limited resources. One of the key issues in rural planning for emergency medical care delivery is the establishment of a state trauma registry. Although the major metropolitan hospitals in Minnesota operate trauma registries, there is no state-wide system that involves data sharing or data analysis. A previous study conducted under the auspices of the EMS section at the Minnesota Department of Health recommended adoption of a statewide, population-based trauma system. However, there is a need for conducting further comparative analyses of costs, benefits, and strategies.

Rural Health Advisory Committee Recommendations

1. One of the key issues in rural planning for emergency medical care delivery is the establishment of a state trauma registry. Although the major metropolitan hospitals in Minnesota operate trauma registries, there is no state-wide system that allows data sharing or data analysis. A previous study conducted by the Emergency Medical Services section of Minnesota Department of Health (now the Emergency Medical Services Regulatory Board) recommended adoption of a state-wide, population-based trauma system. However, there is a need to conduct further comparative analyses of costs, benefits, and strategies.

   RHAC recommends that the Emergency Medical Services Regulatory Board and the Commissioner of Health collaborate on planning for a statewide trauma registry to include: defining and evaluating the purposes of a statewide trauma registry, the data elements, the analysis of the data, the applications of the findings, the options for collecting data, the respective costs, and the feasibility of pursuing identified options for development of a statewide trauma registry. Money for implementation of the trauma registry should be appropriated following the completion of the plan.

2. Although the state has developed and disseminated model criteria and guidelines for trauma and stabilization facilities and community trauma facilities, the criteria do not address several of the most common rural emergencies --cardiac and obstetrics.

   The Emergency Medical Services Regulatory Board should modify the model criteria and model guidelines for trauma and stabilization facilities by adding protocols for cardiac

and obstetric emergencies. The Commissioner of Health should review and adopt the revised guidelines and encourage hospitals throughout the state to meet the standards therein.

3. It is desirable for patients to go to an emergency room if a properly staffed and equipped facility is available. However in some regions of Minnesota, primarily the northern tier of counties, such facilities are not available within a 30-minute travel time. *Therefore, the state should encourage the establishment of helicopter intercepts to enhance the availability of emergency care in remote areas.*

   Furthermore, there are a number of circumstances, such as a lack of local protocols specifying situations in which the helicopter should be called immediately, which create delays in obtaining helicopter transport for critically ill or injured patients. *Collaboration between hospitals and providers of ground and air ambulance services should be encouraged. Hospitals should be encouraged to implement protocols for appropriate transfer of patients via helicopter to another facility.*

4. Many small rural hospitals do not have the number of staff persons trained in advanced life support available to deliver care at an optimal level. Currently, paramedics do not have a formal scope of practice, but rather function as paramedics only if on an ambulance call or under the direction of the medical director of the ambulance service. *To enhance the trauma team effort, the Emergency Medical Services Regulatory Board should more clearly define the scope of practice for paramedics, and hospitals should be encouraged to plan protocols specifying the conditions under which emergency medical technicians and paramedics can function in the emergency room.*

   Emergency medical technicians are the backbone of rural EMS systems; the majority of EMTs are volunteers. *The Emergency Medical Services Regulatory Board should encourage efforts to support and recruit emergency medical technicians and should attempt to increase the overall numbers of emergency personnel in rural Minnesota.*

ACCESS TO HOSPITAL CARE IN RURAL MINNESOTA

Introduction

Legislative Charge

In 1995, the Minnesota State Legislature directed the Rural Health Advisory Committee (RHAC) to: 1) present recommendations to the Commissioner of Health by December 1, 1995 for eliminating federal and state regulatory barriers that limit access to rural health care, and; 2) present a report to the legislature by December 15, 1996 summarizing rural health care access needs and the need for an alternative licensing model for rural hospitals (See Appendix A).

RHAC made its recommendations regarding regulatory barriers in a December 1995 report to the Commissioner of Health titled Regulatory Barriers to Rural Health Care. That report identified five specific regulatory barriers that rural health providers face: 1) emergency room staffing requirements; 2) limits on the ability of nurses to prescribe and administer prescription drugs in emergency situations; 3) duplicative federal and state facility inspection requirements; 4) physician supervision requirements that limit the use of physician assistants, and; 5) the requirement that hospitals with attached nursing homes have separate Directors of Nursing.

The Commissioner of Health responded to each RHAC recommendation made in the 1995 report. With regard to duplicative federal and state facility inspection requirements, the Commissioner accepted RHAC's recommendations for a consolidated licensing process, but concluded that development of the consolidated license should be delayed, so that the Department of Health can draft a coordinated bill reflecting the full scope of RHAC's recommendations on changes to the hospital licensing system.

For the report on alternative licensing models for rural hospitals, the Committee was directed to examine rural demographics, access to hospital services, access to transportation, the financial stability of rural hospitals, and other relevant issues. Based upon this examination, RHAC was to evaluate the need for and feasibility of implementing an alternative licensing model for rural hospital.

The Rural Health Advisory Committee (RHAC) consists of legislators, an ambulance service member, hospital and nursing home representatives, a physician, a mid-level practitioner, a nurse, a licensed health care professional not otherwise represented, an educational representative and three consumers. RHAC is charged with advising the Commissioner of Health and other state agencies on rural health issues, conducting rural health planning, encouraging greater cooperation between rural communities, evaluating approaches to rural health issues, and identifying underserved rural communities. (Minnesota Statutes, chapter 144.1481).

The Office of Rural Health and Primary Care (ORHPC), Minnesota Department of Health, is responsible for disseminating information on rural health care issues, coordinating rural health activities, and assisting rural communities in improving the delivery and quality of health care and recruiting and retaining health care professionals (Minnesota Statutes, chapter 144.1482). The Commissioner of Health, through the ORHPC, is responsible for planning for network development, establishing community health centers, administering financial assistance programs for hospitals, developing recommendations for rural health education programs, developing coordinated recruitment and retention strategies, establishing and administering technical assistance programs, and supporting efforts to obtain higher reimbursement for rural providers (Minnesota Statutes, chapter 144.1483). Six Regional Coordinating Boards (RCBs) serve as forums for Minnesota communities to advise the Commissioner of Health on the varying health care needs of regions of the state (Minnesota Statutes, chapter 62J.09).

Summary of Work Group Activities

To meet its 1995 charge relating to regulatory barriers and to assess the need for and feasibility of an alternative licensing model for rural hospitals in 1996, RHAC created a Rural Hospital Study Work Group (RHSW) and sought appointments from various associations interested in the problems of small hospitals. The group included appointees from the Minnesota Medical Association, The Minnesota Hospital and Healthcare Partnership (MHHP), the Regional Coordinating Boards (RCBs), the Minnesota Academy of Family Physicians, the Minnesota Organization of Nurse Executives, the Minnesota Pharmacists Association, the Minnesota Public Health Association, the Minnesota Ambulance Association, and the Rural Health Advisory Committee. Representatives from the University of Minnesota, Minnesota

Departments of Health and Human Services, and the Emergency Services Regulatory Board served as technical resources.

After four initial meetings in 1996, the RHSW formed three subgroups on the components of an alternative licensing model for rural hospitals: emergency medical services, long-term care, and inpatient/outpatient services. The subgroups passed their recommendations on to the RHSW in September of 1996, and those recommendations were revised and forwarded to RHAC in early November. RHAC's report was submitted to the Commissioner of Health for comment in December, 1996, and a letter from the Commissioner is attached to this report to the Minnesota Legislature.

Background and Purpose of Report

As rural communities struggle to preserve access to hospital-based services, they face a variety of challenges. Demographic changes in the population and economic stagnation in rural communities combined with difficulties recruiting and retaining health care providers, public program reimbursement restrictions, changing physician practice patterns, and aging facilities affect the viability of Minnesota's small rural hospitals.

Minnesota ranks second only to Texas in its number of small, rural hospitals (Wellever, Moscovice, and Chen, 1993). Twenty-one of Minnesota's small rural hospitals have closed since Medicare reimbursement changed to a prospective payment system in 1983; 12 of these closures were in the 1990s. Although most communities that experienced hospital closures are close to a neighboring community with a hospital, the most recent closures in Karlstad and Spring Valley involved designated Sole Community Hospitals, leaving some residents of Kittson and Fillmore counties more than 30 minutes from hospital care. Of the 110 rural hospitals in 1996, 50 had average daily census of less than or equal to five, and 22 of less than or equal to three. Forty rural hospitals are financially troubled or distressed, according to the Minnesota Hospital and Healthcare Partnership.

Recent research demonstrates that hospital closures can affect access to emergency medical services and depress both inpatient and outpatient utilization in rural communities (Rosenbach and Dayhoff, 1995). Hospital closure can also affect a community's ability to recruit physicians, which in turn may reduce access to ambulatory services (Kleinman and Makuc, 1983). Furthermore, based on their examination of rural Minnesota hospital closures, the RHSW stresses that hospital closure has economic and social repercussions for the community.

Although rural hospitals have been innovative in their approach to resolving these issues, the inflexibility of federal regulations relating to their structure and reimbursement has made it difficult to tailor health care services to the needs of their communities. There is a need for options and support that allow rural hospitals to adapt to rapidly changing health care delivery and reimbursement environments, as they struggle to maintain adequate facilities and services.

With the changes taking place in the health care marketplace and the increased emphasis on cost containment, Minnesota's small rural hospitals will continue to face tremendous challenges. It is a critical time for rural health care, and the need for genuine transition of some rural Minnesota hospitals is apparent.

This report addresses access to hospital care in rural Minnesota and the need for alternative licensing models for small rural hospitals. The Rural Health Advisory Committee through its Rural Hospital Study Work Group and the Office of Rural Health and Primary Care examined trends in hospital utilization, access to obstetrics and emergency care, demographics of rural populations, the financial status of rural hospitals, hospital closure trends, and the health resources of the communities.

The Work Group examined several alternative licensing models for rural hospitals, including the federal Essential Access Community Hospital/Rural Primary Care Hospital (EACH/RPCH) program which operates in seven states, the Medical Assistance Facility (MAF) demonstration project (Montana) and the national limited service hospital models recently proposed by Congress. The RHSW considered the goals of an alternative licensing program for Minnesota; features of existing national models; networking and minimum staffing requirements; and ways to promote integration of services in rural Minnesota communities. Through a structured interview process, the group then asked administrators from Minnesota's smallest hospitals to comment on these models and their ability to meet hospital and community needs, and describe the strategies they currently employ to meet community needs.

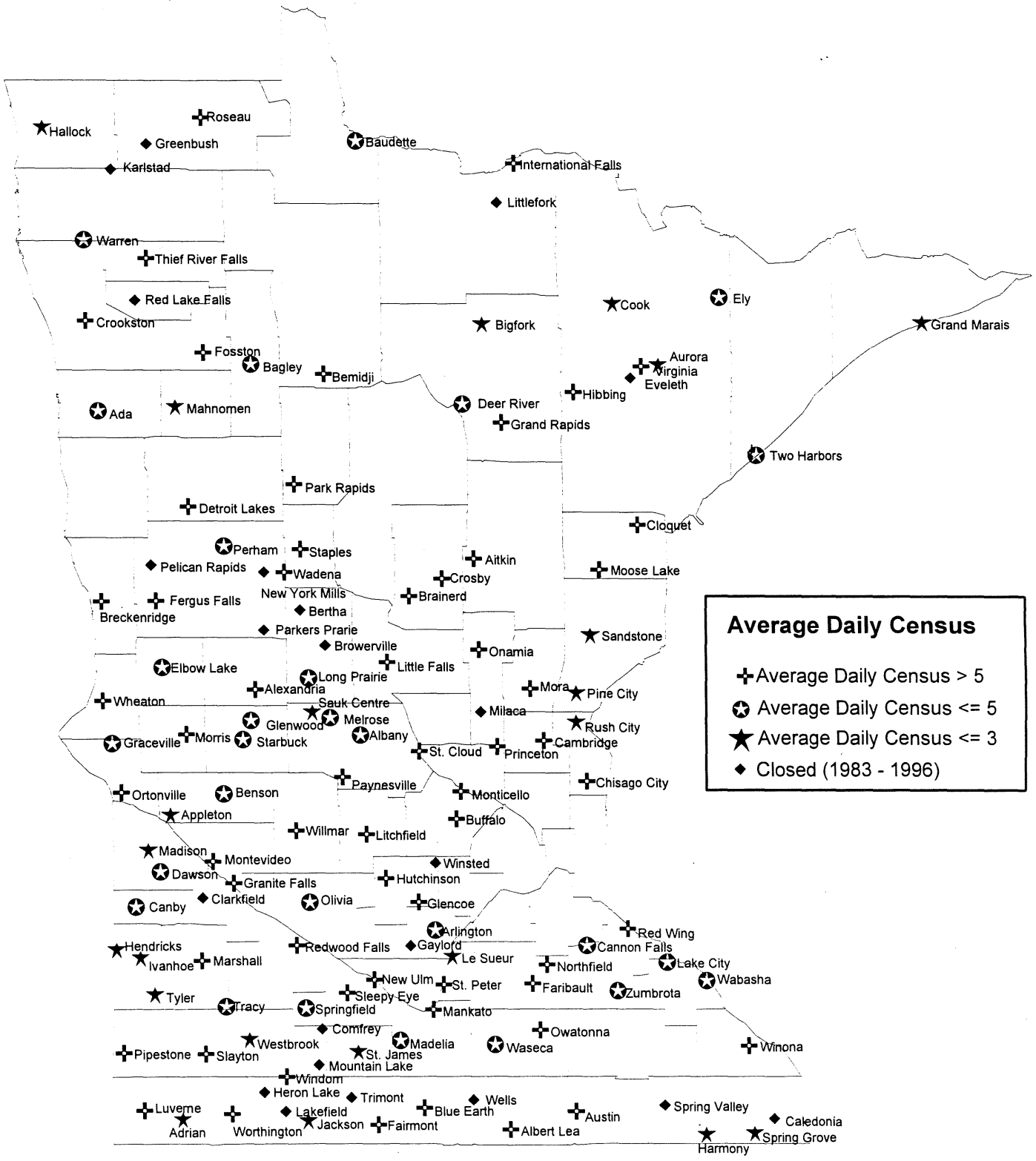
The RHSW concluded that alternative rural hospital licensing models proposed by Congress are a viable option for some, but not all, small Minnesota hospitals. Therefore, the Work Group explored several other options for preserving access to quality hospital-based services and emergency care in rural Minnesota through flexible, participatory approaches that maintain community self-determination on health care issues.

Rural Health Care Access

Minnesota is second only to Texas in its number of small, rural hospitals (Wellever, Moscovice, and Chen, 1993). With the closing of 21 small rural hospitals over the last 13 years and 12 in the 1990s, however, the distribution of Minnesota's rural hospitals is beginning to thin out. The geographical distribution of the state's hospitals is uneven, with 30 rural hospitals in the northern half of the state and 80 hospitals in the southern half. Gaps in hospital coverage appear sporadically throughout northern Minnesota, as judged by the 30 minutes/30 miles standard for health plans access to primary care and hospital services. Although the survival of many of the hospitals in northern Minnesota is obviously critical to maintaining access to emergency services, rural hospitals across the state are integral to the social and economic health of the communities they serve. See the map on the following page for locations of rural Minnesota hospitals and hospital closures since 1983.

Minnesota Rural Hospitals

By Average Daily Census (1994)



Minnesota Department of Health
Office of Rural Health & Primary Care

The following section of the report will address: 1) the projected demographics of Minnesota's population in order to identify trends in the need for hospital services, 2) hospital utilization trends and changes in the use of hospital-based obstetrics and emergency services and access to such services, 3) access to emergency medical services, 4) the impact of hospital closures on access, 5) the financial viability of rural hospitals. This section will also discuss the social and economic importance of small, rural hospitals, the current strategies of Minnesota's small, rural hospitals, and the problems that these small facilities face.

Projected Demographics of Minnesota's Rural Populations by Region

The State Demographer's Office examined population projections for rural Minnesota over the next 25 years and presented this information to the Rural Hospital Study Work Group. Historical trends, as well as present rates of mortality, fertility and migration are used to calculate population trends. The accuracy of these projections may be influenced by new circumstances or developments that can change the historical patterns in any particular area of the state. The demographer's projections do not account for the special health care needs related to the seasonal influx of tourist and migrant populations in many Minnesota communities.

Loss of significant populations in rural counties has moderated since the 1980s. Although many rural counties are expected to continue to lose population, the number of counties is less than in the past and the rate of loss is not as great. A number of counties in southeastern Minnesota, central Minnesota and the northern corridor are expected to achieve moderate growth until the year 2020. Populations are generally expected to decline along the southern and western borders of the state and in portions of the Arrowhead region.

The Medicare-eligible population is projected to increase substantially in the metro region, as well as the northern corridor and the southeast border counties. Projections for the largest increase in population over 85 years of age include Lake, Cook, Koochiching, Beltrami, and Itasca counties in the north, and Stearns county in central Minnesota. In terms of per capita income, data from 1993 shows the lowest average income in the southwest corner of the state, the western border counties, and the northern corridor.

Based on the information provided by the State Demographer, the following populations trends have been identified, expressed by Regional Coordinating Board boundaries (see Appendix B).

RCB 1: Lake of the Woods, Beltrami and Hubbard counties ("northern corridor" counties) are expected to achieve moderate growth in the next 25 years, as are Mahnomen and Clay counties within the region. Roseau county is expected to experience high population growth, in excess of 15 percent. Population losses of more than 15 percent are projected for Kittson, Marshall, Red Lake, Norman, and Becker counties. In terms of populations over 65 and populations over 85 (Medicare-eligible), the demographer projects gains in nearly all counties in the region, with large gains in both groups projected for Beltrami County and large gains in the 85+ population projected for Hubbard County.

RCB 2: The majority of the region is expected to experience population loss in the next 25 years, although the counties nearest the Twin Cities (Pine and Kanabec) may achieve moderate growth. An increase in the Medicare-eligible population is expected in all of the counties in RCB 2, with a large increase in over 85 populations projected for Cook, Koochiching, Itasca, and Lake counties.

RCB 3: The greatest increase in population for this region is expected in the counties nearest the Twin Cities (Benton, Sherburne and Wright), with moderate growth expected in Cass, Crow Wing, Morrison, and Mille Lacs (northern corridor counties), as well as Stearns and Douglas counties. Counties in the western part of RCB 3 are expected to experience population losses, with the greatest losses occurring in Traverse and Grant counties. Heavy increases in the populations of 65+ and 85+ Minnesotans are expected in the portion of the region nearest to the Twin Cities (Stearns, Sherburne, Wright and Benton counties), with moderate growth of these populations or losses expected in the western counties. The northern corridor counties in RCB 3 are expected to see moderate increases in both 65+ and 85+ populations.

RCB 5: McLeod County, near the Twin Cities, is expected to achieve high population growth over the next 25 years. Nicollet, Le Sueur, Blue Earth, Kandiyohi, and Meeker counties should achieve moderate population growth, with the rest of the region to the south and west expected to experience population loss. Declines in the numbers of 65+ and 85+ populations are also expected in many of these counties.

RCB 6: Populations are projected to increase in RCB 6, with the exception of Freeborn, Mower, and Fillmore counties. Projected population gains in Rice and Olmstead counties are substantial. Moderate increases in population, including 65+ populations, are expected in counties along the Wisconsin border (Goodhue, Wabasha, Winona, and Houston). The largest increase in populations over 85 years of age is expected to occur in Olmstead, Mower, Freeborn and Steele counties.

Loss of significant populations in rural counties has moderated since the 1980s. The general population trends, based on the State Demographer's projections, include population increases in rural counties near the Twin Cities, along the southeastern border with Wisconsin, and in the northern corridor region. Populations are generally expected to decline along the southern and western borders of the state and in portions of the Arrowhead region. The demographer's projections do not account for the special health needs related to the seasonal influx of tourist and migrant populations in many Minnesota communities.

Current Access To Hospital Services

Rural Hospital Utilization by RCB Region (1989-1994)

ORHPC gathered data on three indicators of rural hospital utilization, examining changes that occurred between 1989 and 1994. A map of Minnesota's rural hospitals and hospital closures since 1983 is on the following page.

These indicators, expressed by RCB regions, are: 1) hospital average daily census; 2) inpatient/outpatient admissions; and 3) change in outpatient admission revenue; and 5) change in rural hospital emergency room visits. The service and population figures for RCB 2 do not include the city of Duluth and the figures for RCB 6 do not include the city of Rochester.

Rural Hospital Average Daily Census 1989-1994

Regional Coordinating Board	Number of Hospitals 1989	Total Average Daily Census 1989	Number of Hospitals 1994	Total Average Daily Census 1994	Percent Change ADC
1	16	267	14	189	-29%
2	18	224	17	186	-17%
3	29	660	26	558	-15%
5	48	569	40	419	-26%
6	15	278	14	206	-26%
Rural Total	126	1998	111	1558	-22%
State Total	165	8262	148	6478	-22%

Source: Minnesota Department of Health, Division of Facility and Provider Compliance

Hospital average daily census is continuing to decline, both in the state as a whole and in rural areas. If the contribution of the hospital in Moorhead is removed from the RCB 1 figures for 1989, the average daily census for the rest of the region shows a decline of 15 percent. Decline in rural hospital average daily census may be related to a variety of factors, including: shift to outpatient services, reimbursement policies of public programs, healthier populations through the use of preventive care, managed care and/or public health initiatives, declining populations, and more sophisticated medical technology.

Rural Hospital Inpatient Admissions, 1989-1994

Regional Coordinating Board	Admissions per 1000 population 1989	Admissions per 1000 population 1994	Percent Change
1	88	71	-19%
2	70	64	-9%
3	86	78	-9%
5	91	79	-13%
6	109	93	-15%
Rural Total	89	77	-13%
State Total	118	106	-10%

Source: Minnesota Department of Health, Health Economics Program, Health Care Cost Information System

A comparison of 1989 and 1994 hospital admissions per 1000 of population showed admissions in rural regions declining slightly more rapidly than the state average (-13 percent rural; -10 percent state). Admissions declined most rapidly in RCB 1 (northwest; -19%) and RCB 6 (southeast; -15%) compared to the state average. The decline in rural hospital admissions per 1000 population is not influenced by decreases in the rural population.

Hospital Outpatient Revenue as a Percentage of Gross Revenue, 1989-1994

Regional Coordinating Board	1989 Percent Outpatient Revenue	1994 Percent Outpatient Revenue	Change in Percent of Outpatient Revenue (89-94)
1	30%	40%	+10%
2	29%	34%	+5%
3	32%	42%	+10%
4	22%	27%	+5%
5	31%	44%	+13%
6	34%	45%	+11%

Source: Minnesota Department of Health, Health Economics Program, Health Care Cost Information System

In their 1996 report, *Health Care in Minnesota: Trends and Issues in a Changing Market*, the Minnesota Department of Health noted a decline in the number of hospital inpatient admissions and a concurrent increase in the number of outpatient visits. This trend is further supported by the analysis of changes in proportion of revenue above.

Hospitals in all six RCB regions showed substantial increases in the outpatient percentage of their total gross revenues, with RCB 3 and 5 having more than 40 percent outpatient revenues. Outpatient revenue made up less than one-third of the hospitals' total revenue only in RCB 4, which includes the Twin Cities metropolitan area.

