



office of   
**Rural Health & Primary Care**  
MINNESOTA DEPARTMENT OF HEALTH

# **Senior Health Services in Minnesota: A Systems Approach**

## **A Report on Geographic Access to Health Services for Rural Seniors**

September 24, 2001

Cannon Falls Health Center  
1122 Millstreet West  
Cannon Falls, MN 55009

Jan K. Malcolm  
Commissioner Minnesota Department of Health  
85 East Seventh Place  
St. Paul, MN 55101

Dear Commissioner Malcolm:

Attached is the report titled, "Senior Health Services in Minnesota: A Systems Approach". The report speaks to issues that were raised and discussions that took place during the work of the Long-Term Care Taskforce as well as the 2001 Minnesota Legislature. In addition to being a statewide health policy and service-planning tool, this report will engage and assist communities and health service providers as they plan for the health needs of their senior population.

Work on this report began in 1999 in response to the Minnesota Department of Human Services' 2030 Report as well as issues related to the workforce shortage, rural to urban migration, increasing health care costs, and the on-going fragile nature of Minnesota's rural health infrastructure. Rural representatives indicated that rural demographics are currently that of the 2030 urban projections and that rural health service planning should have begun years ago. As a result, our goal in creating this report was to establish a view of geographic access to the continuum of senior health services in rural areas and to develop a better understanding of the roles and interrelationships of these services.

The report development process went through several phases. To begin, an Access to Health Care for Rural Seniors Work Group was established. As you may recall, they started their work by identifying and discussing senior health services issues, developing two issue papers: *Education, Information, and Rural Seniors* and *Community Based Services for Rural Seniors*, and then identifying and discussing key services to be included and mapped in this report. After much discussion hospitals, nursing homes, Alzheimer and dementia units, home health agencies, assisted living, emergency medical/ambulance services, adult day care, health practitioners, transportation, hospice, Meals-On-Wheels, and congregate dining were chosen as the service providers to be discussed, analyzed, and mapped statewide. These services were selected because of the critical roles each play along the continuum of senior health services. In addition, all services were to be mapped statewide, as many urban providers also serve rural areas.

As the work group discussed each service provider and the interrelationships that exist, it became evident that a combination of many maps would be the best means to display geographic access to services. This would allow the viewer to look at services individually, but also to layer the maps (using transparencies) and look at the continuum of services along with other variables. As a result, a road map; a senior population density map; and service site, area, and type maps are all included. It should be noted that careful consideration was taken to determine the type of mapping that would accurately display geographic access to each service. For example and perhaps the most ground breaking of all the maps are the home health maps on pages 57 and 58. In combination they show the locations of all the home health agencies in the state and then take that a step further and display the service areas of Medicare certified home health agencies (the home health agencies considered to be most at risk of closing). Given the nature of home health care, agency location is only a small part of the equation; this makes the service area information especially important. Another set of fascinating maps is on pages 79 – 82 displaying senior dining services. Here we not only mapped dining sites by county but added maps to show how many days of the week each nutrition service is available through each site.

In completing this report, the Rural Health Advisory Committee determined that there are significant differences in geographic access to senior health services around the state, with the most notable gaps occurring in northern Minnesota. In addition, the Committee determined that there is a need to make updated service site and service area information available to communities as they plan for the health needs of seniors. Both of these issues, as well as several others are discussed in the report.

As always, we appreciate your consideration of these issues and recommendations and believe that this report will not only shed light on access to health services throughout the state but will also contribute to the health planning efforts of the state, communities, and service providers.

Sincerely,

A handwritten signature in black ink, appearing to read "Clover Schultz", with a stylized flourish at the end.

Clover Schultz, Chair  
Rural Health Advisory Committee



*Protecting, maintaining and improving the health of all Minnesotans*

October 11, 2001

Clover Schultz  
Chair, Rural Health Advisory Committee  
Cannon Family Health Center  
1122 Millstreet West  
Cannon Falls, Minnesota 55009

Dear Ms. Schultz

A handwritten signature in black ink that reads "Clover" is written over the typed name "Dear Ms. Schultz".

Thank you for forwarding the Rural Health Advisory Committee's paper *Senior Health Services in Minnesota: A Systems Approach*. I commend the Committee for its work in analyzing geographic access to senior health services and including all of the background information on such a complex subject area. This report not only responds directly to questions that were asked and went unanswered during the Long-Term Care Taskforce meetings and 2001 legislative session, but also provides the visuals and data that are needed to fully comprehend senior health services in the state.

Upon reviewing the document I was struck by the current and projected age dependency ratios and what they mean in terms of the workforce and overall makeup of rural areas. In addition, as stated in your letter and in the report, the combination of maps 19 and 20 are also very revealing. Having a view of both Medicare certified home health agency locations and their service areas gives us an idea of the options available to consumers. This may well be the first time that such an array of health services have been mapped and packaged for policy and program planning purposes at the state and community level.

As I read the report, it also became very clear that hospitals, nursing homes, and assisted living facilities are no longer single service providers; many of them have become health care centers for communities. This information will prove to be invaluable as Minnesota moves forward in its long-term care planning process. In addition, by arming communities with a wealth of information, the report provides an opportunity for community members to become more engaged in health planning at the local level.

While all of the comments in this report merit serious consideration, I would like to make specific comments on a few of them. First of all, I agree that resolving the workforce crisis and factors surrounding our increasingly diverse communities should remain high policy priorities. The Department is committed to both of these and will continue to pursue both statewide and local solutions. Following are my responses to your specific recommendations as stated in the report:

- Regarding the **Interrelationship of Health Services**, it is apparent that transportation issues undergird the entire continuum of senior health services. Therefore, as a member of the Long-Term Care Taskforce, I will recommend to the Commissioner of Human Services that the Commissioner of Transportation be included in the on-going activities of the Taskforce.
- Regarding **Rural Communities' Unique Characteristics**, the Department is committed to having rural representation on all of its statewide advisory bodies. In addition, staff from the Office of Rural Health and Primary Care, through their participation in other state agencies' projects and advisory bodies, work towards assuring that the rural perspective is represented. In addition, community engagement in the health planning process is a Department priority. I plan to discuss this issue at an upcoming Committee meeting with the intent of further clarifying expectations and asking for your advice and assistance in accomplishing this goal.
- Regarding **Gaps in Access to Health Services**, a recent report published by the University of Minnesota, Rural Health Research Center, entitled "Access to Rural Pharmacy Services in Minnesota, North Dakota, and South Dakota" makes a similar recommendation of creating criteria to identify pharmacies that are critical to access. Although the Department supports the notion of creating such definitions for specific purposes, we also believe it is important for the state to support community decision-making and to consider communities' access issues on a case-by-case basis. This has been the perspective of the Department for some time; however, it appears there is growing consensus around the need to define services that are critical to access, as you have recommended.

Given the complementary interests and capabilities of the Rural Health Advisory Committee, the Office of Rural Health and Primary Care, and the Minnesota Rural Health Research Center, this may be an opportunity for collaboration. If the Committee decides to pursue this recommendation, I will look for ways to support you in your work.

- The Department supports your efforts to study issues related to mental health as well as regulatory barriers related to access to pharmacy services. As you know, the Office of Rural Health and Primary Care is currently completing a study related to the supply and demand of pharmacists; the Office will continue this work so we are better able to identify pharmacist workforce trends. In addition, as noted earlier, the University of Minnesota's Rural Health Research Center recently completed a study on pharmacies. The University may also be a resource as you move forward in your work.
- I will forward your recommendation regarding hospice to the Commission on End of Life Care and will forward your recommendation regarding inclusion of hospice utilization on death certificates to staff in the Department's Center for Health Statistics.

- I agree that there is great need to improve data quality and accessibility. The Department established a data standards work group to address some of the issues you identified. Currently, the work group is finishing the standards for the collection of racial and ethnic data and is beginning their work in other areas. Staff from the Office of Rural Health and Primary Care, as members of the data standards work group, will bring your issues to the work group for consideration. In addition, during the 2001 legislative session the Department proposed establishing a Center for Health Quality; this initiative was not approved. The overall plan for this center included data quality improvement, expansion, and availability. Although this initiative was not successful, I fully support the need to continue to pursue such efforts.

*Senior Health Services in Minnesota: A Systems Approach* will be printed and made available through the Minnesota Department of Health's Office of Rural Health and Primary Care, Information Clearinghouse, and library, as well as other state sites. The Department will include an announcement of the publication in its monthly e-mail posting, in the Office of Rural Health and Primary Care's newsletter, and through other partners' statewide newsletters.

The work of the Rural Health Advisory Committee is greatly appreciated. Thank you for your commitment to leadership in addressing rural health care issues and assuring that a rural perspective is part of the health care policymaking process. I am pleased to accept this report as it sheds light on many senior health service information issues that are being discussed and planned in communities, counties, and by the state. As always, I look forward to our future working relationship, as well as your work on mental health and in the area of rural ambulance services reimbursement and workforce. Congratulations on a job well done.

Sincerely,



Jan K. Malcolm  
Commissioner  
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# **Senior Health Services in Minnesota: A Systems Approach**

## **A Report on Geographic Access to Health Services for Rural Seniors**

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[http://www.health.state.mn.us/divs/chs/orh\\_home.htm](http://www.health.state.mn.us/divs/chs/orh_home.htm)



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The Department would also like to give a special thanks to Tom Larson, University of Minnesota, College of Pharmacy, for his extensive assistance with the report.

Thank you to Rowekamp and Associates, the consulting firm that created the many maps included in the report. In addition, we would like to thank the hundreds of service providers statewide who responded to our calls and messages and provided detailed information about their facilities and programs for inclusion in our datasets. The Department's appreciation is also extended to those who reviewed and commented on this report.

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## Executive Summary

*Senior Health Services in Rural Minnesota: A Systems Approach* examines geographic access to senior health services in the context of changing demographics and changing consumer choices. Minnesota's population is aging and population in many rural areas is decreasing. Choices in health services are also changing. These changes in population and preferences present both opportunities and challenges.

In 1999, the Rural Health Advisory Committee (RHAC) identified access to health care for rural seniors as a growing concern. Specifically, they indicated a need to analyze differences in geographic access to the continuum of senior health services in Minnesota. To that end, they established the Access to Health Care for Rural Seniors Work Group. While access to health care encompasses a range of factors – finances and reimbursements, types and quality of services – the work group began their work by discussing community-based services and information and education related issues and concluded by focusing on geographic access. The work group produced two issue papers – “Community Based Services for Rural Seniors,” and “Education, Information and Seniors” – as part of their examination of access. In addition, the work group developed this report analyzing geographic access to health services for rural seniors.

Although senior health services indicates all services along the continuum of care, the focus of this study was limited to the following: hospitals, emergency medical services, nursing homes, dementia and Alzheimer's Disease units, home health care, assisted living, hospice care, adult day care, nutrition programs, health practitioners (nurses, pharmacists, mental health practitioners, physicians), and transportation. The health services included in the study were examined within the context of demographic characteristics of the rural population, seniors' income levels, the availability of insurance and housing, as well as the state's geography and financing mechanisms.

Existing data were sought for each health service selected for inclusion in the study. Data were collected for the time period between July and November of 2000. Data were verified for accuracy, updated where necessary and a database for each health service was created. To examine the completed databases geographically, data were displayed on maps that were made using the desktop mapping GIS software, Arc View. These data are a starting point for the monitoring and tracking of statewide geographic access to specific senior services over time. Additionally, the study results inform our understanding of the systems currently in place and as such aid in community and regional planning for the future.

During the course of work group discussions, issues were identified related to each of the health services included in the report. These issues and the maps referenced in the previous paragraph created the basis for this report. Through their analysis, the work group determined that there are a number of senior health service access issues in rural Minnesota that are related to geography.

## **Hospitals**

As populations in rural areas decline, hospitals are challenged with maintaining access to health care as well as remaining financially viable. Since the 1980s, many hospitals have closed in Minnesota. As a result, in some areas of the state additional hospital closures could have a major impact on access to hospital care. Additionally, hospitals in rural areas frequently anchor other health facilities, both physically and financially. For example, nursing homes, home health and assisted living might be components of the hospital's services. Should such a rural hospital close, other providers connected to the facility may also close or be severely stressed. The closure of hospitals in rural Minnesota may cause additional stress to the health care safety net as well as affect access to health services.

## **Emergency Medical Services (EMS)**

Currently, there do not appear to be geographic EMS access issues in the state. There are increasing concerns related to the recruitment and retention of trained volunteers as well as the implementation of the federal Balanced Budget Act of 1997 (BBA). Rural EMS relies on volunteers to staff ambulance services. As the demographics and economies of rural communities have changed, the number of volunteers has decreased. In addition, the Medicare ambulance fee schedule is expected to negatively affect reimbursement for Minnesota ambulance services. Lack of sufficient revenue to support EMS may result in a decrease in the number of providers, larger service areas for providers, and/or increased response time.

## **Nursing Homes**

Changing consumer expectations, technological advances, reimbursement issues, and the health care workforce shortage are having a significant impact on nursing homes and the care they provide. Many nursing homes have downsized, having moved to single and double rooms, and some have incorporated new models of care. Although there appears to be geographic access to nursing homes in most of the state, future closures or significant downsizing of nursing homes could have differential impacts depending on the area of Minnesota in which the nursing home is located and current and future population needs.

## **Dementia and Alzheimer's Disease Units**

Geographic access to specialized Alzheimer's Disease (AD) and dementia care units in nursing homes is not consistent throughout the state. In addition, there is a growing demand for this type of care. The special care needs of people with AD and dementia drive the need for facilities to maintain certain staffing patterns as well as to make changes in their physical plant. However, worker shortages and financial issues facing nursing homes are making it very difficult for facilities to implement the necessary structural and staffing changes.

## **Home Health Care**

As reported by home health agencies throughout the state, seniors enrolled in Medicare have a choice of at least two Medicare certified home health agencies regardless of location. However, this does not mean that the agency has staff available to do the work. Staffing issues and the stability of home health agencies over time are the two greatest concerns that were identified in this report. These issues can be attributed to decreasing reimbursement rates and problems related to serving clients in rural areas, such as driving long distances to care for clients in remote or isolated parts of counties, which leads to reduced time to provide care, staff burnout and turnover, and high costs for mileage.

### **Assisted Living**

Most rural Minnesota seniors do not have access to assisted living. Without access to assisted living, individuals with minimal needs for support, assistance and socialization might be forced to stay in their home or move to a nursing home. Since assisted living residences are not subject to the more rigorous inspections and standards that are required of nursing homes, there is growing concern that the quality of care might not be as consistent as in nursing homes.

### **Hospice**

Across the country, hospice use is increasing. Still, a majority of Minnesotans die in hospitals or nursing homes. Almost 30 Minnesota counties do not have a primary hospice located within the county boundaries. The majority of areas with limited access to hospice care are in northern Minnesota.

### **Adult Day Care**

Given the nature of licensing adult day care centers in Minnesota, it is not known whether there is adequate geographic access to this senior health service. If we use adult day care centers with more than seven licensed slots as a measure, however, there is minimal access statewide. Since adult day care is a daily service, with no overnight care, the burden of traveling even minimal distances to an adult day care center creates a barrier to access.

### **Nutrition Programs**

Even though adequate and appropriate nutrition for seniors is key to preventative health, access to daily nutrition programs varies greatly throughout the state. Many seniors' nutrition is compromised because of inadequate financial resources to pay for health services, pharmaceuticals, and basic needs, such as food. This is placing a greater burden on nutrition programs throughout the state. Current and projected unmet needs, shrinking volunteer base, growing diversity, and transportation issues are some of the major issues affecting senior nutrition programs.

### **Practitioners**

Providing health services along the continuum of care requires extensive coordination between several different health practitioners. Access to these practitioners is yet another key component to access to health care. Minnesota is already experiencing a health workforce shortage. As the population ages, there will be a need for more health practitioners, but fewer will be available. There are about three working adults for every dependent child and senior living in rural Minnesota. Within the next 25 years, it is expected that there will only be two working adults for this same population. As the health workforce shortage amplifies, there will be a greater need to invest in preventative health and to find new, less labor intensive, ways of providing health services.

### **Transportation**

There is limited public transportation available in rural Minnesota and some areas have no public transportation. Transportation issues are interrelated to most service systems available to seniors in rural Minnesota. The geographic dispersion of the population in many rural areas combined with the irregular needs of transit riders contributes to the lack of transportation availability for most rural seniors. All but a few rural transit systems are very small and the costs associated with operating and maintaining such systems may be prohibitive when the available pool of riders is small and dispersed.

## **Outline of Recommendations**

The findings of this study revealed the need to address several issues related to access to health services for seniors in rural Minnesota, including those related to the interrelationship of health services, workforce shortages, increasing diversity, rural communities' unique characteristics, rapidly changing environments, gaps in access to health services, and future research needs. Below is an outline of the recommendations. A full discussion of each recommendation is included at the end of this report.

### **Recommendation 1**

*All state agencies should use a systems approach to planning senior health services.*

### **Recommendation 2**

*Steps need to be taken to further acknowledge and address the unique characteristics of rural communities in the policy planning, development and implementation process.*

### **Recommendation 3**

*Communities with no or limited access to the continuum of senior health services should be encouraged and/or given priority when state or federal funding is available to develop and make such services available throughout the state.*

### **Recommendation 4**

*The Commissioners of Health and Human Services should identify or create a local/regional ombudsman, liaison, or rapid response person who can work with state agency staff and others to quickly report on and trouble shoot environmental issues. Examples could be Area Agencies on Aging or Minnesota Department of Health District Office Staff.*

### **Recommendation 5**

*More information is needed about specific health services in rural areas. Services that need further study include hospice utilization, mental health, and pharmacy supply and demand. This research should include a joint state, trade organization, and community approach.*

### **Recommendation 8**

*The Commissioners of Health and Human Services should develop joint standards for the collection of health services data, regardless of the state agency responsible for the data. At a minimum, all public data should be stored electronically and adhere to specific data collection requirements (such as the inclusion of zip codes). In addition, data should be disseminated in a timely and accessible manner, including making it available on the Internet.*

# INTRODUCTION

In 1998, the Rural Health Advisory Committee identified access to health care for rural seniors as a major issue facing rural Minnesota. The Committee, concerned that there were geographic gaps in senior health services, especially those services related to home health care, established as Access to Health Care for Rural Seniors Work Group (see page ix for membership list). The work group met regularly over a period of two years to identify and discuss senior health services issues. The work group completed two issue papers – “Community Based Services for Rural Seniors” and “Education, Information and Rural Seniors” as part of the study. Senior Health Services in Minnesota: A Systems Approach reports on the data, maps, and the study findings and recommendations.

Access to health care is typically defined in terms of geography, information, finances and reimbursement, and types and quality of services. Although this report addresses each of these, the focus is on geographic access to rural health services for seniors; services are mapped statewide to make comparisons.

In addition to home health care, the Access to Health Care for Rural Seniors Work Group decided that other key services along the continuum of senior health services should also be analyzed. Although the work group believed that mental health, parish nursing, the Living at Home/Block Nurse program, Homes Plus, adult foster care, the Senior Linkage Line, and other senior health services are important and vital, they decided to limit the scope of the study to hospitals, nursing homes, assisted living, emergency medical services, home health care, hospice, adult day care, nutrition, transportation, and health practitioners.

To conduct the study, existing data were reviewed and new data were collected between July and November of 2000. Data sets were cleaned and verified for accuracy. Health service databases were viewed through a geographic lens by displaying the data on maps. Using desktop mapping Geographic Information System (GIS) Software, Arc View, maps were created. Data maps allow for a starting point for monitoring and tracking of statewide geographic access to key senior health services over time. The maps establish an understanding of the senior health service systems currently in place, and provide a starting place for state, community, and regional planning.

# PART ONE – MINNESOTA AND ITS SENIORS

Part one of this report provides background information on changing demographics, income, insurance coverage, state and federal reimbursement, housing, and state geography. Each of these is a key component related to access to health care.

## SECTION I: GEOGRAPHY

Minnesota is located in the north central region of the United States and its northern boundary is the border of the United States and Canada. In addition to bordering Canada, Minnesota is bordered by four states – Iowa, Wisconsin, North Dakota and South Dakota. Minnesota land area covers nearly 80,000 square miles, which ranks it the 14<sup>th</sup> largest state in land area. It is 406 miles from north to south and 276 miles from east to west.

Minnesota experiences extreme weather conditions. Temperatures range from over 100 degrees Fahrenheit in the summer to wind chills of minus 70 degrees Fahrenheit in the winter with an average temperature of 44.9°F.<sup>1</sup> Snowfall in the northern part of the state averaged 53.7 inches per year between 1961 and 1990. Blowing snow and drifts on roadways are common in the winter. In some years, parts of the state, especially areas in the west, experience varying degrees of flooding. Flooding seems to be an increasing problem in many areas of Minnesota. Both snow and flooding cause transportation issues, particularly during emergency situations. In some areas, spring flooding makes it impossible to reach neighboring towns and their medical facilities due to road closures. This leaves either extremely long road travel times or air transport as the means to emergency medical services and little access to get to routine services until the water or snow emergencies have subsided.

Minnesota has an extensive array of federal, state, and county highways, as shown in Map 1. Minnesota's land use and geographic features affect access to health care, despite this vast array of roadways. The state's abundance of forests, bogs and water create various travel barriers throughout the year. Just because an area of the state might be in relative proximity to certain health services does not mean that there is direct access route to those services. Oftentimes, roadways make circuitous routes around waterways, bogs or even forests. For example, people in some areas of northeastern Minnesota might be just a few miles from a hospital, but would have to travel a significant distance by road to get there.

Minnesota land use and cover statistics, compiled by Minnesota Planning are reproduced in Table 1 below.<sup>2</sup> Minnesota's land use is dominated by cultivated and forested land, bogs/marshes/fens, hay/pasture/grassland, and water.

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<sup>1</sup> United States Environmental Protection Agency. "Climate Change and Minnesota." September 1997. <<http://www.epa.gov/globalwarming/impacts/stateimp/minnesota>>.

<sup>2</sup> Minnesota Planning. "Minnesota Land Use and Cover Statistics." Census of the Land. 1990. <<http://www.mnplan.state.mn.us/datanetweb/landuse.html>>.

**Table 1**  
**Minnesota Land Use and Cover Statistics**

Description	Acreage	Percent of Total
Urban and rural development	1,472,267	2.7%
Cultivated Land	22,694,200	42.0
Hay/pasture/grassland	4,977,451	9.2
Brushland	1,326,796	2.5
Forested	14,434,482	26.7
Water	3,211,643	5.9
Bog/marsh/fen	5,728,056	10.6
Mining	147,175	0.3
Total	53,992,070	100.0 %
Source: Minnesota Planning Datanet <sup>3</sup>		

With 42 percent of total land in Minnesota under cultivation, it is the largest category of land use. Cultivated land makes up over 80 percent of 29 counties and less than 10 percent of land use in 15 counties. Cultivated land is primarily located in south, central and western Minnesota.

Forested land is the second largest land use in Minnesota. Forested land accounts for 26.7 percent of total state land with coniferous forests in the north and hardwood forests in the east. Bog, marshes and fens compose the third largest category of land use, occupying 10.6 percent of the total acreage. In seven Minnesota counties, bogs comprise over 20 percent of total acreage, with Koochiching County having the greatest, at 46.6 percent of its total area.<sup>4</sup> Hay, pastures, and grassland plains and prairies make up nine percent of total acreage and are primarily located in the west and south. Much of the land in this category is for agricultural use.

Nearly six percent of Minnesota acreage is covered with water. The “Land of 10,000 Lakes” actually has around 12,000 lakes, including the largest freshwater lake in the world, Lake Superior. The world’s third largest river, the Mississippi, has its source in Minnesota and the state has more shoreline than California, Florida, and Hawaii combined. The Boundary Waters Canoe Area Wilderness located in northeastern Minnesota, contains 1 million acres of undeveloped wilderness.

Because so little land area of the state consists of “developed areas”, Minnesota retains much of its rural character. The state has a high proportion of rural, unpaved roads, and many areas require long travel times due to the large areas covered by lakes, marshes, and other natural features. During the winter, many roadways, even Interstate Highways such as I-90 and I-94, are closed for times because ice and falling and drifting snow make them impassable. Natural barriers, wintry conditions and flooding make travel difficult in many parts of Minnesota. Areas that are remote or not connected by direct routes also have travel difficulties. Additional travel

<sup>3</sup> Minnesota Planning. “Minnesota Land Use and Cover Statistics.” Census of the Land. 1990. <<http://www.mnplan.state.mn.us/datanetweb/landuse.html>>.

<sup>4</sup> Koochiching, Lake of the Woods, Aitkin, Carlton, Itasca, St. Louis and Cass Counties.

time and difficult seasonal road conditions have implications for the locations of health services, emergency and rescue planning, and other health related concerns.

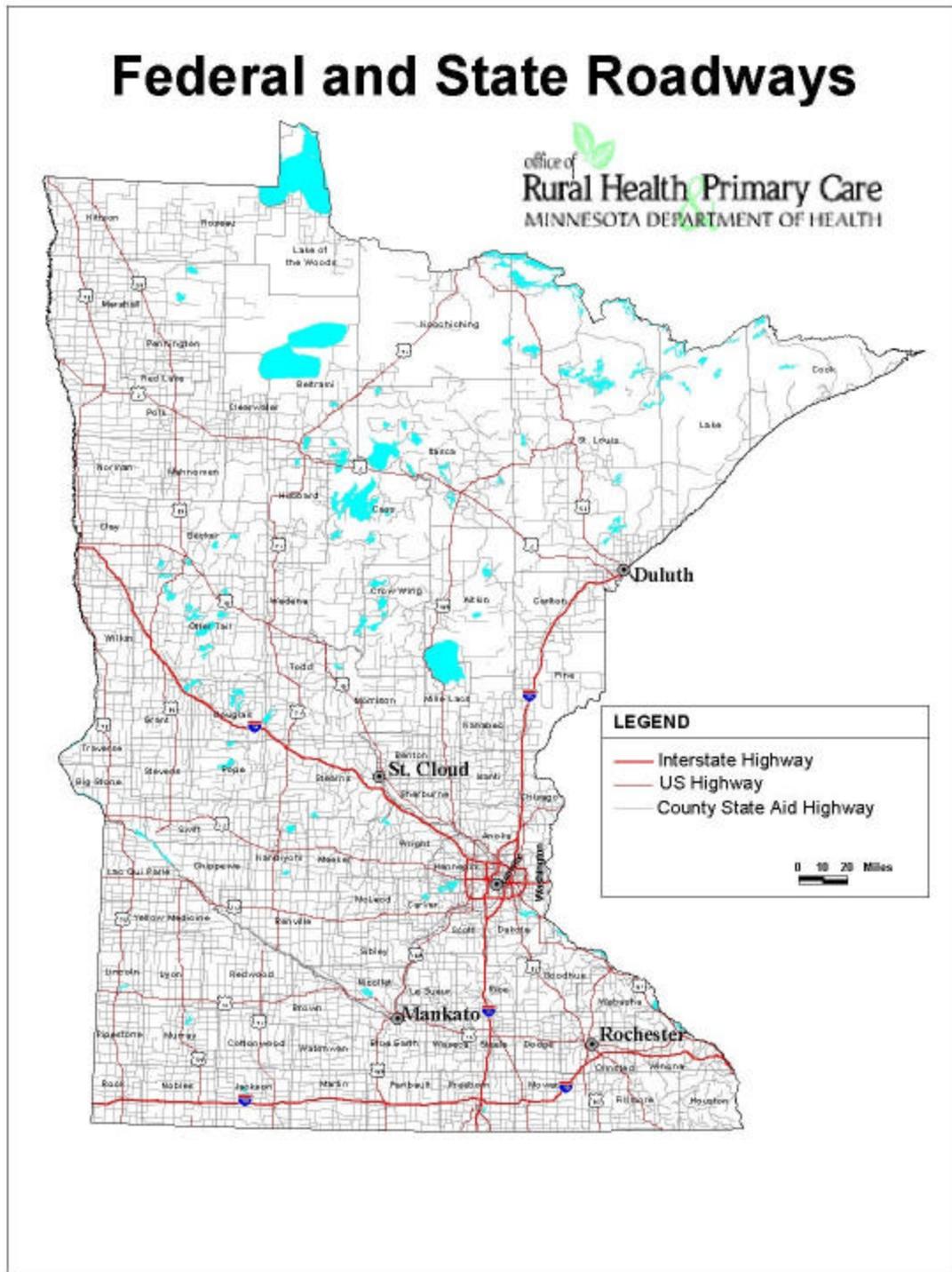
County size and service areas also impact access to health services and service delivery. Many health services are delivered or financed through the county. Larger counties require greater travel times and experience greater diversity in both landscape and population density. County sizes range from 170 square miles in Ramsey County to 6,738 square miles in St. Louis County (see Appendix A). Many of the smaller counties are urban/suburban, such as Scott with 368 square miles and Carver with 376 square miles. The largest counties, in addition to St. Louis, include Koochiching at 3,153 square miles, Beltrami at 3,055 square miles and Itasca at 2,925 square miles, all in north central Minnesota. Four of Minnesota's seven most northern counties are considered frontier, meaning they have fewer than four persons per square mile. St. Louis County, the largest in the state, is very unique as it is considered an urban county for most federal programs, yet it is one of the most sparsely populated counties in the state.<sup>5</sup> Some Minnesota counties are larger than entire states. For example, St. Louis County is larger than the state of Rhode Island.

For senior services planning and program delivery purposes, Minnesota is divided into 14 regions called Area Agencies on Aging (AAA). As shown in Map 2, Minnesota's AAA regions range in size from approximately 2,907 square miles to 18,868 square miles. Planning for services in regions of such diverse size is challenging due to density/sparseness of population, travel distances, agency boundary issues, and other factors.

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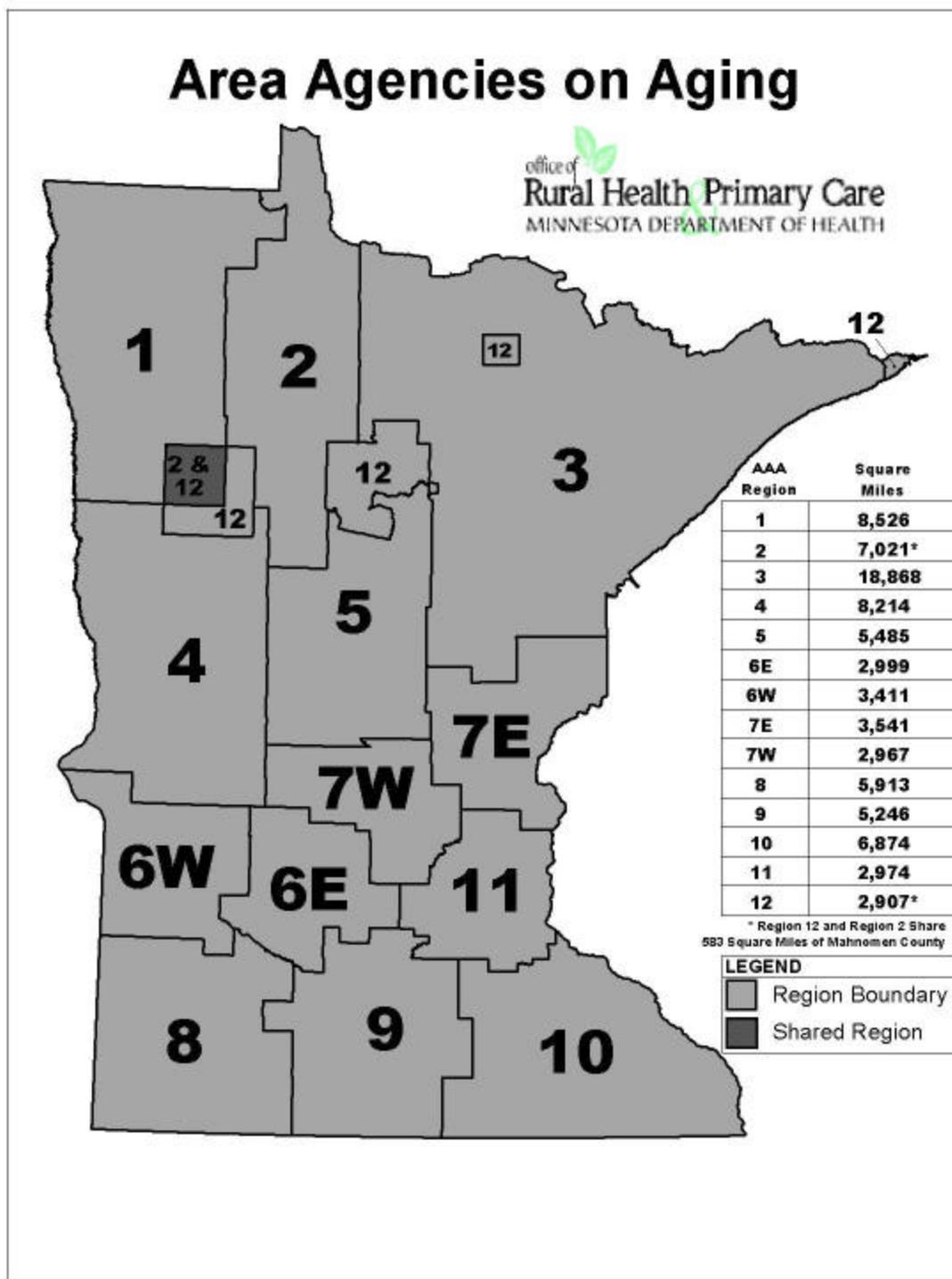
<sup>5</sup> Counties with population centers greater than 50,000, such as Duluth, are considered to be Metropolitan Statistical Areas or urban.

Map 1



**Data Sources: MN Department of Transportation, MN Department of Natural Resources.**

Map 2



Data Source: Minnesota Board on Aging, 2000.

## SECTION II: DEMOGRAPHICS

Demographics in the U.S. and Minnesota are changing dramatically because populations are aging and becoming more diverse. These changing demographics affect access to health services for rural seniors. According to Minnesota Planning, “with the projected aging of Minnesota’s population, the demand for health care services is expected to increase across Minnesota. Rural counties that have the highest percentages of elderly will face the greatest challenges in meeting this demand.”<sup>6</sup>

The current population in the U.S. is 281 million people, compared to 249 million in 1990, or a growth rate of 12.85 percent. Seniors made up 12.49 percent of the nation’s population in 1990 and 12.69 percent today. Minnesota’s population is 4.9 million people. In 1990, Minnesota’s population was 4.375 million people, or a growth rate of 12 percent.

Nationally, both the number of seniors and minorities will increase far more rapidly than the overall population. Projections of the national percentage increase in senior population by race and ethnicity suggest that by 2030 the number of Caucasian seniors will increase by 97 percent; black seniors will increase by 265 percent and Hispanic seniors will increase by 530 percent. In Minnesota, similar trends are emerging. As shown in Table 2 the percentage change from 1990 to 1999 in Minnesota’s population groups aged 65 and over range from six percent for people who are white to almost 109 percent for people who are Asian/Pacific Islanders.<sup>7,8</sup> Another factor related to the demographic changes is the overall health status of all populations as they age. This will affect the type, level and cost of care that will be needed. “Health care assistance is a special concern of minority older persons. Cultural and language differences, along with physical isolation and lower income, often make healthcare services difficult.”<sup>9</sup>

**Table 2**  
**Percentage Change in Population 65+**  
**By Race/Ethnicity in Minnesota 1990-1999**

<b>Race/Ethnicity</b>	<b>% Change 1990-1999</b>
White, not Hispanic	6.00%
American Indian, not Hispanic	16.89
Black, not Hispanic	47.50
Hispanic Heritage (any race)	94.01
Asian/Pacific Islander, not Hispanic	108.88

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<sup>6</sup> Minnesota Planning, “Implications of rural Minnesota’s changing demographics.” July 2000, p. 6.

<sup>7</sup> Population Estimates Program, Population Division, U.S. Census Bureau, Washington D.C. “Population Estimates for States by Age, Race, Sex, and Hispanic Origin.” 1 July 1999.

<<http://www.census.gov/population/estimates/state/sasrh/sasrh99.txt>> and

<sup>8</sup> Population Estimates Program, Population Division, U.S. Census Bureau, Washington D.C. “Population of States by Age, Race, Sex, and Hispanic Origin.” 1 April 1990.

<<http://www.census.gov/population/estimates/state/sasrh/sasrhmars.txt>>.

<sup>9</sup> “A Portrait of Older Minorities.” AARP Minority Affairs and AARP Research Center. November, 1995, p. 2.

<<http://research.aarp.org/general/portmino/html>>.

In 1999, seniors made up 12.3 percent of Minnesota's population. The number of people who are seniors ranged from 740 seniors in Cook County to 124,610 in Hennepin County. Rural Minnesota counties have a greater proportion of senior population. In fact, "all of the counties in which more than one-fifth of the population was 65 years or older in 1995 are in rural Minnesota."<sup>10</sup>

In order to compare the geographic location of seniors with the various senior service sites statewide, 1990 U.S. Census block group data were mapped, as shown in Map 3. Although this is 1990 data (2000 U. S. Census block group data were not available when the analysis was completed), the map clearly shows that seniors are clustered in urban centers but live and need services throughout the state. It is projected that Minnesota's senior population as a percentage of the total population will remain about the same until approximately 2010 when it is expected to increase rapidly. Maps 4 and 5 show the 2010 projections for female and male population in Minnesota aged 65 to 84 years. Maps 6 and 7 show the 2010 projections for females and males 85 years and older in Minnesota. One important element of these population changes is the location of seniors around the state. The quartile maps (Maps 4-7) show that the senior population will be extremely sparse in portions of Minnesota, especially in the western and northern parts of the state. This has implications for the critical mass needed to provide some services, such as assisted living, nursing home, and hospital care.

