2012 Long-Term Services and Supports: Nursing Facilities

Department of Human Services
Continuing Care Administration
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Prepared by:
Robert Held, Teresa Lewis and Gary C. Johnson
Nursing Facility Rates and Policy Division

Minnesota Department of **Human Services**

Minnesota's strategy for long-term services and supports (LTSS) has been to "rebalance" the locus of care from institution-based 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 LTSS 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 quite high. DHS is interested in the quality of nursing home care for several reasons. As the State Medical Assistance 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. The licensure and certification processes involve strenuous inspections that take place annually and are discussed in further detail in Section VI of this report. 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 nursing home residents and to the public to go beyond inspection and use the purchasing activity to leverage quality.

Design of quality measures

DHS has worked with MDH and stakeholders for many 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 residents, providers and purchasers, it makes sense to them, it relates to guidelines, it can lead to improvement and it measures performance related to provider actions. 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.
- It does not encourage providers to take actions that lead to unintended and possibly harmful outcomes.

Seven quality measures have been developed and are currently in use:

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

Public disclosure of quality measures, the nursing home report card

Beginning in January 2006 MDH and DHS published the web-based Minnesota Nursing Home Report Card. It is interactive in that it allows users to view results for a specific facility, or, alternatively, to specify a location they are interested in and to select the quality measures they consider most important. The report card then provides a list of all facilities that meet the geographic criteria and it sorts the list according to the scores of those facilities on the seven quality measures with emphasis placed on the measures prioritized by the user. The user can then select a facility from the list and see its scores on the seven quality measures, using five-star ratings.

In October 2012 these agencies introduced a new and improved version of the Minnesota Nursing Home Report Card. The most notable changes include side-by-side facility displays to allow comparisons of quality; almost two years of performance history shown for each facility; more detailed information including the exact scores that underlie the star ratings; daily cost information for each facility, including private pay charges for private rooms; and new features to make the site more convenient for users such as the ability to map facilities and print or save spreadsheets of any page.

The Minnesota Nursing Home Report Card is believed to be the most comprehensive nursing home report card in the nation. It received the highest rating, an "A," from the national Informed Patient Institute, an independent nonprofit organization that rates the usefulness of online doctor, hospital and nursing home report cards. IPI rated the report card highly for its wide variety of included information, the ability to customize the site to the user's priorities, and its use of star ratings, but did not like the lack of general information on choosing a home. The report card workgroup will add this information in a future site update.

The Minnesota Nursing Home Report Card averages about 2,000 unique visits per month. 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 industry.

When selecting the measures most important to them, Report Card users increasingly and overwhelmingly prioritize resident outcomes (quality of life and satisfaction, inspection findings, and clinical outcomes) over process or structural measures, as shown in Exhibit 1.

Exhibit 1. Report Card Measures that Make Users' Top Three
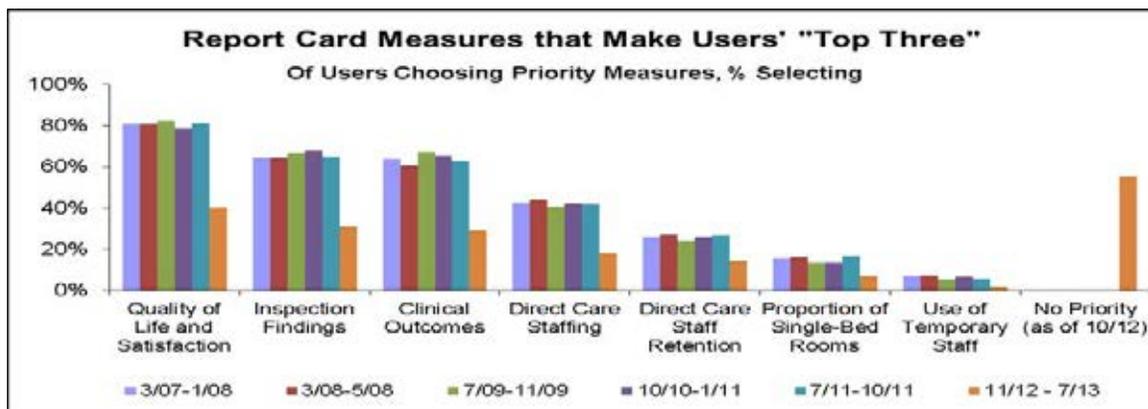
A concern with any form of measuring and publicly disclosing of quality information is that the measures are never perfect. It is always a judgment call as to whether or not the quality measures are ready. It is then important to seek ways to improve the measures over time, guided in part by research and user feedback. Two changes that have been made to the quality measures 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.

Trends in quality outcomes

DHS and MDH have calculated Report Card quality measures for multiple years; trends are presented in the following graphs.

Resident quality of life and satisfaction is measured by annual face-to-face interviews with a representative sample of residents in all Medical-Assistance-certified nursing facilities, and are risk-adjusted to allow a fair comparison of facilities. Exhibit 2 shows improved scores on six quality of life domains and the residents' overall quality of life score since the survey's first full fielding in 2006 (though the survey was first used in 2005, subsequent improvements to the tool and the interview process for the following year require the use of 2006 as a baseline), with autonomy, or resident choices, showing the most improvement. Four domains declined slightly, while two others declined significantly: individuality, which dropped as residents felt staff were less interested in their lives; and comfort, which dropped largely because residents reported more physical pain.

These declines could be related to the increasing use of nursing facilities for short-term stays after hospitalizations, which we will discuss in a later section. DHS is concerned about the changes and is taking steps to help facilities improve, mainly through the Performance-based Incentive Payment Program, discussed below, in which DHS cosponsors a quality of life-themed fellowship, and shares provider innovations via annual conference, resource website, and by facilitating provider connections.

Exhibit 2. Percentage-Point Improvement in Risk-Adjusted Resident Quality of Life domains 2006 versus 2012

Minnesota Department of Human Services
September 2013
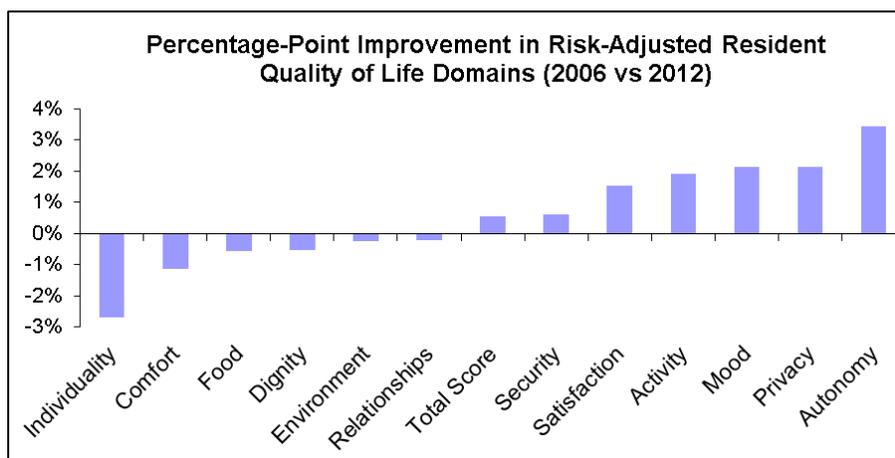
Exhibits 3 and 4 show clinical processes and outcomes, or quality indicators, that are calculated using Minimum Data Set (MDS) resident assessment information and risk-adjusted to allow fair comparison of facilities. DHS, MDH and the University of Minnesota first calculated them in 2004, and updated them when the Federal government revised the MDS in October 2010. The new set uses resident interviews for several indicators and adds three new short-stay indicators, marked "SS" (versus "LS" for long-stay.)

Exhibit 3 shows improvement since 2004 for indicators that were unchanged by the MDS revision. Scores on 12 of 15 indicators improved during this time, with inappropriate use of antipsychotic drugs and ADL improvement the best areas of positive change, and continence care an area for concern.

Exhibit 3. Percentage-Point Improvement in Minnesota Risk-Adjusted Clinical Quality Indicators 2004 versus 2012
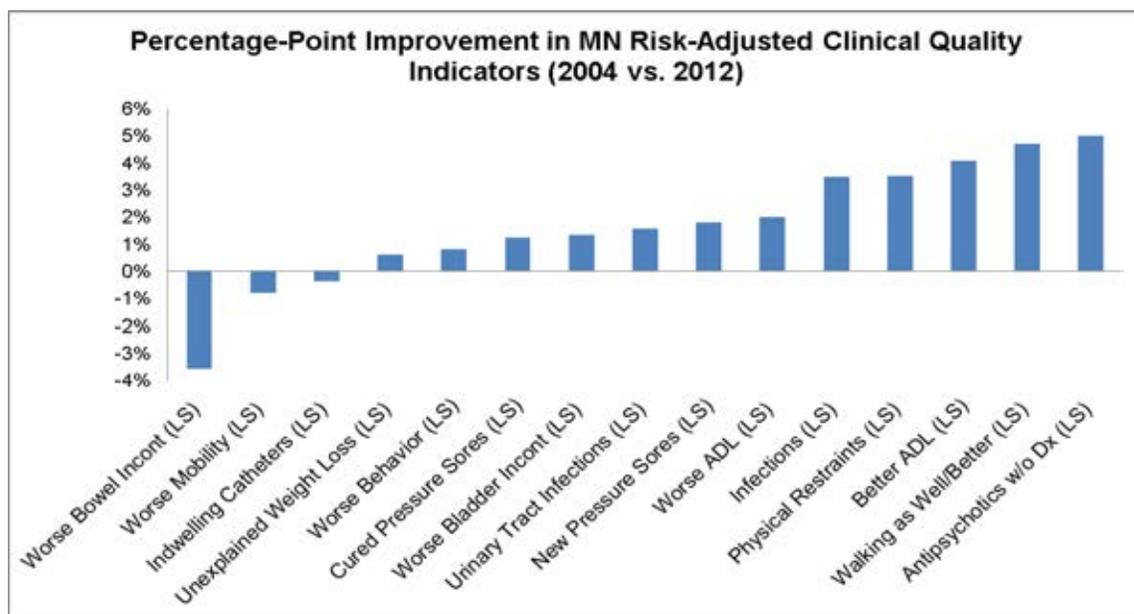

Exhibit 4 shows improvement since 2011 for these plus 11 that were changed or newly created after the MDS revision. Scores on 17 of 26 measures have improved, with particular positive change in the areas of short-stay pressure ulcers and inappropriate use of antipsychotic drugs. However, nine have worsened during this time, especially continence care and long-stay pressure ulcers.

Exhibit 4. Percentage-Point Improvement in Minnesota Risk-Adjusted Clinical Quality Indicators 2011 versus 2012
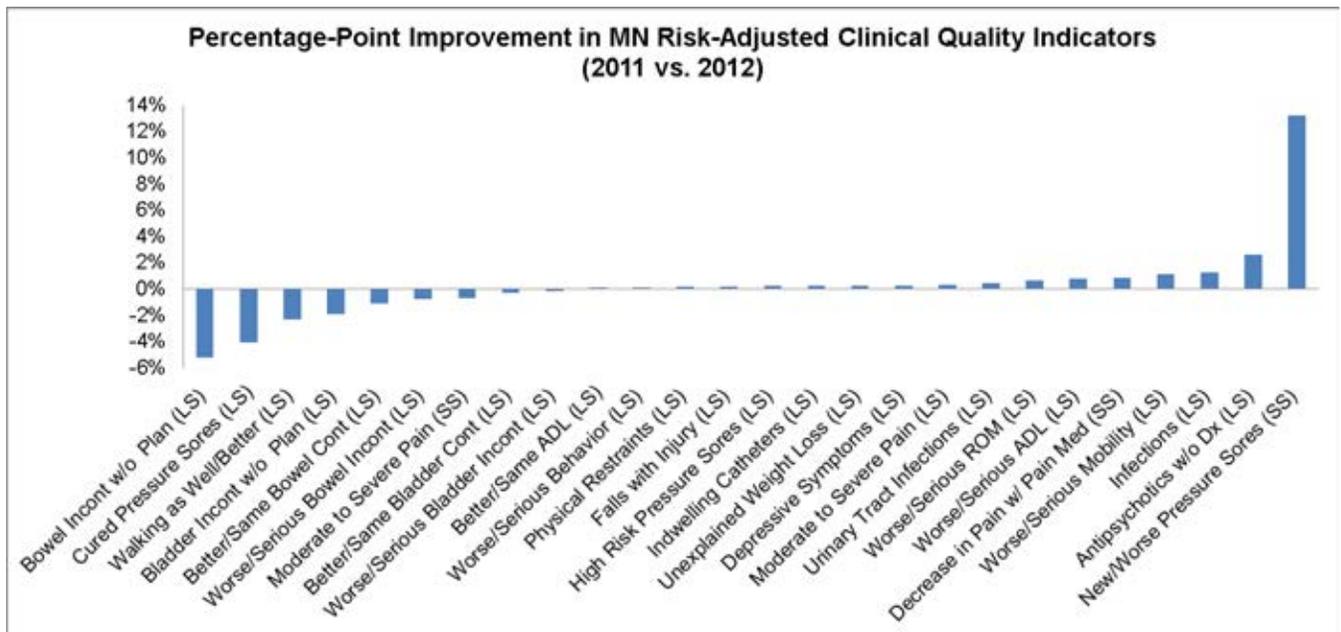
The MDH inspection measure is shown in Exhibit 5. Compared to when DHS and MDH began running the measure in 2007, four percent more facilities are earning five stars, meaning that they have good results on their current and prior inspection surveys and on their one-year complaint record. However, this is a slight decline since the all-time best in 2010, when almost 70% of facilities earned five stars.

Exhibit 5. Minnesota Department of Health Inspection Measure Starts – Percentage of Nursing Facilities
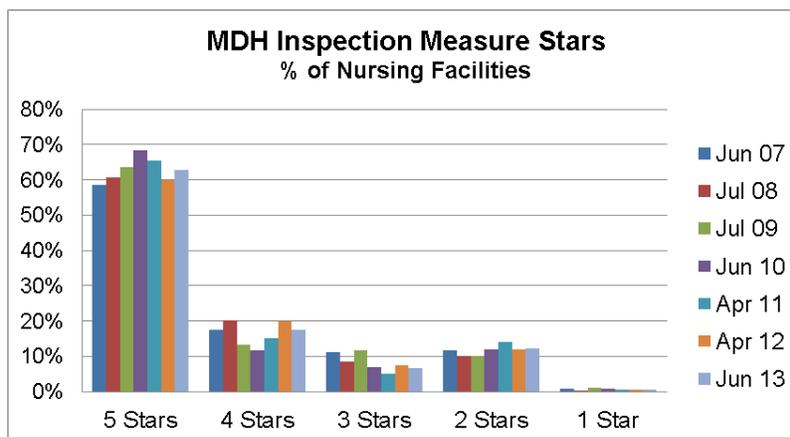
Trends have been positive for Report Card staffing measures. First, direct care hours per resident day, adjusted for wage differences (to counter any facility incentive to shift staffing emphasis to lower-compensated positions) and resident acuity differences (to more-fairly compare staffing for facilities serving different types of residents), are shown in Exhibit 6. Direct care staffing in all types of nursing facilities has increased by between 19% and 21% since 2004, to at least five hours per resident day.

Exhibit 6. Wage- and Acuity-Adjusted Direct Care Staff Hours per Resident Day
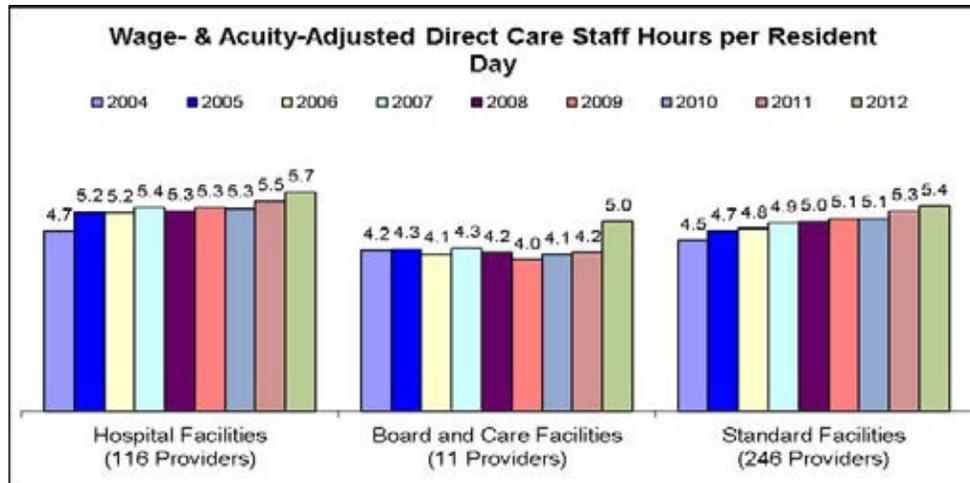
The next measure, direct care staff retention, counts how many direct care staff employed in a facility at the beginning of the year are still employed at the year's end. As shown in Exhibit 7, it has been quite consistent since 2004, averaging 72% and increasing to 75% in 2009. However, since then, the retention rate has declined to the lowest level seen since 2004.

