Status of Long-Term Care in Minnesota 2008

A Report to the Minnesota Legislature

For more information, contact: Minnesota Department of Human Services Aging Division P.O. Box 64974 St. Paul, Minnesota 55164-0974 (651) 431-2600

This information is available in other forms to people with disabilities by calling 651-431-2600 (voice), toll free 1-800-882-6262, or 1-800-627-3529 (TTY)

Printed with a minimum of 10 percent post-consumer material. Please recycle.

I. Purpose of This Report

This document summarizes the status of long-term care¹ for older persons in Minnesota in 2007, and was developed in response to a legislative mandate (M.S. 144A.351) to biennially update the legislature on the effects of legislative initiatives to "rebalance" the state's long-term care system. In 2001, the Minnesota Legislature enacted a comprehensive set of historic long-term care reform provisions prepared by the state's long-term care task force². Since that time the Legislature has enacted additional provisions to reduce reliance on the institutional model and expand the availability of home and community-based options for older persons. Demographic and market changes over the past two years have further affected Minnesota's long-term care system. This report provides an update on the current status of the state's long-term care.

As required by statute, this report includes demographic trends; estimates of the need for longterm care among older persons in the state; and the status of home and community-based services, senior housing and nursing homes serving older persons at the state, regional and county levels. Also discussed are the activities and roles of the Minnesota Department of Health in regulation and quality assurance, changes in the state's strategies to provide information to consumers for long-term care decision-making, and other issues that will affect long-term care in the future. The report concludes with four long-term care benchmarks that measure the progress made on key elements of long-term care reform in Minnesota and a brief summary of the current status of long-term care in Minnesota as well as some policy and resource implications.

The Minnesota Department of Health contributed data and other information necessary for the completion of this report. Counties and Area Agencies on Aging/Eldercare Development Partnerships also contributed data and comments on the changes that have occurred in the availability of services over the past two years. The cost to prepare this report was approximately \$5,000.

¹ Long-term care is defined as ". . . assistance given over a sustained period of time to people who are experiencing long-term care inabilities in functioning because of a disability" *(Ladd, Kane, Kane, 2000)*. For purposes of this report, long-term care refers to care provided in all settings, including homes, apartments, residential settings and nursing homes.

² That report is available at

http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod =LatestReleased&dDocName=id_005812.

II. Demographic Trends and Need for Long-Term Care

Earlier reports to the Legislature on this topic (2001, 2004 and 2006) reported on the demographic trends that are expected to have a profound impact on the need and demand for long-term care in Minnesota. This section summarizes those trends and reflects Minnesota's experience over the past two years in interpreting the impact of these forecasts.

A. Demographic Changes

Minnesota ranks just about in the middle of states in its proportion of elderly. The U.S. average is 12.4% persons age 65 and older, Minnesota is at 12.1%. Alaska is the "youngest" state with about 6.6% of its population over age 65, and Florida is the "oldest" (16.8% is 65+). The proportion is strongly influenced by migration trends. Alaska has attracted young in-migrants and Florida has attracted older in-migrants. This migration effect has resulted in relatively *slow* growth of Minnesota's older population over the past 3 decades. Between 1990 and 2000, Minnesota's overall population increased 12.4 % while the population 65+ increased only 8.7 %. The current slow growth in numbers of elderly is also partly attributable to the lower birth rates in the years around the Depression, when today's older persons were born.

Looking ahead there is a reverse of this trend: the population 65+ is forecast to increase about 40% *faster* than the under-65 population. Beginning in 2011, the first wave of boomers, born between 1946 and 1964, begins to turn 65. From then and for the next 30 years, this cohort will dominate the state's growth. Between 2010 and 2020, the population 65+ will increase by 40 %

while the under-65 population will increase by about 4 %. Between 2020 and 2030, the comparable figures are 36 % in the older group and less than one percent for the younger group. Minnesota now ranks second among the states in terms of life expectancy at birth: 78.82 years (behind Hawaii at 80.0). This longer life expectancy, coupled with a small net in-migration of persons age 85+ returning to Minnesota after living their younger retirement years in another state, contribute to an ever-increasing numbers and proportion of the "oldest old." Between 1990 and 2000, this "older" group of Minnesotans grew by about 25 %, from 69,000 to 86,000. However between 230 and 2050, the number of persons aged 85 and older is projected to double-to 250,000 persons.



Source: Office of MN State Demographer

By 2060 the overall numbers of older persons are projected to decline slightly because nearly all the baby boom generation will have died and the next generation will not be as large. Nonetheless, an older society will be a permanent fixture of the state's demographic profile into the foreseeable future.

This next generation of older Minnesotans also has significantly fewer children than previous cohorts (1.8 children per couple compared to 3.2 children per couple in the 1950s). The trend toward smaller families has already resulted in a shift in the age structure of the workforce as well as the availability of adult children, a major source of "informal" long-term care in Minnesota.

Population aging in Minnesota will result in a significant reduction in the state's labor force growth. The impact on the state's workforce will have implications for long-term care. An older median workforce age, and a higher proportion of older workers (with expectations for employee-sponsored health care), and raise competition for scarce younger employees. The long-term care industry has long depended on low-wage workers, and because of high turnover in many LTC positions, the industry is also dependent on new workers coming on line.



Net Labor Force Growth in MN by Decade

Notwithstanding the likelihood of some inmigration from other states and other countries, the number of "new workers" in Minnesota in the decade from 2010 to 2020 is forecast to be about a third of that seen in the current decade. In a word, the projected labor force supply for long-term care is likely to be inadequate without significant changes in labor deployment, recruiting and maintenance.

As the chart above shows, the labor force growth in Minnesota will decrease by two-thirds in the upcoming decade. Competition for new workers will put new demands on Minnesota's long-term care industry already coping with low wages.

The supply of seasoned, professional workers is also forecast to decline over the next few decades, again just as the potential demand for long-term care services is forecast to increase. The chart on the following page shows the forecast change the older population (in percent, from a baseline in 2004) along with the comparable changes in percent of new health professionals projected to graduate from professional schools in Minnesota—in four critical professional groups: physicians, nurses, dentists and pharmacists.



Source: Minnesota Department of Health * Loss due to retirements or career changes

B. Need for Long-Term Care

The demand for long-term care in Minnesota is tied to both the demographic projections and disability rates. As noted in the above, the older, at–risk population is projected to continue to

increase, more slowly through 2020, and then quite rapidly for the next two decades. At the same time, age-specific disability rates in the United States have been decreasing at he rate of 3% or more per decade for the past several decades, partly due to generally improved public health standards during this cohort's early years (1920s and 30s), and partly due to advances in health and medical care widely utilized by older people, e.g., hip or knee replacements, prescription drugs that increase the ability to function and be independent. Today's elderly are, in general, healthier than their age peers just a generation ago. Since the 1950s disability rates by age have generally declined. For example





between 1984 and 1999, age-adjusted disability decreased from 25% of Medicare enrollees to fewer than $20\%^3$. The effect is that persons in their 60s today are in far better health and physical functioning that persons in their 60s were in the past.

Nonetheless, persons aged 85 and older have significantly higher prevalence of chronic illness and rates of disability⁴ and as the population ages the need for long-term care will increase because functional disability increases with advancing age-despite the previously mentioned slowdown in the rate at which this occurs.⁵ Over two-thirds of persons age 85 and older have at least one disability. compared to about one in eight persons younger than 65. In addition to a higher proportion of persons having a disability, older persons are more likely to have *multiple* disabilities, that is to say several chronic conditions, each of which poses a challenge to the individual's ability to function independently.



Whether the gradual reduction in disability rates among elderly will continue into the future is unknown, given the strong effect of lifestyle choices. Certainly, reduced rates of cigarette smoking will positively affect future health status and some reduced disability. However, the rising rates of obesity and adult-onset diabetes, which are tied to eating and exercise habits, could even offset this positive trend. For the purposes of this report, however, we will use national estimates⁶ of the need for community vs. institutional care among the elderly, and apply those factors to our population.

While nursing home utilization in Minnesota has historically been somewhat higher than the national rates, in 2003—based on national estimates—about 24,000 elderly Minnesotans would have needed long-term *residential* care in a nursing home setting in Minnesota. That same year (2003) Minnesota's average monthly nursing home caseload was only 21,500.

The sections that follow track the significant changes in the past 5 years to "rebalance" Minnesota's long-term care system—further reducing reliance on an institutional model of care and expanding the supply of home- and community based options.

³ National Long-Term Care Survey, 2006.

⁴ He et al (2005) 65+ in the United States: Current Population Reports, National Institute on Aging.

⁵ Houser, Ari (2007) Long Term Care Research Report, AARP Public Policy Institute.

⁶ Manton, Kenneth and XiLiang Gu (1999) *Changes in the prevalence of chronic disability in the United States black and nonblack population above age 65 from 1982 to 1999.* Center for Demographic Studies, Duke University Durham, NC.

III. Home and Community-Based Services

Surveys of the general public consistently report that the vast majority of persons want to life out their lives—their old age—in their own homes and in their own communities. In addition, most persons want to maintain their autonomy, which translates into very little desire for assistance with activities of daily living. In the 2005 Survey of Older Minnesotans, one of the greatest expressed concerns of respondents is that they might one day have to "depend on others."⁷

Subsequent cohorts of older Minnesotans have ever higher levels of education and higher per capita and household incomes. It is anticipated that future cohorts of elderly will demand more choice and control over their long-term care. The trend is expected to accelerate as baby boomers, the first real "consumer" generation, grow old and need care. The beginnings of this trend are already evident in the changing market for long-term care services and supports.

A. Family and "Informal" Care

Family members—mostly spouses and daughters and daughters-in-law—continue to provide the vast majority of help to older persons who need assistance with Activities of Daily Living (ADLs)⁸, although there have been some significant changes in the patterns of family help over the past 20 years.

As the table at the right shows, the primary sources of personal assistance—for those who need daily assistance with basic activities continue to be family (spouse and /or child) and friends or other relatives. While the role of family members in providing basic long-term care is becoming more widely recognized, the significant role of neighbors and friends has been largely overlooked.

Over the past 10 years there has been a significant <u>increase</u> in the purchase of "hired help" -- whether hired by the older person or their family member -- to supplement the family's ability to meet care needs. At the same time, there has been a <u>decrease</u> in the role of



Source: Survey of Older Minnesotans, 2005

children and children-in-law (primarily daughters and daughters-in-law). For example, in 1995 over 50% of persons receiving personal assistance for ADLs mentioned help from a child or child-in-law. That percentage had declined to 35% in 2005.

⁷ Survey of Older Minnesotans, 2005 -- <u>http://www.mnaging.org/advisor/survey.htm</u>.

⁸ Activities of Daily Living include a standard set of 7 self-care tasks: Bathing; Dressing/undressing; Eating; Transferring from bed to chair/back; Continence; Using the toilet; and Ambulation.

In the future, the number of older persons who live alone is projected to increase. Given current trends, there will be a higher proportion of older persons who live alone (i.e., no spouse who can provide needed care), and the number of "children" available to help future cohorts of elderly will also decrease because of the trend toward fewer children per household – down from 3.2 children per household for today's elderly to 1.9 children for the Boomer cohort (18% of whom are childless).

The role of "friends and neighbors" in providing long-term care supports continues to be an area of interest to the state in anticipating future long-term care policies and programs. Church-sponsored and volunteer-based programs provide a basic level of support for many older persons in communities across the state. Home delivered meals programs, transportation, chore services and caregiver respite/support are particular areas where non-paid personnel are a major component of the prevalent service model. While there is no comprehensive inventory of such community- and faith-based programs across the state, it is estimated that there are now between 500 and 700 such groups, operating in virtually all of Minnesota's 87 counties.

The growth of the "senior market" has triggered growth in the private sector home care industry. and community-based supports, or at least in the purchase of services. The proportion of older persons (and their caregivers) who paid for someone to help them with chore services and other household help has increased over the past two decades—from about 4 % in 1988 to 27 % in 2005—partly to meet long-term care needs and partly attributable to lifestyle changes in this "new" elderly cohort. This "hired help" is distinguished from more formal "agency-based" home health care and is most likely persons in the community who are recruited and paid on an



Source: Survey of Older Minnesotans, 2005

ad-hoc basis. A recent New York Times article⁹ describes this phenomenon as an emerging "gray market" in long-term care that is occurring across the United States. This emerging model blurs the distinction between "family and friend" sources, often called *informal* help and the "paid professional" sources, often called *formal* help.

B. Local/Community Long-Term Care Capacity

As noted above, the majority of long-term care is provided by family, and a smaller but growing portion is purchased from non-agency sources. However, when an older person's family can no longer handle their relative's needs (or there is no family to depend on), professional or paraprofessional and "agency" assistance is frequently sought. These more *formal* service providers are sanctioned by the state and are the providers of choice to fulfill most of the obligations of public long-term care interventions.

⁹ New York Times, March 1, 2007.

The table on the next page shows the numbers of different types of providers licensed and registered in Minnesota in 2007. As the market changes, so do the number of providers in any one of these categories. For example, the number of Medicare Certified Home Health Agencies dropped from 254 in 2001 to 210 in 2007. At the same time, the number of Class F Home Care Providers (who provide services in an Assisted Living setting) has more than doubled, from 264 in 2001 to 587 in 2007.



Source: Minnesota Department of Health, 2008

Home health agencies usually accept both Medicare and Medicaid reimbursement, and these dollars comprise the majority of their budgets (25 % of home health agency budgets are private fee-for-service). In Assisted Living, this is reversed, with the majority of the costs paid privately, and with Medicaid or insurance reimbursement a smaller proportion of overall budgets. Medicare does not reimburse assisted living costs, although private long-term care insurance usually does.

Service Capacity

How many service providers are needed? How well are different parts of the state served? Are there "gaps" in available services in some parts of the state?¹⁰ Since 2001 all counties and Area Agencies on Aging (AAAs) in Minnesota have been asked every two years to prepare an analysis of the local capacity to meet long-term care needs of current residents, including any significant "gaps" in services or supports. The 2001, 2003 and 2005 surveys asked counties to report on long term care capacity specific to serving persons age 65 and older in their

¹⁰ Information on service capacity by county is available on the DHS website at: www.dhs.state.mn.us/GapsAnalysis

communities. Beginning in 2007 the survey was expanded to include questions about long term care capacity to meet the needs of seniors <u>and</u> persons younger that 65 with disabilities. In 2007, 79 counties responded to the Gaps Analysis survey.¹¹¹²

The following table summarizes the top ranking services gaps in each year since this survey was begun. In this report "service gaps" are defined as services that are rated as (a) inadequate to meet local need, (b) unavailable in the local area, or (c) available with limitations as to adequacy or quality.

Most Frequently Cited Gaps in LTC Service Capacity											
2001			2003			2005			2007		
87 counties responding		72 counties responding		76 counties responding			79 counties responding				
Type of service	Rank	% of counties	Type of service	Rank	% of counties	Type of Service	Rank	% of counties	Type of Service	Rank	% of counties
Transportation	1	66%	Transportation	1	42%	Transportation	1	55%	Transportation	1 (tie)	63%
In-Home Respite/ Caregiver Supports*	2	57%	Chore Service	2	28%	Evening and Weekend Care**	2	50%	Companion Service	1 (tie)	63%
Chore Service	3	48%	In-Home Respite/ Caregiver Supports*	3	22%	Chore Service	3 (tie)	47%	Chore Service	3	62%
LTCC for Relocation	4	39%	Adult Day Service	4 (tie)	/ 1%	Adult Day Service	3 (tie)		Respite Care- In Home	4	51%
Information and Assistance	5	25%	Home Delivered Meals	4 (tie)	21%	In-Home Respite/ Caregiver Supports*	5	42%	Respite Care- Out of Home	5	47%
									Caregiver/ Family Support Training	6	46%

* Surveys conducted 2001-2005 included "In-Home Respite/Caregiver Supports" as a service category. This service area was expanded into 3 categories in 2007: Caregiver/Family Support Training and In-Home Respite Services. Out-of-Home Respite Services was also added as a new service category.