## **AGING OF MINNESOTA'S POPULATION**

Older people will comprise an increasing proportion of the population in the United States and Minnesota. Nationally, by the year 2030, the number of people who are 60 and older will more than double to 85 million, while people aged 85 and over will triple to eight million.<sup>11</sup>

Minnesota's state demographer predicts that the senior population will be the fastest growing age group in the state during the next 30 years.<sup>12</sup> The median age of Minnesotans will rise from 36.2 years in 2000 to 42.2 years in 2030.<sup>13</sup> This change is "largely attributable to projected growth in the number of people age 65 and older".<sup>14</sup> The senior population will grow by 581,007 people between 2000 and 2030, from 592,332 to 1,173,339, representing almost a doubling of the senior population. In 2030, seniors will constitute 23% of the total state population, up from 12.7% of the population in 2000. Between 2030 and 2050, the total senior population will decline somewhat, from the peak of about 23% of the overall population. The average annual rate of growth of the senior population will be highest between 2010 and 2030 at about 2.8%. This rate will be much lower between 1990 and 2010 (1.3%), and 2030 to 2050 (0.7%).

According to Project 2030, between 2000 and 2030 it is also predicted that there will be a large increase in Minnesota's "young-old" age groups (those between 65 and 84). Then, between 2030 and 2050, the growth will occur in the "very old" age group (those over 85) as the last baby

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<sup>10</sup> Minnesota Planning, "Implications of rural Minnesota's changing demographics." July 2000, p. 2.

<sup>11</sup> Minnesota Department of Human Services, Aging Initiative. Project 2030: Briefing Book. <<http://www.dhs.state.mn.us/agingint/proj2030/brief/bb2.htm>>.

<sup>12</sup> Ibid.

<sup>13</sup> Minnesota Planning, "Implications of rural Minnesota's changing demographics." July 2000, p. 2.

<sup>14</sup> Ibid.

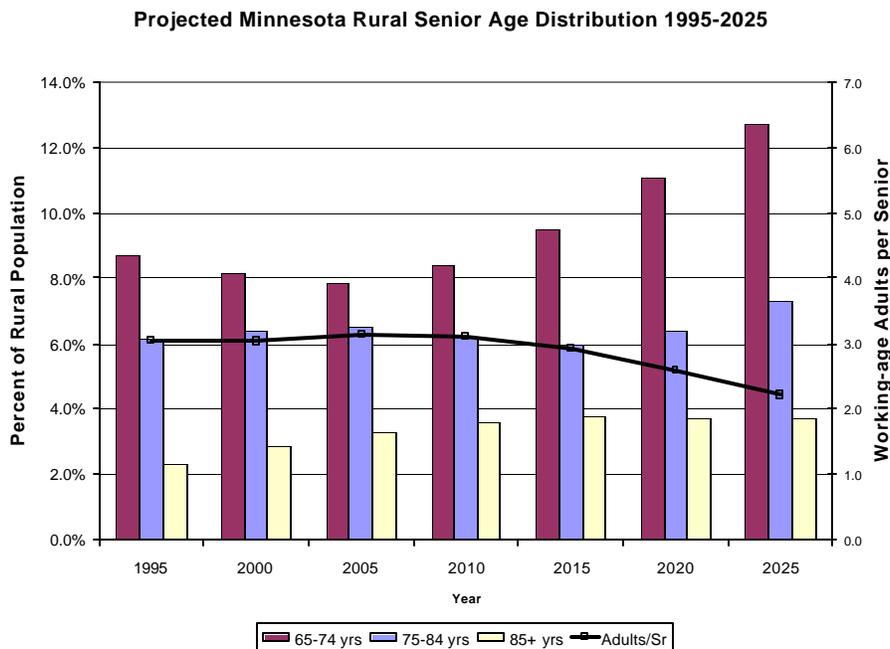
boomers turn 85. In 2030, over one-half of the senior population will be between ages 65 and 74. In 2050, less than half of the seniors will be between 65 and 74. The elderly population (those 85 years and older) will begin an exponential growth in 2030 and by 2050 will represent 22% of Minnesota’s overall senior population. The dramatic growth in the frail elderly population is one of the factors that will increase the need for services along the long-term care continuum.<sup>15</sup>

**Age Dependency Ratio**

An age dependency ratio compares the number of working age people (measured by counting people in the age grouping 16 – 65 years) to people who historically are less likely to be working (ages 0 – 15 and 66+).

Figure 1 shows the age dependency ratios for Minnesota, projected through the year 2025. It is clear that after 2010, the age dependency ratios begin to decline. By 2025, rural Minnesota will have slightly more than 2 working age adults per senior, while urban Minnesota will have more than 3 working age adults per senior. This changing dependency ratio will have significant implications for access and choice of services.

Figure 1



**Baby Boomers’ Changing Expectations**

Baby boomers are defined as people who were born between the years 1946 and 1964. Just as baby boomers shaped changes in education, marriage, family life, and the way government does its business, baby boomers will influence the changing continuum of senior services. They will do this as they navigate through the system and broker services for family members and friends.

<sup>15</sup> Minnesota Department of Human Services, Aging Initiative. Project 2030: Briefing Book. <<http://www.dhs.state.mn.us/agingint/proj2030/brief/bb2.htm>>.

In addition, they will increasingly influence services and service delivery when they are 65 years and older and begin to need the services themselves.

A glimpse at some of these changes can be seen within the Minnesota Department of Human Services web posting on long-term care. Citing research conducted by L. Wagner and published in the January 2000 *Provider*; baby boomer expectations were compared to current long-term care residents. Baby boomers expected:

- More choice,
- More independence,
- More participation in decision making, and
- Higher expectations for health and functional status.

## INCOME

According to the Bureau of Economic Analysis, in 1998 Minnesota had a per capita personal income (PCPI) of \$29,263.<sup>16</sup> This PCPI ranked 11th in the United States and was 108 percent of the national average, \$27,203. In 1988, the PCPI of Minnesota was \$17,592 and ranked 17th in the United States. The average annual growth rate of PCPI over the past 10 years in Minnesota was 5.2 percent. The average annual growth rate for the nation was 4.6 percent. In 1998, Mahnomon County (\$16,434) and Todd County (\$16,584) had the lowest per capita incomes of all Minnesota counties. Ramsey County (\$32,863) and Hennepin County (\$40,126) had the highest per capita incomes of all Minnesota counties. Map 8 shows 1997 county level per capita income as reported in 1998. The counties from Todd County extending north through central and western Minnesota have the lowest per capita incomes in the state. Paying for health services, such as insurance, medications, and doctor visits is a significant issue for any low income individual. In these counties, other factors such as fuel prices, due to the greater travel distances, create further barriers and also consume a large portion of individual income.

In 1998, married couples nationwide, ages 65-69, had an income of \$35,134, while non-married women in that age group had an average income of \$12,193. For those 85 and older, married couples had an average income of \$24,345, while non-married women had an income of \$10,446.<sup>17</sup> The poverty rate varies greatly by marital status for seniors in the U.S. Only four percent of married persons ages 65-69 have an income at the poverty level, which rises to seven percent for married couples 85 and older. However, for non-married women ages 65 and older, the percent that live at the poverty level is between 18 and 20 percent. Another 10 percent live at “near poverty”.<sup>18</sup>

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<sup>16</sup> Regional Economic Information System, Bureau of Economic Analysis, U. S. Department of Commerce. <<http://www.bea.doc.gov/bea/regional/bearfacts/stbf/bf1/b127000.htm>>.

<sup>17</sup> Social Security Administration. “Income of the Aged Chartbook, 1998.” June 2000. <<http://www.ssa.gov/statistics/iac98toc.html>>.

<sup>18</sup> Ibid.

According to the federal Agency on Aging, “older women, the very old, and minority elderly, have, on average, the lowest incomes among the older population.”<sup>19</sup> Minnesota figures show that in 1995, the median income for all households was \$37,933, while for households of those 65 and older, the median income was \$21,257.<sup>20</sup> In 1997, the median for all Minnesota households grew to \$42,991, while for senior households the median was \$23,880.<sup>21</sup>

In Minnesota, 9.9% of seniors live below the poverty line (1997-1999).<sup>22</sup> The rate for non-married women 65 and over is even higher. The reality of living with low income is that it “severely limits seniors ability to purchase health care and the goods, services, and housing that might help them remain independent.”<sup>23</sup> Income constraints also severely limit choices along the continuum of health services.

## HOME OWNERSHIP

According to the U.S. Census Bureau, between 1990 and 1999, home ownership in Minnesota increased 11 percent to 76.1 percent, which ranked 4th in the country.<sup>24</sup> “The overwhelming majority (77%) of Minnesota’s current elderly population lives in single family homes and also owns these homes (86%). Another 13% live in apartments, with an even split between apartments for all ages and senior apartments. It is very likely that the number of very low-income, very old renters will increase in the future, especially between 2030 and 2050; at this time the unmarried women over 85 will still include many women who did not enter the labor market until later and therefore have lower incomes.”<sup>25</sup>

Lack of a caregiver is a serious problem for people who are older and who have chronic conditions and other limitations affecting their ability to care for themselves and their homes. Eighty percent of people living alone are women and nearly half of the elderly live alone.<sup>26</sup> Of the nine million seniors in the U.S. who live alone, two million say they have no one to turn to if they need help. “Although there will be greater numbers of older persons living alone in Minnesota’s metropolitan areas, persons living alone will represent a larger proportion of all households in the northwest, northeast and southwestern regions of the state. This increase in the number of older persons living alone will exert pressure on formal services as fewer elderly live

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<sup>19</sup> Administration on Aging. “The Administration on Aging and the Older Americans Act.” 4 November 1997. <<http://www.aoa.gov/aoa/pages/aoafact.html>>.

<sup>20</sup> Building Toward the Senior Boom, Wilder Research Center for East Metro SAIL, (based on census data) p. 24.

<sup>21</sup> Ibid.

<sup>22</sup> Population Estimates Program, Population Division, U.S. Census Bureau, Washington D.C. “Regions, Divisions, and States by 5-year Age Groups and Sex: Time Series Estimates, July 1, 1990 to July 1, 1999 and April 1, 1990 Census Population Counts.” 9 March 2000. <<http://www.census.gov/population/estimates/state/st-99-08.txt>>.

<sup>23</sup> Administration on Aging. “The Administration on Aging and the Older Americans Act.” 4 November 1997. <<http://www.aoa.gov/aoa/pages/aoafact.html>>.

<sup>24</sup> U.S. Census Bureau, 2000.

<sup>25</sup> Minnesota Department of Human Services, Aging Initiative. Project 2030 Briefing Book.

<<http://www.dhs.state.mn.us/agingint/proj2030/brief/brief3.htm>>.

<sup>26</sup> Administration on Aging. “The Administration on Aging and the Older Americans Act.” 4 November 1997. <<http://www.aoa.gov/aoa/pages/aoafact.html>>.

with caregivers in the future.”<sup>27</sup> It will also expand the desire for other housing options, where a variety of services might be available.

## **INSURANCE**

A high proportion of Minnesotans are covered by health insurance. The Minnesota Department of Health, Health Economics Program recently released preliminary data from a statewide 2001 Health Care Access Survey indicating that 5.4% (266,000) of Minnesotans are uninsured.<sup>28</sup> Of those uninsured, 53% are male, 80% hold a permanent position, and .4% are seniors.

Uninsurance rates for American Indians (16.9%) and Hispanics (11.1%) are significantly greater than that of other populations. There is little difference between the adult insurance rate in the Twin Cities (6.6%) and Greater Minnesota (6.8%); however, regional variations in insurance rates exist. Areas with the highest uninsurance rates are north-central (9.4%), central (8.6%), and western (8.2%) Minnesota<sup>29</sup>.

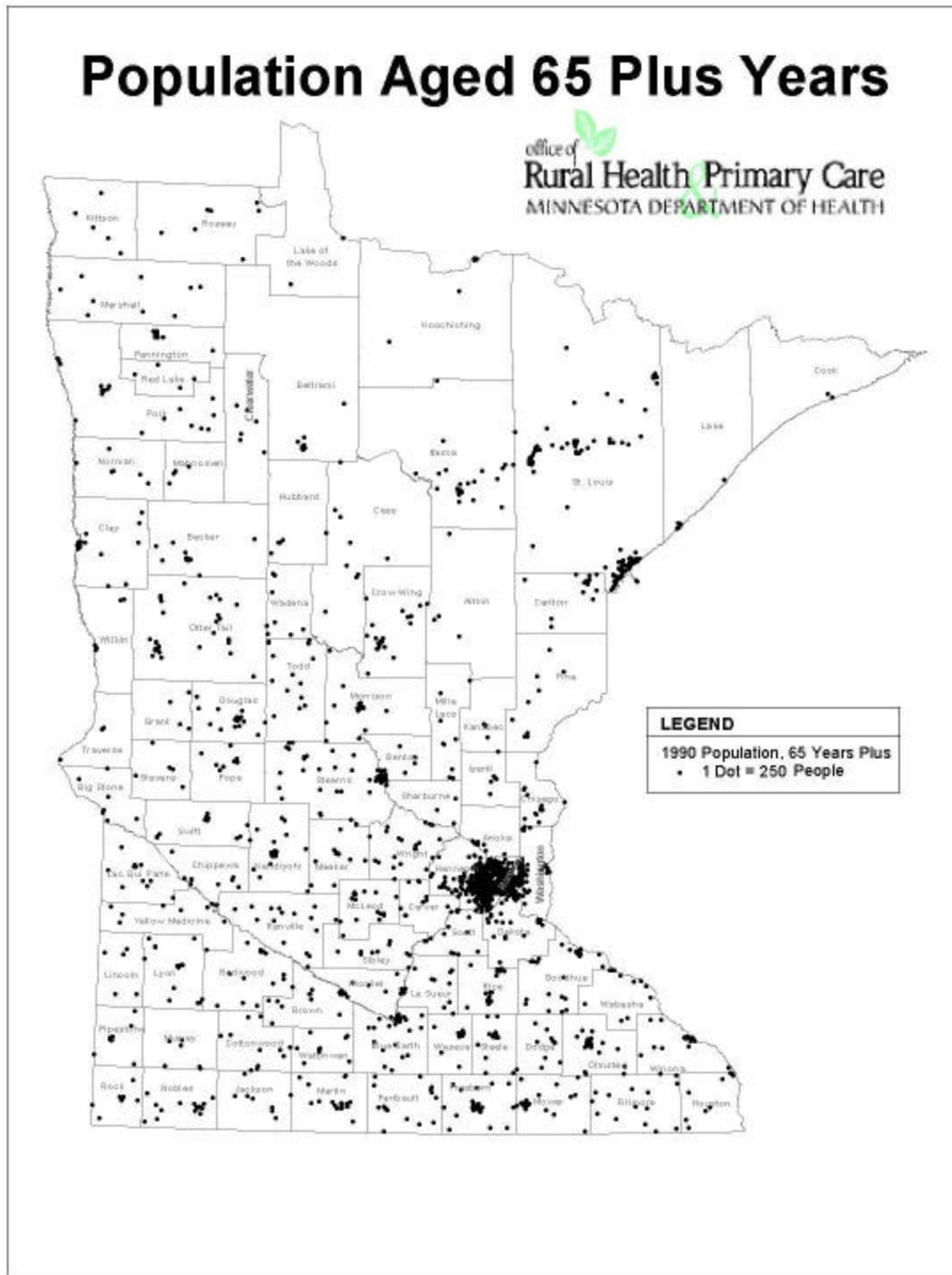
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<sup>27</sup> Minnesota Department of Human Services, Aging Initiative. Project 2030 Briefing Book. <<http://www.dhs.state.mn.us/agingint/proj2030/brief/brief3.htm>>.

<sup>28</sup> Minnesota Department of Health, Health Economics Program. 2001 Health Care Access Survey, HRSA State Planning Grant.

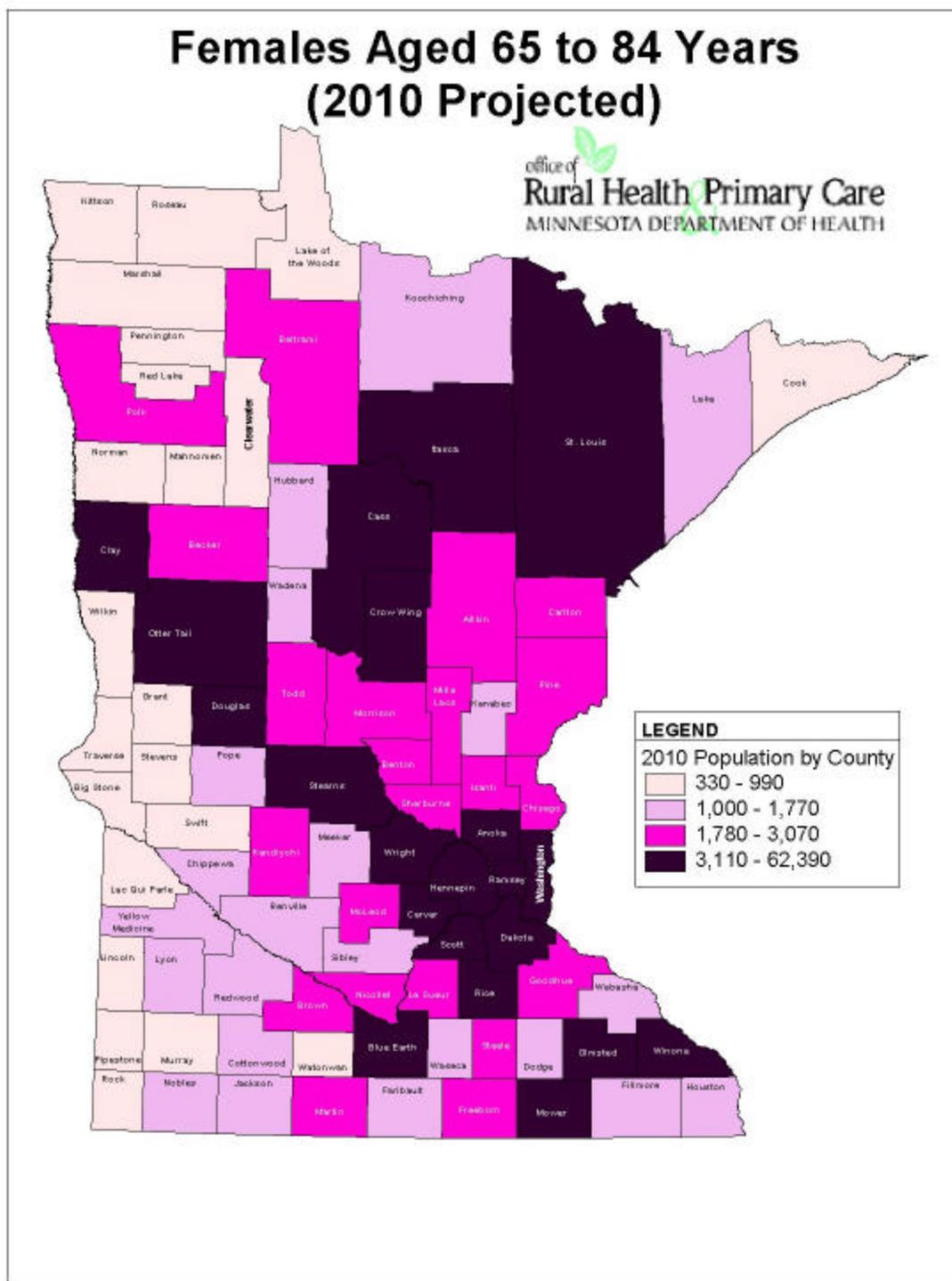
<sup>29</sup> Regions are based on Economic Development Regions (EDR). North-central refers to EDR 2, central to EDR 5, and western to EDR 4.

Map 3



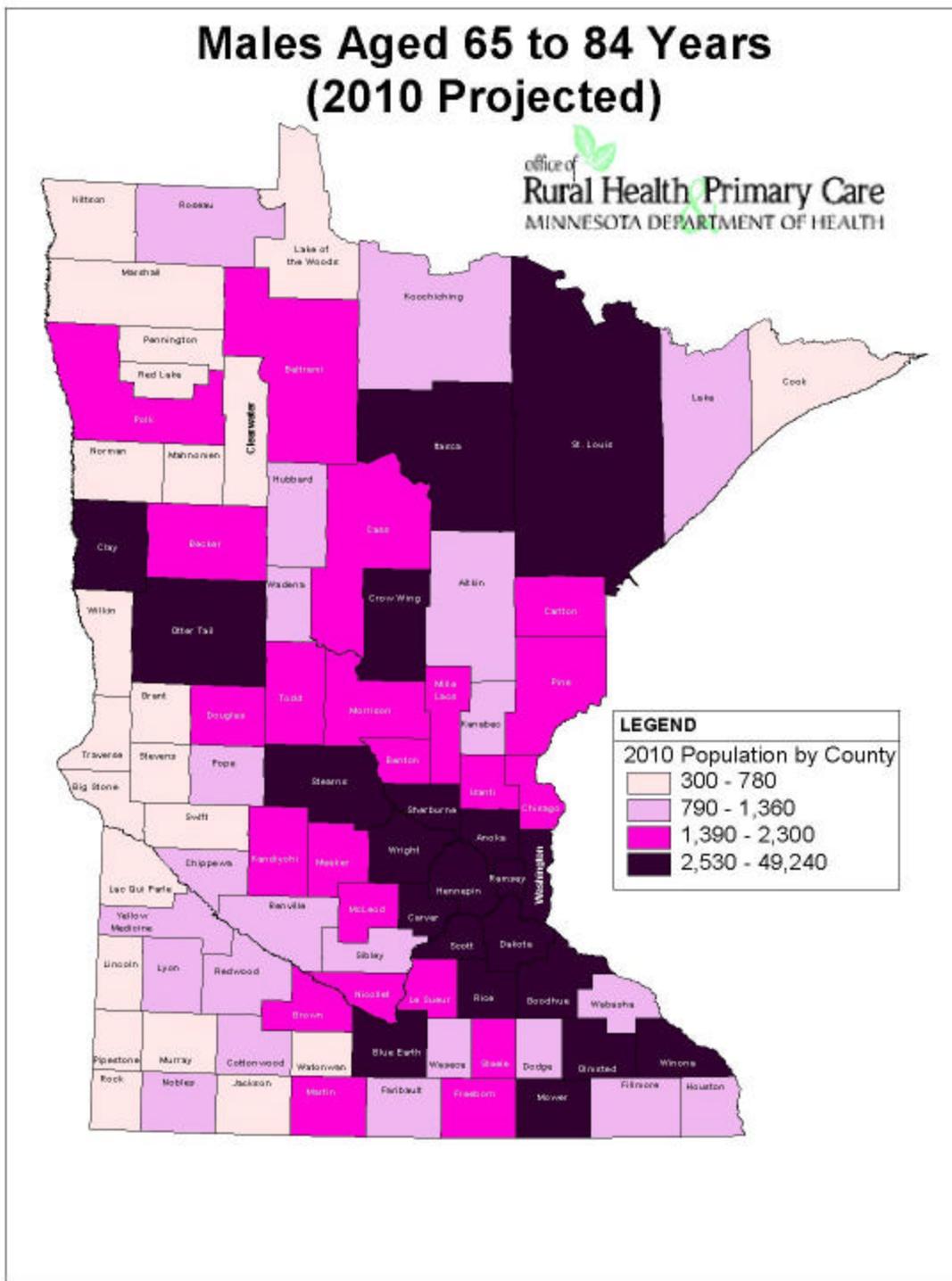
Data Source: U. S. Census Bureau, 1990.

Map 4



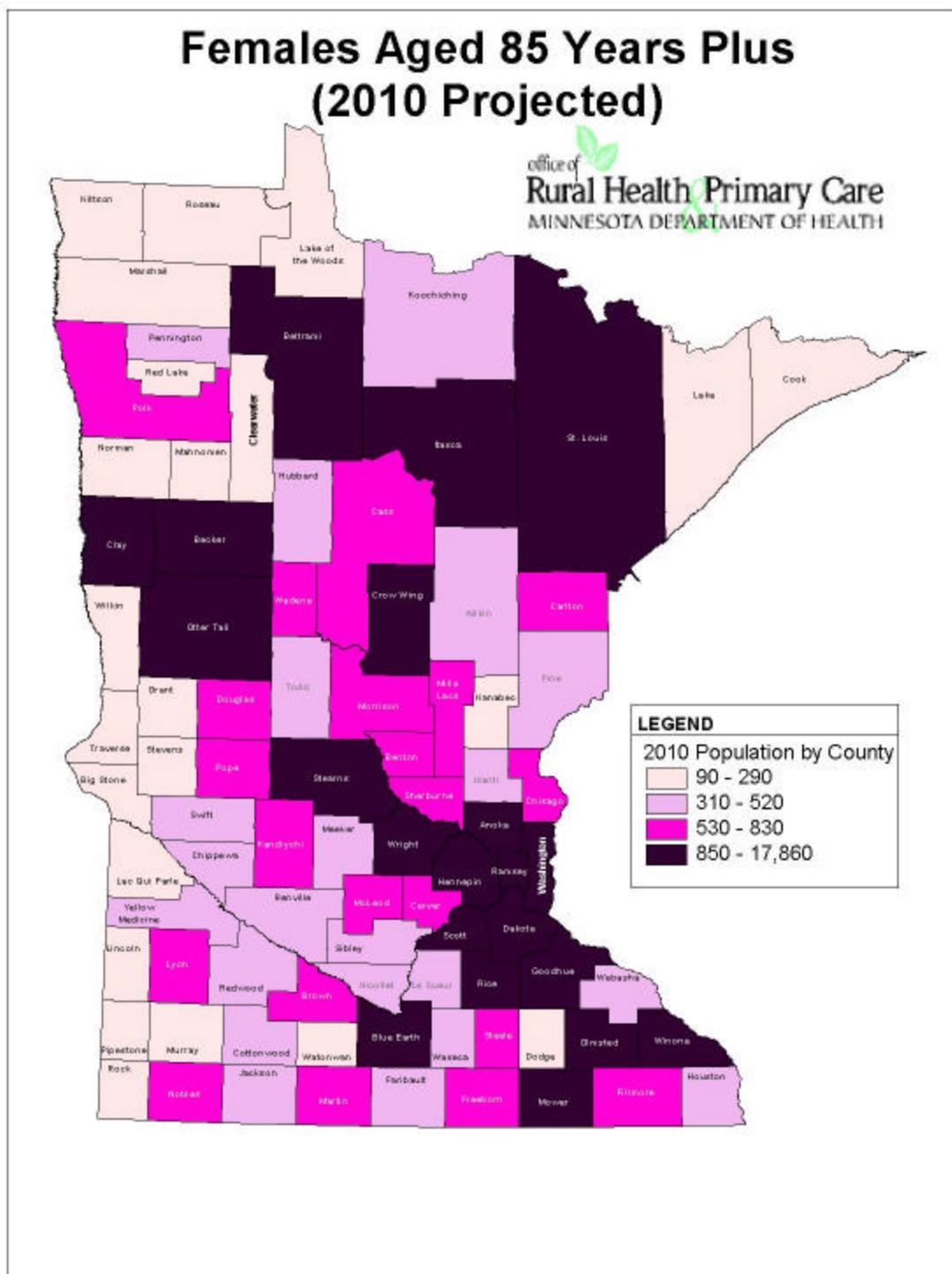
Data Source: Minnesota State Demographic Center, 1998.

Map 5



Data Source: Minnesota State Demographic Center, 1998.

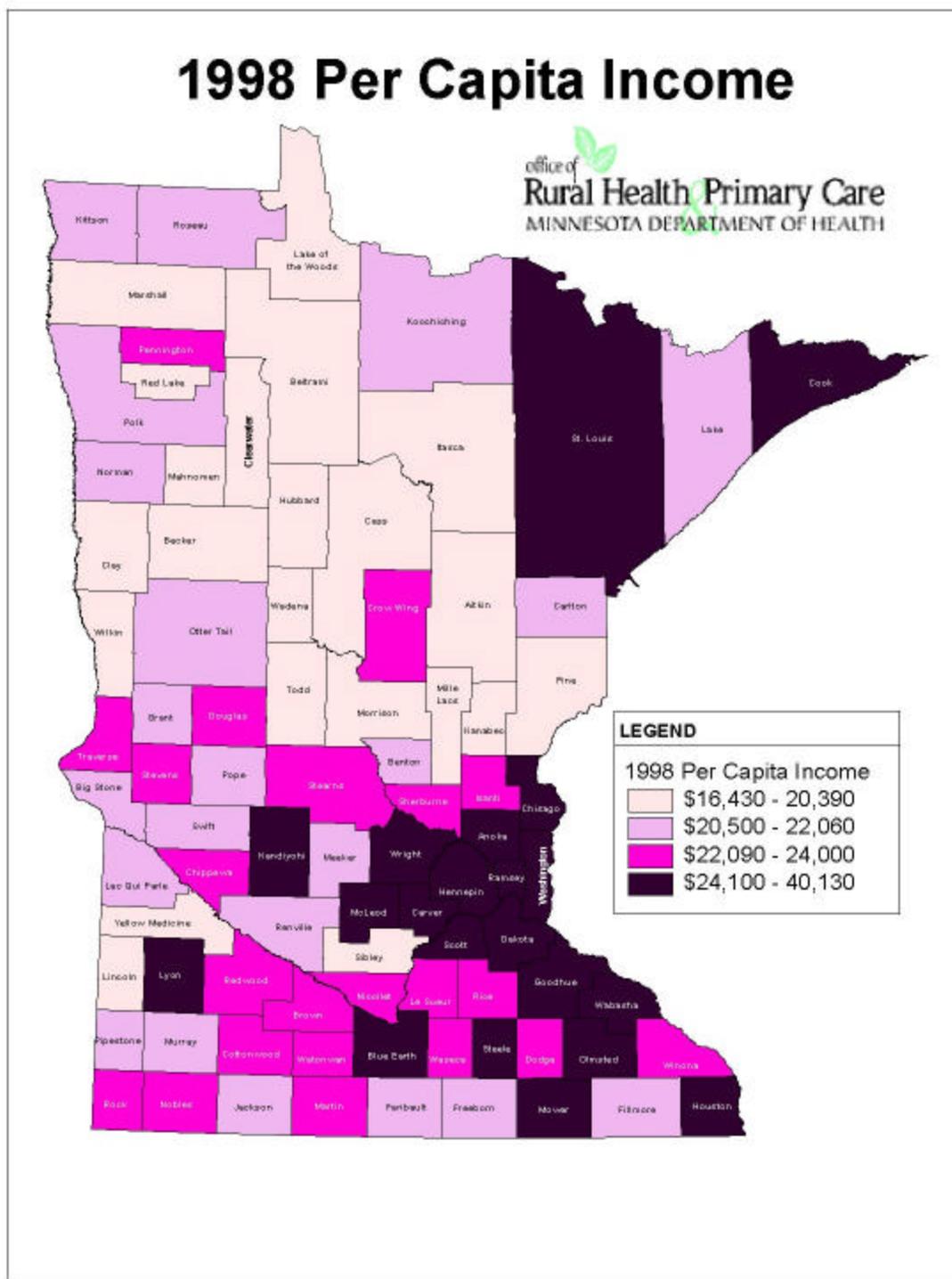
Map 6



Data Source: Minnesota State Demographic Center, 1998.



## Map 8



**Data Source: Minnesota State Demographic Center, 1998.**

## SECTION III: FINANCING SENIOR HEALTH SERVICES

Senior health services financing is another key component related to access to health services. Health care costs for all populations accounted for 5.5 percent of the U.S. Gross Domestic Product (GDP) in 1999.<sup>30</sup> “The amount of money spent on health care for the elderly is increasing at a faster rate than economic growth, and health care costs may become an even greater burden to workers than Social Security”, concludes a Stanford University study.<sup>31</sup>

Findings from the Stanford study suggest that, “the proportion of the gross domestic product spent on health care for the elderly is expected to double to about 10 percent by 2020”.<sup>32</sup> Over the past decade, medical bills for seniors have risen at an annual rate of nearly 4 percent. If the rate holds steady, annual health care spending per senior will climb to almost \$25,000 (in 1995 dollars) in 2020. Such an increase could strain both the government and seniors, who on average pay more than a third of their own health costs.<sup>33</sup>

Senior health care services are financed from several sources. The primary funding sources include: Medicare, Medicaid, Elderly Waiver (EW), Alternative Care (AC) and private pay as well as other federal, state, county, and local sources. This section includes information on each of these funding sources as well as brief descriptions of recent policy changes that impact the financing of senior health services.

### MEDICAID

According to the Minnesota Department of Human Services, approximately 366,000 Minnesotans, or eight percent of the state’s population, received health care coverage through Medical Assistance (MA) in 1999.<sup>34</sup> Medicaid is a joint federally/state-funded program that reimburses for medical services for low-income families, children, pregnant women, the disabled, and people 65 years or older. The federal name for the program is Medicaid; in Minnesota, the program is known as Medical Assistance or MA. Total state expenditures for 1999 were \$2.9 billion. Of that, 52 percent was federally funded and 48 percent was state funded.<sup>35</sup> Medicaid is the largest single source of federal funding in Minnesota’s budget.<sup>36</sup>

The federal Health Care Financing Administration (HCFA), now called the Center for Medicare and Medicaid Services (CMS), administers Medicaid nationwide. The CMS provides funding, approves state plans, and ensures compliance with federal regulations. In Minnesota, the state

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<sup>30</sup> [www.bea.doc.gov/bea/dn2/gpo.htm](http://www.bea.doc.gov/bea/dn2/gpo.htm).

<sup>31</sup> “Health Care.” Minnesota Issue Watch. December 1998/January 1999. <<http://www.mnplan.state.mn.us/SCANS/1998/9812i.htm>>.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

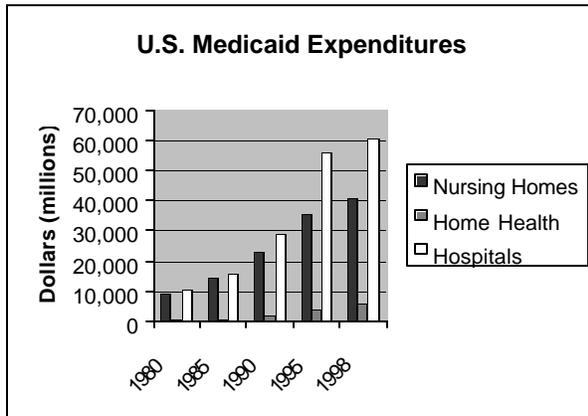
<sup>34</sup> Minnesota Department of Human Services, Health Care Homepage. “Minnesota’s Medical Assistance (MA) (Medicaid) Program.” 9 April 2001. <<http://www.dhs.state.mn.us/HlthCare/asstprog/mmmap.htm>>.

<sup>35</sup> Ibid.

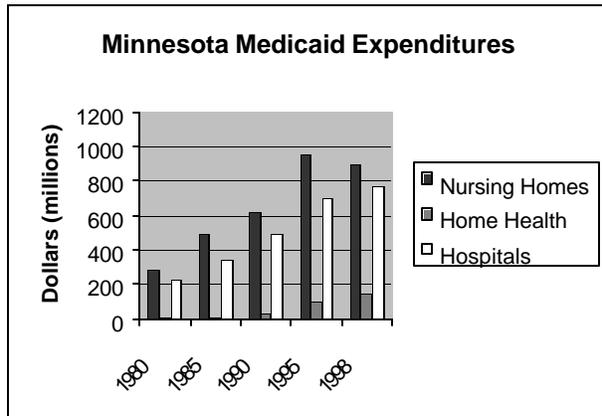
<sup>36</sup> Minnesota Department of Human Services, Health Care Homepage. “Minnesota’s Medical Assistance (MA) (Medicaid) Program.” 9 April 2001. <<http://www.dhs.state.mn.us/HlthCare/asstprog/mmmap.htm>>.

Department of Human Services (DHS) oversees the MA program that is administered locally by counties. Figures 2 and 3 display both state and federal Medicaid expenditures for nursing homes, hospitals, and home health care. Spending trends primarily reflect the overall increase in health care costs as well as state and federal policy changes.

**Figure 2**



**Figure 3**



Source: HCFA, 2001

Overall, the number of people receiving MA has been declining. The Minnesota Department of Human Services attributes this decline to the increasing number of people who have become employed and either exceed MA income limits, or have employer-subsidized health insurance. Of those enrolled in the MA program, 47,000, or 13 percent of all enrollees are seniors; however, thirty-five percent of MA expenditures, or \$1.015 billion, is spent on seniors.<sup>37</sup>

The federal government requires that each state cover a set of services through the Medicaid program, including:

- |  |   |
|--|---|
| Physicians' services                   | Ambulance and emergency room                      |
| Inpatient and outpatient hospital care | Early periodic screening, diagnosis, treatment    |
| Family planning                        | Home health services for people 21 and older      |
| Lab, X-ray                             | Nurse midwife                                     |
| Nursing facilities                     | Family and certified pediatric nurse practitioner |
| Rural health clinics                   |   |

Minnesota also covers additional MA program services, including:

- |  |                                      |
|--|--------------------------------------|
| Prescription drugs, (incl. birth control)        | Dental services                      |
| Group homes for people who are mentally disabled | Transportation services              |
| Alcohol and drug treatment                       | Chiropractic services                |
| Home health care for those under 21              | Eye exams, glasses, and hearing aids |
| Mental health treatment                          | Private-duty nursing                 |

<sup>37</sup> Minnesota Department of Human Services, Health Care Homepage. "Minnesota's Medical Assistance (MA) (Medicaid) Program." 9 April 2001. <<http://www.dhs.state.mn.us/HlthCare/asstprog/mmmap.htm>>.