Exhibit 7. Direct Care Staff Retention
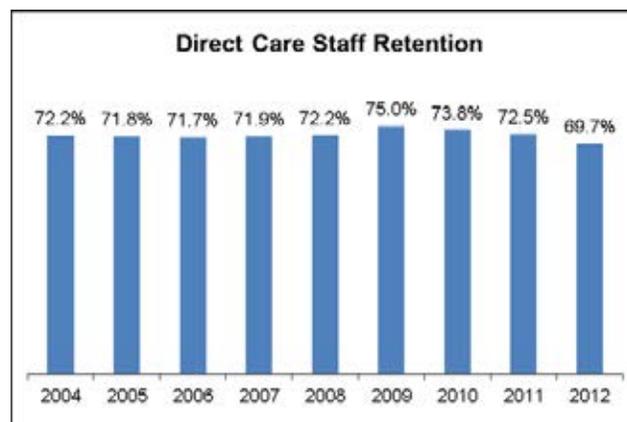
The last staffing related measure presents the proportion of temporary nurse staffing agency hours to permanent staff. In 2012, 79% of Minnesota facilities used no temporary staff, a substantial improvement from 2006-2009 when the rate ranged from 64 to 68%. Exhibit 8 shows this proportion for only those facilities that used any temporary staff. Since the 2006 peak of about 3%, this measure declined to a low of 1% in 2010, although it has since increased somewhat.

Exhibit 8. Percent of Nursing Staff from Supplemental Staff Agencies for Nursing Facilities Using Any

Percent of Nursing Staff from Supplemental Staff Agencies, for NFs Using Any

Year	Percent
2004	2.75%
2005	2.50%
2006	2.95%
2007	2.25%
2008	2.10%
2009	1.75%
2010	1.14%
2011	1.64%
2012	1.79%
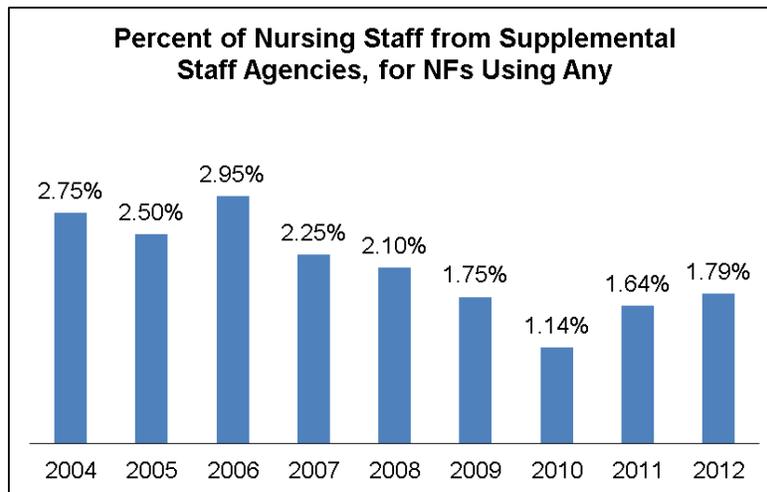
Finally, the Report Card includes a measure related to the physical environment, the proportion of beds in single-bed (private) rooms, as shown in Exhibit 9. It has steadily increased from 26% in 2005 to 47% in 2012, possibly in response to financial incentives, changing consumer preferences, competition with assisted living settings, and declining demand for nursing facility services.

Exhibit 9. Percentage of Beds in Single-Bed Rooms

Percentage of Beds in Single-Bed Rooms

Date	Percentage
Oct 05	26%
Oct 06	28%
Nov 07	32%
Oct 08	34%
Oct 09	37%
Oct 10	40%
Sep 11	43%
Oct 12	45%
Jun 13	47%
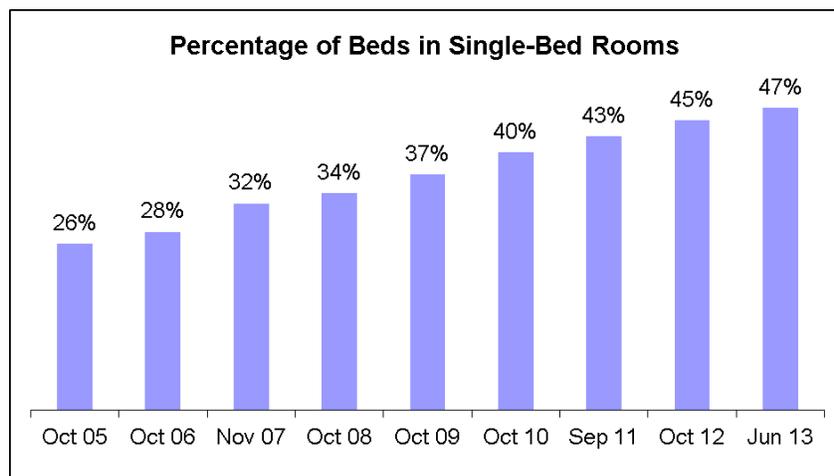
In addition to trends, it is useful to track the range of scores on report card measures. Exhibit 10 includes this information for 2012.

Exhibit 10. MN Nursing Home Report Card Quality Measure Scores, 2012

Nursing Home Report Card Quality Measure Scores	Minimum	Average	Maximum
Resident Quality of Life Ratings			
Overall Score (0 - 100% Positive Possible)	75%	82%	87%
Comfort Domain	68%	81%	87%
Environmental Adaptations Domain	73%	88%	94%
Privacy Domain	79%	89%	94%
Dignity Domain	87%	96%	98%
Meaningful Activity Domain	55%	71%	81%
Food Enjoyment Domain	65%	85%	95%
Autonomy Domain	77%	86%	91%
Individuality Domain	71%	82%	90%
Security Domain	73%	88%	94%
Relationships Domain	73%	82%	88%
Satisfaction Domain	68%	84%	91%
Mood Domain	58%	72%	80%

Nursing Home Report Card Quality Measure Scores	Minimum	Average	Maximum
MN Risk-Adjusted Clinical Quality Indicators (LS = Long Stay, SS = Short Stay)			
Overall Score (0 - 40 Points Possible)	13.63	24.85	36.19
For the Quality Indicators below, a lower percentage			
Worsening/Serious Resident Behavior Problems	1%	14%	48%
Depressive Symptoms (LS)	0%	3%	21%
Physical Restraints (LS)	0%	1%	10%
Worsening/Serious Bowel Incontinence (LS)	3%	27%	53%
Worsening/Serious Bladder Incontinence (LS)	5%	26%	58%
Bladder Incontinence w/o a Toileting Plan (LS)	28%	81%	100%
Bowel Incontinence w/o a Toileting Plan (LS)	6%	79%	100%
Indwelling Catheters (LS)	0%	3%	14%
Urinary Tract Infections (LS)	0%	5%	20%
Infections (LS)	0%	4%	30%
Falls with Injury (LS)	0%	4%	19%
Unexplained Weight Loss (LS)	0%	6%	20%
New or Worsening Pressure Sores (SS)	0%	2%	11%
Pressure Sores in High Risk Residents (LS)	0%	4%	11%
Antipsychotics w/o a Psychosis Dx (LS)	0%	11%	51%
Worsening/Serious Functional Dependence (LS)	0%	17%	35%
Worsening/Serious Mobility Dependence (LS)	0%	27%	55%
Worsening/Serious Range of Motion (LS)	0%	12%	59%
Moderate/Severe Pain (SS)	1%	27%	62%
Moderate/Severe Pain (LS)	0%	17%	56%
For the Quality Indicators below, a higher			
Improved/Maintained Bowel Continence (LS)	19%	53%	97%
Improved/Maintained Bladder Continence (LS)	6%	27%	66%
Cured Pressure Sores (LS)	23%	51%	89%
Improved/Maintained Ability to Function (LS)	8%	31%	89%

Nursing Home Report Card Quality Measure Scores	Minimum	Average	Maximum
Walking as Well or Better than on Previous	41%	75%	100%
Decrease in Pain when on Medication at Admit	17%	50%	79%
Direct Care Staff Adjusted Hours per Resident Day			
Hospital Based Facilities	3.51	5.74	14.09
Board-and-Care Facilities	3.86	4.98	5.84
Standard Facilities	3.93	5.39	8.11
Direct Care Staff Retention	23%	70%	100%
Use of Temporary/Pool Staff	0%	0.4%	17%
Proportion of Single Bed Rooms	0%	47%	100%
MN Department of Health Survey Findings	1 Star	4.3 Stars	5 Stars

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 Report Card measures:

- Clinical quality indicators, 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/complaint surveys, accounting for 10% of the total score

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

- Clinical quality indicators, 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/complaint surveys, accounting for 10% of the total score

A quality add-on of up to 3.2% was provided for operating payment rates effective September 1, 2013. The method of determining the quality score was again revised to include only outcome measures:

- Clinical quality indicators, accounting for 50% of the total score
- Quality of life, accounting for 40% of the total score
- Inspection findings from certification/complaint surveys, accounting for 10% of the total score

In 2007 DHS initiated the Performance-based Incentive Payment Program (PIPP). PIPP is a voluntary competitive program designed to reward innovative projects that improve quality or efficiency or contribute to rebalancing long-term services and supports (LTSS). 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. At the time of this writing, 223 nursing facilities have participated in the program, representing 119 different quality improvement projects. Selected PIPP projects have addressed areas such as:

- Exercise physiology
- Resident transfers
- Culture change
- Rehospitalizations
- Dementia care
- Sleep
- Community discharge
- Falls
- Incontinence

Evaluation and dissemination of quality improvement efforts

Dr. Greg Arling, Indiana University is nearing completion on a 3-year grant from the federal Agency for Healthcare Research and Quality (AHRQ) to evaluate PIPP. Dr. Arling has been Principal Investigator and has led a study team including several highly qualified researchers throughout the country. The team has conducted a comprehensive evaluation of PIPP to discover effective strategies of system-level change that will lead to higher quality and more efficient long-term care. The AHRQ review team stated, "This research will advance public health by identifying organizational structure, process, and cultural factors that lead to successful implementation and sustainability of nursing home quality improvement projects, assessing the case for state investment in quality improvement, and determining the savings to Medicaid and other funding sources potentially achieved by improving upon the value of healthcare. Additionally, national dissemination of methods to enhance nursing home quality and value is of importance to nursing home consumers, the long term care industry and governmental funding agencies."

As a part of this evaluation, the research team tracked the clinical quality indicators aggregated as a total score (called the QI-100). Exhibit 11 shows the QI-100 for 199 facilities with a project in the first four rounds of the program, versus facilities that have not participated in PIPP. The two groups show similar quality before PIPP, but beginning in late 2007 facilities in PIPP show steady improvement while other facilities did not. After the new assessment was introduced in late 2010, facilities without a project show improvement, but a significant gap remains between the scores of the two groups.

Exhibit 11. Facility Quality Indicator (Q1-100) Scores by Performance Payment Project Program

Facility Quality Indicator (QI-100) Scores by PIPP Project Status
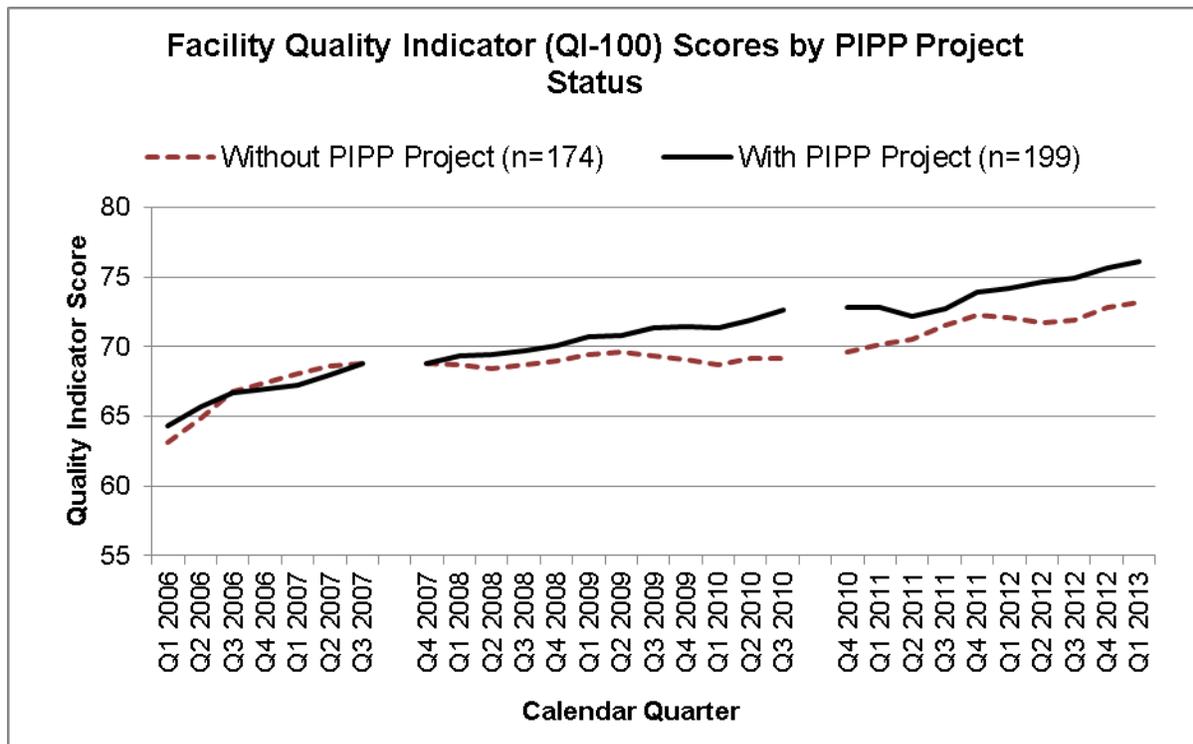
The team has shared successful interventions among nursing home providers through conference presentations and publications, and a social network site dedicated to PIPP and other nursing home pay for performance strategies. See the Minnesota Connection for Nursing Home Quality website. Upcoming dissemination activities include a comprehensive final report for provider, policymaker, and academic audiences, and finalizing a PIPP toolkit containing methods and resources for quality improvement.

Finally, DHS employs an RN Quality Improvement Coordinator who acts as a consultant and trainer to disseminate successful quality improvement strategies to facilities for the clinical quality indicators, the quality of life / satisfaction survey and other care areas as needed.

B. Nursing Home Costs/Expenditures

In State Fiscal Year 2012, $782.5 million was spent by the Medicaid Program for nursing home care in Minnesota, of which the state share was $382.1 million. For the year ending September 30, 2012, nursing facilities reported total revenues of $2.286 billion as shown in Exhibit 12 with an estimate of revenues for non-MA certified nursing homes of $63 million, yielding a total estimated revenue of $2.349 billion.

Exhibit 12. Estimated Total Nursing Home Revenues in Minnesota (2012 by Source of Payment

Source	Amount ($s in millions)
MA payments, including recipient resources and managed care	$1002
Private pay	476
Medicare Part A and Part B	434
Other	374
Estimated revenues of non-MA nursing homes	63
Estimated **Total** Nursing Home Revenues	$2,349

Exhibit 13 shows total yearly MA spending on nursing homes in Minnesota from 1995 through 2012. The level of spending has been remarkably stable over this period, fluctuating between a low of $782.5 million in 2012 to a high of $913 million in 2004.