** Evening and Week-end Care was not included as a service item on the 2007 survey.

As summarized in the table above, **Transportation**, **Caregiver/Family Support Training**¹³, **Chore Service**, and **Respite Services** (both in-home and out of home) continue to be top aging service gap areas across the years. In 2007 **Companion Services** rose to the top of the list to tie

¹¹ The following counties did <u>not</u> complete a Gaps Analysis survey in 2007: Clearwater, Lake of the Woods, Marshall and Mille Lacs.

¹² Lincoln/Lyon/Murray counties and Faribault/Martin counties each submitted a single survey; their responses are represented as a single county agency.

¹³ Surveys conducted 2001-2005 included "In-Home Respite/Caregiver Supports" as a service category. This service area was expanded into 3 categories in 2007: Caregiver/Family Support Training and In-Home Respite Services. Out-of-Home Respite Services was also added as a new service category.

with Transportation. Although the top service gaps have remained the same through the past 7 years, the percentage of counties reporting these service gaps has increased since 2003. For **Transportation**, the percentage of counties reporting a gap has increased from 42% in 2003 to 55% in 2005 to 63% in 2007. Similar increases are found for **Chore Services** and **Caregiver/Respite** services.

Some service gaps have decreased over the years. In 2001, Long Term Care Consultation for Relocation and Information and Assistance were top gaps. In subsequent surveys, these service areas are less likely reported as gaps. Similarly, Adult Day Services were top gaps in 2003 and 2005. In 2007 Adult Day Care/Adult Day Care bath decreased in ranking to 8th.

New Service Development

The 2007 Gaps Survey includes information on new services developed over the most recent two

years. Almost all responding counties (94%) report the development or expansion of at least one new home- and community-based service between 2005 and 2007. Based on the counties responses, it appears that some service development happened in direct response to service gaps identified in the previous survey, such as Transportation and Chore Services.

In other cases, service development was driven by policy change, as with Minnesota's new Medicaid waiver to promote of consumer directed service models. Fiscal Support Entities function as the financial intermediary to allow persons in public programs to hire and manage their own staff.

Increased demand faced by counties regarding their delegated functions is also reflected by reported increases in the following services:

LTCC/Community Assessment, Relocation Service

Coordination, Guardianship/ Conservatorship, and Adult Protection.

Loss of services

Fewer than half (46%) of counties reported a decrease in one or more services between 2005 and 2007. No service type had more than 9% of counties reporting a decrease. The most common decreases were: Chore Service (9%), Adult Day Care/Adult Day Care Bath (8%), Companion Service (5%), and Home Health Aide (5%).

Nursing Home Specialty Beds/Services

The Section V of this report focuses on the nursing home capacity in Minnesota, and most of this Report's information about facility-based care is included in that Section. However, counties were asked to report their perceptions of localized need for "specialty" services to meet unique long-term care needs in their service area. The largest gap reported was in the availability of *dementia care specialty beds*, where 61% of counties reported a gap. About half of counties

Most Common New Services 2005-2007					
Type of Service	% of Counties Adding	Rank as Gap in 2005			
Fiscal Support Entities (FSEs)	47%	20			
Transportation	42%	1			
LTCC/Community Assessment	41%	23 (tie)			
Relocation Service Coordination	37%	23 (tie)			
Guardianship/ Conservatorship	34%	8			
Homemaker Services	29%	14			
Chore Service	28%	3			
Adult Protection	28%	22			

(48%) reported a gap in heavy care, *complex medical management* beds. Most counties reported sufficient capacity in post-acute/rehabilitation beds with only 20% reporting a gap in this area.

Targeted Strategies to Increase Home and Community-Based Service Capacity

Community Service/Community Services Development (CS/SD) grants promote targeted development to meet the challenges identified by the "Transform 2010 Blueprint" and the forecasted pressures on Minnesota's long-term care system as Minnesota experiences the permanent shift in the age of our state's population. Since its inception in 2001, CS/SD grants have helped to rebalance Minnesota's long-term care service delivery system and increase its capacity to assist older Minnesotan's age 65+ stay in their own homes and communities. Characteristics of this capacity include, but are not limited to, improved chronic disease management in Minnesota's communities, support for caregivers and promotion of independence through market-based solutions.

To date, about \$40 million¹⁴ in grant funds have been awarded to 225 CS/SD projects across Minnesota. These projects have served more than 197,000 people, using more than 45,000 volunteers to provide services¹⁵. The table on the next page provides a summary of the types of projects funded in the three most recent years of the grants, and the numbers of older persons who have been supported in community settings through these projects. Of particular importance is the number of CS/SD grantees who use volunteers in the delivery of services to older persons, especially in the areas of transportation, chore, home maintenance, home modification, and home delivery services. Minnesota has a highly regarded record in volunteerism and civic life. By tapping in to this resource, CS/SD grantees are able to significantly expand their capacity to provide services.

¹⁴ This amount is the approximate equivalent of the cost of serving 1,111 persons in a nursing home setting for one year.

¹⁵ Total number of people served and volunteers used is duplicated across fiscal years.

State Fiscal Years 2006 through 2008						
	Number	People Served				
Type of CS/SD Project	Number	Age 65 and Over				
	projects*	FY06	FY07	FY08**		
Housing: Construction or renovation of	28					
buildings or units suitable for home care	(Totaling 769	429	245	77		
services for seniors	Housing Units)					
Adult Day Programs: Construction or		-	-			
renovation of Adult Day Program facilities	2	0	0	28		
to increase daily capacity						
Community Elder Support and						
Caregiver Support: Individual support to						
older adults and their caregivers, helping	36	6,350	9,267	9,543		
them connect to community resources. Services include respite, support groups,	30	0,350	9,207	9,543		
caregiver coaching, forms assistance, and						
other types of individual assistance,						
Transportation: Services using						
volunteers or implementing more efficient	20	3,024	2,808	2,046		
methods of operation		0,021	2,000	2,010		
Home Care Expansion and Innovation:						
Expanding the capacity of existing Home						
Care Agencies to provide service in rural	17	169	154	317		
areas, including by the use of new						
technology						
Chore, Home Maintenance, and Home	15	2,384	2,057	1,573		
Modification Services	10	2,004	2,007	1,070		
Health Promotion and Chronic Disease						
Management: Providing opportunities for						
older adults to maintain their health and	17	3,916	6,392	6,332		
prevent or manage chronic diseases and		-		,		
falls. Integrating home and community						
based services with medical systems. Home Delivery: Innovative models of						
delivering groceries, prescriptions, and						
other needed goods to seniors in their own	4	1,311	1,476	1,198		
homes						
	1					

Community Service/Community Services Development (CS/SD) Projects Funded State Fiscal Years 2006 through 2008

*Some grantees provided more than one type of service. These grantees are included in more than one category. Therefore, the number of persons served is duplicated across project type. **Fiscal Year 2008 Data provided through 3/31/08

ElderCare Development Partnerships

The state's Eldercare Development Partnership (EDP) program provides targeted technical assistance to counties, local communities and service providers to develop CS/SD proposals and to "maximize" the efficiency and effectiveness of local long-term care services and resources. The program went statewide in 2006. Through collaboration and technical assistance, new services are created and existing services are redesigned to improve quality and sustainability. EDPs focus on the following areas:

- Develop and implement service delivery models in line with long-term care (LTC) systems rebalancing priorities;
- Expand sustainable Home and Community-Based Services (HCBS) capacity, maximizing efficiency, quality and consumer choice;
- Promote evidence-based service models and appropriate application of new technologies that improve service and administrative quality and efficiency, or reduce the need for LTC personnel.

Currently, a federal *Nursing Home Diversion Modernization Grant* from the Administration on Aging the Department of Human Services is being used to develop models for (1) detecting persons at highest risk for nursing home placement, and (2) referring them (and their caregivers) to flexible customized support options. The goal of this demonstration grant is to divert at-risk, private pay older adults and family caregivers from higher-cost, residence-based care and to provide them with lower-cost and evidence-based service/support options. Families, using their own resources to pay for these supports, can prolong the amount of time that older persons can stay in their own homes, and delay spend-down to public program eligibility.

Area Agencies on Aging

The state is divided into 7 planning and service areas for the purpose of administering Older Americans Act programs in Minnesota, with some state support for several key programs. AAAs are key partners in the success of the CS/SD grants as the EDP initiatives described above. In addition, the AAAs administer the state's Senior LinkAge Line® (as well as the Disability Linkage Line® and the Veterans' Linkage Line®) and the web-based consumer information tool <u>www.MinnesotaHelp.info</u>. This system and its impact is described in greater detail in Section VIII.

The AAAs also administers the statewide senior nutrition program that provides 3.5 million nutritionally balanced meals each year for 83,000 older adults through 568 sites located in community centers, senior housing, civic buildings and other locations across Minnesota. The senior nutrition program (senior dining and home-delivered meals) is targeted to frail, older adults at the greatest risk of losing their independence. Approximately 186 sites statewide (one in every three) are located in senior housing buildings. Most senior dining sites provide home-delivered meals.

C. Publicly Funded Entitlement (and Low-Income) Programs

As the preference of older people for home and community-based services (HCBS) has grown, so too has the utilization of home and community-based services within publicly funded programs. In Minnesota, publicly funded HCBS is available through three separate systems:

• <u>Elderly Waiver (EW)</u> for very low income persons who are assessed as at risk for nursing homes. (.i.e., they meet the *income and asset eligibility* criteria for Medicaid and the *functional criteria* for institutional care). The intent of the EW program is to provide the necessary supports to keep these persons in their own homes or apartments, and to prevent or delay institutionalization. The EW "service package" includes an array of home- and community services and may be provided in one of

three ways: (1) via a Managed Care arrangement through a health plan, (2) via a Fee For Services (FFS) arrangement through their county, or (3) through Tribal management of the elderly waiver.

- <u>Alternative Care (AC)</u>, the state-funded program for very low income persons who are just above Medicaid eligibility and who are assessed to be at risk for nursing homes. The intent of the AC program is to provide the necessary supports to assist these persons by supplementing their own resources to keep them in their own homes or apartments, and to prevent or delay institutionalization. The AC "service package" includes an array of in-home services and is via a Fee For Services (FFS) arrangement through their county or a tribal arrangement.
- <u>Medical Assistance (MA) Home Care</u>, which covers the services provided to Medicaid enrolled persons who are not assessed to be at risk for nursing home care.

In the past seven years (2001 - 2007), the overall number of persons 65+ served through the EW, AC and MA home care programs has grown from 23,000 to about 31,000, a 35 % increase. During that same time period, the expenditures for HCBS have grown from \$130 million to \$287 million, a 121 % increase. In the past 2 years alone (2005 - 2007) HCBS expenditures have grown from \$224 million to \$287 million, a 28 % increase. It is important to note that while these figures have increased for the EW, AC and MA Home Care programs, the number of older persons served and dollars expended for nursing home care for the same target population have declined, as described in more detail in Section V.

The following table shows the changes from 2001 through 2007 in the number of clients and the total expenditures for each of these three programs.

	ative Care	Elder	ly Waiyor		MA		
1	Alternative Care		Elderly Waiver		ne Care	Total HCBS	
Clients	Cost	Clients	Cost	Clients	Cost	Clients*	Cost
11,787	\$56,346,000	10,978	\$69,112,000	695	\$4,057,000	23,460	\$129,515,000
12,233	\$66,969,000	12,050	\$84,024,000	1,847	\$5,471,000	26,130	\$156,464,000
11,709	\$76,445,000	13,561	\$104,267,000	4,129	\$14,483,000	29,399	\$195,195,000
9,106	\$59,294,000	16,249	\$133,378,000	3,633	\$13,982,000	28,988	\$206,653,000
7,557	\$55,807,000	17,124	\$152,476,000	3,380	\$15,783,000	28,061	\$224,066,000
6,867	\$40,864,349	20,347	\$190,201,847	3,580	\$18,416,993	30,794	\$249,483,189
4.0(2	¢70 021 725	22 625	\$224 700 626	3 050	\$23 273 003	21 528	\$286,817,365
	9,106 7,557 6,867	9,106 \$59,294,000 7,557 \$55,807,000 6,867 \$40,864,349	9,106 \$59,294,000 16,249 7,557 \$55,807,000 17,124 6,867 \$40,864,349 20,347	9,106 \$59,294,000 16,249 \$133,378,000 7,557 \$55,807,000 17,124 \$152,476,000 6,867 \$40,864,349 20,347 \$190,201,847	9,106 \$59,294,000 16,249 \$133,378,000 3,633 7,557 \$55,807,000 17,124 \$152,476,000 3,380 6,867 \$40,864,349 20,347 \$190,201,847 3,580	9,106 \$59,294,000 16,249 \$133,378,000 3,633 \$13,982,000 7,557 \$55,807,000 17,124 \$152,476,000 3,380 \$15,783,000 6,867 \$40,864,349 20,347 \$190,201,847 3,580 \$18,416,993	9,106 \$59,294,000 16,249 \$133,378,000 3,633 \$13,982,000 28,988 7,557 \$55,807,000 17,124 \$152,476,000 3,380 \$15,783,000 28,061

Total Annual Utilization and Expenditures for Publicly Funded HCBS for Persons 65+ Minnesota - 2001 – 2007

*Numbers may include duplicated count, since some clients use more than one program over a year's time. Source: Minnesota Department of Human Services Data Warehouse, and Hennepin County Social Services for Hennepin County AC figures. For MA and EW, figures do not include some services paid for under managed care; MSHO program not included 2001-2003. EW State Plan Home Care costs included in Elderly Waiver costs.

Note that the trends for the three publicly-supported LTC programs have very different trendlines. The state-funded AC program has shown a dramatic decrease in both numbers of persons served and the expenditures over the past seven years (described below). At the same time the EW program has expanded with more than doubled the number of persons served from nearly 11,000 per year in 2001 to nearly 23,000 in 2007, and the costs have increased more than 300%. For the MA Home Care, the numbers of persons served has remained fairly stable over the past 5 years, while the costs remained relatively stable until 2005, since which time the numbers of persons served has remained stable but the annual costs have increased at a higher rate each year.

Impact of Changes in the Alternative Care Program.

In 2003 and again in 2005 the Legislature enacted major changes in the Alternative Care (AC) program to reduce overall program expenditures, and to refocus this state-funded program on services and supports in people's own homes. These changes included eliminating the previously imposed state recovery provisions (liens), but tightening eligibility criteria and eliminating coverage for "assisted living" and adult foster care services in the AC package, thereby focusing the AC program on assisting older persons to stay in their own home or apartment.

As noted in earlier Reports, when these changes went into effect, DHS tracked the impact on AC recipients who had been in "assisted living" facilities. The majority of them used their own funds to pay privately or made other arrangements in order to continue to stay in these settings. But because of their very low incomes the majority have subsequently "spent down" to eligibility for the Elderly Waiver (EW) program. Another small group (about 12% of those affected) was admitted to nursing facilities. DHS will continue to monitor these changes, especially the use of institutional care by those who would otherwise have been served by the AC program.

Impact of Changes in the Elderly Waiver and MA Home Care and Programs.

In the last 5 years changes in Minnesota's Medicaid programs have created, in effect, *several* service delivery systems for Medicaid eligible long-term care clients:

- 1. Fee For Service (FFS) through which a service provider bills the MN Department of Human Services for reimbursement for authorized services (as defined in an individual care plan) for eligible individuals.
- 2. **Minnesota Senior Care (MSC)** Effective June 2006 all Medicaid PMAP-enrolled seniors were transferred to a new managed care waiver authority for their basic care. This was a change in name only, and did not change the service delivery to individuals or the plans responsible for service delivery.
- 3. Minnesota Senior Care Plus (MSC+) In 2003 state legislation added LTC waiver services and an additional 90 days of nursing home coverage to the basic Medicaid Managed Care package. This new product now includes the basic Medicaid health care services plus LTC services (viz. all services included in the Elderly Waiver package plus 180 days of Nursing Facility care). MSC+ is being implemented in 80 non-metro counties in 2008. It will be expanded to the metro counties in 2009. MSC+ will replace MSC statewide and will be mandatory for Medicaid enrolled seniors.
- 4. Minnesota Senior Health Options (MSHO) This program began as a CMS purchasing demonstration project in 1997, and includes full risk for Medicare and Medicaid primary, acute and long-term care, including the entire EW package and 180 days of a Nursing Facility benefit. The program is voluntary for persons age 65 and older who are "dual eligible" namely eligible for both Medicare and Medicaid. MSHO

has expanded statewide to 83 counties. All 9 health plans participate in MSHO because it allows them to serve dual eligibles and become Special Needs Plans (SNPs) – thereby including Medicare Part D drug benefits for their enrollees. This latter benefit has accelerated the enrollment of dual eligible seniors into the MSHO option.