Access to Obstetrical Services

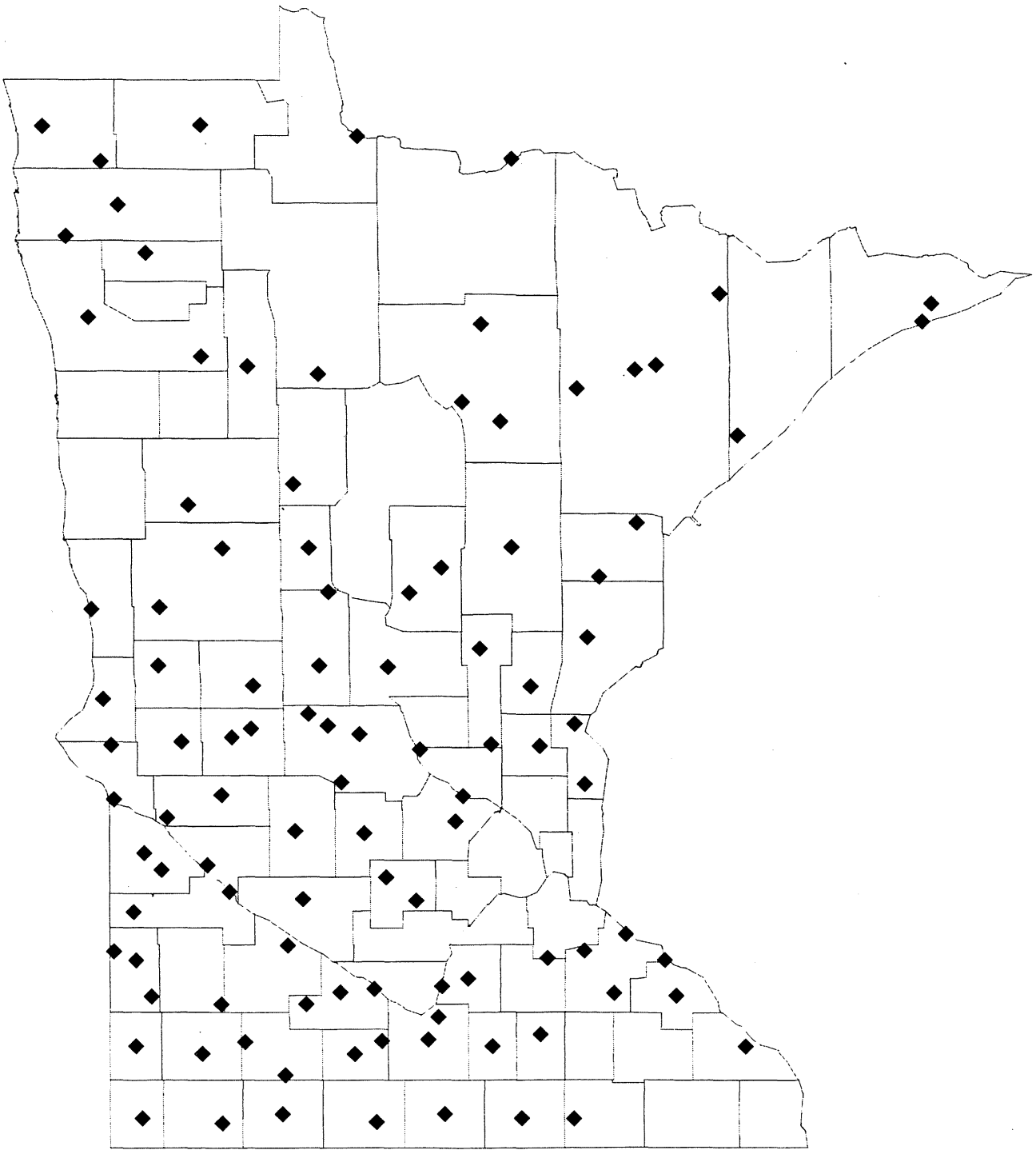
Rural Hospitals with Live Births, 1989-1994

Regional Coordinating Board	Hospitals with Live Births 1989	Live Births 1989	Hospitals withLive Births 1994	Live Births 1994	Change in number of Hospitals	Change in Percent of Live Births
1	15	2826	12	2344	-2	-17%
2	14	1634	15	1404	+1	-14%
3	27	7224	25	6810	-2	-5%
5	47	6312	40	5648	-7	-11%
6	12	3151	11	2869	-1	-9%
Rural Total	115	21147	104	19068	-11	-10%
State Total	154	65998	133	63590	-11	-4%

Source: Minnesota Department of Health, Division of Facility & Provider Compliance

All of the hospitals that have ceased providing obstetrics (OB) care since 1989 are rural hospitals. All of the rural RCB regions experienced a decline in live births and a decline in hospitals reporting live births. In addition to the fourteen hospitals who ceased operating (eight of which reported live births in 1989), five additional hospitals ceased and two began reporting live births since 1989. The greatest loss in facilities providing OB services was in RCB 5, which reported seven fewer hospitals providing OB care. RCB 1 experienced the largest decline in live births. The map on the following page shows location of hospitals reporting live births in 1989 and 1994.

Minnesota Rural Hospitals with Live Births in 1994



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A 1994 study on *Obstetrical Services in Rural Minnesota* identified: 1) an inadequate number of rural obstetricians that provided high-risk care and consultations; 2) an uneven distribution of rural obstetricians and patients in the state; and 3) areas of the state that may suffer a loss of obstetrical services in the next five years. As physicians discontinue providing obstetric services, hospital obstetric admissions can be expected to continue to fall.

Access to Emergency Medical Services (EMS)

EMS funding comes from local, state and federal sources. Almost everyone in the state of Minnesota who has a telephone has access to 911. Enhanced 911 (automatic location or number identification) is available to 69.4 percent of the state's population. Minnesota's average ambulance response time of seven minutes is well within the objective set by the U.S. Department of Health and Human Services, though response time is higher in rural areas due to the distances covered. About 77 percent of ambulance service personnel are volunteers, with the vast majority of volunteer personnel serving in rural areas. Conversely, the majority of paramedics practice in urban areas. Air ambulances, which can significantly improve access to emergency services in remote regions of the state, are with 150 miles of all but two very small portions of the state in the northwest and northeast regions (RCBs 1 and 2).

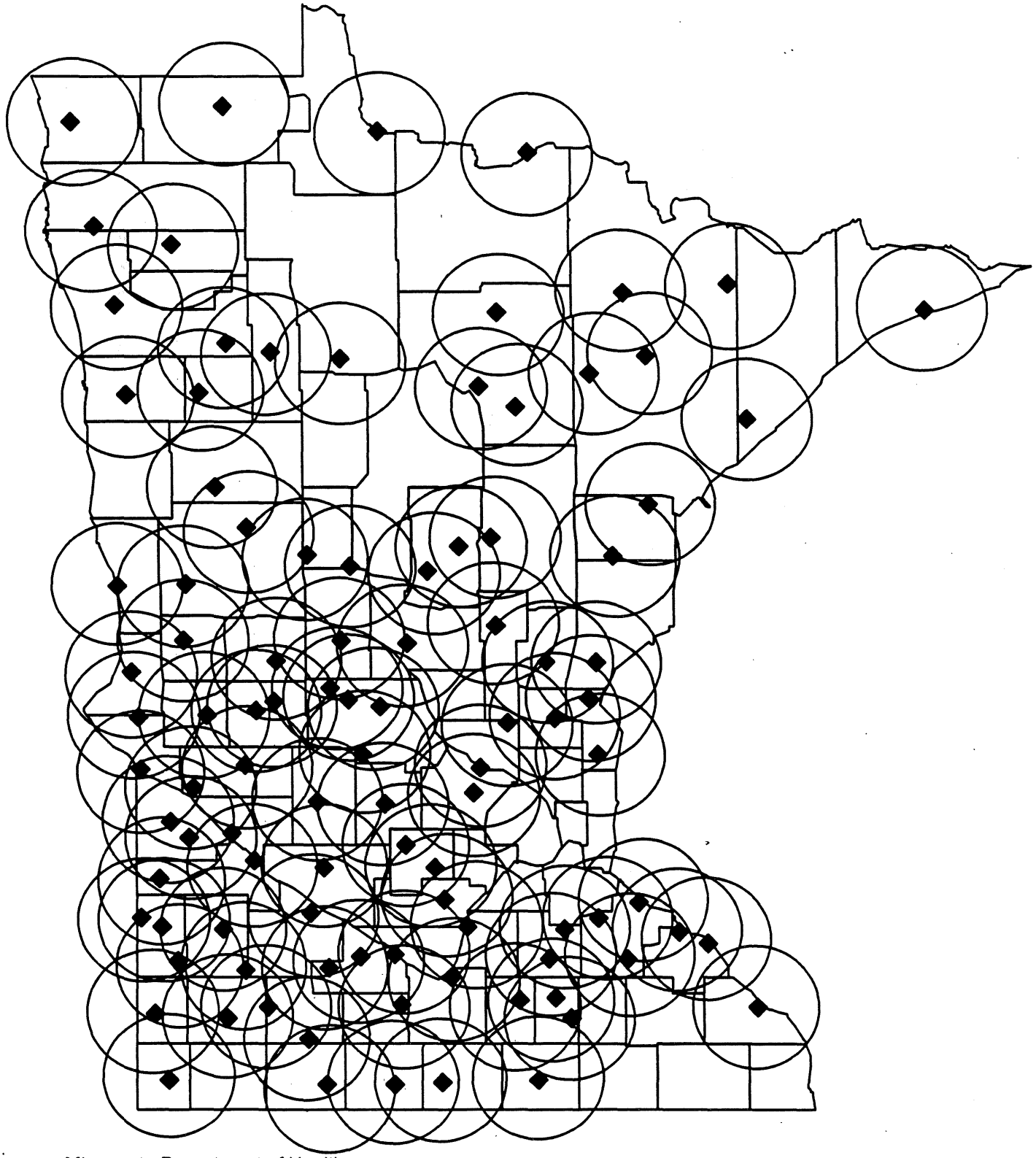
Rural Hospitals Reporting Emergency Room Visits 1989-1994

Regional Coordinating Board	Hospitals Reporting Emergency Room Visits in 1989	Hospitals Reporting Emergency Room Visits in 1994	Decrease in number of Hospitals	percent Decrease
1	17	14	-3	-18 %
2	17	16	-1	-6 %
3	29	26	-3	-10 %
5	48	39	-9	-19 %
6	14	12	-2	-14 %
Rural Total	125	107	-18	-14 %
State Total	158	138	-20	-13 %

Source: Minnesota Department of Health, Division of Facility & Provider Compliance

The majority of losses in hospitals reporting emergency room (ER) visits in the state were rural hospitals (18 of 20). Of the 18 hospitals no longer reporting emergency room visits, 14 have closed during this period. Four rural hospitals (located in Adrian, Harmony, Pine City, and Spring Grove) reporting ER visits in 1989 did not report emergency room visits in 1994. In RCB 5, eight hospitals closed between 1989 and 1994, and another, in Le Sueur, has limited its emergency room hours. The map that follows illustrates access to hospital emergency rooms.

23 Mile Radius Service Areas Around Rural Minnesota Hospitals With Emergency Rooms, 1994



Minnesota Department of Health
Office of Rural Health and Primary Care

Twenty-three mile radius are drawn around Minnesota hospitals to approximate 30 minutes travel time. According to a national study, thirty minutes travel time averages 23 miles by road (Wright, 1988). However, there are various standards for access to emergency services. Health Maintenance Organizations (HMOs) in Minnesota are required to provide access to hospital services in 30-miles *or* 30-minutes. Federal and state Sole Community Hospitals are required to be more than 25 miles away from the next nearest hospital. Federal designations of primary care shortage areas use 30-minutes travel time, while actual mileage varies depending on the type of road and road conditions.

The RHSW members stated that maintaining access to emergency room services is a valuable function of the state's rural hospitals. The group noted, however, that 24-hour coverage of emergency room services is one of the major barriers faced by small facilities. Obtaining locum tenens coverage, for example, may be cost-prohibitive for rural communities facing more than short and infrequent lapses of coverage. Of the 44 hospitals reporting for the *Minnesota Physician and Mid-Level Practitioner Demand Assessment* by the Minnesota Center for Rural Health, the average cost of emergency room coverage in the past 12 months was $110,800.

Financial Viability of Rural Hospitals

Predicting the survival of rural hospitals is not an easy task. A 1989 study (Hartley and Moscovice) of Northwestern states, for example, listed eight "high-risk" hospitals in Minnesota. High risk was defined as hospitals with net overall losses in three of the last four years and a net overall loss of 10 percent in one of the last two years, or a negative cash flow in one of the last two years. Although none of the hospitals identified in the study has closed in the last seven years, 15 other Minnesota hospitals have closed since 1989.

According to the American Hospital Association, even hospital administrators are poor prognosticators of hospital closures. In June of 1988, 700 hospital administrators surveyed said their facilities were at risk of closure in the next five years. Only 265 hospitals closed nationwide between 1988 and 1993.

Financially Troubled and Distressed Hospitals in Minnesota

Current data from the MHHP gives an approximation of the financial condition of rural Minnesota hospitals. MHHP defines a troubled hospital as a hospital that "has experienced four or more net losses in the last eight years." In 1994, MHHP found 31 Minnesota hospitals that met this definition; 26 were in rural areas. These hospitals were split about evenly between public and private ownership (14 public/17 private). The vast majority of the hospitals (26 of 31) had fewer than 50 beds.

MHHP also has defined "financially distressed hospitals." A distressed hospital is one that "has experienced four or more net-income losses during the last eight years and has a cumulative loss greater than ten percent of its 1994 equity." According to MHHP, there are 18 hospitals in the

state that currently meet this criteria, 14 of which are rural. The majority of these hospitals (14 of 18) have fewer than 50 beds.

Potential Impact of Reduced Medicare Reimbursement

Rural areas in Minnesota have a disproportionate share of the state's Medicare population. According to the Minnesota Department of Health (MDH) *Report on Congressional Medicare Reform and Minnesota's Health Care System* (April 1996), 58 percent of Minnesota's Medicare enrollees live outside of the seven county metropolitan area, while 46 percent of the state's entire population live in rural areas.

In 1994, rural hospitals received 43 percent of their net patient revenue from Medicare, as compared with 29 percent for urban hospitals. In fact, more than one-third (37 of 110) of the rural hospitals across the state depend on Medicare for more than 50 percent of their revenue. Despite recent changes in Medicare reimbursement to reduce the urban/rural differential in payment, rural hospitals across the nation have, as a group, lost money on their Medicare payments for the past six years (ProPAC, 1994). It is clear that further decreases in Medicare reimbursement will affect Minnesota's rural hospitals substantially more than urban facilities.

Potential Impact of Managed Care

The growth of managed care in rural areas was identified as a facility challenge by eight administrators in ORHPC's structured survey of the administrators of the state's smallest hospitals. The administrators expressed concern that some rural hospitals would be shut out of the system due to their small size or other factors unrelated to quality or cost of care.

According to the MDH *Minnesota Health Care Market Report* (1995), while 43.3 percent of metro area residents were enrolled in HMOs in 1994, just 6.8 percent of rural populations were enrolled in such plans. Similarly, although 53 percent of Minnesota's rural hospitals are affiliated with a Community Integrated Service Networks (CISN), data from 1995 (the first year of operation for these plans) shows less than 1 percent combined CISN enrollment of Minnesota's rural population.

Although 43 percent of rural hospitals are members of health care cooperatives, cooperatives must contract with licensed health plans such as CISNs or HMOs in order to provide care to patients in risk-based arrangements and these entities have very little penetration in rural markets.

The Prepaid Medical Assistance Program (PMAP) has a federal waiver to enroll Medicaid, General Assistance Medical Care, and MinnesotaCare populations into managed care health plans as a means of containing costs. The development of managed care networks through a public program prior to private market penetration in rural areas has raised concerns about the impact of PMAP on consumer choice, provider reimbursement, and historical referral patterns. Although PMAP was initially intended to be implemented statewide by 1997, it is now on a

slower timetable as the Department of Human Services works with counties throughout the state to explore various models for managed care implementation in rural areas.

Impact of Hospital Closures on Access

ORHPC gathered data on the 21 Minnesota communities with hospital closures since 1983. Mileage data was collected from the Official State Highway Map and average daily census is based on 1994 data collected by the Minnesota Department of Health.

Access to hospital services is within 10 miles for five of the communities, between 10 and 19 miles for seven communities and 20 miles or more for nine communities. For nine of the communities, the nearest hospital was very small, with an average daily census of five or less in 1994. Two communities, Karlstad and Spring Valley, were more than 25 miles away from the nearest hospital, which had average daily census of less than three in 1994 (See Appendix C for a complete listing of hospital closures). In terms of access to physician services, eight of the 21 communities with a hospital closure no longer had a physician residing in town in 1995, based on ORHPC's Health Professions Database.

In a national survey of town mayors, the ability to recruit and retain physicians was selected as the most important single factor in hospital closures. (Hart, Pirani, and Rosenblatt, 1990). This is not surprising, since a hospital cannot remain open (by law) without a physician to make admissions. Recent Minnesota hospital closures in Comfrey, Heron Lake, Karlstad, Lakefield and Mountain Lake, for example, were all preceded by the loss of community physicians. Financial problems are another major factor in hospital closure. Although they may not be useful as sole predictors of closure, financial indicators provide an excellent measure of the health and flexibility of rural hospitals to adapt to changing circumstances.

Case Studies

To learn more about the process of hospital closures in Minnesota and the impact hospitals have on communities, ORHPC staff obtained detailed information on selected communities. Two communities were chosen, one from a highly concentrated region of hospital closures in southern Minnesota and one from the northwest corner of the state where access to hospital services is more limited. Information was collected from local newspaper reports, supplemented by interviews with city administrators, clinical staff and others.

Lakefield

Located in the southern region of the state where a number of small hospitals have been lost in the last decade including Comfrey, Heron Lake, Trimont, and Mountain Lake, the city of Lakefield (pop. 1675) closed its hospital on April 30, 1994. Several of the hospitals that remain open in the region, e.g., Jackson, St. James, and Westbrook, have an average daily census of less than three. Increasing health care costs, a declining population, and difficulties with physician coverage were the key reasons behind the Lakefield's hospital closure. Lakefield's emergency room closed two years prior to the rest of the hospital.

Both Lakefield and nearby Comfrey (pop. 433) lost dedicated long-time community physicians prior to their hospital closures. Both communities experienced difficulties in physician recruitment, when the physicians they located did not meet state licensing requirements. As a result of the situation in Comfrey, the legislature amended the state Board of Medical Practice's two-year residency requirement for foreign-trained physicians, to allow substitution of 5 years of practice without discipline for the second year of residency. Both the state medical board and the RHAC opposed lowering licensure standards to address rural physician recruitment problems.

The former Lakefield Hospital building was sold to a health services organization in Windom. Since then, the new owners renamed the building "Doman-Rose Place" after two long-time Lakefield physicians, moved their executive offices into the top floor and leased space to a clinic staffed by physicians from nearby Jackson. The rest of the building was divided into assisted-living apartments for seniors. A group of Worthington physicians has taken up residence in the old Lakefield Clinic Building downtown, creating a competitive health care atmosphere. (A more detailed description of the Lakefield hospital closure, written by the city's newspaper editor, can be found in Appendix D).

Karlstad

Located in the northwest corner of the state, Karlstad Memorial Hospital served area residents until its closure on February 1, 1995. Along with the closure of Greenbush Community Hospital in June of 1991, the Karlstad closure left the far northwestern corner of the state with only two hospitals. Karlstad residents are currently 28 miles from Kittson Memorial Hospital in Hallock, while Greenbush residents are 21 miles from Roseau Area Hospital. Karlstad continues to be served by Karlstad Memorial Clinic, which is attached to the hospital and staffed by a physician and a nurse practitioner. Most referrals are to Hallock, Thief River Falls, and Grand Forks.

Karlstad's trouble began when one physician resigned and another retired within a couple of years. Recruitment of new physicians was difficult, although the community has successfully recruited a physician and nurse practitioner since the hospital closure. Karlstad currently receives outreach visits from a physical therapist and orthopaedic surgeon from Grand Forks.

Although a final decision on the use of the former hospital building has not been made, a fitness center, physical therapy facility, and optometrist office are currently occupying the space. The options Karlstad is considering for the old hospital building range from razing it to converting the space into an apartment building.

One of the biggest concerns that Karlstad has is the provision of emergency medical services, which it is attempting to meet through an "urgent care" system of volunteer nurses on-call with beepers. An answering machine instructs callers to dial 911 or go to the nearest emergency medical facility, but Karlstad would like to be able to upgrade its services in this area.

Conclusion

Loss of significant populations in rural counties has moderated since the 1980s and, in some regions of the state, rural populations are expected to increase moderately. In addition, Medicare-eligible populations are expected to increase moderately in many rural areas of the state.

At the same time, rural hospital rural hospital utilization is declining at greater than state averages. Outpatient visits to rural hospitals are increasing more rapidly than in urban hospitals and outpatient revenue makes up a higher percentage of rural hospital total revenue than urban hospitals. One explanation for this trend is changes to Medicare reimbursement, which have placed a greater focus on outpatient visits. Rural hospital obstetrics and emergency room visits have declined substantially in the last five years.

One-third of rural hospitals are financially troubled or financially distressed. Reduced reimbursement from Medicare is likely to have a pronounced impact on the financial health of Minnesota's smallest hospitals, many of which depend on Medicare for more than one-half of their revenues. The way that managed care is implemented in rural Minnesota through public or private programs should be carefully considered.

It is clear that hospital closure negatively impacts access to local hospital-based services in rural Minnesota communities. For more than one-third of these communities, access to hospital-based services is now more than 20 miles away. For communities that are geographically isolated an and can no longer support a hospital, provision of urgent care or emergency trauma/stabilization services is a concern. The impact of hospital survival on a community's economy is discussed in more detail below.

Social and Economic Importance of Rural Hospitals

An article in Smithsonian magazine notes that "small town hospitals draw energy from secrets all their own; within the national health care system, they emerge as unique institutions where the curing and the caring are one and indivisible" (Margolis, 1990). The social value of community hospitals is readily apparent. When a family member is ill, the doctor knows the patient personally and probably the entire family. Access to the hospital is quick and flexible for visits. "Providers" are friends who grieve and pray with families.

Health care facilities are essential to a rural community's economic development because of their ability to attract new businesses and retirees. This is particularly important as the economies of rural Minnesota become increasingly diverse, and their reliance on farming lessens. To be productive, workers must be healthy. Accessible, quality health care is a priority consideration for businesses interested in expanding or relocating. Likewise, prospective employees may consider the availability of health care for their families when deciding to accept a position. Health care is among the top factors in retirees' decisions to stay in a community or

relocate to another. The presence of a hospital is only part of a rural health delivery system. Emergency medical services, primary care, and long-term care are all important components of a rural health delivery system, but hospital closure has been shown to coincide with a decrease in other health care services.

In addition, closure of a hospital can create a ripple effect through a rural community's economy (Doeksen, Cordes, and Shaffer, 1992). Jobs are lost, paychecks not deposited in local banks, and goods and services are not purchased at the local stores. This can have a significant impact on a small town economy. A Minnesota study on the economic impact of the health sector on a seven-county area in northeast Minnesota (Lichty, Jesswein and McMillan, 1986) demonstrated the indirect impact of the health sector on the area economy. Earnings, population, and employment projections all dropped when the health sector was removed from the model. On the following pages, data on the economic and community health resources will be detailed for Minnesota communities with hospital closures and with small, rural hospitals.

Health Resources of Rural Communities

ORHPC gathered information on the current health resources in each community that experienced a hospital closure. Statistics on population, leading industry (by number of employees), rank of health care, and number of employees in health care are from data provided by the communities to the Department of Trade and Economic Development (DTED) for its "Community Profiles." It should be noted that the information presented in DTED's profiles was provided by the communities themselves. (See Appendix E).

Twenty-one Minnesota communities experienced a hospital closure from 1983 to 1995, with 12 closures occurring since 1990. The communities with recent hospital closures have an average population of 1430, an average distance to the nearest hospital of 15.8 miles and an average of one physician per community. Of the 18 communities that provided community profiles, 14 continue to rank health care in their top five industries based on number of employees and six ranked health care as their leading industry. Health care employs between 5 and 10 percent of all residents in these communities, primarily through nursing home services and clinics.

The RHSW closely examined Minnesota hospitals with the lowest average daily census, using a cut-off of 3 patients or less. The RHSW felt that these hospitals would be most likely to take advantage of an alternative licensing model for hospitals. Data from the structured interviews of 23 administrators of hospitals that have an average daily census of three of less in July, 1995 is also presented below. One of these closed in November, 1996.

Average population of these communities is slightly higher than the communities with hospital closures, at 1806. The communities average 68 nursing home beds. The average number of physicians per community is 2.8. Overall, these 23 hospitals averaged 20 licensed beds and 16 staffed beds, had an acute daily census average of 1.9 in 1994 and an average length of stay of 3.2 days.

Characteristics of the 23 surveyed hospitals include:

Continuum of Care - 18 of the 23 hospitals have attached nursing homes. Ten hospitals were part of an integrated setting which included one or more of the following services, in addition to hospital and nursing home care: outpatient or urgent care clinic, home health care, board and care, hospice, independent living center, senior housing units, specialists available on a part-time basis and mobile diagnostic equipment.

Primary Care - 63 of the 65 physicians practicing in the communities specialize in family practice, internal medicine or general practice. Mid-level practitioners are available in 12 of the 23 communities. As noted above, a variety of specialists visit these hospitals on a part-time basis.

Subacute Care - 20 of the 23 hospitals participated in the swing bed program in 1994. Eighteen reported transitional care days. The subacute average daily census was 1.8 in 1994, nearly equal to the average daily census for acute care.

Emergency Room Care - 19 of the 23 hospitals reported unscheduled emergency room visits in 1994, ranging from 324 visits to 1954 visits.

Obstetrics - 19 of the 23 hospitals have licensed bassinets, with 16 reporting births in 1994. The number of births reported per hospital ranged from 1 to 49, with an average of 19.

Surgery - 16 of the 23 hospitals reported surgical procedures in 1994, ranging from five to 67 procedures with an average of 30 operating room procedures per year.

Of the 20 communities responding to DTED's request for community profiles, 16 ranked health care in the top four employing industries and the health care industry was the first or second employer in ten of the communities. In fact, health care employment exceeded 10 percent of the entire population in five communities (See Appendix E).

As expected, the communities in this group have the largest average population (2419), the most licensed hospital beds (average 30), the most licensed nursing home beds (average 86) and the highest average of physicians per community (4.1) of the hospitals studied. Although these communities are slightly larger on average than the previous group, the facilities are still quite small and could be eligible for an alternative rural hospital license.

Of the 25 hospitals that responded to DTED's request for community profiles, eight ranked health care as their leading industry in terms of employment. Six ranked health care second and 21 ranked health care in the top five industries. Health care employees exceeded 10 percent of the entire population in eight communities. While the average daily census of hospital patients is stronger than the previous group, six of these communities have two or fewer physicians,

according to 1995 data. Physician populations increased in 11 communities, decreased in three communities and remained the same in 14 communities during the period of 1993 to 1995.