Exhibit 13. Total Annual Medical Assistance Nursing Facility Payments 1995 – 2012
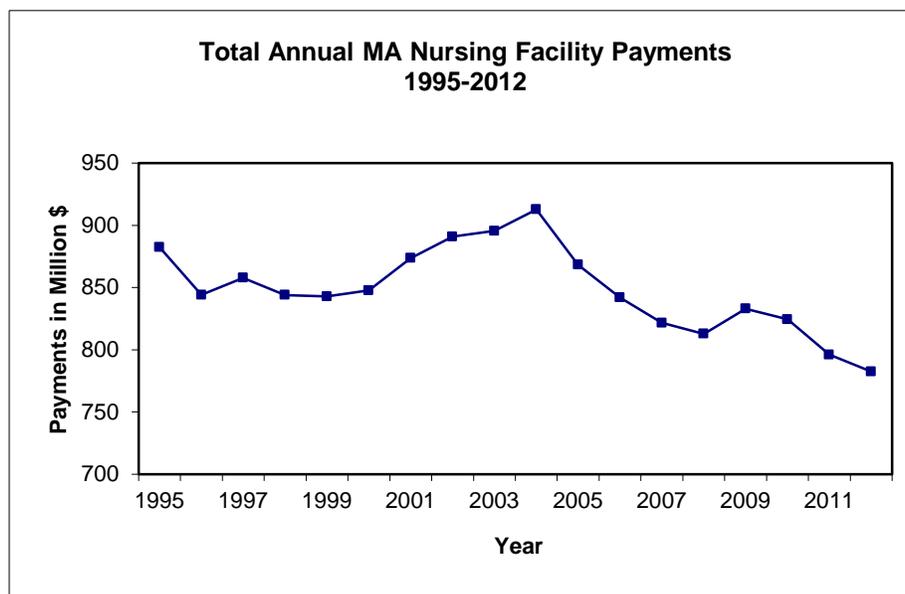
Exhibits 14 and 15 show the offsetting trends in MA caseload and unit costs. Caseload has declined as an increasing proportion of persons needing LTC services are being supported in non-institutional home- and community-based settings. MA caseload, the number of resident days paid for by MA, has decreased from 11,571,518 in 1995 to 5,668,341 in 2012, a reduction of 51%. At the same time, the average daily payment rate (MA payment not counting recipient resources) has increased from $76.25/day in 1995 to $138.04/day in 2012, an increase of 81%.

Adjusted by removing amounts associated with paying the surcharge, average daily payment has increased from $74.52 in 1995 to $129.55 in 2012, an increase of 74%. As seen in Exhibit 14, the change in average daily payment over this 17-year period was $17.05 greater than straight inflation, which was 51%. The increase in payment per day is attributable to numerous factors, including increasing acuity, pay-for-performance, building projects, surcharge related increases which are accounted for in these numbers), scholarship program payments, bed closure incentive payments, and most significantly, legislated general operating payment rate increases.

Exhibit 14. Medical Assistance Nursing Facility Payment versus Inflation
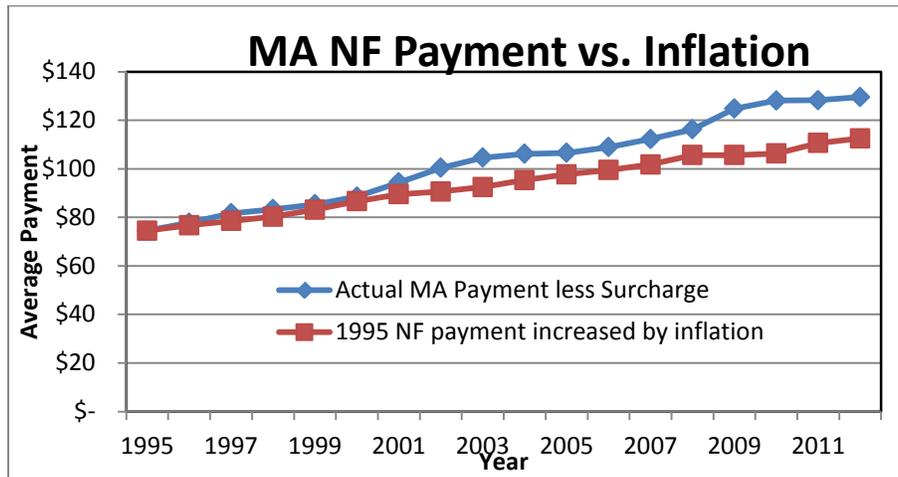
Exhibit 15. Annual Medical Assistance Paid Nursing Facility Days

Minnesota Department of Human Services
September 2013
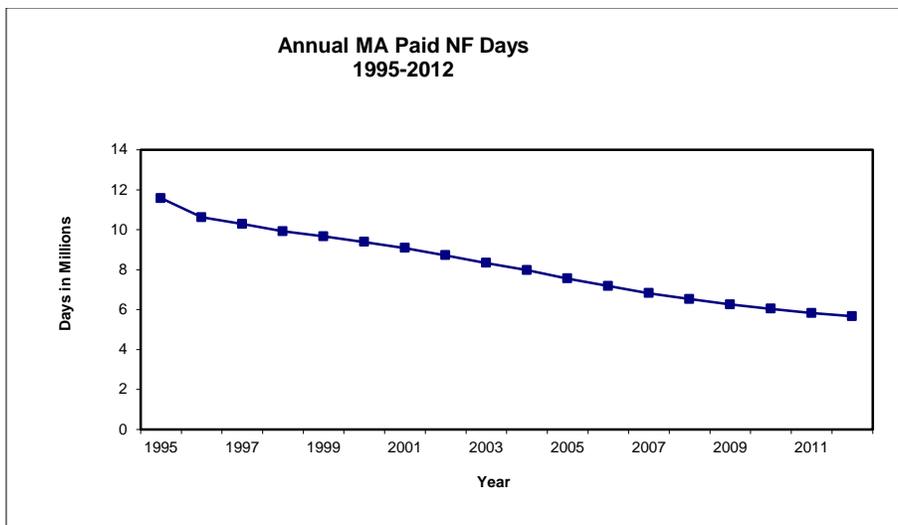
C. Nursing Facility Financial Status Analysis

The Department of Human Services collects extensive data on nursing facility related costs and revenues in its Nursing Facility Annual Statistical and Cost Report. The department has worked on analyzing this data to better understand the relationship between actual costs, revenues, payment rates, gains and losses, various facility characteristics and quality. This section of the report is the first public disclosure of the findings of this analysis.

The data in the Nursing Facility Annual Statistical and Cost Report is self-reported. As data is being submitted through a secure web-based portal, the program applies numerous edits and queries, comparing data elements and ratios with prior reported data, and with other facilities. Extensive manual audit activities are then undertaken, with a focus primarily on data elements that affect the Nursing Home Report Card quality measures, or various elements of payment rates. These edits and audit activities provide confidence in the accuracy of the data.

In conducting this analysis, data on all nursing facilities was compiled and several breakouts were prepared to produce a clear picture of the actual financial status of Minnesota nursing facilities. Data is provided covering the four report years ending September 30, 2008, through September 30, 2011. The actual number of facilities included in these reports varies slightly due to facility closures, the opening of new facilities and the exclusion of a small number of facilities for whom data was deemed unreliable.

The term "nursing facility" is used to refer to licensed Nursing Homes and Boarding Care Homes that are certified to participate in the Medical Assistance Program. Minnesota has several licensed homes that are not MA certified and are not included in the following analyses.

Analysis of all facilities

Exhibit 16 summarizes the financial status of all nursing facilities in Minnesota.

Exhibit 16. Comparison of 2008 – 2011 Financial Performance All Nursing Facilities

All Facilities	2008	2009	2010	2011
All nursing facilities	366	376	378	376
1. Average daily census	81	79	77	75
2. Percent with positive financial performance	55.74%	63.83%	57.94%	62.23%
3. All facilities gain/(loss) (in millions)	($34.0)	$13.0	($6.8)	$7.7
4. Net gain/(loss) divided by revenue	(1.71%)	0.62%	(.33%)	0.37%
5. Net gain/(loss) per resident day - weighted average	($3.14)	$1.20	($0.65)	$0.75
6. 75th percentile	N/A	N/A	$10.06	$13.52
7. Median	N/A	N/A	$3.03	$4.35
8. 25th percentile	N/A	N/A	($7.15)	($8.53)
9. Average MA rate minus average cost per resident day	($30.70)	($33.09)	($31.03)	($36.01)

Observations:
- The findings of this analysis are comparable to other analyses, such as Financial Condition of Minnesota's Nursing Facilities, an annual study conducted for the LTC Imperative by Clifton Larson Allen and A Report on Shortfalls in Medicaid Funding for Nursing Home Care, an annual study conducted for the American Health Care Association by ELJAY, LLC.
- During the four years analyzed, the proportion of Minnesota nursing facilities that have shown financial gains has ranged between 56% and 64%.
- In the most recent year analyzed, 2011, total net gains of all nursing facilities, the sum of all gains reduced by the sum of all losses, was a positive $7.72 million, 0.37% of revenues or $0.75 per resident day.
- Industry-wide financial performance, over the four-year period analyzed, was somewhat variable. The range of total net gains/losses of all facilities was from a loss of $33.95 million (1.71% of revenues, or $3.14 per resident day) in 2008, to a gain of $12.97 million (0.62% of revenues, or $1.20 per resident day) in 2009.
- The statewide average MA per resident day payment rate is substantially below the average per resident day cost, with a difference of $30.70 in 2008, $33.09 in 2009, $31.03 in 2010 and $36.01 in 2011.
- A large difference is seen between the net gain/loss on a per resident day basis and the difference between average MA per resident day payment rate and average per resident day cost. In 2011, while the average net gain was $0.75 per resident day, the average MA rate was $36.01 less than average cost. In other words, in 2011, while revenues were 0.35% greater than costs, the average rate was 17.7% less than the average cost. How can nursing facilities have rates less than costs and still show financial gains? Several factors account for this difference:
  - Nursing facilities receive additional revenue, aside from the daily charges at the MA allowed rate:
    - Private pay residents may be charged additional amounts for single-bed rooms.
    - MA pays a higher rate for a single bedroom when medically necessary.
    - Higher charges are allowed for both MA and private pay during the first 30 days of resident stays
  - While Medicare rates are substantially higher than MA rates, their costs are also higher, bringing up the overall average cost.
  - Many facilities that are owned by cities, counties and hospital districts receive subsidies from their owners.
  - Many not-for-profit facilities are able to supplement their resources through charitable gifts.
  - Many providers offer a range of services in addition to nursing facility services, and many of these other services subsidize losses in the nursing facilities.
  - While the availability of the resources described above may contribute to the financial viability of facilities, the quality of services they can provide and the compensation of their employees, they also contribute to higher costs than would otherwise be the case, enlarging the gap between average MA rates and average costs.
- Medicare is viewed as a profitable payer source, and as subsidizing losses due to MA rates. However, Medicare rates were reduced on October 1, 2011, so it may be expected that this source of cross-subsidy will not provide the same benefit in future years.

Analysis by facility type

Three facility types are compared in the first breakout analysis:
1. Hospital Attached Facilities – 60 facilities in 2008 and 53 in 2011
2. Boarding Care Homes – 11 facilities
3. Freestanding Facilities – 306 facilities in 2008 and 312 in 2011

Exhibit 17 summarizes the financial status of nursing facilities in Minnesota, in 2011, broken out by type of facility.

Exhibit 17. Comparison of 2011 Financial Performance All Nursing Facilities by Type

	Hospital Attached Facilities	Boarding Care Homes	Freestanding Facilities
Number of facilities	53	11	312
Percent with positive financial performance	11%	73%	71%
Total net gain/(loss)	($57,631,922)	$973,643	$64,373,404
Average facility net gain/(loss)	($1,087,395)	$88,513	$206,325
Net gain/(loss) as a percent of revenues	(25.21%)	2.48%	3.54%
Net gain/(loss) per resident day, weighted average	($47.17)	$3.25	$7.37
Average MA rate minus average cost per resident day	($67.34)	($3.31)	($32.48)

Observations:
- By all measures shown in Exhibit 17, Freestanding Facilities and Boarding Care Homes have stronger financial performance than Hospital Attached Facilities.
- It appears that for purposes of understanding nursing facility financial performance, the important distinction is between Hospital Attached Facilities that are generally losing money, and all others that are generally making money. Two factors emerge from conversations with several Hospital Attached Facilities:

1. Many hospitals with Hospital Attached Nursing Facilities in Minnesota are classified, for purposes of Medicare reimbursement, as Critical Access Hospitals. This classification allows the hospital to receive higher payment rates from Medicare, but also requires it to allocate some costs to an attached nursing facility that the nursing facility might otherwise not incur and that are not supported through current MA reimbursement methods. Higher allocation would be seen largely in costs related to dietary, housekeeping, laundry, plant maintenance and administrative services, where hospital attached facility costs are 17% higher than others ($68.18 per resident day vs. $58.44.)
2. Many Hospital Attached Facilities set wage scales at the same level as in the hospital to which they are attached. These wage levels may be substantially higher than in Freestanding Facilities and Boarding Care Homes, and again are not supportable through current MA reimbursement methods. The higher wage costs would be seen in nursing care, where the average cost per compensated hour for hospital attached facilities is 14% higher ($23.93 per compensated hour vs. $21.02.)

More detail on this breakout is provided Exhibit 18.

Exhibit 18. Comparison of 2008–2011 Financial Performance All Nursing Facilities by Type

Facility type breakout	2008	2009	2010	2011
Hospital attached facilities	**60**	**58**	**57**	**53**
1. Average daily census	67	64	64	63
2. Percent with positive financial performance	13%	12%	16%	11%
3. Total net gain/(loss) (in millions)	($61.8)	($53.8)	($52.7)	($57.6)
4. Net gain/(loss) divided by revenue	(25.04%)	(21.82%)	(21.54%)	(25.21%)
5. Net gain/(loss) per resident day - weighted average	($42.18)	(39.45)	($39.61)	($47.17)
6. 75th percentile	N/A	N/A	($7.60)	($22.76)
7. Median	N/A	N/A	($39.26)	($41.21)
8. 25th percentile	N/A	N/A	($60.52)	($82.11)
9. Average MA rate minus average cost per resident day	($63.14)	($56.71)	($59.08)	($67.34)

Facility type breakout	2008	2009	2010	2011
Boarding care facilities	**N/A**	**11**	**11**	**11**
1. Average daily census	N/A	77	76	75
2. Percent with positive financial performance	N/A	91%	100%	73%
3. Total net gain/(loss) (in millions)	N/A	$2.6	$2.2	$1.0
4. Net gain/(loss) divided by revenue	N/A	6.44%	5.38%	2.48%
5. Net gain/(loss) per resident day - weighted average	N/A	$8.46	$7.07	$3.25
6. 75th percentile	N/A		$9.55	$7.45
7. Median	N/A		$4.74	$2.00
8. 25th percentile	N/A		$2.39	($0.81)
9. Average MA rate minus average cost per resident day	N/A	$2.00	($0.72)	($3.31)

Facility type breakout	2008	2009	2010	2011
Freestanding facilities	**306**	**307**	**310**	**312**
1. Average daily census	84	82	79	77
2. Percent with positive financial performance	64%	73%	64%	71%
3. Total net gain/(loss) (in millions)	$27.8	$64.2	$43.7	$64.4
4. Net gain/(loss) divided by revenue	1.60%	3.54%	2.45%	3.54%
5. Net gain/(loss) per resident day - weighted average	$2.98	$7.00	$4.88	$7.37
6. 75th percentile	N/A	N/A	$15.23	$20.43
7. Median	N/A	N/A	$6.61	$9.19
8. 25th percentile	N/A	N/A	($0.83)	$1.80
9. Average MA rate minus average cost per resident day	($25.34)	($23.83)	($27.67)	($32.48)

Because the analysis by type of facility appears to tell the story for Hospital Attached Facilities, the remaining analyses will include only Freestanding Facilities and Boarding Care Homes, combined as one group.

Analysis by geography

Three geographically based groups, encompassing the entire state, are compared in the next analysis, using "Peer Groups" from the rebasing law. Peer groups are defined by groups of counties, with metro being labeled as Peer Group 1 and deep rural as Peer Group 3 and are displayed in Exhibit 19.