Podiatry  
 Personal care services  
 Physical, occupational, speech and respiratory therapy  
 WIC (nutrition advice/food vouchers for pregnant women, infants and children)

Hospice care  
 Preventive health services  
 Prosthetics

Health care for MA recipients is provided under both fee-for-service medical providers and prepaid health plans, depending on the county where the recipient lives. Managed care recipients have the same provider network as private or employer-subsidized enrollees.

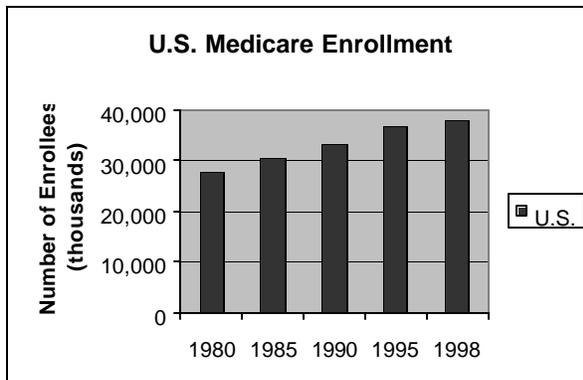
MA eligibility requirements include:

- Income guidelines and asset standards
- Minnesota residency
- U.S. citizen or "qualified" non-citizenship

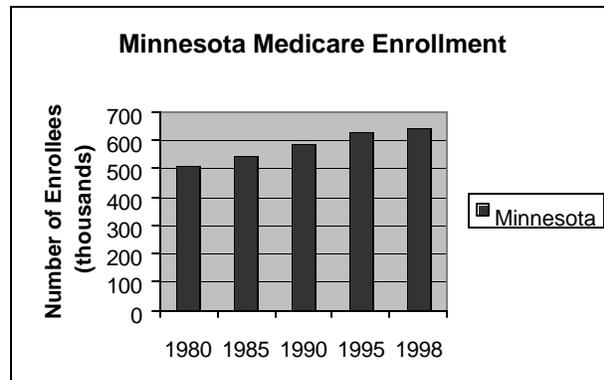
## MEDICARE

Medicare is the largest health insurance program in the United States. There are approximately 39 million enrollees nationwide (See Figure 4) and the program covers seniors, those with permanent kidney failure and certain people with disabilities.<sup>38</sup> In 1998, there were 644,000 Medicare enrollees of all ages in Minnesota (See Figure 5), of which 49 percent live in Greater Minnesota.

**Figure 4**



**Figure 5**



Source: HCFA, 2001

Generally, you are eligible for Medicare if you or your spouse worked for at least 10 years in Medicare-covered employment and you are at least 65 years old and a citizen or permanent resident of the U.S. You might also qualify for coverage if you are a younger person with a disability or with chronic kidney disease.

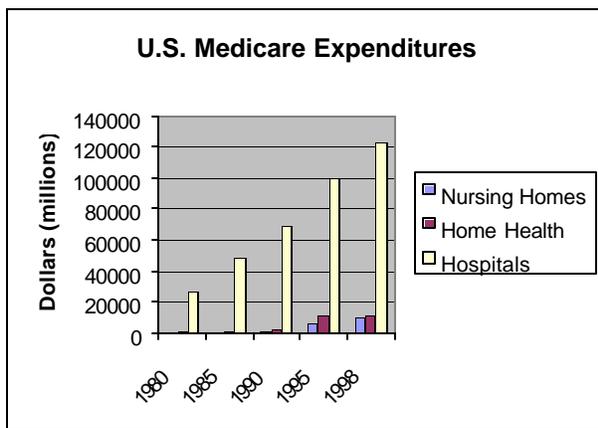
Medicare has two parts: Hospital Insurance (Part A) and Medical Insurance (Part B). Medicare Part A provides coverage for inpatient hospital services, skilled nursing facilities, home health services and hospice care. Most people do not have to pay for Part A because they or a spouse

<sup>38</sup> "Medicare Basics." Medicare. The Official U.S. Government Site for Medicare Information. 9 May 2001. <http://www.medicare.gov/Basics/Overview.asp>.

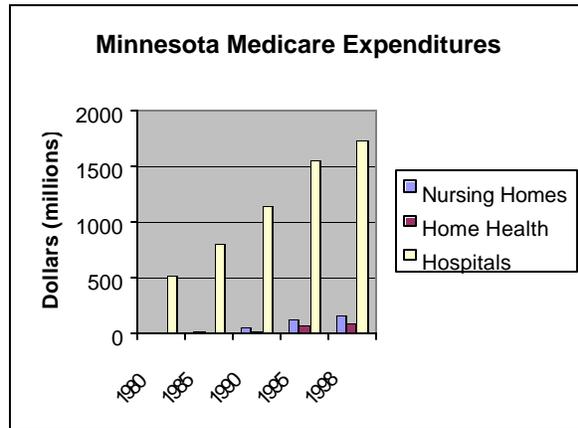
paid Medicare taxes while working. Those who did not pay a Medicare tax are able to purchase Part A. Medicare Part B helps pay for the cost of physician services, outpatient hospital services, medical equipment and supplies and other health services and supplies. Most people pay a monthly fee of \$50.00 if they enrolled in Part B at age 65. Those who did not enroll in Part B at age 65 pay 10 percent more for each 12-month period after age 65 that they were not enrolled, for the rest of their lives. Although prescription drugs are used by over 75% of elders, most outpatient prescription drugs are not covered under the traditional Medicare program.<sup>39</sup>

Qualified individuals can enroll in Medicare by completing an application form at their local Social Security Administration office.

**Figure 6**



**Figure 7**



Source: HCFA, 2001

There are over 577,000 seniors enrolled in Medicare Part A and/or Part B or approximately 12 percent of Minnesota’s total population. Based on Minnesota population estimates for 2000, this means that over 95 percent of Minnesota’s seniors have coverage under Medicare. Figures 6 and 7 display both state and federal Medicare expenditures for nursing homes, home health care, and hospitals. Given that Medicare reimburses primarily for primary and acute care services it is not surprising that hospital expenditures are significantly greater than for home health and nursing homes.

**ELDERLY WAIVER (EW)**

The Elderly Waiver (EW) program is administered through the Department of Human Services and funded equally through state and federal dollars. It reimburses for home and community-based services for “seniors that require the level of medical care provided in a nursing home but choose to reside in the community.”<sup>40</sup> The EW program covers many senior services including those provided by trained care givers, such as a skilled nurse, home health aide, homemaker, companion, and/or personal care assistant as well other services, such as home delivered meals,

<sup>39</sup> Rector, Thomas. “Medicare Prescription Drug Benefit Costs”. *As it Is...* 1(1). Center for Health Care Policy and Evaluation. March 1999. <<http://www.centerhcpe.com/asitis/march99/index.html>>.

adult day care, supplies and equipment, and certified community residential services (assisted living, foster care, residential care).<sup>41</sup>

Those eligible for the EW program are 65 years or older, eligible for Minnesota Medical Assistance, and need nursing home level of care as determined by the Preadmission Screening process. Eligibility is limited by the availability of slots. The EW service cost for an individual cannot be greater than the estimated nursing home cost for that same individual.<sup>42</sup>

In 1999, according to the Minnesota Department of Human Services, “the EW program served 7,761 seniors and spent a total of \$31,976,914 on waiver-funded services and \$14,979,984 on home care services funded through Medical Assistance (including State Plan service costs and estimated MA home care service costs under Prepaid Medical Assistance Plan/PMAP), for a total of \$46,956,898. The average monthly cost (including waiver-funded, State Plan, and PMAP services) per EW enrollee was \$719.”<sup>43</sup>

## **ALTERNATIVE CARE (AC)**

The Alternative Care (AC) Program, also administered by the Minnesota Department of Human Services, is a state funded program that “supports certain home and community based services for seniors.”<sup>44</sup>

The program reimburses for the following services: adult day care, adult foster care, homemaker, home health aide, personal care assistance, case management, respite care, assisted living, care-related supplies and equipment, home delivered meals, transportation, skilled nursing, chore services, companion, nutrition, residential care, training for direct informal caregivers, and telemedicine devices. To be eligible for program participation seniors must be assessed through the Preadmission Screening process and meet the following requirements:

- In need of nursing facility level of care and admission is recommended,
- Income and assets are inadequate to fund a nursing facility stay for more than 180 days,
- Choosing to receive community services instead of nursing facility services, and
- No other funding source is available for the community services.<sup>45</sup>

According to the Minnesota Department of Human Services, in 1999, the AC program served 12,347 people and spent a total of \$50,486,784. The monthly cost of AC services must be less than 75 percent of the average Medicaid payment made for Minnesotans with the same case mix

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<sup>40</sup> Minnesota Department of Human Services, Aging Initiative. “Elderly Waiver Program Fact Sheet.” 23 September 1999. <<http://www.dhs.state.mn.us/Agingint/Services/ewfacts.htm>>.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

<sup>44</sup> Minnesota Department of Human Services, Aging Initiative. “Alternative Care Program Fact Sheet.” 10 September 1999. <<http://www.dhs.state.mn.us/Agingint/Services/acfacts.htm>>.

<sup>45</sup> Ibid.

classification residing in nursing facilities. The average monthly cost per enrollee was \$511. Some enrollees pay premium payments equal to 25 percent of the monthly service costs.<sup>46</sup>

For either the Elderly Waiver or Alternative Care, when an older person is on a waiver program, they are assigned to one of eleven case levels (Level A through Level K). Level A is the lowest case mix level and Level K is the highest. Each case level has a dollar amount associated with it, and the person's care is limited by the services that can be purchased with this specific dollar amount. Within each case level, people have to make choices about what services they will receive. For example, if adult day care is the only service needed by someone assigned to Level A and the day care entity is willing to negotiate a fee, then the person might be able to have from one to five days of adult day care service per week, based on the cost of the service. If a person assigned to Level A needs more than this particular service, then the person might be unable to participate in this service or another desired service because of the cost limitations associated with the case level. These waiver programs are designed as a buffer between persons living in their own home and a nursing home or board and care home as the only other alternative.

## **OLDER AMERICANS ACT**

The Older Americans Act of 1965 was established to address the diverse needs of older people. The Act calls for a range of programs that offer services and opportunities for older Americans, especially those at risk of losing their independence. In December 2000, the act was amended (PL 106-501). Changes included: a new distribution federal funding formula to states, a caregiver support program, and a new sliding fee scale for most services except home delivered meals, outreach, benefits counseling, case management, ombudsman, elder abuse, legal assistance, consumer protection, and information/referral services (a waiver is required).

Through the Older Americans Act, a nationwide network was established including state offices and Area Agencies on Aging to plan, coordinate, and develop community-level systems of services that meet the unique needs of individual older persons and their caregivers. Several parts of the Older Americans Act provide for supportive in-home and community-based services, including:

- Title III which supports a range of services (nutrition, transportation, senior center, health promotion, homemaker, and caregiver support services);
- Title VI which supports training, research, and discretionary projects and programs;
- Title V which funds community service employment programs for seniors;
- Titles III and VII which provide funding for the 57 State Agencies on Aging (i.e. Minnesota's Board on Aging);
- Title VI which funds 216 tribes and native organizations to meet the needs of older American Indians, Aleuts, Eskimos, and Hawaiians; and
- Title VII which supports elder rights programs, including the nursing home ombudsman program, legal services, outreach, public benefit and insurance counseling, and elder abuse prevention efforts.

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<sup>46</sup> Ibid.

More details about the Older Americans Act are available on the Web at:  
[www.aoa.dhhs.gov/Oaa/2000/side-by-side-fin.html](http://www.aoa.dhhs.gov/Oaa/2000/side-by-side-fin.html).

Program funding through the Older Americans Act is allocated to each State Agency on Aging, based on the number of older persons in the state, to plan, develop, and coordinate systems of supportive in-home and community-based services. Most states, including Minnesota, are divided into planning areas called Area Agencies on Aging (AAA) so that programs can be developed and targeted to meet the unique needs of the elderly residing in that area. There are 660 AAAs nationwide and 14 in Minnesota. The AAAs prefer to use program funds to serve the needs of seniors with grants or contracts to multi-county service providers. While multi-county entities are the priority, AAAs would still address the needs of a single county or city, but at a lower priority.

The AAAs contract with public or private groups to provide services. In some cases, the AAA may act as the service provider, if no local contractor is available. Supportive services fall under several categories, including:

- Access Services - such as information and referral (e.g. Senior Linkage Line), outreach, case management, escort, and transportation,
- In-Home Services - which include chore, homemaker, personal care, home-delivered meals, and home repair and rehabilitation,
- Community Services - including senior center, congregate meal, day care, nursing home ombudsman, elder abuse prevention, legal, employment counseling and referral, health promotion, and fitness programs, and
- Caregiver Services - such as respite, counseling, and education programs.

Other aspects of the Older Americans Act include support for research, demonstrations, and training programs as outlined below:

- Research projects to collect information about the status and needs of various subgroups of elderly that are used to plan services and opportunities that will assist them,
- Demonstration projects to test new program initiatives that better serve the elderly, especially those who are vulnerable, and
- Under Title IV funds to educational institutions to develop curricula and training programs for professionals and paraprofessionals in the field of aging.

Older American Act funds are somewhat unique because there are no income guidelines to receive services and seniors are sometimes asked to voluntarily contribute what they can afford at the time the service is provided.

## **BALANCED BUDGET ACT**

The Balanced Budget Act of 1997 (BBA), aimed primarily at reducing the future cost of Medicare to allow the Medicare Trust Fund to be solvent until 2007, contained many reforms affecting most health service providers. The BBA created three new prospective payment systems — one for hospital outpatient services, one for skilled nursing facilities, and one for home health agencies. After the passage of the BBA, controversy erupted over the size of the

payment cuts; providers claimed that the cuts endangered their ability to continue to provide services.

Congress responded to health service providers' requests by passing the Balanced Budget Refinement Act of 1999 (BBRA) and then again in 2000 by the passage of the Medicare, Medicaid, and State Children's Health Insurance Program (SCHIP) Benefits Improvement and Protection Act of 2000 (BIPA) (P.L. 106-554).

A number of Medicare and Medicaid reforms in the BBA may directly and indirectly affect health care delivery systems. Examples of these reforms include:

- Changes in Medicaid capitation payment to managed care organizations,
- Establishment of the Medicare Rural Hospital Flexibility Program,
- Medicare reimbursement for tele-health services, and
- Reinstatement of the Medicare Dependent Hospital Program.

Over a five-year period (1998-2002), it was estimated that the BBA provisions would have reduced Medicare spending nationally by \$116.4 billion. The payment for each of the following services was to be changed:

- Hospital inpatient services
- Hospital outpatient services
- Home health services
- Skilled nursing services
- Hospice services
- Ambulatory services provided by federally qualified health centers
- Ambulatory services provided by the rural health clinics
- Ambulance services
- Outpatient rehabilitation services
- Ambulatory surgical services

The Balanced Budget Refinement Act of 1999 (BBRA) delayed certain provisions of the BBA. The BBRA restored an anticipated \$16 billion of BBA cuts to Medicare providers over a five-year period. The BBRA "held harmless" rural hospitals with 100 or fewer beds from any losses under the outpatient prospective payment system until January 2004 and delayed implementation of the home health agency interim payment system and the inpatient hospital transfer regulations.

On December 21, 2000, the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) was signed into law. This act changed provisions previously enacted in the Balance Budget Act and the Balanced Budget Refinement Act of 1999. Several of the provisions of the BIPA were written for the express purpose of sustaining health care delivery systems, and more specifically rural health.

## MINNESOTA PRESCRIPTION DRUG PROGRAM

The 1997 Minnesota State Legislature established the Prescription Drug Program to provide prescription drugs to low-income seniors without any other drug coverage.<sup>47</sup> The Minnesota Department of Human Services estimates that 26,000 seniors with no prescription drug coverage meet the income and asset requirements of the Prescription Drug Program. Of this number, 4,900 were enrolled in the program as of July 2000. An estimated 35 percent of low-income Minnesota seniors pay more than \$500 per year for prescriptions and almost 19 percent pay more than \$1,000 per year.<sup>48</sup>

To be eligible for the Prescription Drug Program, a person must:

- Be age 65 or older,
- Have had no other drug coverage for the past four months,
- Have been a Minnesota resident for at least six months; and
- If single, have a gross monthly income of \$879 or less; and
- If married, have a gross monthly income of \$1,181 or less,
- Program participants pay the first \$35 of their costs for prescriptions each month, and
- Have assets below the allowable limits (\$10,000 for a single person or \$18,000 for a couple (not counting home, car and designated burial account)).<sup>49</sup>

Note: the legislature is currently looking at revisions to the income and asset guidelines for this program. Information about the program will be updated at:

[www.dhs.state.mn.us/hlthcare/asstprog/prescription\\_drugs.htm](http://www.dhs.state.mn.us/hlthcare/asstprog/prescription_drugs.htm).

## COUNTY FUNDING

In most counties, county funding, including property tax revenues, pay a portion or all of the costs of various health services for seniors. The proportion of health services costs covered by county funding and the type of services also vary among counties. Comprehensive data are not available from counties that would detail the amount of county funding of health services for seniors or the proportion of the total cost of these services that counties contribute. Data on county expenditures that are available include the amount of money that counties pay for Community Health Services and Medical Assistance as well as for some county specific programs. For a complete report on Community Health Services funding and expenditures see: *Community Health Services in Minnesota: Report on 1999 Activities and Expenditures*.<sup>50</sup>

Community Health Services include the following programs that are not targeted at, but may meet the needs of, seniors – disease prevention and control, emergency medical services, environmental health, family health, health promotion, and home health care. Local tax dollars constitute the largest proportion of all funding sources for Community Health Services (CHS). Other funding sources include – Medicaid and Medicare, grants from the Minnesota Department

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<sup>47</sup> Minnesota Statutes, Section 256.955. “Prescription Drug Program.” 1997. <<http://www.revisor.leg.state.mn.us/stats/256/955.html>>.

<sup>48</sup> Minnesota Department of Human Services, Aging Initiative. “More Minnesota Seniors May Get Help With Prescription Costs.” 13 September 2000. <<http://www.dhs.state.mn.us/Newsroom/news/prescriptioncosts.htm>>.

<sup>49</sup> Minnesota Department of Human Services, Aging Initiative. “More Minnesota Seniors May Get Help With Prescription Costs.” 13 September 2000. <<http://www.dhs.state.mn.us/Newsroom/news/prescriptioncosts.htm>>.

<sup>50</sup> Minnesota Department of Health. Community Health Services in Minnesota: Report on 1999 Activities and Expenditures. St. Paul, MN. March 2001.

of Health, private insurance, individual fees, and other federal, state and local sources. In 1999, \$230,681,343 was spent statewide on CHS activities and local tax dollars accounted for 30 percent of those expenditures.<sup>51</sup>

In addition to expenditures documented in the *Community Health Services in Minnesota* report cited above, counties may operate or subsidize local hospitals, nursing homes, ambulance services and other health services for the elderly that are not documented in this report. Many counties also subsidize housing, transportation, congregate or home-delivered meals and other support services for seniors. It would be beneficial to collect comprehensive information regarding county expenditures for these services to accurately portray the contribution and impact of public funding.

County boards and their departments are in an excellent position to coordinate countywide assessments of the needs of seniors in their county and to coordinate with adjacent counties to develop services. Counties and their staff can also facilitate planning for senior services in cooperation with cities, schools, businesses and community service and non-profit organizations.

Another aspect of county funding is the proportion of county dollars that fund Medical Assistance (MA). Federal, state and county governments share the cost of MA. The federal government is responsible for 51.11 percent, the state 44 percent, and county property tax dollars pay 4.89 percent. The Department of Human Services tracks MA costs and collects each county's portion of funding. The Department of Human Services system does not break out subgroups, so it is unknown what portion of the 4.89 percent allocations are derived from health services for seniors.

An additional source of funding for senior services flows through the counties from the Social Services Fund. The Department of Human Services tracks this money through the Community Social Services Act (CSSA) Client and Expenditure Reports. To put these expenditures in perspective, of total statewide human services expenditures, health care programs made up more than 50 percent of expenditures, social services were nearly 30 percent, and income support programs were 15 percent. Medical Assistance claims the largest portion of the health care program expenditures. For social services, the Social Services Fund includes all money used by the counties to provide social services, excluding some categories such as Medical Assistance and funding through the Board on Aging. The category Aging and Adult Services summarizes expenditures for clients aged 60 and over within the Fund. Services in this category include chores services, home delivered and congregate meals, adult day care, adult foster care and transportation services. Of the approximately \$1 billion of expenditures through CSSA in 1998, DHS reports that over \$75 million from the Social Services Fund provided services for about 50,000 clients aged 60 and over. The largest expenditures were in the areas of nursing home pre-admission screening, homemaker and home-based support services, home delivered and congregate meals, adult protection, adult day care, housing services, and Alternative Care (AC) and Elderly Waiver (EW) case management.<sup>52</sup>

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<sup>51</sup> *Ibid.* p. 6.

<sup>52</sup> Minnesota Department of Human Services. CSSA Client and Expenditure Report, 1998. <[http://www.dhs.state.mn.us/childint/Publications/executive\\_summary.htm](http://www.dhs.state.mn.us/childint/Publications/executive_summary.htm)>.

Another example of senior services that county property tax dollars pay for are costs for those services that are non-mandated but counties choose to pay because they want to help people stay in their homes. For example, Redwood County provides chore services to seniors. Chore service providers are paid a nominal fee to assist with housekeeping tasks such as grocery shopping or dishwashing. Redwood County property tax dollars pay the entire cost of these services.

## **PRIVATE INSURANCE**

Private insurance pays for all or a portion of many senior health services. Availability of data limits our ability to understand the magnitude and scope of this funding source. Private insurance refers to health insurance and long-term care insurance that is purchased by individuals. People purchase private insurance coverage through their own resources or as part of employer health benefit plans or associations, such as social clubs or union-sponsored plans.

Long-term care insurance can help with the costs associated with an illness and also guard against depleting the financial resources of seniors when they face serious health problems. Long-term care insurance is a relatively new insurance option and market penetration reflects this. This product is expensive for those who enroll in their older years; this is not the case for those who are younger. When long-term care insurance is available as an employee benefit it can be a very popular option. For example, Minnesota offered long-term care insurance as an employee paid option beginning in the fall of 2000. It was expected that about five to seven percent of eligible state employees would enroll. However, the enrollment rate was 18 percent, greatly exceeding expectations.<sup>53</sup>

Another form of private insurance is Medicare supplemental insurance. It has been reported that the high cost of Medicare supplemental insurance in rural areas contributes to access issues for rural seniors.

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<sup>53</sup> Minnesota Department of Employee Relations, Employee Insurance Division, Long-term Care Coverage Plan. <<http://www.doer.state.mn.us/ei-gen/lciii.htm>>.

# **PART TWO: SENIOR HEALTH CARE SERVICES IN MINNESOTA**

Although there are many types of senior health services provided throughout the state, a few key categories have been selected for analysis in this report. They include: hospitals, nursing homes, home health agencies, assisted living, adult day centers, hospice, home delivered meals and dining sites, and health practitioners (physicians, nurses, pharmacists, and dentists).

Transportation and emergency medical services also included because they are essential to assuring geographic access to health services for seniors. These services and care providers have been selected as a first attempt to examine geographic access to a continuum of senior health services throughout Minnesota.

This analysis will be accomplished by providing background information on each service type or health professional, both from a national and state perspective, as well as by discussing data sources, mapping service sites and service areas where appropriate, and identifying issues. The maps and charts make clear that not all seniors have geographic access to the continuum of health services in the state and there are some seniors that have no access to most services.

## **SECTION I: HOSPITALS**

A number of hospitals serve special populations; this section does not include specialized facilities.<sup>54</sup>

### **Background**

There are 144 hospitals in Minnesota, 94 of which are in rural areas. As shown in Map 9, hospitals are more widely spaced geographically in the northern part of the state. In Minnesota, 25 small rural hospitals have closed since 1984 when Medicare reimbursement changed to a prospective payment system. Of these 25 hospital closures, 17 have closed since 1990. The most recent closures include Harmony Hospital in Fillmore County, which closed December of 1999, and Trinity Hospital in Farmington (Dakota County), which closed in the spring of 2001. Since 1983, 11 urban hospitals have closed.

Approximately 45 percent of hospitals in Minnesota are government-owned and 55 percent are private, non-profit. There are only two for-profit hospitals in the state, Vencor hospital in Golden Valley and Lakeside Medical Center in Pine City. There are two Veterans hospitals in the state, one in St. Cloud and one in Minneapolis, as well as two Indian tribal hospitals, one on the Leech Lake Indian Reservation and the other on the Red Lake Indian Reservation.

Like the rest of the country, rural hospitals in Minnesota over the past 15 years have expanded services and diversified their revenues. At the same time, due to demographic changes, these facilities have become more reliant on Medicare, making them more vulnerable to changes in payment. This increased vulnerability is reflected in the financial performance of rural hospitals in Minnesota.

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<sup>54</sup> Psychiatric hospitals and hospitals that care solely for children are not included.

Table 3 shows rural and urban differences in hospital utilization. Based on 1999 estimates, 44 rural hospitals had an average daily census of five or fewer. Twenty-six hospitals had an average daily census of three or fewer.<sup>55</sup> More than one-third of rural hospitals across the state depend on Medicare for more than 50 percent of their revenue. With the changes taking place in the health care marketplace, implementation of the Balanced Budget Act of 1997 (BBA), and the increased emphasis on cost containment, Minnesota’s small rural hospitals face many challenges.

**Table 3  
Hospital Utilization**

	Number	Number Beds	Patient Days	ADC*	Admissions	ALOS *	ER Visits	Swing Bed Days
Rural Hospitals*	94	4,330	407,477	1,116	113,265	3.223	327,392	30,789
Urban Hospitals*	45	12,261	1.98 million	5,411	419,369	5.77	914,725	6,460
<b>TOTAL</b>		<b>16,591</b>	<b>2.38 million</b>		<b>532,634</b>		<b>1.24 million</b>	<b>37,249</b>

\* Hospital figures do not include data from Veterans Services Hospitals or Indian Health Services, ADC indicates Average Daily Census, ALOS indicates Average Length of Stay; “rural” here is defined as those hospitals not located in a Metropolitan Statistical Area (MSA), including Trinity Hospital in Farmington.

Source: HCCIS, 1999 preliminary data set.

Eight hospitals in the state, three of which are in rural areas, do not have emergency departments. Eighteen rural hospitals do not have swing bed programs, compared to one of the urban hospitals.<sup>56</sup>

In the late 1980s, rural hospitals began a strategy of health services diversification in the belief that the provision of a broader array of services would allow for more efficient use of facilities and staff, would produce new revenue streams to the hospital, and would have the potential to improve access to care for rural residents. In the past, many rural hospitals provided nursing home services in combined or adjacent facilities. From 1987 to 1996 rural hospitals across the U.S. increasingly began to provide home health care services, hospice services, and other non-traditional services.<sup>57</sup> The trend for co-location of health care services in shared facilities is reflected in some of the communities identified on Maps 12, 13, and 14.

<sup>55</sup> Minnesota Department of Health. Health Care Cost Information System. Preliminary Data Set. 1999.

<sup>56</sup> Under certain conditions and when strict federal and state rules and regulations are followed, under the Swing Bed Program hospitals can receive permission to provide extended care services to a patient after hospitalization while the patient waits to be admitted to a nursing home or is otherwise discharged. The specifics of the swing bed program can be found in Minnesota Statutes, 2001 144.562, Subd.3 and 256B.0625, Subd. 2.

<sup>57</sup> Minnesota Department of Health, Office of Rural Health and Primary Care. “The Impact of the Balanced Budget Act of 1997 and the Balanced Budget Refinement Act of 1999 on Rural Health Providers in Minnesota.” January 2001.

In 1998, approximately 45 percent of hospitals located in Greater Minnesota operated both a hospital-based skilled nursing facility and hospital-based home health agency compared to urban hospitals with 22 percent. Forty-two percent of urban hospitals had neither a hospital-based skilled nursing facility nor a home health agency. Twenty five percent of hospitals in Greater Minnesota have not expanded or diversified into other services.

### **Hospital Issues**

The senior population is growing to be a larger proportion of the population in rural and urban areas at the same time that the total number of people is declining in many rural areas of the state. Hospitals rely on certain economies of scale in order to be efficient and remain viable. As economies of scale are no longer realized in certain parts of the state, hospitals will either have to downsize, merge, close, or receive greater reimbursement from the communities they serve, the state, and/or the federal government.

In some areas of the state, it appears that future hospital closures would not cause severe access issues, while in others access could be a major problem. In determining this, there are several factors to consider: acceptable travel times for the population, weather and road conditions, demographic needs/changes, and seasonal variability/tourism.

Historically, the Rural Health Advisory Committee has used 21 miles or greater to the next nearest hospital or no hospitals in the county as measurement for access issues. If this measurement is used, as shown in Map 10, there are several areas of the state that do not have geographic access to hospital care. Those places are: Fillmore County (no hospital) and parts of Mower County, in the southeast; portions of Otter Tail and Becker Counties and Clay County, in the west; parts of Wadena, Aitkin, and Crow Wing Counties and most of Cass County, all in the central part of the state; parts of Carlton and St. Louis Counties as well as most of Lake and Cook Counties, in the northeast; and parts of Kittson, Marshall, Roseau, Pennington, Red Lake, Polk, Clearwater, Lake of the Woods, Itasca, Koochiching, and Beltrami Counties in the north. It is clear that access to hospital care is much more limited in the northern part of the state.

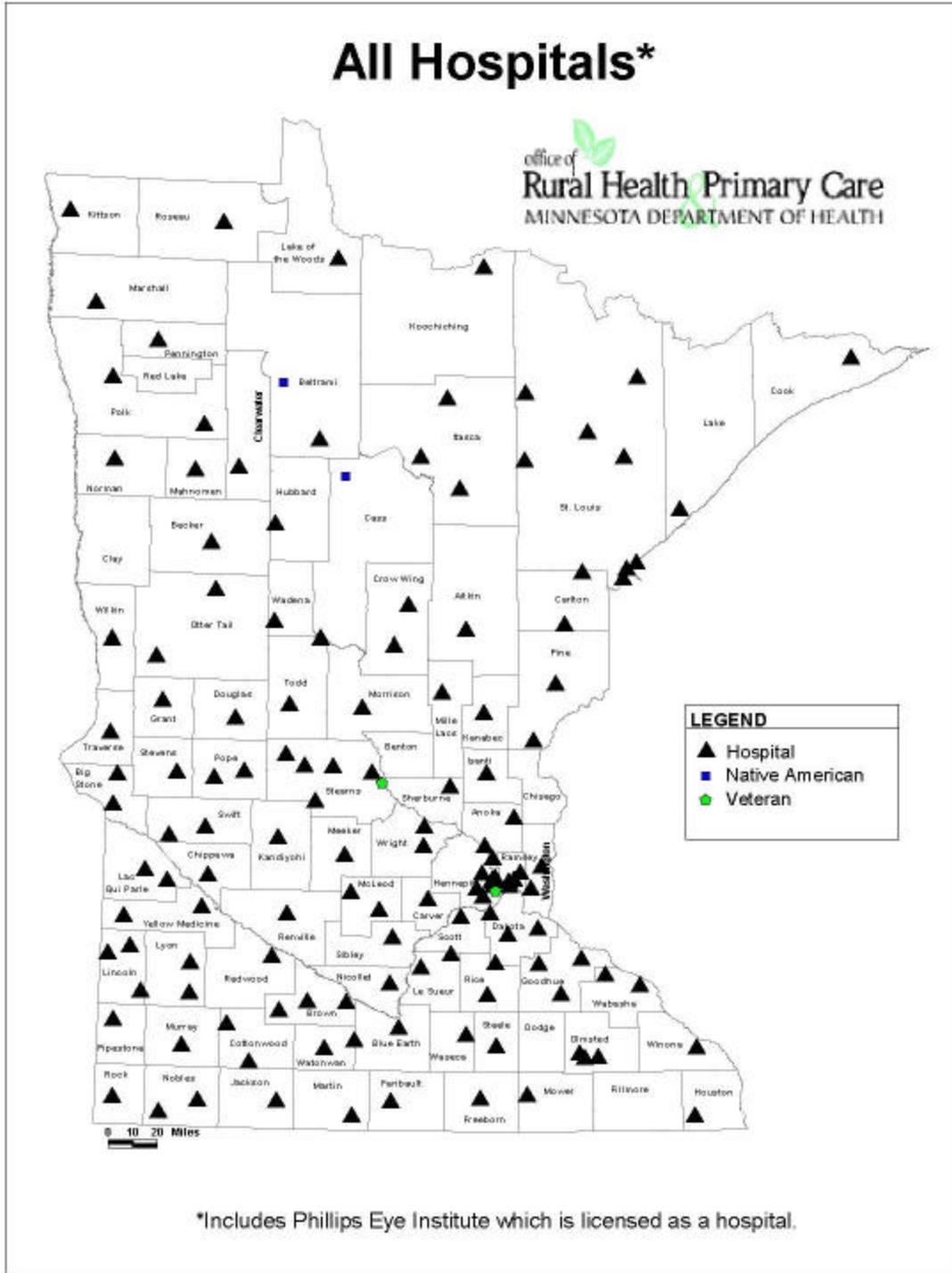
Hospitals in rural areas frequently anchor other health facilities. Should a rural hospital close, other providers connected to the facility may also close. The closure of multiple health facilities in rural communities could cause additional stress to the health care safety net. Maps 11, 12, 13 and 14 show communities with a combination of service types. Many of these are hospitals with attached nursing homes, home health, assisted living or a combination of these services and any hospital closure could also result in the closure of the other services co-located in the hospital facility.

### **Hospital Data**

Data for this section were derived from the Facility Licensing Survey Data Base, administered by the Facility and Provider Compliance Division, Minnesota Department of Health; the Health Care Cost Information System (HCCIS), administered by the Health Policy and Systems Compliance Division, MDH; the Rural Health Advisory Committee's report on the "Implications of the Balanced Budget Act on Rural Minnesota;" telephone calls conducted by the Office of Rural Health and Primary Care; and from the Minnesota Hospital and Healthcare Partnership

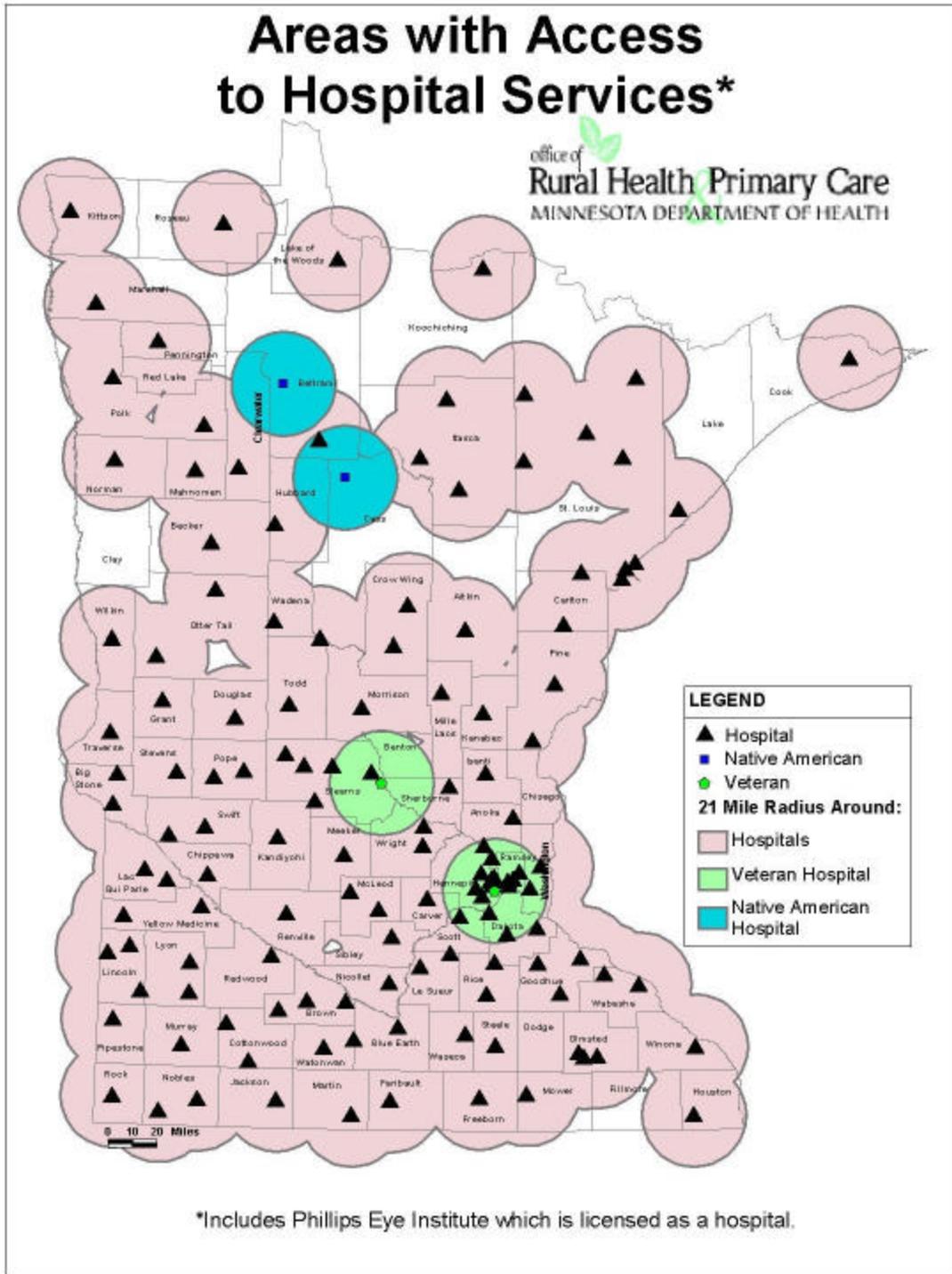
(MHHP). All state licensed hospitals except those that serve special populations, such as children or people with mental illness, are included in the data.