Conclusion

As well as being a community institution, the hospital and health care industry generally plays an important indirect role in attracting and retaining new industries and retirees to rural Minnesota, and direct role on the economy of rural Minnesota communities. In 35 of the 64 communities reporting to DTED (55 percent), health care was ranked as the first or second leading industry in terms of employment. Health care was ranked in the top five industries in 52 of the 64 communities (81 percent) that submitted community profiles to DTED. Although many of the hospital facilities studied are termed "small" in statewide comparisons, when viewed from the community's perspective they are enormous resources.

Current Strategies of Minnesota's Small Rural Hospitals

Recognizing the importance of getting the perspective of small, rural hospital administrators, the RHSW directed staff from the ORHPC to collaborate with MHHP in conducting structured interviews of administrators from the 23 Minnesota hospitals with an average daily census of three or less in July of 1995. As noted above, these hospitals were determined to be most likely to take advantage of an alternative licensing program. (See Appendix F for a summary).

Hospital administrators were sent the questions in advance, along with information about the federal Essential Access Community Hospital/Rural Primary Care Hospital program and a limited services hospital proposal in Congress requiring bed limitations, length of stay limitations and provision of 24 hour emergency care services in return for per diem reimbursement for inpatient care and cost-based reimbursement for outpatient services. The Hospital administrators were asked to outline strategies they use or are planning to maintain and strengthen the viability of their facilities, and how a limited service hospital license could be defined to meet the needs of their community.

The Planning Process

All of the administrators interviewed indicated that they pursue a variety of strategies to improve the viability of their facilities, rather than focusing on a single strategy. Twenty-one of the 23 administrators indicated that their facilities were engaged in some level of health care planning. Strategic planning was more common than long-term planning, with only two administrators currently involved in a long-term planning process. Each of the administrators stressed the importance of community involvement in the planning process through a variety of mechanisms including: satisfaction surveys, focus groups, interviews, public meetings, task forces, and marketing surveys.

State Rural Health Transition Grants have provided support to some of the communities seeking to begin a strategic or long-term planning process. These modest grants of $10,000 to $15,000 have not been received by six communities in this group.

Continuum of Care

The most common strategy to maintain and strengthen facilities, identified by 14 administrators in ORHPC's survey, is the development of a continuum of care through diversification of services. Four administrators indicated that they are in the process of adding a service to their facilities and four are planning to expand and upgrade these services. The facility strength most commonly cited by the hospital administrators (10 of 23) was provision of an integrated system of health services within close proximity or a campus setting. A number of the administrators indicated that while acute inpatient care is declining, outpatient and subacute care services are on the rise.

Networking

Network affiliations are a common strategy among the hospital administrators surveyed, including: 1) informal service arrangements with specialists to visit their communities; 2) formal and informal collaborations with larger regional centers for physical, occupational and speech therapy, cardiac rehabilitation, teleradiology, management, group purchasing, and contracts for durable medical equipment; 3) membership in a Health Care Cooperative or Community Integrated Service Network (CISN); and 4) informal collaboration with other small hospitals to share services or equipment.

Hospital administrators are considering increased collaboration with other small hospitals, cooperatives, CISNs and even urban health plans. Of the five administrators that reported reducing services or delicensing beds as a strategy to maintain their hospital's viability, all but one indicated that the facility had entered into an arrangement with another facility or health care cooperative. Fifty-three percent of rural hospitals are participants in CISNs, and 57 percent are members of health care cooperatives or consortia.

Recently, several large urban systems have established formal relationships with rural hospitals through the direct purchase of facilities or management contracts. Mayo Foundation, for example, has established relationships with rural hospitals in Albert Lea, Austin, Mankato and Waseca. Allina owns or manages at least 13 rural hospitals in the state, with its network, reaching as far as Fairmont in the south, Morris in the west, and Onamia in the north.

Network arrangements are not a panacea for the problems small rural hospitals face. One study found that while multi-hospital systems have been helpful in keeping declining hospitals open for several years, the systems eventually divested themselves of such hospitals. (American Hospital Association, 1989). Another study found that while rural hospitals most frequently enter into networks to improve their financial status and stability, network participation had no clear

impact on a range of financial performance indicators for rural hospitals in the short-term. (Moscovice, 1995).

While the long-term impact of networks on rural hospital financial status is unclear, networks can offer other benefits to rural hospitals including: assistance in retention and recruitment of staff; provision of on-call coverage; opportunities for sharing services; access to capital; provision of outreach services (specialists and equipment); administrative assistance, including electronic records, information sharing, and telemedicine; and assistance with managed care contracting.

Community Support

Twelve administrators in the ORHPC survey identified strong community commitment to health care as a strength. This commitment came in the form of hospital volunteers, fund raising efforts, and an active and supportive business community. In several cases, administrators indicated that community fund raising activities were largely responsible for the continued viability of the hospital.

For example, one community approved a 1 percent sales tax to fund a new building, while another raises funds and recognizes the importance of health care to the community through a yearly "Health Care Days" celebration. Administrators were quick to point out that their communities have donated thousands of dollars to improve emergency services, hospice care, buildings, and equipment.

The necessity of community support and involvement, though difficult to measure, was a theme repeated consistently throughout the Work Group process, as evidenced by the groups' continued support of community matches for state grants and demonstration of community involvement prior to pursuing a limited service hospital model.

Case Studies

To learn more about rural hospital strategies, ORHPC gathered detailed information on specific communities. Six communities were chosen, three with an average daily census of three or less and three with an average daily census greater than 3 but less than or equal to 5. Two communities from southern Minnesota were selected, two from the north and two from counties near the metro area. Information was collected from newspaper articles, press releases, and interviews with city administrators, clinic staff, and others as necessary.

Deer River

The Deer River Healthcare Center has been called "a stunning resource" and "a source of great pride." The Center provides 30 assisted-living apartments, home health services, cardiac rehabilitation, physical therapy, a 20-bed hospital (with a new emergency room and two intensive care beds), a 50-bed nursing home, a clinic (a satellite of the regional Duluth Clinic), a

full-time pharmacist, an ambulance, and social work services. In addition, the Center provides public transportation (three buses with wheelchair lifts).

The 1995 expansion cost $1.4 million, and was supported by a $200,000 grant from the Blandin Foundation. The remaining funds were raised through acquired debt. After a dismal economic performance in three of the previous four years, the expansion led Deer River to a $178,000 profit in 1995. The hospital administration is currently exploring partnerships with other facilities.

Hallock

The city of Hallock (pop. 1307) currently has three physicians and a Physicians Assistant (PA) serving Kittson Memorial Hospital. Two of the physicians were recruited recently through the J-1 visa program. The city has two clinics, as well as a satellite clinic in Stevens 20 miles away. The Hallock physicians and PA rotate to serve Stevens five half-days a week.

Like most small hospitals in the state, Kittson Memorial is on the route of mobile specialty equipment such as MRI, CT scan, mammography, nuclear medicine, and ultrasound. The hospital also receives outreach services from a radiologist in Cavalier, N.D., which is about 35 miles away. The hospital owns and operates an ambulance service, which covers much of Kittson County, and will soon take over home health care and public health functions from the county.

Kittson Memorial is currently involved in a major renovation of its attached nursing home, with the goal of providing a unit to deliver special services. The hospital will also soon provide a van service for patients' medical and other needs. The hospital is located in the northwest corner of the state, 43 miles from the nearest Minnesota hospital in Warren.

Le Sueur

On April 1, 1995 the Minnesota Valley Health Center, LeSueur's hospital facility, limited its emergency room hours to 8:00 a.m. to 10:00 p.m. due to costs of the service. The decision was made by the hospital's Board of Directors, in consultation with medical staff, city representatives, ambulance staff, an accounting firm, the nursing staff, marketing staff and representatives of the hospital's administration staff after analyzing emergency room usage over a 12-month period.

The change in emergency room hours was an attempt to maintain services to close to 80 percent of current emergency room patients, while saving approximately $225,000 per year in nursing and physician coverage costs and reducing the overwhelming call responsibilities of the city's two physicians. These physicians remain on-call 24 hours a day for hospital and nursing home patients despite the change in emergency room service.

A set of nursing protocols was created to provide consistent assessment of patients presenting to the facility after emergency room hours. For emergency patients presenting after hours the

protocol is to dial 911 and transfer the patient to the facility of their preference or, if no preference is given, according to ambulance protocol.

A press release issued by the hospital warned, "If you sense a medical condition is worsening [the patient care supervisor] advises coming to the hospital early, before the emergency room closes."

Rush City

Rush City has embarked on a strategy to close its hospital. That is not a misprint - the community is actually planning its hospital closure with the Fairview system. Fairview Lakes Regional System will involve hospital closures in Forest Lake and Chisago City as well as Rush City, with a new hospital being built in Wyoming, Minnesota. The new facility will attempt to truly integrate health care so it will be hard to tell where the clinic ends and the hospital begins. Wyoming's 32 bed hospital will replace 125 beds from the three facilities.

This change will not come quickly-- Rush City's hospital has already spent two and a half years assessing needs and educating the community. The closure is not to occur until the new hospital in Wyoming is completed in 1998. Rush City wants to evolve from a traditional full-service hospital into an ambulatory care/clinic facility that provides most of its current services and some new services, without inpatient care and 24-hour emergency services. The new facility will share specialists with the others in the network.

To address community needs related to emergency services, Rush City plans to upgrade its ambulance service to advanced life support, add evening and weekend hours in an urgent care clinic and institute a telephone nurse triage service. Rush City's hospital administrator believes that these steps will cover 75-80 percent of the community's emergency needs. In addition, Chisago County's three ambulance services are merging and restructuring to meet the needs of the new system.

Tracy

The community of Tracy, population 2056, is perhaps best known for its state champion girls volleyball and basketball programs. But Tracy Hospital has recently completed health care improvement projects that shine nearly as bright.

The city raised $1.3 million in bonds to attach a congregate care facility to its 37-bed hospital. Tracy Hospital is managed by Sioux Valley Health System. The community is served by four physicians (3 family practice and 1 pediatrician), along with two mid-level practitioners and a physical therapist. Tracy is especially pleased with the J-1 visa program, which allowed it to recruit two new physicians last year.

Specialists from Sioux Falls, the University of Minnesota and Abbott Northwestern Hospital visit the community regularly, in a strategy that keeps area residents in the community for their specialty needs. The hospital also makes use of mobile MRI, CT and nuclear medicine

diagnostic equipment and shares ownership in mobile cardio-vascular unit with 10 area hospitals.

Tracy's latest project is to convert a wing of the hospital to outpatient services. The hospital is just finishing a $400,000 fundraising campaign to finance the project. In the future, the hospital would like to incorporate assisted living services to provide care between the new independent living facility and the city's two nursing homes.

Westbrook

Dr. Henry Schmidt Memorial Hospital in Westbrook had an average daily census of 1.8 in 1994. Despite this, Westbrook is planning a new $4 million health care facility that will be connected to its 49-bed nursing home. The facility will include a five-bed hospital and various outpatient services.

Westbrook, a community of 853 people, hopes to attract patients from around the region. The small town boasts two physicians and a physician assistant thanks to the Heritage Health Foundation, which was formed in 1989 as a physician recruitment organization. Like many facilities in the southwestern portion of the state, Westbrook has joined Sioux Valley Health Systems for administrative support.

Westbrook, the state's smallest hospital, faces stiff competition from larger hospitals in what was once the most concentrated region of hospitals in the state. The city is roughly an equal distance from hospitals in Tracy, Slayton, Windom and Springfield.

Conclusion

As this discussion shows, what is needed for the viability of small, rural hospitals is support for and resources to right-size their services to meet their community needs. Provision of an integrated system of health services within close proximity or in a campus setting was considered a key strategy, in light of the declining inpatient admissions and the increases in demand for outpatient and subacute services. This integration is part of a more general trend to a outpatient- focused service delivery model for rural hospitals, which will be discussed further in the following chapter. Networking was another key strategy for sharing resources across communities, and getting both bargaining power and economies of scale. Community support was considered essential to the success of rural hospitals.

Problems Small Facilities Face

Inability to Recruit and Retain Staff

The inability to recruit and retain staff was the most identified challenge in ORHPC's survey of small hospitals, cited by 16 of the 23 administrators. Retention and recruitment of physicians was most often cited, but concerns were also expressed regarding retention and recruitment of other health professionals, including nurses, mid-level practitioners, laboratory technicians, physical therapists, and nursing assistants. Availability of management personnel was also identified as a challenge to hospitals.

Maintaining quality of staff and care delivered by the hospital was cited by nine of the administrators as a facility strength. Administrators identified the dedication of staff, including physicians, nurses and mid-level practitioners, and their contribution to the hospital's reputation for delivering high-quality care as a facility. Other strengths cited by the administrators include one-to-one care, knowing the patients, ready access to tertiary emergency centers, good relationships with referral centers and visiting specialists, cross-training of nursing staff, and advanced life support training of staff.

Local Economy

Economic difficulties were cited by 10 administrators as a community challenge. Concerns centered around economic reliance on a single industry, resistance to change and low-income levels in general. In many instances, the largest employing industry in these communities is health care, which has a well-documented impact on the ability of the community to attract other industries. Reliance on a health care economy for the long-term, however, is probably misplaced. According to the State Demographer's projections, many of these communities have declining, aging populations and patient populations may simply dry up if other areas of the economy are not revitalized.

Other community challenges (related to health care) identified by the administrators include aging population, lack of health education and prevention programs, high substance abuse and teen pregnancy rates, declining populations, population spikes during tourism seasons, influx of migrant populations with language barriers, lack of public transportation, low community involvement in health care decision making, and geographic isolation.

Inflexibility of Federal Regulations

Federal licensing and reimbursement regulations present several particular problems for rural facilities. Licensing requirements were designed for larger facilities; in particular, the requirements for staffing are costly and difficult for small, rural hospitals to meet.

For example, the RHSW last year supported the appropriateness of sharing a director of nursing between small rural hospitals and nursing homes. Although the state took action to allow sharing of nursing directors, this type of arrangement requires a waiver from the Health Care Financing Administration (HCFA). Staffing requirements require 24-hour RN coverage even when the hospital has no inpatients.

A related issue is physician availability. In rural areas, 24-hour on-call physician coverage is often not available or extremely costly. Requirements for utilization review, safety standards, and a variety of other specific regulations are often drafted with large urban facilities in mind and may be wholly inappropriate when applied in rural settings. For many of these conditions, neither the individual facilities nor the state can obtain a waiver.

Federal and state regulations were not designed for consolidated facilities. As the ownership or management of hospitals, clinics, nursing homes, and other services is consolidated, these facilities are faced with a myriad of separate, slightly different regulations for each facility and different schedules for reporting data, certification, and surveying. These regulatory issues are the source of substantial administrative burden for small, rural facilities.

Reimbursement Issues

Medicare Payments

Hospitals are paid for Medicare inpatient services on a prospective basis using diagnostic related groups (DRGs). There are two nationwide base rates used, one for large urban areas with more than one million population, and a somewhat lower one for all other areas. These rates are further adjusted by a wage index reflecting the relative cost of labor in the area. Each metropolitan statistical area (MSA) and state specific rural area has its own wage index which is used to adjust the base rate. Largely as a result of the difference in the wage index, hospitals in rural Minnesota have a payment rate equal to about 80 percent of a Minneapolis/St. Paul hospital. Generally Medicare constitutes the largest portion of a rural hospital's revenue, often 50 to 60 percent of total billings.

Medicare DRG base rates are based on averaging the operating costs of all hospitals within the two categories. Low-volume rural hospitals have a much smaller number of admissions over which to distribute their fixed costs. Therefore, the DRG rate structure disadvantages them by underestimating the proportion of fixed costs that can be attributed to any particular admission or service.

The Adjusted Average Per Capita Cost (AAPCC) is the current method used to pay Medicare managed care plans for covering Medicare beneficiaries. Each county has its own rate which is based on 95% of the fee-for-service expenditures for the beneficiaries residing in that county. Since Minnesota has historically been a low-cost state, the use of this methodology to compute rates has resulted in much lower AAPCC rates than for most of the rest of the country. This is especially true in rural Minnesota where rates are often found in the $250 per

member per month area as compared to the national average of nearly $470. As a result of the low AAPCC, only 0.2% of rural Minnesota Medicare beneficiaries are enrolled in risk plans.

Medicaid Payments

Medicaid also uses a prospective payment system to pay hospitals for inpatient services. Similar to Medicare, it uses a modified DRG system, but instead of a common base rate, a hospital specific rate is used. This eliminates the need for a wage adjuster, but results in significant variations in payment rates among hospitals. Although the proportion of Medicaid business can vary greatly from hospital to hospital, the average is approaching 10 percent.

PMAP is similar to Medicare's AAPCC payment methodology in that a per-member, per-month premium is developed from historical costs to buy coverage for Medicaid beneficiaries from managed care organizations. Under the current program, rates have been developed for three geographic areas: (1) Hennepin County (2) Minneapolis/St. Paul metropolitan area less Hennepin County, and (3) Greater Minnesota. The rates for Greater Minnesota are about 85 percent of those for the metro area.

Aging Physical Plant/Access to Capital

Six administrators identified an aging physical plant and lack of access to capital to make building improvements or purchase new technologies as challenges to remaining competitive in the health care marketplace. According to the 1995 Health Care Market Report, hospitals in rural areas have one-third of the state's staffed beds, but only one-fifth of the operating revenues. Although the state currently offers several grant programs, the programs are not targeted to capital improvements.

Conclusion

Recruiting and retaining physicians continues to be a problem for many small, rural hospitals. The existence of 34 Health Professional Shortage Areas in rural Minnesota is evidence of the extent of the problem. Hospital licensing requirements were designed for larger facilities; in particular, the requirements for staffing are costly and difficult for small, rural hospitals to meet. Federal and state regulations were not designed for consolidated facilities. As the ownership or management of hospitals, clinics, nursing homes, and other services is consolidated, these facilities are faced with a myriad of separate, slightly different regulations for each facility and different schedules for reporting data, certification, and surveying. These regulatory issues are the source of substantial administrative burden for small, rural facilities.

Finally, Medicare hospital reimbursement disadvantages small, rural hospitals, which have a smaller volume of patient admissions over which to distribute their fixed costs. Furthermore, lower wages and lower historical costs are reflected in the Medicare wage index for rural areas and in the Medicaid hospital-specific rates.

ENSURING ACCESS TO ESSENTIAL HEALTH CARE SERVICES IN RURAL MINNESOTA - NEW MODELS

Introduction

As the preceding chapter indicates, the problems of health care delivery in rural areas of Minnesota are manifold and complex. No single solution will solve all of the problems. Several attempts have been made, however, to address specific issues. Some of these attempts are the private initiatives of rural providers and communities. The problems facing rural areas are not unique to Minnesota; other states facing similar problems have developed public policies that attempt to assure access to needed services for their rural citizens. Because Medicare and Medicaid are major sources of funding for rural health services, the federal government has also adopted certain rural health policies intended to support the viability of rural health care providers. This chapter of the report will discuss some of the private initiatives and public policies implemented to assure access to essential health care services in rural areas.

Alternative Rural Hospital Models

Goals of Limited Service Hospital Licensing Models

To assist rural communities in sustaining their local hospitals, Congress has supported the development of "limited service rural hospital" programs. The purpose of limited-service hospitals is to provide an alternative health care facility for rural communities that can no longer support a traditional hospital and are in danger of losing access to basic health care services. The strategy gives low-volume facilities greater flexibility in meeting the health care needs of the community by reducing regulatory requirements (e.g., for staffing and ancillary services) and improving Medicare reimbursement. In exchange, the hospitals are required to limit their acute care services and create networking arrangements with larger hospitals and other providers (Campion, 1995; National Rural Health Association, 1996; Wright, Wellever, and Felt, 1994)

The Rural Hospital Work Group defined goals for a Minnesota alternative licensing model that are consistent with the federal models. The Work Group believes that the essential elements of an alternative rural hospital licensing model are: provision for right-sizing of services to meet community needs, regulatory flexibility, enhanced Medicare reimbursement, encouragement for networking with larger health care systems, and integration of services. The Work Group stated that planning and implementation of such a model must involve community support.

Although several states have sought to design alternative hospital models for rural areas, federal involvement is necessary for models whose licensing criteria are below the Medicare conditions of participation (Wellever, and Rosenberg, 1993). For example, federal flexibility is needed regarding the requirement for 24-hour coverage by registered nurses and to allow broader use of physician assistants or nurse practitioners, particularly when a physician is not available locally. Although Medicare payment policies have changed recently to correct past payment inequities to rural hospitals, 60 percent of rural facilities under 50 beds still have negative Prospective Payment System (PPS) margins. Many low-volume hospitals would benefit from cost-based reimbursement from Medicare. States, however, do not have the authority to alter Medicare reimbursement for rural hospitals (Campion, 1995; Christianson, Moscovice, Wellever, and Wingert, 1990; Wright, Wellever, and Felt, 1994).

Options for Reconfiguring Hospital-Based Services

Over the past several years, the federal government has supported the development of two limited-service hospital models. The Medical Assistance Facility (MAF) is being tested in Montana under a federal waiver and the Rural Primary Care Hospital (RPCH) is available in seven states under the Essential Access Community Hospital Program (EACH). Developed in Montana in 1987, the Medical Assistance Facility was the first of these models to be implemented. Finding the model promising, the Health Care Financing Administration (HCFA) supported experimentation with limited service rural hospitals by funding a multi-year demonstration of MAF, issuing waivers that accepted the Montana MAF licensure rules in lieu of the Medicare Conditions of Participation for hospitals, and reimbursing MAFs for Medicare services on the basis of reasonable cost. The MAF quickly became a model for other state and federal limited service rural hospital programs.

Some of the limited service rural hospital models adopted in the years between 1987 and 1990 are essentially reproductions of the MAF model (e.g., models created in Florida, Kentucky, and Wyoming). Although states are at liberty to license any new institutional provider types they choose, the Medicare and Medicaid programs will pay only for services delivered in certified facilities governed by Medicare Conditions of Participation. If the state licensure rules are less stringent than the Medicare Conditions of Participation for hospitals, limited service hospitals need to obtain a waiver from HCFA to receive payment for services provided to Medicare and Medicaid patients. The waiver authority granted by Congress to HCFA to conduct the MAF demonstration project, however, was specific to that project only. Even if HCFA wanted to, it does not have the authority to grant waivers for any additional state-sponsored limited service hospital programs. Because rural facilities rely heavily on payments from Medicare and Medicaid, policy makers in states with MAF-like models have decided that their models should not be implemented.

In 1989, Congress created the Rural Primary Care Hospital, a limited service rural hospital modeled on the MAF. Unlike MAFs, however, RPCHs were to operate in the context of a rural

health network with a larger, more sophisticated hospital known as an Essential Access Community Hospital. Care provided in RPCHs is a covered service of Medicare; accordingly, RPCHs have their own Conditions of Participation, eliminating the need for waivers to receive payment. When Congress developed the RPCH model it also created a grant program to implement it. RPCH certification by HCFA was limited to facilities in the seven states that received grant funding (California, Colorado, Kansas, New York, North Carolina, South Dakota, and West Virginia). The program has not been expanded to other states despite positive evaluations of the MAF and RPCH models and high degrees of interest in alternative models by rural health policy makers in other states.

The MAF and the RPCH models contain four key features:

- More appropriate and flexible staffing and licensure standards that focus on the provision of primary care, low-intensity inpatient care, and emergency medical services;
- Length-of-stay limits on acute care admissions;
- Enhanced reimbursement for Medicare-covered services; and
- Network arrangements with other organizations for services/functions the facility cannot support independently, especially to assure that patients have access to higher acuity services at full-service hospitals.

As of October 1996, there were approximately 40 RPCHs and MAFs in the eight states participating in the programs. The RPCH and MAF models are similar, but have important differences regarding geographic criteria, length-of-stay limitations, number of beds, payment mechanisms, and incentives/rules for forming networks. The chart on the following pages describes the requirements of these two limited service hospital programs.

From these demonstration projects, a clearer vision of the potential for limited service hospitals is beginning to emerge. The emerging model is that of a low-volume rural hospital that chooses to "downsize" its acute care capacity and shift its focus toward meeting the community's needs for emergency and primary care services, and possibly long-term care and other services. There is no single blueprint for limited service hospitals, but rather a continuum of possibilities, which are dependent on the needs of the community, the availability of local resources (e.g. personnel, facilities, capital), and the willingness of various parties to enter into agreements in order to meet those needs. Limited service hospitals could become critical components of managed care systems that seek to serve rural populations (Campion, 1995).