Exhibit 19. Geographic Peer Group

Geographic Peer Groups

Group one: facilities in Anoka, Benton, Carlton, Carver, Chisago, Dakota, Dodge, Goodhue, Hennepin, Isanti, Mille Lacs, Morrison, Olmsted, Ramsey, Rice, Scott, Sherburne, St. Louis, Stearns, Steele, Wabasha, Washington, Winona, or Wright County (24 counties);

Group two: facilities in Aitkin, Beltrami, Blue Earth, Brown, Cass, Clay, Cook, Crow Wing, Faribault, Fillmore, Freeborn, Houston, Hubbard, Itasca, Kanabec, Koochiching, Lake, Lake of the Woods, Le Sueur, Martin, McLeod, Meeker, Mower, Nicollet, Norman, Pine, Roseau, Sibley, Todd, Wadena, Waseca, Watonwan, or Wilkin County (33 counties);

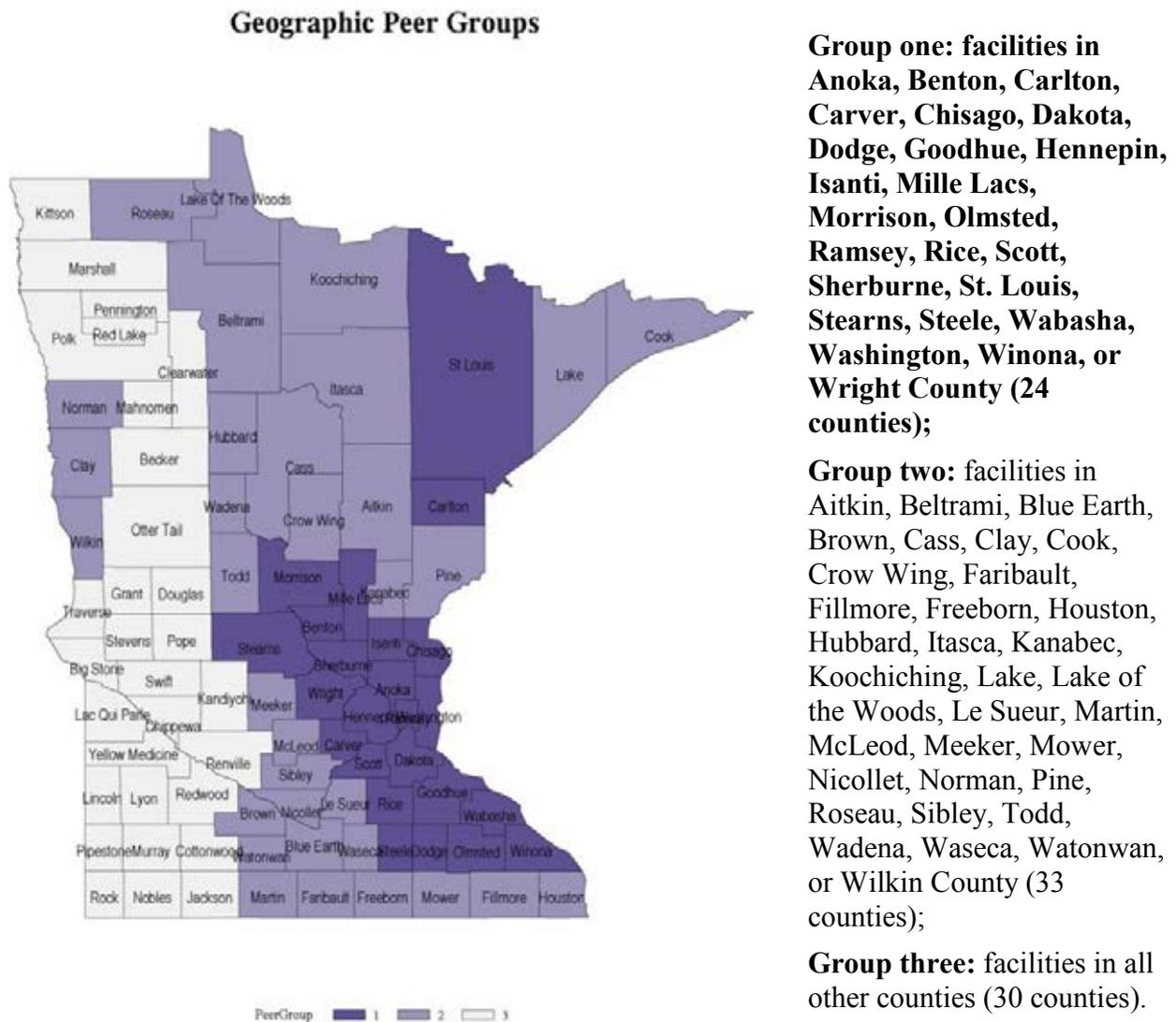**Group three:** facilities in all other counties (30 counties).

Exhibit 20 summarizes the financial status of freestanding facilities and Boarding Care Homes in Minnesota, broken out by geographic peer group.

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Exhibit 20. Comparison of 2011 Financial Performance Freestanding Facilities and Boarding Care Homes Combined by Geographic Peer Group

	Peer Group 1 Metro	Peer Group 2 Rural	Peer Group 3 Deep Rural
Number of facilities	175	77	71
Percent with positive financial performance	79%	61%	61%
Total net gain/(loss)	$62,439,357	$71,801	$2,835,889
Average facility net gain/(loss)	$356,796	$932	$39,942
Net gain/(loss) as a percent of revenues	4.80%	0.02%	1.15%
Net gain /(loss) per resident day, weighted average	$10.43	$0.04	$2.05
Average MA rate minus average cost per resident day	($33.76)	($30.65)	($25.90)

Observations:
- Metro area (Peer Group 1) nursing facility financial performance is stronger than non-metro (Peer Groups 2 & 3)
- As noted below, there is a significant geographic disparity in MA payment rates. While this rate disparity may be partially justified by actual variation in costs, it is also aligned with the observed geographic disparity in financial performance.
- It is interesting to note that in the metro area peer group, where the strongest financial performance is seen, the difference between average MA rate and average cost per resident day is the largest.
- Average daily payment rates are higher in peer group 1 than in peer groups 2 and 3:
    - For MA:
        - Peer group 1 - $176.09
        - Peer group 2 - $158.19
        - Peer group 3 - $157.03
    - For private pay:
        - Peer group 1 - $195.17
        - Peer group 2 - $170.65
        - Peer group 3 - $163.16
    - For Medicare:
        - Peer group 1 - $415.27
        - Peer group 2 - $351.35
        - Peer group 3 - $353.83
- Average wage per compensated hour for direct care workers is higher in peer group 1 than in peer groups 2 and 3:
    - Peer group 1 - $22.47
    - Peer group 2 - $18.62
    - Peer group 3 - $17.83
- The same pattern of differences may be seen across almost all cost categories, resulting in total costs per resident day that are higher in peer group 1 than in peer groups 2 and 3:
    - Peer group 1 - $206.94
    - Peer group 2 - $187.20
    - Peer group 3 - $176.08

More detail on this breakout is provided Exhibit 21.

Exhibit 21. Comparison of 2008 – 2011 Financial Performance Freestanding Facilities and Boarding Care Homes Combined by Geographic Peer Group

Facility type breakout	2008	2009	2010	2011
Peer group one - metro	N/A	174	176	175
1. Average daily census	N/A	99	96	94
2. Percent with positive financial performance	N/A	78%	74%	79%
3. Total net gain/(loss) (in millions)	N/A	$50.6	$42.0	$62.4
4. Net gain/(loss) divided by revenue	N/A	3.92%	3.29%	4.80%
5. Net gain/(loss) per resident day - weighted average	N/A	8.07	$6.81	$10.43
6. 75th percentile	N/A		$15.15	$19.53
7. Median	N/A		$6.30	$8.94
8. 25th percentile	N/A		($0.21)	$1.34
9. Average MA rate minus average cost per resident day	N/A	($24.84)	($28.79)	($33.76)

Facility type breakout	2008	2009	2010	2011
Peer group two	N/A	75	75	77
1. Average daily census	N/A	164	62	59
2. Percent with positive financial performance	N/A	65%	53%	61%
3. total net gain/(loss) (in millions)	N/A	$6.7	$0.3	$0.1
4. Net gain/(loss) divided by revenue	N/A	2.12%	0.18%	0.02%
5. Net gain/(loss) per resident day - weighted average	N/A	$3.80	$0.33	$0.04
6. 75th percentile	N/A	N/A	$8.14	$9.85
7. Median	N/A	N/A	$1.36	$3.61
8. 25th percentile	N/A	N/A	($5.65)	($9.58)
9. Average MA rate minus average cost per resident day	N/A	($22.26)	($25.95)	($30.65)

Facility type breakout	2008	2009	2010	2011
Peer group three	N/A	69	70	71
1. Average daily census	N/A	58	55	53
2. Percent with positive financial performance	N/A	70%	57%	61%
3. Total net gain/(loss) (in millions)	N/A	$9.5	$3.3	$2.8
4. Net gain/(loss) divided by revenue	N/A	3.81%	1.37%	1.15%
5. Net gain/(loss) per resident day - weighted average	N/A	$6.57	$2.36	$2.05
6. 75th percentile	N/A		$7.99	$9.83
7. Median	N/A		$1.63	$2.69
8. 25th percentile	N/A		($4.63)	($6.86)
9. Average MA rate minus average cost per resident day	N/A	($18.10)	($21.70)	($25.90)

Nursing facility payment rate disparities

Stakeholders and policymakers have expressed continuing concerns that Minnesota's rate-setting approach has led to payment rate disparities across different geographic areas. During the development of the cost-based (Rule 50) payment system in the mid-1980s, a study found higher NF direct care staffing costs in the seven-county metropolitan and Arrowhead areas, due in part to higher average staff wages. These findings were used to create three geographic groups (preceding those discussed above) for rate-setting purposes, which have an ongoing effect on rates. Under Minnesota's current payment system, a facility's historic rate is carried forward each year after performing cost of living and other rate adjustments so that existing rates would likely affect facility-spending behavior with lower-rate nursing facilities having more modest spending patterns.

The state undertook several initiatives over the last several years to reduce disparities. In 2000, a $1.00 increase was provided to all NFs plus a proportion of $3.13, depending on the nursing facility's rate ranking in 1999 *(256B.431, Subd. 28)*. This was followed by a substantial effort in 2001 and 2002, which gave a 7% increase up to a level specified for metro versus rural nursing facilities (rather than Rule 50 geographic groups) *(256B.431, Subd. 33)*. No statewide legislation was introduced for the remainder of the decade, with a noteworthy regional effort in 2006 when rates for 13 St. Cloud area nursing facilities were increased to the metro median; increases ranged from $4 - $23 per resident day and nursing facilities were allowed to spend these increases without restrictions *(256B.431, Subd. 43)*. The most-recent occurred in 2011 when legislation increased nursing facility rates up to the 18th statewide percentile or by 2.45%, whichever was smaller *(256B.441, Subd. 61)*.

Exhibit 22 shows statewide rates by both Rule 50 and rebasing geographic groups to determine the effectiveness of these efforts on reducing rate disparities. Looking first at Rule 50 groups, from 2000 to 2002 the median rates for Groups 1 (the Northwest Angle down to St. Cloud and the southwest) and 2 (the far northwest, west, surrounding the seven-county metro and the south-southeast) made significant gains towards Group 3 (the seven-county metro and the Arrowhead), with Group 1 showing especially dramatic growth. This legislation also appears to have drawn Groups 1 and 2 closer together. However, while Groups 1 and 2 have diverged and converged in recent years, they have never reached 90% of Group 3. Also, both Groups 1 and 2 lost ground in 2008, suggesting these counties saw relatively less benefit from the initial phase-in of rebasing that year. It appears the rate disparity legislation in 2011 had little effect on bringing the three geographic groups into better balance, in large part due to its focus on the bottom 18% of facilities and our use of medians in Exhibit 22. It is also possible that this may be somewhat confounded by the ongoing effect of different levels of PIPP funding in the Rule 50 groups, as well as the transition to RUG-IV case mix system in January 2012.

If rebasing peer groups (displayed in Exhibit 19) are used instead, disparities are smaller, particularly in Group 2 compared to Group 1. Using peer groups, the 2000-2002 disparity increases had a similarly large positive impact, while the 2011 increase is again difficult to see due to its focus on the lowest state percentiles and our use of median values in Exhibit 22. The 2008 introduction of rebasing seems to have also increased disparities. However, it is interesting that three years of quality-based payment add-ons – 2006, 2007 and 2012 – seemingly also acted to reduce disparities – although the connection is consistently clear across both groupings in 2012 and only mixed in 2006-7 - suggesting a possible dual purpose for these additional payments. Also, PIPP funding is distributed more evenly across the state when we consider Peer

Groups, allowing us to draw clearer conclusions about the effectiveness of rate disparity legislation.

Exhibit 22. Total Nursing Facility Operating Rate Disparity between Geographic Groups (1999-2012)

Rate Year	Median Rates by Rule 50 Geographic Group			Median Rates by Rebasing Peer Group			Rule 50 Geographic Group as Percentage of Group 3		Rebasing Peer Group as Percentage of Group 1	
	1	2	3	1	2	3	1 as % of 3	2 as % of 3	3 as % of 1	2 as % of 1
1999	$86	$91	$107	$103	$91	$85	79.7%	84.4%	82.6%	88.7%
2000	$92	$97	$113	$109	$98	$92	81.7%	86.1%	84.4%	89.9%
2001	$101	$102	$118	$115	$103	$101	85.4%	86.6%	88.1%	90.0%
2002	$105	$106	$122	$118	$106	$105	86.0%	86.6%	88.7%	90.1%
2003	$108	$111	$126	$122	$111	$108	85.9%	87.9%	88.4%	91.0%
2004	$108	$111	$127	$122	$111	$108	85.3%	87.4%	88.5%	91.2%
2005	$112	$114	$130	$126	$115	$112	85.9%	87.9%	88.6%	90.8%
2006	$116	$117	$135	$130	$119	$116	85.4%	86.9%	89.2%	91.9%
2007	$120	$121	$139	$134	$122	$119	86.8%	87.5%	88.9%	90.8%
2008	$122	$124	$143	$138	$124	$121	85.5%	86.8%	87.7%	89.8%
2009	$121	$123	$142	$137	$123	$120	85.2%	86.9%	87.7%	89.7%
2010	$121	$123	$142	$137	$123	$120	85.2%	86.9%	87.7%	89.7%
2011	$123	$124	$144	$139	$125	$122	85.3%	86.1%	87.2%	89.8%
2012	$127	$129	$149	$144	$130	$126	85.5%	86.4%	87.6%	90.2%

Total operating rate = Total payment rate per resident day, less Property and Other components; 1999-2002 = Minnesota case-mix class "G"; 2003-2012 = RUG-III/IV case-mix group DDF (default); 2009 = statewide decline in rates due to expiration of temporary 1% increase for staffing costs; 2011 = RUG-IV began Jan 2012 so we use weighted average ((Oct 2011 rate*3)+(Sep 2012 rate*9)/12); 2012 = rates include statewide quality add-on effective Sep 2013; Courage Residence excluded from analysis due to uniquely high rates and different population served

Analysis by ownership type

Three types of facility ownership are compared in the next breakout:

1. For Profit Facilities – 102 facilities in 2009 and 106 in 2011
2. Not-For-Profit Facilities – 190 facilities in 2009 and 195 in 2011
3. Government Owned Facilities – 26 facilities in 2009 and 22 in 2011

Exhibit 23 summarizes the financial status of freestanding facilities and Boarding Care Homes in Minnesota, broken out by type of ownership.