## Map 9



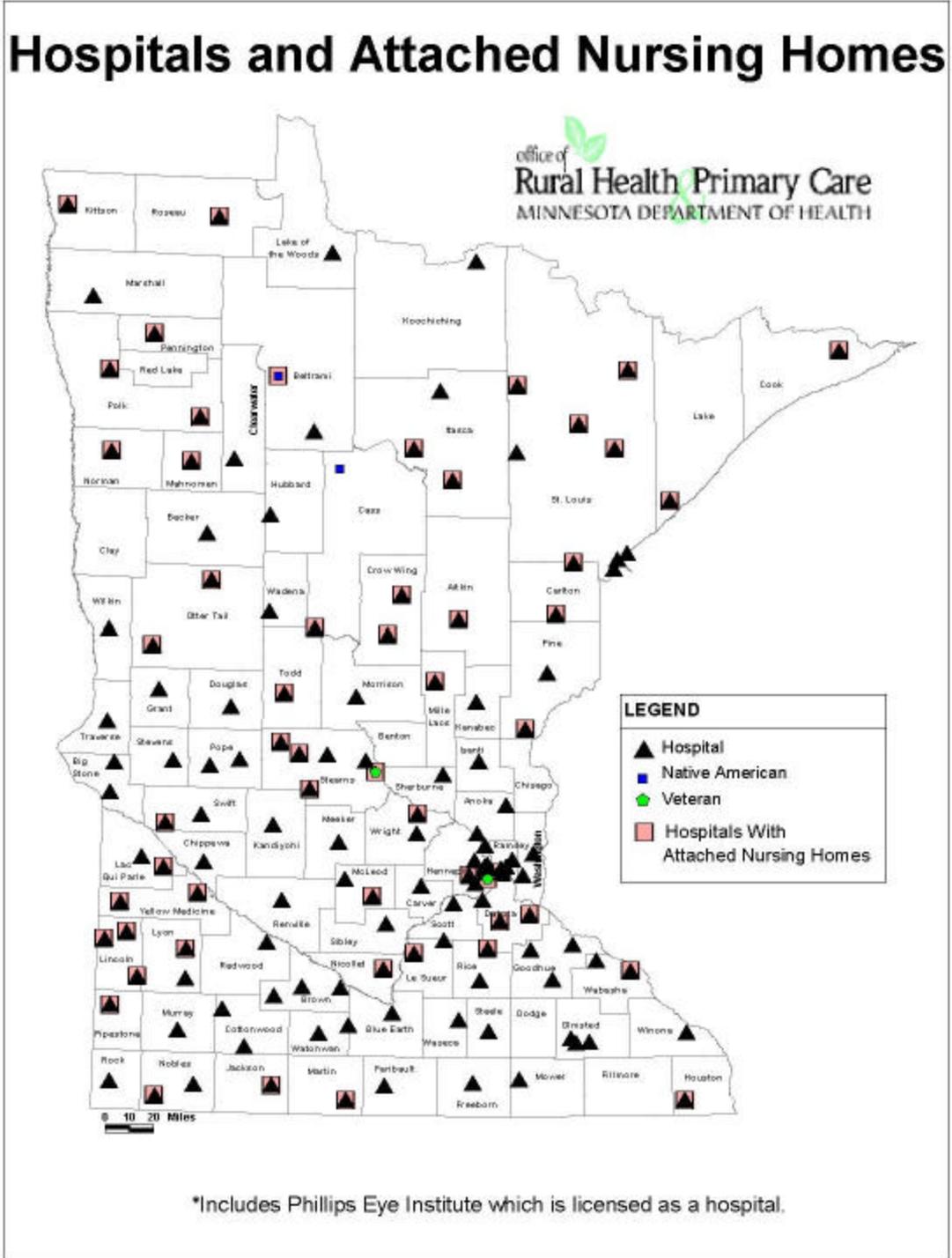
**Data Sources:** MN Department of Health, Facility and Provider Compliance, 2000; MN Veteran's Hospitals -St. Cloud and Minneapolis, 2000; Cass Lake Hospital and Public Health Service Indian Hospital-Red Lake, 2000.

Map 10



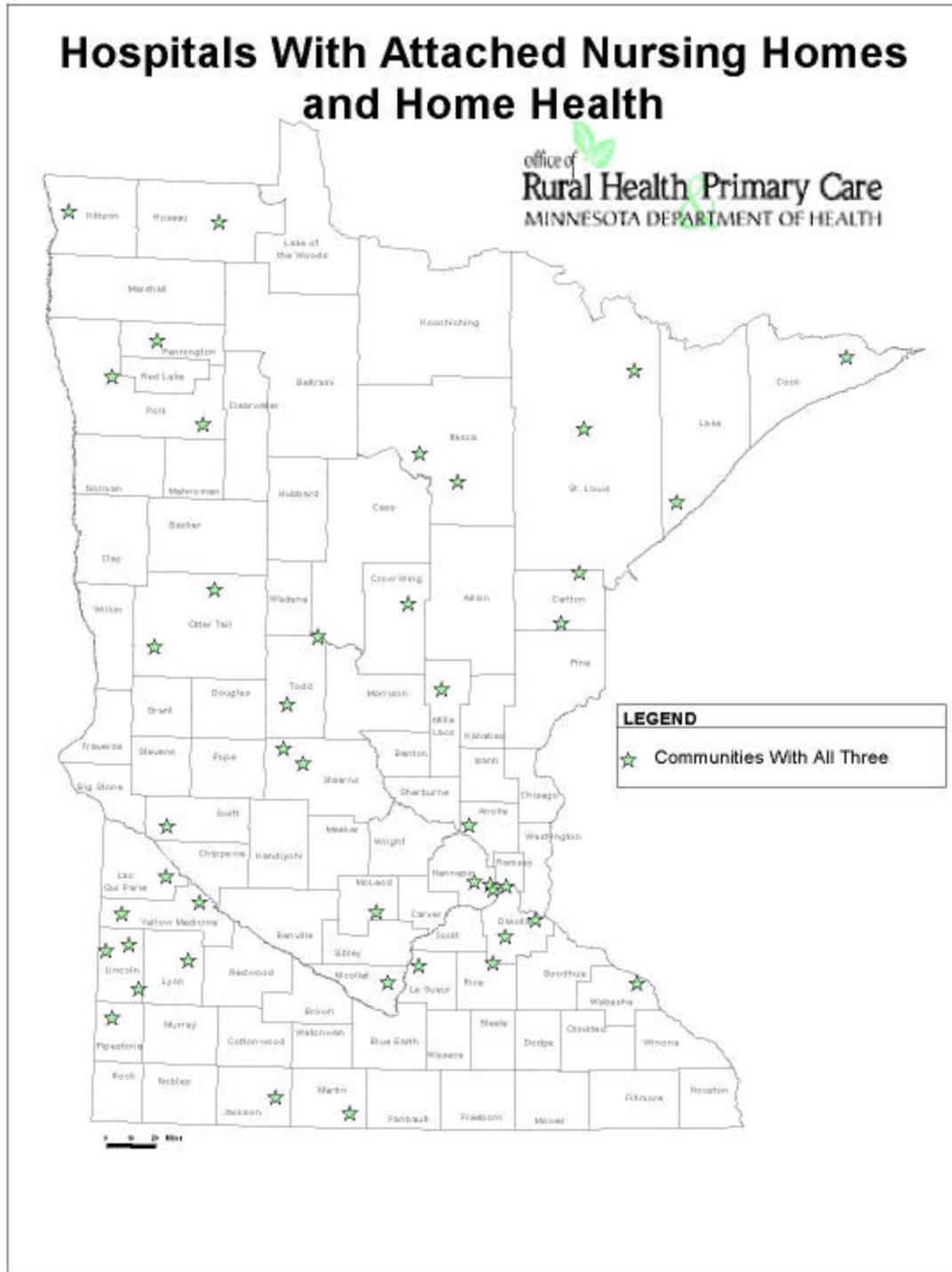
**Data Sources:** MN Department of Health, Facility and Provider Compliance, 2000; MN Veteran's Hospitals - St. Cloud and Minneapolis, 2000; Cass Lake Hospital and Public Health Service Indian Hospital - Red Lake, 2000.

Map 11



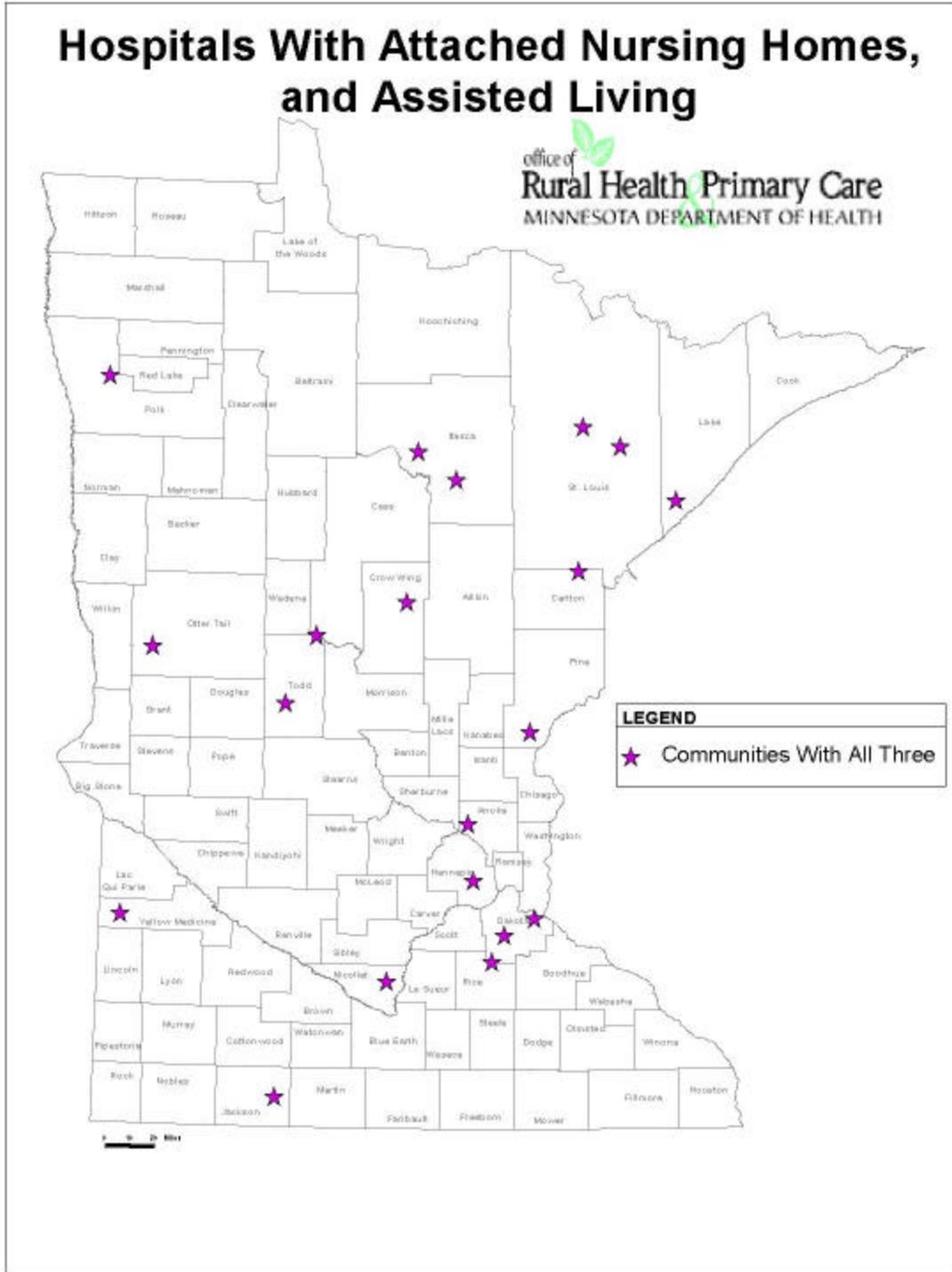
**Data Sources:** MN Department of Health, Facility and Provider Compliance, 2000; MN Veteran’s Hospitals -St. Cloud and Minneapolis, 2000; Cass Lake Hospital and Public Health Service Indian Hospital-Red Lake, 2000.

Map 12



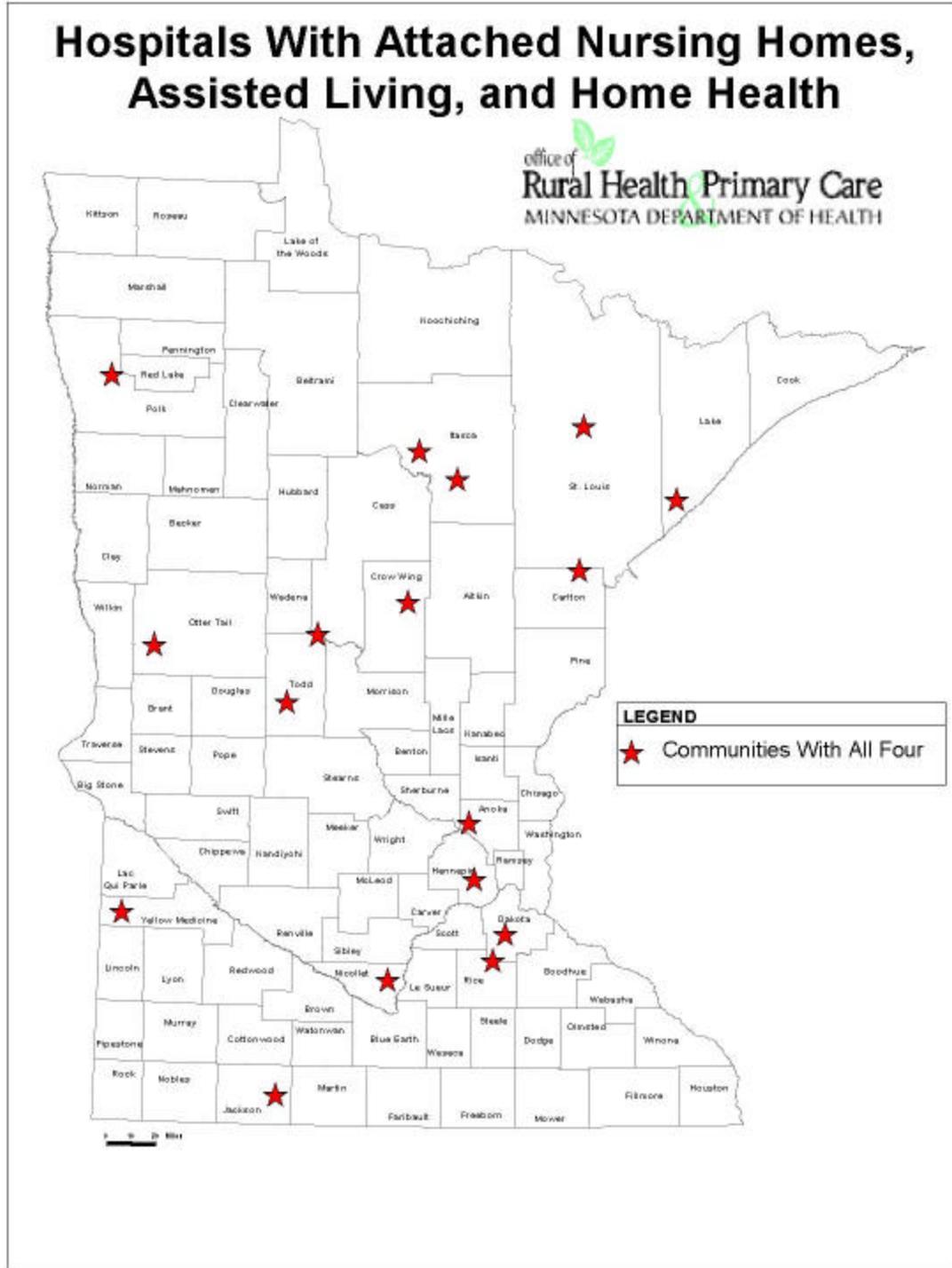
**Data Source: MN Department of Health, Facility and Provider Compliance, 2000; MN Veteran’s Hospitals-St. Cloud and Minneapolis, 2000; Cass Lake Hospital and Public Health Service Indian Hospital-Red Lake, 2000; MN Homecare Association directory 1998-99 and website, 2000; Office of Rural Health and Primary Care phone survey, 2000.**

Map 13



Data Source: MN Department of Health, Facility and Provider compliance, 2000; MN Veteran’s Hospitals-St. Cloud and Minneapolis, 2000; Cass Lake Hospital and Public Health Service Indian Hospital-Red Lake, 2000.

## Map 14



Data Source: MN Department of Health, Facility and Provider Compliance, 2000; MN Veteran's Hospitals-St. Cloud and Minneapolis, 2000; Cass Lake Hospital and Public Health Service Indian Hospital-Red Lake, 2000; MN Homecare Association directory 1998-99 and website, 2000; Office of Rural Health and Primary Care phone survey, 2000.

## SECTION II: EMERGENCY MEDICAL SERVICES

### Background

Minnesota's Emergency Medical Services (EMS) system has state, regional, and local components. Local EMS systems are comprised of first responder units, licensed ambulance services, dispatchers, and hospital emergency medical departments. People who are trained as first responders, emergency medical technicians, paramedics, registered nurses, and physicians staff emergency medical services. The Emergency Medical Services Regulatory Board (EMSRB) is the regulatory agency for EMS activities in Minnesota. The EMSRB, in partnership with other state agencies, including the Minnesota Departments of Health, Human Services, Public Safety, Transportation, and Administration, coordinates statewide EMS functions.<sup>58</sup>

Eight regional EMS entities integrate and collaborate to work on programs and projects with the EMSRB and throughout their respective regions with local government, public and private agencies, EMS providers, and the general public. Coordination occurs in key areas, including: communications, data collection, EMS for children, personnel training, and public safety involvement including disaster drill planning activities.<sup>59</sup>

Minnesota has 911 emergency telephone services available in all 87 counties, covering 99.9 percent of all the people in the state. There are 255 licensed transporting ambulance services in Minnesota (see Map 15), holding more than 300 ambulance licenses, with 816 vehicles.<sup>60</sup> Approximately 60 percent of the 33,000 ambulance personnel are volunteers.<sup>61</sup> The vast majority of these volunteer personnel serve in rural areas. Each ambulance service has a designated primary service area (PSA) in which it provides a minimum of basic life support or advanced life support. A few PSAs also provide critical care services when needed. As shown in Map 15, the service areas of ambulance providers in southern Minnesota are significantly smaller than those in the northern part of the state.

Currently, there are eleven air medical services covering the state; however, the utilization patterns are not clearly defined.<sup>62</sup> Although helicopter and fixed wing air medical transportation is available throughout the state, some remote areas in northwestern and northeastern Minnesota have response times of up to sixty minutes.<sup>63</sup> Further, bad weather curtails or stops air ambulance service much more often than it does ground ambulance service.

### EMS Issues

The federal Balanced Budget Act of 1997 (BBA) is anticipated to negatively affect reimbursement for Minnesota ambulance services. The Medicare ambulance fee schedule, when implemented, is expected to impact all aspects of ambulance operations. Some estimates suggest that EMS reimbursement may decrease as much as 50 percent statewide (\$37 million - \$104

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<sup>58</sup> Minnesota Emergency Medical Services Regulatory Board. Emergency Medical Services State Plan. Adopted: 12 August 1998.

<sup>59</sup> Ibid.

<sup>60</sup> Minnesota Emergency Medical Services Regulatory Board, 2001.

<sup>61</sup> Ibid.

<sup>62</sup> Ibid.

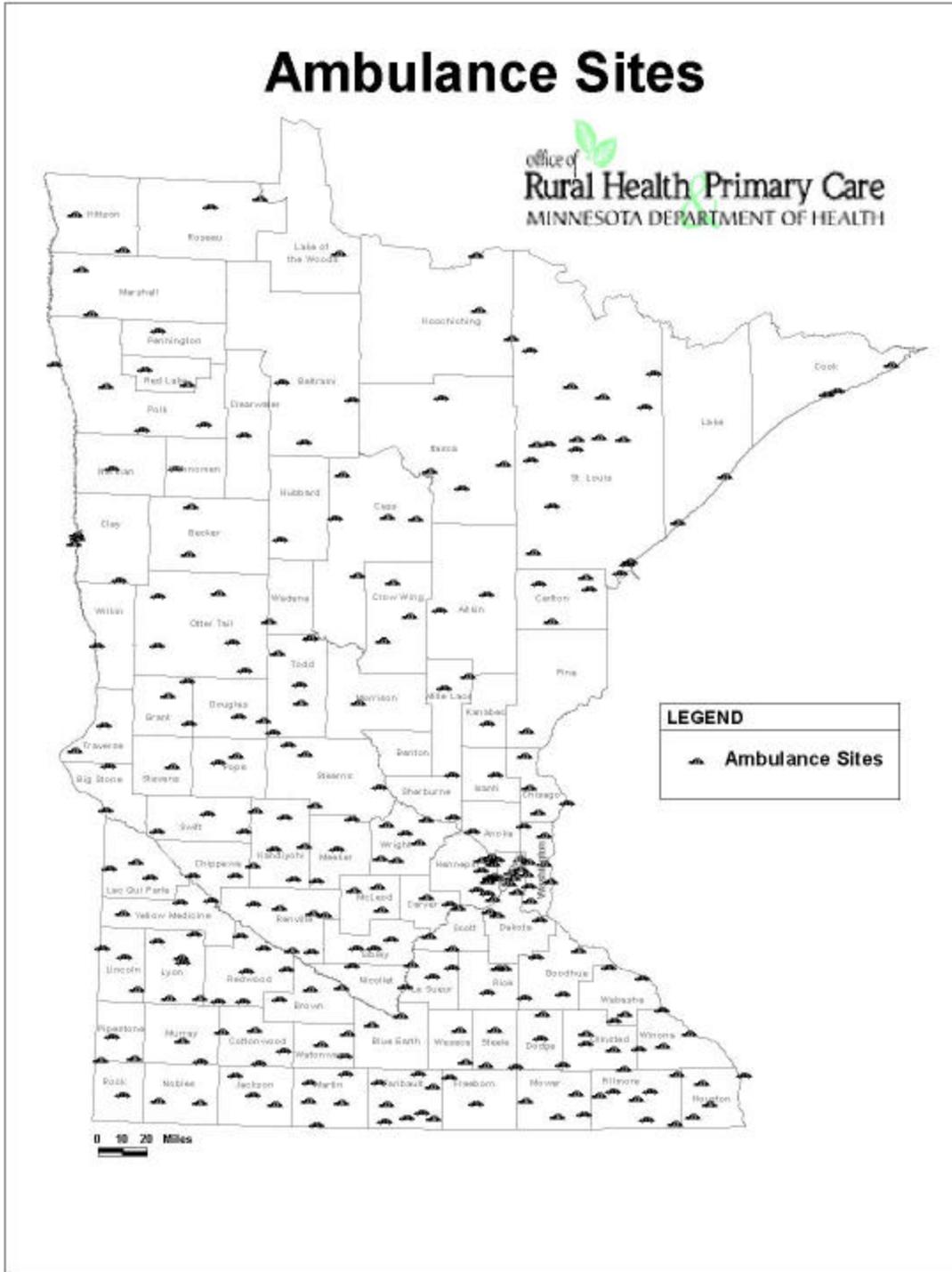
<sup>63</sup> Ibid.

million loss). Lack of sufficient revenue to support EMS services may result in a decrease in the number of providers, larger service areas for providers, and/or increased response times. Recruitment and retention of EMS volunteers is also a growing concern throughout rural Minnesota. Workforce issues make it increasingly difficult to maintain fully staffed ambulance services in some rural communities. These difficulties are particularly acute during daytime hours as more residents are employed, working further from home, or are not free to leave their work day as needed.

### **EMS Data**

The EMSRB licenses all ambulance services based in Minnesota, on a biennial basis. Information collected in the licensing process is the basis of the EMS licensure database. Map 15 shows the location of ambulance services based in Minnesota.

Map 15



Data Source: Emergency Medical Services Regulatory Board and EMSRB website, 2001.

## SECTION III: NURSING HOMES

The words “nursing home” mean different things to different people. In this report, nursing home refers to 24-hour skilled nursing care in an institutional setting.

### Background

There are 423 nursing homes in Minnesota. Map 16 is a graphic presentation of nursing homes indicating larger concentration of facilities in urban areas as well as the southern and western parts of the state. The locations of nursing homes are fairly consistent with the population needs as indicated in Map 3. The largest nursing home, located in New Hope, has 559 beds compared to the smallest, located in Fosston, with 15 beds. In total, there are 41,688 nursing home beds in Minnesota, and 18,433 of them are in Greater Minnesota.

Nursing homes offer skilled nursing care and a variety of personal and social services. Minnesota differs from the national nursing home picture in several ways. Table 4 shows the average number of nursing home residents per facility, as well as the full time equivalent registered nurses (RN), licensed practical nurses (LPN), and certified nursing assistants (CNA) serving the residents.

**Table 4**  
**Nursing Home Characteristics**  
**U.S.A. and Minnesota**  
(Number per facility)

	<b>Residents</b>	<b>RN</b>	<b>LPN</b>	<b>CNA</b>
United States Average	80	15	15	46
Minnesota Average	89	9	11	36

While nursing homes in Minnesota have a higher average number of residents, when it comes to staffing, Minnesota lags the national staffing ratio in the number of registered nurses, licensed practical nurses and certified nursing assistants.<sup>64</sup>

The average number of nursing home survey licensing deficiencies is often used as one measure of quality. Medicare and/or Medicaid certified nursing homes must be surveyed at no more than 15 month intervals. Using this measure, Minnesota has demonstrated a record of quality of nursing home care as compared to the nation as a whole. Nationally, on average, nursing homes have five health deficiencies per survey. In Minnesota, the range is 0 to 31 deficiencies per facility, with an average of four per survey.

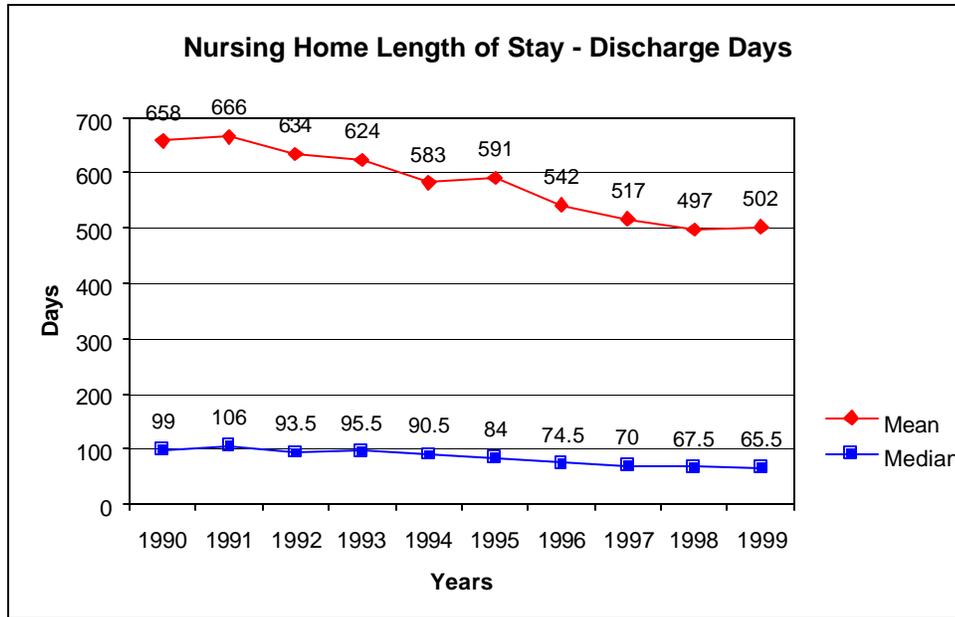
For many older people needing 24-hour, skilled nursing care and assistance with daily living, nursing homes become home. Lengths of nursing home stays vary between a few days to years. As shown in Figure 8, the average length of nursing home stays has been declining during the past eight to nine years. This would indicate that people receiving care in a nursing home are

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<sup>64</sup>< <http://www.medicare.gov/NHCompare/Search/AboutStaff.asp>>.

more likely to be there for short-term rehabilitation or are entering the nursing home at a later point in life.

**Figure 8**



Source: MDH, Facility & Provider Compliance Division 07/00

The trend toward shorter lengths of stay impacts nursing home occupancy.<sup>65</sup> On average, nursing homes must admit more than two times more residents to maintain occupancy levels<sup>66</sup>. Shorter lengths of stay, combined with declining nursing home occupancy and bed utilization, declining disability rates and increasing preference for home and community alternatives to nursing home care contribute to a stable demand for nursing home beds, despite an increasing senior population and a decrease in the number of nursing home beds statewide.<sup>67</sup>

Nursing home costs are paid through patients’ personal resources or through public dollars (See Section III: Financing Senior Health Services). Personal sources might include funds from ongoing income, such as pensions or social security, from family contributions, or from long-term care insurance payments. Public funding most often comes from programs such as Medicaid or Medicare payments.

*Across the States, Profiles of Long-Term Care Systems* is published biannually by the American Association of Retired Persons’ (AARP) Public Policy Institute. *Across the States* is a compilation of indicators that reflect aspects of nursing home utilization nationally and by each state. The publication also compares indicators among states and each state to the nation. Using

<sup>65</sup> It should be noted that the mean length of stay is quite a bit longer than the median length due to the effect of residents who were admitted to the nursing home before many community alternatives were available. These long stays skew the mean toward the high end. Length is computed at the end of a person’s stay.

<sup>66</sup> Minnesota Department of Human Services, Continuing Care for the Elderly and Minnesota Department of Health, Facility and Provider Compliance. “The 1999 Distribution of Nursing Home Beds in Minnesota.” January 2000. p. 16.

<sup>67</sup> *Ibid*, p. 23.

1996 data, the most current available, Tables 5 and 6 compare information about Minnesota nursing home care with national data.

**Table 5**  
**Nursing Home Residents**  
**Minnesota and United States**

Indicator	Minnesota	U.S.
Nursing home residents (1996)                      Total Number	41,707	1,479,653
	Percentage Change 1995-1996	-0.2%
Percentage of nursing home population age 65+ (1990)	92.4%	89.8%
Nursing home residents per 1,000 65+ population (1996)	72.2	43.7
Total Medicaid nursing home recipients (1996)	26,765	1,009,640
Medicaid nursing facility recipients per 1,000 recipients (1996)	58.8	28.6
Medicare SNF admissions per 1,000 beneficiaries (1995)	72	47
Source: <i>Across the States, Profiles of Long-Term Care Systems</i> – AARP’s Public Policy Institute <sup>68</sup>		

As shown in Table 5, Minnesota had 72 skilled nursing home admissions per 1,000 Medicare beneficiaries compared with the average of 47 admissions in the U.S. Minnesota had the highest ratio of admissions to beneficiaries of all the states. Hawaii had the lowest with a ratio of 17 to 1,000. Although Minnesota has the highest utilization rate of nursing facility beds in the nation,<sup>69</sup> it is believed that older people in Minnesota prefer to receive services in their homes.<sup>70</sup> While utilization rates are not reflecting identified consumer preference at the present time, it is possible that this will change with the addition of more home and community-based service and residential alternatives. In addition, Table 6 shows that Minnesota has almost twice as many Alzheimer’s disease beds as the national average. This may account for some of the high utilization, as facilities have adapted to meet the needs of Alzheimer’s patients (See Part Two, Section IV).

As shown in Table 6, Minnesota has a higher number of nursing home beds per 1,000 people 65 and over, as well as a higher occupancy rate than the national average. These figures do not show nursing home utilization on a local and regional basis.

<sup>68</sup> Graves, Natalie; Bectel, Robert. American Association of Retired Persons. *Across the States 1998: Profiles of Long-Term Care Systems, Third Edition*. 1998 <<http://research.aarp.org/health>>.

<sup>69</sup> Per 1,000 people age 65 and over.

<sup>70</sup> Minnesota Department of Human Services, Aging Initiative. “Policy Considerations for Nursing Facilities: A Report to the Minnesota Legislature.” February 2000.

<<http://www.dhs.state.mn.us/agingint/services/ccereport.htm>>.

**Table 6**  
**Nursing Home Facilities**  
**Minnesota and United States**

Indicator (2000)	Minnesota	U.S.
Certified nursing facilities	423	16,706
Number of beds in certified nursing facilities	41,688	1,780,772
Number of nursing facility beds dedicated to Alzheimer's	3,240	64,466
Percent change in certified nursing facility beds (1995-1996)	-0.8	-5.4
Nursing home beds per 1,000 65+ population	77.2	49.1
Occupancy rates in nursing homes	96.0	89.9
Source: <i>Across the States, Profiles of Long-Term Care Systems</i> – AARP's Public Policy Institute <sup>71</sup>		

Given the changing preferences of consumers of long-term care, efforts have been directed toward decreasing the state's reliance on nursing homes. The focus has been on increasing community-based alternatives. The Department of Human Services (DHS) has taken the lead in making this change. It suggests that an array of factors are changing the marketplace for nursing homes, including:

- Declining demand for nursing home services
- Financial constraints
- Staff shortages
- Increased paperwork
- Rate unpredictability<sup>72</sup>

Nursing homes are adapting to this changing marketplace for services by:

- Providing specialty or rehabilitation services
- Diversifying to offer community-based services
- Downsizing and offering more private rooms<sup>73</sup>

While many nursing homes have been able to adapt to a changing marketplace, other facilities are struggling. Patterns of adaptations demonstrate the emergence of three residential long-term care models:<sup>74</sup>

1. Sub-acute care and short term rehabilitation specialty
2. Long term custodial model
3. Community integrated services model (housing with services)

As nursing homes respond to the changing expectations of current and future elderly populations, new models of care will be identified and will shape the long-term care system of the future. One example of a model that has emerged recently in Minnesota is the Eden Alternative. Minnesota facilities that have chosen this strategy include Northern Itasca Health Care Center

<sup>71</sup> Graves, Natalie; Bectel, Robert. American Association of Retired Persons. *Across the States 1998: Profiles of Long-Term Care Systems, Third Edition*. 1998. <<http://research.aarp.org/health>>.

<sup>72</sup> Minnesota Department of Human Services, Aging Initiative. "Policy Considerations for Nursing Facilities: A Report to the Minnesota Legislature." February 2000.

<<http://www.dhs.state.mn.us/agingint/services/ccereport.htm>>.

<sup>73</sup>Ibid.

<sup>74</sup>Ibid.

located in Big Fork and LakeWood Health Center in Baudette. Part of the Eden Alternative model is explained in Northern Itasca's vision statement. They are committed to creating an environment that is, "homelike, with the variety and spontaneity of a human habitat and will support those who receive care and those who give care by promoting close and continuous contact with pets, plants, animals, and the community to reduce the negative impact of loneliness, helplessness and boredom on the quality of life of those who live, work and visit within our facility".<sup>75</sup> Facilities employing this model have made dining areas smaller, with music and added menu choices; started pet programs; created volunteer programs for young adults from local schools; and redecorated to make the settings reflect that this is home for the people who live there. The kinds of changes that facilities are making are reflective of transitions in nursing homes around the state as expectations of residents change.

### **Nursing Home Issues**

Major issues facing nursing homes include changing consumer expectations, reimbursement, increasing complexity of patient care, and the healthcare workforce shortage. A factor contributing to the workforce shortage is the low rate of pay for nursing home employees.

Seniors and their network of friends and family have different health care expectations than previous generations. The desire to "age in place" is one of the primary differences. When services are needed, older people want to have a private room and bath rather than the shared room and bath traditionally found in nursing homes. The existing nursing home infrastructure may not have what local seniors want and/or are willing and able to pay for.

Also, although research points to consumers' desires to age in place and more specifically to remain in their homes, occupancy rates in Minnesota's nursing homes continue to be significantly higher than the national average. This may be a reflection of a variety of factors, including: the unique preferences of Minnesota's seniors, consumer familiarity with the nursing home model versus other options, lack of certain health service choices in some parts of the state, referral patterns within the health system, or others.

Competition for health care workers is affecting the recruitment and retention of qualified nursing home staff. Without the staff to do work, beds stand empty, nursing homes develop waiting lists, and backlogs are created in hospitals. The workforce shortage translates to both lengthy waiting lists and higher health care costs.

Reimbursement issues will continue to change the distribution of nursing homes around the state. Facilities must continuously balance financial and staff issues. These issues threaten the existence of some facilities. In addition, reimbursement issues limit facilities' ability to modernize, respond to consumer preferences, and anticipate and react to market forces.