Table 1. Comparison of Medical Assistance Facility (MAF) and Rural Primary Care Hospital (RPCH)

	Medical Assistance Facility	Rural Primary Care Hospital
Geographic Limitation	Must be located in a county with fewer than six residents per square mile, or located more than 35 road miles from the nearest hospital.	Must be located in a rural area or in an urban county whose geographic area is substantially larger than the average area for urban counties and whose hospital service area is similar to the service area of hospitals located in rural areas.
Size Limitation	None. (No size limitation by law but the Montana State Health Plan recommends certificate-of-need approval for 10 or fewer beds.)	Current regulations allow not more than 6 acute care beds, or 12 acute care beds if participating in the swing-bed program. However, proposed regulations pertaining to 1994 amendments would allow RPCH to offer skilled nursing facility-level services limited to the number of previously licensed beds minus the number of acute care beds, but also limit acute beds to 6 and eliminate the swing-bed option.
Length of Stay (LOS) Limitation	96 hours (4 days) Exceptions due to snow, flood, bridge repair, circumstances beyond the control of the MAF, or otherwise as requested by the attending practitioner are allowed through contact with the peer review organization (PRO) and health department and are noted in the patient's record.	Average LOS for all admissions may not exceed 72 hours (3 days) over a 12-month period. Exceptions granted for inclement weather or other emergency conditions.
Scope of Services	Mandatory services: * Inpatient medical care subject to LOS limit * Emergency medical care * Laboratory * Pharmacy	Mandatory services: * Inpatient medical care subject to LOS limit 0 * Emergency medical care * Laboratory * Radiology Restricted services: * Inpatient surgery * Services requiring general anesthesia
Emergency Medical Services	Must be available and staffed on a 24-hour a day basis; minimum staffing is by emergency medical technician; registered nurses are on call and available within 20 minutes and medical staff members are on call and available within one hour from the time the patient first contacts the facility.	Must be "made available" on a 24-hour a day basis; staff with emergency care training or experience on call and available on site within 30 minutes.

	Medical Assistance Facility	Rural Primary Care Hospital
Hours of Operation	24 hours/day when occupied by inpatients; when not occupied, ER is staffed 24 hours/day, 7 days/week by at least an EMT; RNs and physicians/NPs; on call.	24 hour/day when occupied by inpatients; when not occupied, emergency services must be "made available."
Admitting Criteria	PRO certifies medical necessity of all admissions.	A physician certifies that the patient may reasonably be expected to be discharged or transferred within 72 hours.
Referral Relationships	Agreements required with others to assure range of services, for example: * Hospital(s) * "Specialized" diagnostic imaging and laboratory providers * Skilled nursing facility * Home health agency * Licensed ambulance service * PRO or its equivalent	If a member of a network, written agreements required with an Essential Access Community Hospital (EACH) for referrals, joint staff privileges, and data and communication systems. If not, RPCH-EACH agreements are not required.
Governing Board	Governing body is legally responsible for the facility and: * Appoints and supervises the medical staff * Appoints chief executive officer * Prepares and adopts institutional plans	Governing body or responsible individual is fully responsible for determining, implementing, and monitoring policies governing the RPCH's total operation and for ensuring quality and safety of services.
Medical Staff	Composed of at least one physician and may also include one or more physician assistants and/or nurse practitioners; on call and available within one hour from the time the patient first contacts the facility.	Composed of at least one physician and may also include one or more physician assistants and/or nurse practitioners; on call and available on site within 30 minutes.
Nursing Staff	A registered nurse must be on duty at least 8 hours per day whenever there is an inpatient in the facility, and the director of nurses or a designee must be on call and available within 20 minutes at all times; a registered nurse must assign the nursing care of patients to other nursing personnel in accordance with patients needs and the qualifications and competence of the nursing staff available.	A registered nurse, clinical nurse specialist, or licensed practical nurse is on duty whenever the RPCH has one or more inpatients; a registered nurse must provide or assign to other nursing personnel the nursing care of each patient.
Quality Assurance	Governing body assures that facility has an effective, on-going, facility-wide, written QA program and implementation plan in effect that ensures and evaluates the quality of patient care provided; PRO concurrent review between 48th and 72nd hour of patient stay.	The RPCH has an effective quality assurance program to evaluate the quality and appropriateness of the diagnosis and treatment furnished and of the treatment outcomes.

Evaluations of the Limited Service Hospital Models

Both the MAF and the RPCH have been the subject of independent program evaluations sponsored by HCFA (Felt and Wright, 1993; Gaumer, Gabay, and Geller, 1993). These evaluations were conducted by Abt Associates and Mathematica Policy Research, Inc. Although MAF was evaluated somewhat more favorably than RPCH, both models were judged to have reversed the deterioration of health services in the communities they serve, expanded the supply of practitioners and services, improved the financial position of the facilities, and fostered the integration of community services to improve continuity and avoid duplication. In addition to the HCFA-sponsored evaluations, the MAF project has been evaluated positively by the Office of the Inspector General of the Department of Health and Human Services and by the General Accounting Office (Office of the Inspector General, 1993; U.S. General Accounting Office, 1995). The MAF and RPCH models have also gained the approval of knowledgeable rural health practitioners and researchers: the MAF demonstration program was selected the 1994 Outstanding Rural Health Program by the National Rural Health Association and the Kansas EACH/RPCH program won the same award in 1995.

The first evaluators of the MAF Demonstration Project (Abt Associates) repeatedly stressed the importance of the role of a statewide project ombudsman to the success of the converting hospitals. Similarly, in every EACH/RPCH state, grant funds -- for the first three years of the program -- financed the position of EACH/RPCH project director. These project director played a key role in implementing the EACH/RPCH program in the seven states where it is operational.

The EACH/RPCH Program also awarded facilities up to $200,000 for conversion activities. Evaluations of the program noted that because there were no limits on capital expenditures, many spent their grant money on projects that, at best, were only tangentially related to either conversion or networking, the twin goals of the project. This experience demonstrated the need to clearly specify use of funds and target appropriate amounts. However it also evidenced the importance of grants to facilities converting to limited service rural hospitals. They finance a number of useful services including financial feasibility planning, pre-conversion audits, conversion assistance, managed care contracting, and planning for emergency medical service delivery.

In further analysis of these models, the Alpha Center noted that the MAF program helped stabilize local skilled-nursing facilities, an especially important need in isolated communities with high and growing proportions of elderly persons. All MAFs are co-located with nursing homes. The acute care, outpatient care, and long-term care units all share staff and ancillary services, creating economies of scale and "one-stop shopping" for health care consumers in frontier communities (Campion, 1995).

The Alpha Center recommended the following changes to the EACH program in order to create a "new generation" of limited-service hospitals:

- Recognize that the goal of the program is to assure access to essential health care services in rural areas;
- Revise the length of stay to 96 hours and include an exceptions process on a case-by-case basis;
- Explore the feasibility of an alternative, clinically-based method for determining length of stay;
- Increase the bed limit;
- Base reimbursement on reasonable cost;
- Clarify the role of the RPCH in providing emergency medical services; and
- Replace EACH/RPCH networking requirements with a provision requiring RPCHs to make arrangements with one or more providers for certain services and administrative functions that it cannot sustain independently.

State agencies that implement a national limited service rural hospital program will have some initial expenditures to finance non-recurring activities, including grant-writing for participation in the program, grant administration, state rural health plan preparation, state rural health policy formation, state regulation revision, and the state monitoring process. Any limited service program that is approved by Congress should include a grant component to help states "gear up" for administering limited service rural hospitals and to assist hospitals in converting.

National Legislation for Limited Service Hospitals

Responding to the need for a national limited service rural hospital program, Congress proposed two new models that would expand the program to all 50 states in 1995. One model was similar to MAF and RPCH; the other model resembled a free-standing emergency room. Similar models were introduced in 1996 (See Appendix G for summaries). Although these proposals have passed both houses of Congress, neither has been incorporated into law. However, the efforts by Congress in the past two years to create a national limited service hospital program highlighted the need to build on the experiences of the past and to develop a single national limited service rural hospital model that is flexible enough to accommodate the unique circumstance of the various states.

The Rural Policy Research Institute (RUPRI), which was established to advise Congress on the impact of rural health legislation, has supported a single national limited service hospital model and suggested several directions for future federal legislation, among them: 1) limited service hospital designation should be included in a state health plan, and 2) emergency care facilities should be promoted, but not licensed exclusively in existing or recently closed hospitals (Rural Policy Research Institute, 1996). The National Rural Health Association (NRHA), which represents a broad constituency dedicated to improving rural health care, is currently preparing a policy paper on the need for a national limited service model and working with the House Rural Health Coalition on drafting legislation for a national limited service hospital model to be

introduced in 1997. U.S. Senator Rod Grams is drafting a Rural Health Improvement Act for introduction in 1997, which includes provisions for a national limited service rural hospital.

Perspectives of the Rural Hospital Study Work Group

The Rural Hospital Study Work Group closely reviewed the MAF and RPCH programs as well as the proposed legislation for national limited service hospital models. The Rural Hospital Study Work Group supports the intent of the national alternative licensing models because they address staffing and administrative barriers that limit access and increase cost to rural health care providers, and offers a means by which small rural hospitals may receive cost-based reimbursement for services. Work Group members noted that allowing sharing of staff between hospitals, swing beds, and skilled nursing facilities would result in substantial cost efficiencies. Furthermore, cost-based reimbursement would allow hospitals to cover their staffing and other fixed costs.

However, the Work Group believes that one set of criteria for hospitals applied uniformly throughout the nation does not adequately address the variety of local circumstances. The Work Group, therefore, recommend that a new national limited service rural hospital model should allow states flexibility in determining certification criteria regarding eligibility, bed limits, and networking arrangements. These should be set forth in a state rural health plan developed in consultation with the state hospital association, rural hospitals, and state office of rural health.

The chart on the following pages outlines the provisions of an alternative licensing model for rural hospitals supported by the Work Group and the provisions of a rural primary care hospital that were introduced to Congress in 1996. The Work Group concurs with the appropriateness of the core inpatient hospital services defined in the national primary care hospital models: access to 24-hour emergency care, which includes at minimum a plan for the stabilization, observation, and transfer of patients; ambulatory care and primary care; basic laboratory services; basic radiology services; medication management, including a plan for the dispensing of medications in the absence of a pharmacist or physician on-site. The Work Group further recommends that rural primary care hospitals should be able to offer supplementary inpatient hospital services which they have demonstrated to be necessary and are supported by the community, such as outpatient surgery, obstetrics, and expanded radiology. The Work Group supports the inclusion of the swing bed program in a rural limited service hospital model.

Work Group members believe that the 96-hour and 72-hour limits on length of stay represents an artificial indicator of actual time required for individual patients to receive appropriate care. In addition, a case-by-case exceptions process is costly and time-consuming administratively for both hospitals and regulators. To contain costs for a rural primary care hospital licensing program and allow local flexibility, the Work Group recommends that length of stay be defined as an average of 72 hours. If a hospital's patient days exceeded this figure, an exception to the rule would be necessary. Such a formula would avoid undue administrative difficulty while

maintaining regulatory standards by which hospitals must operate. Other methods have been proposed, and recent RUPRI recommendations state that length of stay limitations should evolve into a clinically based method (Rural Policy Research Institute, 1996; Wellever, Moscovice, and Chen, 1993).

The Work Group was also concerned with the proposed model's networking requirements. The Work Group believes that hospitals should be encouraged to enter into broader network agreements that emphasize on-going collaboration as part of the conversion process.

Finally, the Work Group concludes that community support is essential to the success of any limited service model, and there is a need to involve residents in the transition/conversion process. Many members indicated that the traditional view of a hospital as a facility with a full range of services functioning independently of other health care institutions is yielding to a view of the hospital as a part of an integrated system of health services. Helping community members understand how the rural primary care hospital can assist in preserving access to health care is essential to gaining community support for such a model.

Feasibility of Implementing an Alternative Licensing Model

A need for an alternative licensing model for rural hospitals exists in Minnesota. In August, 1996, the Rural Hospital Study Work Group studied the twenty-three rural Minnesota hospitals that had an average daily census of three or fewer patients in 1994 to investigate their knowledge of, and attitudes toward, limited service rural hospital models. Eighteen of the 23 administrators (78 percent) said that a limited service rural hospital model may be appropriate for their hospitals; two hospital administrators (9 percent) said they needed more information before they could decide; and three (13 percent) said that conversion to a limited service rural hospital would not be appropriate for their institutions. Two communities have investigated the prospects of certifying their hospitals as limited service models. The city of Lakefield, last year, proposed legislation for a demonstration project to create a facility with up to five low-intensity acute care (i.e., hospital) beds to be locate within a nursing home. Within the past year, Divine Providence Hospital in Ivanhoe considered the advantages of participating in the EACH/RPCH program as a RPCH linked with an EACH in Watertown, South Dakota.

Despite the need for a limited service rural hospital option and the apparent willingness of a number of small, rural hospitals to convert, they are prevented from doing so in two ways. First, the state of Minnesota is barred from designing and implementing its own model by the need for and the unlikely prospect of receiving a federal waiver. Second, rural hospitals are excluded from participating in the federal program by a cap on the number of states that may participate in the EACH/RPCH program.

As suggested in the preceding section, the prospect in the next Congress is good for federal legislation that would replace the EACH/RPCH program with a new limited service rural

Table 2: Comparison of Minnesota Rural Primary Care Hospital Model and 1996 Proposed Rural Primary Care Hospital Model

	Minnesota Rural Primary Care Hospital (RPCH)	1996 Proposed Rural Primary Care Hospital
Geographic Limitations	Must be located in a rural area, and be more than 20 miles from the next nearest hospital or be certified by the state as being a necessary provider of health care services to residents of the area through a rural health plan	Must be located in a rural area, and be more than 20 miles from the next nearest hospital or be certified by the state as being a necessary provider of health care services to residents of the area
Size Limitation	To be determined by the state, through a rural health plan	25 bed total, including up to 15 acute-care inpatient beds and swing beds
Length of Stay Limitation	# admissions x 3.0 days (average of 72 hours)	96 hours, with an exceptions process on a case-by-case basis
Scope of Services	Mandatory services: • Inpatient Care • Make Available Emergency care • Ambulatory care and primary care • Basic laboratory services • Basic radiology services • Medication management	Mandatory Services: Inpatient Care Make Available Emergency Care Dietitian, Lab Technician, Pharmacist, Medical Technologist, and Radiological Technologist services my be provided on an off-site, part-time basis
Emergency Medical Services	Must be made available on a 24-hour a day basis; physician staff with emergency care training and experience on call and available within 30 minutes, or arrangements for transfer must be in place when hospital is closed	Emergency care services must be made available on a 24-hour basis
Hours of Operation	24-hours/day when occupied by inpatients; when not occupied, emergency services must be "made available"	24-hours/day when occupied by inpatients; when not occupied, emergency services must be "made available"

Referral Relationships	To be determined by state, through rural health plan	Must have an agreement with at least one other hospital for patient referral and transfer, development of communication systems, and provision of emergency and non-emergency transport
Medical Staff	Composed of at least one physician and may also include one or more nurse practitioners or physician assistants	Composed of at least one physician and may also include one or more nurse practitioners, physician assistants, or clinical nurse specialists
Nursing Staff	A registered nurse is on duty whenever the hospital has one or more inpatients	A registered nurse is on duty whenever the hospital has one or more inpatients
Quality Assurance	To be determined by state, through rural health plan	Must have an agreement for quality assurance and credentialing with at least one hospital, PRO, or other appropriate entity identified by the state
Medicare Reimbursement	Reasonable Cost Basis	Reasonable Cost Basis
Grants	Federal or state support for conversion	Federal or state support for conversion

hospital program open to all states. It is, of course, impossible to know at this time what features the new program might contain. If the limited service rural hospital model decided on by Congress is designed too narrowly, it might discourage Minnesota rural hospitals from participating in the program. For example, fewer than one-half of the 18 rural hospital administrators who said that conversion to an alternative licensing model may be appropriate for their institution supported the 72-hour length-of-stay and 6-inpatient bed size limitations of RPCHs. Small, rural hospitals need not only an alternative licensing option, but an alternative licensing option that meets their needs.

The policy options available to Minnesota for developing alternative rural hospital licensing models are:

(1) Develop an alternative rural hospital licensing model that is unique to Minnesota.

(2) Do nothing; wait for Congress to enact a national alternative rural hospital licensing program.

(3) Participate in the design of a national alternative rural hospital licensing program; anticipate the features of the program and position the State and providers to take advantage of the program as soon as it is passed.

Each of these alternatives is evaluated below.

Develop a Minnesota-Only Alternative Rural Hospital Licensing Model

If it were not for the constraints on Medicare and Medicaid payments, this alternative would clearly be the most attractive: an alternative rural hospital licensing model could be designed by Minnesotans to address the unique health care needs of the residents of rural areas of the state. Were the State to pursue this option, it would be necessary to obtain waivers from the Health Care Financing Administration to assure that facilities that convert would continue to receive Medicare and Medicaid reimbursement. Under current federal law, however, the Secretary of Health and Human Services (HHS) is not authorized to grant waivers of the type that are necessary to provide Medicare and Medicaid payments to limited service rural hospitals.

None of the states that have developed alternative rural hospital models have attempted to amend federal law to give authority to the Secretary of Health and Human Services to grant waivers of the type needed to implement the new models. However, a number of states (including Florida, Kentucky, New York, Washington, and Wyoming who have limited service rural hospital models on their books they have not implemented) might be interested in joining an effort to enlarge the waiver authority of HHS. Opposition to the expansion of waiver authority likely would come from HHS/HCFA. Waivers are typically granted to states conducting health services delivery or financing experiments. HCFA would likely argue that nothing new would be learned

by granting any additional waivers for limited service rural hospital experiments. HCFA is currently administering two limited service hospital models: the RPCH program and the MAF demonstration project. The complexity of managing multiple small alternative hospital model programs would likely add to the administrative burden of HCFA.

In summary, this option, while attractive, has a relatively low probability of success. Minnesota could design its own alternative model, but it likely would be unable to implement it. Even if the state, operating alone or in concert with other states, managed to provide HHS with waiver authority, HHS would be under no obligation to grant waivers.

Do Nothing: Wait for a National Program

As suggested above, the next Congress is expected to pass a limited service rural hospital program that is open to participation by rural hospitals in all states. A possible strategy to pursue is to do nothing until after federal legislation is passed. Once passed, the legislation would be evaluated and the necessary next steps for the state would be identified. Following this strategy, state policy makers would know exactly what is required of them to participate in the new federal program and would take the actions that are necessary for participation. Of the three options proposed, this option is the most simple and the most conservative of State resources. Under this option, Minnesota would implement an alternative hospital licensing program in a logical, sequential manner.

The success of this strategy hinges on how well the federal alternative hospital licensing program corresponds with the needs of facilities and communities in rural Minnesota. The survey of 23 administrators of very small rural hospitals conducted by the Rural Hospital Study Work Group indicates that 1) hospital administrators are troubled by some of the features of the EACH/RPCH program, and 2) they have specific ideas for features that should be included in a new national alternative rural hospital licensing program. These findings suggest that some alternative rural hospital licensing models may be less attractive than others to small, rural hospitals, which may affect their participation in the program.

If the model designed at the federal level does not address the needs of rural Minnesota, there is an additional liability to selecting this option. Both Congress and HHS likely will be unwilling to permit states to experiment with alternative hospital licensing models after a national model is created. This means that the only model available to small, rural Minnesota hospitals wishing to convert will be the potentially flawed federal model.

In summary, this option is a gamble. It should be selected only if policy makers have a high degree of confidence in the ability of Congress and HCFA to design an alternative hospital model program suitable for Minnesota without input from Minnesotans.

Participate in Design of Federal Program; Position State and Providers for Implementation

Several groups have already begun to attempt to influence the design of the alternative hospital model program they anticipate will be passed by Congress in the next session. These groups include advocacy organizations like the National Rural Health Association, legislative groups such as the House Rural Health Care Coalition, and the offices of individual members of Congress and Senators. There are substantial opportunities for Minnesota to participate in the design of federal legislation. Under this option, Minnesota policy-makers would agree on a single model, or at the least three or four key features of a single model, and advocate for its/their inclusion in federal legislation. Advocacy vehicles might include:

- Office of Rural Health and Primary Care participation in National Rural Health Association efforts to design a flexible national program.

- A joint resolution of the Minnesota Legislature endorsing a model or key concepts that would be shared with the Minnesota Congressional delegation.

- Advocacy at the federal level on behalf a single model or key concepts by the State's federal legislation liaison.

Once it appears reasonably certain that an acceptable bill will pass Congress, efforts could begin within the state to position state government and rural providers to quickly implement the program in Minnesota following passage of the bill. For example, the new program might require states to include a plan for selecting and designating facilities for conversion to limited service rural hospitals. The state could begin to design such a process and evaluate the need for state legislation and rules. The new federal program might also require that facilities be licensed by a state, necessitating passage of a state law creating a new category of health facility licensure. The Office of Rural Health and Primary Care could begin an effort to educate rural providers on the likely passage of the new model and could begin to offer assistance to communities in evaluating the merits of conversion.

This option requires a good deal of work and coordination in a reasonably short time among both state agencies and policy-makers outside of government. The model promoted under this option likely would be very similar to the model designed under the first option, however, the prospects for actually implementing the model are much better.

In summary, this option has a reasonable probability of success. Like the first option, it depends on the passage of federal legislation. But unlike the first option, the federal legislation it depends on will probably pass. The primary question with this bill is not "will it pass," but "what will it say?" The success of this option will be measured by the extent to which the federal model meets local needs.

Rural Health Advisory Committee Recommendations

An alternative licensing model would be a viable option to preserve access to health care services and encourage small, rural hospitals to right-size their services to meet the needs of their communities. There is a need for such a model in Minnesota, and it could ease regulatory burdens and enhance Medicare reimbursement for small, rural hospitals that meet the eligibility criteria.

The Rural Health Advisory Committee recommends that the state Legislature pass a joint resolution: 1) endorsing the model designated by the Work Group, and 2) authorizing the Commissioner of Health to participate with national organizations in the development of federal legislation for an alternative license for rural hospitals and to advocate for federal funding for state and local planning and implementation of an alternative rural hospital license. The RHAC further recommends that the Minnesota Congressional Delegation supports the passage of federal legislation for limited service hospitals and that the Commissioner of Health positions the department to take advantage of federal legislation for limited service rural hospital programs. If and when federal legislation is passed, the Commissioner should proceed with prompt implementation of the model.

Support for Rural Hospitals that are Critical To Access or Vulnerable

The Rural Hospital Study Work Group evaluated the need for and appropriateness of an alternative rural hospital models and concluded that while the models are useful for some small, low-intensity hospitals, they are not the solution to all of the problems faced by the state's rural hospitals. Therefore, the Work Group considered other state policy options to preserve hospitals that are critical to access and to assist vulnerable hospitals in making effective transitions.

There is a precedent for targeting federal and state support to rural hospitals that are critical to access. Among the grant programs designed to maintain access are the federal and state Sole Community Hospital programs. Other federal and state programs, such as the federal Rural Health Transition Grant Program and the state Rural Hospital Planning and Transition Grant Program, have made funds broadly available to assist rural hospitals in meeting the health care needs of their communities.

Federal and State Support for Rural Hospitals

Sole Community Hospital Programs

The federal Sole Community Hospital Program provides more favorable reimbursement to rural hospitals that due to geographic isolation, severe weather conditions, difficult travel conditions,

or absence of other hospitals, are the sole source of inpatient hospital services reasonably available to Medicare beneficiaries in the area they serve. Payments for Sole Community Hospitals are the highest of three amounts: the regular Prospective Payment System (PPS) amount that would otherwise apply, or a hospital-specific amount based on either 1982 or 1987 costs updated to the current year. Capital costs are "passed through," i.e., reimbursed on the basis of historical costs.