Currently 9% of all Elderly Waiver clients are receiving EW services through fee-for-service models managed by the counties, 21% are receiving their EW services through MSC and MCS+, and 70% through MSHO.

Consumer-Directed Service Options

It is anticipated that tomorrow's older Minnesotans will expect more flexible service options that are in line with their lifelong experiences with the private service market. In 2005 Minnesota received a CMS waiver to replicate the *Consumer-Directed Community Supports* (CDCS) model (originally piloted in three states) which allows eligible persons to use a "needs-based allowance" to purchase necessary goods and services, including the hiring of familiar workers such as family members, friends or neighbors to provide authorized services. Because the consumer-directed approach offers the opportunity to "customize" services and improve care outcomes and personal satisfaction, it also has the potential to make long-term care spending more cost-effective.¹⁶

¹⁶ In a parallel development, the Minnesota Board on Aging and Area Agencies on Aging are implementing CDCS service models under Title III (at least one in each planning and service area in the state) for caregiver respite and for nutrition interventions targeted to individuals at high nutritional risk.

Minnesota also applied this model to the AC program, and as of April 2008, 44 counties and 7 managed care organizations, had implemented CDCS for one or more older clients, and had enrolled a cumulative total of 237 older persons. Effective July 2008, one tribe will implement a CDCS model.

Quality Assurance

The basic monitoring system in Minnesota for quality assurance in long-term care is heavily weighted toward the institutional model where formal regulations and rules dominate. As the state successfully "rebalances" long-term care and encourages older consumers to "age in place" in their current home and community, we need to develop a quality assurance system that is responsive to the reality of services provided in non-regulated environments.

In addition to the work and role of the Minnesota Department of Health in assuring HCBS provider quality, the Department of Human services ,in the role of system/program administrator, has adopted the Quality Framework developed and promoted by the Centers for Medicare and Medicaid Services (CMS) to provides an overall approach for quality assurance and continuous quality improvement. This framework includes seven key elements, and each of these requires a method for discovery, remediation and improvement:

- Participant access
- Participant-centered service planning and delivery
- Provider capacity and capabilities
- Participant safeguards
- Participant rights and responsibilities
- Participant outcomes and satisfaction
- System performance

In 2007 and 2008, DHS systematically reviewed the state's ability to address each element of this framework, across programs and target populations, to ensure that Minnesota is on target with CMS expectations for quality assurance. In addition, the Continuing Care Administration (within the Department of Human Services) completed a business process analysis related to <u>all</u> home and community-based services. This review (called the Quality Framework) identified how well the current programs are designed to meet quality goals.

As noted elsewhere in this report, some of recent the changes in the state's long-term care programs (e.g., shifting the responsibility for administering the Elderly Waiver program from counties to health plans) requires the development of new strategies for enrolling providers and monitoring provider contracts. Developing and implementing all the components of a community-based quality assurance system will continue to be a key challenge for DHS and its partners, the lead agencies responsible for implementing HCBS programs at the local level (i.e., the counties, tribes and health plans).

Federal grant funds were used to improve HCBS quality assurance by expanding the department's capacity to manage, assess and make improvements; incorporate client definitions of quality of care and satisfaction; and improve the Vulnerable Adults report tracking system. And as resources become available, the department is systematically increasing its capacity to monitor client-level outcomes. The Nursing Home Report Card is successful because it gives consumers and other purchasers of services the information they need to compare among

providers, on characteristics that are meaningful to them. Expanding this type of provider-level information will make long-term care services more transparent to consumers, and enable all purchasers to make informed choices among the providers and service options that are appearing in the private market.

IV. Senior Housing

In the past 20-25 years there has been a dramatic change in the public demand for *senior housing*, and the public expectation of "housing-based approaches" to meeting long-term care needs. This is significant because many of Minnesota's public programs, policies and regulations around "housing" were developed to meet a set of needs and circumstances that no longer exist. In the lives of today's elderly, the range of housing options has expanded from few choices (either ones own home or a nursing home) to an ever-growing array of housing options marketed to older persons, including everything from active adult communities to senior cottages to memory care facilities. One of the most significant trends in Minnesota has been the increase (and variety) in housing-with-services and *assisted living* options.

A. Locally Identified Need for Senior Housing

In 2007 counties were asked to report on any gaps in housing, including the availability of resources for accessible housing and the wide range of housing options. The table below provides a summary of the housing needs for older persons across the state, as perceived by county personnel. The two most commonly reported challenges in finding appropriate housing were in the availability of **subsidies for low-income persons who need home modifications** (70% of counties indicated that this was a local problem), and the availability of **resources to track housing units** that are available, accessible and affordable (61% reported this as a problem).

Major Barriers to Appropriate Housing For Elderly Persons			
	Gap Indicated		
	# %		
	Counties	Counties	
Subsidies for low-income persons who need home modifications	55	70%	
Available resources used to track available accessible and affordable units	48	61%	
Landlords willing to allow accessibility modifications on their property	34	43%	
Adequate reimbursement under the waiver plans for needed modifications	29	37%	
Builders/contractors willing to take on accessibility modifications	27	34%	
Local county staff with experience in promoting accessibility modifications	27	34%	
Local builders/contractors with accessibility remodeling/new construction expertise	20	25%	

Source: Statewide Long Term Care Gaps Analysis Survey, 2007

When asked about the specific types of housing that were most in need, three out of four counties reported that there were not enough **Subsidized rental apartments** to meet the need. The table on the next page shows the percentage of counties reporting housing gaps in specific areas. It is interesting to note that between 2005 and 2007 there was a significant increase in the perceived need for housing options of <u>all kinds</u>, and <u>both market-rate and subsidized</u>.

Gaps in Housing Capacity						
	Counties Reporting Gaps					
	Subsidized Market R			et Rate		
	#	%	#	%		
Rental Apartments with Supervision/ Health Care Services	56	71%	45	57%		
Rental Apartments with Support Services Only	56	71%	43	54%		
Rental Apartments with No Services	44	56%	25	32%		
Other housing options (such as Board & Care, Residential Care)	42	53%	44	56%		
Adult family foster care	42	53%	47	59%		
Corporate adult foster care	26	33%	36	46%		

Source: Statewide Long Term Care Gaps Analysis Survey, 2007

B. Assisted Living / Housing With Services

Any Senior Housing provider in Minnesota that offers some type of service package to residents is considered to be a type of "housing with service establishment"¹⁷ and must be registered as such with the Minnesota Department of Health (MDH). The building itself must comply with applicable housing and safety codes, and the services must be provided by appropriately licensed providers. Residents usually pay a fixed monthly fee that includes the rent and a "package" of services. The combination of an apartment type of living unit with services available as needed offers an attractive package to both older persons and their families, promising both independence/privacy and supports/services as needed.

Until 2006, all registered "housing with services" establishments were considered to be "assisted living" for purposes of insurance reimbursement. As of May 2006 there were 1,081 housing with services establishments registered in Minnesota. Between 1997 and 2007, the numbers of residences increased 150% (from 426 to 1,081) and currently serve an estimated 46,000 older residents.

Over the past ten years there have been significant increases in the availability of housing choices for older persons in Minnesota, particularly market rate options. The MN Department of Health's registry of housing with services establishments¹⁸ has keeps a running total of such

¹⁷ The Minnesota housing with service establishment definition: ...an establishment providing sleeping accommodations to one or more adult residents, at least 80 % of which are 55 years of age or older, and offering or providing, for a fee, one or more regularly scheduled health-related services or two or more regularly scheduled supportive services, whether offered or provided directly by the establishment or by another entity arranged for by the establishment (MN Statutes Chap. 144D.01, subd.4).

¹⁸ Minnesota law defines a housing with services establishment as "... an establishment providing sleeping accommodations to one or more adult residents, at least 80 percent of which are 55 years of age or older, and offering or providing, for a fee, one or more regularly scheduled health related services or two or more regularly scheduled supportive services, whether offered or provided directly by the establishment or by another entity arranged for by the establishment." (Minn. Stat. § 144D.01, subd. 4)

establishments and their capacity. This registration includes (a) senior housing with services, and (b) a new category that is identified as Assisted Living. This latter definition requires that in order to advertise itself as Assisted Living, a housing with services establishment must meet requirements outlined in state statute¹⁹ regarding the types of services that must be offered and



the types of providers who may provide those services, as well as consumer protection and consumer information requirements (see *Laws of Minnesota 2006*, chapter 282, article 19, sec.1 – 20). In 2001 there were 780 housing providers in Minnesota that also offered services to residents. Six years later, in 2007, there were 1,358 such facilities operating in Minnesota.

However, as the number of popularity of this type of arrangement increased, issues that were originally identified early on became clearer, e.g., need for more clarification on the definition of assisted living, what services are included, continuing stay criteria, definition of "supervision," and locus of liability. During most of 2005 an *ad hoc* group of stakeholders, including both providers and consumer advocates, met together to identify solutions to these issues. They jointly developed a legislative proposal to define minimum standards for the services. The 2006 Legislature established a common working definition of assisted living and a set of standards and regulations which entities using the terminology to describe their services must abide by. The new law prohibits persons or entities from using the term "assisted living" unless they are "housing with services" establishments and provide some or all of the components of assisted living as specified in chapter 144G.

The law also established a Uniform Consumer Information Guide to standardize the information provided to consumers about the services and amenities that they are purchasing in an Assisted

¹⁹ MN Statute 144 G.03.

Living or other housing with service package. This standardized information should allow consumers to compare across the various options, and will be available on the <u>MinnesotaHelp.info</u> website as well as to the telephone-based information and assistance personnel who staff the Senior LinkAge Line®. This effort, like the development of the Nursing Home Report Card (described in Section VI of this Report) is a collaborative effort between the Minnesota Departments of Health and Human Services—to provide meaningful information about long-term care options to consumers, and to make the market more transparent.

V. NURSING HOMES

The state strategy for long-term care has been to "rebalance" the locus of care from institutionbased to home- and community based models. However successful this strategy, there continues to be a need for nursing homes, and several policy issues related to the future of nursing homes are of interest, namely quality, cost and industry size.

A. Quality

Goal: Quality of long-term care services is an ongoing concern, both in institutional settings and in home- and community-based settings. This concern is especially important in nursing homes where quality affects all aspects of a resident's life and where the burden of changing providers may be extreme. DHS is interested in quality of nursing home care for several reasons. As the State Medicaid Agency, DHS is responsible for certifying nursing facilities for participation in the program, a function that is delegated via contract to the Minnesota Department of Health (MDH), the state agency that licenses nursing homes and boarding care homes. As a purchaser, spending hundreds of millions of dollars of state funds each year for nursing home care, DHS believes that it has an obligation to the public to use that purchasing role to leverage quality.

Design of Quality Measures: DHS has been working for several years to develop quality measures. Several criteria must be met for a quality measure to be useful:

- The measure should be relevant, meaning that it is important to consumers, providers and purchasers, it makes sense to them, it relates to guidelines, it can lead to improvement and it measures performance attributable to the provider. Measures of outcomes are most desirable.
- The measure should be scientifically sound, meaning it has validity, it can be measured reliably, it can be aggregated.
- It is feasible to implement the measure, meaning the data is available, preferably electronically or can be acquired economically.

Initially eight quality measures were developed:

- Quality of life and satisfaction
- Clinical outcomes
- Amount of direct care staffing
- Direct care staff retention
- Direct care staff turnover
- Use of temporary staff from outside pool agencies
- Proportion of beds in single bed rooms
- Inspection findings from certification surveys

Public Disclosure of Quality Measures, the Nursing Home Report Card: In early 2006 MDH and DHS published a nursing home report card. Hosted on the MDH website (<u>www.health.state.mn.us/nhreportcard</u>) the Minnesota Nursing Home Report Card is believed to be the most comprehensive nursing home report card in the nation. It is interactive in that it allows the user to view results on a specific facility, or alternately to specify the location they are

interested in and to select the quality measures that s/he considers most important. The Report Card then provides a list of all facilities that meet the geographic criteria and sorts the list according to the scores of those facilities on the selected quality measures. The user can then select a facility from the list and see its scores on seven quality measures, using a five star rating.

The Report Card averages approximately 2,000 unique visits per month, as shown in the line graph below. This suggests that while the Web site is accessed by repeat users who are likely facilities monitoring their scores as well as those of their peers, it is also used by consumers and other stakeholders outside the provider industry.



When selecting the measures most important to them, Report Card users consistently and overwhelmingly prioritize resident outcomes (quality of life and satisfaction, inspection findings, and clinical outcomes), as shown by the following bar graph.



A concern with any form of measuring and publicly disclosing of quality information is that the measures are never perfect. It is always a judgment call as to whether or not the quality measures are ready. It is then important to seek ways to improve the measures over time, guided in part by research and user feedback. Two changes that have been made to the report card since it went live in 2006 were dropping direct care staff turnover as a quality measure and revamping the scoring methodology used on the inspection findings from certification surveys.

The departments are working on several enhancements to the report card at this time:

- Adding family satisfaction as a new quality measure,
- Including non-MA facilities in the report card, and
- Incorporating features allowing users to focus in on dementia and short stay care.

Trends in Quality Outcomes: DHS and MDH have calculated Report Card measures for multiple years; measure trends are presented in the following graphs. First, resident quality of life and satisfaction is measured via annual face-to-face interviews with a representative sample of residents in all MA certified nursing homes, and are risk-adjusted to allow a fair comparison of facilities. The bar graph on the following page shows that 11 of 12 quality of life domains and residents' overall quality of life score have improved since the survey's first full fielding in 2006. The areas of greatest improvement include mood, satisfaction, meaningful activity, and privacy.



Next, the bar graph on the following page shows 24 clinical care processes and outcomes that are calculated using Minimum Data Set resident assessment information and risk-adjusted to allow fair comparison of facilities. Of these, 16 have improved since 2004, with particular positive change in the areas of pain control, continence care, reversal of pressure ulcers, and appropriate use of antipsychotic drugs.



The method used to calculate the MDH inspection measure was improved in June 2007, limiting the amount of past data available for trending. However, the trends to date in the graph below show that more facilities are earning five or four stars, meaning that they have good results on their current (and for five-star facilities, prior) inspection surveys and on their one-year complaint record.



Trends have also been positive for the Report Card measures relating to staffing. First, direct care hours per resident day, adjusted for wage differences (to counter any facility incentive to staff higher on lower-compensated positions) and resident acuity differences (to more-fairly compare staffing for facilities serving different types of residents), are shown in on the following page. Direct care staffing has steadily risen since 2004 to a state average of five hours per resident day, although it has remained flat in board and care facilities typically serving a less physically-impaired population.



The next staffing measure, direct care staff retention, considers how many direct care staff employed in a facility at the beginning of the year are still employed at the end of the year. As shown in the graph below, it has been remarkably consistent since 2004, averaging about 72%.





The last staffing measure measures the proportion of nurse staffing agency hours to permanent staff. The following graph shows this proportion for facilities using any temporary staff (between 64% and 68% of facilities have used none over these four years). It has steadily declined since 2004, with a small bump in 2006. Finally, the Report Card currently includes only one measure explicitly rating the physical environment, the proportion of beds in single-bed (private) rooms. This measure has steadily increased since reporting began in 2006, possibly in response to DHS singlebed incentives and changing consumer preferences.