Exhibit 23. Comparison of 2011 Financial Performance Freestanding Facilities and Boarding Care Homes Combined by Facility Ownership Type

	For Profit Facilities	Not-For-Profit Facilities	Government Owned Facilities
Number of facilities	**106**	**195**	**22**
Percent with positive financial performance	74%	73%	36%
Total net gain/(loss)	$28,794,636	$39,733,153	($3,180,742)
Average facility net gain/(loss)	$271,648	$203,760	($144,579)
Net gain/(loss) as a percent of revenues	5.73%	3.11%	(4.08%)
Net gain /(loss) per resident day, weighted average	$11.21	$6.57	($7.68)
Average MA rate minus average cost per resident day	($20.18)	($33.94)	($33.10)

Observations:
- Financial performance of the For Profit Facilities is stronger than of Not-For-Profit Facilities, which, in turn, is stronger than of the Government Owned Facilities.
- Government Owned Facilities, on average, are expected to show stronger performance in 2012, the first year in which these facilities received federal matching of non-state governmental owners' financial contributions under the Equitable Cost-sharing for Publicly-owned Nursing Facilities Program.
- While small differences are seen in per resident day costs between the three ownership types, the largest difference is in revenues, with the average per day revenue of Government Owned Facilities being $7.49 less than For Profit Facilities and $23.17 less that Not For-Profit Facilities.

More detail on this breakout is provided in Exhibit 24.

Exhibit 24. Comparison of 2008 – 2011 Financial Performance Freestanding Facilities and Boarding Care Homes Combined by Facility Ownership Type

Ownership type breakout - freestanding facilities and board and care	2008	2009	2010	2011
For profit	**N/A**	**102**	**103**	**106**
1. Average daily census	N/A	74	69	66
2. Percent with positive financial performance	N/A	79%	65%	74%
3. Total net gain/(loss) (in millions)	N/A	$30.2	$17.2	$28.8
4. Net gain/(loss) divided by revenue	N/A	5.85%	3.58%	5.73%
5. Net gain/(loss) per resident day - weighted average	N/A	$10.96	$6.68	$11.21
6. 75th percentile	N/A	N/A	$13.94	$19.12
7. Median	N/A	N/A	$4.93	$9.03
8. 25th percentile	N/A	N/A	($2.30)	($1.36)
9. Average MA rate minus average cost per resident day	N/A	($14.65)	($20.69)	($20.18)

Ownership type breakout - freestanding facilities and board and care	2008	2009	2010	2011
Not for profit	**N/A**	**190**	**194**	**195**
1. Average daily census	N/A	89	88	85
2. Percent with positive financial performance	N/A	72%	69%	73%
3. Total net gain/(loss) (in millions)	N/A	$36.3	$32.6	$39.7
4. Net gain/(loss) divided by revenue	N/A	2.93%	2.59%	3.11%
5. Net gain/(loss) per resident day - weighted average	N/A	$5.87	$5.26	$6.57
6. 75th percentile	N/A	N/A	$11.28	$13.67
7. Median	N/A	N/A	$4.83	$5.83
8. 25th percentile	N/A	N/A	($1.52)	($1.38)
9. Average MA rate minus average cost per resident day		($26.85)	($26.50)	($33.94)

Ownership type breakout - freestanding facilities and board and care	2008	2009	2010	2011
Government	**N/A**	**26**	**24**	**22**
1. Average daily census	N/A	56	56	52
2. Percent with positive financial performance	N/A	62%	38%	36%
3. Total net gain/(loss) (in millions)	N/A	$0.3	$4.0	($3.2)
4. Net gain/(loss) divided by revenue	N/A	0.30%	(4.58%)	(4.08%)
5. Net gain/(loss) per resident day - weighted average	N/A	$0.55	($8.20)	($7.68)
6. 75th percentile	N/A	N/A	$2.39	$3.57
7. Median	N/A	N/A	($2.01)	($9.09)
8. 25th percentile	N/A	N/A	($9.88)	($14.22)
9. Average MA rate minus average cost per resident day	N/A	($8.86)	($27.69)	($33.10)

Analysis by affiliation

Nursing facilities are divided into four groups in the next breakout, based on size of affiliation. These groups consist of facilities that are in common ownership or management groups of:

- One facility, i.e., non-affiliated
- Two or three facilities
- Between four and seven facilities
- Eight or more facilities

Exhibit 25 summarizes the financial status of freestanding facilities and Boarding Care Homes in Minnesota, broken out by level of facility affiliation.

Exhibit 25. Comparison of 2011 Financial Performance Freestanding Facilities and Boarding Care Homes Combined by Facility Affiliation

	AFFILIATION GROUP SIZE			
	1	2-3	4-7	8+
Number of facilities	117	31	44	131
Percent with positive financial performance	65%	68%	68%	78%
Total net gain/(loss)	$17,873,182	$3,456,382	$11,607,333	$38,844,972
Average facility net gain/(loss)	$152,762	$111,496	$263,803	$296,527
Net gain/(loss) as a percent of revenues	2.89%	1.60%	3.88%	5.36%
Net gain /(loss) per resident day, weighted average	$5.63	$3.38	$8.12	$11.41
Average MA rate minus average cost per resident day	($29.86)	($45.31)	($29.01)	($21.34)

Observations:

- Financial performance tends to improve with size of affiliated group.
- Larger groups more often close poorly performing facilities.

More detail on this breakout is provided in Exhibit 26.

Exhibit 26. Comparison of 2008 - 2011 Financial Performance Freestanding Facilities and Boarding Care Homes Combined by Facility Affiliation

Not affiliated	2008	2009	2010	2011
Number	N/A	116	115	117
1. Average daily census	N/A	79	77	74
2. Percent with positive financial performance	N/A	72%	70%	65%
3. Total net gain/(loss) (in millions)	N/A	$20.6	$12.6	$17.9
4. Net gain/(loss) divided by revenue	N/A	3.28%	2.08%	2.89%
5. Net gain/(loss) per resident day - weighted average	N/A	$6.17	$3.92	$5.63
6. 75th percentile	N/A	N/A	$10.42	$13.68
7. Median	N/A	N/A	$4.55	$4.51
8. 25th percentile	N/A	N/A	($1.30)	($6.85)
9. Average MA rate minus average cost per resident day	N/A	($21.80)	($24.65)	($29.86)

Groups of two or three facilities	2008	2009	2010	2011
Number	**N/A**	**28**	**31**	**31**
1. Average daily census	N/A	100	92	90
2. Percent with positive financial performance	N/A	75%	71%	68%
3. Total net gain/(loss) (in millions)	N/A	$2.5	$3.9	$3.5
4. Net gain/(loss) divided by revenue	N/A	1.22%	1.86%	1.60%
5. Net gain/(loss) per resident day - weighted average	N/A	$2.44	$3.74	$3.38
6. 75th percentile	N/A	N/A	$9.51	$8.46
7. Median	N/A	N/A	$4.28	$4.10
8. 25th percentile	N/A	N/A	($1.59)	($3.00)
9. Average MA rate minus average cost per resident day	N/A	($35.34)	($37.02)	($45.31)

Groups of four to eight facilities	2008	2009	2010	2011
Number	**N/A**	**49**	**41**	**44**
1. Average daily census	N/A	99	93	89
2. Percent with positive financial performance	N/A	67%	61%	68%
3. Total net gain/(loss) (in millions)	N/A	$8.2	$8.6	$11.6
4. Net gain/(loss) divided by revenue	N/A	2.29%	3.05%	3.88%
5. Net gain/(loss) per resident day - weighted average	N/A	$4.63	$6.20	$8.12
6. 75th percentile	N/A	N/A	$11.79	$14.50
7. Median	N/A	N/A	$3.64	$7.41
8. 25th percentile	N/A	N/A	($2.71)	($5.23)
9. Average MA rate minus average cost per resident day	N/A	($25.31)	($25.51)	($29.01)

Groups of greater than eight facilities	2008	2009	2010	2011
Number	**N/A**	**125**	**134**	**131**
1. Average daily census	N/A	73	71	71
2. Percent with positive financial performance	N/A	76%	63%	78%
3. Total net gain/(loss) (in millions)	N/A	$35.5	$21.7	$38.8
4. Net gain/(loss) divided by revenue	N/A	5.34%	2.99%	5.36%
5. Net gain/(loss) per resident day - weighted average	N/A	$10.62	$6.02	$11.41
6. 75th percentile	N/A	N/A	$12.89	$18.33
7. Median	N/A	N/A	$4.68	$8.01
8. 25th percentile	N/A	N/A	($2.82)	$1.33
9. Average ma rate minus average cost per resident day	N/A	($19.98)	($26.99)	($21.34)

Other analyses

The analyses presented above break out nursing facilities using discreet values such as facility type, ownership type and geographic peer group. Additional analyses below use correlations to examine continuous variables such as facility size and the proportion of resident days reimbursed by MA or Medicare, and their relationship to financial performance. Correlations are determined after performing calculations and can be understood as an expression of how strongly two variables are related to each other, and whether that relationship is positive (i.e. both values go up or down together) or negative (i.e. when one goes up, the other goes down). If two variables were perfectly related we could see a correlation of -1 or 1; if they had no influence on each other we would expect 0. We can then test the significance of the correlations to determine the likelihood that the correlation is more than just a matter of chance. Correlations are not proof that one causes the other, but often are an early indication of such a causal relationship.

Exhibit 27 includes two financial performance variables – net income/loss per resident day and profit margin – and all continuous variables that had a significant relationship with one or both. The following variables are not shown as they were not significantly correlated with either (defined as a p – or significance – value less than or equal to 0.1 as this is an exploratory analysis): direct care salaries, nursing supplies / over-the-counter drugs, or total direct care cost; laundry cost; housekeeping cost; Total Quality Score (a weighted combination of clinical Quality Indicators, resident Quality of Life interviews, direct care staffing, temporary pool use and retention, and health department inspections); and resident Quality of Life interview scores.

However, there are many meaningful relationships with financial performance shown here. In the area of revenue and utilization, the operating and total payment rates have a significant link to gains, as well as MA and Medicare revenue per diem. This story is reversed when percent of total days is the variable rather than source of revenue, with facilities doing post-acute Medicare business faring best and those with third-party payers such as health plans coming in second. Facilities with a higher proportion of MA and especially private-pay days tended to have poorer financial performance. Similarly, facilities with high average resident acuity tend to have better financial performance (even considering the higher cost of providing care for these people), with an even stronger positive relationship for facilities with more admissions. Finally, occupancy and financial performance show one of the strongest positive correlations of the analysis.

Moving to costs, it is noteworthy that direct care costs, including salaries, are not shown, meaning they do not show the expected negative relationship to profit. However, the remaining cost categories shown (physical plant, dietary, and general/administrative) do have a negative relationship to gains.

Finally, some quality outcomes and processes show intriguing ties to financial gains. Direct care staffing is negatively related to financial performance, even when adjusted for acuity. This is an important argument to consider related to using actual costs in setting operating payment rates. However, it appears there is at best only a weak relationship between direct care staffing level and clinical quality (Pearson correlation of -0.023) and quality of life measures (Pearson correlation of 0.149). The remaining quality scores are modest and positive (with higher retention and inspection scores related to higher profitability) but for private-bed rooms, which shows a strong negative connection. This is particularly relevant with almost half of beds in private rooms and the likely resident preference for it, although it is unclear if facilities are predominantly losing gains because they have private beds, the reverse (i.e. that they are mostly

opting to convert beds to singles in response to low occupancy and/or lower financial performance), or a combination of the two.

Exhibit 27. Significant Correlates of Freestanding Nursing Facility Financial Performance, 2011

	Net income or loss per diem	Profit margin (net income or loss divided by revenue)
Revenue and Utilization	N/A	N/A
Operating payment DDF rate	*.181*	.127
Total payment DDF rate	.133	
Total revenue per diem	**.430**	**.318**
Medical Assistance revenue per diem	*.206*	.128
Private pay revenue per diem	.108	
Medicare revenue per diem	*.206*	.131
Third party revenue per diem	.140	
Total resident days	*.156*	.139
Medical Assistance % of resident days	-.113	
Private pay % of resident days	-.125	-.111
Medicare % of resident days	*.268*	.133
Third party % of resident days	*.176*	.119
Average resident acuity	*.245*	.123
Total admissions in the year	*.227*	*.151*
Occupancy	**.376**	**.355**
Beds in active service	.144	.126
Costs	N/A	N/A
Total cost per diem	-.100	*-.179*
Dietary cost per diem	*-.198*	*-.204*
Physical plant cost per diem	**-.365**	**-.360**
General administrative cost per diem	N/A	*-.177*
Quality Outcomes and Processes	N/A	N/A
Risk-adjusted clinical quality indicators, Jul 2011-Jun 2012	.130	.128
Acuity- and wage-adjusted direct-care staff hours per resident day	**-.326**	**-.312**
Direct-care staff retention	N/A	.103
Health department inspection scores, Apr 2012	.096	N/A
Private bed %, Apr 2012	-.102	-.119

All values are Pearson correlations; if no value is shown, the correlation was not significant. Bolded correlations have values of at least 0.3 and are practically as well as highly statistically significant; correlations in *italics* are highly statistically significant (p<0.01); all other correlations shown are significant (p<0.10). Timeframe for all variables is October 2010 - September 2011 unless noted.

D. Industry Size

Rightsizing the nursing home industry has been a major policy theme for Minnesota for over 30 years.[1] 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 Nursing Facilities and Number of Beds

As of September 30, 2012, Minnesota had 392 licensed nursing homes and licensed and certified boarding care homes with a total of 31,966 beds in active service, with 375 facilities and 30,351 beds 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 September 2012, 76 facilities had closed altogether (net of new facilities opened) and 15,213 beds had been completely delicensed. An additional 1,205 beds were out of active service, in layaway status. The supply of active beds has declined by 34% over the 25 years since the 1987 peak. In the last three years, the bed supply has declined by 1,989 beds or 5.9%.

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[1] Programs and strategies that have been enacted (and modified) during this period to assist in rebalancing LTSS: (a) Moratorium on new licensure and MA certification of 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; (h) the Single bed incentive; (i) Nursing facility consolidation; (j) Return to Community Program; (k) Moving Home Minnesota Program; and Olmstead planning.

Exhibit 28. Nursing Home Beds Minnesota and U.S.

Nursing Home Beds - Minnesota, US
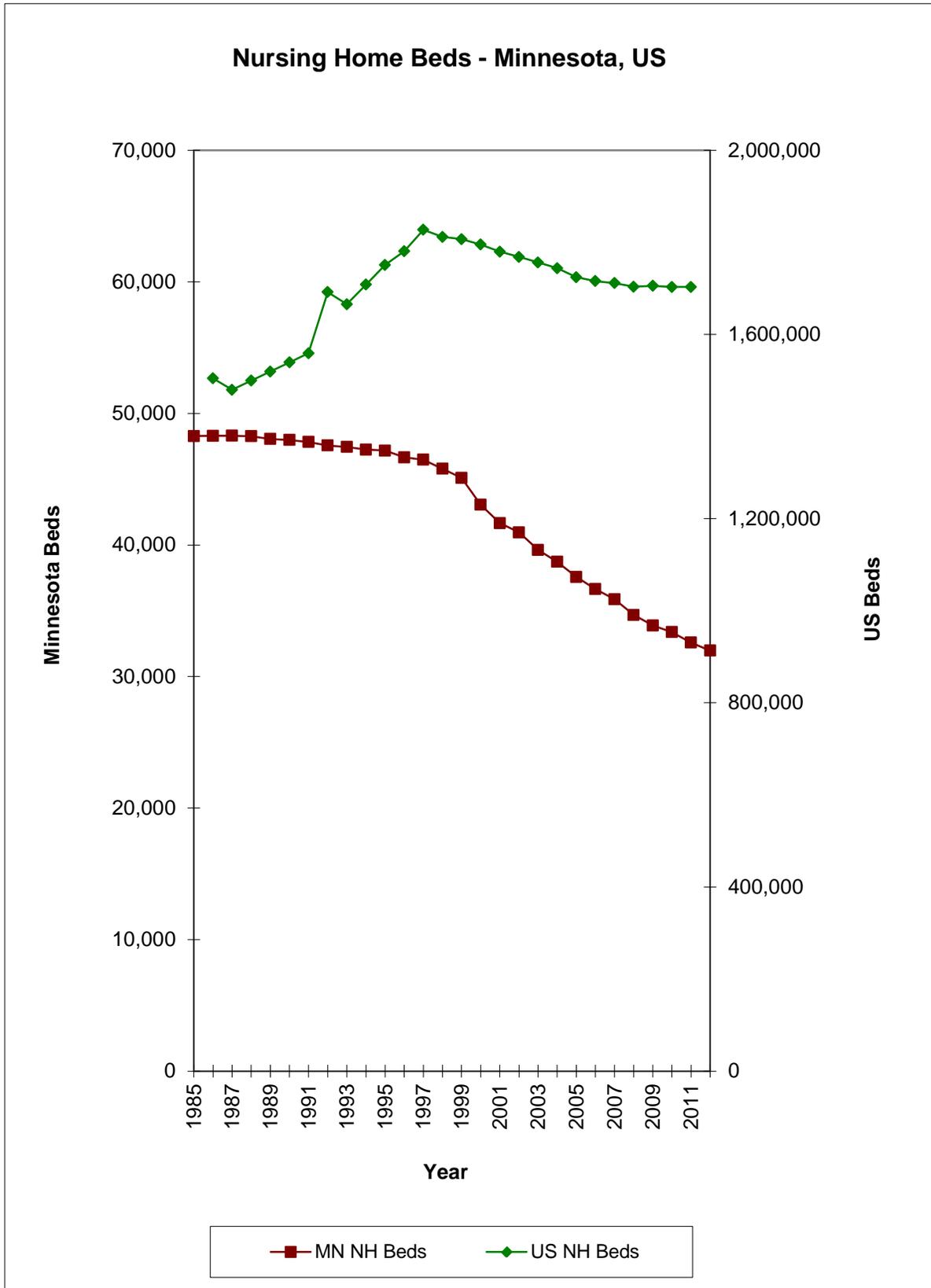
Beds per 1,000 elderly

Historically, Minnesota has been one of the most highly bedded states in the U.S., and in terms of beds/1000, Minnesota continues to have more nursing home bed availability than the national average when measured as beds per 1000 age 65+, However, in 2011, for the first time, Minnesota had fewer beds than the national average when measured as beds per 1000 age 85+. In 1995, Minnesota had 58% more beds per 1000 age 65+ and 28% more beds per 1000 age 85+ than the national average. By 2008 these numbers had decreased to 22% and 9% respectively. And in 2011, the most recent year with national data available, Minnesota had only 13% more beds per 1000 age 65+ and had 0.4% fewer for the 85+ population than the national average. Between 1995 and 2011 Minnesota reduced its bed capacity by 27.92%, more than any other state. During this time period, 23 states increased their bed capacity while the U.S., overall, reduced its bed capacity by 2.73%.