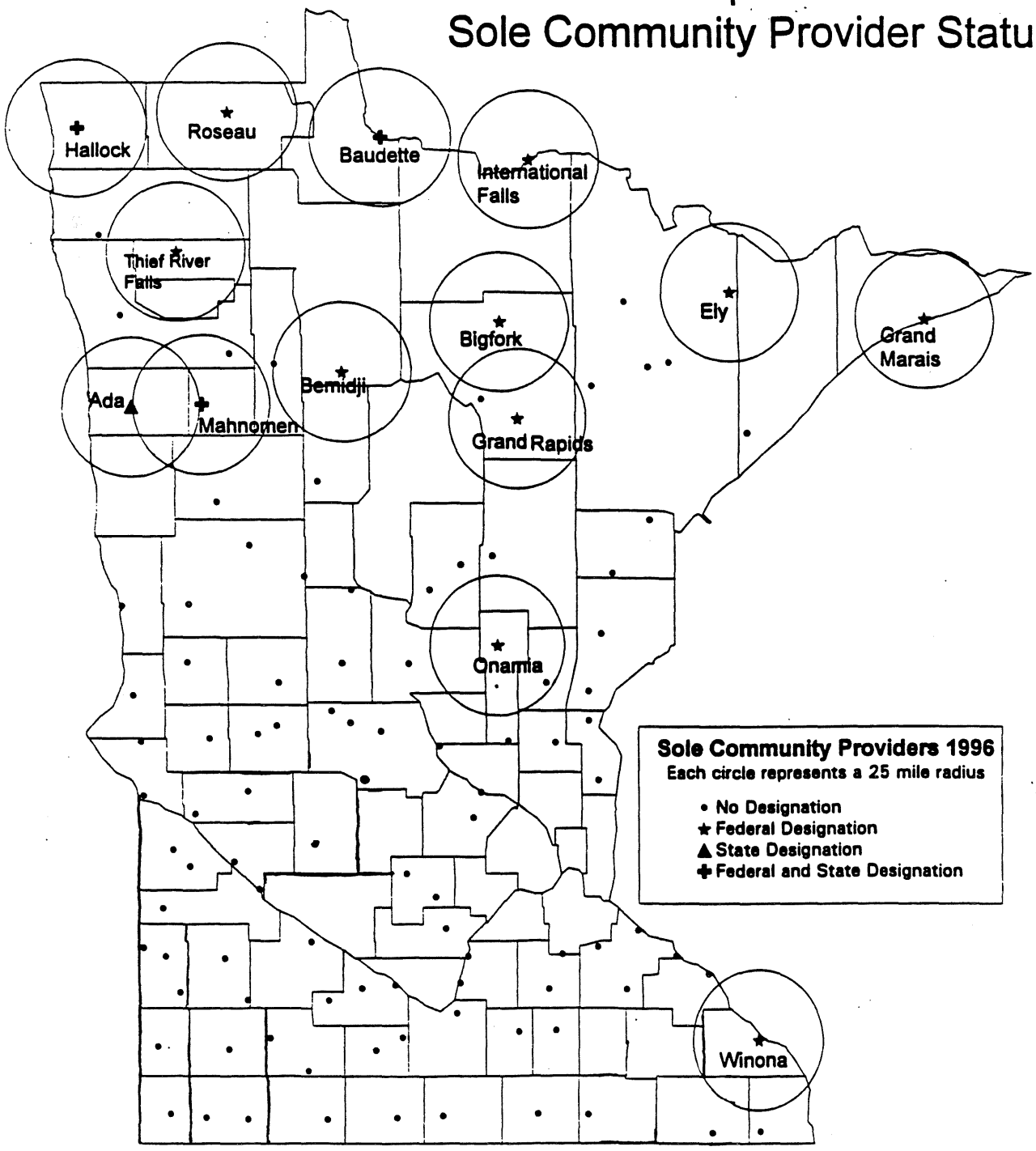
In 1990, the state of Minnesota enacted a Sole Community Hospital Grant Program (M.S. 144.1484). This program provides grants to rural hospitals in isolated areas of the state that without financial assistance might be in danger of closing. Hospitals must be: (1) be classified as a sole community hospital as defined by Medicare regulations or be located in a community with population of less than 5,000 and located more than 25 miles from a like hospital currently providing acute short-term services; (2) have experienced net income losses in the two most recent consecutive hospital fiscal years for which audited financial information is available; (3) have a bed capacity of 40 or fewer licensed beds; and (4) demonstrate to the Commissioner that it has obtained local support for the hospital. Five to seven hospitals each year qualify for assistance, and the program's annual appropriation of $200,000 is divided proportionately among eligible hospitals. Grants have ranged from $10,000 to $100,000, with the largest awards made to hospitals in greatest financial need. See map on the following page for the locations of state's Sole Community Hospitals. Funds from this grant program have subsidized on average 40% of the annual losses of the five to seven hospitals receiving funding each year. The map on the following page illustrates the location of Minnesota Sole Community Hospitals.

Federal and State Transition Grant Programs

To more broadly assist rural hospitals in making necessary transitions to adapt to changing conditions, the federal Rural Health Transition Grant Program and the state Rural Hospital Planning and Transition Grant Program have funded hospital initiatives. Congress enacted the federal Rural Health Care Transition Grants Program in 1987 to assist small (fewer than 100 beds) rural nonprofit hospitals and their communities in planning and/or implementing projects to modify the type and extent of services the hospitals provide. Under the grant program, eligible rural hospitals have been able to request up to $50,000 per year for up to three years for a variety of developmental projects and service enhancements.

The intent of the federal legislation was to encourage transition, that is, to develop alternative facilities to the traditional inpatient acute care service delivery model. Rural Health Transition Grants allowed hospitals to better adapt to changes in clinical practice patterns, changes in service populations, declining demand for acute care inpatient hospital capacity, declining ability to provide appropriate staffing for inpatient hospital services, increasing demand for ambulatory and emergency services, increasing demand for appropriate integration of community health services, and the need for adequate access to emergency care and inpatient care in areas in which a significant number of underutilized hospital beds are being eliminated.

Minnesota Hospitals
Sole Community Provider Status



Minnesota Department of Health
Office of Rural Health and Primary Care

In 1996, funding for this program ended when Congress failed to appropriate funds. An average of about $1.2 million in federal funds were awarded to Minnesota hospitals annually through this program; the budget cuts in this area will affect rural hospitals and further challenge their ability to adapt to rapid change and shrinking reimbursement.

The state Rural Hospital Planning and Transition Grant Program (M.S. 144.147) was established in 1992. It provides grants to assist small (100 or fewer beds) rural hospitals and their communities in (1) developing strategic plans for preserving access to health services or (2) implementing transition projects to modify the type and extent of services provided. The program is designed to preserve access to health services in rural areas. Funding is available to support the planning or implementation of projects that improve community access to hospital or health services. See chart in Appendix H for a list of Minnesota's federal Rural Health Transition and state Rural Hospital Planning and Transition grantees.

Rural Hospital Study Work Group Perspective

The Work Group noted that there is a social responsibility to maintain quality care in rural areas. Work Group members believe that the state should pursue initiatives to maintain the facilities that are critical to access for rural Minnesotans, particularly in light of the reductions in federal dollars.

Classification of Critical-Access and Vulnerable Hospitals

Limited state resources to preserve access to essential health care services argue in favor of developing a system of criteria to stratify hospitals in terms of their how critical they are for access and their degree of vulnerability. Currently, the health department reports on financial status, but does not conduct comprehensive analyses of factors that affect a hospital's viability or which hospitals in the state are critical to access. A more systematic approach to rural hospital policy requires clearer identification of the needs and resources of rural hospitals.

There is precedent for this strategy. In 1991, South Dakota created a Rural Hospital Initiative. In order to assist rural hospitals, it was felt that two types of facilities need to be identified: access-critical hospitals, defined as those which provide access to essential services within an area where no other similar provider of services exists, and at-risk hospitals, defined as those which are financially distressed and for which closure might result if conditions do not change.

The South Dakota project identified four criteria to identify access critical facilities: proximity to next nearest provider of essential health care services (geographic access), dependency of population on a hospital for inpatient services (hospital county market share), degree of medical underservedness in the area (need for services), and the institution's level of acceptance (outpatient visits). Criteria for at-risk hospitals include: physician supply (fragility of resources),

hospital service population size (utilization), and financial indicators indicative of financial distress (financial). Since 1991, all South Dakota rural hospitals were annually scored and ranked according to both their access-critical and at-risk nature and grouped into four categories for each set of criteria.

Work Group members proposed adapting the South Dakota classification system to Minnesota. A more comprehensive formula would be more accurate in identifying hospitals that are critical to access or vulnerable and in reflecting their importance to the health care of Minnesotans. Work Group members noted that there should be preferential treatment for hospitals that are critical to access, and that criteria for identifying these critical-access hospitals should concentrate not only on distance to the next nearest hospital, but also on factors such as a county population's dependence on the hospital, percentage of receipts from public programs, and other key indicators of need. Likewise, hospital vulnerability criteria should take into account availability of physicians, size of population being served, community support, and other criteria.

Assistance to Hospitals that are Critical to Access

Clearly, identification of critical-to-access hospitals and vulnerable hospitals is a first step in a systematic targeting of resources. The Work Group reasons that the state should assist critical-to-access hospitals in preserving essential acute, emergency, and long-term care services, as long as the community supports and is able to recruit physicians and other health care providers. Currently, the state Sole Community Hospital Program serves as a subsidy to hospitals that meet the designation criteria. There is no competitive application process, and receipt of the award has no conditions, (e.g., there are no requirements for activities or reporting associated with state assistance). The Rural Hospital Study Work Group strongly believes that support for critical-to-access hospitals through the Minnesota Sole Community Hospital Grant Program should be continued. However, rather than just subsidizing hospitals that are losing money, the Sole Community Hospital Grant Program should be restructured to require grant recipients to demonstrate that they are taking concrete steps to improve their viability through administrative or service changes. Progress should be reported to the state though written reports or via site visits.

Work Group members noted that rural hospital administrators expressed concern about being excluded from participation in managed care networks, such as the Prepaid Medical Assistance Program (PMAP) and MinnesotaCare. They believed that the state should support hospitals that are critical to access through grants and through its role as a purchaser of health care services. Members also called attention to the Essential Community Provider statute that was enacted to protect community health centers as PMAP and MinnesotaCare expanded. This statute requires health plans to contract with Federally Qualified Health Centers or Rural Health Clinics that apply for designation as Essential Community Providers. These applicants will be eligible for cost-based reimbursement from health plans for a three-year transition period.

Assistance to Vulnerable Hospitals

Right-sizing Services to Community Needs

To effectively transition to outpatient-based models to better meet community needs, vulnerable hospitals need support for planning and implementing conversion to a primary care hospital, for integrating services, and for assessing emergency medical care needs and strategies in a changed health care delivery system. Effective, planned transitions to out-patient based models of health care delivery require resources. To successfully implement such transitions in the role of the hospital, extensive planning and community education, as well as a reassessment of community needs and ways to right-size services are necessary. Reassessing emergency medical care needs of the community and developing locally-based plans for delivery of care, as well as upgrading the training of emergency room staff are particularly important as the role of the rural hospital changes.

Support for these efforts would ideally come from both state and federal sources but, in light of the cut of the federal Rural Health Care Transition Grant funds, it is not probable that federal funding will be appropriated for rural hospitals. Therefore, the Work Group recommends that the state Rural Hospital Planning and Transition Grant Program be continued, expanded, and restructured. The Rural Hospital Study Work Group believes that the state should restructure the program to extend the length of the grant period to two years for implementation projects; increase the dollar amount of the award to a maximum of $50,000 per year; prioritize projects for conversion, upgrading emergency medical care, and integrating health care services; prioritize projects that reflect broad community planning and support; weight applications from critical-to-access and vulnerable hospitals on the need scoring criteria, so that resources are channeled to areas where the need is greatest.

As the program currently stands, awards are made for a one-year period. This limits the ability of hospitals to use such funds to conduct more comprehensive transition activities that span longer periods. Although the Work Group did not favor restricting the eligibility criteria, the members believe that the state needs a system to more effectively target resources to communities in need. Even with the limited size of awards, the program has become fairly competitive. Last year, 18 applications were received and 7 awards made, and this year, 15 applications were received and 8 awards made. With the federal cuts, more hospitals will vie for these grant dollars. Work Group members believe that there is a continued need for hospital transition projects in Minnesota, and that increased funds will be necessary to meet the state-wide needs.

Integrating Health Care Services

The Work Group envisioned a community-based integrated health care services model that provides for a seamless continuum of services resulting in: 1) reduction of fixed and variable costs; 2) improved utilization of staff; and 3) continuity of care that allows discharged patients to remain within the facility and the community. Viewing community health care as a single system, rather than a collection of parts, can be an effective strategy in the current climate of cost

control and rapid change in health delivery systems. As noted earlier, the Montana MAF program demonstrated the ability of integration to stabilize long-term care facilities in communities with high and growing Medicare populations. Co-location of facilities not only can enhance the coordination of care for the consumers, but also can create operating efficiencies. In an integrated medical campus, fixed costs are distributed among the various components of the health care system, which represent a larger volume of patient care. Staffing, equipment, and ancillary services can be shared, thus reducing variable costs as well. Co-location of facilities, however, often requires significant capital investments. Nevertheless, according to Minnesota Department of Human Services studies, if regionalization occurs along with an overall reduction in the number of beds, overall cost savings are possible.

Regional collaboration (integration of services between providers in different communities) is an important consideration for the state's smallest hospitals. Regional assessment of health needs and joint planning may assist communities in creating arrangements that rationally reduce duplicative services and provide a continuum of care with or without physical co-location of facilities.

Two concerns related to integrating facilities on a regional basis are the hospital (M.S. 144.551) and nursing home (M.S. 144A.071) moratorium statutes, which prohibit the establishment of new facilities or increases in bed capacity. The hospital construction moratorium, as it applies to small, rural hospitals, prohibits construction or improvements that involve a relocation of beds beyond five miles from the current site. The nursing home moratorium prohibits construction projects for conversion (i.e. relocation to an attached hospital), relocation, renovation, replacement, or upgrading of the facility. Although both statutes have exception processes, the moratoriums are not designed to encourage rural communities to integrate services regionally or within individual communities. The Work Group believes that modification of hospital and moratorium waivers would allow for more creative community plans and would encourage hospitals and nursing homes to share or co-locate services.

According to the Rural Hospital Study Work Group, communities should be required to strategically plan services to encourage sharing and integration of services. Group members considered ways to ensure community planning for local services that requires them to explore their communities' relationships within the region. The importance of including all stakeholders, including economic development and community health, in planning was emphasized.

The RHSW proposed a demonstration project, called the Rural Community Medical Center, to improve the rural health infrastructure through integration of services or "virtual" integration. The Work Group believes that such projects would demonstrate the efficience of regional consolidation and be a precursor to a model for successful health service delivery under any future alternative licensing authority.

Changing Reimbursement Policies

Another issue discussed by the Work Group was the problem that rural hospitals have funding capital improvements. The Work Group members noted that Medicare reimbursement policies adversely affect rural hospitals. DRG payment methods disadvantage small, rural hospitals, which have very few admissions over which to distribute fixed costs. Current DRG rates are standardized through averaging hospital costs in rural and urban areas with less than one million residents. The Work Group discussed the possibility of dividing the DRG payment into fixed and variable components and establishing a "pass-through" on fixed costs for low-volume providers.

DRG rates are further adjusted by a wage index reflecting the relative cost of labor in the area. Each metropolitan statistical area and state specific rural area has its own wage index, which is used to adjust the base rate. Largely as a result of the wage index, hospitals in rural Minnesota has a payment equal to about 80 percent of a Minneapolis/St. Paul hospital. The urban/rural differential in the wage index resulting in lower DRG payments is also a concern for small, rural hospitals. Medicaid DRG rates are hospital-specific, based on historical costs at that facility. Many small, rural hospitals advocate for a single service-based rate for all facilities in the state.

Streamlining Licensing and Surveying

Another concern in integrating health care services is the duplicative licensing processes for the various facilities in the system, i.e., hospitals, nursing homes, hospices and home care facilities. Although the RHSW made recommendations for a consolidated licensure system to the Commissioner of Health in 1995, it was suggested that any legislation for a consolidated license system be developed in coordination with that needed for an alternative rural hospital license.

Wisconsin has made efforts to alleviate regulatory complexity and reduce administrative costs in rural areas through establishment of a new provider type known as Rural Medical Centers. Through funding from the Health Care Financing Administration, a unified application and facility survey process for Rural Medical Centers is being developed. Eligible applicants include facilities located in rural towns or counties with populations of less than 15,000 that provide two or more types of health services, such as hospital, nursing home, hospice, rural health clinic, rural primary care hospitals, home health agency, outpatient physical or occupational therapy, ambulatory surgery, or others. The enabling legislation has been drafted and administrative rules completed, but the state has not yet obtained federal recognition of the Rural Medical Center model, which would allow reimbursement for services to licensed providers. Wisconsin has found federal officials to be concerned that the combined regulation may reduce consumer protection provisions of Medicare or Medicaid law. Without adequate staff to synthesize all the federal and state requirements and prove to federal officials that all minimum Medicare and Medicaid provisions are met in the combined regulatory model, Wisconsin is considering preparation of a federal waiver application to conduct demonstration projects in several locations.

The Facility and Provider Compliance Division of the Minnesota Department of Health (MDH) has been working on integration of licensure and certification requirements for single provider entities which deliver a continuum of care including hospital, nursing home, home care, hospice and potentially other regulated health services. Each organization type has its own federal and state laws and regulations governing the provision of services. These laws were adopted over a period of time without consideration of care integration for patients who move from one licensure category to another.

To streamline licensing and certification processes, Minnesota has already combined administrative procedures for hospice and home care license renewals. One further state law change that would reduce duplication of administrative effort would be to permit licenses for hospitals, nursing homes and boarding care homes to be renewed at the same time. For many years, licensure and certification surveys of hospitals and nursing homes at the same location have been conducted at the same time whenever possible. Administrative changes, such as these, have been made in recognition of the care continuum of patients and residents of facilities. There have been trials of combined hospice and home care surveys, and the Division is considering more combined hospice and home care surveys in the future.

Integration of the actual standards for operation of hospital, nursing homes, home care and hospice services at the same location is more complex. The Facility and Provider Compliance Division is continuing to explore policy approaches which could integrate state licensure and federal certification for hospitals, nursing homes, home care and hospice. Their evaluation found no clearly contradictory standards, but the Division is continuing to evaluate overlapping and similar provisions which could be combined. However, most changes in licensure and certification standards would require amendments to state laws and application for waiver of federal certification requirements.

Rural Health Advisory Committee Recommendations

1. *As a first step in systematically targeting the needs of rural hospitals, the Commissioner of Health should study and develop a hospital classification system that would identify those hospitals which are critical to access and vulnerable. The Commissioner of Health should review the criteria by which to designate critical-to-access and vulnerable hospitals, considering inclusion of such factors as:*
    - *geographic access*
    - *hospital market share*
    - *degree of medical underservedness within the area population*
    - *volume of outpatient visits*
    - *hospital service population size*
    - *availability of physicians in the community*
    - *financial indicators*

2. *The state should continue to support the Minnesota Sole Community Hospital Grant Program. The Commissioner of Health should: incorporate the revised criteria for critical-to-access and vulnerable hospitals in the grant program, based on completion of the study mentioned above; restructure the program to require grantees to demonstrate that they are making an effort to improve their viability; and further assess resources or assistance needed by these hospitals.*

3. The elimination of the federal Rural Health Transition Grant program affects the ability of hospitals to maintain access to cost-effective, quality health care services. To encourage hospital conversions, assessment of rural emergency medical care, and integration of services, the "seed money" provided by the federal government should be replaced with state funding. Integration of health care services often requires remodeling of or addition to existing health facilities and, in rare cases, may require the construction of entirely new facilities. State grants may provide the incentive needed to move communities in the direction of regionalization.

   The state should continue to support the Minnesota Rural Hospital Transition Grant Program and restructure the grant program in the following ways:

   - *Given the reductions in federal support and the transition needs of Minnesota hospitals, funding for the Rural Hospital Planning and Transition Grant program should be increased by $1,750,000 annually to a total of $2 million. At least $1 million of this appropriation should be budgeted by the Office of Rural Health and Primary Care to fund the Rural Hospital Planning and Transition Grant Program, and approximately $750,000 to fund several comprehensive Rural Health Center demonstration projects.*
   - *Although awards should be made based on project merit, applications from critical-to-access hospitals and vulnerable hospitals should be weighted more heavily in the need criteria.*
   - *Priority should be given to projects that propose conversion, assessment or upgrading of emergency medical services, or integration of health care services.*
   - *Priority should be given to projects that involve appropriate health care providers within 25 miles and other community stakeholders, such as Community Health Boards, Regional Coordinating Boards, Regional Development Commissions, local units of government and consumers.*
   - *The length of the grant period should be extended to two years for implementation projects and the dollar amount of the award should be increased to a maximum of $50,000 per year*
   - *A new category of grants should be added to the Rural Hospital Planning and Transition Grant Program to fund a demonstration of the Rural Community Medical Center concept developed by the Work Group. A Rural Community Medical Center is a partnership/merger/consolidation of two or more health facilities in a region. Projects would demonstrate the efficiencies of regional consolidation and be a*

precursor to a model for successful health service delivery under any future alternative licensing authority.

Funding/Application/Review for Rural Community Medical Center

Proposals for such projects would require a strategic plan that demonstrates involvement of appropriate health care providers within 25 miles and other community stakeholders, such as Community Health Boards, Regional Coordinating Boards, Regional Development Commissions, local units of government and consumers. Funds would be made available for one-year planning projects at a maximum grant amount of $30,000 each, with additional funds available for two-year implementation projects at a maximum grant amount of $200,000 each. Local matching dollars would be required. Project approval would constitute a waiver of the hospital and nursing home moratoriums and exemption from the $546,000 construction limit, as well as automatic qualification for the Contractual Alternative Payment Demonstration Project for Nursing Homes (Minnesota Statutes, section 256b.434). Grant recipients would be required to submit cost estimates for service consolidation, construction and capital improvements.

4. As managed care is extended into rural areas, the state should adopt policies that will protect access to inpatient hospital care for rural citizens. *The Legislature should require inclusion of sole community hospitals and physicians privileged at those hospitals in all managed care networks involving state funds, including the Prepaid Medical Assistance Program (PMAP), MinnesotaCare, the General Assistance Medical Care program, and the State Health Plan. In addition, the Legislature should require the state to reimburse these hospitals and physician clinics on an equitable basis.*

5. The Medicare and Medicaid payment systems inadequately reimburse small rural hospitals, which in turn affects their ability to upgrade physical plant and equipment. *The Legislature should authorize the Commissioner of Health to advocate for modification of the Health Care Financing Administration (HCFA) Prospective Payment system to explicitly recognize the higher average fixed costs per visit of low-volume rural hospitals, and for more equitable reimbursement for rural hospitals by HCFA and the Minnesota Department of Human Services that would not penalize them for lower historical costs and wages. The Rural Health Advisory Committee further recommends that the Minnesota Congressional Delegation advocate for and support legislation for such changes.*

6. Current facility licensing does not reflect the organization of the market. A lack of coordination in licensing and certification processes create unnecessary administrative burden for facilities. T*he Commissioner of Health should continue to streamline licensing and certification processes for health care systems by pursuing a consolidated licensing system for facilities under common ownership or management and seeking appropriate federal waivers to pilot such a project. The Commissioner of Health and the state Congressional delegation should advocate for Congress to give broader waiver authority to the Secretary of Health and Human Services for issues related to rural health care.*

Preserving Access to Emergency Medical Care

Background

EMS is of particular importance to rural areas due to the predominance of hazardous occupations in rural areas and the disproportionate numbers of motor vehicle crashes occurring in rural areas. Approximately 10 percent of rural residents are employed in farming and underground mining--two of the most dangerous occupations in the United States. Seventy percent of fatal motor vehicle crashes occur in rural Minnesota, although only half of the population resides there (Minnesota Department of Health, 1993). Death rates for unintentional injury generally are higher for rural populations. Previous studies have also shown that rural elderly use ambulance services more frequently; rural ambulance calls are more likely to be "urgent," or "critical"; and rural residents are more likely to be suffering from acute medical conditions such as heart attacks or strokes (Office of Technology Assessment, 1989).

Many national studies have noted the problems with the delivery of emergency medical care in rural areas, including:

- The sparse and dispersed populations that are far from care;
- Poor roads;
- Shortages of personnel (first responders, emergency medical technicians, and paramedics);
- Volunteer status of personnel;
- A lack of training and continuing education opportunities for personnel;
- Difficulty of all personnel who treat emergencies in maintaining specialized skills because of the low volume of Emergency Medical Services (EMS) calls;
- Lack of advanced EMS training for staff and comprehensive protocols for EMS in rural hospital emergency rooms; and
- A lack of regional planning for the role of the local hospital within a system of care (Office of Technology Assessment, 1989; Health Resources and Services Administration Office, 1996; U.S. Department of Transportation, 1996).

As many as 50 to 60 percent of critically injured trauma patients die before reaching the hospital and another 20 percent die within the next 4 hours. Some studies estimate that as many as 27 percent of deaths of patients treated at a hospital are preventable. However, before implementing programs to improve trauma outcomes, it is important to know the causes and consequences of rural trauma; at what point along the continuum of care deaths are occurring (e.g., during the pre-hospital or hospital phase); and whether these deaths are preventable (Esposito, Sandal, Hansen, and Reynolds, 1995).

Rural Hospital Work Group Perspective

In Minnesota, it is clear that hospital closures have reduced local access to health care services. However, until 1995, the hospitals that closed were in close enough proximity to other hospital

facilities that reasonable access could be maintained through cooperation with neighboring communities. Karlstad is the first sole community hospital that has closed. It is located 28 miles from Hallock, Minnesota, an area of the state with severe winter weather conditions and reduced travel time on local highways. Residents of Karlstad now are more than 30 minutes travel time from a hospital emergency department.

In assessing the delivery of emergency medical care in Minnesota, the Work Group examined hospital-based delivery services, focusing on the definition of "emergency room" in both acute-care hospitals and alternative rural hospitals; the staffing needs and issues in rural areas; and the role of telemedicine in various types of facilities. The Work Group further examined issues such as existing protocols for emergency care and ways to promote regional planning for the role of the local hospitals.

The Rural Hospital Study Work Group defined its overall vision for the rural emergency medical care system in terms of its components, which constitute a hierarchy of emergency services capabilities across the continuum of prevention of injury and illness, pre-hospital, hospital, and follow-up care. For each of the components, the Work Group further defined the services, the location, requirements, staff/training needs, and barriers to implementation. The following definition served as the basis for the Work Group's discussion of emergency services.

Components of the emergency services delivery system should include:

- Prevention of illness and injury
- Dispatchers providing pre-arrival instructions and /or telephone nurse triage either provided locally or through a state or regional system
- First responders
- Ambulance services: 1) Basic life support ambulance (BLS) services staffed with emergency medical technicians (EMTs); 2) Advanced life support ambulance (ALS) services staffed with paramedics; and 3) Air ambulance services staffed with paramedics or advanced life support/advanced cardiac life support (ACLS) trained nurses
- Urgent care centers that may be located in hospitals or co-located in nursing homes or other facilities
- Free standing emergency centers
- Hospital-based emergency trauma and stabilization facilities with ALS/ACLS trained staff
- Community Trauma Facilities that operate under standardized protocols regarding the training of emergency staff, and have the staff and equipment necessary to respond to a full range of emergency cases including: 1) Resuscitating all patients from neonates to the elderly; 2) Resuscitating victims of injury as well as illness; 3) Providing emergency obstetrics care
- Regional and Tertiary Centers as defined by the American College of Surgeons Level II and Level I Trauma Centers.