Pay for Performance: In 2005 the Minnesota Legislature enacted a first step in adopting Pay for Performance for nursing facilities. This initiative was in the form of a quality add-on to payment rates. Based on quality scores, facilities received operating payment rate increases up to 2.4% of their operating payment rates effective October 1, 2006. The quality score was developed from five of the eight measures on the Report Card:

- Clinical outcomes, accounting for 40% of the total score
- Direct care staff retention, accounting for 25% of the total score
- Direct care staff turnover, accounting for 15% of the total score
- Use of temporary staff from outside pool agencies, accounting for 10% of the total score
- Inspection findings from certification surveys, accounting for 10% of the total score

A quality add-on of up to 0.3% was then provided for operating payment rates effective October 1, 2007. The method of determining the quality score was revised:

- Clinical outcomes, accounting for 35% of the total score
- Quality of life, accounting for 20% of the total score
- Direct care staffing levels, accounting for 10% of the total score
- Direct care staff retention, accounting for 20% of the total score
- Use of temporary staff from outside pool agencies, accounting for 5% of the total score
- Inspection findings from certification surveys, accounting for 10% of the total score

In 2007 DHS initiated the Performance Incentive Payment Program (PIPP). PIPP is a competitive program designed to reward innovative projects that improve quality or efficiency or contribute to rebalancing LTC. Selected projects will receive temporary operating payment rate adjustments of up to 5%, under amendments to the Alternative Payment System contracts. Of the money rewarded, 80% is contingent upon implementing the program described in the amendment. The remaining 20% is contingent upon achieving specified outcomes. Beginning October 1, 2007, incentive payments were rewarded to twenty projects, including 32 facilities.

At the time of this writing, negotiations are underway for second round proposals. Eighteen proposals, including 139 facilities are included in these negotiations. Selected PIPP proposals have addressed areas such as:

- Exercise physiology
- Resident transfers
- Culture change

- Technology
- Dementia care
- Bathing
- Community discharge
- Falls
- Incontinence

Business Case Analysis: Planning for an evaluation study of the PIPP program is currently underway. The evaluation will be carried out through a partnership between the Department of Human Services and researchers from the University of Minnesota and Indiana University. Our goal in the evaluation is to understand how best to design and implement an effective state-level program to promote quality of nursing home care. We will perform an economic evaluation of selected PIPP projects to see if they offer a business case for better quality. We will work with facilities to measure their project costs and outcomes (financial, organizations, quality of care, or quality of life). We will if possible develop benefit-cost or cost-effectiveness ratios. We will estimate the project's impact on facility operating costs and profitability, and savings or additional costs to the Medicaid program, private payers, or Medicare. Lessons learned from the evaluation will be applied directly to the improvement of Minnesota's efforts to promote nursing home quality.

B. Nursing Home Costs/Expenditures

In State Fiscal Year 2007, \$822 million was spent through the Medicaid Program for nursing home care in Minnesota, of which the state share was \$402 million. In that same year nursing home industry total revenues are estimated at \$2.05 billion. The table below shows the estimated funding sources and amounts for nursing home care in Minnesota in 2007.

Estimated Total Nursing Home Costs in Minnesota (2007) by Source of Payment				
Source	Amount (\$s in millions)			
MA payments	\$822			
Federal share	411			
State share	402			
County share	9			
Payments by MA recipients	198			
Private pay	483			
Medicare Part A and Part B	400			
Other	108			
Estimated revenues of non-MA nursing homes	40			
Estimated Total Nursing Home Revenues	\$2,051			

The line graph below shows total MA spending on nursing homes in Minnesota from 1995 through 2007. The level of spending has been remarkably stable over this period, fluctuating between a low of \$821 million in 2007 to a high of \$912 million in 2004.



The next two charts show the very different trends in MA caseload and unit costs. Caseload has declined because an increasing proportion of persons needing LTC services are being supported in non-institutional home- and community-based settings. MA caseload, the number of resident days paid for by MA, has decreased from 11,571,518 in 1995 to 6,815,932 in 2007, a reduction of 41%. At the same time, the average daily payment rate (MA payment not counting recipient resources) has increased from \$76.25/day in 1995 to \$120.54/day in 2007, an increase of 58%.



C. Industry Size

Rightsizing the nursing home industry has been a dominant policy theme for the state for over 25 years.²⁰ This section of the report will examine the trends in bed availability and need, and specifically, will address the question: "Will Minnesota soon experience a shortage of nursing home beds?"

Number of Beds and Beds per 1,000 Elderly. In May 2008 Minnesota had 400 licensed nursing homes and licensed and certified boarding care homes with a total of 35,142 beds in active service, with 389 facilities and 33,920 certified to participate in the Medicaid Program.

The number of nursing homes and licensed beds has been declining since 1987, when Minnesota had 468 facilities with 48,307 beds. By May 2008, 68 facilities have closed altogether and 11,987 beds have been completely delicensed. An additional 1,178 beds have been taken out of active service and put in "layaway" status. The supply of active beds has declined by 27% over the 20 years since the 1987 peak. In the two years since the last legislative report, The Status of LTC in Minnesota, 2005, the bed supply has declined by 2,040 beds or 5%.



²⁰ Programs and strategies that have been enacted (and modified) during this period to assist in right-sizing the nursing home industry include: (a) Moratorium on construction of new nursing home beds; (b) Pre-admission screening, now LTC Consultation; (c) Funding for HCBS, through Elderly Waiver and Alternative Care; (d) Local and regional long-term care planning and service "gaps" analysis, (e) Community Services and Service Development grants; (f) Nursing home bed layaway program; (g) Planned closure incentive payments; and (h) the Single bed incentive.

The availability of beds varies substantially across counties. One of the easiest ways to describe this variability is in terms of the ratio of nursing home beds per 1,000 elderly persons, and in this case we will examine this ratio under two definitions of "elderly": age 65 and older, and age 85 and older. While the former measure is most commonly used nationally, the generally longer life expectancy in Minnesota results in a higher than national rate of very old persons in this state. The table below shows the state averages for these measures as well as the variance across counties and across "groups" of counties. This latter measure takes into account the use of nursing homes by persons in adjacent counties.

Average Nursing Home Beds per Thousand Persons Age 65+ and 85+ (and Range) Minnesota 2008					
VARIABLE	AGE 65+	AGE 85+			
Statewide beds per 1000	56.0	345.8			
County median beds per 1000	62.4	356.1			
County mean beds per 1000	64.2	358.0			
County standard deviation of beds per 1000	22.1	105.1			
County range of beds per 1000	Low is 19.7 in Anoka High is 118.7 in Norman	Low is 167.1 in Marshall High is 749.6 in Cass			
Contiguous county groups median beds per 1000	57.7	340.3			
Contiguous county groups mean beds per 1000	60.7	346.0			
Contiguous county groups standard deviation of beds per 1000	11.4	37.3			
Contiguous county groups range of beds per 1000	Low is 29.8 in Chisago High is 85.5 in Traverse	Low is 274.8 in Chisago High is 506.8 in Cook			

The Appendix includes information about nursing home bed distribution at the county level in Minnesota in 2007:

- A chart showing the beds/1000 65+ by county, compared to the state median
- The number of facilities and beds by county, each county's beds/1000 persons **age 65**+, and that county's rank from highest (1) to lowest (87). This same information is also presented for each county's contiguous group of counties.



• The number of facilities and beds by county, each county's beds/1000 persons **age 85**+, and that county's rank from highest (1) to lowest (87). This same information is also presented for each county's contiguous group of counties.

In terms of beds/1000, Minnesota continues to have more nursing home bed availability than the national average. However, for both the 65+ and the 85+ measures, Minnesota is approaching the national average, as shown in the table and graphs that follow. In 1995, Minnesota had 58% more beds per 1000 age 65+ and 28% more for the 85+ population than the national average. By 2006 these numbers had decreased to 24% and 8% respectively.

For many years policy makers have considered Minnesota to be over-bedded, based on its comparison with the U.S. as a whole. Nationally (as well as in Minnesota) rates of beds per capita have been declining over the past several years. As recently as 2006, Minnesota still had comparatively more bed capacity that the rest of the nation (24% more for persons aged 65+ and 8% more for persons age 85+). However, the <u>rate</u> of reduction in Minnesota has exceeded the

national average (see table below), raising the question of the degree to which Minnesota may continue to have an "over-supply" of nursing home beds in the future. The following table compares Minnesota data on nursing home supply with comparable national data.

Comparison of Minnesota and U.S. Data on Nursing Home Supply						
	Minnesota	U.S.	MN as % of U.S.			
Historic number of beds	1987 – 48,307					
Thistone number of beds	1995 – 47,181	1995 – 1,751,302	2.69%			
Current number of beds	2006 - 35,758	2006 - 1,716,102	2.08%			
Current number of beds	2008 – 35,142					
Average annual % change in number of beds, 1995 to 2003	-1.37%	0.03%				
Peak beds per 1000 age 65+	1987 – 91.2					
reak beus per 1000 age 05+	1995 – 82.0	1995 – 51.9	158%			
Current beds per 1000 age 65+	2006 - 57.0	2006 – 46.1	124%			
Current beus per 1000 age 05+	2008 – 56.0					
Average annual % change in beds per 1000 age 65+, 1995 to 2006	-2.80%	-0.90%				
Peak beds per 1000 age 85+	1987 – 745.3					
Feak beus per 1000 age 85+	1995 – 611.4	1995 – 475.8	128%			
Current bode per 1000 ago 85+	2006 – 351.1	2006 - 324.7	108%			
Current beds per 1000 age 85+	2008 - 345.8					
Average annual % change in beds per 1000 age 85+, 1995 to 2006	-4.31%	-2.98%				

Occupancy. Occupancy is defined as the percentage of days that nursing home beds are occupied. It is calculated as the actual number of resident days of nursing home care provided during a year divided by the maximum capacity for that year, that is, the number of resident days that would have been provided if all beds in active service were occupied every day.



Occupancy in Minnesota's nursing homes has ranged between a high of almost 96% in 1993 and a low of 91% in 2000. This rather narrow range of occupancy has been maintained in recent years largely by taking beds out of service. The statewide occupancy rate for the fiscal year ending 9/30/07 was 93.8%. Occupancy is an important statistic to monitor for two reasons.
First, it is important that nursing home beds be available when needed. People should be able to access this service when needed—sometimes on very short notice. If occupancy is too high, nursing home services may not be available when needed. The Department of Human Services would be concerned about access if occupancy rates exceeded the historic (20-year) range. Above about 97% occupancy, access problems will likely become common. On the other hand, low occupancy is likely to exacerbate the financial strain on facilities, and perhaps, reduce the overall efficiency of the industry.

Extreme Hardship Counties. The general distribution of nursing home beds is certainly not uniform across the state. As noted earlier, the range in number of beds per thousand persons aged 65+ is over 6-fold (i.e., a low of 19.7 in Anoka County and a high of 119.7 in Norman County). Further declines in bed supply may trigger an "extreme hardship" situation in specific areas of the state. By definition in statute, two criteria must be met for such an extreme hardship situation to be recognized:

- 1. A county must have fewer beds per 1,000 for people age 65+ (in that county and contiguous counties) than the national average plus 10% (110% of 46.1 beds/1000 [in 2006, the most recent year for which the data is available] is 50.7), and
- 2. An extreme hardship situation can only be found after the county documents the existence of unmet medical needs that cannot be addressed by any other alternatives.

When an extreme hardship situation is determined to exist, the Human Services and Health commissioners may approve the addition of new beds. This has never occurred.

In 2008 there were 14 counties— Benton, Cass, Chisago, Douglas, Goodhue, Isanti, Kanabec, Meeker, Morrison, Pine, Pope, Rice, Sherburne, Washington—where an exception to the moratorium on nursing home beds might be considered due to the potential for the "extreme hardship" criteria defined above. In 2005, eleven counties met this test.

The statutory definition of "extreme hardship county" produces some peculiar results, best exemplified by Anoka and its contiguous counties. Hennepin, Ramsey, Chisago, Isanti, Washington, and Sherburne Counties all border Anoka County, which has the state's lowest number of beds per 1000 age 65+ with 19.7. Even though Isanti and Sherburne counties have high beds per 1000 (ranking 25th and 32nd respectively in bed capacity), they are potential extreme hardship counties, while Anoka (ranking 87th—lowest capacity in the state) is not. The status of a county may be driven more by the availability of beds in a more populous neighboring county than by its own bed availability. So low-bedded Anoka, adjacent to larger high-bedded Hennepin and Ramsey Counties will not meet the hardship test, while high-bedded Chisago, Isanti and Sherburne Counties, adjacent to a larger low-bedded county, Anoka, will meet the test.

The objective of identifying potential hardship counties may be better met by using criteria that recognize either low beds per 1,000 rates for both a county and its contiguous county group, or very low beds per 1,000 for a county regardless of contiguous counties.

Nursing Facility Utilization. With increasing numbers of elderly and declining numbers of nursing home beds, why is it that occupancy rates have remained relatively stable? The answer lies in declining utilization. Nursing home utilization is a measure of how likely it is that a person will spend some time in a nursing home—namely the percent of people within an age group who are in a nursing home on a given day. The three charts on the following page show

that the nursing home utilization rate for older persons in Minnesota has been declining for at least the past 23 years. In 1984, the utilization rate for persons aged 65+ was 8.4 %, and by 2007, it had declined to 4.7 %—a 44% drop. The utilization rate for people age 85+ dropped even more dramatically, from 36.4% in 1984 to 17.6% in 2007, a 52% drop.



Nursing Home Utilization Rates in Selected Years										
from 1984 - 2007										
for Persons 65+ and 85+ in Minnesota										
Year	65+	Annual Rate	85+	Annual Rate						
	Utilization	of Change	Utilization	of Change						
1984	8.4%		36.4%							
1987	8.1%	-1.2%	35.1%	-1.2%						
1989	7.8%	-1.9%	33.4%	-2.5%						
1993	7.6%	-0.6%	30.8%	-2.0%						
1994	7.1%	-6.6%	28.7%	-6.8%						
1996	6.9%	-1.4%	28.2%	-0.9%						
1998	6.1%	-6.8%	24.3%	-7.2%						
2000	5.8%		22.8%							
2001	5.6%	-4.3%	21.3%	-6.5%						
2002	5.5%	-1.3%	20.6%	-3.2%						
2005	5.2%	-2.1%	20.1%	-0.8%						
2006	4.9%	-5.6%	18.7%	-7.3%						
2007	4.7 %	-4.3%	17.6%	-5.7%						
Source: Residents – MDH and DHS; Population – US Census Bureau *Beginning in 2000, the data source use to compute utilization rates changed because the Minnesota case mix system was replaced with the										
RUGS system.										

Why is utilization dropping? Several factors may be contributing to this long term trend:

- Declining rate of dependency
- Growth in availability of home and community based services and assisted living
- Changing consumer preferences and expectations, and
- Increased availability of short stay specialty care.

It is interesting to note that there is an association between a region having access to short stay care and having fewer beds per thousand. In order to examine this issue, we created a proxy measure for the availability of short stay care, calculated as number of successful discharges in excess of the statewide number of discharges per bed. The scatter diagram below displays a strong and negative relationship (correlation coefficient = -0.512) between counties' beds per 1000 age 65+ and their short stay availability, suggesting that short stay specialty services may reduce demand for nursing home beds in a region.

Estimated Successful Nursing Home Discharges Above MN Average versus Beds per 1000 65+, by County



These variables are significantly negatively related (correlation coefficient: -0.512, p < 0.01)

D. Future Industry Size--Projections

One of the questions this report is intended to address is whether the state continues to be overbedded, has an adequate supply of nursing home beds for the foreseeable future or if additional beds will be needed. To answer this question we will first look at projected bed availability based upon changes in the number of beds, then projected bed need based upon changes in the rate of utilization of nursing home services and of population, and then combine these two projections.

Projected availability based on changes in the number of beds. As we have seen, the number of nursing home beds in Minnesota has been decreasing. To project the number of beds that will be available in the future, we developed two different scenarios. These scenarios chart future bed supply based on the average change in the number of beds over the last ten years and over the last five years. The five-year trend is not quite as steep, because of the slowing rate of bed delicensure.

Projecting Number of Nursing Home Beds Available in Minnesota 2005-2025									
	10-Year Trend	5-Year Trend							
2007*	35,142	35,142							
2010	33,281	33,488							
2015	29,047	29,687							
2020	25,353	26,317							
2025	22,128	23,329							
2030	19,313	20,681							

*2007 = actual number of beds

The chart on the right shows the projected nursing home bed availability in Minnesota to 2030, based on the ten-year trend line of bed delicensure or layaway of 2.68% of nursing home beds per year. Projecting that this annual rate of reduction will continue to 2030, results in about 33,300 beds in 2010 and 19,300 beds in 2030. Using the five-year trend-line, we project delicensure or layaway of 2.38% of nursing home beds per year, resulting in about 33,500



beds in 2010 and 20,700 in 2030. While the actual number of beds over the next 22 years will likely be between these two projections, it is also likely that many factors, including policy changes, will affect the number of beds.