Exhibit 29.
Beds/1000 Age 65+ Minnesota/U.S.
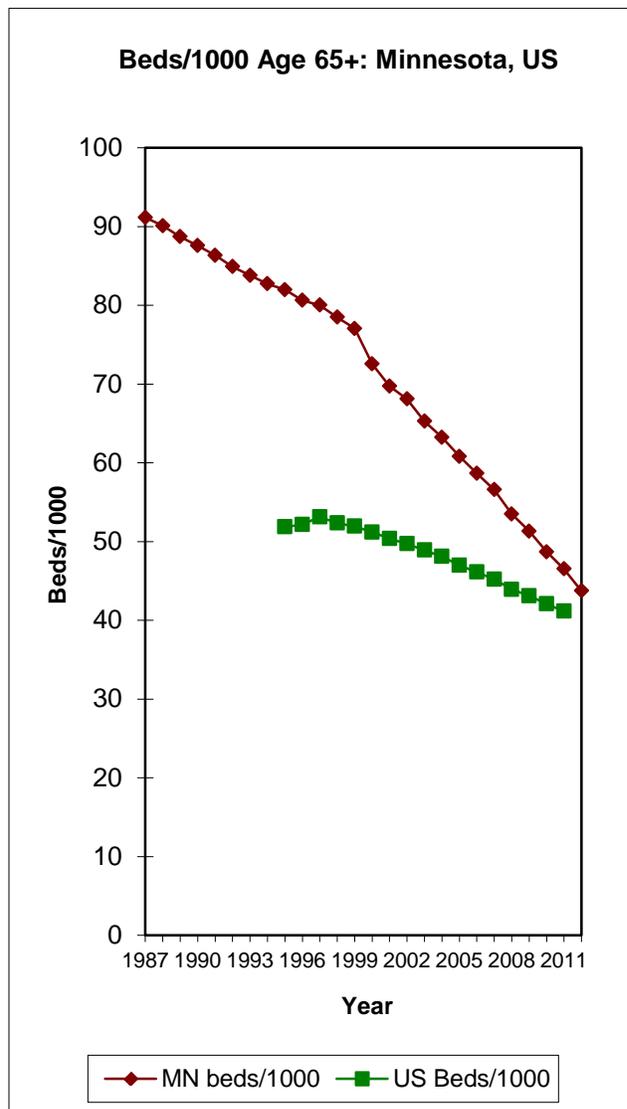
Exhibit 30.
Beds/1000 85+ Minnesota/U.S.
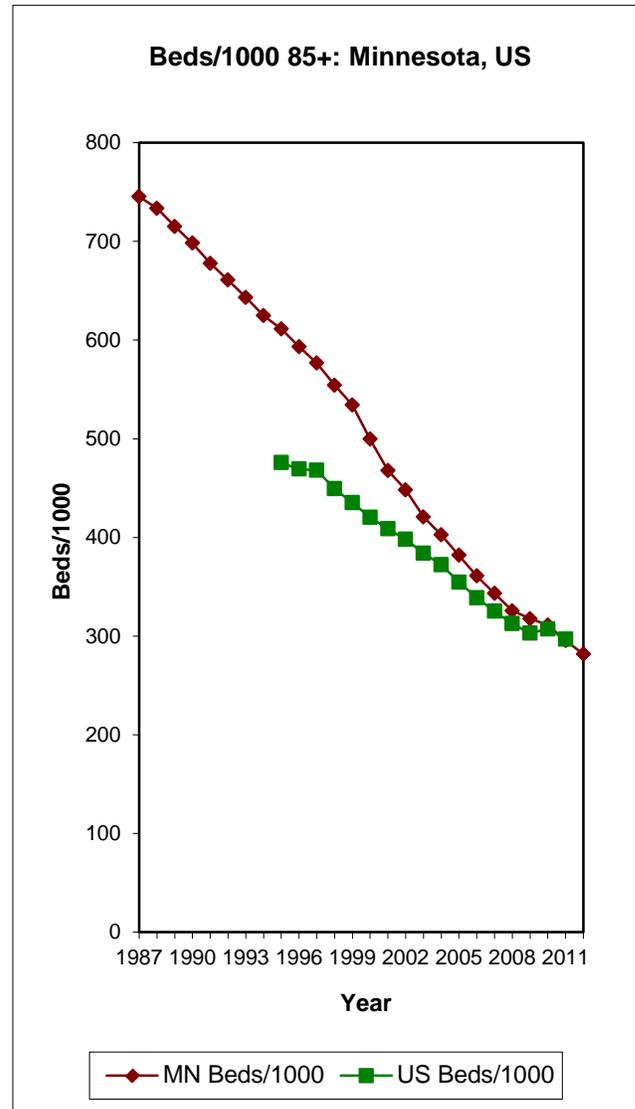
Exhibit 31. provides more detailed comparisons of Minnesota data on nursing home supply with comparable national data.

Exhibit 31. Comparison on Minnesota and U.S. Data on Nursing Home Supply

	Minnesota	U.S.	MN as % of U.S.
Historic number of beds	1987 – 48,307	N/A	N/A
	1995 – 47,181	1995 – 1,751,302	2.69%
Current number of beds	2011 – 32,582	2011 – 1,703,486	1.91%
	2012 – 31,966	N/A	N/A
Average annual % change in number of beds, 1995 to 2011	-2.3%	-0.2%	N/A
Peak beds per 1000 age 65+	1987 – 91.2	N/A	N/A
	1995 – 82.0	1995 – 51.9	158%
Current beds per 1000 age 65+	2011 – 46.5	2011 – 41.2	113%
	2012 – 43.8	N/A	N/A
Average annual % change in beds per 1000 age 65+, 1995 to 2011	-3.6%	-1.5%	N/A
Peak beds per 1000 age 85+	1987 – 745.3	N/A	N/A
	1995 – 611.4	1995 – 475.8	128%
Current beds per 1000 age 85+	2011 –295.7	2011 – 296.9	99.6%
	2012 – 282.0	N/A	N/A
Average annual % change in beds per 1000 age 85+, 1995 to 2011	-4.6%	-3.0%	N/A

Exhibit 32. Nursing Home Utilization in MN by Age Group, 2011

Age Group	Utilization Rate
65-69	0.6 %
70-74	1.2 %
75-79	2.3 %
80-84	4.5 %
85+	14.1 %

Bed distribution within Minnesota

Before examining the distribution of beds in Minnesota, it is necessary to describe a relatively new method of measurement – Age Intensity Adjusted (AIA) Beds per Thousand. Comparing the availability of beds over time or between regions is a somewhat inexact science. The two measures that are commonly used, beds per 1000 age 65+ and beds per 1000 age 85+, are inadequate, because of variations in the age composition of the elderly, and the differing utilization rates associated with different age groups.

The solution to this problem is risk adjustment– adjusting for differences in age composition. The method developed by DHS to do this looks at the age 65+ population broken into five groups and adjusting them for their respective statewide nursing home utilization rate. It is calculated by using the 65+ beds/1000 rate and adjusting it for age distribution. For each county, the population of each 5-year age group is weighted using the utilization rates, shown in Exhibit 32. The weights are combined to create a weighted score for each county. The weighted scores are then each divided by the statewide weighted score to establish a weighting factor for each county. The factor is applied to the county's 65+ beds/1000 rate to adjust it to arrive at their age intensity adjusted beds/1000 rate.

The availability of beds varies substantially across counties. Exhibit 33 shows the state averages for these measures as well as the variance across counties and across "groups" of counties, using the commonly used 65+ and 85+ measures and the AIA method. The contiguous county measure takes into account the use of nursing homes by persons in adjacent counties.

Exhibit 33. Average Nursing Home Beds per Thousand Persons Age 65 Plus and 85 Plus and Range – Minnesota 2012

Variable	Age 65+	Age 85+	Age intensity adjusted
Statewide beds per 1000	43.7	281.7	
County beds per 1000 - **Low**	15.4 in Anoka	148.1 in Hubbard	19.4 in Hubbard
County beds per 1000 - **High**	112.3 in Kittson	631.6 in Wilkin	96.8 in Wilkin
Contiguous county groups beds per 1000 - **Low**	23.0 in Chisago	196.9 in Chisago	
Contiguous county groups beds per 1000 - **High**	77.7 in Yellow Medicine	428.3 in Mahnomen	

Exhibit 34 shows the state distribution of age intensity adjusted beds per 1000 rates. See Exhibit 45 for a table showing the number of facilities and beds by county, each county's beds/1000 persons age 65+, and that county's rank from the most beds per 1000 (1) to the fewest (87). This same information is also presented for each county with its contiguous group of counties, and then the same information based on the 85+ population, and the age intensity adjusted beds per 1000 and rank. The ratio of the beds per 1000 in the county with the highest number divided by that of the county with the lowest number is different using the three methods. For the age 65+ measure, the ratio is 7.3; for the age 85+ measure, it is 4.3; and for the AIA method, it is 5.0.

When comparing Minnesota with the U.S. using the AIA method, the difference in beds per 1000 shrinks from 13% to 5%. The U.S. had 44.3 AIA beds per 1000, compared with Minnesota's 46.5 beds per 1000 age 65+. This reflects two factors that are at play: that the 65+ population of Minnesota is older than the 65+ population of the U.S. – that it is more age-intense, and that Minnesota still has more bed availability than the U.S. overall.

Exhibit 34. 2011 State Distribution of Age Intensity Adjusted Beds per 1000 Rates

2011 Beds/1000, Age Intensity Adjusted

AIA bpt
19.40 - 34.71   35.14 - 41.21   41.72 - 47.24   47.28 - 52.28
52.63 - 61.02   61.29 - 68.35   69.26 - 158.07

Minnesota Department of Human Services
September 2013
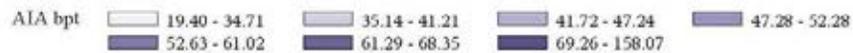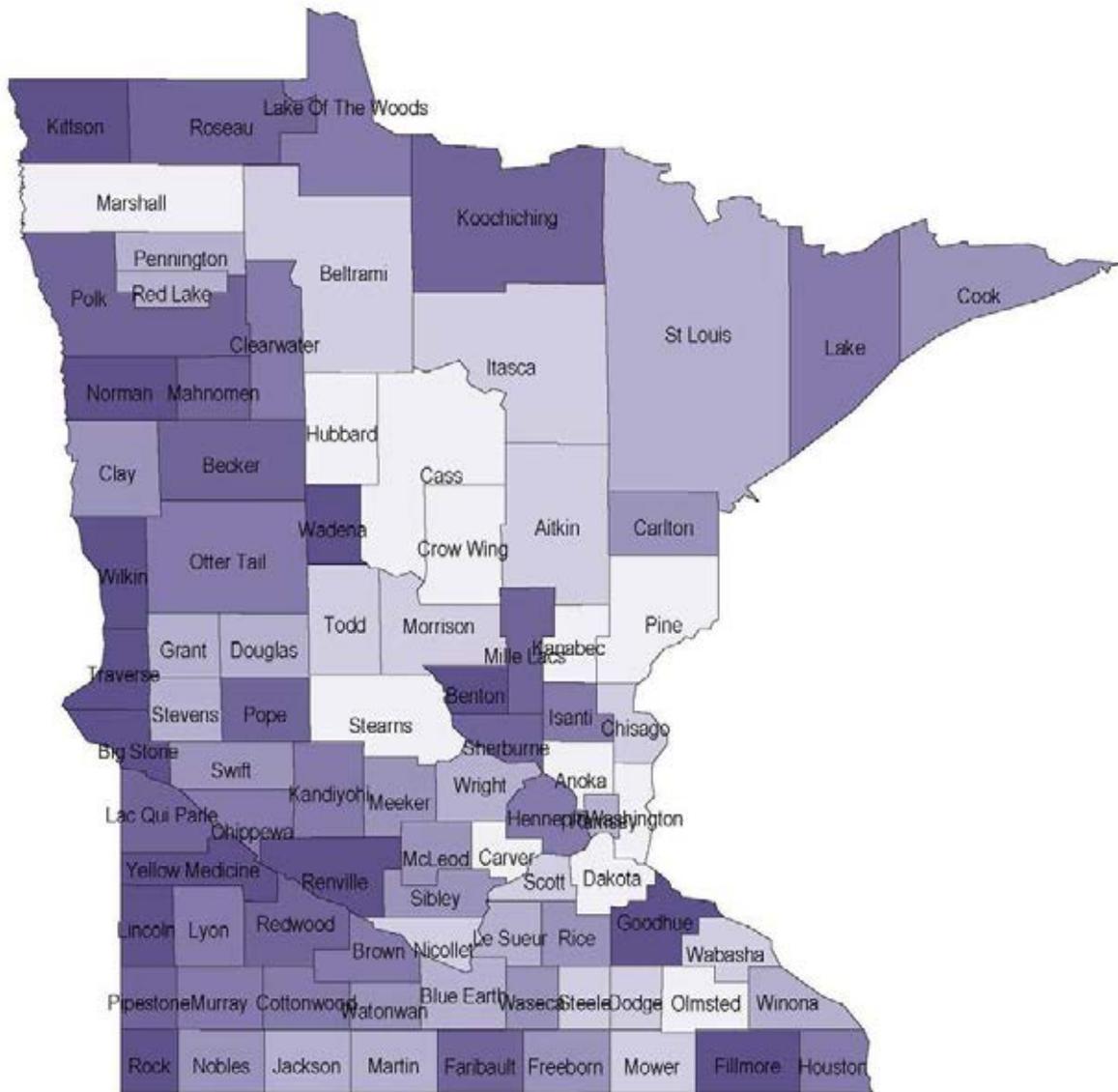
Occupancy

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 95.4% in 1993 and a low of 90.1% in 2012. This rather narrow range of occupancy has been maintained in recent years largely by taking beds out of service. Occupancy is important to monitor for two reasons. If occupancy were too high, consumers would have difficulty accessing nursing home care and would have limited choice. Low occupancy would likely put a financial strain on facilities, and perhaps, reduce the overall efficiency of the industry.