Guiding Principles

Based on their vision of a hierarchy of emergency services, the Work Group formed several guiding principles that they believe will assist in the development of the state's emergency services system.

- A system of emergency services should be developed in which hospital emergency rooms are required to be open 24-hours per day. In the absence of a 24-hour emergency room, the community should develop either trauma stabilization facilities in rural primary care hospitals, urgent-care centers based in nursing homes, hospitals, or clinics, or free-standing emergency facilities. Protocols for stabilization and transfer of emergency patients should also be developed.

One stark difference between limited service rural hospitals and acute-care hospitals is that licensing for limited service rural hospitals requires that the hospital have an emergency department, while federal certification requirements for acute-care hospitals do not require an emergency department. In recognition that the RPCH and other related models are designed to preserve access to health care services, Medicare certification requires that these hospitals operate an emergency department and "make available" emergency care on a 24-hour basis, even when there are no inpatients and the hospital is not staffed.

The Work Group believes that free-standing emergency rooms and trauma stabilization facilities that are a necessary part of a viable emergency care delivery system in the state. The Work Group noted that emergency rooms in the northern part of Minnesota are relatively sparse-- areas where seasonal influx of tourists is high. It was the consensus of this Work Group that the State pursue initiatives to maintain these facilities, while encouraging the development of urgent-care centers, free-standing emergency rooms, or points of helicopter intercept to fill gaps that currently exist.

According to a report by Ernest Ruiz, M.D., Director, Emergency Medical Program, University of Minnesota, the severe weather conditions and areas of wilderness in Minnesota make it imperative that alternatives to standard emergency care facilities be devised that can be used when conditions are not suitable for transfer of the patient to tertiary care facilities because distances between rural emergency facilities are too great. Intercept points between rural ambulance and helicopters manned by personnel with advanced skills can solve some EMS problems.

- Trauma teams are crucial to delivering high-quality emergency care. Teams should include physicians, registered nurses (RNs), and nurse practitioners (NPs) or physician assistants (PAs) who are certified in advanced trauma or life support. The team should have access to laboratory and x-ray services and have a person trained in advanced airway management. Although ALS-certified RNs and mid-level practitioners are highly capable of handling many trauma situations, the presence or timely availability of a physician with competence in care of the critically injured is

crucial to providing high quality care. Ideally, a hospital trauma team should include two physicians in addition to other health care personnel. Minimum staffing levels for a free-standing emergency facility should be a nurse practitioner or physician assistant who is qualified to provide advanced life support services with physician backup via telemedicine or telephone.

In their discussions, Work Group members emphasized the importance of education in advanced life support for rural trauma care teams, particularly in light of the lower volume of emergency room visits in rural areas. Emergency training courses and certification are key to maintaining quality emergency care.

As noted earlier, many rural hospitals hire locum tenens for weekend emergency room coverage. Many of these physicians have no training in emergency medicine, which puts rural areas at a disadvantage when outside physicians are covering their emergency departments. Telemedicine consultation was considered by the Work Group members to be extremely difficult, even under the best-case scenario, in the case of an actual emergency.

The Work Group members also discussed the problems with maintaining 24-hour RN staffing of emergency rooms when inpatients were not present and the potential for cross-training among Emergency Medical Technician - Paramedics (EMT-Ps), PAs, and RNs. Members agreed that there may be a role for EMTs in emergency room care, but that team response including physicians, PAs, and RNs who are trained in advanced life support techniques are key to effective trauma care.

Currently, Minnesota hospital emergency departments are not required to meet benchmarks that indicate capabilities for providing emergency medical care. Under federal certification and state licensing statutes, there are no requirements for advanced life support training for physicians or mid-level providers staffing hospital emergency departments. The Work Group believes that hospitals should be encouraged to require advanced life support training by their staff.

The Work Group closely reviewed the *Model Criteria and Model Guidelines for Trauma Stabilization Facilities and Community Trauma Facilities,* which outline the minimum staffing, training, and equipment appropriate for emergency departments, in light of the current needs of rural Minnesota. The Work Group generally concurred with the *Model Criteria* (suggested changes are in Appendix I). The Work Group noted, however, that there are no protocols for common medical emergencies, such as cardiac or obstetrics. Although compliance with the criteria and guidelines is voluntary, the Work Group believes that the expansion and revision of the guidelines will represent a further step in improving the delivery of emergency medical care in ambulances and hospitals.

- Telemedicine may support emergency medicine by providing access to continuing education programs and consultation with specialists; however care of critically ill or injured patients in emergencies is a hands-on process, and as such, must be carried out by properly trained practitioners on the scene.

In 1996, rural Minnesota hospitals also demonstrated the use of telemedicine in emergency rooms to improve access to emergency medical care. A four-month demonstration project conducted in early 1996 linked three low-volume hospital emergency departments with a larger facility in Buffalo, which is staffed with emergency physicians. The demonstration project was designed to test the effectiveness of emergency care, referrals, physician consultation, and public education. The project's telemedicine network was created by Allina Health Systems, with partial funding through a Rural Health Outreach grant to the Rural Health Alliance. The use of telemedicine links by registered nurses in emergency room settings is designed to free local physicians in the smaller hospitals from being called in the middle of the night for minor emergencies and helps Buffalo defray the costs of 24-hour emergency room coverage.

Statewide Trauma Registry

Work Group member reemphasized the need for a statewide trauma registry in Minnesota. The purpose of collecting EMS data is to evaluate the emergency medical care of individuals with illnesses and injuries in an effort to improve access and reduce morbidity and mortality. With available information, it is difficult to know where to place limited resources. For example, if the excess motor vehicle-related mortality in rural areas occurs because of delays in discovering victims who have had accidents on infrequently traveled rural roads, improvements in road safety or communications might be called for. If rural residents are less likely to use seatbelts, are more likely to exceed speed limits, and drive while drunk, public education campaigns and better enforcement of existing laws to support preventive practices might reduce motor-vehicle related morbidity and mortality.

Because time to emergency care is such a crucial factor in determine the trauma patients' outcome, higher trauma-related mortality might be expected in rural areas due to delays in detection and response times. In some remote rural areas, delays are unavoidable, but response times can be improved by improving air medical services or changing the placement of ground or air transport. If there were evidence that pre-hospital care was adequate, but deaths were occurring in rural hospitals that are ill-equipped to provide trauma care, then resources could be directed to improving hospital-based nurses or physicians or protocols guiding the transfer to patients from a rural hospital to a trauma center. Patient outcomes for various treatment protocols, transport modalities, and transfer times need to be researched (Office of Technology Assessment, 1989; Health Resources and Services Administration, 1996).

States across the country have taken a variety of approaches to gathering this data. Statewide computerized ambulance use data has for considerable time been available in Texas, South Carolina, and New York. More recently, South Dakota, has instituted a system where ambulance trip tickets are analyzed to provide data on prehospital care. Other states, such as Maryland and Iowa have developed state trauma registries as a component of a trauma care system involving designation and verification of hospitals and emergency care facilities based on their capacity to provide trauma care services.

In 1991, Minnesota established a Trauma Care Work Group and began to plan for federal funding of trauma systems development in Minnesota. A comprehensive trauma system was outlined in 1991 and refined during 1992 and 1993, and the state received a federal trauma grant to modify the state EMS plan to incorporate trauma systems. The Trauma Work Group addressed pre-hospital care, trauma center criteria, patient transfer protocols, structure of the system, and quality improvement. The Trauma Work Group developed model criteria for and recommended verification of four levels of trauma resources, including trauma stabilization facilities, community trauma facilities, and two levels of tertiary care facilities.

The Commissioner of Health adopted the model criteria and encouraged hospitals to voluntarily self-designate; however, a formal verification system was never adopted. In addition, the Minnesota Department of Health funded a study of the feasibility of a statewide trauma registry by the Trauma Registry Alliance. The findings proposed a statewide population-based trauma registry to include data on pre-hospital and hospital care.

Regional Planning for Delivery of Emergency Services

The Work Group identified the need to encourage hospitals to upgrade their emergency capabilities by studying and determining the appropriate level of emergency services in the community, purchasing equipment or entering into agreements with neighboring communities or health systems to implement the appropriate level of emergency services, and supporting the advanced life support training of emergency room staff. Hospital collaboration with other communities and community education were strongly encouraged in building a stronger emergency care system.

In summary, the Work Group members agreed that development of a universal model for excellent emergency care in rural Minnesota is a daunting but not insurmountable task. It rests on two components: 1) providing education experiences for the rural emergency care teams in settings that encourage teamwork, a broad base of knowledge in emergency resuscitation, and the performance of procedures in a skillful manner; and 2) a well-prepared system for tertiary care referral incorporating advanced communication systems as well as helicopter, fixed wing, and group transportation systems utilizing highly skilled personnel.

Rural Health Advisory Committee Recommendations

1. One of the key issues in rural planning for emergency medical care delivery is the establishment of a state trauma registry. Although the major metropolitan hospitals in Minnesota operate trauma registries, there is no state-wide system that allows data sharing or data analysis. A previous study conducted by the Emergency Medical Services section of Minnesota Department of Health (now the Emergency Medical Services Regulatory Board) recommended adoption of a state-wide, population-based trauma system. However, there is a need to conduct further comparative analyses of costs, benefits, and strategies.

   RHAC recommends that the Emergency Medical Services Regulatory Board and the Commissioner of Health collaborate on planning for a statewide trauma registry to include: defining and evaluating the purposes of a statewide trauma registry, the data elements, the analysis of the data, the applications of the findings, the options for collecting data, the respective costs, and the feasibility of pursuing identified options for development of a statewide trauma registry. Money for implementation of the trauma registry should be appropriated following the completion of the plan.

2. Although the state has developed and disseminated model criteria and guidelines for trauma and stabilization facilities and community trauma facilities, the criteria do not address several of the most common rural emergencies --cardiac and obstetrics.

   The Emergency Medical Services Regulatory Board should modify the model criteria and model guidelines for trauma and stabilization facilities by adding protocols for cardiac and obstetric emergencies. The Commissioner of Health should review and adopt the revised guidelines and encourage hospitals throughout the state to meet the standards therein.

3. It is desirable for patients to go to an emergency room if a properly staffed and equipped facility is available. However in some regions of Minnesota, primarily the northern tier of counties, such facilities are not available within a 30-minute travel time. *Therefore, the state should encourage the establishment of helicopter intercepts to enhance the availability of emergency care in remote areas.*

   Furthermore, there are a number of circumstances, such as a lack of local protocols specifying situations in which the helicopter should be called immediately, which create delays in obtaining helicopter transport for critically ill or injured patients. *Collaboration between hospitals and providers of ground and air ambulance services should be encouraged. Hospitals should be encouraged to implement protocols for appropriate transfer of patients via helicopter to another facility.*

4. Many small rural hospitals do not have the number of staff persons trained in advanced life support available to deliver care at an optimal level. Currently, paramedics do not have a formal scope of practice, but rather function as paramedics only if on an ambulance call or under the direction of the medical director of the ambulance service. *To enhance the trauma team effort, the Emergency Medical Services Regulatory Board should more clearly define the scope of practice for paramedics, and hospitals should be encouraged to plan protocols specifying the conditions under which emergency medical technicians and paramedics can function in the emergency room.*

   Emergency medical technicians are the backbone of rural EMS systems; the majority of EMTs are volunteers. *The Emergency Medical Services Regulatory Board should encourage efforts to support and recruit emergency medical technicians and should attempt to increase the overall numbers of emergency personnel in rural Minnesota.*

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APPENDIX A

Legislative Charge

MinnesotaCare 1995, Chapter 234, Article 8, Section 55
Alternative Licensing Model for Rural Hospitals

"The rural health advisory committee shall examine rural health care access needs and present recommendations on the need for an alternative licensing model for rural hospitals.

The committee must first examine:
(1) the projected demographics of rural populations;
(2) access to emergency care, obstetrics, and other traditional hospital-based services;
(3) access issues related to transportation;
(4) health care needs of different regions of the state, including those areas where access to care may be threatened by the financial instability of local hospitals; and
(5) other factors related to access to rural health care and hospital based services.

Based upon this examination of access to health care in rural areas, the committee shall evaluate the need for and the feasibility of implementing an alternative licensing model for rural hospitals. This evaluation must consider:
(1) the goals of an alternative licensing model;
(2) federal and state regulatory barriers and options for reconfiguring traditional hospital-based health care services; and
(3) the feasibility of implementing an alternative licensing model, including the potential for integration with integrated networks and likelihood of obtaining a Medicare waiver and other necessary federal law changes.

If the committee determines that a need for an alternative licensing model exists and implementation is feasible, the committee shall identify changes needed in federal and state law, and develop draft legislation for a Minnesota-specific alternative licensing model.

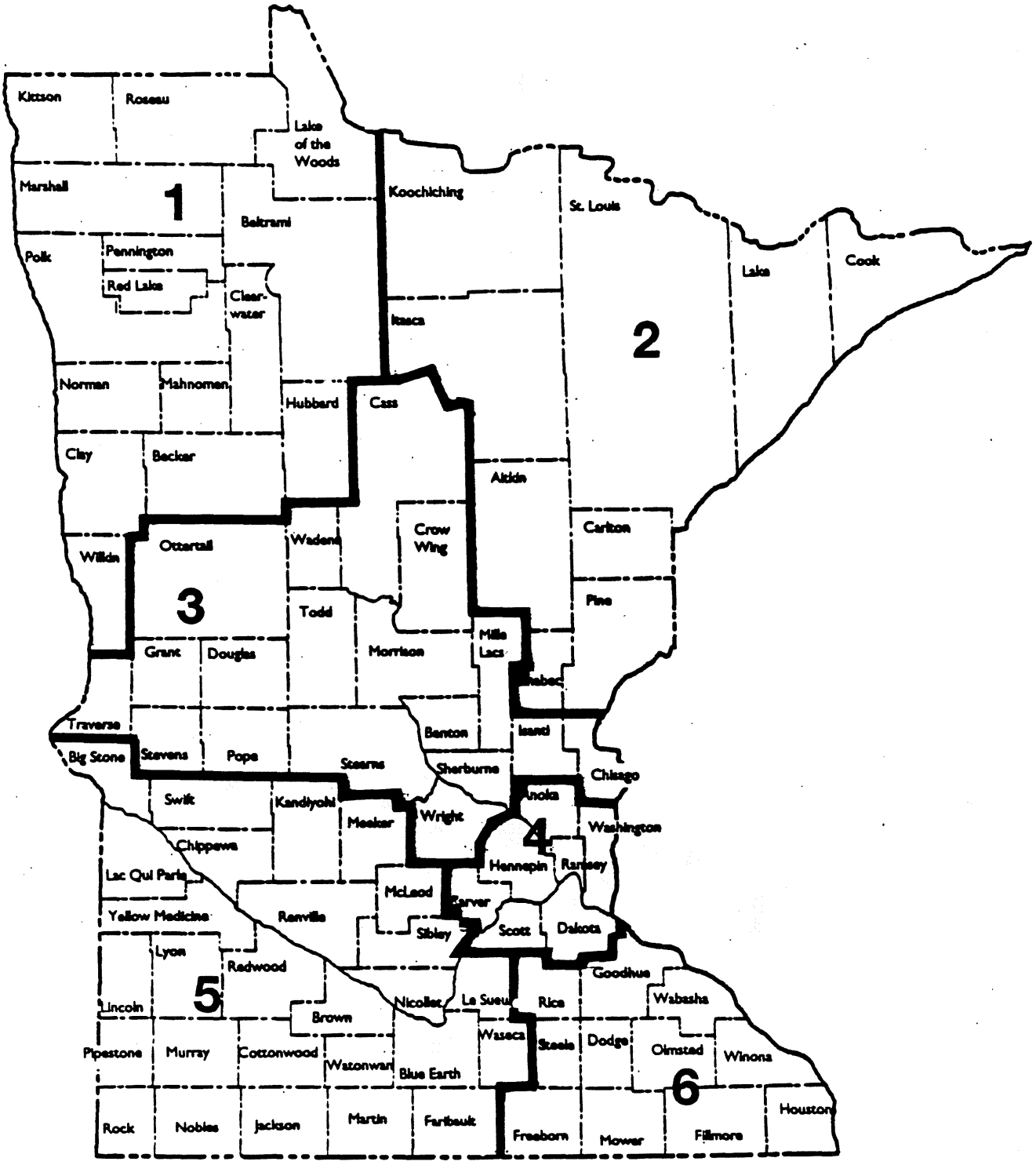
The committee shall present a report to the legislature by December 15, 1996.

This report must summarize rural access needs and present initial recommendations on the need for an alternative licensing model for rural hospitals."

APPENDIX B

Regional Boundaries for Coordinating Boards
and
Demographic Projections

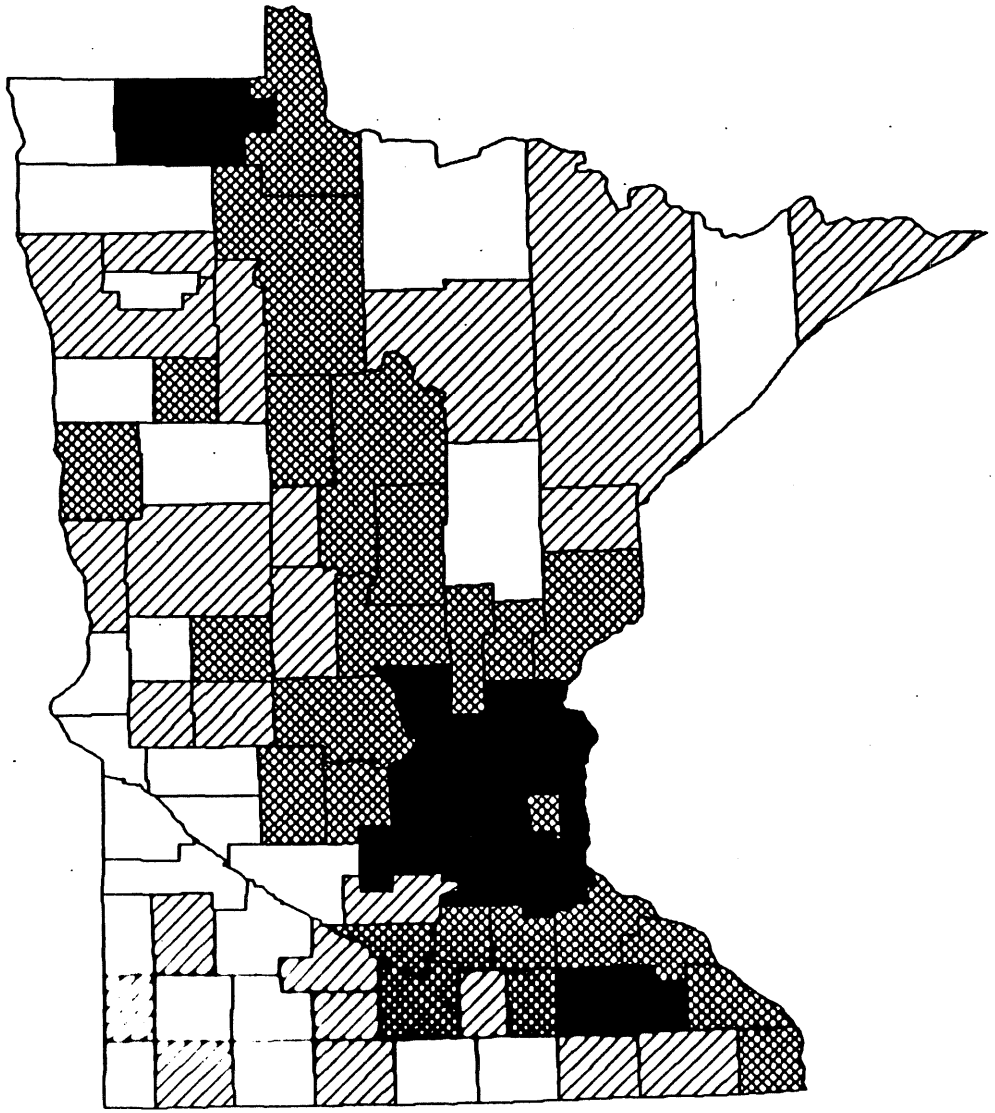
REGIONAL BOUNDARIES FOR COORDINATING BOARDS



MDH-08/93

PROJECTED POPULATION CHANGE, 1990-2020

(Demographer's Office Projections)

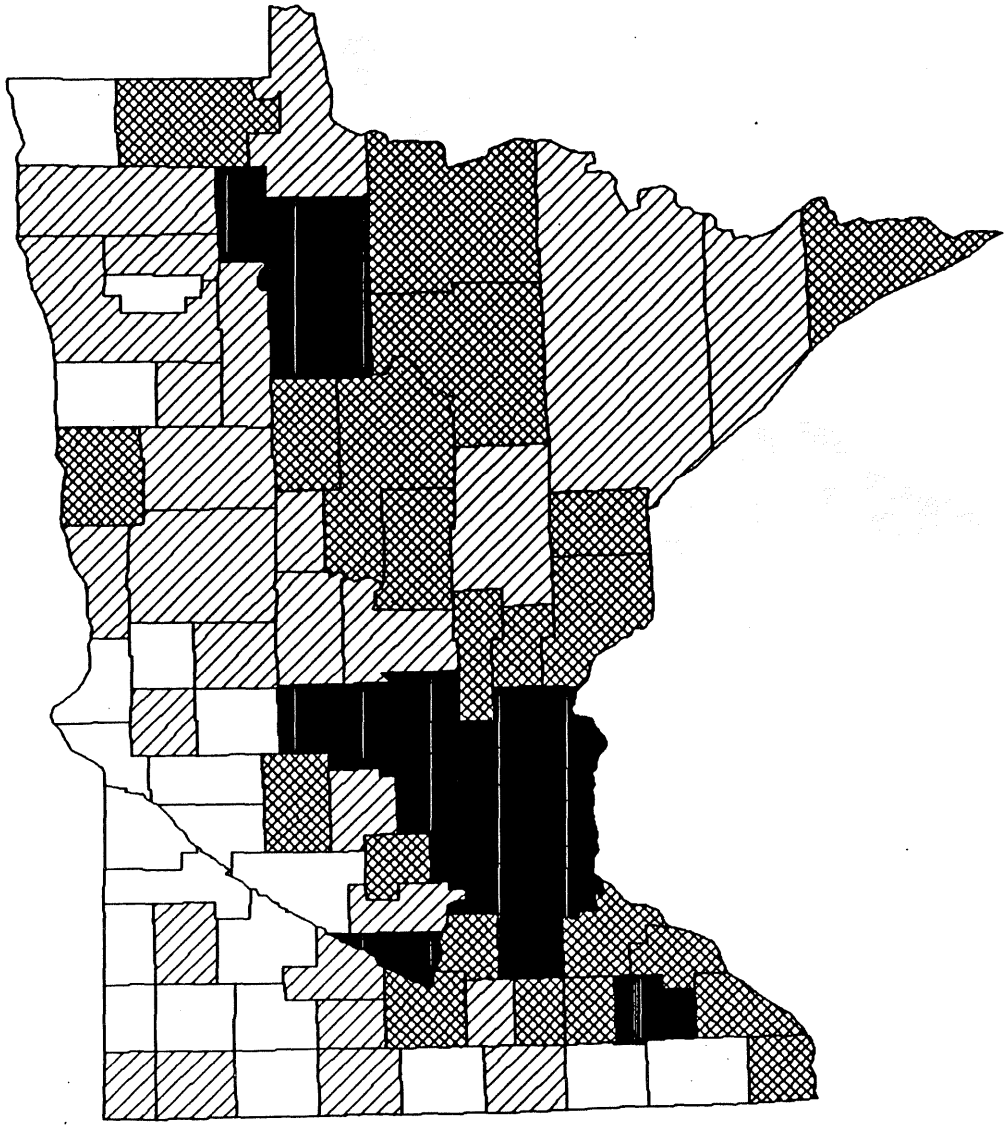


State: 15.5%

- Loss -15% or More
- Loss 0 to -15%
- Growth under 15.5%
- Growth 15.5% to 72%

PERCENT CHANGE IN 65+ POPULATION, 1990-2020

(Demographer's Office Projections)