Projected need based on the changing utilization rate of nursing home services and population estimates. Utilization rates have been falling for many years. Nonetheless, if we were to assume that the rate of nursing home bed utilization would level off at the 2007 rate of 4.7% for the 65+ age group, the need for beds would increase steadily due to growth in the elderly population and would surpass current supply as soon as 2011, assuming occupancy does not exceed the record high of 95.68% in 1993.

But, because of the decline in disability rates, shorter nursing home stays, and increasing utilization of alternatives to nursing home services, we expect that the nursing home utilization rate will continue to exhibit the trend we have seen for many years.

Assuming then, that utilization rates will continue to decline, the question is, will the pattern of recent declines continue or will a longer-term average be more likely? And then, what does that mean for the number of nursing home beds that will be needed?

To answer these questions, we projected nursing home utilization rates for persons 65+ and 85+ out to 2030 using trends in the utilization rate from the most recent five years and the most recent ten years, and then applying population estimates to the utilization estimates²¹ to project future nursing home bed need.

The table that follows shows these projections—from 2010 to 2030—based on both 5- and 10year averages, and on both 65-84 and 85+ population projections and with a level amount for the use of nursing home beds by people under age 65. This table also shows several ways of projecting a total number of beds needed. We start with a total number of beds needed based on the 10-year trends and then the 5-year trends. We then project a Low Total, a best case scenario and a High Total, a worst case scenario. This is being done because, while the 65-84 trend line declines more steeply when using the 5 year trend than when using the 10 year trend, the reverse pattern applies for the 85+ population. The Low Total (best case scenario) is the one in which each age group requires the fewest beds. It adds together the bed need projections for:

- The under 65 population,
- The 65-84 population, based on the 5 year trend, and
- The 85+ population, based on the 10 year trend

The High Total (worst case scenario) is the one in which each age group requires the most beds. It adds together the bed need projections for:

- The under 65 population,
- The 65-84 population, based on the 10 year trend, and
- The 85+ population, based on the 5 year trend

²¹ Because of the necessity to re-state utilization rates in 2002, the 10-year trend line was calculated using both data sources and the older data points are adjusted based on a comparison of overlapping reporting periods. DHS uses U.S. Census population projections, and the assumptions that 91% of all nursing home residents will continue to be 65+, 56% will continue to be 85+, and that there is a maximum occupancy rate of 95.68 %.

	(0-64)	10-year trend (65-84)	5-year trend (65-84)	10-year trend (85+)	5-year trend (85+)	10-year trend (Total)	5-year trend (Total)	Low (Total)	High (Total)
2010	3,000	11,069	10,461	18,734	19,215	29,803	29,676	32,195	33,284
2015	3,000	10,762	9,257	16,635	17,798	27,397	27,054	28,892	31,560
2020	3,000	10,730	8,400	14,275	15,931	25,005	24,330	25,675	29,661
2025	3,000	10,534	7,505	12,766	14,681	23,301	22,366	23,272	28,395
2030	3,000	9,749	6,322	12,333	14,975	22,082	21,297	21,654	27,725

Projecting Number of Nursing Home Beds Needed Minnesota: 2010-2030







The final step of this analysis is to lay the bed availability projection on top of the bed need

projection. The chart below shows Low Total (best case) and High Total (worst case) projections overlaid on the projected number of beds based on the 10 year and 5 year trend projections.

We start with a surplus, as of 2007, of 1729 beds. Given long standing trends in bed availability and bed need, do we see a greater likelihood of continuing to have a surplus of beds? Will we have a shortfall, or will supply and demand decline in parallel with each other?

In the worst case scenario, we have no surplus beds as early as 2010. In the best case scenario this does not occur until about 2025.

When we addressed this issue in the Status of LTC in



Minnesota, 2005 report, published in 2006, we concluded that bed shortages could occur as early as 2009, three years into the future, but possibly never. This year our finding is similar. Given the assumptions built into the Low and High projections, shortages may occur as early as 2 years from this writing, but may not occur for almost 20 years.

In conclusion, we suggest that we are at a point where the moratorium on new nursing home beds is still useful, but we should be:

- Watching for local and regional access problems,
- Encouraging the use of existing mechanisms that allow beds to be relocated from high bedded areas to low bedded areas, and
- Preparing to allow the addition of new beds where and when access problems become more severe.

VI. Minnesota Department of Health

The Minnesota Department of Health (MDH), through its Compliance Monitoring Division, is primarily responsible for assuring compliance with state and federal regulations that exist to protect and improve the health, safety, comfort and well being of individuals receiving long-term care services from federally certified and state licensed health care providers.

A. Long-Term Care Quality Assurance

The MDH continues its efforts to improve and maintain consistency across survey teams through implementation of the federal Quality Indicator Survey (QIS) Nursing Home Survey Process. In May of 2007, Minnesota was the only state selected to expand the federal roll out of the QIS survey process (inspection of nursing homes) which will eventually be phased in nationwide and replace the current federal survey process. QIS is designed to improve consistency and accuracy of quality of care and quality of life problem identification; comprehensively review the full range of regulatory care areas; enhance documentation of survey findings through automation; and focus survey resources on facilities with the largest number of quality concerns. MDH will also analyze variances in survey data by conducting research that examines relationships between deficiencies issued, facility characteristics and Minimum Data Set resident characteristics in an effort to understand the reasons for these variances.

MDH is also focused on promoting nursing home culture change and regulatory compliance through working jointly with stakeholders via participation in the Minnesota Culture Change Coalition to promote culture change concepts, and through collaborative efforts with providers to educate and train on revised federal clinical guidelines and Life Safety Code requirements.

MDH is working with licensed home care providers to improve compliance with regulations and increase the quality of direct care services provided through education both through licensing inspections and through consultation with providers. MDH is currently in the process of reviewing home care regulations so that our regulations meet the changing realm of home care services, needs and expectations of consumers. MDH wants to ensure that the regulations are clear, allow for consumer choice and meet the rapidly changing advances in medicine and technology.

Complaint investigations of licensed and certified health care facilities and services are also a responsibility of MDH. The Office of Health Facilities Complaints (OHFC) is responsible for the receipt of all complaints and facility reported incidents from hospitals, nursing and boarding homes, Supervised Living Facilities, home care services and for gathering information that will assist in the appropriate review of this information; for evaluation and triage of this information and for selecting the level of investigative response.

One indicator of quality assurance in long-term care settings is the provider's record regarding complaints, and substantiated complaints in particular. OHFC has identified an upward trend in the number of home care complaints it receives. OHFC is supporting MDH efforts to work with stakeholder groups to encourage industry sponsored training in areas where training is needed

due to increases in correction orders and deficiencies issued for violations of regulations and complaints received.

For more information on MDH quality assurance efforts, please refer to the *Annual Quality Improvement Report of the Nursing Home Survey Process* report at <u>http://www.health.state.mn.us/divs/fpc/2007QINHreport.pdf</u> and the *Complaint Investigations of Minnesota Health Care Facilities* report at <u>http://www.health.state.mn.us/divs/fpc/2008ohfcfinalrpt.pdf</u>

Consumer Information

Minnesota's Nursing Home Report Card,²² developed in collaboration with DHS, with input from long term care researcher Dr. Robert Kane and provider and advocacy representatives, became operational on the MDH website on January 20, 2006. The Report Card uses multiple measures of quality, and incorporates sophisticated risk adjustments to compare facilities fairly. Consumers can compare nursing homes on eight quality measures.

Each nursing home can receive from one to five stars on each measure. The report card Web site also contains a number of links to other sources of information consumers may find helpful in choosing a home. The Web address for the Report Card is: www.health.state.mn.us/nhreportcard

Based on the success of the Nursing Home Report Card, MDH worked with DHS and stakeholders in 2006-2007 to design a Uniform Consumer Information Guide (UCIG) for Assisted Living. This consumer information resource assists consumers in researching and comparing housing with services and community based long-term care options. Along with the UCIG project, MDH has been collaborating with the Board on Aging in making more of the provider information it collects available to consumers through the <u>www.MinnesotaHelp.Info</u> website and the Senior Linkage Line. This will improve the consumers' access to the information they need to make choices about their long term care needs.

²² More information on the methodology behind this instrument is available in an earlier section of this report, Nursing Home Quality issues, pages 16-19.

VII. Reducing Future Need for Long-Term Care

Health Promotion, Disability Prevention & Disease Self-Management

Research shows that when older adults increase physical activity, improve their eating habits, avoid tobacco, and take steps to minimize the risk of falling they can live longer and healthier lives. Although changing behavior is not easy, there are *evidence-based* community interventions that have been proven effective in helping adults of all ages make healthier lifestyle choices. Increasing the availability if well-targeted, effective programs can provide both health and financial benefits for individuals as well as the general public.²³

Minnesota Falls Prevention Initiative

The Minnesota Department of Human Services, Department of Health and the Minnesota Board on Aging launched a Falls Prevention Initiative in 2005. Falls are the number one cause of trauma deaths, non-fatal major trauma and other trauma care in Minnesota, and the majority of these cases are among older Minnesotans. Minnesota's fall death rate is almost twice the national average and it is increasing. Minnesota consistently ranks among the top four states in the country for death rate due to falls.

The Minnesota Falls Prevention Initiative²⁴ seeks to reduce the risk for falls in older Minnesotans through four objectives:

- Increase awareness of preventing falls among older adults, family members and professionals;
- Increase assessment of fall risk;
- Increase the availability of evidence-based falls prevention interventions statewide; and
- Measure the impact of efforts to prevent falls in older Minnesotans.

Evidence-Based Programs

The Minnesota Department of Human Services, Department of Health and the Minnesota Board on Aging are also partnering to implement a portfolio of evidence-based programs for health promotion, falls prevention and chronic disease self-management. The lead state agencies are coordinating efforts to expand evidence-based programs through: training and support for class leaders; start-up materials; evaluation; and monitoring for fidelity—an essential element of quality assurance. Other critical partners in this effort include managed care organizations, Area Agencies on Aging, local public health agencies, and local aging services providers.

In choosing evidence-based community programs, the lead state agencies are using the definition of evidence-based that includes programs that have gone through at least two levels of implementation research. These include programs that have, in the first phase, been tested in a rigorous, controlled design with experimental and control groups. Selected programs have gone

²³ A New Vision of Aging: Helping Older Adults Make Healthier Choices. Issue Briefing No. 2, Center for the Advancement of Health, Washington, DC, March 2006.

²⁴ More information on the Minnesota Falls Prevention Initiative is available at <u>www.mnfallsprevention.org</u>.

through a second phase of research involving "field testing" in community settings using the type of practitioners, recruitment strategies and participants that will be used in broad implementation. It is important that these programs be implemented with fidelity to ensure the expected outcomes. The state partners on this project are also working with other states to learn from each other, and share the implementation methods that are most effective.

Program Descriptions

The Arthritis Self-Management Program (also The Arthritis Foundation Self-Help Program) was originally developed by Kate Lorig and Jim Fries at Stanford University. The program consists of groups of 8-12 persons who meet with trained peer facilitators for a two-hour session each week for six weeks. Participants gain skills in self-management behaviors including healthy eating, increasing physical activity as well as effective use of medications, navigating the health care system and pain management. The program has been demonstrated to decrease physician visits by 40% and decrease pain by 20%. The program is currently being implemented in English and Spanish.

The Chronic Disease Self-Management Program (in Minnesota, called Living Well with Chronic Conditions) was also developed by Lorig and Fries at Stanford, and is based on the success of the Arthritis Self-Management program. Groups of 8-12 persons with chronic conditions meet with trained peer facilitators for a two and a half-hour session each week for six weeks. This intervention is targeted to a broader audience of individuals who want to learn how to better manage their one or more chronic conditions. Participants learn effective self-management skills to support healthy behavior change in nutrition and physical activity, as well as effective use of medications, navigating the health care system and disease management. The program has been demonstrated to significantly decrease hospitalizations, increase healthy behaviors, increase quality of life, and reduce disability.

A Matter of Balance is a falls prevention program developed at Boston University and modified by MaineHealth's Partnership for Healthy Aging. The goals of the program include decreasing fear of falling (a risk factor for falls) and increasing physical activity levels particularly related to strength, balance and mobility control. It is built on the Stanford education model, and is led by trained peer leaders. Groups of 8-12 individuals meet for a two-hour session each week for 8 weeks. Starting at week 3, the sessions include 30 minutes of exercise. Program participants have demonstrated increased confidence in managing and controlling falls, and increased engagement in daily activities without falling, and significant reduction in falls at 6 and 12 months after class completion,

The **Healthy Eating for Successful Living Program** was developed by a collaboration of experts in the Boston area, again using the Stanford education model. Classes meet in groups of 8-12 with trained peer facilitators for a two-hour session each week for six weeks. Back-up support is available from credentialed nutrition professionals as needed. In addition to including strategies for improving nutritional health, the program includes the elements that are important for participants to make effective behavior changes, such as self-assessment and behavior - management, goal-setting, problem-solving and group support and interaction. The program is adaptable for culturally diverse populations.

The state partners in this initiative e are also implementing community exercise programs to increase the opportunities for safe and effective physical activity for adults and older adults in their communities. All of these programs are offered by trained leaders and can accommodate a wide diversity of physical abilities and fitness levels. In addition to contributing to overall health and fitness, regular participation will decrease participants' risk of falls.

The EnhanceFitness Program was developed by the University of Washington and Seattle Senior Services. This community-based program is led by trained fitness professionals and emphasizes physical activity to improve balance, strength, endurance and flexibility. It has been demonstrated to increase fitness, reduce pain, reduce depression and reduce health care costs.

The Arthritis Foundation Exercise Program and **The Arthritis Foundation Warm Water Exercise Program** are led by trained community exercise program leaders. The Arthritis Foundation Exercise program was developed at the University of Missouri and includes exercises for flexibility, strengthening, balance, endurance and low-impact aerobics. The exercises can be done while seated or standing. The Arthritis Foundation Warm Water Exercise Program is held in pools heated to a temperature of at least 83°F, and includes exercises for flexibility, strength, balance, endurance and very low impact aerobics. Warm water makes the exercises more comfortable to do. Participants do not need to know how to swim. Both programs have been shown to help participants exercise more, have less pain and be more confident in being able to exercise.

Additional key strategies for supporting the health of adults and older adults include those policy and environmental changes to support healthy behavior choices in communities. We need to support the availability, accessibility and affordability of healthy foods and opportunities to be physically active in safe and enjoyable settings.

VIII. Access to Information and Assistance

As described earlier in this report, the expectations of older persons and their families regarding "aging" and the kinds of help and support that *should be available* are changing. Increasingly, people are seeking more home and community-based services instead of institutional models of care. Because consumers generally do not seek out information about "long-term care" until a crisis occurs, the 2001 long-term care reform legislation included a multi-pronged approach to improve consumer information and assistance so that it can respond in real time to the need for information.

Over the past several years, Minnesota Board on Aging has worked with several partners to segment the population in order to inform its outreach efforts, understand the technologies needed to reach people more effectively and optimize the use of state resources in order to help people remain in the community. One significant challenged faced by information providers is that people generally fall into several categories of "readiness" to seek out information and assistance—consumers represent a continuum of interest and likelihood to "manage" personal health care. For example, some people may be very willing to seek out preventive services and make changes for better health. These types of consumers (making up fewer than 30% of the population) are more likely to plan ahead and listen to the advice of medical professionals. On other end of the spectrum, consumers may be "uninvolved fatalists" who are pessimistic about their health, and neither seek nor take health advice from others.

A. Information and Assistance Improvements

The Minnesota Board on Aging has provided information and assistance through the Area Agencies on Aging for several years. In response to the 2001 legislation, the MBA developed an easy-to-use website called <u>MinnesotaHelp.info</u>. It also improved the quality of service provided through its Senior LinkAge Line® by expanding the toll-free telephone information and assistance service, improving the technology used to make the service available and creating linkages between the Senior LinkAge Line® and the assessment, screening and eligibility determination functions of the counties.