Map 16 shows the distribution of nursing homes in Minnesota and Map 17 shows the number of beds for each facility. Closures of nursing homes could present access issues in certain parts of the state. Area Agency on Aging Region 2, a large multi-county area located in northern Minnesota, has only nine nursing homes. Only two of Region 2's nursing homes have 100 or

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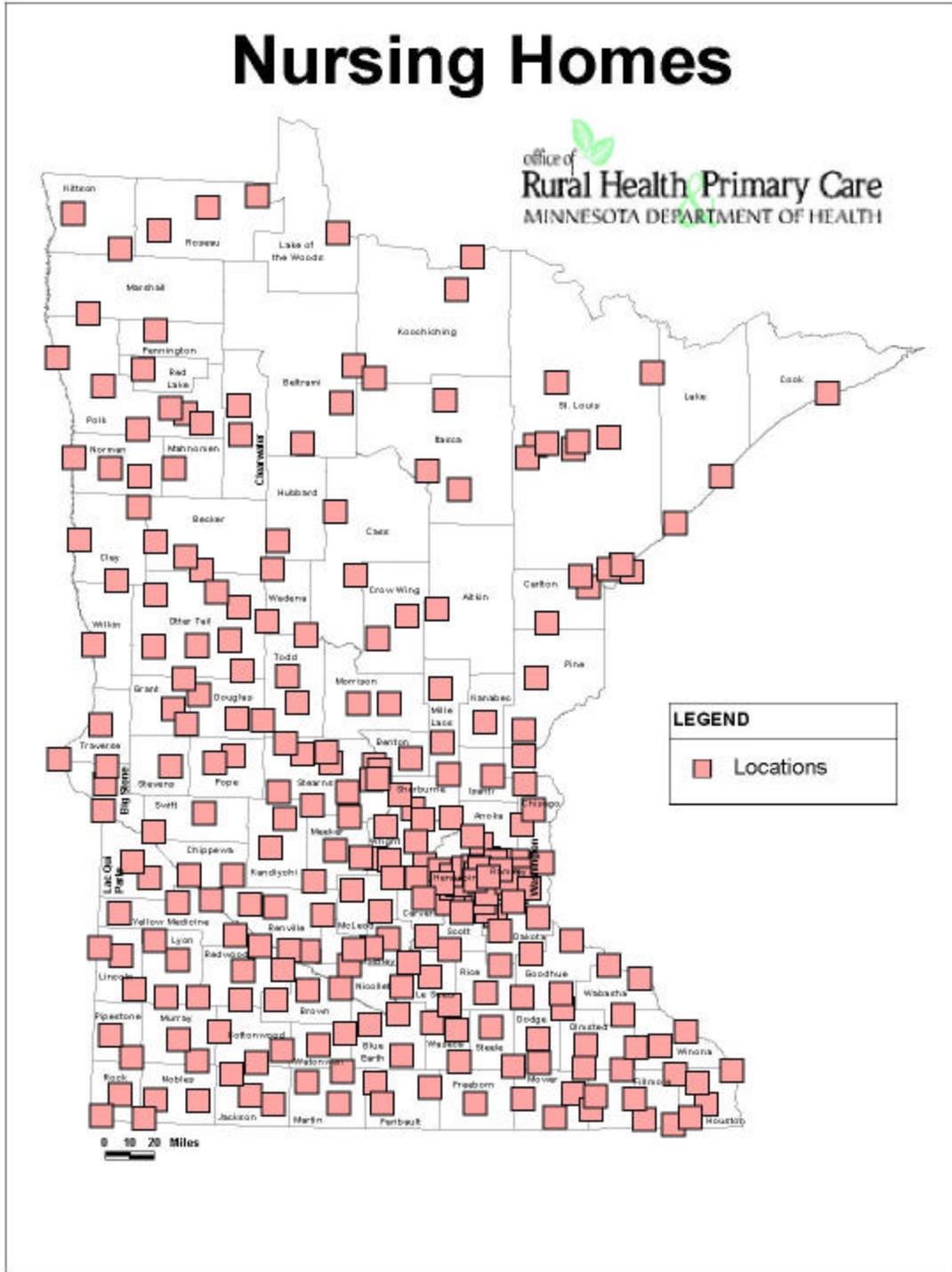
<sup>75</sup> Eden Alternative. <<http://www.edenalt.com>>. 1 June 2001.

more beds. These facilities are already quite a distance apart, and closures in this area would leave large travel distances for families and friends of residents. Similarly, Region 5, in central Minnesota, has fewer than 15 nursing homes and similar concerns have been raised about closures here. Finally, Region 1 in northwestern Minnesota, also a large geographic area, has 20 nursing homes serving the entire area. Sixteen of these facilities have fewer than 100 beds, and 5 of these have 50 or fewer beds. There would be a differential impact of nursing home closures depending on the area of Minnesota in which the facilities are located and their service areas.

### **Nursing Home Data**

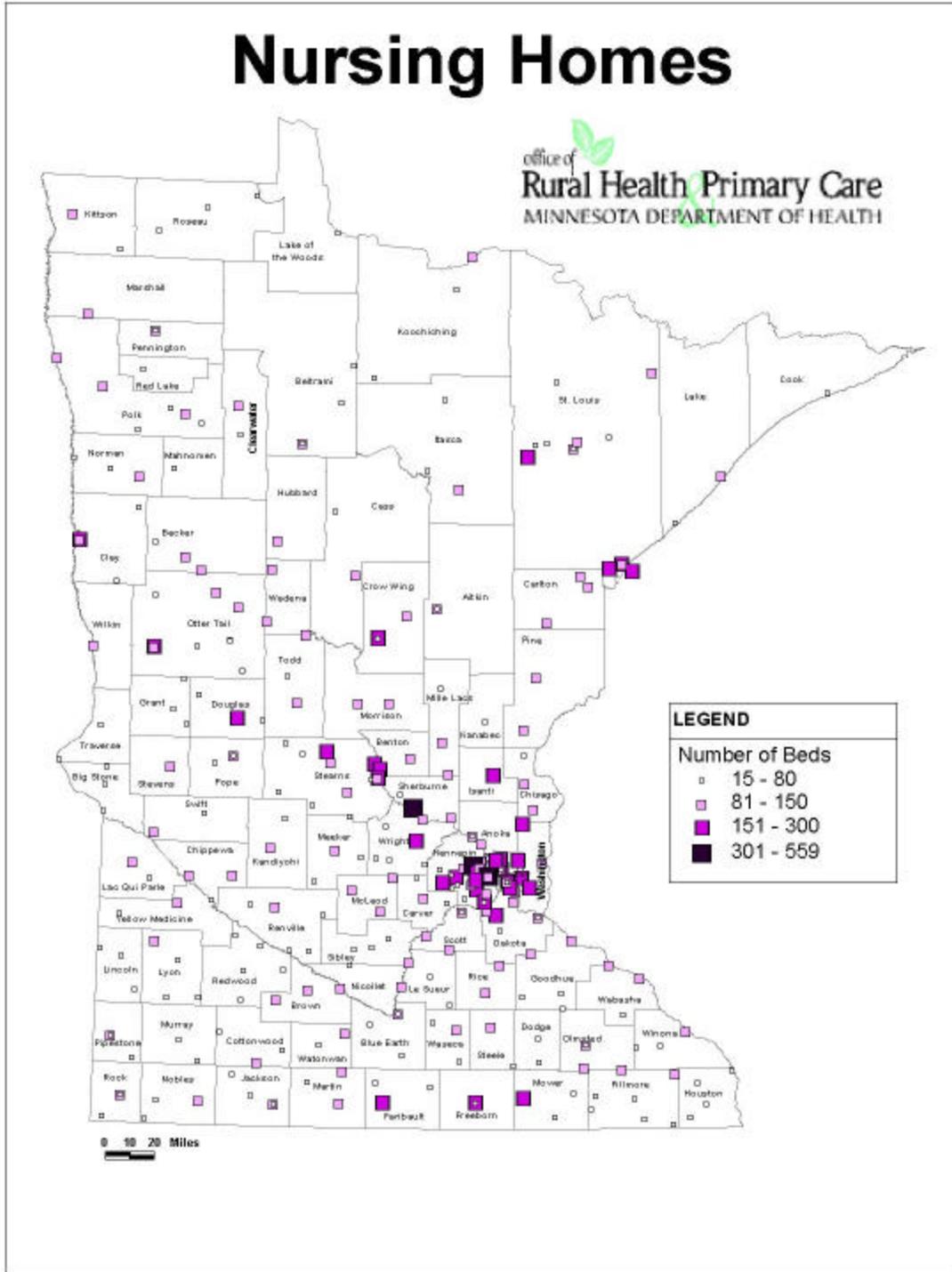
The nursing home data are derived from the Minnesota Department of Health, Facility and Provider Compliance Division's state licensing database. This database includes basic nursing home information. Trend data were taken from the annual report, Licensed, Certified, and Registered Health Care Facilities and Services, and from the Facility and Provider Compliance Division's licensed facility database.

Map 16



Data Source: MN Department of Health, Facility and Provider Compliance, 2000.

Map 17



Data Source: MN Department of Health, Facility and Provider Compliance, 2000.

## SECTION IV: DEMENTIA AND ALZHEIMER'S DISEASE UNITS

Alzheimer's disease and dementia are two common ailments associated with age. People living with dementia or Alzheimer's disease may live in a home or community-based setting, an assisted living facility, or a nursing home. Sometimes, facilities offer unique units or on-site services that directly meet the special needs of people with Alzheimer's disease and dementia.

### Background

The Administration on Aging of the U.S. Department of Health and Human Services reports that Alzheimer's disease, a form of dementia, affects as many as four million Americans.<sup>76</sup> This disorder affects women slightly more often than men and occurs primarily in seniors. The cause is unknown, although genetic links have been identified in some cases. Given our aging population and the cost and infrastructure needs for providing care, Alzheimer's disease will likely be a national health problem

The number seniors living with dementia is unknown. Dementia is a medical, social, and economic problem and these problems will be increasingly significant as the number of seniors increases with the aging of the baby boomers. In addition, as the senior population and life expectancy increase, there will likely be greater need for specialized services that address the specific care needs of people with Alzheimer's disease and dementia.

There are 123 nursing homes statewide that provide Alzheimer's disease and dementia care in specialized units. Within those units, the current capacity is 4080 beds, as shown in Map 18. In Minnesota, some facilities have downsized the number of Alzheimer's disease and dementia beds, while others have added units/wings to accommodate more residents, or to deal with early stage residents. One facility received a waiver to add a unit as large as their existing Alzheimer's disease unit, to provide specialty care to residents who have disruptive behavior, but who do not have an Alzheimer's disease diagnosis. The facility reported that this arrangement improved the atmosphere for both the residents in the new unit and the residents in the general population.

To accommodate the special needs that Alzheimer's disease and dementia create, some facilities have remodeled. Examples of this adaptive remodeling include:

- Elimination of corners where residents might be trapped because they can't remember how to get out,
- Curved walls, circular walkways, and other features to assist the residents,
- Enclosed courtyards just for residents of these units, which are open when weather is not inclement, and
- Mailboxes for residents to check in their outdoor courtyard areas.

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<sup>76</sup> Administration on Aging. "Alzheimer's Disease." 23 February 2001. <<http://www.aoa.gov/factsheets/alz.html>>.

Facilities actively work to maintain the safety of all residents especially those residents who are at high risk of walking away from the facility. Common ways that residents use to walk away from a facility are to leave with others from a secured area or make attempts to learn security codes by standing behind family members or staff as they enter codes into keypads. Facilities continuously work to decrease the potential for residents to walk away.

Many facilities implement innovative programs and activities for Alzheimer's disease and dementia clients. Some of these innovations include touch therapy, aromatherapy, having an aviary, or adding a pet to the program. Facilities also develop special Alzheimer's disease/dementia activities, including baking groups, one-on-one activities, and sing-a-longs.

Consistent staffing on specialized Alzheimer's disease/dementia units is a strategy that many facilities focus resources on. Some facilities use a neighborhood model in which everyone from the housekeeping staff to the cooks, aides, nurses, and others interact with residents on a social level (e.g. coffee time). Many facilities find that the staffing situation in their Alzheimer's disease/dementia units is more stable than in the remainder of their facility. They describe staff on these units as very dedicated to the residents and their work with them. Facilities are least likely to use pool staff in their Alzheimer's disease/dementia units because of the need for consistency with residents.

### **Alzheimer's and Dementia Care Issues**

Geographic access to specialized Alzheimer's disease and dementia care is not consistent throughout the state, as demonstrated in Map 18. Facilities with these care units are usually located in an urban area. There are 36 counties without any services at all.

People with Alzheimer's disease and dementia have special environmental and care needs. Because of these special care needs, the units have lower patient to staff ratios than regular nursing home beds. Care ratios for Alzheimer's disease and dementia units are 1:3 compared to 1:15 for the balance of nursing home beds. Staffing for the units is more stable than the balance of nursing home beds, but it is still an issue. One possible explanation for this more stable staffing is that lower patient to staff ratios in Alzheimer's disease and dementia units lead to greater job satisfaction and ultimately less staff turnover.

The special care needs of people with Alzheimer's disease and dementia drives the need for facilities to be flexible in staffing and in their physical plant. The workforce crisis and financial pressures cripple providers' ability to change and respond to new knowledge about patient needs and desires and the increasing number of people that will need this type of care in the near future.

If life expectancy continues to increase, the number of elderly Minnesotans increases, and a medical treatment to delay or prevent these diseases is not found, there will be a significant increase in the number of elderly with Alzheimer's disease and dementia in the years to come.

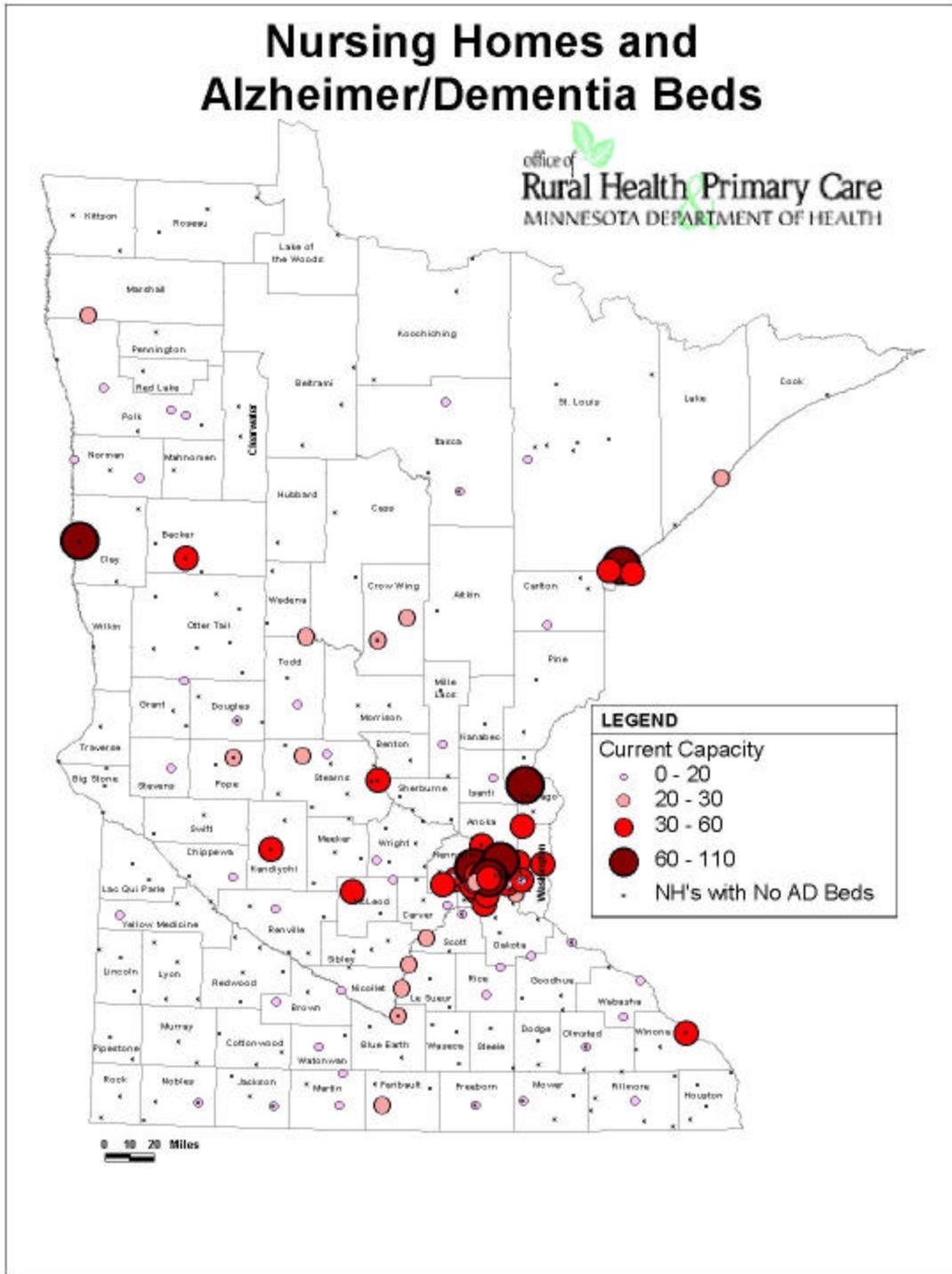
### **Alzheimer's and Dementia Care Data**

The Alzheimer's disease and dementia database includes Alzheimer's disease and dementia care units of nursing homes. Such units located in assisted living or housing with services

establishments are not included. The database was created from a Minnesota Department of Health (MDH) list of facilities compiled from information contained on HCFA 671 forms. Information is voluntarily reported and includes only Medicare/Medicaid certified facilities. The database does not include establishments classified as housing with services and a number of these facilities do provide services to Alzheimer's patients. Facilities on the MDH list were contacted to confirm information. Several facilities indicated an actual number of Alzheimer's or dementia beds that was different from their licensed capacity. Facilities licensed capacity and their current capacity were both included in the database.

To get a more complete picture of nursing home capacity for Alzheimer's disease or dementia care, the MDH list was combined with the list of nursing facilities with Alzheimer's care provided by the Minnesota Alzheimer's Association. Many of these overlapped with the list from the Department of Health, but quite a few additional facilities were listed. Each of the facilities was contacted to get a current description of their program and the number of Alzheimer's disease and/or dementia beds that were available within their facility. Several facilities on that list had closed their Alzheimer's disease/dementia units. The capacity for these sites is recorded in the current capacity data.

Map 18



**Data Sources:** MN Department of Health, Facility and Provider Compliance, 2000; MN Alzheimer's Association, 2000; Office of Rural Health and Primary Care phone survey, 2000.

## SECTION V: HOME HEALTH CARE

Many definitions are used for home health care (home care). Typically, home care encompasses a wide range of health and social services. Generally, care is appropriate whenever a person prefers to stay at home but needs ongoing care that cannot be provided by family and friends. Services are delivered at home to recovering, disabled, chronically or terminally ill persons in need of medical, nursing, social, or therapeutic treatment and/or with the essential activities of daily living. In this report, “home care agency” refers to those agencies that are licensed by the state of Minnesota as professional home health care agencies.

### **Background**

According to 1999 Minnesota Statutes, Section 144A.43, home care services are defined as any of the following services when delivered in a place of residence to a person whose illness, disability, or physical condition creates a need for the service:

- nursing services, including the services of a home health aide;
- personal care services not included under sections 148.171 to 148.285;
- physical therapy;
- speech therapy;
- respiratory therapy;
- occupational therapy;
- nutritional services;
- home management services when provided to a person who is unable to perform these activities due to illness, disability, or physical condition. Home management services included at least two of the following services: housekeeping, meal preparation, and shopping;
- medical social services;
- the provision of medical supplies and equipment when accompanied by the provision of a home care service;
- the provision of a hospice program as specified in section 144A.48; and
- other similar medical services and health-related support services identified by the commissioner in rule.

In addition, “home care provider,” is defined as an individual, organization, association, corporation, unit of government, or other entity that is regularly engaged in the delivery, directly or by contractual arrangement, of home care services for a fee. At least one home care service must be provided directly, although additional home care services may be provided by contractual arrangements.

Home care is for those who need supportive health and daily living assistance in the home environment. It is provided on a short-term or long-term basis. For example, someone recovering from surgery may need assistance for a few weeks. Someone with long term needs, such as those with a disability, a long-term chronic health condition, or terminal illness may obtain care for a period of months, years, or their entire life.

The responsible practitioner and the individual patient mutually complete a needs assessment. This needs assessment determines the level of care and services provided to individuals in their home. Care may be available 24-hours a day, seven days a week. Depending on client needs, services may be provided by a care team or an individual, and on a regular or irregular basis.

Home care costs are paid for with private and public resources. Private resources include patient income or savings, other family member resources, and sometimes, patient long-term care insurance. Home care costs paid with public dollars include county funding through property tax, the Alternative Care and Elderly Waiver Programs, Medicaid and Medicare. Each of these funding sources is defined in Part One, Section III of this report.

Home care providers in Minnesota must be licensed by the state. In addition, federal certification is required for those providers who are serving Medicare clients. Those agencies providing home management services are required to be registered by the State of Minnesota (Minnesota Statutes, section 144A.461).

To provide home health care services a provider must apply for and receive licensure in any of the following:

- **Class A**, or professional home care agency license. Under this license, a provider may provide all home care services in a place of residence, including a residential center, at least one of which is nursing, physical therapy, speech therapy, respiratory therapy, occupational therapy, nutritional services, medical social services, home health aide tasks, or the provision of medical supplies and equipment when accompanied by the provision of a home care service.
- **Class B**, or paraprofessional agency license. Under this license, a provider may perform home care aide tasks and home management tasks, as provided by parts 4668.0110 and 4668.0120.
- **Class C**, or individual paraprofessional license. Under this license, a provider may perform home health aide, home care aide, and home management tasks.
- **Class D**, or hospice program license. Under this license, a provider may provide hospice services, as provided by Minnesota Statutes, section 144A.48.
- **Class E**, or assisted living program license. Under this license, a provider may only provide assisted living services to residents of a residential center.
- **Assisted living home care provider license**. Under this license, a provider may provide assisted living home care services solely for residents of one or more registered housing with services establishments, as provided by Minnesota Statutes, section 144A.4605.

There are 445 professional home health agencies serving Minnesota and 256 of these are Medicare certified. The home care agency offices are shown in Map 19. The map symbols distinguish among office locations by Medicare Certified Offices and Class A Offices. Services are not provided at these locations; rather this is the provider's business location.

Since home care is delivered where the client lives, agency service areas, rather than office locations, better illustrate access to home health care. The service area is the geographic area where the home health agency is serving clients. To depict this, the service area of each Medicare certified home health agency that serves people in Minnesota was outlined in mapping software, including those whose office locations may be in adjoining states but who are licensed to operate in Minnesota. All of these service areas were then overlaid to produce a picture of service coverage of these Medicare certified home health agencies. Map 20 shows the service coverage provided by the various Medicare certified home health agencies serving Minnesota. Only Medicare certified providers were selected because the work group members believed that these providers might face the greatest financial difficulties because of the Balanced Budget Act, licensing requirements and the related Medicare reimbursement changes.

### **Home Care Issues**

As shown in Map 19, not only are there significantly more home health providers in the central, parts of southern, and urban areas of the state, there is also more choice of providers. It appears that all Medicare recipients in the state have access to at least two home health care providers. Although there do not necessarily appear to be any critical geographic access issues in the state, it is essential to match these figures with population data. In addition, given the current workforce crisis in Minnesota, just because there is a home health agency willing to serve clients, it does not necessarily mean the agency has staff available to do the work. And, for current staff, the issues of driving long distances to care for clients in remote or isolated parts of counties can lead to minimal care time, staff burnout and turnover, as well as high costs for mileage.

Another issue is the stability of home health agencies over time. In the course of collecting these data, a number of agencies stopped operating even though they were still current in the licensing database. Issues such as staffing, reimbursement, and regulatory requirements may contribute to some of this instability.

Another consideration for the future is the relationship between nursing home closures or downsizing and the availability of home care agencies (with trained staff) to provide services in these areas. Home care, like most services, requires certain economies of scale to remain financially viable. This is particularly true given the additional driving time in rural areas. Therefore, the infrastructure and community capacity to add caregivers in areas where nursing home closures have taken place must be a consideration.

Minnesota's public health agencies traditionally provided home health care. Local public health agencies acted as the safety net for seniors needing care at home and were able to break even or earn a profit serving in this capacity. As more private entities engaged and competed in this business, many public health agencies stopped or limited their provision of home care services. As a result, many counties, through their public health agencies, are no longer providing home

care. In addition, as the BBA and other reimbursement changes occur, home care is decreasingly becoming a viable business option for providers. Therefore, a certain amount of risk exists in those areas of the state with few home care providers and a limited/diminishing safety net.

It should be noted that the Minnesota Department of Human Services contracts with health plans for the provision of some home care services. Frequently, in the rural areas it is those health plans, under contract with the state, that are responsible for maintaining the local safety net.

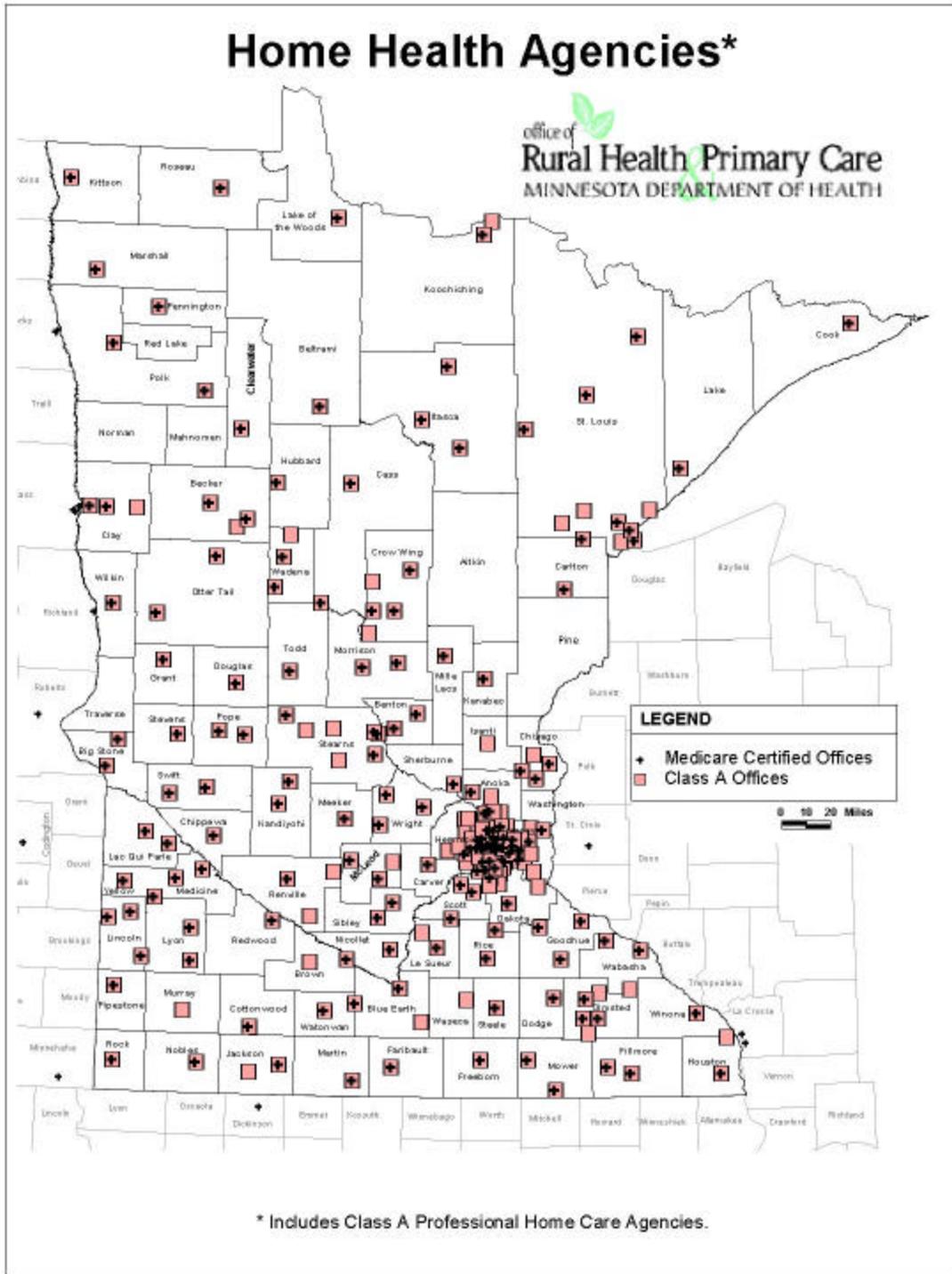
### **Home Care Data**

Data for Maps 19 and 20 were derived from data from three sources, including:

- The Minnesota Department of Health, Facility and Provider Compliance Division, facility licensing survey database,
- Telephone surveys conducted by the Office of Rural Health and Primary Care, and
- The Minnesota Home Care Association Directory and website.

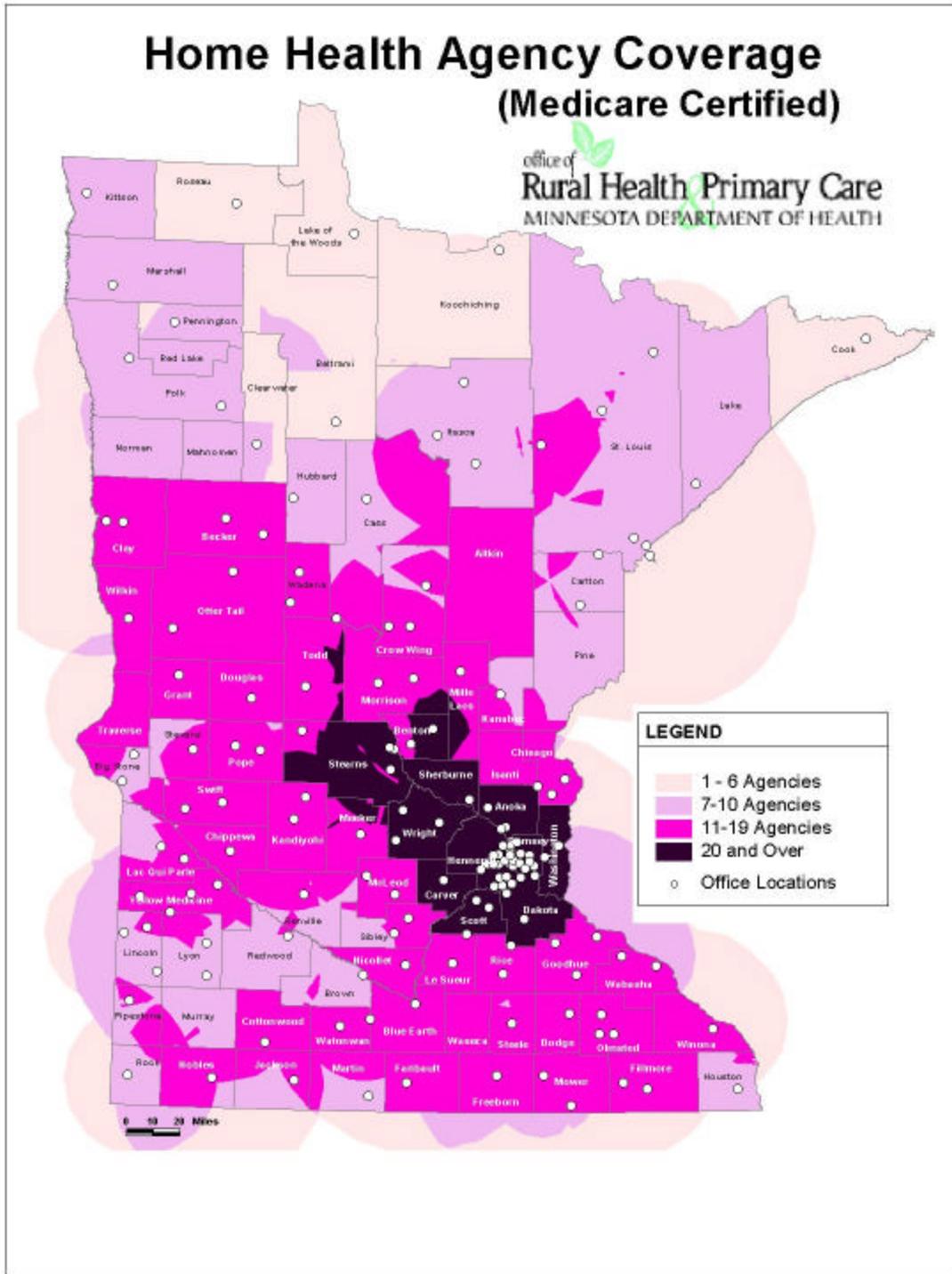
Data include licensed professional home health agencies located in Minnesota and those in neighboring states that provide home care services in parts of Minnesota.

Map 19



**Data Sources:** MN Department of Health, Facility and Provider Compliance, 2000; MN Homecare Association directory 1998-99 and website, 2000; Office of Rural Health and Primary Care phone survey, 2000.

Map 20



**Data Sources:** MN Department of Health, Facility and Provider Compliance, 2000; MN Homecare Association directory 1998-99 and website, 2000; Office of Rural Health and Primary Care phone survey, 2000.

## SECTION VI: ASSISTED LIVING

Assisted living facilities are generally thought of as residences that provide clients with care and supervision in a home-like setting. The Assisted Living Federation of America (ALFA) defines an assisted living residence as “a special combination of housing, personalized supportive services and health care designed to meet the needs – both scheduled and unscheduled - of those who need help with activities of daily living”. Minnesota Rules define assisted living home care service as “a nursing service, delegated nursing service, or other service performed by an unlicensed person, or central storage of medications provided solely for a resident of a housing with services establishment.”<sup>77</sup> The Minnesota Department of Human Services describes assisted living as “a concept, not a place.”<sup>78</sup>

### Background

Assisted living meets the needs of people who require some day-to-day help, but still want to live independently in an apartment or home-like setting. Nationally, more than a million Americans live in an estimated 20,000 assisted living residences.<sup>79</sup>

There is no typical assisted living resident. Residents can be young or old, affluent or low income, frail or disabled. Residents may suffer from Alzheimer’s disease or other memory disorders or may need help with incontinence or mobility.

Just as there is no typical assisted living resident, there is no typical residence. The wide variety of consumer preferences and needs is reflected in the variety of facilities that exist. Assisted living residences range from high-rise apartment complexes to converted Victorian homes, renovated schools, or wings of a nursing home. Residences may be free standing or housed with other residential options, such as independent living or nursing care. Individual units vary in size from one room to full apartments. Both non-profit and for-profit companies operate assisted living residences. Most facilities have between 25 and 120 units. Stephen Menke of Life Designs contends that 25 units is the minimum number of units needed to pay for 24 hour a day services and make the assisted living residence financially viable.<sup>80</sup> Menke suggests that modifying existing nursing home space works and is a desired course of action because, “they are already providing many of the basic services and overhead.”<sup>81</sup> The Arrowhead Area Agency on Aging reports that in their area, the minimum number of units to financially support an assisted living option is 20. Facilities in the Twin Cities metro area report a minimum of 25.

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<sup>77</sup> Minnesota Department of Health, Minnesota Rules, Chapters 4668 and 4669. “Assisted Living Home Care Licensure.” p 3.

<sup>78</sup> Department of Human Services (DHS) Website. <[www.dhs.state.mn.us](http://www.dhs.state.mn.us)>.

<sup>79</sup> Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. “State Assisted Living Policy: 1998.” June 1998. <<http://www.aspe.hhs.gov/daltcp/reports/98state1.htm>>.

<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

Services in assisted living residences usually include:

- Three daily meals served in a common dining area
- Housekeeping services
- Transportation
- Assistance with daily living, such as bathing, dressing, toileting and walking
- Access to health and medical services
- 24-Hour security and staff availability
- Emergency call systems for each resident unit
- Health promotion, such as exercise programs
- Medication management
- Laundry services
- Social and recreational activities

Regulations and licensing requirements for assisted living vary from state to state. Most providers and staff have training and certification required by state licensing boards or company policy. Residences must comply with local building codes and fire safety regulations. Minnesota has a program to ensure quality for consumers living in assisted living residences. This quality assurance program includes building requirements, mandatory registration with the Department of Health, and a written contract with all residents. The written contract covers 17 items.

Assisted living fees vary by individual consumer needs and geographic location. Across the nation, daily basic fees for assisted living range from approximately \$15 to \$200. Assisted living fees are generally less than the cost of home health services and nursing home care. A report issued by the federal Administration on Aging suggests that since private ownership is the norm for assisted living facilities, the cost of care is usually not covered by publicly financed programs.<sup>82</sup> This same report cites fee range averages from \$1,200 to \$2,000 a month, including meals and personal care.<sup>83</sup>

Residents or their families generally pay the cost of assisted living from their own financial resources. Some individual health and long-term care insurance programs reimburse a portion of the costs. Public dollars have traditionally not been part of the fee structure for assisted living facilities. Recently, according to the *Washington Post*, 30 states have received federal permission to subsidize assisted living, although the number receiving such assistance is still relatively small. The best estimates suggest that Medicaid subsidizes fewer than 60,000 of the approximately 1 million assisted living residents nationwide.<sup>84</sup>

### **Assisted Living Issues**

Assisted living services are not available throughout all of Minnesota. There appear to be geographic access issues in parts of rural Minnesota, with the greatest access issues in

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<sup>82</sup> Housing Highlights. "National Resource and Policy Center on Housing and Long Term Care." 8 September 2000. <<http://www.aoa.gov/housing/al.html>>.

<sup>83</sup> Ibid.

<sup>84</sup> Goldberg, Amy. "Assisted Living: Paying the Price." *Washington Post*. 20 February 2001: A01.

northeastern and northwestern Minnesota. Nearly one-fourth of all Minnesota counties (19 counties) have no assisted living providers.

As shown in Map 21, Minnesota has 235 assisted living providers classified as “State Licensed and/or Registered Assisted Living Home Care Provider”. The seven-county Twin Cities Metropolitan Area has 64 providers, or 27 percent of all providers. The ratio of assisted living facilities to people served varies throughout the state. Statewide this ratio is 3.9 providers for every 10,000 persons aged 65+; the ratio is 2.54 providers to 10,000 persons 65+ in the seven-county Twin Cities Metropolitan Area; and is 4.88 providers to 10,000 persons 65+ in the balance of the state.