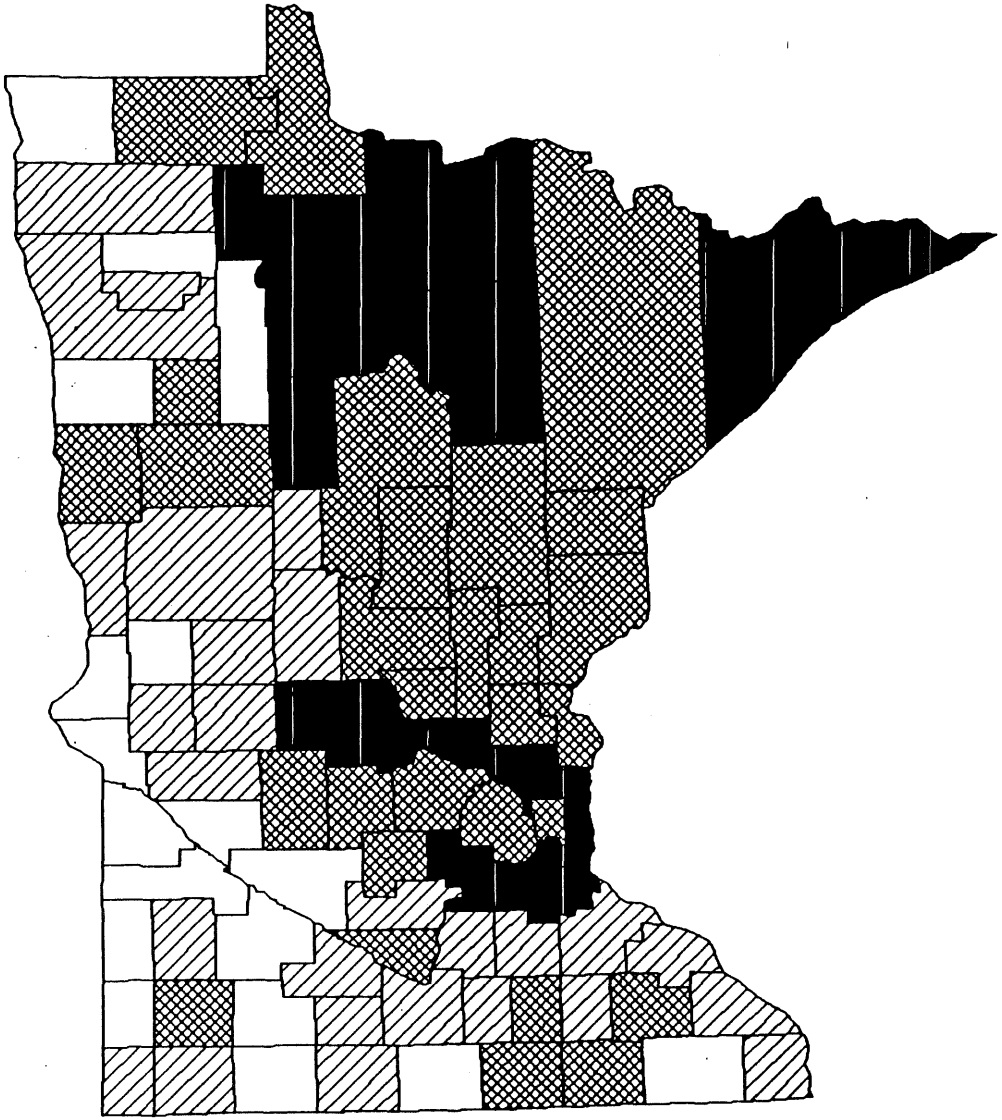


State: 66.4%

- DECLINE -15 TO 0%
- 0 to 30%
- 30 to 55%
- 55 to 292%

PERCENT CHANGE IN 85+ POPULATION, 1990-2020

(Demographer's Office Projections)



State: 71.7%

-2 to 25%

25 to 50%

50 to 100%

100 to 389%

APPENDIX C

Health Resources of Minnesota's Rural Communities with Hospital Closures (1983-95)

Minnesota Communities With Hospital Closures (1983-95)

City	*Recent Population*	*Leading Employer*	*Rank Health Care/Number of Employees*	*Hospital Closure Year*	*Nearest Hospital*	*Nursing Home Beds*	*Doctors in Residence 1993/95*
Bertha	507	Banking	unranked	1986	13 mi.	0	0/0
Browerville	775	Milk	unranked	1987	8 mi.*	0	1/1
Caledonia	2907	Software	4/114	1989	17 mi.*	74	3/3
Clarkfield	1000	Health	1/110	1987	15 mi.	86	0/0
Comfrey	433	n/av	n/av	1993	15 mi.*	0	0/0
Eveleth	4069	Iron	5/175	1993	4 mi.	146	3/2
Gaylord	1935	Eggs	unranked	1989	7 mi.*	58	0/0
Greenbush	798	Health	1/85	1991	22 mi.	40	1/1
Heron Lake	780	Health	1/55	1991	12 mi.	47	0/0
Karlstad	881	Schools	2/90	1995	28 mi.*	71	3/2
Lakefield	1675	Construction	2/73	1994	12 mi.*	54	2/2
Littlefork	838	n/av	n/av	1986	22 mi.	60	1/1
Mountain Lake	1902	Health	1/100	1991	9 mi.	80	2/2
New York Mills	940	Boats	4/100	1983	10 mi.*	100	2/2
Parkers Prairie	949	Health	1/80	1991	20 mi.	70	1/1
Pelican Rapids	1896	Turkey	2/179	1993	21 mi.	116	2/2
Red Lake Falls	1484	Mobile Homes	unranked	1985	22 mi.	62	1/1
Spring Valley	2455	Schools	2/110	1996	35	50	3/4
Trimont	750	Health	1/59	1991	17 mi.*	41	1/0
Wells	2456	Poultry	4/76	1992	22 mi.	61	1/0
Winsted	1639	Lighting	5/120	1989	20 mi.	95	1/0**

*Nearest hospital has an average daily census of less than or equal to 5.

**Of the communities with no physicians: Bertha currently receives primary care services 4 days a week from a nurse practitioner at the Bertha Clinic, with visits from a Wadena physician every other Monday; Clarkfield Medical Clinic is a branch of the Montevideo Clinic and is staffed by a physician 3 days a week; Comfrey currently receives services 1/2 day twice a week from a Mountain Lake physician and physician assistant; Gaylord Clinic shares 3 physicians and a nurse practitioner with Winthrop and Arlington; Heron Lake receives clinical services from a physician one morning per week, according to an answering machine message; Trimont receives physician outreach services through St. James Clinic physicians and a physician assistant on Mondays, Wednesdays and Fridays; Wells Clinic is staffed by a full-time physician (added in the last year) and a physician assistant; and Winsted Medical Clinic is staffed Monday-Friday by 2 physicians and a physician assistant rotating in from Glencoe.

APPENDIX D

An Account of Lakefield's Hospital Closure

Lakefield was lucky two years ago.

The small rural town in Southern Minnesota (population 1,700) managed to dodge a potentially devastating health care bullet in 1994 that could have left the community reeling from a lack of any health care services.

Instead, it managed to make the best of a bad situation that not only saw its 50 year old hospital close, but its only doctor leave town and the local medical clinic face closure.

Lakefield's situation is not unlike many other smaller communities in Minnesota. Rising health care costs, doctors who would rather specialize than work as general practice physicians, changing insurance rules and a sometimes cumbersome and seemingly uncaring state and federal bureaucracy, forced a dramatic change in the delivery of health services.

The 26-bed Lakefield hospital was built following World War at a cost of $118,000. Residents voted 2-1 to bond for the construction costs. Local volunteers and service organizations pledged to hold fund raisers to equip the two-story brick building with the latest in medical equipment.

The next thirty years were prosperous ones for the hospital. Daily census was high and many times the hallways were filled with beds because all of the rooms were full. Health care costs were relatively low and doctors admitted patients for almost any ailment because insurance companies paid the bills. The hospital became a source of pride and security for both city and rural residents.

Lakefield didn't know it but changes in medicine would soon force them to reexamine their health care facility. New, less invasive procedures, made for shorter stays. Insurance companies were becoming more reluctant to approve overnight stays. And, more importantly, the community was having an increasingly difficult recruiting and retaining physicians.

Dr. Victor Doman, who practiced in Lakefield for 43 years (retiring in 1978) was nearing retirement. One of the last of the small town doctors, Doman worked seven days a week, 365 days a year caring for his patients. In the 1970s, doctors from India were hired. Those Indian doctors helped fill the void, but they couldn't stem the health care tide.

Medicare and Medicaid rules and regulations were becoming more cumbersome. Reimbursement rules were changing. Limits were put on medical procedures, sometimes at rates that did not allow the hospital to recover costs. A positive cash flow became a negative cash burden.

The face of rural health care was changing but no one knew just how drastic the consequences were going to be. The volunteer health care board, charged with the operation of the facility, was unable, and perhaps unwilling, to face the new realities of health care delivery. In the late 1970s, a $1 million addition was added the hospital. It proved to be unnecessary. Not only would the construction bring about an unwanted financial burden for taxpayers, it would hasten the closure of the facility. Lakefield taxpayers are not scheduled to pay off the expansion bonds until 1997.

Through the 1980s, the hospital languished. Daily patient census continued to drop. Medicare and Medicaid tightened their purse strings even more. The new state and federal rules were applied with a broad brush, ignoring the unique financing details of individual communities. Insurance companies became downright stingy. And the doctor situation, the backbone of a small town hospital, became critical. By 1990, Lakefield was down to one physician. An older Canadian doctor, he was not interested in, and was not capable of, working 365 days of the year.

In the early 1990s, the Emergency Room (ER) was forced to close. Regulations required that in order to be certified the ER must be staffed 24 hours by an RN, with a physician on call. Lakefield couldn't afford to meet those requirements.

Efforts were made by local leaders to recruit doctors. But it soon became apparent they were not qualified to effectively play the physician recruiting game.

The community became to talk openly about "the hospital problem." Substantial cash reserves were used to keep the hospital open. It was not money well spent. From 1989 to 1994, nearly $1 million in city funds, were used to meet the hospital's financial obligations.

There were other forces compounding "the hospital problem." The Main Street was shrinking. Instead of four hardware stores, Lakefield now only has one. Instead of three new car dealers, we have none. Instead of three clothing stores and a department store, we have none. The farm crisis of the early 1980s had a profound effect on the town's economy and the hospital's bottom line. The hospital problem became part of a larger concern of whether the community would even survive.

The community was unknowingly and unwittingly caught up in the economic forces that have dramatically altered the way of life in thousands of smaller communities throughout the country. And they didn't know what to do.

Geographical forces were also at work. In addition to the Lakefield Hospital, there were four other hospitals within a 30 mile radius. More importantly there were a host of physicians who worked out of those hospitals. Older people began to go out of town for their health care needs. They were tired of the uncertainty of health care in Lakefield. Their departure made a bad health care situation worse.

In April of 1994, the hospital closed it's doors forever. It was a very traumatic times for residents, especially older people who saw the availability of local adequate health care not as a luxury but as a necessity. While many of them doctored out of town, the presence of a hospital was very important to them.

The only doctor, who owned and operated the local clinic, demanded a contract that would have the city buy the clinic and guarantee him a salary of about $160,000 a year. Caught between a rock and a hard place, the city council agreed to a one year contract.

The council used that time to open up a dialogue with the Jackson Hospital Board in a effort to have them provide physician coverage at the city owned clinic. Just a few weeks before Lakefield's doctor contract expired, the two communities came to an agreement. Jackson would staff and operate the Lakefield medical clinic. In return, Lakefield would provide monthly payments of about $1,500 for a period of three years. The arrangement has worked well. The clinic is now busy and fewer people are leaving town for their health care needs.

When the hospital closed, Lakefield learned it had just one year to sell the building if they were to be eligible to recover up to $350,000 in additional Medicare reimbursements from the federal government. City leaders began to work feverishly to find a buyer. Just days before the deadline, a buyer was found. Habilitative Services, Inc., who operates home care facilities for handicapped and mentally challenged residents throughout Southwest Minnesota, agreed to purchase the building for $50,000 and move their corporate headquarters to Lakefield. They also agreed to remodel the building and make space for a new Lakefield clinic as well as operate a 23-bed alternative living facility for people 55 and older on the second floor. They invested more than $500,000 in the renovations.

The arrangement was a god send for Lakefield. Not only did it bring 17 new jobs to town and put the property on the local tax rolls for the first time, it meant that the former hospital

building, long a source of pride and identity to local residents, would not sit idle and deteriorate. The hospital building became the focus of health care once again.

Lakefield has lost a lot in terms of health care in the past 15 years. But it has been lucky. Other smaller communities in Southern Minnesota have lost even more. Former hospitals site empty in too many smaller communities. Health care is no longer a local option for some of those towns.

But Lakefield has also gained from the events that have transpired. The closing of the hospital has forced local leaders and residents to focus on the changes that are happening in rural communities today.

"The hospital problem" has helped them realize that the problems the community is facing today require attention. The community has learned that, in some cases, the past is not prologue. The prosperity the United States, and Lakefield, from the late 1940s through the early 1970s, does not guarantee prosperity in the future.

Local, county, state, and federal governments have got to become partners in progress, agents of positive change, if outstate communities such as Lakefield are going to have any chance at all to meet the challenges of the next millennium.

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APPENDIX E

Health Resources of Minnesota's Rural Communities with Small Hospitals

Hospital Average Daily Census Less Than or Equal to 3

City	*Recent Population*	*Leading Employer*	*Rank Health/ Employees*	*Hospital Beds*	*Nursing Home Beds*	*Doctors 1993/95*
Adrian	1152	Schools	2/65	17	41	2/2
Appleton	1641	Corrections	unranked	23	84	3/2
Aurora	1964	Steel	3/127	14	69	4/5
Bigfork	384	n/av	n/av	20	40	3/3
Cook	680	n/av	n/av	14	41	3/3
Grand Marais	1217	Lumber	unranked	16	47	5/5
Hallock	1307	Health	1/150	20	95	2/2
Harmony	1214	Health	1/100	14	45	1/1
Hendricks	681	Health	1/178	26	56	2/2
Ivanhoe	746	Health	1/107	28	51	1/2
Jackson	3553	Farm Equipment	2/181	20	110	4/4
Le Sueur	3818	Plastic	unranked	24	85	2/3
Madison	1925	Health	1/275	21	139	2/2
Mahnomen	1203	Gaming	3/125	18	48	3/3
Pine City	2613	Government	4/129	0	117	4/3
Rush City	1509	Plastic	4/98	29	50	3/3
St. James	4361	Turkey	unranked	24	79	4/5
Sauk Centre	3651	Schools	2/170	46	60	4/3
Sandstone	2092	Corrections	3/170	30	86	2/2
Spring Grove	1228	Automotive	2/105	6	79	1/1
Tyler	1251	Health	1/101	28	43	2/3
Westbrook	908	Health	1/84	13	49	2/2

Hospital Average Daily Census Less than or Equal to 5

City	*Recent Population*	*Leading Employer*	*Rank Health Care/ Employees*	*Hospital Beds*	*Nursing Home Beds*	*Doctors 1993/95*
Ada	1705	Health	1/140	28	49	3/4
Albany	1583	Schools	2/188	17	84	4/3
Arlington	1892	Electrical	2/115	32	63	2/2
Bagley	1388	n/av	n/av	40	70	5/3
Baudette	1146	Drugs	2/130	34	52	4/4
Benson	3228	Farm Equipment	unranked	31	63	3/3
Canby	1811	Health	1/150	27	75	3/4
Cannon Falls	3435	Imports	8/120	21	109	4/6
Dawson	1630	Health	1/200	24	70	3/4
Deer River	838	n/av	n/av	20	50	5/4
Elbow Lake	1189	Schools	3/65	20	0	1/1
Ely	3959	Health	1/210	39	99	8/9
Glenwood	2583	Health	1/390(?)	34	169	6/5
Graceville	671	n/av	n/av	32	60	2/2
Lake City	4430	Manufacturing	unranked	49	134	6/5
Long Prairie	2795	Printing	3/200	34	123	2/3
Madelia	2233	Food	4/92	25	89	2/2
Melrose	2635	Turkey	4/155	28	75	4/6
Olivia	2633	Beets	4/110	35	94	3/3
Perham	2174	Snacks	2/235	29	102	5/5
Springfield	2188	Aviation	2/270	24	139	3/3
Starbuck	1148	Health	1/136	19	60	2/3
Tracy	2056	Schools	2/55	37	50	2/2
Two Harbors	3630	Schools	3/133	30	105	10/9
Wabasha	2452	Health	1/265	31	167	8/8
Warren	1797	Fiberglass	unranked	41	102	2/2
Waseca	8144	Printing	5/103	35	94	7/7
Zumbrota	2372	Health	1/160	24	65	3/3

APPENDIX F

Summary of Structured Interviews with Rural Hospital Administrators

Rural Hospital Study Work Group
Results of Structured Interviews with Administrators of Rural Hospitals in Minnesota With an Average Daily Census of Three or Less

I. Introduction

The Rural Hospital Study Work Group conducted a survey of 23 hospital administrators as part of its examination of the feasibility of adopting a limited service model for small rural hospitals in Minnesota. Administrators of rural hospitals with an average daily census of less than or equal to three in the 1994 reporting year were selected for the survey. They were asked to outline: 1) the strengths and challenges of their facilities and communities; 2) community involvement in planning activities; 3) strategies they have implemented or plan to implement to maintain or strengthen the viability of their facilities; 4) how they would define a limited service hospital which would meet the needs of their communities.

Initially, the administrators received a survey guide outlining the questions to be asked in telephone interviews conducted by the Minnesota Hospital and Healthcare Partnership and the Office of Rural Health and Primary Care. The guide included a summary of the federal Essential Access Community Hospital/Rural Primary Care Hospital (EACH/RPCH) demonstration project which established a limited service hospital model in seven states.

TheEACH/RPCH program, as well as a limited service hospital proposal currently in Congress, contain several basic components including bed and length of stay limitations, availability of emergency care on a 24-hour basis, and flexibility in staffing and ancillary service requirements. In return, RPCHs are reimbursed by Medicare on a per diem basis for inpatient care, and either by a cost-based or an all-inclusive rate combining both professional and facility components for outpatient services.

II. Summary of Hospital Services

Source: Minnesota Department of Health Division of Facility and Provider Compliance, 1994 hospital data.

- Hospital size averaged 20 licenced and 17 staffed beds
- The acute daily census in averaged 1.9 in 1994, ranging from 0.1 to 3.0, the cutoff point for survey selection
- Average length of stay was 3.2 days

Continuum of Care

- Eighteen of the 23 hospitals have attached nursing homes
- Ten hospitals were characterized as being part of a medical campus or integrated setting which included one or more services in addition to the hospital and nursing home including: outpatient or urgent care clinic, home health care, board and care, hospice, independent living center, and senior housing units, as well as the availability of physicians in a variety of specialties available on a part-time basis, and the availability of mobile diagnostic and treatment equipment.

Subacute Care

- Twenty of the 23 hospitals participated in the swing bed program in 1994, with an average daily census of 0.8 and ranging from 0.1 to 2.0
- Eighteen hospitals reported transitional care days. Thirteen of those hospitals had a transitional care average daily census of one or less. Two were between one and three. one hospital, which has a large number of transitional care referrals from large medical centers, had an average daily census of 8.3.
- The subacute average daily census was 1.8 in 1994, nearly equal to that of the average daily census for acute care. Subacute care, including swing bed and transitional care days added substantially to total patient days in some cases with subacute average daily census ranging from 0.2 to 9.5.

The following hospital statistics are presented solely for the purpose of estimating the volume of patients in each of the categories listed. Because hospitals do not report the data in a uniform manner, the numbers should not be used for comparison purposes.

Emergency Rooms

Note: Emergency room statistics do not make a distinction regarding severity of patients' conditions.

- Of the 23 hospitals, 19 reported unscheduled emergency room visits in 1994, ranging from 324 to 1,954.

Distribution of Unscheduled Emergency Room Visits

Number of Visits	Frequency
300-500	3
500-1000	5
1000-1500	6
1500-2000	5

Obstetrics Services

- Nineteen of the 23 hospitals have licensed bassinets. Sixteen of those hospitals reported births in 1994. The number of births reported per hospital ranged from 1 to 49, with an average of 19.

Surgical Services

- Sixteen of the 23 hospitals reported from 5 to 67 operating room procedures. The average number of procedures was 30.
- Fifteen hospitals reported outpatient surgical procedures. Twelve of the 15 reported 150 procedures or less.

III. Facility Strengths

- **Integration of services**
  The most commonly cited strength is an integrated system of services within close proximity or in a campus setting, identified by 10 administrators. A number of administrators indicated that, while acute inpatient care is declining, outpatient and subacute care services are rising.

- **Quality of staff and care delivered by the hospital**
  Nine administrators identified a strength in the dedication of staff, including physicians, mid-level providers and nurses, and their contribution to the hospital's reputation for delivering high quality care.

- **Availability of physicians to the facility**
  Five administrators indicated that the availability of physicians is a strength, however the number of physicians and mid-level practitioners varies among the communities. The following chart shows the distribution of physicians.

Distribution of Physicians	
Number of physicians per community	Frequency
1	2
2	9
3	6
4	4
5	1
6	1

Sixty-three of the 65 physicians who practice in the communities specialize in family practice, internal medicine, or general practice. Two physicians have other specialities--one in general surgery, and one in endocrinology. Five administrators indicated that specialists are available to the community on a part-time basis through arrangements with larger medical centers. Specialists services include: urology, cardiology, orthopedics, oncology, and ophthalmology. Mid-level practitioners are available in 12 of the 23 communities. Nine physicians assistants practice in eight communities, and four nurse practitioners practice in three communities. One administrator did not specify the category of mid-level practitioners in the community.

Other strengths:

- giving one-to-one care, knowing the patient
- access to tertiary centers for emergency care/helicopter services readily available
- good relationships with referral centers and visiting specialists
- nursing staff is cross-trained to work in a variety of departments of the facility
- nurses are ALS or ACLS certified

IV. Facility Challenges

• Staff retention and recruitment

The ability to retain and recruit staff was overwhelmingly the most identified challenge to the facility, by 16 of the 23 administrators. Retention and recruitment of physicians was most often cited, by 10 administrators. However, concerns were also expressed regarding retention and recruitment of other health professionals as well including mid-level practitioners, nurses, laboratory technicians and physical therapists. Recruiting and retaining nursing assistants was also cited as an area of difficulty. The ready availability of jobs with low training requirements was cited as the major threat to retaining non-professional staff. Continued availability of management and leadership personnel was also recognized as a concern by two administrators.

• Managed care

The growth of managed care in rural areas was identified as a challenge to their facility by eight administrators. The majority expressed concern that small rural hospitals would be shut out of managed care due to their small size or for other reasons not related to quality or cost of care. An additional concern of the administrators was that state government will shut small rural hospitals out of the State Health Plan and Prepaid Medical Assistance Program (PMAP).

• Physical Plant

Another challenge, cited by six administrators is an aging physical plant, and/or the lack of access to capital needed to make building improvements or purchase the technology necessary to remain competitive.

V. Community Strengths

• Community commitment to health care

The largest number of administrators, 12, identified strong community commitment in the form of hospital volunteers, fundraising, and an active and supportive business community as a strength. Three administrators indicated that the fundraising activities of the community was largely responsible for the facilities' continued viability. In one instance, the community approved a 1% sales tax to construct a new building, in another, the community celebration is called "hospital days" and consists of fundraising activities along with a recognition of the importance of health care services in the community. One community fund-raising campaign contributed approximately $30,000 toward the purchase of a new ambulance and to support the hospice program. Residents of two other communities contributed several hundred-thousand dollars each over a number of years for equipment upgrades and building improvements.

Hospitals are among the largest employers in many of the communities included in the survey. Several administrators commented that government and business organizations in the community have become aware of the hospitals' importance in economic development and future growth. As a result, there is interest in keeping the hospital and related health care services viable.

- Strong schools and a cooperative education system were also cited as a strength by four administrators.
- A growing or stable population was identified by three administrators as a community strength.

VI. Community Challenges

While six administrators indicated the economy was strong in their communities, economic difficulties were identified as challenges by ten administrators. Concerns included reliance on agriculture or a single industry, and low income levels in general. Other community challenges include:

- an aging population, with a corresponding high Medicare population
- fragmented community, resistant to change
- lack of community health education and prevention programs
- high levels of substance abuse in the total population, problems with teenagers smoking, and/or a high rate of teenage pregnancy
- communities now have, or in the future will have a population which is too low to sustain health services
- community is generally small, but experiences population spikes during tourist season
- inadequate or no public transportation in the community
- low community involvement in health care decision-making
- geographic isolation

VII. Strategies

Administrators identified a wide range of strategies to maintain or strengthen the viability of their facilities. A total of 14 strategies were identified. It is important to note that all of the administrators interviewed indicated that they are utilizing a number of strategies, rather than one.

• Continuum of care

The most common strategy, identified by 10 administrators, is the development of a continuum of care. Four additional administrators indicated they are now in the process of adding a service to the facility, and four who already provide a continuum of care are planning to add or upgrade services.

• Network affiliations

Network affiliations are common among the administrators interviewed, and include the informal service arrangements with visiting specialists discussed earlier plus:

- formal collaboration with a larger regional center, contracting or informal arrangements for physical, occupational, and speech therapy, and services including cardiac

rehabilitation, teleradiology, planning and management, and group purchasing. As well as contracts for durable medical equipment

- eleven hospitals are members of a health care cooperative or ISN. An additional four hospital administrators are pursuing some membership in some type of network or cooperative
- Six hospitals collaborate with other smaller hospitals to share services and equipment. An example of such collaboration is the cooperative training of a physical therapist whose services will be shared by three hospitals.

The Future

Strategies that are being considered by administrators also center on increased collaboration with other small hospitals, health care cooperatives, and large urban hospitals. Five administrators reported that they have reduced services or de-licensed beds as a strategy. All but one of these facilities has also entered into a collaborative or networking arrangement with another facility or health care cooperative.

Twenty-one of the 23 administrators interviewed indicated that their facilities are involved in some level of health care planning. A total of eight administrators indicated they were either in the midst of, or about to begin planning. Strategic planning is more common than long-range planning, in that six of the eight administrators are in a strategic planning process, one is involved in long-range planning, and one is involved in both processes. Four administrators have received federal, state, or foundation grant money to conduct a planning process.