B. Long-Term Care Consultation Services

In Minnesota, the counties' Long-Term Care Consultation (LTCC) program was designed to provide an objective assessment as well as options for the person and her/his family to consider—including home health agency services. Recent legislative changes include expanding the counties' responsibilities to provide broader "consultation" services to older persons of all income levels faced with long-term care issues.

Each county receives an allocation through payments to the nursing facilities within the county to fund LTCC services. In addition, the county receives a fee for in-person assessments for persons under 65, and for transition assistance provided to all persons eligible for Medical Assistance. An initial assessment and support plan is provided a no cost to individuals, whether in the community (to avoid nursing facility admission), or in a facility (to return to the

community). The number of annual screenings has declined over the years from about 87,000 in 2002 (65,000 people 65+ and 22,000 persons under 65) to about 55,000 total in 2006. Historically, most of the *community* assessments have been provided to persons over age 65, while most of the *facility* assessments (to plan for return to the community) have been provided to persons under age 65, in part because of legislation that requires early follow-up visits for people under 65 admitted to nursing facilities. Recent informal assessment of this program found wide variation across the counties in accessibility, especially for persons who are private pay.

C. One-Stop Aging and Disability Resource Centers

A consortium of agencies led by the Minnesota Board on Aging and including the Department of Human Services, Hennepin County, the Metropolitan Center for Independent Living, the Metropolitan Area Agency on Aging, and the University of Minnesota Center for Aging received a federal grant in late 2003 to improve consumer access to services. Among other things, it included the creation of four resource centers in Hennepin County, additional professional and consumer linkages with <u>www.minnesotahelp.info</u>, a management information system that links to county billing systems, and expanded access to screening options for caregivers and professional helpers. In 2006, the project began to spread statewide through the development of access and outreach sites in strategic locations linked to long-term care decision making (e.g., clinics and hospitals), thus improving referral and disseminating the information resources and the web-based tools for consumers who are self-directed.

The design of the Aging and Disability Resource Center effort in Minnesota, which was made permanent in federal law as a part of the 2006 Older Americans' Act reauthorization, is based on a network model. The Minnesotahelp NetworkTM will ensure that community based providers are inter-connected to create a "no wrong door" system of access. The network has four components:

- Online navigator access through <u>www.minnesotahelp.info;</u>
- Phone access to a trained information specialist through the Linkage Lines;
- In-person assistance through local access sites that are located in clinics, workforce centers, Centers for Independent Living and other helping agencies, and
- Printed materials.

This strategy links components of Minnesota's highly regarded information and assistance system to community providers to improve consumer access to information about long-term care services. This overall system proved its capacity and effectiveness during the roll out of the Medicare Part D Drug benefit in 2005-2006.

In May 2006, a new web-based navigator was launched to help consumers navigate the complex array of long-term care choices. *Long-term Care Choices* is a step-by-step tool created to help individuals, in particular older adults and their caregivers, figure out what they need to live well and age well. The site also guides older adults and caregivers to resources in their community, and allows users to create a personalized plan for anyone in need of extra help. The Long-Term Care Choices tool is online at <u>longtermcarechoices.minnesotahelp.info</u>.

IX. Long-Term Care Benchmarks

Four benchmarks were selected to measure the state's progress toward rebalancing the long-term care system as called for in the state's long-term care reform. These benchmarks are described below, with the most recent measures included.

Benchmark #1

Percent of public long-term care dollars spent on institutional vs. community care for persons 65+.



What does this benchmark

measure? It measures the relative proportion of the public long-term care budget (including federal Medicaid, state and county total long-term care funds) spent for nursing home care and community care for persons 65+. Community care includes expenditures in the Elderly Waiver, Alternative Care and the Medical Assistance home care programs, and institutional care includes MA expenditures for nursing facility care.

Why is this important? Minnesota's use of nursing home care has historically been higher than the national average. As we reduce our reliance on nursing homes, we reduce the proportion of public long-term care dollars spent on nursing home care and increase the proportion spent on community care. This benchmark allows us to compare each county with statewide averages, and compare Minnesota to other states in the country.

Where do we stand? In 2007, Minnesota was still spending roughly 73% of public long-term care budget for older Minnesotans on nursing facility-based care. However progress has been steady since benchmark year 2000 at which time roughly 88% of public funding was budgeted for facility-based care. It should be noted that institution-based spending for *non-elderly* Minnesotans receiving publicly funded long-term care (i.e., children and adults younger than age 65 with disabilities) was __ in 2007. Because of this, Minnesota ranks among the top five states in meeting national Medicaid balancing goals across MA populations: Minnesota is at 60/40 while the United States average is 76/24.²⁵

²⁵ Kassner, E; S. Reinhard; W. Fox-Grage; A Houser; and J Accius (2008) *A Balancing Act: State Long-Term Care Reform,* AARP Public Policy Institute

What does this benchmark

Benchmark #2



Percent of nursing home resident days that are *low acuity*.²⁶

measure? It measures the percent of nursing home resident days that are provided to low needs residents. For purposes of this measure, a RUGS category of "PA-1 & PA-2" is considered low needs. These are categories that include residents with no special conditions, no nursing rehab needs, and a low level of dependency in activities of daily living..

Why is this important? In order to reduce our reliance on nursing homes, we need to examine the way we use nursing homes, especially for

people with fewer needs who could be maintained in the community if proper support services were available.

Where do we stand? In 2003, the overall state proportion of nursing home resident days that was *low acuity* was 13%. By 2007, this percent has gone down to 11.8%, indicating that a smaller proportion of those served in nursing facilities are light care individuals. This indicates that an increasing proportion of the people being served in our nursing facilities are high acuity, and that less disabled individuals are able to receive needed assistance in other settings.

²⁶ For technical reasons this measure has been converted to a count of resident days rather than residents, and includes all nursing home residents regardless of age. For the Benchmark measures reported here, prior year measures have been re-computed to reflect this change, allowing the use of one standard methodology for comparisons across time.

Benchmark #3



Percent of Elderly Waiver and Alternative Care recipients that is high acuity

What does this benchmark measure? It measures the percent of the elderly served in the two largest publicly funded LTC programs (e.g., Elderly Waiver and Alternative Care) who are at higher risk for nursing home care because they are more disabled and need more intensive services. This measures the capacity of home-and communitybased services to support frail people in their own homes, and not rely solely on institution-based approaches for persons with higher needs.

Why is this important? In order to reduce our reliance on nursing homes, we need to expand the ability of home and community care options to support more disabled frail elderly in their homes or apartments.

Where do we stand? In 2007 the statewide proportion of "higher risk" elderly served in the major publicly-funded community care programs was 44.4%. This benchmark has shown a steady though gradual increase from baseline year 2000, when about 37% of clients were at higher case mix levels.

Benchmark #4



Ratio of nursing home beds per 1000 persons 65+.

What does this benchmark measure?

It measures the current number of nursing home beds and computes the ratio of nursing home beds to the current population 65+. It allows a consistent comparison of the relative supply of nursing home beds and allows for comparisons across geographical areas within Minnesota and across states.

Why is this important? Minnesota's ratio of nursing home beds per 1000 has historically been among the

highest n the nation, and we are trying to reduce our reliance on nursing home-based long-term care. This measure helps us compare the supply of beds to the population, and monitor how this changes over time, as more community options are put in place.

Where do we stand? In 2005, the most recent date for which there is comparable data across all states, Minnesota had 60 beds/1000 age 65+ while the national average at that time was 47. Over the past 2 years Minnesota has moved somewhat closer, with about 56 beds per 1000 persons 65+ in 2007.

X. Conclusions and Future Challenges

A. Progress in Long-Term Care Reform

Since the Legislature first initiated reform of the state's long-term care system in 2001, there has been steady and significant progress toward the stated goals of reform -- reducing the state's reliance on facility-based long-term care and increasing our capacity to support elderly in their own homes and communities. The legislative initiatives and tools described in this report have contributed to the state's overall success in this effort, and each of the four key Benchmarks shows that progress on all fronts continued through 2007.

- The proportion of public long-term care dollars for facility-based care has continued to decline as the state shifts its purchasing power to include more home- and community-based alternatives. Benchmark # 1 shows that in 8 years, Minnesota has moved from spending nearly 88% of all LTC dollars on institution-based care in 2000, to just over 72% in 2007.
- This is a result of state programs and incentives to down-size the nursing home industry, and at the same time to develop new community-based service and support alternatives. Benchmark # 4 shows that Minnesota has moved from having one of the highest rates of nursing home utilization in the country, 84 beds/1000 65+ in 1993, to 56 beds/1000 65+ in 2008 a one third smaller ratio driven by a reduction in the number of beds against a background of a growing elderly population.
- Public long-term care dollars are increasingly targeted to persons with the highest needs. Benchmark # 2 shows that nursing home settings provide care to an increasing proportion of residents who are very frail (and a decreasing proportion who are less frail). At the same time, public funding for home-and community-based services is increasingly targeted to those with more disability and higher need (Benchmark # 3).

Minnesota's measures of success in long-term care reform are currently focused on the balance between facility-based and community-based care options. In 2007 the Centers for Medicare and Medicaid Services (CMS) awarded grants to 10 states²⁷ (including Minnesota) to use a common tool to describe their state long-term care systems and to explore the development of prototype "balancing indicators" for long-term care. As we move forward over the next three years, new measures of "success" in system reform are likely to emerge which include such elements as consumer impact/outcomes, quality (as embedded in the Nursing Home Report Card and new HCBS Performance measures under development) and "value" or the cost-effectiveness of different providers and service models.

B. Increased Community-Based Options and Activity in the Private Market

The current cohort of older persons in Minnesota has more "family resources" than either past or future cohorts. They have more children to help them—the Boomers are their adult children—and they are more likely to be married and live with a spouse. As noted in the report, older Minnesotans today are also more likely to purchase services to help them stay in their own homes, and more likely to seek some kind of housing-with-services arrangement when they

²⁷ State Long-Term Care Profile Grant awardees include Arkansas, Florida, Iowa, Kentucky, Maine, Massachusetts, Michigan, **Minnesota**, Nevada, and Virginia.

decide that staying in their own home is no longer feasible. There has been a continued expansion of "housing-with-services" facilities and, within this, Assisted Living. The proliferation of private services and options is a natural response to the increasing market demand. With this, however, come new challenges to the public responsibility for protecting the vulnerable from fraud or abuse.

The state has made significant progress in targeting public dollars to those "at highest risk." However, this has shifted—and will continue to shift—a significant amount of responsibility onto community resources and supports, especially family caregivers, neighbors and volunteers. Faith-based and other community-based initiatives already play a significant role in Minnesota's long-term care system.

Public strategies to reduce future long-term care demand will have to address both health promotion and reduction in disability, and mechanisms that to assist individuals in planning for and making decisions about their own long-term care needs. In the past few years there has been a promising increase in the adoption of evidence-based²⁸ health promotion programs promote personal responsibility and importance of personal responsibility, for A sustainable public/private financing model will require continued exploration of mechanisms that effectively reduce future long-term care demand valuation of the effects of s a challenge for our future even as we acknowledge the need for an increased for personal responsibility and private funding approaches.

C. The Larger Context of Health Care Reform

Persons with multiple chronic illnesses are significantly more likely to experience preventable hospitalizations and to consult multiple physicians. As a result, fully 79% of all Medicare spending is for persons with four or more chronic conditions. Any efforts to contain America's future health care costs must necessarily address these cost drivers. Minnesota, as a state, is beginning to move forward in this area. As of today, the majority of persons on the Elderly Waiver program are served under the auspices of managed care organizations. While this strategy holds great promise for integrating the social supportive and health care services, improving care while holding down costs, its implementation is yet too recent to be able to evaluate the outcomes

Legislation in 2007 requires that by January 1, 2015, all hospitals and health care providers (including physician offices, clinics, nursing homes, transitional care and home health care) must have in place an interoperable electronic health records (EHR) system. Assessments made by the 2007 e-Health Advisory Committee have identified two settings of special interest for implementation: public health and long-term care. However, a 2007 survey of nursing homes in Minnesota conducted by Stratis Health found that very few facilities are using electronic tools to support care delivery, and for those that are, they must use three or four different information systems to meet their needs.²⁹ At this time there are few (if any) management information products available for long-term care applicability, and in order to move forward, long-term care providers, in concert with state e-Health authorities, must take a leadership role in defining the basic business requirements for a system that could meet their unique needs.

²⁸ Programs that have been tested in a rigorous, controlled design with experimental and control groups, such that the outcomes of the program's interventions can be statistically predicted.

²⁹ MDH (2008) A Prescription for Meeting Minnesota's 2015 Interoperable Electronic Health Record Mandate.

The use of new E-health products to improve long-term care extends across the entire healthcare spectrum. State health reform legislation in 2008 includes the development of the *health care home* as an adjunct to the EHR system. The health care home model has been demonstrated to be more effective in managing serious and disabling chronic conditions than current mainstream health care delivery models. As Minnesota's larger health care system is reformed to address chronic diseases and self-management approaches, we are likely also to increase our understanding about the intertwined nature of health care and long-term care; sustaining the trend of reduced preventable disability among Minnesotans. Importantly, the health care home model has also been shown to reduce disparities in health outcomes across ethnic and cultural minority populations. A key challenge for the next several years will be to ensure that older Minnesotans who participate in Medicare's fee-for-service system will also have the option to participate in the new health care home approach.

D. Other MajorTrends

There are many significant trends that will influence and shape the kind of long-term care system that will evolve in Minnesota over the next 10-15 years. Within the larger context of significant challenges identified through project *Transform* 2010^{30} , three will be significant for the future of Minnesota's long-term care system.

- <u>Changes in Minnesota's Workforce</u>: Both the general aging of Minnesota's workforce, and the projected decrease in younger workers in the next few decades will put particular strain on the long-term care industry. Relatively low wages in a service industry, combined with the heavy, physical labor and emotional demands of direct care, make jobs in this industry less competitive. Among professionals in long-term care (i.e., nurses, physicians, therapists) there are presently unfilled positions and the forecasts are for *fewer* qualified persons seeking employment in these areas in the future. New service models will increasingly leverage non-paid assistance: extending and improving the care provided by family and unpaid sources, and expanding opportunities for and application of volunteer-based services. Maximizing the service capacity of paid workers requires service models where less time is spent on paperwork and travel; and more time is spent in direct service provision.
- <u>Application of Technology:</u> Minnesota is successfully moving toward a more decentralized system—where more frail persons are supported in their own homes and apartments. The growing challenge of this success is increasing need for (and costs of) transportation: either frail person must be brought to the service provider or the services must be brought to the person. Through the state's CS/SD grants and other initiatives, service providers in Minnesota are increasingly using new telehealth technologies to improve monitoring and reduce the costs. We must continue to explore and implement technological solutions to the challenges of decentralization, as well as to the workforce issues described above.
- <u>The State's Economy</u>: Project *Transform 2010* has helped us to quantify the degree to which Minnesota will need to reduce its reliance on public sector funding for long-term care, and several strategies for increasing private funding. The population and economic

³⁰ Information and recommendations from this project are available on the web at <u>www.dhs.mn.us/2010</u>.

forecasts for the state make this inevitable, regardless of the current state of the State's economy. Minnesota is <u>now</u> challenged to invest in strategic changes—specifically, changes in service delivery models as described in this paper—in order to create the next, sustainable iteration of Minnesota's Long-Term Care System.