While there are more assisted living providers per 10,000 seniors outside of the metro area, the variation across rural Minnesota is great. For example, in Area Agency on Aging (AAA) Region 1 located in the northwestern corner of the state, there are 3.75 providers per 10,000 seniors while right next door to the east in Region 2, there are 1.75 providers per 10,000 seniors. Similarly, in Region 8 in the southwestern corner of the state, there are 3.73 providers per 10,000 seniors, while just to the north in Region 6W there are 2.73 assisted living providers per 10,000 seniors. Next to Region 8 on the east in Region 9, there are 4.57 providers for 10,000 seniors. This variation may mean that residents in some areas may wait for an opportunity to move into an assisted living residence or may have to move farther from family and friends to live in a setting with this kind of care arrangement.

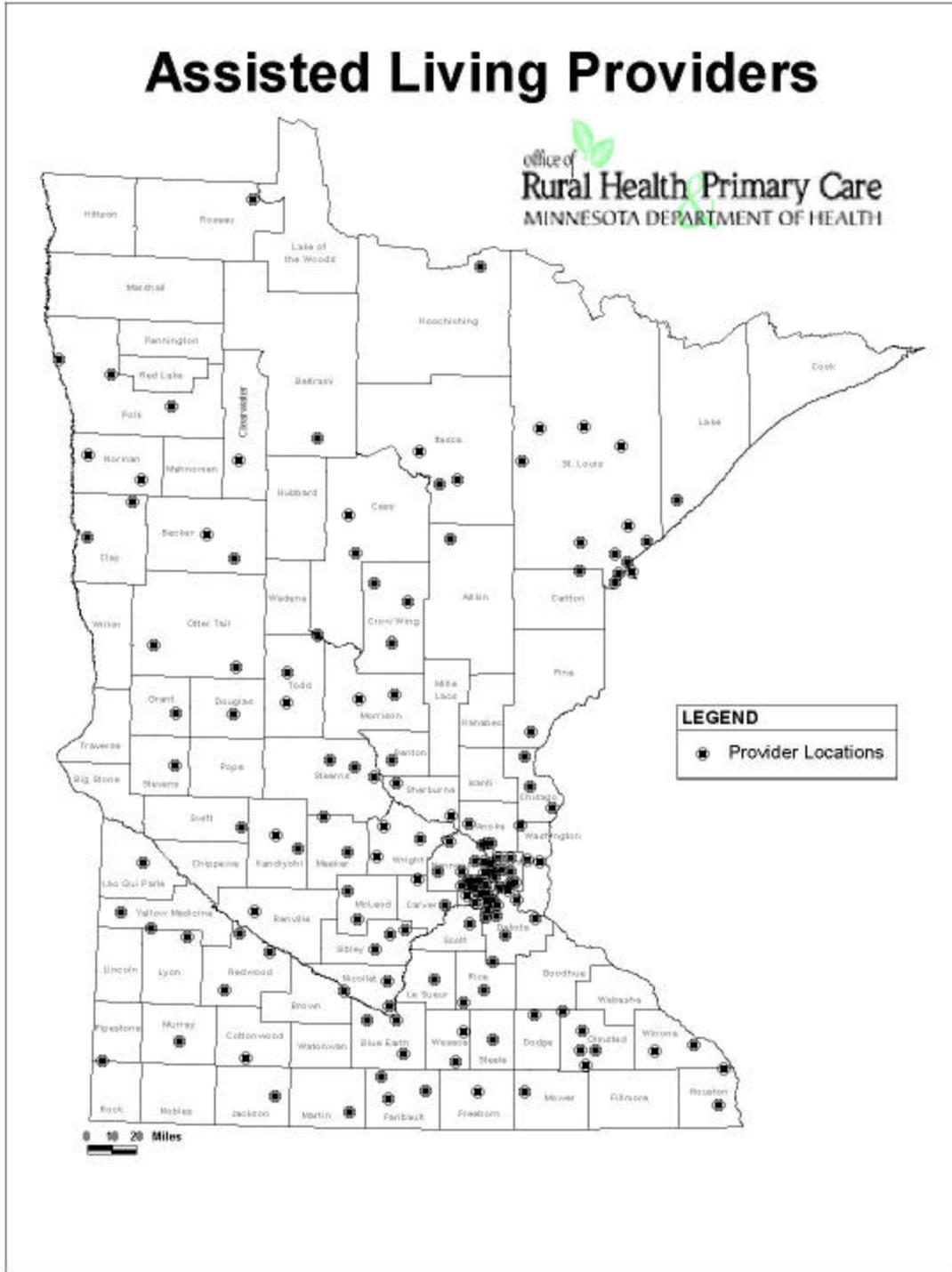
A variety of factors contribute to a lack of assisted living residences in some rural areas of Minnesota. One barrier to providing assisted living in rural areas is the cost of services. Without enough people who desire and can afford assisted living there are no economies of scale and communities are unlikely to be able to successfully develop a financially viable assisted living option. As noted earlier, a minimum of 20-25 clients are needed in order to financially manage a 24-hour assisted living facility. In counties without assisted living, it is necessary to determine if there is sufficient population to support the development of assisted living. Since assisted living fees are almost entirely paid for with private money, enough community residents must be committed to the concept of assisted living if the venture is to be financially viable.

A final issue that should be noted is a question about the overall and consistent quality of assisted living. Since assisted living residences are not subject to the stricter inspections and standards that are required of nursing homes, there is some concern that quality of care might not be as consistent as in nursing homes. Enforcement of service contracts by residents is a primary concern, as are safety features and staff training.

### **Assisted Living Data**

Data for this section of the report are from the Minnesota Department of Health, Facility and Provider Compliance Division’s downloadable database. Home care providers classified as “State Licensed and/or Registered Assisted Living Home Care Provider” were included in the assisted living facilities database. Other home care classifications were not included in the database.

Map 21



Data Source: MN Department of Health, Facility and Provider Compliance, 2000.

## SECTION VII: HOSPICE

Hospice care is a type of care that addresses the physical, emotional and spiritual needs of dying people, so that they may live their final days as fully and as comfortably as possible. Hospice care is sometimes called palliative care. Palliative care is focused on relieving the symptoms of the disease or disorder without the goal of curing.<sup>85</sup> Hospice care also provides bereavement support for surviving family members and friends.

### Background

Minnesota Statutes 144A.48 defines and regulates Minnesota hospice programs.<sup>86</sup> The statutory definition of hospice care is as follows:

Palliative and supportive care and other services provided by an interdisciplinary team under the direction of an identifiable hospice administration to terminally ill hospice patients and their families to meet the physical, nutritional, emotional, social, spiritual and special needs experienced during the final stages of illness, dying, and bereavement, through a centrally coordinated program that ensures continuity and consistency of home and inpatient care provided directly or through an agreement.<sup>87</sup>

Statute also requires that hospice programs be licensed by the Minnesota Department of Health. Hospice programs are required to provide a core set of services, including:

- Centrally coordinated hospice core services in the home and inpatient settings,
- Medical components under the direction of a licensed physician who serves as medical director,
- Palliative medical care under the direction of the attending physician,
- Patient program planning by an interdisciplinary team that meets regularly to develop, implement, and evaluate the care for each hospice patient and the patient's family,
- Accessible hospice care, 24 hours a day, seven days a week,
- Ongoing quality assurance program,
- Volunteer services that are provided by individuals who have completed a hospice training program and are qualified to provide the services,
- Planned supportive services available to patients' families during the bereavement period, and
- Inpatient services that are provided directly or by arrangement in a licensed hospital or nursing home.

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<sup>85</sup> Lexico L.L.C. Dictionary.Com <<http://www.dictionary.com>>.

<sup>86</sup> Minnesota Statutes, Chapter 144A, Section 48. "Hospice Programs." <<http://www.revisor.leg.state.mn.us/stats/144A/48.html>>.

The Minnesota Hospice Organization represents most hospices in Minnesota. The organization reported that Minnesota hospices cared for about 10,000 patients in 1999.<sup>88</sup> They see hospice care as a compendium of services that include the following:

- Professional services from nurses and physicians
- Therapies, such as physical and speech
- Social services
- Home health care
- Medication and supplies
- Counseling and volunteer support
- Short-term inpatient and respite care
- Continuous care in periods of crisis

Starting in 1983, hospice care became an eligible Medicare expense. By 1995, Medicare covered 65 percent of hospice patients. In 1995, the National Hospice and Palliative Care Organization (NHPCO) commissioned the Lewin Group to study hospice care in the U.S. The Lewin Group found that 28 percent of all Medicare costs pay for care of people in the last year of life. Almost 50 percent of those costs are expended in the last two months of life. Hospice services accounted for approximately \$2 billion of nearly \$200 billion total Medicare expenditures in 1997<sup>89</sup>. This \$2 billion was provided to 382,989 patients for 19 million hospice care days. Every Medicare dollar spent on hospice saved \$1.52 in Medicare Part A and Part B expenditures. On average, expenditures for Medicare patients in the last year of their life were \$2,737 lower for hospice patients than patients not on Medicare Hospice Benefits. Savings of \$3,192 in the last month of life were attributed to the substitution of hospice home care days for more expensive hospitalizations.<sup>90</sup>

The NHPCO compiles and reports on a range of statistics related to hospice care in the United States. The organization estimates that there are 3,139 hospice programs. In 1999, 44 percent of hospices were independent, freestanding agencies, 17 percent were part of a home health agency, and 4 percent were either based in nursing homes or other entities. In 1999, hospices served over 700,000 patients, up from over 540,000 in 1998. During that one-year period, there was an increase of 23 percent in the number served. Those served by hospices in 1999 represented 29 percent of all Americans who died that year.<sup>91</sup>

National hospice care trend data reveal that while use of hospice care is increasing, hospice length of stay is shortening. Citing figures from a University of Chicago study published in the *Chicago Tribune*, hospice use has doubled in the last decade, and is growing at an annual rate of ten percent. However, one-half of all patients in the study's five hospice networks died 22 days

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<sup>88</sup> Minnesota Hospice Association. <<http://www.mnhospice.org>>.

<sup>89</sup> Facts and Figures on Hospice Care in America, The National Hospice and Palliative Care Organization NHPCO. <<http://www.nhpco.org>>.

<sup>90</sup> Facts and Figures on Hospice Care in America, The National Hospice and Palliative Care Organization, NHPCO, <<http://www.nhpco.org>>.

<sup>91</sup> Facts and Figures on Hospice Care in America, The National Hospice and Palliative Care Organization NHPCO. <<http://www.nhpco.org>>.

or fewer after admission. The study also found that nearly 25 percent of patients in the study died within seven days after admission.<sup>92</sup>

On average, according to the NHPCO, in 1999 most people in hospice care were there for 48 days, with a median length of service of 29 days.<sup>93</sup> Minnesota data for 1998 showed that half of hospice patients were served for less than a month and 17% died within 7 days of enrollment.<sup>94</sup>

Short hospice stays affect the quality of end of life care and impact hospice care providers financially. Most hospice providers feel that they cannot meet all of the needs of the dying person and the family in such a short period of time. The *Tribune* article identifies a pattern of waiting to refer patients to hospice care until the patient is very close to death. The article suggests that two main factors – physicians’ fear of Medicare fraud investigations and the difficulty in predicting how long terminally ill patients will live -- contribute to this trend. Findings in the University of Chicago study suggest that hospice care providers break even financially at the 15<sup>th</sup> day of care.<sup>95</sup> Taken together, late referral to hospice care deprives patients of the highest quality care they could receive and jeopardizes the viability of hospice care providers.

End of life care is a very small portion of health care expenditures throughout the life cycle, but it is often provided in very expensive settings such as hospital emergency rooms and intensive care units. The Minnesota Commission on End of Life Care reports that end of life care represents only about 10 percent of all health care expenditures.<sup>96</sup> A substantial savings results when hospice care substitutes for more expensive hospital or nursing home care settings.

On a national level, hospice care is most often provided in the patient’s home. Patient homes are the site of more than 90 percent of hospice care nationally.<sup>97</sup> The *Information Sheet for the Minnesota Commission on End of Life Care* reports that while “Minnesotans prefer end of life care at home, only 21 percent of deaths in Minnesota in 1999 occurred at home.”<sup>98</sup> This percentage represents all deaths, not just the death of people in hospice care. Of this group of 21 percent we do not know the proportion that were in hospice care when they died. This is an area of hospice care that needs further exploration.

Many factors impact access to hospice care at the end of life. The Minnesota Commission on End of Life Care suggests that late enrollment, lack of communication and information, and

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<sup>92</sup> National Journal’s Daily Briefing. American Healthline. 12 May 1999.

<sup>93</sup> <sup>93</sup> Facts and Figures on Hospice Care in America. The National Hospice and Palliative Care Organization, NHPCO. <<http://www.nhpc.org>>.

<sup>94</sup> Information Sheet for the Minnesota Commission on End of Life Care, Minnesota Partnership to Improve End of Life Care. Page 1, <<http://www.teaging.org>>.

<sup>95</sup> National Journal’s Daily Briefing. American Healthline. 12 May 1999.

<sup>96</sup> Information Sheet for the Minnesota Commission on End of Life Care, Minnesota Partnership to Improve End of Life Care. Page 1, <<http://www.teaging.org>>.

<sup>97</sup> Facts and Figures on Hospice Care in America. The National Hospice and Palliative Care Organization, NHPCO. <<http://www.nhpc.org>>.

<sup>98</sup> Information Sheet for the Minnesota Commission on End of Life Care, Minnesota Partnership to Improve End of Life Care. Page 1, <http://www.tcaging.org>>.

limited resources negatively impact access to hospice care.<sup>99</sup> In “Pain Management Moves to Rural Outposts”, Sandra Beckwith discusses the unique obstacles that rural communities face when providing end-of-life care. Beckwith states that “such communities, which comprise more than one-fourth of the country’s population, may be impacted by factors, such as geographical distances, isolation, and poverty—all of which may affect access to and quality of medical care.”<sup>100</sup>

## Hospice Issues

Minnesota has 76 primary hospice program sites in Minnesota. These are shown on Map 22. Of these 76 hospice program sites, 63 are Medicare certified. Geographic location determines access throughout much of Minnesota. As shown in Map 22, almost 30 Minnesota counties do not have a primary hospice located within the county boundary. Counties lacking a primary hospice site are primarily in the western and northern portions of the state, with other scattered counties also lacking a primary hospice site.

Findings of a recent study on hospice utilization in Minnesota suggest that geography influences hospice use. The study stated that several factors were associated with this geographic difference in hospice use, including:

- Areas with higher in-hospital death rates had lower rates of hospice use,
  - Areas with higher rates of Medicare managed-care enrollment experienced higher hospice use; in such areas, higher rates of hospice use were observed in both managed-care and fee-for-service enrolled populations, and
  - Area health care resources were an indicator for hospice use—hospital beds per capita, average area Medicare reimbursements, and physician availability.
- Hospice use declined in relation to increasing rates of hospital beds per capita.<sup>101</sup>

Although hospice is a community-based care model, in Minnesota it is most often provided in nursing homes and hospitals. The Rural Health Advisory Committee has used 21 miles and at least one service provider in the county to measure access to hospital care. Although hospital and hospice care are very different, a similar indicator might be helpful as a starting point in examining access to hospice care. As shown in Map 23, using the 21-mile radius, about one-third of Minnesota does not have access to hospice care. The majority of the areas with limited or no access to hospice service within a 21-mile radius are in northern Minnesota.

Increased use of hospice care could both decrease the cost of end of life care and better meet the needs of dying people, especially those wishing to die at home. Because Minnesota does not systematically gather information about end of life care, we do not know whether or not deceased people received hospice care before death. The cost of end of life care in Minnesota is also unknown. We know where people die, but we do not know about the care that they received

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<sup>99</sup> Information Sheet for the Minnesota Commission on End of Life Care, Minnesota Partnership to Improve End of Life Care. Page 1, <<http://www.tcaging.org>>.

<sup>100</sup> Beckwith, Sandra. “Pain Management Moves to Rural Outposts.” Last Acts: Care and Caring at the End of Life. Summer 2000: (8) 10-11.

<sup>101</sup> Virnig, Beth A. “Geographic Variation in Hospice Use Prior to Death.” Research Brief, Division of Health Services Research and Policy, U of M School of Public Health. Oct 2000: (8)1.

prior to dying. Keeping better information could increase our knowledge about the patterns of use for hospice care and help in planning for end of life care services.

Because of Minnesota's statutory requirement that there be an attending physician for hospice care, the attending physician knows whether their patient received hospice care. Attending physicians are also required to sign death certificates. Adding utilization of hospice care to death certificates could substantially increase our knowledge about utilization of hospice care in Minnesota.

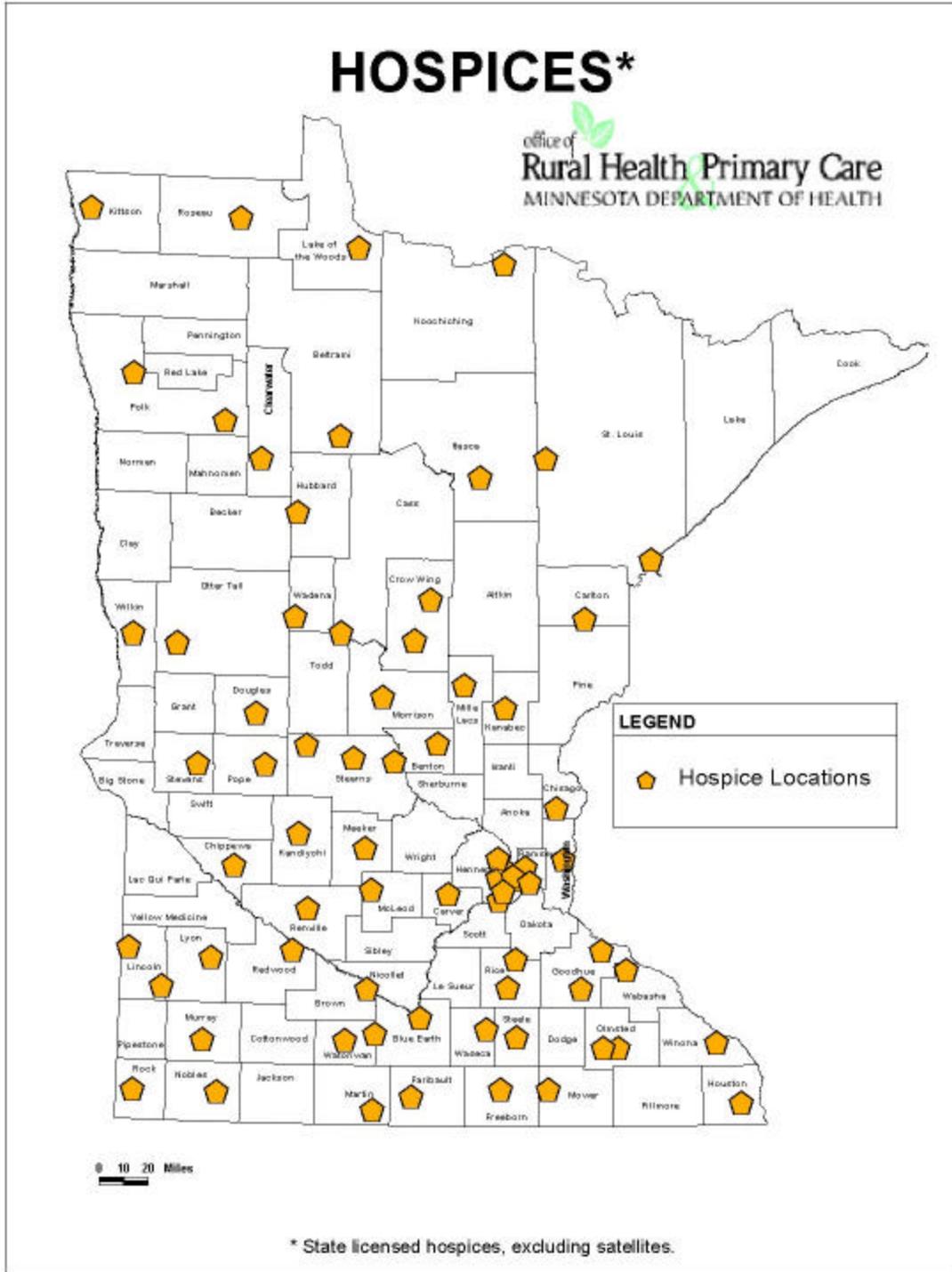
### **Hospice Data**

Minnesota does not have a systematic process for the collection of end of life care data. The data for this section of the report come from the Minnesota Department of Health, Facility and Provider Compliance division's database. It contains only state licensed primary hospice locations and does not include satellite locations. Information on satellite hospice sites can be obtained from the Minnesota Hospice Organization.<sup>102</sup>

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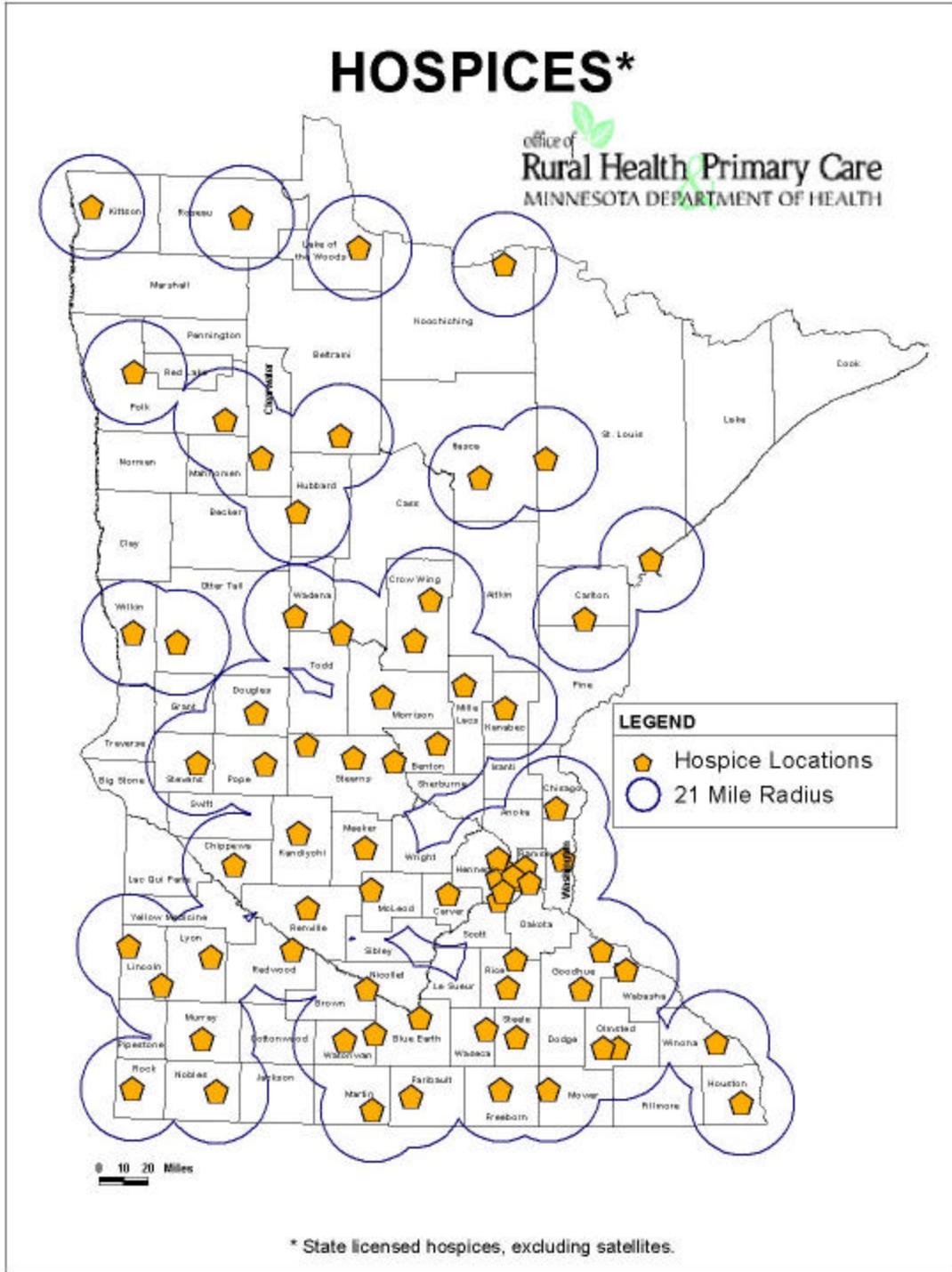
<sup>102</sup> Minnesota Hospice Association. <<http://www.mnhospice.org>>.

Map 22



**Data Sources: MN Department of Health, Facility and Provider Compliance, 2000 and MN Hospice Organization, 2000.**

Map 23



**Data Sources: MN Department of Health, Facility and Provider Compliance, 2000 and MN Hospice Organization, 2000.**

## SECTION VIII: ADULT DAY CARE

Adult Day Care/Adult Day Services are community-based services that provide older adults supervision, personal care, health services, and socialization in a safe and protective environment -- for a designated period of time typically between 7 a.m. and 6 p.m.

### Background

Adult day care is provided in adult day care centers licensed by the Minnesota Department of Human Services (DHS). Sometimes these centers are located in facilities licensed by the Minnesota Department of Health, such as nursing homes or board and care homes. In addition to licensed care, adult day care is also provided in other settings. Under certain conditions and if specific requirements are met, provision of adult day care for five or fewer people in hospitals, nursing homes and board and care homes, and up to seven people in foster care homes, is allowed without an adult day care center license from DHS. Adult day care provided in these alternative entities is eligible for the Elderly Waiver and Alternative Care reimbursement in the same way that licensed adult day care is, as long as the unlicensed adult day care complies with the specific requirements.<sup>103</sup>

According to the National Adult Day Services Association (NADSA), there are more than 4,000 community-based adult day care centers in the United States.<sup>104</sup> To avoid the appearance of patronizing older people these services are sometimes called adult day services. Adult day care can be a pivotal factor that allows older people to live independently, in their own homes, or with family members. Adult day care also allows some caregivers relief from daily care duties.

Adult day care programs provide activities and services in a variety of areas including social, recreational, and health. Participants engage in both group and individual activities. Adult day care addresses the social isolation that many older people experience as participants have the opportunity to socialize and meet others.

Adult day care program activities might include:

- Care and supervision
- Transportation
- Recreation and exercise
- Personal care, such as baths, shaves and shampoos (Often extra charges)
- Skilled nursing services
  - Medication administration
  - Health monitoring, i.e. blood pressure and weight checks
  - Therapies such as occupational, physical, and speech
- Meals and snacks
- Education, counseling, information and referral
- Caregiver support groups

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<sup>103</sup> Minnesota Rules, Chapter 9555, Section 9610. <<http://www.revisor.leg.state.mn.us/arule/9555/9610.html>>.

<sup>104</sup> National Council on the Aging. "Facts About Adult Day Services." 8 May 2001. <[http://www.ncoa.org/nadsa/ADS\\_factsheet.htm](http://www.ncoa.org/nadsa/ADS_factsheet.htm)>.

## **Adult Day Care Issues**

Identifying the total number of adult day care providers is complicated. Although DHS licenses adult day care centers, the other facilities providing adult day care to a small number of people are not tracked. Regulations that apply to licensed adult day care providers are not applicable under these circumstances. Anecdotal evidence suggests that rural nursing homes are providing adult day care under this provision, but the numbers and regularity with which this care is provided is not known. Because of these factors, only licensed adult day care providers are included in this report.

Minnesota has 109 licensed adult day care programs. The Twin Cities metropolitan area has nearly 40 percent of all adult day care centers in the state. Map 24 demonstrates that more than 40 counties do not have an adult day care center within their boundaries. Many of the existing centers are clustered in the metropolitan area and in central and southeastern Minnesota. Residents in the far western portions of the state, and in the north and northwest would have to drive great distances, in some areas over 100 miles, to access a licensed adult day care center. Since this is a daily activity with no overnight care, the burden of getting to and from centers that are so far away is likely prohibitive.

Other adult day care issues to consider are demand for services and capacity. Many of the centers located in rural areas are small, with capacities of 13 or fewer clients. Map 25 shows the capacity by county. Since data is not available to report occupancy and demand information, it is hard to determine whether there is enough capacity within the current sites.

Providers have suggested that caregiver issues affect adult day care. Providers indicate that it is common for adult children to experience guilt in putting their parents in adult day care. Spouses expect that they should be able to care for their spouse. In addition, if an older person's care needs increase to the point that adult day care is needed, spouses frequently experience guilt and remorse.

Transportation affects access to adult day care in rural Minnesota. Caregivers who are already struggling to meet the demands of caring for an elder and perhaps a family may not have the time or resources to travel 15 miles or more to obtain care for the elder. Given the limited transportation infrastructure in rural areas and the physical needs of frail elders, public transportation becomes less of an option.

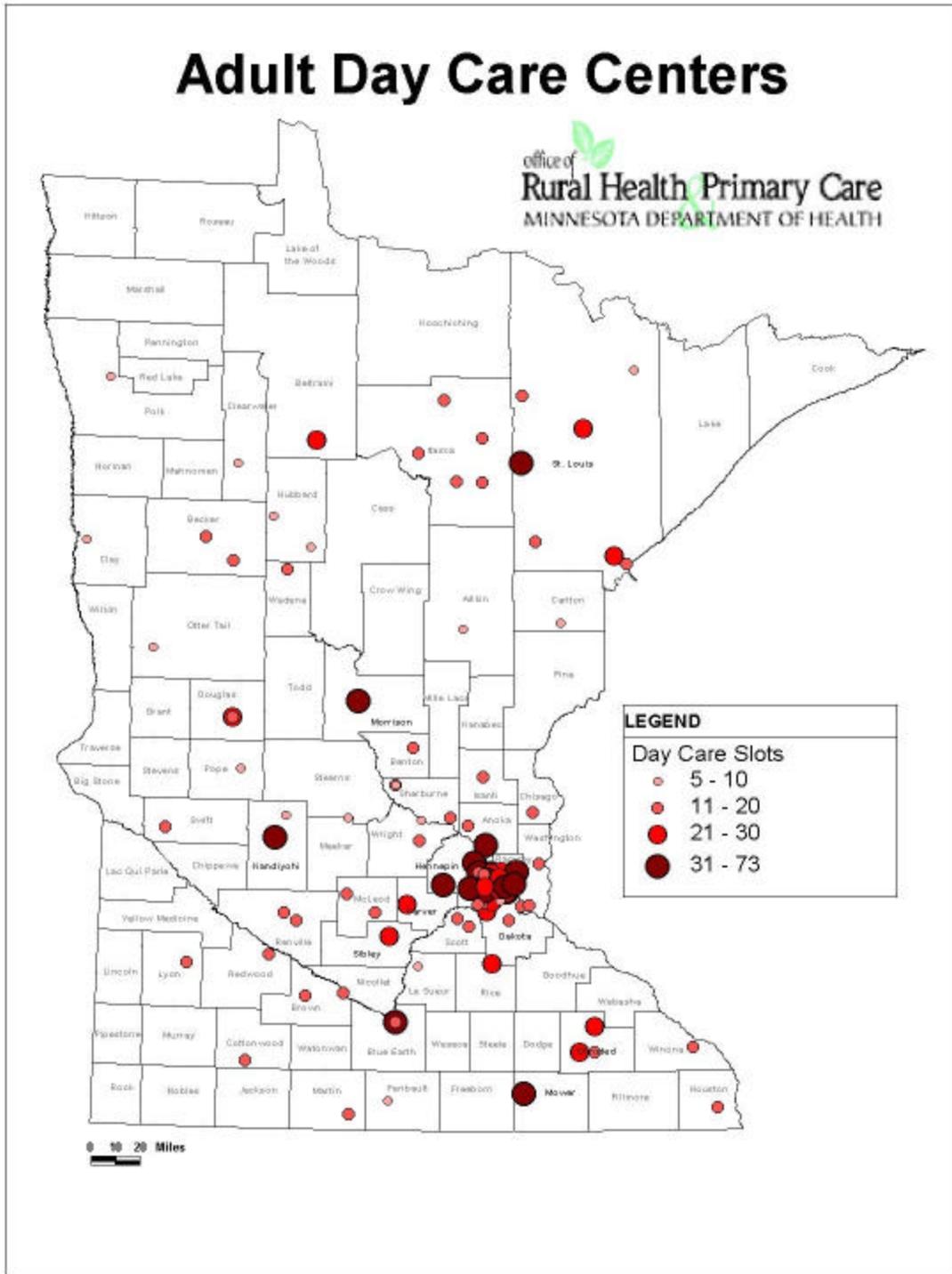
Another significant issue affecting access to adult day care in Minnesota is case mix capacity. As discussed in Section III, waiver programs, such as Alternative Care (AC) or Elderly Waiver (EW), are designed to create options for seniors living in their own homes to prevent them from moving to a board and care or skilled nursing facility when alternative services could help them remain in their homes and communities. However, if a person is assigned a lower case level, such as Level A, and requires additional services, they may not be able to participate in a service, such as adult day care, because they need to pick and choose services based on the costs that can be reimbursed for their case level. This may mean that while adult day care would be helpful to the individual, they might have to choose another service for which their need is more acute. Sometimes the only buffer between older persons living in their own home and community and a nursing home or board and care home are the services provided under a waiver program.

Unfortunately, limitations on available waiver funds may mean that not all desired services are made available to an individual.

### **Adult Day Care Data**

The Minnesota Department of Health, Office of Rural Health and Primary Care created a database of Adult Day Care data to be used for this report. The data were produced from a list of adult day care sites that was provided by the Minnesota Department of Human Services. The Office of Rural Health and Primary Care made no changes to this list. The database included information on 109 licensed adult day care sites. Hospitals, nursing homes, board and care homes, and foster care homes that provide adult day care to a small number of seniors and do not hold an adult day care license are not reflected in this database.

Map 24



Data Source: MN Department of Human Services, 2000.



## SECTION IX: NUTRITION PROGRAMS

As the U.S. population ages, and policy and consumer preferences shift from a medical model of care to more community and social models of care, assuring access to nutrition has become a greater concern. Adequate nutrition is both critical to health functioning and prevents the onset of illness. It is also a key element for the administration of medication, pain and disease management, as well as promoting health and preventing and/or managing chronic disease.

### Background

Adequate nutrition is critical to people's health, functioning, and overall quality of life. Meeting the nutritional needs of seniors is an important component of home and community-based services for older people. Research findings suggest that social isolation factors into older people's nutrition and health outcomes. The federal Elderly Nutrition Program (ENP) mission is to improve the nutritional intake of elderly people and decrease their social isolation. The goals of the ENP (known as senior nutrition programs in Minnesota) are to:

- Prevent malnutrition by providing nourishing meals that meet one third of the Recommended Dietary Allowances (RDAs), nutrition and health education, and individual nutrition counseling,
- Promote socialization and reduce isolation by providing opportunities for companionship and volunteer experiences, and
- Provide access and referral to other services that promote health and help maintain independence such as transportation, health information, chore, and legal services.

The ENP education services help seniors learn to shop for, plan, and prepare meals that are nutritious, economical, and meet special dietary and health needs to help in managing or ameliorating specific health problems, as well as enhancing their health and well being. The congregate meal programs also provide seniors with positive social contacts at the group meal sites.<sup>105</sup> Mathematica Policy Research, Inc., conducted a national two-year evaluation of the ENP. The study examined program and participant information from 1993 to 1995. Study findings, published in 1996, indicated that the ENP senior nutrition programs have been successful in improving the daily nutrition intake of older people and in decreasing their social isolation when compared to non-participants.<sup>106</sup>

The Administration on Aging (AoA) awards grants to states to support meals (senior dining and home delivered meals) and nutrition services for older adults. The Minnesota Board on Aging, a 25 member board appointed by the Governor, designated as the State Unit on Aging in Minnesota, awards a combination of Title IIIC Older American Act, state, U. S. Department of Agriculture, and local cash for meals and nutrition services to its fourteen Area Agencies on Aging (AAA) (see Map 2). The AAAs in turn award nutrition funds to 20 senior nutrition

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<sup>105</sup> Administration on Aging. "The Elderly Nutrition Program." 4 February 2001.

<<http://www.aoa.dhhs.gov/factsheets/enp.html>>.

<sup>106</sup> Administration on Aging. "Serving Elders At Risk: The Older Americans Act Nutrition Programs National Evaluation of the Elderly Nutrition Program, 1993-1995." <<http://www.aoa.gov/aoa/pages/nutreval.html>>.

providers who provide meals and nutrition services to communities. The AoA awards Title VI Grants for Native Americans for meals and nutrition services directly to tribal organizations.

The Minnesota Board on Aging administers the senior nutrition program under Title III through its fourteen AAAs (see Map 2). The Minnesota Chippewa Tribe Indian AAA (Region 12) serves the Bois Forte, Grand Portage, Leech Lake, and White Earth reservations. Some non-Indian AAAs contract with tribal governments, in their regions, to provide senior dining and/or home delivered meal services. Title VI funds flow directly from the federal government to federally recognized tribal governments. Some, but not all, Minnesota tribes operate Title VI programs.

Minnesota's senior nutrition program serves more than 90,000 older adults at over 550 locations across the state.<sup>107</sup> People who are at least 60 years old and their spouses are eligible to participate in the senior dining (also called congregate dining) with a free-will donation. If people are at least 60 years of age and are homebound, they are eligible for home delivered meals. Both congregate senior dining and home delivered meals are required to provide one-third of the daily Recommended Dietary Allowances and U. S. Dietary Guidelines, as set by national as well as state nutrition standards and requirements.

In addition to nutritious meals, the senior nutrition program provides a range of services including: outreach, nutrition screening, assessment, nutrition education and counseling. The average cash cost per meal for Title IIC meals in Minnesota is \$4.31 for senior dining and \$4.90 for home delivered meals. Both senior dining and home delivered meals programs receive substantial contributions from participants. The average per meal contribution is \$1.80 for senior dining and \$1.65 for home delivered meals.