Occupancy Rates for Minnesota Nursing Homes 1984-2012
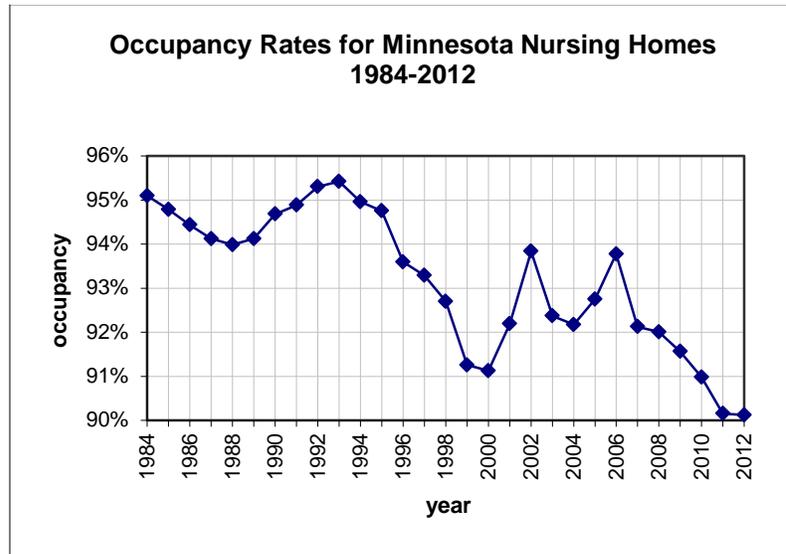
Hardship Areas

As noted earlier, the distribution of nursing home beds is not uniform across the state. The ratio of beds per thousand between the county with the most beds per thousand and the county with the fewest is 7.3 for the 65+ measure, 4.3 for the 85+ measure and 5.0 for the age intensity adjusted measure. All three measures indicate significant unevenness of distribution of beds.

Minnesota statute enacted in 2011 may help to address the uneven distribution of beds by allowing new beds to be added in hardship areas. Criteria to be considered in designating hardship areas are age-intensity adjusted beds per thousand, out migration, availability of non-institutional long-term supports and service, and declarations of hardship due to insufficient access by local county agencies and area agencies on aging. (See Exhibit 44 for data on these criteria.) MDH, in consultation with DHS, began a process in August 2013, including a request for information about possible hardship areas and a request for proposals for adding beds in designated areas. MDH may approve up to 200 beds per biennium until 2020, after which up to 300 beds per biennium may be added.

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 and even declined? The market is shifting away from institutional care, encouraged by state policies as noted earlier and seen most dramatically in declining utilization rates. Nursing home utilization is a measure of how likely it is that a person will be in a nursing home — namely the percent of people within an age group who are in a nursing home on a given day. The nursing home utilization rate for older people in Minnesota has been declining for at least the past 27 years. In 1984, the utilization rate for persons aged 65+ was 8.4 %, and by 2011, it had declined to 3.7 % — a 56 % reduction. The utilization rate for people age 85+ declined even more dramatically, from 36.4% in 1984 to 14.1% in 2011, a 61% reduction. The reduced utilization of nursing home services has been accompanied by increased numbers of people receiving LTSS in their own homes and in assisted living settings.

Exhibit 36. Minnesota Population
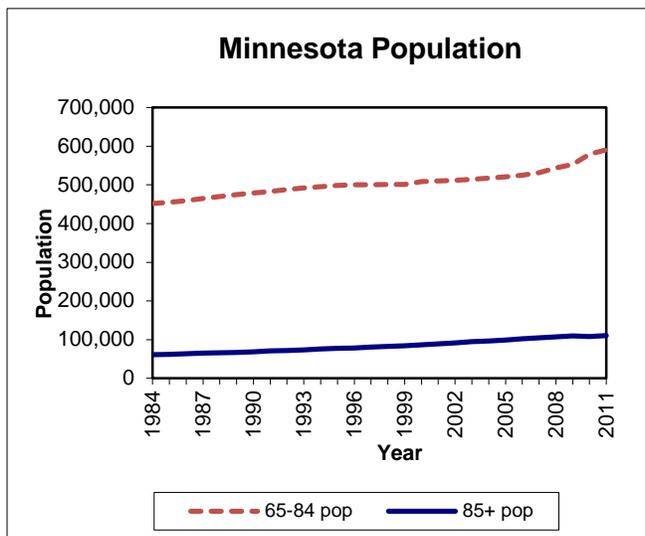
Exhibit 37. Utilization of MN Nrsg. Homes
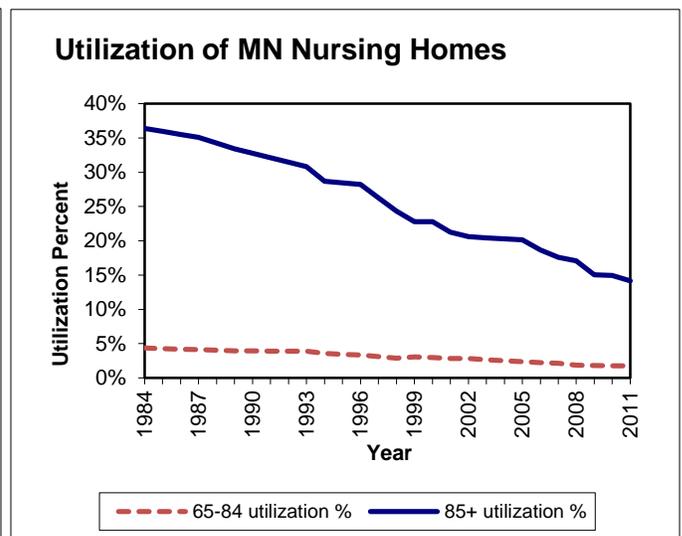
Exhibit 38. Nursing Home Utilization Rates in Selected Years from 1984 – 2011 for Persons Age 65 Plus and 85 Plus in Minnesota

Year	65+ Utilization	Annual Rate of Change	85+ Utilization	Annual Rate 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%

Year	65+ Utilization	Annual Rate of Change	85+ Utilization	Annual Rate of Change
2006	4.9%	-5.6%	18.7%	-7.3%
2007	4.7%	-4.3%	17.6%	-5.7%
2008	4.4%	-6.8%	17.1%	-2.9%
2009	4.0 %	-8.0%	15.1%	-11.9%
2010	3.9%	-3.6%	14.9%	-0.9%
2011	3.7%	-3.7%	14.1%	-5.3%

Source: Residents – MDH and DHS; Population – US Census Bureau
*Beginning in 2000, the data source used to compute utilization rates changed because the Minnesota case mix system was replaced with the RUGS system.

Two other measures of utilization shown here, admissions and length of stay, illustrate the increased availability and use of short stay care (see Exhibits 39 and 40). While the annual number of admissions has risen from less than 50,000 in 2005 to over 64,000 in 2012, these stays have steadily become shorter, with over half of stays in 2009 lasting 30 days or less. These trends suggest that most individuals using nursing facilities today require more-frequent, shorter stays, likely for short-term health needs before returning to long-term residences in the community.

Exhibit 39. Total Nursing Home Admissions
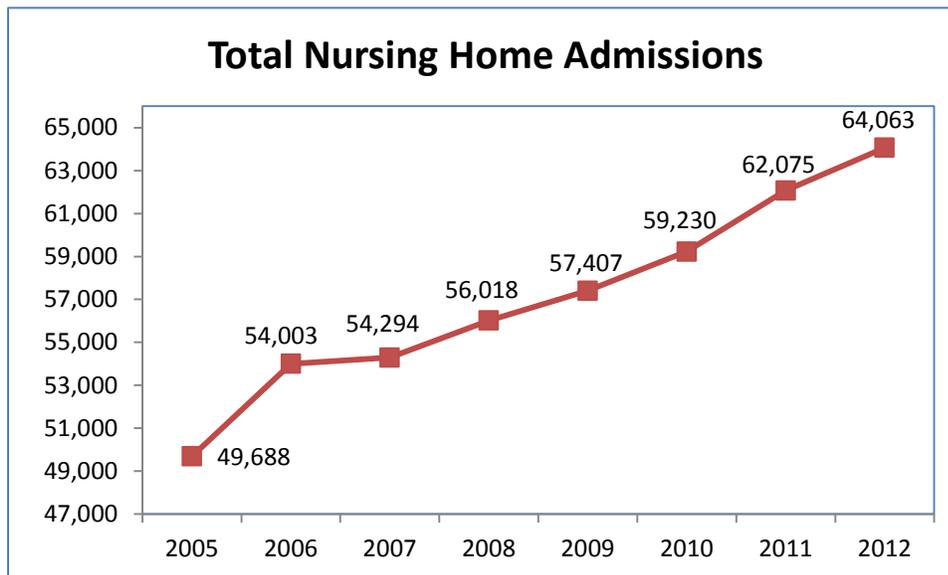
Exhibit 40. Nursing Home Length of Stay on One Year or Less

Source MDS
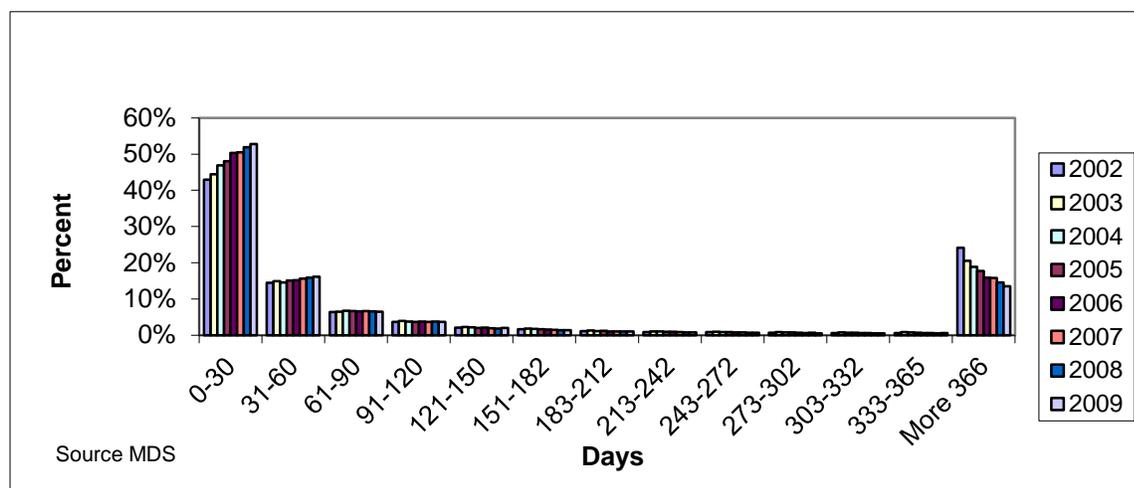
Future Industry Size—Projections

One of the questions this report is intended to address is whether the state continues to be over-bedded, has an adequate supply of nursing home beds for the foreseeable future or if additional beds will be needed, and specifically, is the moratorium still needed. To answer this question we will first look at projected bed availability based upon the downward trend in the number of beds, then projected bed need based upon the downward trend in the rate of utilization of nursing home services and the upward trend in the elderly population. These two projections will then be compared.

Exhibit 41. Projecting Number of Nursing Home Beds Available in Minnesota -- 2012-2030	
2012*	31,966
2015	29,728
2020	26,385
2025	23,418
2030	20,785
*2012 = actual number of beds, 9/30/2012	

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 consistently over the last 25 years. The projection for the next 18 years continues the trend.
Exhibits 41 and 42 show the projected nursing home bed availability in Minnesota to 2030, starting with 31,966 beds in 2012 and resulting in 20,785 beds in 2030.

Exhibit 42. Projected Nursing Home Beds Available
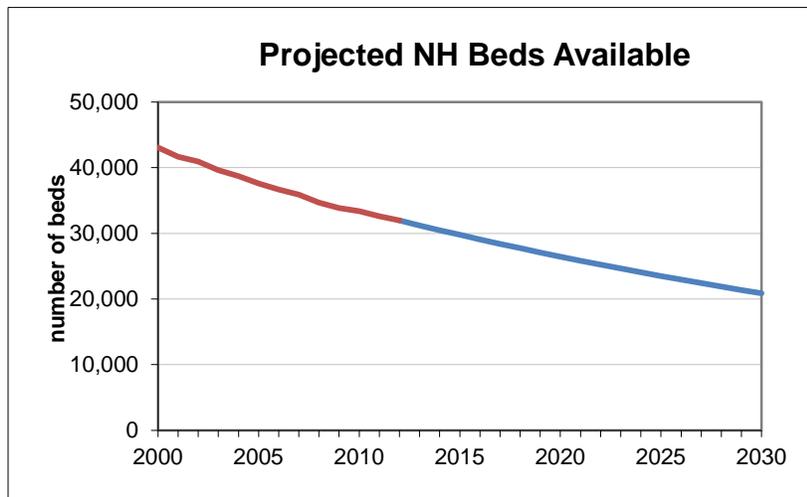
Projected need based on the changing utilization rate of nursing home services and population estimates. Utilization rates have been falling for many years. Nonetheless, if we were to assume that the rate of nursing home bed utilization would level off at the 2011 rate of 3.7% for the 65+ age group, the need for beds would increase steadily due to growth in the elderly population and would surpass current supply as soon as the end of 2013. However the utilization rate has declined consistently for 25 years and at a higher rate in recent years. Therefore, this projection assumes a continuation of this trend as well, and applies it to population estimates to project future bed need.

Exhibit 43 compares the bed availability projection with the bed need projection. The red dotted line shows the additional projected effect of the Return to Community Initiative. Minnesota starts with a projected surplus, in 2012, of 2,434 beds. That surplus falls to about 1,424 beds in 2030, without considering Return to Community. However, with the expected effect of Return to Community, Minnesota is projected to have a surplus of over 3000 beds in 2030. The projections do not include the possible addition of new beds under the hardship provision described earlier because the state does not yet have experience implementing those provisions.

Exhibit 43. Projected Nursing Home Bed Supply and Need

Projected NH Bed Supply and Need

Prior to 2012, the actual # of beds is shown. For years 2012-2030, the solid green line shows projections based on

For years 2012-2030, the dashed blue line shows the projected bed need.

The red dotted line shows the projected bed need, factoring in the effects of the Return to Community Initiative.
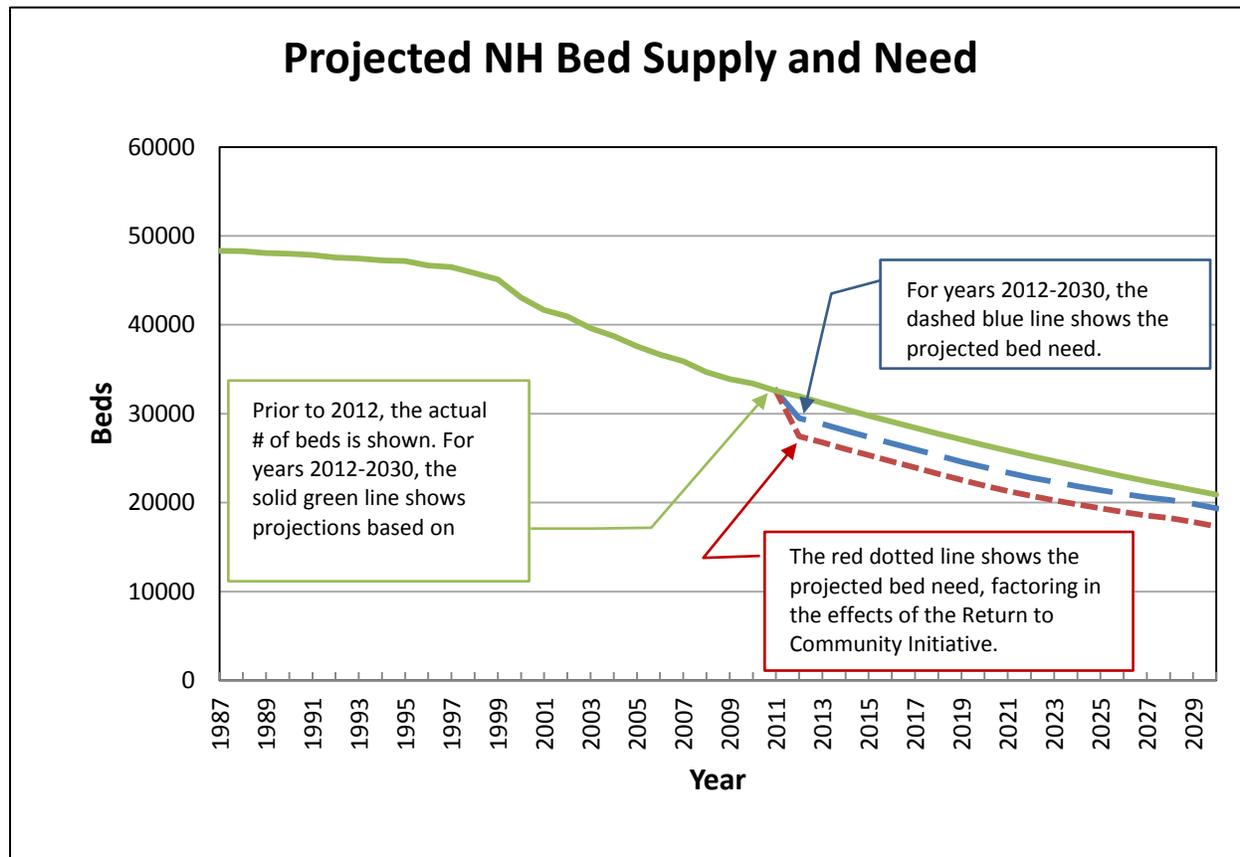
In conclusion, we suggest that we are at a point where the moratorium on new nursing home beds is still useful, but Minnesota should:

- Watch for local and regional access problems,
- Encourage the use of existing mechanisms that allow beds to be relocated from high bedded areas to low bedded areas, perhaps by creating an incentive for nursing facilities in high bedded areas to reduce capacity by making beds available to be relocated to low-bedded areas,
- Monitor the results of the new hardship provision,
- Continue to monitor Minnesota's beds per 1000 in comparison with the U.S., and
- Continue to monitor occupancy rates and, in the event they show a significant rise, consider more timely reporting and analysis of occupancy data, and modifications to policies that address bed closures, bed relocations and hardship areas.