Beds Per 1000 By County, 65+

beus rei 1000 by	as Per 1000 By County, 65+							Contiguous County Groups					
						#							
County	#fac	Beds	Pop65+	bpt65+	rank	counties	#Fac	pop65	Beds	bpt65+			
Aitkin	2	153	3,890	39.3	77	9	41	73,957	3,810	51.5			
Anoka	6	523	26,516	19.7	87	7	109	245,248	13,389	54.6			
Becker	4	377	5,226	72.1	27	8	29	33,521	2,203	65.7			
Beltrami	3	213	5,306	40.1	74	10	23	33,050	1,766	53.4			
Benton	3	414	3,993	103.7	5	5	19	35,917	1,819	50.6			
Big Stone	2	114	1,351	84.4	19	5	9	7,760	592	76.3			
Blue Earth	6	412	6,866	60.0	48	8	28	31,421	1,924	61.2			
Brown	4	353	4,695	75.2	24	7	29	25,875	1,815	70.1			
Carlton	4	319	4,954	64.4	40	4	27	43,984	2,313	52.6			
Carver	4	253	6,592	38.4	78	6	78	154,038	9,170	59.5			
Cass	3	479	5,309	90.2	12	9	24	48,209	2,247	46.6			
Chippewa	2	163	2,412	67.6	36	6	19	17,524	1,359	77.6			
Chisago	3	218	4,787	45.5	71	6	19	60,874	1,815	29.8			
Clay Clearwater	4 2	378 104	6,756 1,492	56.0 69.7	58 31	5 7	23 20	25,700	1,839	71.6 56.7			
Cook	2 1	47	939	69.7 50.1	66	2		23,936	1,358 223	56.7 70.2			
Cottonwood	3	188	939 2,408	78.1	23	2 8	4 27	3,175 24,039	1,667	69.3			
Crow Wing	3	314	10,528	29.8	83	5	14	24,039 28,774	1,007	51.3			
Dakota	9	1,072	31,506	29.0 34.0	80	7	122	257,156	14,468	56.3			
Dodge	2	1,072	2,263	54.0 51.3	63	7	35	49,963	2,784	55.7			
Douglas	4	376	6,559	57.3	55	7	31	43,908	2,210	50.3			
Faribault	3	242	3,249	74.5	26	5	19	23,091	1,455	63.0			
Fillmore	7	367	3,873	94.8	7	5	29	36,788	1,977	53.7			
Freeborn	3	376	6,028	62.4	43	6	19	25,994	1,469	56.5			
Goodhue	8	652	6,910	94.4	8	7	38	71,814	3,321	46.2			
Grant	3	125	1,396	89.5	14	. 7	25	25,246	1,791	70.9			
Hennepin	57	7,621	122,599	62.2	44	8	123	273,004	14,463	53.0			
Houston	4	194	3,213	60.4	47	3	16	13,837	1,019	73.6			
Hubbard	1	82	3,720	22.0	86	6	16	23,833	1,505	63.1			
Isanti	2	292	3,912	74.6	25	7	20	52,001	1,923	37.0			
Itasca	4	339	7,748	43.8	73	6	34	55,684	3,076	55.2			
Jackson	2	112	2,183	51.3	62	6	17	16,282	1,023	62.8			
Kanabec	1	80	2,342	34.2	79	6	13	23,336	1,134	48.6			
Kandiyohi	5	448	6,255	71.6	28	7	27	36,603	1,885	51.5			
Kittson	2	125	1,060	117.9	2	3	6	4,951	354	71.5			
Koochiching	3	157	2,650	59.2	51	5	30	47,328	2,490	52.6			
Lac Qui Parle	2	143	1,674	85.4	17	5	11	9,613	744	77.4			
Lake	3	176	2,236	78.7	21	3	23	33,956	1,958	57.7			
Lake Of The Woods	1	46	843	54.6	59	4	10	10,785	585	54.2			
Le Sueur	3	202	3,826	52.8	61	7	28	34,231	1,885	55.1			
Lincoln	3	136	1,474	92.3	10	5	15	11,073	873	78.8			
Lyon	4	244	3,605	67.7	35	6	21	14,135	1,164	82.3			
Mahnomen	1	48	889	54.0	60	5	17	14,247	1,117	78.4			
Marshall	1	60	1,905	31.5	81 52	6	18	17,560	1,101	62.7			
Martin Mal and	4	250 300	4,289	58.3	53 52	6	20	21,128	1,346	63.7 55.2			
McLeod Meeker	3 3	300 214	5,102 3,703	58.8 57.8	52 54	6 6	25 30	30,466 44,537	1,681 2,192	49.2			
Mille Lacs	3	214	3,703 4,046	57.8 70.4	54 30	8	20	44,557 39,751	2,192	49.2 55.4			
Morrison	3	265	4,040 5,001	48.8	50 67	7	20	49,642	2,201	47.7			
Mower	5	322	7,047	45.7	70	6	24	39,863	2,055	51.6			
Murray	2	124	1,859	66.7	37	9	30	21,832	1,684	77.1			
Nicollet	3	148	3,704	40.0	76	6	24	24,528	1,537	62.7			
Nobles	4	207	3,410	60.7	46	6	17	13,691	1,013	74.0			
Norman	3	171	1,428	119.7	1	5	19	19,511	1,391	71.3			
Olmsted	8	636	15,904	40.0	75	7	37	46,168	2,714	58.8			
Otter Tail	11	793	11,230	70.6	29	8	32	38,934	2,592	66.6			
Pennington	2	117	2,091	56.0	57	6	16	16,736	956	57.1			
Pine	2	106	4,359	24.3	85	6	14	24,244	1,168	48.2			
			1		-								

Pipestone	3	185	2,020	91.6	11	6	19	14,179	1,093	77.1
Polk	7	417	5,212	80.0	20	7	17	13,747	962	70.0
Pope	3	182	2,327	78.2	22	8	27	40,994	2,005	48.9
Ramsey	33	3,720	62,437	59.6	49	5	110	262,016	13,532	51.6
Red Lake	1	45	730	61.6	45	3	10	8,033	579	72.1
Redwood	6	291	3,062	95.0	6	7	27	20,751	1,665	80.2
Renville	5	281	3,007	93.4	9	10	37	36,485	2,523	69.2
Rice	6	444	7,063	62.9	42	8	38	66,658	3,262	48.9
Rock	3	197	1,811	108.8	4	4	12	9,100	713	78.4
Roseau	3	169	1,986	85.1	18	5	10	11,100	613	55.2
Scott	4	363	7,683	47.2	69	7	86	181,699	10,096	55.6
Sherburne	3	419	6,039	69.4	32	7	31	70,976	2,882	40.6
Sibley	3	141	2,369	59.5	50	7	25	32,344	1,688	52.2
St. Louis	19	1,735	30,781	56.4	56	6	35	52,259	2,879	55.1
Stearns	7	457	16,838	27.1	84	10	40	64,274	3,419	53.2
Steele	3	238	4,748	50.1	65	7	30	36,718	2,323	63.3
Stevens	1	104	1,631	63.8	41	7	17	16,368	1,132	69.2
Swift	2	140	2,061	67.9	33	7	17	17,711	1,294	73.1
Todd	2	173	3,927	44.1	72	8	36	53,971	2,954	54.7
Traverse	2	91	1,043	87.2	15	5	9	6,481	554	85.5
Wabasha	2	163	3,420	47.7	68	4	23	32,985	1,909	57.9
Wadena	3	250	2,780	89.9	13	6	24	32,192	2,154	66.9
Waseca	3	175	2,659	65.8	39	7	27	34,439	2,089	60.7
Washington	5	596	18,958	31.4	82	5	56	144,204	6,129	42.5
Watonwan	2	142	2,133	66.6	38	6	21	22,574	1,457	64.5
Wilkin	1	120	1,060	113.2	3	5	21	21,485	1,507	70.1
Winona	5	458	6,751	67.8	34	5	26	33,161	1,818	54.8
Wright	7	492	9,632	51.1	64	8	90	197,021	10,279	52.2
Yellow Medicine	3	184	2,115	87.0	16	7	25	17,349	1,442	83.1
State Totals		35,142	627,394	56.013						