Senior dining and home-delivered meals comprise the primary nutrition services offered through the Senior Nutrition Program. Senior dining meals, served at congregate dining sites (or group dining settings), are located in senior centers, schools, senior housing and other public places (as shown in Maps 26 and 27). Home delivered meals are delivered by volunteers to seniors who are homebound by reason of illness, disability, or who are otherwise isolated and unable to prepare their own meals. Most home delivered meals are prepared at and delivered from senior dining sites. Some are prepared at hospitals or nursing homes. There are also privately funded programs, sometimes known as Meals on Wheels programs. Home delivered and Meals on Wheels sites are shown on Maps 28 and 29.

Minnesota's senior population is growing in size and becoming increasingly diverse. The "traditional" congregate dining model is changing due to different needs, preferences, and lifestyles of aging cohorts. Senior nutrition programs are responding by shifting sites to affordable housing, ethnic and minority communities, and other locations that serve frail seniors. In addition, they are increasing home delivered meals, groceries and nutrition education and counseling and related nutrition services for persons with special needs.

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<sup>107</sup> Minnesota Department of Human Services, Services for Older Minnesotans, Senior Nutrition Program. <<http://www.dhs.state.mn.us/agingint/services/srnutri.htm>>

The Minnesota Board on Aging recently conducted a survey of its 14 AAAs and 20 senior nutrition providers to identify changing client characteristics, trends, issues, and challenges impacting senior nutrition. The top five client characteristics and trend identified were:

- 1) Increased age and frailty of seniors participating in the program,
- 2) Increased need for services,
- 3) Changing cohort generations,
- 4) Growing diversity, and
- 5) Different levels and different models of services needed.

In addition, AAAs and nutrition providers report smaller dining sites, labor shortage issues, a shrinking volunteer base, a loss of community food resources including grocery stores and cafes, a lack of transportation, and transportation distances as they relate to fuel costs and service availability as major changes impacting rural areas. This information as well as other related information will be available soon on the Minnesota Board of Aging website at [www.mnaging.org](http://www.mnaging.org).

In January 2001, the Minnesota Department of Children, Families and Learning conducted 14 regional meetings to gather information to inform policy makers about nutritional needs throughout the state. Food shelf directors in attendance noted an emerging trend of more food shelf usage by seniors. Directors attributed this increased usage to the reality that seniors living on fixed incomes are finding it increasingly difficult to pay for prescription drugs, transportation, and home heating. Seniors are increasingly faced with the decision of buying their medicine, heating their homes or buying food.<sup>108</sup>

### **Nutrition Programs Issues**

Mapping of senior dining sites (Title III C1) and home delivered meals (Title III C2) (see Maps 26, 27, 28, and 29) shows that sites are currently broadly dispersed throughout the state, although meals are not available every day for those who might need them. An analysis of demographic trends suggests several important issues related to senior nutrition services in the future. Current and projected unmet needs, shrinking volunteer base, transportation distances as they relate to fuel costs and service availability, and the implications of changing demographics contribute to some of the major issues on the horizon for senior nutrition planning.

Trend data (see Part One, Section II) suggest that aging baby boomers have different expectations about how they will experience older adulthood. It is thought that aging baby boomers will be increasingly healthy and active, and will expect more choice and more participation in decisions about the services that they receive. Newly retired and younger seniors appear less inclined to join senior centers and to participate in senior dining. Work group discussions revealed that many of the senior clubs in the rural areas are having a hard time attracting new members. Younger seniors come to the senior clubs and fail to identify with the current participants and decide that the club is not for them. This failure to draw younger seniors into the senior nutrition program results in participants who are increasingly older and contributes to the volunteer shortages.

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<sup>108</sup> Interview with Ty Morris, Food Program Coordinator, Minnesota Department of Children, Families and Learning. 13 February 2001.

Infrastructure constraints create unmet needs within the senior nutrition programs. Historically, these programs have not been fully funded. As the baby boomer population ages, current unmet needs will only increase. Increasingly diverse rural populations (both ethnically and linguistically) will also impact senior nutrition programs. Increased diversity could create a need for a variety of meals to address the dietary preferences (derived from religious or ethnic traditions) and/or needs of participants.

Access to Senior Nutrition Programs is interrelated to the transportation system. Taking a broad look at the whole nutrition program can only be accomplished when viewed in the context of its relationship with other systems, especially transportation. Transportation becomes even more important for access to nutrition programs in rural areas. Cook and Lake Counties are good examples of this interrelationship. Since Cook and Lake Counties have three congregate dining sites and both are very large, transportation becomes a vital bridge for older people to access these sites.

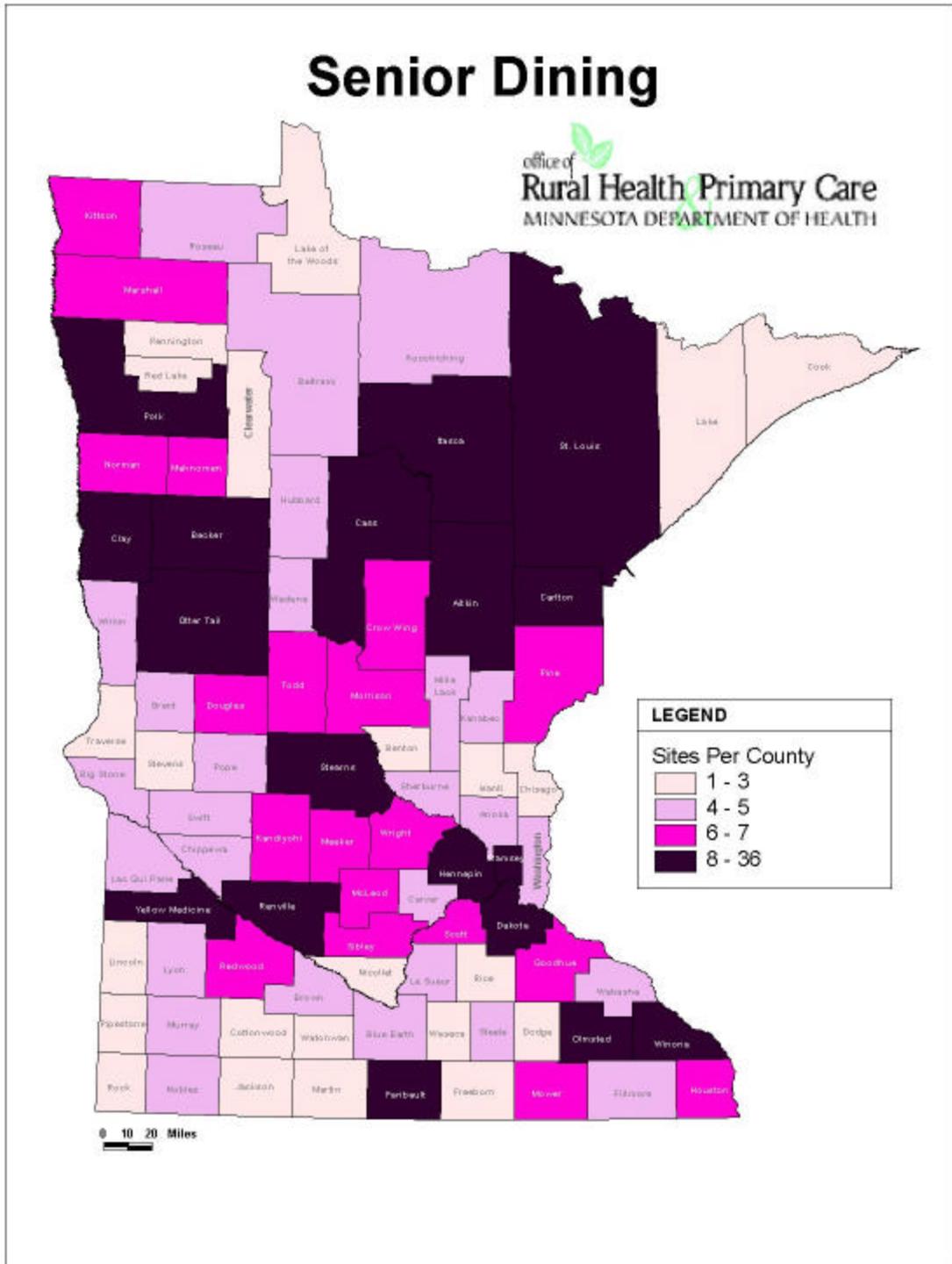
Transportation costs make up a significant portion of senior nutrition programs. Dramatic increases in fuel costs are driving up the costs of delivering home-delivered meals, the cost of supplies and volunteers' cost of donating their services.

### **Nutrition Programs Data**

The Minnesota Department of Health, Office of Rural Health and Primary Care collected the congregate dining and home delivered meals data for this report and created a comprehensive database of the information. The database included information on 539 congregate dining sites and 517 home delivered meal sites. This information was shared with the Minnesota Board on Aging, AAAs, nutrition providers, and Senior Linkage Line staff.

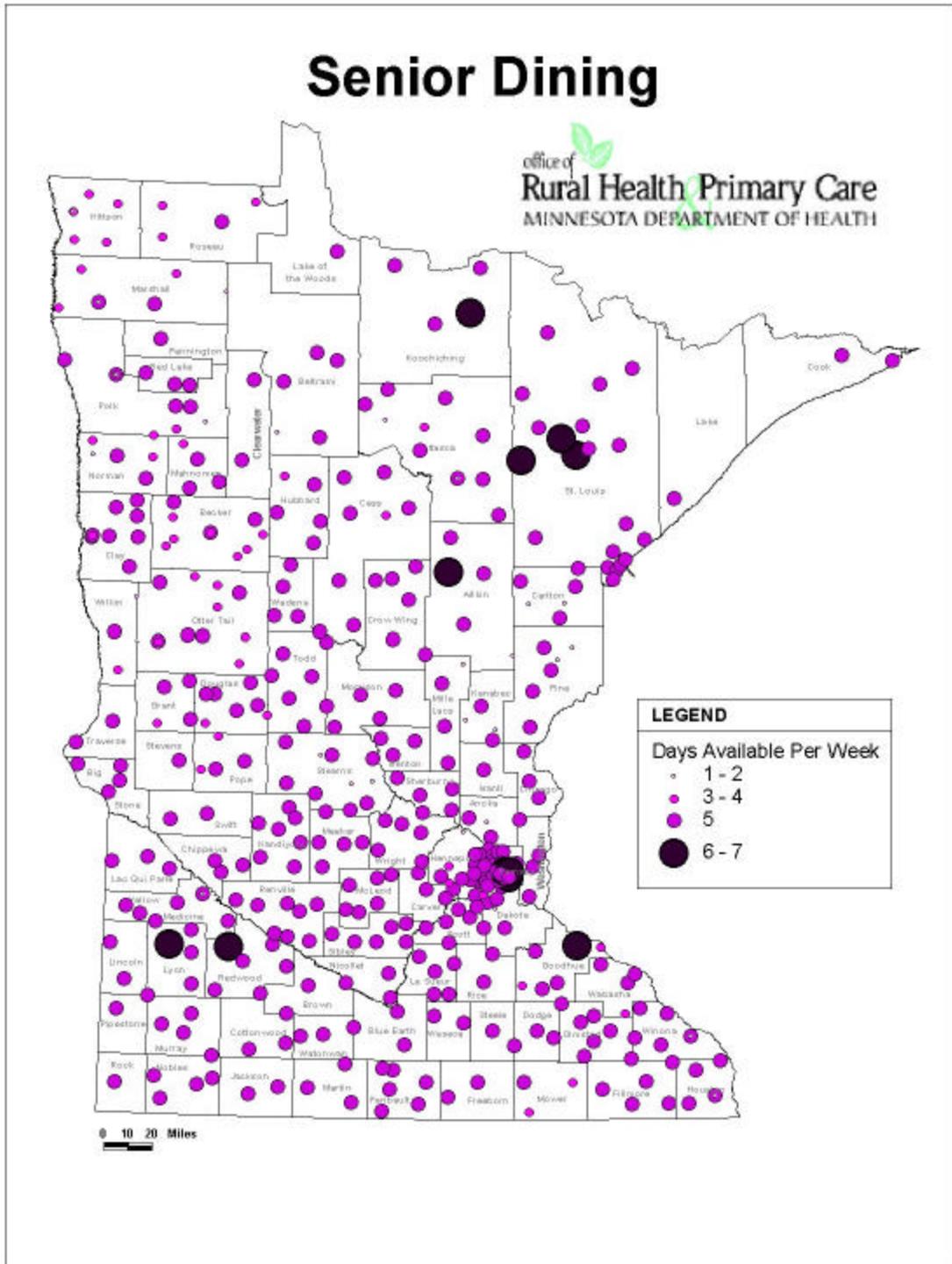
The Office of Rural Health and Primary Care used the Minnesota Board on Aging nutrition site directories to create a database and generate reports by Area Agency on Aging regions. This information was updated with the cooperation of AAAs and American Indian communities. Initial data collection activities were followed up with telephone calls to the Area Agencies on Aging and to nutrition sites to clarify and complete the database. American Indian communities that are not part of the Area Agencies on Aging were also contacted to ensure that all sites serving people in Minnesota's American Indian communities were updated. Data files were shared with the Minnesota Board on Aging to cross check the sites listed.

Map 26



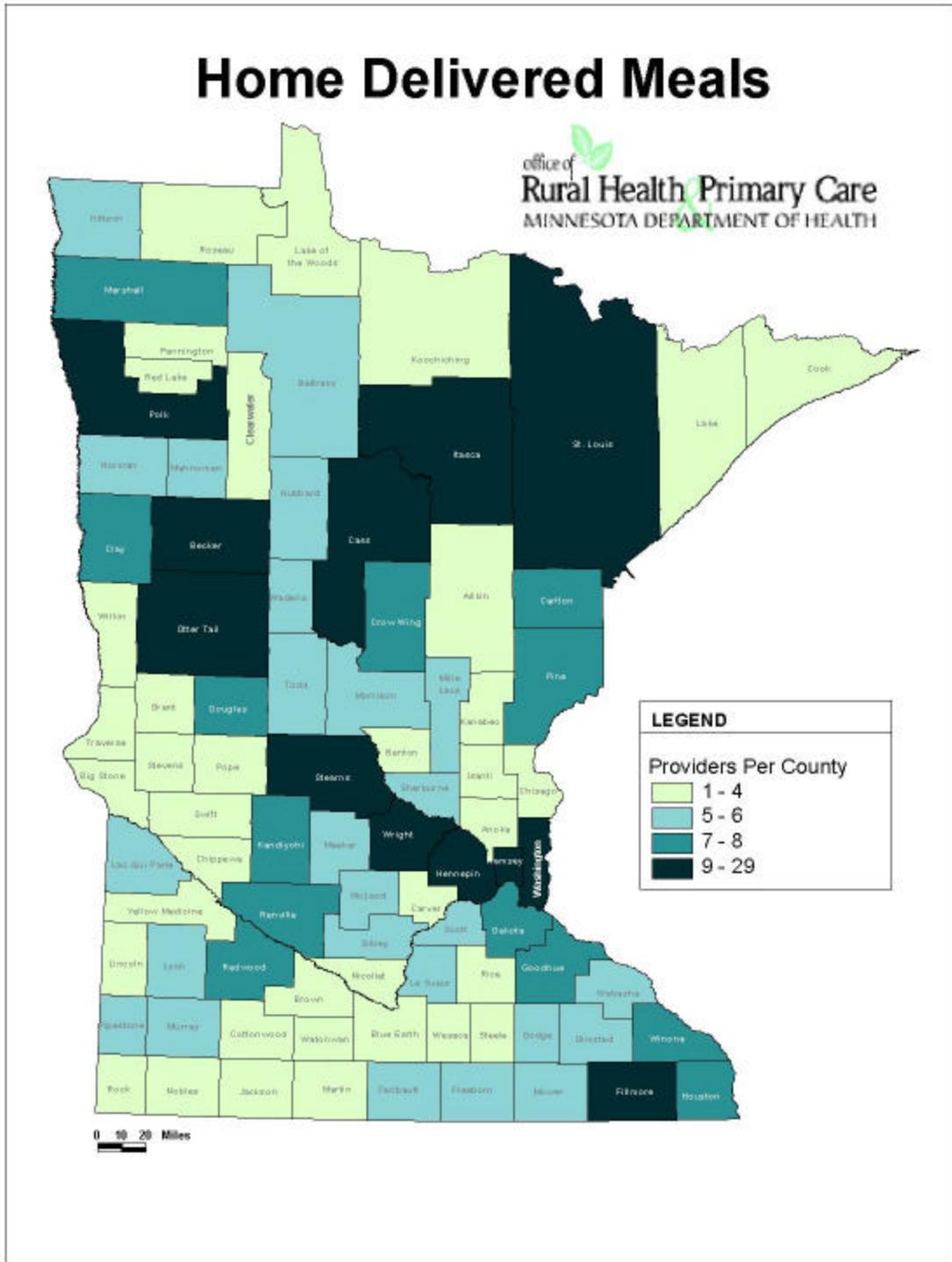
**Data Sources:** MN Board on Aging, 1993; Area Agencies on Aging, 2000; MN Tribal Agencies, 2000; Office of Rural Health and Primary Care phone survey, 2000.

Map 27



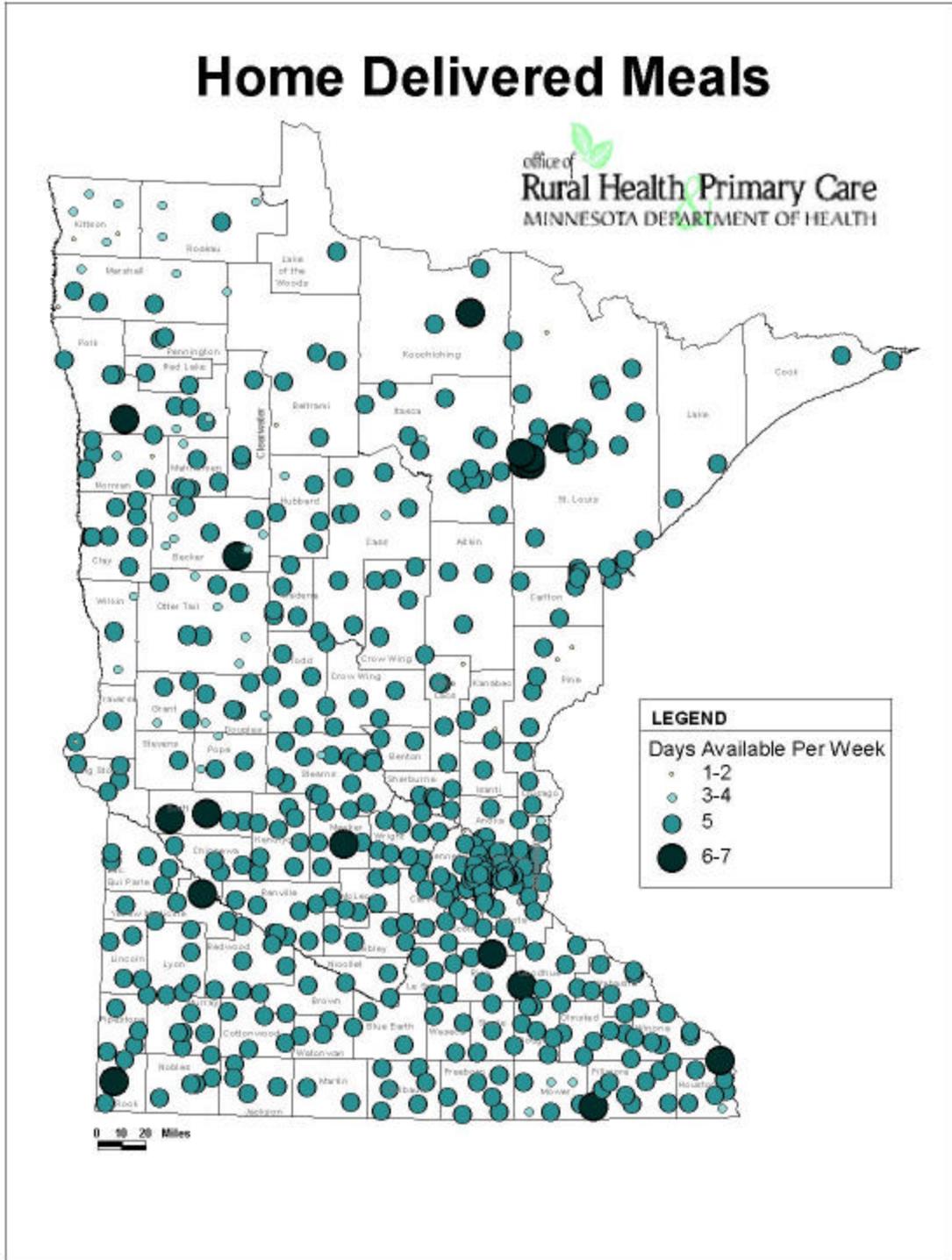
**Data Sources:** MN Board on Aging, 1993; Area Agencies on Aging, 2000; MN Tribal Agencies, 2000; Office of Rural Health and Primary Care phone survey, 2000.

Map 28



**Data Sources: MN Board on Aging, 1993; Area Agencies on Aging, 2000; MN Tribal Agencies, 2000; Office of Rural Health and Primary Care phone survey, 2000.**

Map 29



**Data Sources:** MN Board on Aging, 1993; Area Agencies on Aging, 2000; MN Tribal Agencies, 2000; Office of Rural Health and Primary Care phone survey, 2000.

## **SECTION X: PRACTITIONERS**

Providing health services typically requires coordination among several different providers (i.e. a home health agency and a local physician). Therefore, access to health practitioners is another key factor in assuring access to services along the continuum of care for seniors. Although seniors access an array of services from various health practitioners (e.g. podiatrists, social workers, dieticians, nursing assistants, chiropractors, etc.) to meet their care needs, the focus here is on a select group of practitioners: physicians, psychiatrists, pharmacists, and registered nurses. These practitioners were selected because of how they fit into the overall health care needs of seniors and their roles in the continuum of care.

Health Professional Shortage Areas (HPSAs) and Medically Under-served Areas (MUAs) are used to identify population to provider ratios within health service areas. HPSAs and MUAs are included because they are another indicator of access.

### **HEALTH PROFESSIONAL SHORTAGE AREAS & MEDICALLY UNDERSERVED AREAS**

Health Professional Shortage Areas (HPSAs) and Medically Under-Served Areas (MUAs) are federal designations used to indicate geographic areas that have shortages of certain medical providers. HPSA designation is derived from a provider to population ratio that indicates shortages of primary care physicians, psychiatrists and other psychiatric health professionals. MUA is an index compiled from four factors – population 65 or older, infant mortality rate, poverty rate and shortage of health professionals. With the HPSA and MUA shortage area designations, high-need sites can meet eligibility criteria for a number of federal and state assistance programs. For further information about HPSAs and MUAs, visit the Bureau of Primary Health Care pages on the Health Resources and Services Administration (HRSA) website <http://bphc.hrsa.gov/>.

The Office of Rural Health and Primary Care assists underserved sites in determining service areas, provides statistical information, and prepares applications for federal shortage area designation. A current listing of the HPSA and MUA designated areas in Minnesota can be found on the Office's website <http://www.health.state.mn.us/divs/chs/hpsamua.htm>.

### **PHYSICIANS**

Physicians, and more specifically, primary care physicians, are key to assuring access to the continuum of senior health services. Many medical services require regular oversight by a physician in order for the service to be provided to consumers. In addition, without physician oversight other practitioners would be unable to practice within their full scope of practice. Examples of this are the relationship between a physician and a nurse practitioner or physician assistant.

Based on 1999 data, there were 16,210 licensed physicians in Minnesota and approximately 76 percent (12,310) were actively practicing and working in the state. Almost 85 percent of the

state's physicians work in practice sites located in the Twin Cities region and three other urban counties (Olmsted, Saint Louis and Stearns). When compared to the distribution of the state's population (37 percent rural and 63 percent urban in 1999), this finding points to a higher concentration of physicians in the state's urban centers.

Urban physicians are, on average, one year younger than their rural counterparts. Minnesota's urban areas also have a higher share of practicing physicians below the age of 35 (13 percent versus eight percent respectively), while rural areas have a higher proportion of physicians above the age of 35. While rural areas, on average, have older physicians, these physicians tend to have more clinical experience. In terms of physician specialty, the proportion of physicians with a primary care specialty in rural Minnesota is higher than in urban areas (68 percent versus 45 percent respectively).

Significant areas of rural Minnesota have a shortage of primary care physicians. As shown in Map 30, Minnesota currently has 36 federally designated HPSAs (30 of which are rural). HPSAs are defined as areas with less than one full-time primary care physician in practice per 3,500 residents. Map 31 shows designated MUAs as of February 2000.

While no statewide estimate of the demand for physicians currently exists, the annual Minnesota Department of Rural Health Practitioner Demand Assessment found that rural health care employers were recruiting 300 physicians during 1999.<sup>109</sup> A majority (58 percent) of these physician positions were in primary care.

## **MENTAL HEALTH PROVIDERS**

Mental health providers are a vital component in the continuum of care for rural seniors. A range of professionals provides mental health care, for example psychiatrists, psychologists, nurses, parish nurses, physicians, and social workers. Data limitations currently constrain our knowledge about the full range of mental health providers, with the exception of psychiatrists. Psychiatry is listed as a specialty for roughly five percent of the active physician workforce in the state. Of the five percent of physicians who have this specialty, 78 percent work in urban areas (Seven County Metro Area, Olmsted, Stearns, and Saint Louis) and 22 percent work in rural areas.

The Office of Rural Health and Primary Care monitors the number of psychiatrists as part of the HPSA program and through its health professions database. The trigger for HPSA designation for psychiatrists is one psychiatrist per 30,000 people or one per 20,000 people in areas designated as low-income. Once a geographic area meets the threshold for a HPSA designation, there is a lengthy process undertaken in order to attain federal designation.

As shown in Map 32, most counties outside of the Twin Cities Metropolitan Area and central and southeastern Minnesota are designated as HPSAs for psychiatrists. The shortage of psychiatrists in most rural areas in Minnesota creates an access issue for people in need of this kind of mental health care.

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<sup>109</sup> Minnesota Department of Health, Office of Rural Health and Primary Care. Rural Health Practitioner Demand Assessment, 1999.

## NURSES

Registered nurses (RNs) and licensed practical nurses (LPNs) fill a variety of roles in health care settings, including: patient advocate, health educator, health care administrator, medication administration, temperatures and blood pressure taker, dressings changer, as well as many others. In 1999, RN was the largest health care occupation in both the nation and the state with over 2.2 million jobs nationally and 44,500 jobs in Minnesota. LPN was the second largest with just under 700,000 jobs nationally and 19,000 in Minnesota.

Overall, most active RNs (56 percent) report being employed in hospitals and of these, the majority of them are employed in inpatient settings (42 percent). Meanwhile, most active LPNs (36 percent) report being employed in long-term care settings and slightly over half (53 percent) are employed by rural facilities. Two-thirds of all active RNs and 90 percent of LPNs report patient care as their primary professional activity.

Seventy-five percent of all RNs and 54 percent of LPNs work for employers in the Twin Cities region and three other urban counties (Olmsted, Saint Louis and Stearns). When compared to the distribution of the state's population (37 percent rural and 63 percent urban in 1999),<sup>110</sup>, this finding points to a higher concentration of RNs in the state's urban centers and a higher concentration of LPNs in rural areas.

Nursing (both RN and LPN) workforce profiles have been developed by the Minnesota Department of Health, Office of Rural Health and Primary Care to examine the nursing supply in Minnesota. These profiles as well as reports from providers, consumers, and others indicate that employer demands significantly outweigh the available supply of nurses -- in other words, indicate a nursing shortage. This shortage of nurses has a significant impact on access to health care for seniors.

As stated in the RN and LPN Workforce Profiles, employers reported that they were trying to fill an estimated 2,900 RN and 1,658 LPN openings across the state in the fall of 2000 with 41 percent of the LPN openings outside of the seven-county metropolitan area. Overall, 66 percent of RN openings and 84 percent of LPN openings remained unfilled for more than two months or were considered always open by employers. An earlier study found that one-third of RN positions and two-thirds of LPN positions were unfilled for more than two months or considered always open. This new finding reinforces the fact that employers are having a very difficult time hiring nurses.

While demand for nurses continues to be strong, growth in the supply remains largely unchanged. Similar to other health care occupations, nurses have well-defined educational and professional licensing requirements. The length of required training for LPNs is much shorter than some health care occupations which may suggest that state educational programs could meet growing employer demand for LPNs more rapidly than for other health care workers. The number of Minnesota graduates pursuing a state RN license has remained fairly constant

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<sup>110</sup> State Of Minnesota Population Estimates, 1999. Minnesota Planning.

throughout the time period of 1993 through 1997. The number of individuals completing LPN programs peaked in 1993 and then steadily declined through 1997.

Retirement and age are also factors that affect the supply of nurses. Nurses working in urban areas of the state (the Twin Cities, St. Cloud, Duluth and Rochester) tend to be younger than their rural counterparts. Regions with RNs older than the state average include the southwest, north central and northeast areas of the state, while LPNs in the southwest, southeast, northeast, and south central regions tend to be older than the state average.

## PHARMACISTS

Minnesota has 5,462 licensed pharmacists. Table 7 shows that, of these, 4,167 live in Minnesota and work in a pharmacy-related capacity. Of the other 1,295 licensed pharmacists, most (about 75%) live in other states and the others are retired or not working in a pharmacy-related capacity. Approximately one-third of Minnesota pharmacists reside and work outside the Twin Cities Metropolitan area.

**Table 7**  
**Pharmacist Licensure Status**

<b>Licensure Status</b>	<b>Total</b>	<b>In-State</b>	<b>Out-of-State</b>	<b>Male In-State</b>	<b>Female In-State</b>	<b>7-County Metro Area</b>	<b>Non-Metro Area</b>
<b>Active</b>	5,462	4,167	1,295	2,358	1,809	2,381	1,786
<b>Inactive</b>	72	29	43	22	7	18	11
<b>Emeritus</b>	104	70	34	64	6	40	30

As Shown in Table 8, the majority of pharmacists work in retail (community) pharmacies and the next most common type of employment is hospital pharmacy.

**Table 8**  
**Pharmacists, By Type of Employment**

<b><u>Type of Employment</u></b>	<b><u>Number</u></b>
Retail (Community)	2,942
Hospital	965
Parenteral-Enteral/Home Health Care	131
Teaching/Government	88
Relief	48
Manufacturer/Wholesaler	42
Nursing Home	19
Nuclear	11
Other, Pharmacy Related	344
Other, Non-pharmacy Related	70
Retired	111

Demographic analysis of current pharmacists by age shows that a significant number of all pharmacists are 45-50 years of age. Pharmacy graduates are now two-thirds women, some of whom choose to limit their working hours during child raising years. In 1973 only 10% of University of Minnesota College of Pharmacy students were women as compared to 70% today.

Like most other health professions, there appears to be a shortage of pharmacists in the state. A 1999 University of Minnesota College of Pharmacy survey of hospital pharmacy directors documented 73 open positions in 30 hospitals. Independent of this, a survey of rural pharmacists, The Minnesota Demand Assessment, conducted by the Center for Rural Health with support from the Office of Rural Health and Primary Care, documented openings for 68 pharmacists in rural pharmacies with another 65 open positions anticipated. In addition, there are 31 counties in Minnesota with fewer than five pharmacists per 10,000 people. This compares to an average pharmacist to population ratio in the state of 6.8 pharmacists per 10,000 people.

A shortage of pharmacists is of particular concern in rural areas for many reasons. One issue is that rural pharmacists find it difficult to recruit qualified pharmacists for part time assistance. This results in pharmacists that work independently with long hours, little time off, and forced closure due to illness. Another factor is that retiring pharmacists have difficulty finding a new pharmacist to purchase their pharmacy and often are simply closing them. There are over 100 communities in Minnesota where single pharmacies provide the only fulltime access to health care for that community.

The University of Minnesota College of Pharmacy is the only college of pharmacy in the state. It has expanded its class size in the past two years to 105 entering students per class and anticipates graduating 100 pharmacists a year by 2002 (graduating class size was 90 in 2000 and will be 83 in 2001); however, this expansion is not expected to alleviate the shortage of pharmacists.

Factors affecting the shortage of pharmacists include: 1) significant increases in the number of prescriptions; 2) the trend that pharmacies, especially chain pharmacies, hire more than one pharmacist and stay open longer hours; 3) alternatives for employment of pharmacists besides the practice setting (the Twin Cities Metro area, for example is the headquarters for several pharmacy benefit management companies that employ almost 400 pharmacists, many of whom are graduates of the University of Minnesota); and 4) shortage of technicians. In addition, as the dispensing role for pharmacists has increased, the pharmaceutical care/patient care role of pharmacists has increased as well.

Pharmacy technicians and alternative routes of dispensing prescriptions (mail order, internet, robotics), both of which were thought to alleviate the demand for pharmacists, have not permeated the marketplace as one might have expected. Therefore, more pharmacists are employed in healthcare-related settings with a corresponding decrease of pharmacists in the dispensing role.

The impact of the shortage is felt in many ways. The greatest concern is the impact upon healthcare quality as pharmacists become overworked and have less time to examine each prescription for errors. As pharmacists are pulled more into the dispensing role, less patient care occurs and more drug-related problems will emerge resulting in higher health care costs.

In rural areas, the inability to hire new pharmacists is resulting in the closure of a significant number of pharmacies as solo pharmacists reach retirement age. Table 9 shows the steep decline in the number of independently owned pharmacies in Minnesota over a recent 15 year period. The closure of these pharmacies results in a significant decrease in access to health care for that community and harms the economy as well.