Whether or not facility administration is involved in a planning process, administrators indicated that community involvement is a key component of health care decision making. Each of the 23 administrators identified at least one mechanism by which residents have become involved. They include, in order of frequency:

- community or patient satisfaction surveys
- focus groups, particularly for special projects
- key informant interviews
- public meeting processes
- community health task forces
- marketing surveys

VIII. Feasibility of Adopting a Limited Service Hospital Model

A total of 18 of the 23 administrators indicated that some definition of a limited service hospital model may be appropriate their facilities. Fifteen were somewhat familiar with the EACH/RPCH demonstration project and believed it could benefit some rural hospitals. Three administrators stated that the model has merit, but felt length of stay restrictions were either too stringent or not appropriate. They cited the benefits to patients, particularly the elderly, in staying close to family and familiar surroundings, versus being transferred to another facility. Nine administrators supported length-of-stay restrictions, and eight supported size limitations. The others had no comment.

Two administrators wanted more information before commenting on the merits of a limited service model, and three believed a limited service model would not be appropriate for their institutions. Sixteen administrators indicated that cost-based reimbursement is a key component of a limited service model. Administrators suggested the following additional considerations in adoption of limited service model

- including a mechanism for designation of critical-to-access hospitals
- community support for a limited service model is the key to its success, and involving residents in the process and educating them about what being a limited service hospital means are keys to gaining support
- maintaining access to primary care is important for community acceptance of a limited services hospital
- flexibility to include services that a community needs and will support
- including some provision that limited service facilities will not be barred from managed care plans

Core Services

Emergency care capabilities were identified by 13 administrators as a necessary core service of a limited service model. While a 24-hour emergency room was identified by two administrators as necessary, the remainder identified the availability of personnel and resources to stabilize and transfer emergency patients as a key. The continued ability of hospitals to establish a continuum of care by providing subacute care, and operating an attached nursing home, was a core service identified by 6 administrators. Outpatient services which ensure continued access to physicians in the community, along with routine laboratory and radiology were identified by a number of administrators as core services. Two administrators indicated that technology, such as telemedicine should be made available to limited service hospitals to enhance service capability.

Additional Services

Administrators identified the following services as those that should be available if the community chooses to provide and support them:

- outpatient surgery
- oncology and chemotherapy through visiting specialists
- obstetrics
- occupational, speech, and physical therapy

IX. Summary

Results of the structured interviews indicate that in addition to providing some level of inpatient hospital services, preserving access to primary care and emergency medical services are key concerns of administrators. Many indicated that the traditional view of a hospital as a facility with a full range of inpatient and emergency services functioning independently of other health care institutions is yielding to a view of the hospital as a part of an integrated system of health services.

Administrators expressed a commitment to continued exploration of options that will preserve access to health care in their communities. An alternative licensing model similar to the federal EACH/RPCH demonstration project was seen as one avenue to achieve this along with an ongoing process of planning for integrated services and continuums of care, and pursuing network agreements with both nearby small hospitals and larger facilities in more urban areas.

APPENDIX G

Summaries of 1995 and 1996 Proposed Legislation for Limited Service Hospitals

Federal Requirements and State Options in the Proposed Medicare Rural Hospital Flexibility Program

1. Criteria for Designating Critical Access Hospitals

A. Federal Requirements with no provisions for state flexibilities or options
- length of stay service limitations
- cost-based reimbursement
- number of acute care inpatient and swing beds

B. Federal Requirement: Hospital is located in a rural county located more than 35 road miles from a hospital or another critical access hospital **OR** hospital is certified by the state as being a necessary provider of health care services to residents of the area.

State Flexibilities: The state must determine whether to **only** allow facilities more than 35 miles from other hospitals to be designated or to define necessary providers of health care.

What are basic health services, or how can the state define the basic health services to which all rural residents should have reasonable access?

C. Federal Requirement: The hospital must make available 24-hour emergency care services that the state determines are necessary.

State Flexibilities: What emergency services are necessary or how can the state define basic emergency services to which all rural residents should have reasonable access?

In what ways can emergency services be made available?

2. Personnel Staffing Criteria for Critical Access Hospitals

A. Federal Requirement: Facility need not meet requirements for days of operation as long as the 24-hour emergency care requirement is met.

Facility must have nursing services available on a 24-hour basis but need not staff the facility if no inpatient is present.

Facility may provide services of allied health personnel-dietitian, pharmacist, laboratory technician, medical technologist and radiological technologist on a part-time,

off site basis.
Required inpatient care may be provided by a physician assistant or nurse practitioner subject to the oversight of a physician who need not be present in the facility.

State Flexibilities: What state requirements for or restrictions on scope of services are appropriate?

What standards are appropriate for days and hours of operation of a limited service rural facility?

What standards are appropriate for staffing and physician availability in a limited service rural facility?

What standards for provision of allied health services are necessary to insure access to high quality health care?

3. Rural Health Networks

A. Federal Requirement: Networks are defined as an organization consisting of at least one that the state designates as a critical access hospital and at least one hospital that furnishes acute care services.

Each critical access hospital that is a member of a rural health network shall have an agreement with at least one hospital that is a member of a network with respect to 1) patient referral and transfer, 2) development and use of communications systems including telemetry and electronic sharing of patent data, and 3) provision of emergency and non-emergency transportation among the facility and the hospital.

Each critical access hospital that is a member of a rural health network shall have an agreement with respect to quality assurance and credentialing with at least one hospital that is a member of the network; peer review organization or equivalent entity; or other appropriate and qualified entity identified in the state rural health care plan.

State Flexibilities What additional standards or definitions of networks, if any, might the state consider?

The Rural Primary Care Hospital (RPCH)

Background

The model for a limited service hospital, called a Rural Primary Care Hospital (RPCH) is proposed in the 1996 Rural Health Improvement Act recently introduced in Congress. The RPCH model provides cost-based reimbursement and some regulatory relief to qualifying rural hospitals in exchange for certain service limitations. Components of the current proposal include:

1. must be located more than 20 miles from a hospital or be certified by the state as a necessary provider of health care services
2. makes available 24-hour emergency care services
3. must have no more than 15 acute care inpatient beds
4. inpatient length of stay must not exceed 96 hours (unless a longer period is required because transfer to a hospital is precluded because of inclement weather or other emergency conditions), with an exceptions process on a case-by-case basis
5. other than the requirement of 24-hour nursing service availability, the facility need not be staffed except when an inpatient is present
6. may provide the services of a dietitian, pharmacist, laboratory technician, medical technologist, and radiological technologist on a part-time, off-site basis
7. inpatient care may be provided by a physicians assistant, nurse practitioner, or clinical nurse specialist subject to the oversight of a physician who need not be present in the facility
8. must have an agreement with at least one non-RPCH hospital with respect to:
    a. patient referral and transfer
    b. development of communications systems including telemetry and systems for electronic sharing of patient data
    c. provision of emergency and non-emergency transportation
9. must have an agreement for quality assurance and credentialing with at least one:
    a. hospital,
    b. peer review organization or equivalent entity, or
    c. other appropriate or qualified entity identified by the State
10. may participate in the swing bed program, with the number of swing beds and inpatient beds not to exceed 25

The Rural Emergency Access Care Hospital (REACH)

Background

An additional category of hospital, the Rural Emergency Access Care Hospital (REACH) has been proposed as part of the 1996 Rural Health Improvement Act. The model would designate hospitals located in rural areas where the closure of the facility would limit access to emergency services for its residents. The proposed model would offer emergency services defined as: 1) appropriate examination and 2) necessary stabilization and treatment for an emergency condition and labor. The legislation states that to be classified as a REACH, a facility:

1. must be located in a rural area and must have been a hospital within five years of

the time this provision becomes law

2. must be in danger of closing due to low inpatient rates and operating losses; and the closure would limit the access to emergency services for individuals living in the service area
3. must have entered into an agreement with another hospital to accept patients transferred from the hospital, and to receive data from and transmit data to the facility
4. must have a practitioner who is ACLS certified on-site at the facility on a 24 hour basis
5. have a physician on call on a 24-hour basis
6. need not meet hospital standards for hours of services except that it is required to provide emergency care on a 24-hour basis, and may provide the services of a dietitian, pharmacist, laboratory technician, medical technologist, or radiological technologist on a part-time, off-site basis
7. requires reimbursement on a cost or an all-inclusive rate basis

The purpose of the REACH is to provide emergency care only. Length of stay would be limited to 24-hours for observation and/or stabilization and transfer, unless weather conditions prevented transfer or discharge of the patient .

APPENDIX H

Grants Awarded to Minnesota Hospitals through Federal and State Transition Grant Programs

	FEDERAL RURAL HEALTH TRANSITION GRANT PROGRAM									
	COMMUNITY	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96	TOTAL
1	Ada			50,000	50,000	50,000			50,000	200,000
2	Adrian			50,000	50,000	50,000	50,000	50,000	50,000	300,000
3	Aitkin						50,000	50,000	50,000	150,000
4	Arlington					50,000	50,000	50,000	50,000	200,000
5	Caledonia	39,300	39,300	39,300						117,900
6	Canby		50,000	50,000	50,000					150,000
7	Cannon Falls				49,500	50,000	50,000			149,500
8	Crosby			50,000	50,000	50,000				150,000
9	Elbow Lake				50,000	50,000	50,000			150,000
10	Fairmont		50,000	50,000	50,000					150,000
11	Glencoe					50,000	50,000	50,000		150,000
12	Graceville		50,000	50,000	50,000					150,000
13	Grand Marais	50,000	50,000	50,000	50,000	50,000	0			250,000
14	Grand Rapids		50,000	50,000	50,000	50,000	50,000	50,000		300,000
15	Granite Falls			50,000	50,000	50,000				150,000
16	Hallock	46,500	46,500	46,500					50,000	189,500
17	Harmony				50,000	50,000	50,000			150,000
18	Hendricks				49,400	49,700	50,000			149,100
19	Hutchinson			50,000	50,000	50,000				150,000
20	Ivanhoe					39,092	38,592	39,758		117,442
21	Jackson						37,745	30,045	29,150	96,940
22	Karlstad	46,500	46,500	46,500						139,500
23	Lake City				49,800	49,500	49,500			148,800
24	Le Seuer		50,000	50,000	50,000					150,000
25	Little Falls			50,000	50,000	50,000			50,000	200,000
26	Luverne			50,000	50,000	50,000	50,000	50,000	50,000	300,000
27	Madelia				50,000	50,000	50,000			150,000
28	Madison								45,133	45,133
29	Mahnomen					50,000	50,000	50,000		150,000
30	Marshall					50,000	50,000	50,000		150,000
31	Montevideo								45,133	45,133
32	Mora				50,000	50,000	50,000			150,000
33	New Ulm		50,000	50,000	50,000					150,000
34	Northfield	50,000	50,000	50,000						150,000
35	Olivia					50,000	50,000	50,000		150,000
36	Onamia		50,000	50,000	50,000					150,000
37	Ortonville					39,092	38,592	39,758		117,442
38	Pipestone					39,092	38,592	39,758		117,442
39	Roseau				50,000	50,000	50,000			150,000
40	Sandstone		50,000	50,000	50,000					150,000
41	Slayton						37,650	31,910	31,910	101,470
42	Spring Grove					50,000	50,000	50,000		150,000
43	St. James						50,000	50,000	50,000	150,000
44	St. Peter		50,000	50,000	50,000		50,000	50,000	50,000	300,000
45	Staples		48,000	48,000	48,000		50,000	50,000	50,000	294,000
46	Thief River Falls				49,905	49,938	49,919	50,000	50,000	249,762
47	Two Harbors		50,000	50,000	50,000	50,000				200,000
48	Tyler								45,133	45,133
49	Wabasha	50,000	50,000	50,000			50,000	50,000	50,000	300,000
50	Wadena		50,000	50,000	50,000	50,000	50,000	50,000		300,000
51	Warren	50,000	50,000	50,000						150,000
52	Waseca						50,000	50,000	50,000	150,000
53	Wheaton					50,000	50,000	50,000	50,000	200,000
54	Winona	50,000	50,000	50,000	50,000	50,000	50,000	50,000		350,000
55	Winsted	50,000	50,000	50,000						150,000
56	Zumbrota				50,000	50,000	50,000			150,000
	TOTALS	432,300	1,030,300	1,380,300	1,546,605	1,566,414	1,590,590	1,131,229	896,459	9,574,197

MINNESOTA RURAL HOSPITAL PLANNING & TRANSITION GRANT PROGRAM									
COMMUNITY									TOTAL
	FY 92	*SUMMARY*	FY 93	*SUMMARY*	FY 94	*SUMMARY*	FY 95	*SUMMARY*	
Ada							$37,500	Convert excess capacity to outpatient	$37,500
Albany	$45,000	Recruitment & lab			$21,250	Needs assessment & Strategic plan			$66,250
Appleton	$30,000	Strategic plan							$30,000
Benson			$15,000	Strategic plan	$37,500	Implement plan			$52,500
Cloquet			$36,500	MH/CD	$28,000	Develop PHO			$64,500
Cook	$1,000	Strategic plan							$1,000
Dawson	included in Appleton				$22,015	Convert rooms to outpatient			$22,015
Deer River			$37,000	ambulance/emergency area					$37,000
Ely	$8,660	Strategic plan							$8,660
Fosston			$10,000	Transportation					$10,000
Glenwood							$37,500	Telemedicine & various	$37,500
Hallock							$20,000	Strategic plan	$20,000
Harmony							$37,500	Remodel Lanesboro for primary care	$37,500
ternational Falls			$37,000	Strategic plan&Ob	$37,500	New ER/handicapped entrance	$37,500	Audiology	$112,000
Jackson			$18,000	adult day/respite care & RHC					$18,000
LeSueur							$37,500	Relocate clinic to hospital/home	$37,500
Long Prairie	$41,340	Home health							$41,340
Marshall	$37,500	Various							$37,500
Melrose					$37,500	Integrate with clinic			$37,500
Moose Lake	$37,500	Community Services							$37,500
Morris							$17,500	Hospice & home IV	$17,500
Olivia	$25,000	RHC development							$25,000
Paynesville			$15,000	Strategic plan					$15,000
Perham			$36,500	needs assessment					$36,500
Rush City	$15,000	Strategic plan			$28,000	Conversion to ambulatory & emergency			$43,000
Slayton			$15,000	Strategic plan					$15,000
Sleepy Eye			$15,000	Needs assessment					$15,000
Tyler			$15,000	Strategic plan					$15,000
Two Harbors							$10,000	Strategic plan/needs assessment	$10,000
Westbrook							$15,000	Strategic plan	$15,000
TOTALS	$241,000		$250,000		$211,765		$250,000		$952,765

APPENDIX I

Proposed Revisions to Model Criteria for Trauma Stabilization Facilities

Model Criteria for Trauma Stabilization Facilities

The following criteria were initially developed in November, 1995 by the Minnesota Trauma Care Task Force and Revised by the Emergency Care Subgroup of the Rural Hospital Study Work Group

Introduction

The following are guidelines, developed by the Minnesota Trauma Care Task Force, to assist local hospitals in developing a trauma program. The guidelines are intended to guide physicians, nurses and administrators in planning and implementing for the care of the trauma patient.

TSF refers to *trauma stabilization facilities* and focuses on the emergency department resources in community hospitals in rural Minnesota.

Text in *italics* indicates endnotes in the original document which have been added to the body of this, the amended version of the criteria.

A. Hospital Organization

1. Trauma Program

Essential Criteria

a. The medical staff by-laws establish a **strategy for the delivery of trauma care** in the community. This may be accomplished by establishing a unique program for trauma care OR be included as a focused component of the surgery department.

b. The medical staff has specified criteria for credentialing surgeons providing trauma care.

Desired Criteria

a. The medical director should have a commitment to trauma care demonstrated by active participation in the development of injury prevention initiatives or trauma care systems at the national, state, regional or community levels. Participation in the presentation of continuing education for health-care personnel will provide evidence of this commitment. The medical director shall oversee the coordination of the training of personnel, credentialing of trauma program privileges for physicians (determined by the medical staff credentialing process) and trauma quality improvement.

2. Surgery

Not required for a TSF with the exception of anesthesia services. Criteria may be met with a Certified Registered Nurse Anesthetist (CRNA) on call and promptly available form in or out-of the hospitals.

3. Emergency Department/Division/Services

Essential Criteria

a. The medical staff by-laws identify the **integration of the emergency department** as an integral component of the trauma program in the facility.

b. The medical staff has specified **criteria for credentialing** emergency department physicians providing trauma care, including ACLS and ATLS. *This shall include at least current certification in ACLS, and completion of a trauma curriculum such as ATLS, OR board certification in emergency medicine.*

c. + The medical director shall oversee the coordination of the training of personnel, credentialing of emergency department privileges for physicians (determined by the medical staff credentialing process) and participate in trauma system quality improvement.

d. Staff physicians: The emergency department physician shall be a recognized member of the **trauma team** and trauma care strategy for the facility. Where there is not a distinct trauma program, there must be an identifiable collaboration between the emergency department and the surgery department in the delivery of trauma care.

Desired Criteria

a. The **medical director** should have a commitment to trauma care demonstrated by active participation in the development of injury prevention initiatives or trauma care systems at the national, state, regional or community level. Participation in the presentation of continuing education for health care personnel will provide evidence c this commitment.

4. Non-Surgical Specialties Availability

Essential Criteria

a. **Anesthesiology** on-call and promptly available from in or outside the hospital. *This may be met by a physician, or other authorized personnel, trained in emergency airway management.* (Requirements may be met with a Certified Registered Nurse Anesthetist capable of assessing emergent trauma situations and providing any indicated treatment.)

Desired Criteria

On call and promptly available:

a. **Internal Medicine** OR **Family Practitioner** with experience in critical care.

b. **Pediatrics.**

c. **Radiology**

5. Nursing Administration

Essential Criteria

a. Written **standards of care** for trauma patients in all areas of the trauma center.

Desired Criteria:

a. An identified **trauma nurse coordinator** (TNC) with overall management responsibility for the trauma program. *Functions of the job description may be delineated in job descriptions for other positions within the organization. This role may include participation in: 1) the development and dissemination of clinical protocols and monitoring care; 2) professional staff development, case reviews, community prevention and trauma education; 3) data collection and analysis and distribution of findings; 4) development of quality filters, audits and case reviews in all phases of trauma care; 5) coordination of data collection, reporting and validation; 6) serving as a liaison to the medical staff, pre-hospital agencies, the families of patients, and the community at large.*

b. A defined **job description** and **organizational chart** delineating the TNC's role and responsibilities.

c. Trauma service **budget**/monies available for **public education**/outreach activities.

d. Trauma nursing **philosophy/mission statement** documented

B. Special Facilities/Resources/Capabilities

1. Emergency Department

A. Personnel

Essential Criteria

1. **Physicians** with competence in care of the critically injured must be physically present in the emergency department 24 hours a day. A total of ten (10) trauma/critical care CME credits are required annually. Updating ATLS may be included in the 10 credits, but is not mandatory. CME documentation intended to meet trauma center standards should appear in the hospital's credentialing file. *May be met by the physician being on-call and promptly available from in or out-of the hospital.*

2. **RNs, LPNs,** and **nurses' aides** in adequate numbers.

Essential Criteria

a. Nurse staffing in initial resuscitation area is based on patient acuity and trauma team composition.
b. A written provision/plan for acquisition of additional staff on a 24-hour basis to support units with increased patient acuity, multiple emergency procedures and admissions.
c. Written protocol for expectations and responsibilities of the trauma nurse during resuscitation.
d. Nursing documentation for trauma patients is on a trauma flow sheet.

Desired Criteria

a. A minimum of two RNs per shift functioning in trauma resuscitation and who have trauma-related training. *This may be met by one RN being on-call and promptly available from in or out of the hospital.*
b. 100% of nursing staff ACLS certified or have completed a competency-based hospital equivalent.
c. 100% of nursing staff have completed a trauma-related curriculum such as TNCC in the last four years or have completed a competency-based hospital equivalent.
d. 100% of the nursing staff trained in an emergency pediatric care curriculum such as APLS, PALS, or EPNC shall be on-call and promptly available[4] in- or out-of-hospital for all trauma team responses for a pediatric patient. *The prompt response of on-call specialists shall be defined in the description of the trauma program for the facility,*

including immediate notification, arrival in the emergency department, and will be monitored continuously by the quality improvement program.

B. **Equipment for resuscitation and to provide life support for the critically or seriously injured shall include but not be limited to:**

Essential Criteria

1. Airway control and ventilation equipment for pediatric as well as adult patients including laryngoscope, ET tubes of all sizes (adult and pediatric), bag mask, pocket masks, oxygen, and mechanical ventilator (adult and pediatric), end-tidal CO_2 detection (qualitative or quantitative), pulse oximetry. *If all ventilator-dependent patients are transferred, criteria for a mechanical ventilator may be waived.*
2. Suction devices in sizes appropriate for adult as well as pediatric patients.
3. ECG oscilloscope/defibrillator.
4. All standard IV fluids, administration devices and catheters.
5. Sterile surgical packs for standard ED procedures such as surgical airway placement, thoracostomy, cutdown.
6. Gastric Lavage equipment.
7. Drugs and supplies needed for emergency care.
8. Two-way radio linked with EMS transport vehicles.
9. Thermal control equipment[1] for patients. *Criteria will be met if equipment is available in the facility.*

Desired Criteria

1. Apparatus for CVP placement and monitoring
2. X-ray capability, 24-hour coverage promptly available[4] by in-house or on-call technician.
3. Thermal control equipment for blood and fluids. *Criteria will be met if equipment is available in the facility.*

2. Intensive Care Units
not necessary for TSFs

3. Post-anesthesia Recovery Room (ICU acceptable)
not necessary for TSFs

4. Acute Hemodialysis Capability
(or written transfer protocol)

5. Organized Burn Care
Written **transfer protocol** with nearby burn center or hospital with a burn unit.

6. Acute Spinal Cord/Head Injury Capability

a. In circumstances where a designated spinal cord rehabilitation center exists in the region, early transfer should be considered; written **transfer protocols** for spinal cord and head injuries should be in effect.

b. In circumstances where a head injury center exists in the region, transfer should be considered in selected patients; written **transfer protocols** should be in effect.

7. Rehabilitation Medicine

a. Physician-directed rehabilitation service staffed by nursing personnel **trained** in rehabilitation care and **equipped** properly for care of the critically injured patient.
OR

b. Written **protocols** for the **transfer** of patients to a nearby rehabilitation facility when medically feasible.

C. Operating Suite Special Requirements

Not necessary for TSF

D. Clinical Laboratory Service

(24 hours per day)

Essential Services

1. Standard analysis of blood, urine, other body fluids.
2. Coagulation studies.
3. Blood gas levels and pH determinations.
4. Recommended trauma profile of routine studies is defined for trauma patients.

Desired Services

1. Blood typing and cross-matching
2. Comprehensive blood bank or access to a community central blood bank and adequate storage facilities
3. Microbiology
4. Drug and alcohol screening

E. Quality Improvement

1. Organized quality improvement program, to include at least evaluation of trauma team mobilization, timeliness of member response, timeliness of procedures performed, and clinical response of patients.

2. Audit for all trauma deaths and other specified cases

3. Morbidity and mortality review

4. Medical nursing audit, utilization review, tissue review

5. Participation in the statewide trauma registry

6. Published physician on-call schedule, including surgeon if applicable

F. Outreach Program

Not necessary for TSFs

G. Public Education

Not necessary for TSFs

H. Trauma Research

Essential Criteria

1. Participates in reporting to the state trauma registry consistent with governing criteria.

Desired Criteria

1. Collaborates with other institutions in clinical research.
2. Evidence that published clinical research on all aspects of trauma care is available to professional staff in the facility and is incorporated into the trauma care system

I. Continuing Education Program

Desired Criteria

Evidence of hospital support for training and continuing education for trauma personnel. Support may be providing courses, discounts, and/or travel arrangements. *Training and continuing education such as ATLS, ACLS, Trauma Nursing Core Course (TNCC), critical advanced pediatric care (APLS/PALS) and CPr and other appropriate offerings in trauma and critical care.*

1. Staff physicians.
2. In-house trauma program personnel.
3. Allied health personnel, including pre-hospital.

4. Community/consulting physicians.

J. Nursing Education

Essential Criteria

1. All nurses caring for trauma patients have documented knowledge and skill in trauma nursing (trauma specific orientation, skills checklist, continuing education).

2. Documented specific orientation and continuing education for pediatric care and burn care if these patient populations are regularly admitted to the trauma facility.

Desired Criteria

1. 50% of nursing staff caring for trauma patients are certified in area of specialty (e.g. CEN, CCRN, CCNN, CORN).

K. Institutional Commitment

Essential Criteria

1. Roster of participating personnel with titles, by department of distribution at opening trauma site review conference.

2. Knowledge, familiarity and commitment of upper level administrative personnel to trauma service.

3. Upper level administration participation in multi-disciplinary trauma conferences/committees.

4. Maintain trauma log system as defined by the state registry and identify patients for whom hospital's trauma team was mobilized.

Desired Criteria

1. Evidence of yearly budget support for the trauma program.

k:research\ms\criteria

To obtain additional copies of this report, please contact:

Minnesota Department of Health
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