Beds Per 1000 By County, 85+

County #fac Beds Pop85 bp185+ rank counties #Fac Beds pop85 857 Anoka 6 523 2.579 202.8 83 7 109 13.89 37.042 381.5 Becker 4 377 745 506.0 10 8 29 2.203 5,761 382.4 Betrami 3 213 745 526.0 10 23 1,768 382.4 Betrami 3 213 745 526.0 65 10 23 1,768 332.43 Brown 4 353 861 410.0 22 7 29 1.815 5.079 357.4 Carter 4 253 928 272.6 73 6 19 1.245 403.3 362.0 375.4 6 19 1.856 362.0 375.4 Carter 4 273 83 341.1 255 70.0 1	Beds Per 1000 By	County	, 83+					(*	0	0	
County #fac Beds Pop85 + bpl85 + trank counties #Fac Beds Sol 13 Sol 14 Sol 14 Sol 14 Sol 14 Sol 14 Sol 13 Sol 13 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>bot</td></t<>								bot			
Aitkin 2 153 546 280.2 71 9 41 3.810 31.888 321.3 31.88 321.3 31.85 321.3 31.85 321.3 31.85 321.3 31.85 321.3 31.85 321.3 37.45 255.9 65.5 10 23.3 37.66 4.883 380.9 30.65 30.5 30.5 30.5 30.5 50.9 32.3	County	#fac	Beds	Pop85+	bpt85+	rank		#Fac	Beds	pop85	
Anoka 6 523 2,579 202.8 83 7 109 13.389 37,042 881.5 Berkern 3 213 745 5060 10 23 17.66 4.833 300.9 Berton 3 214 226 445.3 15 5 9 592 17.56 333.67 Blue Earth 6 412 1,711 300.5 60 8 28 12.97 93.33 22.43 5.333 307.3 27 4 27 2.131 7.711 299.2 Carver 4 253 928 27.24 6.7 6 19 1.359 3.60.2 37.44 Chipewa 2 163 330.58 57 6 19 1.359 3.62.2 32.44 6.83 32.64 7.138 3.64 7.44 8.62 7.46.8 39.48 34.40 50.64 27.1 6.84 39.7 7.44 4.85 2.60 32.7 </td <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				•							
Becker 4 377 745 506.0 10 8 29 22.03 5,761 382.4 Bertron 3 213 745 285 65 10 23 1,766 4,803 300.9 Big Stone 2 114 734 564.0 4 5 19 1,819 5,526 329.2 Big Stone 2 114 256 445.3 15 5 9 592.1 7,763 330.3 324.3 Cartion 4 351 963 749.6 1 9 29 1,815 5,079 357.4 Carse 3 479 6.33 305.8 57 6 19 1,815 6,064 274.8 Cass 3 2164 533 305.8 57 5 23 1,389 4,542 404.9 Clay 4 378 1,325 376.0 32 2 4 1,453 4,408											
Beltrami 3 213 745 285.9 65 10 23 17.66 4.893 380.9 Bing Stone 2 114 256 445.3 15 5 9 592 17.768 336.7 Blue Earth 6 412 1.371 300.5 60 8 28 12.94 59.33 324.3 Granton 4 319 803 397.3 27 4 27 2.313 7.711 299.2 Carver 4 228 222.6 73 6 19 1.359 3.620 375.4 Chipsewa 2 163 533 305.8 57 6 19 1.815 6.604 274.8 Claaver 2 104 278 3.638 3.44.2 404.9 102.2 3.7 20 1.358 3.648 344.0 Claaver 2 104 2.477 3.68 7 122 14.484 344.9	Becker										
Benton 3 414 734 5640 4 5 19 1819 5.526 329.2 Big Stone 2 114 256 445.3 15 50 82 124.3 5033 324.3 Brown 4 353 861 410.0 22 7 29 1,815 5,079 357.4 Carton 4 253 928 272.6 73 6 78 9,170 2,143 739.9 Cass 3 479 633 341.7 45 6 19 1,385 3,660 375.4 Chisago 3 218 433 31.4 1,425 41.32 7 23 1,408 3,462 40.9 20 1,388 3,440 60.6 8 22 5 14 1,475 4,189 352.1 Dota 22 3,440 90.6 35.7 Crow Ving 3 3,14 1,494 20.2 5 14	Beltrami	3					10				
Blue Earth 6 412 1,371 300.5 60 8 28 1,924 5,933 324.3 Carlton 4 319 803 397.3 27 4 27 2,313 7,731 299.2 Carver 4 253 928 272.6 73 6 78 9,170 24,137 379.9 Carses 3 479 639 749.6 1 9 24 2,247 6,885 326.4 Chipago 3 218 638 341.7 45 6 19 1,815 6,604 274.8 Clay 4 378 1,225 285.3 67 5 23 1,839 4,642 406.8 352.1 Cock 1 47 125 376.0 322 2 4 223 440 56.68 352.1 Cock 1 477 325 378.4 1,202 52 14 1,47.4 <t< td=""><td>Benton</td><td></td><td>414</td><td>734</td><td>564.0</td><td>4</td><td>5</td><td>19</td><td></td><td></td><td></td></t<>	Benton		414	734	564.0	4	5	19			
Brown 4 353 861 410.0 22 7 29 1.815 5.079 857.4 Cartver 4 253 928 272.6 73 6 78 9.170 24.137 379.9 Cass 3 479 633 305.8 57 6 19 1.55 6.60 22.47 6.865 326.4 Chippewa 2 163 533 305.8 57 6 19 1.55 6.60 23 1.83 3.464 2404.9 Clay 4 378 1.252 56 7 20 1.58 3.48 344.0 Cock 1 47 1.25 367.6 32 2.2 4 223 440 506.8 352.7 Cokok 1 47 1.43 3.44 1.492 862 67 35 7 12 1.468 39.125 508.8 Dodge 1.07 367 7.73 <td>Big Stone</td> <td>2</td> <td>114</td> <td>256</td> <td>445.3</td> <td>15</td> <td>5</td> <td>9</td> <td>592</td> <td>1,758</td> <td>336.7</td>	Big Stone	2	114	256	445.3	15	5	9	592	1,758	336.7
Cartion 4 319 803 397.3 27 4 27 2.313 7.731 299.2 Carver 4 253 928 927.6 7.33 6 1 9 24 2.313 7.731 299.2 Cass 3 479 639 749.6 1 9 24 2.247 6.885 336.4 Chisago 3 2163 533 305.8 57 6 19 1.815 6.604 274.8 Clay 4 378 1.325 285.3 67 23 1.839 4.542 404.9 Clay 4 77 378 736 32 2 4 277 4.683 3.948 344.0 50.6 Cotonwood 3 188 570 328 49 8 27 1.667 4.468 39.125 358.1 Datota 9 1.072 3.477 308.3 56 7 12 1.468 4.829 322.1 0.210 352.3 322.1 0.244 22.70 </td <td></td> <td></td> <td>412</td> <td>1,371</td> <td>300.5</td> <td>60</td> <td>8</td> <td>28</td> <td>1,924</td> <td>5,933</td> <td>324.3</td>			412	1,371	300.5	60	8	28	1,924	5,933	324.3
Carver 4 253 928 272.6 73 66 7 9 24 9.217 639.5 326.4 Chippewa 2 163 533 305.8 57 66 19 1.359 3.26.4 27.4 6.885 326.4 Chippewa 2 163 533 305.8 57 66 19 1.359 3.26.4 27.4 6.89.4 40.4 27.8 6.89 4.74.4 40.4 27.4 40.4 27.4 40.4 27.4 40.4 40.4 27.6 5.23 1.839 4.542 40.4 3.88 4.570 32.9 4.94 2.2 4.4 4.358 3.44 40.4 50.6 66 7.122 14.468 39.12 56.5 2.7 1.0 7.44 8.629 32.2 52.0 1.467 4.966 33.67 50.6 50.7 1.2 14.468 30.12 56.5 1.22 14.468 30.12 56.9 32.2 1.2 14.468 30.12 50.6 32.2 12.6 14.85 31.6 16.0	Brown	4	353	861	410.0	22	7	29	1,815	5,079	357.4
Cass 3 479 639 749.6 1 9 24 2.247 6.885 326.4 Chippewa 2 163 533 305.8 57 6 19 1.815 6.602 375.4 Clay 4 378 1.325 285.3 67 5 23 1.838 3.442 404.9 Clawater 2 104 258 403.1 25 7 20 1.358 3.948 440 508.8 Cottonwood 3 188 570 329.8 49 8 27 1.667 4.966 335.7 Crow Wing 3 3.14 1.494 210.2 82 5 14 1.475 4.189 39.125 368.8 32.8 Dodge 2 116 401 299.3 64 7 35 2.748 86.29 32.8 32.8 Filmore 7 367 1.456 3.44.7 42 5	Carlton	4		803	397.3	27	4	27	2,313	7,731	
Chipsewa 2 163 533 305.8 57 6 19 1.359 3.820 3754 Chisago 3 218 638 341.7 455 6 19 1.815 6.604 274.8 Clearwater 2 104 258 403.1 25 7 20 1.358 3.948 344.0 Cocok 1 47 125 376.0 32 2 4 4 223 440 566.8 357.7 Crow Wing 3 314 1.494 210.2 82 5 14 1.476 4.180 352.1 Dakota 9 1.072 3.477 308.3 56 7 12 14.468 39.125 368.8 Dodge 2 116 401 289.3 64 7 35 2.724 8.629 322.6 Filibore 7 367 1.82 484.317.7 42 5 29 1.917											
Chago 3 218 638 3417 45 6 19 1.815 6.604 274.8 Clay 4 378 1.325 285.3 67 5 23 1.839 4.542 404.9 Cock 1 47 125 376.0 32 2 4 223 440 506.8 Cottonwood 3 184 570 329.8 49 8 27 1.667 4.966 335.7 Crow Wing 3 314 1.494 210.2 82 5 14 1.475 4.189 352.1 Dodge 2 116 401 289.3 64 7 35 19 1.445 4.49 328.8 Farbault 3 242 694 348.7 42 5 19 1.455 4.490 328.3 Fillmore 7 367 773 474.8 12 5 29 1.977 6.653 297.2 Freeborn 3 182 1.421 4.543 30.046 36	Cass										
Clay 4 378 1,325 285.3 67 5 23 1,839 4,542 404.9 Cleanwater 2 104 258 403.1 25 7 20 1,358 3,948 344.0 506. Cook 1 47 125 376.0 322 4 223 440 506.8 Cotonwood 3 188 570 329.8 49 8 5 14 1,475 4,189 352.1 Dakota 9 1,072 3,477 308.3 56 7 122 14,468 39,125 369.8 Douglas 4 376 1,183 317.8 53 7 31 2,210 7,434 29.3 64 7 35 2,784 8,629 322.6 Douglas 4,376 1,183 317.8 53 7 31 3,210 7,434 29.3 64 49.49 30.04 32.72 Frieborn 3,376 1,057 3,68 46.9 30.72 77.74 7 38 3,221 10,27	Chippewa										
Clearwater 2 104 258 403.1 25 7 2 2 1.358 3.9.48 3.44.0 Cook 1 47 125 376.0 32 2 2 4 223 440 506.8 Cottonwood 3 188 570 329.8 49 8 27 1.667 4.966 335.21 Dakota 9 1.072 3.477 308.3 56 7 122 14.468 39.125 368.4 Dadge 2 116 401 289.3 64 7 35 2.764 8.629 322.6 Douglas 4 376 773 474.8 12 5 9 1.455 4.949 323.5 Filmore 7 367 773 474.8 12 5 9 1.945 4.949 300.40 3.31 1.0210 325.3 3321 10.210 325.3 Grant 3 125 1.9661 387.6 29 8 123 1.463 40.00 37.4 <td< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	-										
Cook 1 47 125 376.0 32 2 4 223 440 506.8 Cottonwood 3 188 570 329.8 49 88 27 1,667 4,966 335.7 Crow Wing 3 314 1,444 210.2 82 5 14 1,475 4,468 391.25 368 Dodge 2 116 401 289.3 64 7 35 2,784 8,629 322.6 Douglas 4 376 1,183 317.8 53 7 31 2,210 7,434 297.3 Freeborn 3 376 1,056 356.1 40 6 19 1,469 4,800 30.4 Gorant 3 376 1,056 356.1 40 6 19 1,469 4,800 36.7 1,91 4,653 327.4 46 3 1,61 1,019 2,668 381.9 1,023 3,424<											
Cottonwood 3 188 570 329.8 49 8 27 1,667 4,966 335.7 Crow Wing 3 314 1,494 210.2 82 5 14 1,475 4,189 352.7 Dakota 9 1,072 3,477 308.3 56 7 122 14.468 39125 368.8 Douglas 4 376 1,183 317.8 53 7 31 2,210 7,434 297.3 Faribault 3 242 694 348.7 42 5 19 1,455 4,494 323.8 Fillmore 7 367 173 474.8 12 5 29 1,977 6,653 297.4 1,966 397.4 Goodhue 8 652 1,443 524.7 7 38 3,321 1,010 2,052 469.5 13 7 20 1,463 40,500 357.1 Houston 4 139											
Crow Wing 3 314 1,494 210.2 82 5 14 1,475 4,189 352.1 Dakota 9 1,072 3,477 308.3 56 7 122 14,468 39,125 369.8 Douglas 4 376 1,183 317.8 53 7 31 2,210 7,434 297.3 Faribault 3 242 694 348.7 422 5 29 1,977 6,653 297.2 Freeborn 3 376 1,056 356.1 40 6 19 1,469 4,800 300.4 Goodhue 8 652 1,243 524.5 7 7 38 33.21 0,210 326.3 300.416.7 19 7 25 1,791 4,787 374.1 Hennepin 57 7,621 19,661 387.6 29 8 123 14,463 40,500 357.1 Hobard 1 839<											
Dakota 9 1,072 3,477 308.3 56 7 122 14,468 39,125 368.8 Dodge 2 116 401 289.3 64 7 35 2,784 8,629 322.6 Douglas 4 376 1,183 317.8 53 7 35 2,794 8,629 322.6 Faribault 3 242 694 348.7 42 5 19 1,455 4,494 323.8 Frieborn 3 376 10,66 356.1 40 6 19 1,469 4,800 30.0.4 Goodhue 8 652 1,243 524.5 7 7 38 3,321 10,210 325.3 Grant 3 125 300 416.7 19 7 25 1,791 4,787 374.1 Hennepin 57 7,621 19,661 387.6 29 12 14,463 40,500 35.7 <											
Dodge2116401289.3647352.7848.629322.6Douglas43761,183317.8537312.2107,434297.3Faribault3242694348.7425291,9776,653297.2Freeborn33761,056356.1406191,4694,890300.4Goodhue86521,243524.57783.32110,210325.3Grant3125300416.7197251,7914,787374.1Hennepin577,62119,661387.6298161010.902,668381.9Hubbard182488168.0866161,5053,368446.9Isanti2292622469.513771,8236,226307.4Jackson2112476235.3806171,0233,424298.8Kanabec180284281.7706131,1343,400333.5Kochiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.43451174848.511Lac Qui Parle2143385371.4345 <t< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	-										
Douglas43761,183317.8537312,2107,434297.3Faribault3242694348.7425191,4554,494323.8Filmore7367773474.8125291,9776,653297.2Freeborn33761,056356.1406191,4694,890300.4Goodhue86521,243524.5777383,32110,210325.3Grant3125300416.7197251,7114,787374.1Hennepin577,62119,661387.629812314,46340,500357.1Houston4194575337.4463161,0192,668381.9Hubbard182488168.0866161,5053,684446.9Isanti2292622469.5137201,9236,266307.4Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,424298.8Kanabec180248247.7706131,1433,400335.5Kanabec13157433362.637530<											
Faribault3242694348.7425191,4554,494323.8Fillmore7367773474.8125291,9776,653297.2Freeborn33761,056356.140691,4694,890300.4Goodhue86521,243524.577383,32110,210325.3Grant3125300416.7197251,7914,787374.1Hennepin577,62119,661387.629812314,6340,500357.1Houston4194575337.4463161,0192,668381.9Hubbard182488168.0866161,5053,368446.9Isanti2292622469.5137201,9236,256307.4Itasca43391,022331.7486141,0193,424298.8Kanabec180284281.7706131,1143,400333.5Kandiyohi54481,109404.023777,855.336.02,4908,001307.7Lac Qui Parle2143385371.4345117,442,160344.5115164,53358.3Lac Qui Par	0										
Fillmore7367773474.8125291,9776,653297.2Freeborn33761,056356.1406191,4694,890300.4Goodhue86621,243524.577383,32110,210325.3Grant3125300416.7197251,7914,787374.1Hennepin577,62119,661387.629812314,46340,500357.1Houston4194575337.4463161,0192,668381.9Hubbard182488168.0866161,5053,368446.9Isanti2292622469.5137201,9236,256307.4Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,242298.8Kanabec180284281.7706131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Lac Qui Parle2143385.5371.43451174	•										
Freeborn33761,056356.1406191,4694,890300.4Goodhue86521,243524.577383,32110,210325.3Grant3125300416.7197251.7914.787374.1Hennepin577,62119,661387.629812314,46340,500357.1Houston4194575337.4463161,0192,668381.9Hubbard182488168.0866161,5053,368446.9Isanti2292622469.5137201,9236,256307.4Jackson2112476235.3806171,0233,424298.8Kanabec180284281.77066131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.5Kaochiching3157433362.637530231,9586,200315.8Lake Of The Woods146131351.1414105851,643345.3Les Sur3300916.5544313.255											
Goodhue86521,243524.577383,32110,210325.3Grant3125300416.7197251,7914,787374.1Hennepin577,62119,661387.629812314,46340,500357.1Houston4194575337.4463161,0192,668381.9Hubbard182488168.08666161,5053,368446.9Isanti2292622469.5137201,9236,256307.4Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,424298.8Kanabec180284281.7706131,1343,000333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363441,002353.3Koochiching3176433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake Of The Woods146131351.14114<											
Grant3125300416.7197251,7914,787374.1Hennepin577,62119,661387.629812314,46340,500357.1Houston4194575337.4463161,0192,668381.9Hubbard182488168.0866161,5053,388446.9Isanti2292622469.5137201,9236,256307.4Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,424298.8Kanabec180284281.7706131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Kochiching3157433362.6375302,4908,091307.7Lac Qui Parle214338557.53231,9586,200315.8Lake Of The Woods146131351.1414105555.7532,379367.0Lyon4244771316.554621<											
Hennepin577,62119,661387.629812314,46340,500357.1Houston4194575337.4463161,0192,668381.9Hubbard182488168.0866161,5053,368446.9Isanti2229622469.5137201,9236,256307.4Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,424298.8Kandyohi54481,109404.0237271,8856,421293.6Kandyohi54481,109404.0237271,8856,421293.6Kandyohi54481,109404.0237271,8856,421293.6Katoyohi3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4344105851,694345.3Les Quer3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Les Quer3136337403.624517<											
Houston4194575337.4463161.0192.668381.9Hubbard182488168.0866161.5053.368446.9Isanti2292622469.5137201.9236.256307.4Itasca43391.022331.7486343.0769.145336.4Jackson2112476235.3806171.0233.424298.8Kanabec180284281.7706131.1343.400333.5Kandiyohi54481.109404.0237271.8856.421293.6Kittson2125258484.511363541.002353.3Koochiching3157433362.6375302.4908.091307.7Lac Qui Parle2143385371.4345117442.160344.4Lake3176315558.753231.6581.694345.3Le Sueur3202645313.2577281.8855.563388.8Lincoln3136337403.6245158732.379367.0Lyon4244771316.5546211.1643.060											
Hubbard182488168.0866161,5053,368446.9Isanti2292622469.5137201,9236,256307.4Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,424298.8Kanabec180284281.7706131,1343,400333.5Kandbec180284281.7706131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Kocchiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,663388.4Lincoln3136337403.6245158732											
Isanti2292622469.5137201,9236,256307.4Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,424298.8Kanabec180284281.7706131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Kocchiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mathomen148181265.2775171,1172,											
Itasca43391,022331.7486343,0769,145336.4Jackson2112476235.3806171,0233,424298.8Kanabec180284281.7706131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Koochiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3126313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,3934											
Jackson2112476235.3806171,0233,424298.8Kanabec180284281.7706131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Koochiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,4											
Kanabec180284281.7706131,1343,400333.5Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Koochiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Martin4250883283.1696201,3464,416304.8McLood3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108											
Kandiyohi54481,109404.0237271,8856,421293.6Kittson2125258484.511363541,002353.3Koochiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108366.0Morrison3244822296.8617242,3667,4											
Kittson2125258484.511363541,002353.3Koochiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Miel Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,47											
Koochiching3157433362.6375302,4908,091307.7Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667											
Lac Qui Parle2143385371.4345117442,160344.4Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3244822296.8617242,3667,472316.6Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703 <td></td>											
Lake3176315558.753231,9586,200315.8Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703	-										
Lake Of The Woods146131351.1414105851,694345.3Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516											
Le Sueur3202645313.2557281,8855,563338.8Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
Lincoln3136337403.6245158732,379367.0Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6											
Lyon4244771316.5546211,1643,060380.4Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6											
Mahnomen148181265.2775171,1172,566435.3Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	Lyon										
Marshall160359167.1876181,1013,278335.9Martin4250883283.1696201,3464,416304.8McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	-		48								
McLeod3300911329.3506251,6814,933340.8Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	Marshall	1	60	359	167.1	87	6	18	1,101		335.9
Meeker3214734291.6636302,1927,108308.4Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	Martin	4	250	883	283.1	69	6	20	1,346	4,416	304.8
Mille Lacs3285688414.2208202,2016,013366.0Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	McLeod	3	300	911	329.3	50	6	25	1,681	4,933	340.8
Morrison3244822296.8617242,3667,472316.6Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	Meeker	3	214	734	291.6	63	6	30	2,192	7,108	308.4
Mower53221,446222.7816282,0557,018292.8Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	Mille Lacs							20	2,201	6,013	
Murray2124344360.5389301,6844,703358.1Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	Morrison							24	2,366	7,472	
Nicollet3148567261.0786241,5374,516340.3Nobles4207729284.0686171,0132,914347.6	Mower						6	28	2,055	7,018	
Nobles 4 207 729 284.0 68 6 17 1,013 2,914 347.6	Murray		124	344	360.5	38	9	30	1,684	4,703	
	Nicollet	3			261.0		6	24		4,516	
Norman 3 171 284 602.1 2 5 19 1,391 3,633 382.9											
Olmsted 8 636 2,539 250.5 79 7 37 2,714 8,328 325.9											
Otter Tail 11 793 1,987 399.1 26 8 32 2,592 6,870 377.3											
Pennington 2 117 433 270.2 75 6 16 956 3,031 315.4		2									
Pine 2 106 622 170.4 85 6 14 1,168 3,515 332.3	Pine	2	106	622	170.4	85	6	14	1,168	3,515	332.3

Pipestone	3	185	431	429.2	17	6	19	1,093	2,976	367.3
Polk	7	417	1,098	379.8	31	7	17	962	2,751	349.7
Pope	3	182	489	372.2	33	8	27	2,005	7,046	284.6
Ramsey	33	3,720	10,860	342.5	44	5	110	13,532	38,436	352.1
Red Lake	1	45	138	326.1	51	3	10	579	1,669	346.9
Redwood	6	291	681	427.3	18	7	27	1,665	4,330	384.5
Renville	5	281	607	462.9	14	10	37	2,523	6,964	362.3
Rice	6	444	1,141	389.1	28	8	38	3,262	9,084	359.1
Rock	3	197	364	541.2	6	4	12	713	1,868	381.7
Roseau	3	169	385	439.0	16	5	10	613	1,878	326.4
Scott	4	363	884	410.6	21	7	86	10,096	27,201	371.2
Sherburne	3	419	823	509.1	8	7	31	2,882	9,193	313.5
Sibley	3	141	465	303.2	58	7	25	1,688	5,007	337.1
St. Louis	19	1,735	5,760	301.2	59	6	35	2,879	8,879	324.2
Stearns	7	457	2,459	185.8	84	10	40	3,419	10,277	332.7
Steele	3	238	803	296.4	62	7	30	2,323	6,580	353.0
Stevens	1	104	380	273.7	72	7	17	1,132	3,345	338.4
Swift	2	140	490	285.7	66	7	17	1,294	3,642	355.3
Todd	2	173	636	272.0	74	8	36	2,954	8,708	339.2
Traverse	2	91	247	368.4	36	5	9	554	1,384	400.3
Wabasha	2	163	606	269.0	76	4	23	1,909	5,708	334.4
Wadena	3	250	493	507.1	9	6	24	2,154	4,988	431.8
Waseca	3	175	490	357.1	39	7	27	2,089	6,200	336.9
Washington	5	596	1,859	320.6	52	5	56	6,129	19,413	315.7
Watonwan	2	142	422	336.5	47	6	21	1,457	4,583	317.9
Wilkin	1	120	201	597.0	3	5	21	1,507	4,060	371.2
Winona	5	458	1,320	347.0	43	5	26	1,818	5,813	312.7
Wright	7	492	1,288	382.0	30	8	90	10,279	29,383	349.8
Yellow Medicine	3	184	496	371.0	35	7	25	1,442	3,810	378.5
State Totals		35142	101634	345.8						