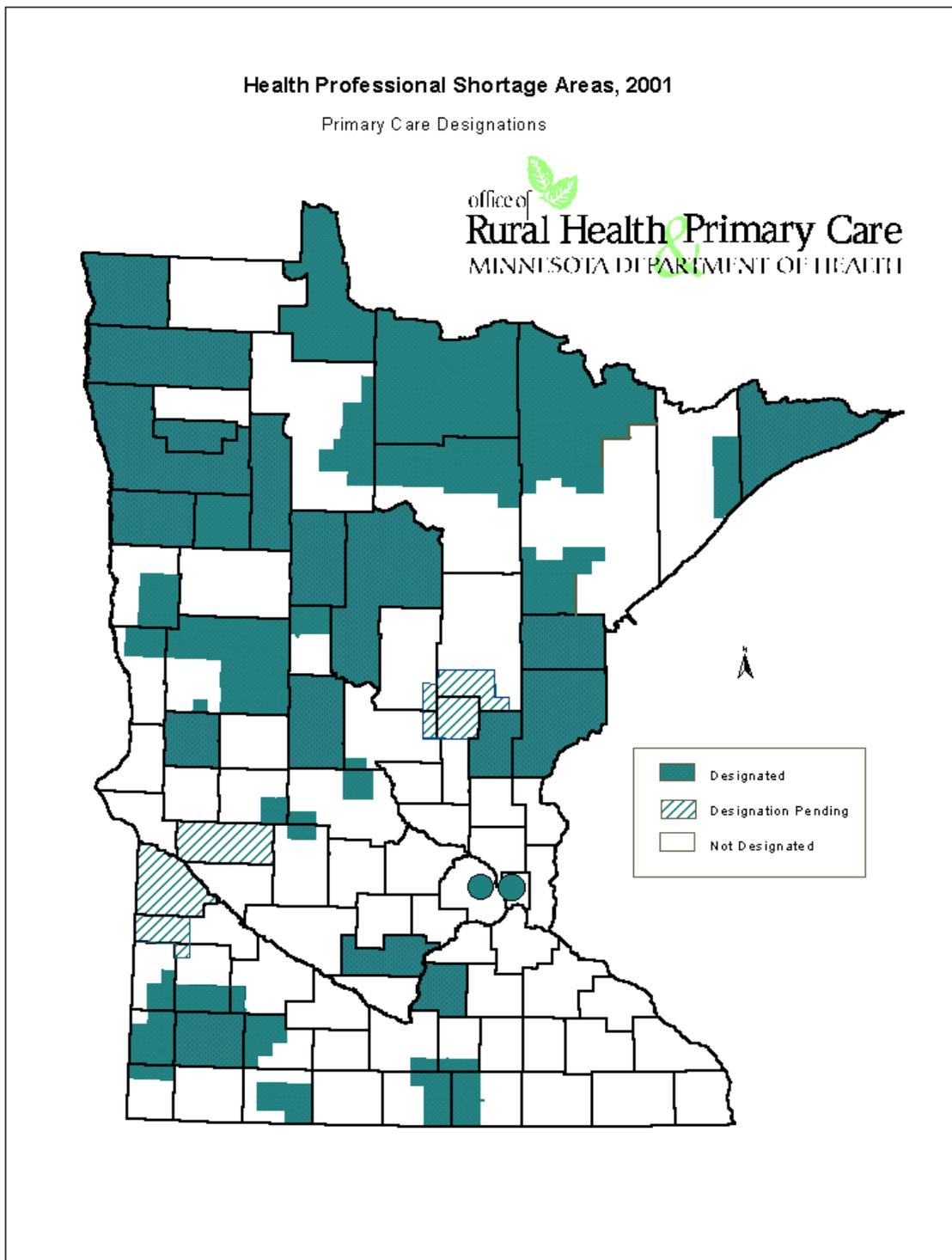
**Table 9**  
**Minnesota Pharmacies By Type**

	<b>1983</b>	<b>1990</b>	<b>1998</b>
<b>Chain</b>	217	296	386
<b>Independently owned</b>	918	635	532
<b>Hospital</b>	168	171	148

Data for all of the practitioners are derived from a variety of sources including the Minnesota Department of Health, Office of Rural Health and Primary Care Health's health professions database. A more complete analysis of each practitioner will soon be available at

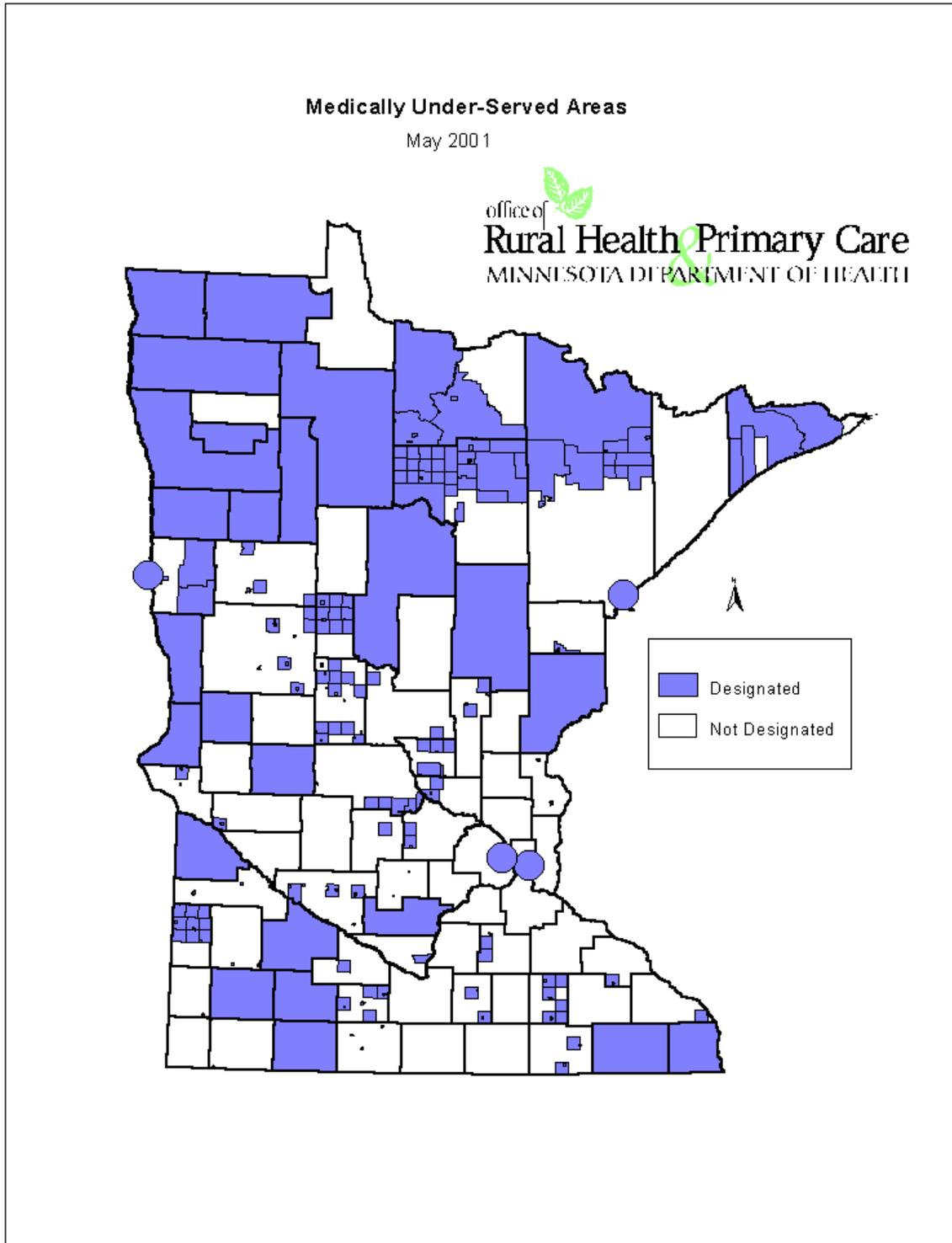
[www.health.state.mn.us/divs/chs/orh\\_home.htm](http://www.health.state.mn.us/divs/chs/orh_home.htm)

### Map 30



**Data Source: MN Department of Health, Office of Rural Health and Primary Care, 2001.**

**Map 31**



**Data Source: MN Department of Health, Office of Rural Health and Primary Care, 2001.**



## SECTION XI: TRANSPORTATION

The transportation system referred to in this report includes public transit, social service, and medical transportation operated by a variety of public and private nonprofit agencies.

### Background

Many older adults do not drive. According to a 1997 AARP study, one-quarter of people 75 years of age and older do not drive.<sup>111</sup> With the aging of the baby boomers, the number of older adults that do not drive is expected to increase. A reality within the United States, including Minnesota, is that people are dependent on private transportation. Because of the vast geographic distances that people must travel in rural areas to obtain basic necessities and health services, this dependency is even greater. In addition, if young adults continue to move away from rural communities for education and jobs, seniors will have fewer family members available to meet their transportation needs. If older people do not have public transit in their communities, then they must rely on some kind of specialized transportation systems.

In general there are four types of transportation for older people in Minnesota.

- Demand Response, or curb-to-curb, transportation (public transit)
- Fixed Route (public transit)
- Ridesharing (public or volunteer transit)
- Private transit company

Demand response transportation (sometimes referred to as Dial-a-Ride), refers to a system requiring advance reservations that offers transportation from one specific location to another. This service often requires payment of a fare or a per ride donation.

Fixed route (also called scheduled services) transports riders along an established route with stops at scheduled times and locations. While reservations are not required, payment of a fare on a per ride basis is. Senior citizen discounts are offered in many communities.

Ridesharing programs coordinate people who need rides with volunteer drivers who have space in their automobiles. Services are scheduled at specific times and have specific destinations, such as places of employment, nutrition sites, senior centers and medical appointments.<sup>112</sup>

The private transit system exists to transport persons for medical reasons with a physician request and provides door-to-door and/or home-to-health service transportation. These private transportation providers (such as Medi-Van) are a significant part of the transportation network, particularly for the frail elderly.

The Minnesota Department of Transportation (Mn/DOT) coordinates urban, small urban, and rural transit activities. It works cooperatively with other agencies, such as the Metropolitan

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<sup>111</sup> Administration on Aging. "Older Adults, Transportation and Longevity."

<<http://www.aoa.gov/factsheets/Transportation.html>>.

<sup>112</sup> Administration on Aging. "Transportation Services: Where to Get Them in Your Community."

<<http://www.aoa.gov/aoa/eldractn/transp.html>>.

Council in the seven-county metropolitan area, to promote transit access. Mn/DOT administers federal grants, such as the Section 5310 Elderly and Disabled Transit Grants and the Section 5311 Grant Program.<sup>113</sup> These grants are used to assist local entities in meeting transit needs of people who are older or disabled. The grants fund technical assistance, procurement activities, and evaluation of current transit systems.

The Section 5310 Grant Program offers grants to assist in meeting the transportation needs of elderly and disabled populations. The federal government provides grants of up to eighty percent of funding needs, while local entities must provide the remaining twenty percent of the funding. Annually, Mn/DOT grants Section 5310 funds to eligible recipients, primarily to private non-profit organizations serving elderly and disabled populations. Funds are granted with restrictions on use and are only eligible for the purchase of vehicles. All operating expenses are the responsibility of the recipient. The primary objective of grants under Section 5310 is meeting the special needs of elderly and/or disabled persons for whom existing mass transportation services are unavailable, insufficient, or inappropriate. In 1999, the Section 5310 Grant allocation was \$1,138,772.<sup>114</sup>

Another program that is geared toward rural transportation issues is the Section 5311 Rural Transit Assistance Program (RTAP). This program provides technical assistance, training, research and other support services for rural transit providers. Mn/DOT administers the federal Section 5311 funds and State of Minnesota funds to meet the transportation needs of the general public including people who are older and/or who are disabled. These public transit funds are used for purchasing vehicles to start or expand services and for on-going operational costs. They are funded in a three-way partnership of state, federal and local resources. Program allocations were \$109,528 in 1999.<sup>115</sup>

Actual operating costs of all transit systems in Minnesota, not just those for the elderly, were \$222 million in calendar year 1999, according to the Mn/DOT Office of Transit. Projects provided public transit services to over 80 million riders.” The 1999 Transit Report shows that in 1998, metropolitan ridership equaled 71,777,827, while greater Minnesota ridership was 8,581,681.<sup>116</sup>

Mn/DOT reported that seventy-four vehicles were purchased during 1999 under the Section 5310 and 5311 umbrellas -- “Cooperative Vehicle Procurement Process”. This process makes “it possible for transit systems to purchase a vehicle that best fits local needs from vendors meeting Mn/DOT’s vehicle specifications.”<sup>117</sup>

Volunteer Driver Programs are one way that people in rural areas have addressed senior transportation problems. Volunteers in these driver programs use their own vehicles to transport seniors. Most of the volunteers’ vehicles do not meet the transportation requirements of the

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<sup>113</sup> Federal Transit Administration, U. S. Department of Transportation. May 2001. <<http://www.fta.dot.gov/thisisfta/10.html>>.

<sup>114</sup> Ibid, p. 13.

<sup>115</sup> Ibid, p. 13.

<sup>116</sup> Transit Report, 1999: A Guidebook to Minnesota’s Public Transit Systems. Minnesota Department of Transportation, Office of Transit. 1999: 11.

<sup>117</sup> Ibid, p. 16.

Americans with Disabilities Act (ADA). Volunteers' using their own vehicles is less costly than many transit alternatives and often meets the diverse needs of many seniors. Rural areas still need buses for routes and transportation alternatives that meet ADA requirements.

### **Transportation Issues**

A pivotal rural transportation issue is the geographic dispersion of population in many parts of the state and the irregular needs of transit riders (such as doctor appointments). Many parts of the state cannot support regular route transportation, and dial-a-ride systems may be difficult to schedule and maintain.

Mn/DOT's Office of Transit has developed some rural transit initiatives to begin to address rural transportation issues. For example, the Southwest Minnesota Translink Initiative operates in three counties. In this initiative, 3 multi-county systems (Western Community Action, Inc., Prairie Five, CAC, Inc. and Rainbow Rider) "have combined resources to purchase a single GIS-based computer assisted dispatch and scheduling system using multiple terminals. A common customer database allows easy sharing of information and improved reporting functions."<sup>118</sup>

Government regulations support primarily bus and van services and thus are geared more for urban transit programs to the disadvantage of rural areas. Medical treatments, such as chemotherapy or dialysis, are physically difficult and the added burden of traveling by bus or van may be too much for some seniors. Many of these transit services are scheduled to leave early in the morning with the return trip scheduled in the late afternoon. For many people who are older and living in rural areas, this is just too long of a day. Anecdotal evidence suggests that older people just forgo their medical appointments rather than using transit services that leave at 8:30 and return at 4:30 because many elderly just cannot be away from home for that long of a time period.

Maps 33 and 34 show transit locations and ridership, and demonstrate that many rural transit systems are small. Some rural transit systems provide fewer than 2500 rides per year (6 rides per day). Costs associated with operating and maintaining such systems may be prohibitive when available pools of riders are small, as is the case in many rural areas.

Private transit services are increasingly finding it difficult to remain financially viable. This is because of state and federal reimbursement issues as well as an increasing need to compete with state and federally subsidized transit programs. Although public transportation providers are to provide curb-to-curb services, there are those that are providing door-to-door or even greater assistance in their service. This results in a smaller market share for private transit companies that are not receiving subsidies for their service.

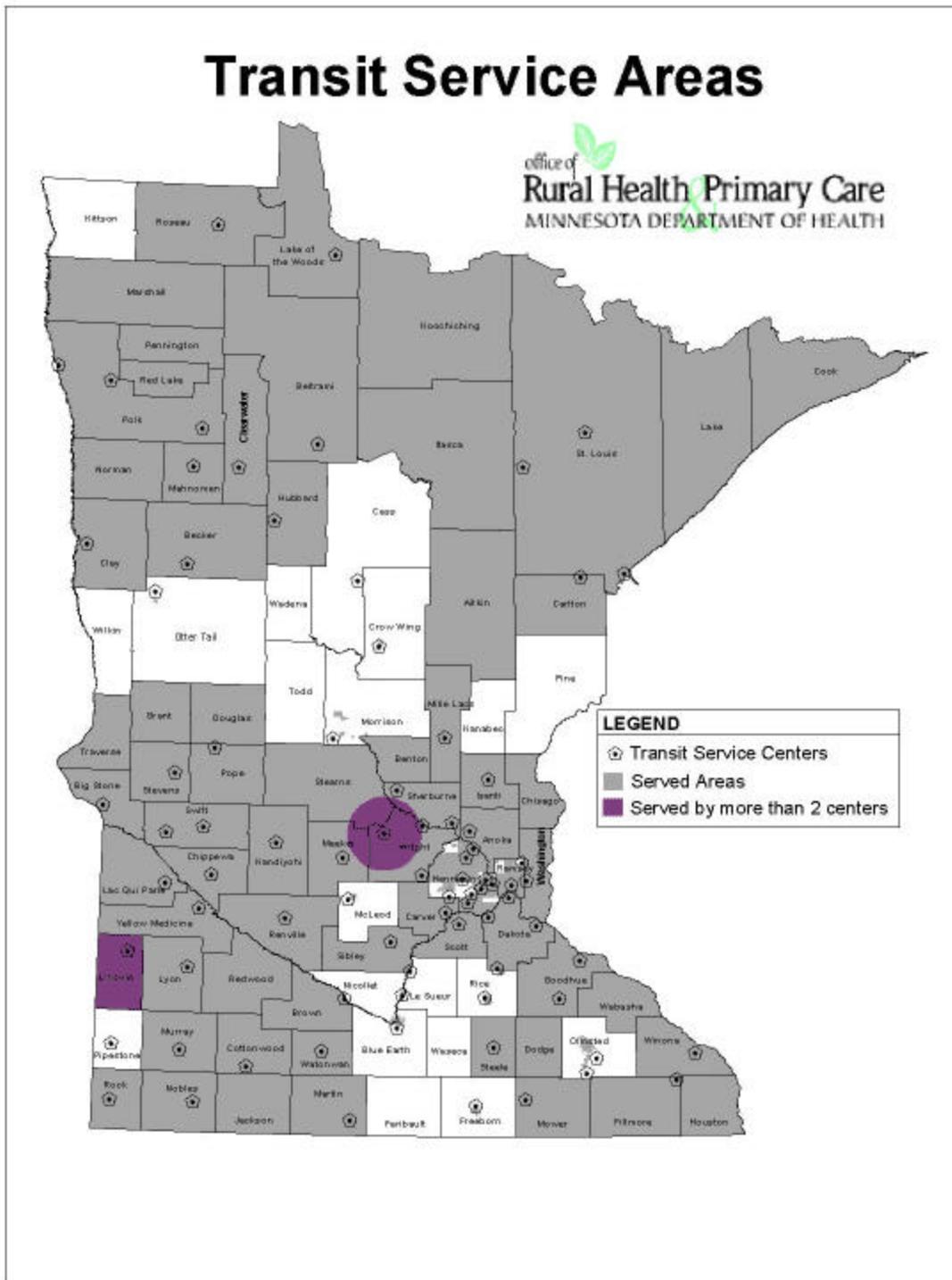
### **Transportation Data**

Data for this portion of the report come from the "1999 Minnesota Transit Report: A Guidebook to Minnesota's Public Transit Systems," published by the Mn/DOT's Program Delivery Group -- Office of Transit.

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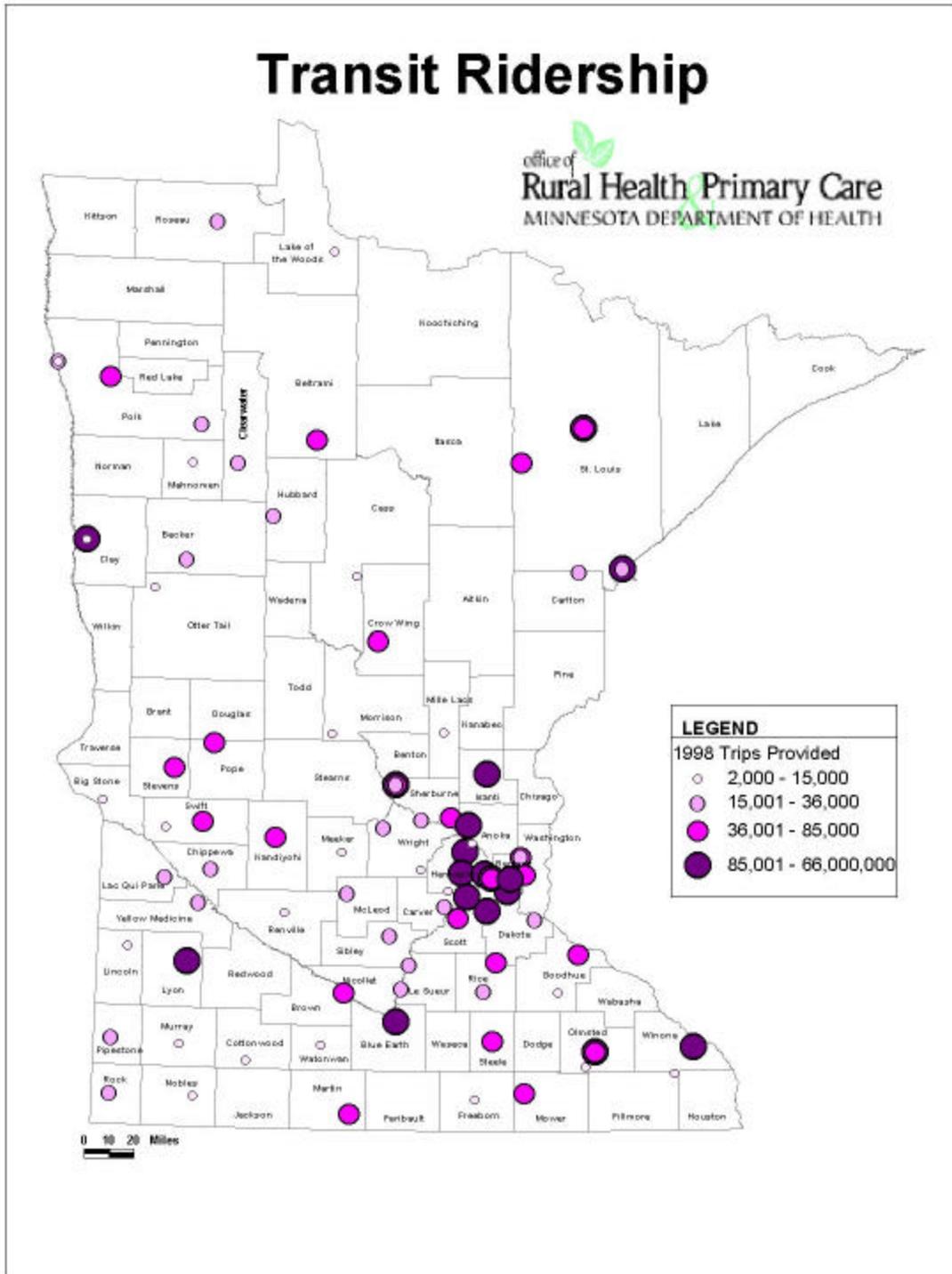
<sup>118</sup> Ibid, p. 17.

Map 33



**Data Source: MN Department of Transportation, Office of Transit, 1998.**

# Map 34



Data Source: MN Department of Transportation, Office of Transit, 1998.

# Conclusions And Recommendations

The findings of this study revealed several issues affecting access to health services for seniors in rural Minnesota. These findings as well as the recommendations and related action steps are outlined below. In addition, a couple of other areas of concern, workforce and diversity, were also discussed throughout the work group process and were identified by the work group as critical issues that should also be discussed briefly. Although these issues are not directly related to geographic access to senior health services, they play an important role in access to health care.

## **Workforce Shortage**

The health workforce shortage permeated every health service examined in this report, from paid professionals in hospitals and adult day care programs to volunteers working at congregate dining sites or on rural ambulance services. In addition, the health workforce shortage is having and will continue to have a major impact on the availability and distribution of health services in Minnesota. Implications of the workforce shortage are far reaching.

Given the nature and scope of the workforce crisis, the Rural Health Advisory Committee believes developing strategies to ease the workforce crisis should be a state priority. In addition, planning and policy making efforts need to cover a range of issues, including: increasing the capacity of health careers education programs, recruiting new people into health care fields, retaining existing workers, and reengineering the public health and health care delivery systems so that demand for health services declines. Although the Rural Health Advisory Committee recognizes this, resolving the health workforce crisis was not the intent of this report. In addition, there are many other entities that are working to address health workforce issues. Therefore, we suggest that the Commissioner of Health and other state agency heads continue to make health care workforce issues a policy planning and legislative priority.

## **Increasing Diversity**

The increasing diversity in rural communities is another factor that does and will play a critical role in assuring access to senior health services. Work group members noted that not only are health care providers serving diverse populations, but diverse populations are becoming a key part of the new workforce, community culture and dynamic, and the economy as a whole. Meeting the health care needs of all populations, including diversity policy planning should also be a priority of the Commissioner of Health, other state agency heads, and the legislature.

*Following are the work group's recommendations:*

## **Interrelationship of Health Services**

A vast array of health services for seniors exist in Minnesota and most of these services are interrelated. Therefore, changes in one service can impact access to other services. For example, nursing homes will sometimes have the contract to provide food that is served in congregate dining sites or Meals on Wheels; hospitals are often the providers of adult day care services and/or hospice care. As a result, closing one service provider can impact access to other health services along the continuum of care.

This interrelated nature of rural health services illustrates the need to think beyond the confines of a specific senior health service when making policy, planning, and reimbursement related changes. Ultimately, using a systems approach to planning senior health services could diminish the chance of creating unintended consequences. In addition, the closure of any health facility should be carefully considered, taking into consideration current and future health care needs, the role of the facility in the communities it serves, and its potential role as an “anchor facility.”

**Recommendation: All communities, regions, and state agencies should use a systems approach to planning senior health services, including the following:**

- 1. State and local planning and policy makers should consider how changes in one health service might impact the provision of services in other areas, including transportation and nutrition programs;**
- 2. The Commissioners of Health and Human Services should encourage the participation of the Commissioner of Transportation on the state Long-Term Care Taskforce;**
- 3. All state agencies should work towards improving and assisting with local senior service planning efforts by making more relevant information easily accessible, up to date, and available on the Web. More specifically, information provided by the state Senior Linkage Line should be updated at a minimum on an annual basis.**

### **Rural Communities’ Unique Characteristics**

Minnesota’s rural communities have unique characteristics that affect access to health services for seniors. Longer travel times, fewer health practitioners, lower incomes, and a greater proportion of the population being over the age of 65 are just a few examples of the unique nature of rural Minnesota.

**Recommendation: Acknowledge and address the unique characteristics of our rural communities in the health policy planning, development, and implementation process.**

- 1. Rural representatives (those residing outside the eleven county metro area, Duluth, Rochester, and St. Cloud) should be included in all statewide health policy discussions. This includes having geographically dispersed rural representatives on advisory bodies to the Minnesota Departments of Health and Human Services.**
- 2. State and regional level organizations should find new ways to engage rural community members and local and regional entities in planning for future senior health services.**

### **Gaps in Access to Health Services**

Gaps in access to health services for rural seniors were identified in several geographic areas throughout the state. Targeted allocation of resources could address such disparities. For example, state and federal program funding to foster community-based alternatives could be directed towards those geographic areas with limited or no access to health services.

**Recommendation: Communities with no or limited access to the continuum of senior health services should be encouraged and/or given priority when state or federal funding is available to develop and make such services available throughout the state.**

- 1. Federally funded rural health research centers and more specifically, the University of Minnesota, Rural Health Research Center, should develop and promote geographic definitions to identify areas with access issues, for example, the “21 mile or only hospital in the county” definition that the Rural Health Advisory Committee developed in 1996, and to determine the communities that should be given priority when state and/or federal funding is available for health service development and/or enhancement.**

### **Rapidly Changing Environment**

Factors affecting the provision of health services are changing rapidly. Technological advances coupled with changing demographics contribute to this trend. An example of the impact of this rapidly changing environment is the impact of higher energy costs on senior nutrition programs. Seniors often live on fixed incomes. When energy costs began their steep increase last year, seniors had to make hard choices, including deciding whether to pay for the increased energy costs of home heating and transportation or paying for prescription drugs or buying food. As a result, within a very short time frame, increased energy costs created additional need for senior nutrition programs. At the same time, senior nutrition programs grappled with the impact of increased transportation costs (due to increased fuel prices) on their budgets and program capacity.

Such changing environmental factors have the potential to impact access to health services for rural seniors. Local communities and systems of health services need to have the capacity to anticipate and respond to these issues.

**Recommendation: The Commissioners of Health and Human Services should identify or create a local/regional ombudsman, liaison, or rapid response person who can work with state agency staff and others to quickly report on and trouble shoot environmental issues. An example could be the Area Agencies on Aging or Minnesota Department of Health District Office Staff.**

### **Research Needs**

Additional research, analysis, and data collection is needed to better understand geographic access to some of the services discussed in this report. This work should be completed by the Minnesota Department of Health in conjunction with other state agencies, trade organizations, regional planning groups and communities. Services that need further study include: hospice utilization, mental health, and pharmacy supply and demand. Each is described below:

*Hospice utilization* is a key health service that needs further study. On a national level, hospice care is provided most often in patient homes. Because Minnesota does not systematically gather information about end of life care, we do not know whether those seeking hospice care are getting it and whether they were able to get it in their location of choice, including their home. Perhaps utilization could be addressed by the Commission on End of Life Care.

*Access to mental health services* is another area where further study is needed. Mental health providers are a vital component in the continuum of care for rural seniors. A range of professionals provide mental health care including psychiatrists, psychologists, nurses, parish nurses, physicians, social workers and others. Currently, data limitations constrain our knowledge about the full range of mental health providers. Studies suggest that access to mental health services is an issue in rural areas; lack of solid data prevents both a better understanding and recommendations for corrective action.

Steps need to be taken to collect data on key mental health providers including psychologists and social workers. This should be in addition to what is already collected through the state licensing boards. Additionally, we need to develop a better understanding of access to mental health care for an increasingly diverse population of rural seniors. The Rural Health Advisory Committee is interested in researching issues related to mental health and will begin that effort in 2002. The Rural Health Advisory Committee encourages other partners to do the same in a collaborative manner.

*Pharmacies.* A recent University of Minnesota College of Pharmacy study identified pharmacy supply as a factor affecting the pharmacist shortage in rural Minnesota. In rural areas, the inability to hire new pharmacists has resulted in the closure of a significant number of pharmacies as the pharmacist reaches retirement age. The closure of these pharmacies results in decreased access to health services for that community as well as impacting the overall economy of the community. Pharmacy closures in rural Minnesota suggest a need to further study pharmacy supply and demand and the resulting impact on access. Pharmacy closures also point to the need to look at any regulatory or operational barriers that may prohibit the opening of new pharmacies in rural areas. As a part of the Rural Health Advisory Committee 2001-2003 work plan the Committee will be discussing regulatory issues that may create barriers to access to rural pharmacy services.

#### **Recommendation:**

- 1. More information is needed about specific health services in rural areas. Services that need further study include hospice utilization, mental health, and pharmacy supply and demand. This research should include a joint state, trade organization and community approach.**
- 2. The Minnesota Department of Health should add utilization of hospice services to death certificates in the state.**

#### **Data Collection and Dissemination**

An accurate assessment of the inventory of health services for seniors is a basic and necessary planning tool to determine and improve access. Health services are licensed by an assortment of public agencies, all of which track or update their database of providers according to the resource constraints, priorities and needs of their particular organization. Some health services are also monitored by a variety of trade associations and other private organizations.

Data for this report came from a variety of sources. Appendix C shows that data from over 30 different sources were compiled to accomplish the graphic representations of health services

included in this report. There was no centralized, computerized source of information about health services for seniors to go to for these data. Study data were found in 27 different databases housed within seven different state agencies, one local government agency and four private organizations.

Although requests for data were consistently honored by the state agencies that deliver the services or license the provider or facility, data were often not electronically accessible and were frequently outdated; the oldest was composed of 1993 data. Many databases needed substantial labor investments to clean the data to make it usable and accurate. In addition, databases were stored in a variety of ways including electronic and paper databases. In some cases data were stored in numerous paper files.

**Recommendation:**

- 1. The Commissioners of Health and Human Services should establish a data standards work group to develop joint standards for data collection of health and human services data, regardless of the state agency responsible for the data. At a minimum, all public data should be stored electronically and adhere to specific data collection requirements (such as the inclusion of zip codes).**
- 2. Data collected by state agencies, in particular the Minnesota Department of Health, the Minnesota Department of Transportation, the Minnesota Department of Human Services, and Area Agencies on Aging should be disseminated in a timely and accessible manner, including making the data available on the Internet. An example of this is the Emergency Medical Services Regulatory Board ambulance data and the Minnesota Department of Health, Division of Facility and Provider Compliance data, both of which are already available on the Internet.**

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\* The maps in this report were made using ArcView with State of Minnesota data from the following sources:

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## **APPENDICES**

## APPENDIX A: Size of Minnesota Counties (in square miles)

COUNTY	SQUARE MILES	COUNTY	SQUARE MILES
Aitkin	1993.50	Martin	729.10
Anoka	445.53	McLeod	505.22
Becker	1445.45	Meeker	644.39
Beltrami	3054.79	Mille Lacs	680.83
Benton	412.88	Morrison	1152.67
Big Stone	528.62	Mower	710.95
Blue Earth	765.24	Murray	719.76
Brown	618.13	Nicollet	466.18
Carlton	874.49	Nobles	722.89
Carver	375.81	Norman	877.56
Cass	2413.01	Olmsted	654.28
Chippewa	587.91	Otter Tail	2224.88
Chisago	442.26	Pennington	618.42
Clay	1053.63	Pine	1433.52
Clearwater	1029.41	Pipestone	466.39
Cook	1605.61	Polk	1999.40
Cottonwood	648.48	Pope	717.07
Crow Wing	1155.89	Ramsey	169.87
Dakota	585.92	Red Lake	432.90
Dodge	439.31	Redwood	881.75
Douglas	720.28	Renville	986.95
Faribault	721.46	Rice	515.57
Fillmore	861.61	Rock	483.16
Freeborn	721.81	Roseau	1678.22
Goodhue	779.92	Scott	367.86
Grant	575.74	Sherburne	450.56
Hennepin	606.37	Sibley	600.35
Houston	568.65	St. Louis	6737.60
Hubbard	999.28	Stearns	1389.53
Isanti	451.26	Steele	431.91
Itasca	2925.42	Stevens	575.69
Jackson	719.17	Swift	752.20
Kanabec	533.20	Todd	979.35
Kandiyohi	862.21	Traverse	586.73
Kittson	1105.16	Wabasha	549.08
Koochiching	3153.46	Wadena	543.18
Lac Qui Parle	778.68	Waseca	432.68
Lake	2287.33	Washington	423.02
Lake of the Woods	1773.37	Watonwan	439.58
Le Sueur	473.72	Wilkin	751.88
Lincoln	548.91	Winona	641.10
Lyon	722.05	Wright	714.09
Mahnomen	583.48	Yellow Medicine	763.68
Marshall	1814.09	<b>TOTAL</b>	<b>45762.50</b>

## APPENDIX B: Selected Senior Health Services in Minnesota By Area Agencies on Aging (AAA)

AAA	Hospitals	Nursing Homes			Home Health Agencies	Hospices	Assisted Living	Adult Day Care	Nutrition	
		Facilities	Beds	A & D Units					Home Delivered	Congregate Dining
1	7	20	1476	6	10	4	8	1	37	39
2	6	9	676	0	5	4	4	4	16	17
3	17	37	3471	9	20	6	28	14	56	74
4	10	34	3072	6	27	5	10	7	49	61
5	7	15	1758	4	15	5	14	2	30	31
6E	5	17	1404	4	9	4	16	7	27	29
6W	9	12	960	2	12	1	3	1	21	24
7E	7	12	1238	3	5	3	5	2	20	22
7W	8	21	1962	4	14	4	14	8	30	24
8	14	33	2094	2	17	7	9	4	44	29
9	12	31	2426	9	16	7	22	9	32	39
10	15	56	4729	13	35	12	38	8	67	54
11	27	126	16422	61	71	14	64	42	75	83
12 <sup>119</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13	13
Total	144	423	41688	123	256	76	235	109	517	539

<sup>119</sup> AAA Region 12 is comprised of American Indian Reservations in Northern Minnesota. Data collected for Senior Nutrition only.

## APPENDIX C: Map Data Sources

<u>Map</u>	<u>Data Source</u>
1. Federal and State Roadways	MN Dept of Transportation MN Dept of Natural Resources
2. Area Agencies on Aging	MN Board on Aging, 2000
3. Population Aged 65 Plus Years	U.S. Census Bureau, 1990
4. Females Aged 65 to 84 Years	MN State Demographic Center, 1998
5. Males Aged 65 to 84 Years	MN State Demographic Center, 1998
6. Females Aged 85 Years Plus	MN State Demographic Center, 1998
7. Males Aged 85 Years Plus	MN State Demographic Center, 1998
8. Per Capita Income 1998	MN State Demographic Center, 1998
9. All Minnesota Hospitals	MDH Facility and Provider Compliance, 2000 MN Veteran's Hospitals, Minneapolis and St. Cloud, 2000 Cass Lake Hospital Public Health Service Indian Hospital, Redlake, 2000
10. Hospitals & 21 Mile Radius	MDH Facility and Provider Compliance, 2000 MN Veteran's Hospitals, Minneapolis and St. Cloud, 2000 Cass Lake Hospital Public Health Service Indian Hospital, Redlake, 2000
11. Hospitals with Nursing Homes	MDH Facility and Provider Compliance, 2000 MN Veteran's Hospitals, Minneapolis and St. Cloud, 2000 Cass Lake Hospital Public Health Service Indian Hospital, Redlake, 2000

## **Map**

12. Hospitals with Nursing Homes  
and Home Health

13. Hospitals with Nursing Homes  
and Assisted Living

14. Hospitals with Nursing Homes,  
Assisted Living, and Home Health

15. Ambulance Sites

16. Nursing Home Locations

17. Nursing Homes By Number  
of Beds

18. Nursing Homes and  
Alzheimer/Dementia Beds

## **Data Source**

MDH Facility and Provider Compliance, 2000  
MN Veteran's Hospitals, Minneapolis and  
St. Cloud, 2000

“American Indian Elder Community  
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Cass Lake Hospital  
Public Health Service Indian Hospital,  
Redlake, 2000

MN Homecare Association Directory 1998-99  
and website, 2000

Office of Rural Health and Primary Care  
phone survey, 2000

MDH Facility and Provider Compliance, 2000  
MN Veteran's Hospitals, Minneapolis and  
St. Cloud, 2000

Cass Lake Hospital  
Public Health Service Indian Hospital,  
Redlake, 2000

MDH Facility and Provider Compliance, 2000  
MN Veteran's Hospitals, Minneapolis and  
St. Cloud, 2000

Cass Lake Hospital  
Public Health Service Indian Hospital,  
Redlake, 2000

MN Homecare Association Directory 1998-99  
and website, 2000

Office of Rural Health and Primary Care  
phone survey, 2000

EMS Regulatory Board  
EMSRB website, 2001

MDH Facility and Provider Compliance, 2000

MDH Facility and Provider Compliance, 2000

MDH Facility and Provider Compliance, 2000  
MN Alzheimer's Association, 2000  
Office of Rural health and Primary Care  
phone survey, 2000

## **Map**

19. Home Health Agencies

## **Data Source**

MDH Facility and Provider Compliance, 2000  
MN Homecare Association directory 1998-99  
and website, 2000

ORHPC phone survey, 2000

20. Home Health Agency Areas

MDH Facility and Provider Compliance, 2000  
MN Homecare Association directory 1998-99  
and website, 2000

Office of Rural Health and Primary Care  
phone survey, 2000

21. Assisted Living Providers

MDH Facility and Provider Compliance, 2000

22. Hospice Locations

MDH Facility and Provider Compliance, 2000  
MN Hospice Organization, 2000

23. Hospice Locations & 21 Mile Radius

MDH Facility and Provider Compliance, 2000  
MN Hospice Organization, 2000

24. Adult Day Care Centers

MN Department of Human Services, 2000

25. Adult Day Care Centers By County

MN Department of Human Services, 2000

26. Senior Dining Sites.

MN Board on Aging, 1993  
Area Agencies on Aging, 2000  
Office of Rural health and Primary Care  
phone survey, 2000  
MN Tribal Agencies, 2000

27. Senior Dining Sites By Number  
of Days Per week

MN Board on Aging, 1993  
Area Agencies on Aging, 2000  
Office of Rural health and Primary Care  
phone survey, 2000  
MN Tribal Agencies, 2000

**Map**

28. Home Delivered Meals By  
Providers Per County

29. Home Delivered Meals By Days  
Available Per Week

30. Health Professional Shortage Areas

31. Medically Underserved Areas

32. Mental Health HPSAs

33. Transit Service Areas

34. Transit Ridership

**Data Source**

MN Board on Aging, 1993  
Area Agencies on Aging, 2000  
Office of Rural health and Primary Care  
phone survey, 2000  
MN Tribal Agencies, 2000

MN Board on Aging, 1993  
Area Agencies on Aging, 2000  
Office of Rural health and Primary Care  
phone survey, 2000  
MN Tribal Agencies, 2000

ORHPC workforce data

ORHPC workforce data

ORHPC workforce data

MN DOT, Office of Transit, 1998

MN DOT, Office of Transit, 1998