As stated above, the purpose of this section of the report is to examine trends in nursing home bed availability and need, and specifically, to address the question: "Will Minnesota soon experience a shortage of nursing home beds?" The number of nursing facility beds available in Minnesota has been declining steadily for many years, and the need for beds has declined along with their availability. Occupancy of beds is at an all-time low; rates of utilization of beds by the elderly are declining; and the new hardship provision should address hardship in areas where it may begin to present itself. The evidence that Minnesota will not experience a shortage of nursing facility beds during the next several years is very strong.

Exhibit 44 - Data For Hardship Area Criteria

County	# beds 2011	AIA bpt	AIA bpt rank	TotalHomeCare_Expenditure	EPP 65+	EPP Rank	AIA pop 65+	Admits	Stayed	Out migrated	Pct Out	Outmigration Rank
Aitkin	128	35.1	75	$1,013,307	$278.20	64	3,642	46	42	4	8.70%	25
Anoka	**521**	**19.8**	**86**	**$42,654,586**	**$1,622.71**	**5**	**26,286**	**250**	**202**	**48**	**19.20%**	**7**
Becker	335	64.0	20	$7,022,790	$1,342.48	6	5,231	110	104	6	5.45%	43
Beltrami	245	41.1	65	$12,854,624	$2,158.76	2	5,955	84	76	8	9.52%	21
Benton	416	79.1	5	$3,465,271	$659.27	28	5,256	145	137	8	5.52%	42
Big Stone	114	73.4	10	$235,768	$151.74	80	1,554	29	29	0	0.00%	87
Blue Earth	376	43.4	61	$3,892,023	$449.62	46	8,656	84	75	9	10.71%	17
Brown	322	54.7	36	$1,719,526	$292.27	62	5,883	81	78	3	3.70%	59
Carlton	264	50.3	44	$4,726,756	$901.14	13	5,245	105	101	4	3.81%	58
Carver	**249**	**33.1**	**78**	**$4,994,096**	**$662.97**	**27**	**7,533**	**88**	**79**	**9**	**10.23%**	**18**
Cass	**102**	**21.7**	**85**	**$5,347,953**	**$1,137.37**	**9**	**4,702**	**46**	**35**	**11**	**23.91%**	**3**
Chippewa	163	59.0	29	$534,332	$193.48	77	2,762	44	40	4	9.09%	22
Chisago	**218**	**35.6**	**74**	**$3,614,379**	**$590.99**	**37**	**6,116**	**67**	**61**	**6**	**8.96%**	**23**
Clay	362	47.8	48	$4,358,554	$575.72	38	7,571	110	108	2	1.82%	69
Clearwater	86	55.2	35	$2,075,531	$1,331.55	7	1,559	34	34	0	0.00%	87
Cook	47	47.3	51	$11,876	$11.95	87	994	6	6	0	0.00%	87
Cottonwood	173	59.2	27	$958,866	$328.19	59	2,922	47	45	2	4.26%	55
Crow Wing	286	26.5	82	$8,711,814	$808.67	19	10,773	131	126	5	3.82%	57
Dakota	**1272**	**34.0**	**77**	**$37,578,163**	**$1,004.81**	**11**	**37,398**	**330**	**286**	**44**	**13.33%**	**12**
Dodge	106	41.2	64	$1,596,132	$620.59	34	2,572	28	26	2	7.14%	31
Douglas	310	42.3	62	$3,355,473	$457.33	45	7,337	129	128	1	0.78%	73
Faribault	225	63.0	22	$489,005	$136.88	84	3,572	49	48	1	2.04%	67
Fillmore	324	69.3	13	$681,080	$145.58	81	4,678	89	85	4	4.49%	53
Freeborn	356	52.3	40	$1,894,231	$278.20	65	6,809	97	94	3	3.09%	61
Goodhue	643	75.0	7	$2,348,219	$273.83	69	8,575	149	141	8	5.37%	44
Grant	69	46.1	54	$355,116	$237.33	75	1,496	19	15	4	21.05%	5
Hennepin	7405	52.8	38	$254,338,848	$1,812.64	4	140,314	2290	2248	42	1.83%	68
Houston	190	52.6	39	$807,603	$223.70	76	3,610	51	51	0	0.00%	87
Hubbard	**68**	**19.4**	**87**	**$1,937,846**	**$552.97**	**40**	**3,504**	**22**	**17**	**5**	**22.73%**	**4**
Isanti	256	56.5	34	$2,963,594	$654.40	29	4,529	71	65	6	8.45%	26
Itasca	**300**	**37.0**	**71**	**$6,850,183**	**$845.97**	**16**	**8,097**	**149**	**140**	**9**	**6.04%**	**36**
Jackson	105	44.2	57	$580,310	$244.53	73	2,373	29	29	0	0.00%	87
Kanabec	77	34.7	76	$1,816,879	$819.10	18	2,218	63	63	0	0.00%	87

County	# beds 2011	AIA bpt	AIA bpt rank	TotalHomeCare _Expenditure	EPP 65+	EPP Rank	AIA pop 65+	Admits	Stayed	Out migrated	Pct Out	Outmigration Rank
Kandiyohi	440	57.8	31	$4,781,431	$628.65	32	7,606	138	134	4	2.90%	62
Kittson	114	96.5	2	$171,710	$145.31	82	1,182	38	36	2	5.26%	45
Koochiching	153	62.0	24	$1,064,245	$431.53	49	2,466	44	42	2	4.55%	51
Lac Qui Parle	136	66.0	16	$540,617	$262.29	71	2,061	31	29	2	6.45%	33
Lake	144	58.3	30	$1,883,776	$762.06	22	2,472	20	19	1	5.00%	48
Lake Of The Woods	44	59.1	28	$206,359	$277.10	67	745	18	17	1	5.56%	41
Le Sueur	170	47.1	52	$864,867	$239.69	74	3,608	45	41	4	8.89%	24
Lincoln	121	70.6	12	$284,789	$166.25	79	1,713	28	28	0	0.00%	87
Lyon	237	56.6	33	$3,470,852	$828.70	17	4,188	63	60	3	4.76%	50
McLeod	300	48.6	47	$3,866,197	$626.26	33	6,173	233	230	3	1.29%	71
Mahnomen	48	62.2	23	$3,050,791	$3,953.90	1	772	14	12	2	14.29%	9
Marshall	60	31.3	80	$526,885	$275.11	68	1,915	13	8	5	38.46%	1
Martin	221	41.7	63	$2,229,740	$420.97	51	5,297	69	64	5	7.25%	30
Meeker	204	51.2	43	$2,146,523	$539.03	41	3,982	119	112	7	5.88%	38
Mille Lacs	274	65.0	17	$3,772,322	$895.30	14	4,213	109	97	12	11.01%	16
Morrison	208	38.0	70	$2,266,660	$414.41	52	5,470	93	89	4	4.30%	54
Mower	307	36.9	72	$2,353,469	$283.12	63	8,313	93	86	7	7.53%	29
Murray	117	54.6	37	$291,520	$136.13	85	2,141	38	35	3	7.89%	28
Nicollet	165	41.0	66	$2,568,817	$638.42	31	4,024	41	30	11	26.83%	2
Nobles	189	47.6	49	$2,252,228	$567.72	39	3,967	59	59	0	0.00%	87
Norman	151	87.5	3	$768,403	$445.28	47	1,726	41	40	1	2.44%	64
Olmsted	612	32.6	79	$14,088,590	$750.61	24	18,769	190	180	10	5.26%	45
Otter Tail	755	61.0	26	$3,730,868	$301.53	61	12,373	198	193	5	2.53%	63
Pennington	112	44.9	56	$925,958	$371.14	57	2,495	51	51	0	0.00%	87
Pine	**106**	**26.2**	**83**	**$3,729,727**	**$922.67**	**12**	**4,042**	**54**	**43**	**11**	**20.37%**	**6**
Pipestone	150	63.0	21	$396,210	$166.51	78	2,379	28	28	0	0.00%	87
Polk	381	66.7	15	$3,069,660	$537.46	42	5,711	122	115	7	5.74%	40
Pope	160	64.2	19	$676,316	$271.19	70	2,494	46	45	1	2.17%	66
Ramsey	3108	46.8	53	$127,727,051	$1,925.25	3	66,343	1141	1086	55	4.82%	49
Red Lake	30	45.6	55	$214,680	$326.49	60	658	16	14	2	12.50%	13
Redwood	240	64.5	18	$2,387,981	$641.97	30	3,720	84	72	12	14.29%	10
Renville	261	74.3	9	$1,525,603	$434.59	48	3,510	77	76	1	1.30%	70
Rice	373	47.3	50	$4,737,766	$601.26	36	7,880	149	144	5	3.36%	60

County	# beds 2011	AIA bpt	AIA bpt rank	TotalHomeCare _Expenditure	EPP 65+	EPP Rank	AIA pop 65+	Admits	Stayed	Out migrated	Pct Out	Outmigration Rank
Rock	195	87.1	4	$201,319	$89.94	86	2,238	23	23	0	0.00%	87
Roseau	153	68.4	14	$1,077,630	$481.43	44	2,238	60	60	0	0.00%	87
Saint Louis	1454	43.5	60	$25,780,301	$771.92	21	33,398	699	691	8	1.14%	72
Scott	372	40.9	67	$11,403,406	$1,252.95	8	9,101	111	104	7	6.31%	34
Sherburne	419	61.3	25	$4,903,927	$717.28	25	6,837	118	111	7	5.93%	37
Sibley	134	51.5	42	$1,057,166	$406.57	53	2,600	45	44	1	2.22%	65
Stearns	**454**	**25.0**	**84**	**$14,059,045**	**$775.40**	**20**	**18,131**	**248**	**218**	**30**	**12.10%**	**15**
Steele	219	38.1	69	$2,230,057	$387.97	54	5,748	78	75	3	3.85%	56
Stevens	88	43.9	58	$284,682	$142.06	83	2,004	18	18	0	0.00%	87
Swift	115	49.1	45	$903,179	$385.38	56	2,344	31	28	3	9.68%	20
Todd	**141**	**36.0**	**73**	**$2,697,925**	**$688.33**	**26**	**3,920**	**57**	**49**	**8**	**14.04%**	**11**
Traverse	91	77.1	6	$305,656	$259.08	72	1,180	27	27	0	0.00%	87
Wabasha	153	40.7	68	$1,454,278	$387.00	55	3,758	41	36	5	12.20%	14
Wadena	240	72.6	11	$2,043,282	$618.27	35	3,305	87	82	5	5.75%	39
Waseca	160	48.7	46	$911,831	$277.57	66	3,285	38	36	2	5.26%	45
Washington	**654**	**28.4**	**81**	**$20,370,784**	**$883.53**	**15**	**23,056**	**256**	**231**	**25**	**9.77%**	**19**
Watonwan	127	52.0	41	$836,509	$342.19	58	2,445	39	33	6	15.38%	8
Wilkin	120	96.8	1	$1,334,008	$1,075.88	10	1,240	22	21	1	4.55%	51
Winona	422	57.6	32	$3,572,653	$487.81	43	7,324	149	137	12	8.05%	27
Wright	483	43.9	59	$8,348,416	$758.18	23	11,011	176	164	12	6.82%	32
Yellow Medicine	184	74.4	8	$1,045,342	$422.93	50	2,472	49	46	3	6.12%	35
				$733,700,097								

NOTES

PURPLE/BOLD: hardship eligible on all three criteria, (11 counties)

PINK: hardship eligible

AIA: age intensity adjusted

bpt: beds per thousand

AIA bpt rank: #1 is most bpt, standard is fewest 20%

Home Care Expenditures: public expenditures for EW and AC

EPP: public expenditures per AIA population

EPP Rank: #1 is highest, standard is above the median

Outmigrated: residing in a nursing facility in a county other than county of financial responsibility

Outmigration rank: #1 is highest, standard is above the median

Exhibit 45 - Minnesota Nursing Facility Beds Per 1000

County	Region	#facs	beds	pop65+	bpt65+	bpt65+ rank	pop85+	bpt85+	bpt85+ rank	Contiguous Counties counties	beds	pop65+	bpt65+	rank	pop85+	bpt85+ rank
Aitkin	Arr	2	128	4,498	28.5	81	491	260.7	62	9	2,991	80,514	37.1	78	11,513	259.8	77
Anoka	Met	6	521	33,902	15.4	88	3,460	150.6	87	7	12,613	277,208	45.5	55	43,138	292.4	47
Becker	LDS	4	335	5,787	57.9	34	752	445.5	8	8	2,045	36,416	56.2	30	5,549	368.5	9
Beltrami	LDS	3	245	5,992	40.9	68	943	259.8	64	10	1,323	36,590	36.2	79	5,002	264.5	76
Benton	Cen	3	416	4,583	90.8	6	917	453.7	5	5	1,771	40,754	43.5	66	6,135	288.7	55
Big Stone	MNR	2	114	1,323	86.2	8	254	448.8	6	5	544	7,430	73.2	6	1,571	346.3	24
Blue Earth	MNR	5	376	7,714	48.7	56	1,448	259.7	65	8	1,766	33,131	53.3	36	6,077	290.6	51
Brown	MNR	4	322	4,947	65.1	24	999	322.3	44	7	1,664	27,465	60.6	24	5,215	319.1	32
Carlton	Arr	3	264	5,328	49.5	54	806	327.5	39	4	1,952	46,807	41.7	69	7,155	272.8	71
Carver	Met	4	249	8,040	31.0	78	1,145	217.5	78	6	8,975	174,203	51.5	40	28,394	316.1	34
Cass	Cen	2	102	6,198	16.5	86	614	166.1	86	9	1,718	54,334	31.6	84	7,239	237.3	86
Chippewa	MNR	2	163	2,377	68.6	20	457	356.7	32	6	1,299	18,031	72.0	8	3,509	370.2	8
Chisago	Cen	3	218	6,675	32.7	75	933	233.7	76	6	1,832	79,736	23.0	87	9,306	196.9	87
Clay	LDS	4	362	7,125	50.8	52	1,197	302.4	48	5	1,723	27,811	62.0	21	4,394	392.1	2
Clearwater	LDS	2	86	1,656	51.9	48	232	370.7	28	7	1,275	26,044	49.0	45	3,864	330.0	30
Cook	Arr	1	47	1,119	42.0	63	157	299.4	49	2	191	3,586	53.3	37	535	357.0	17
Cottonwood	MNR	3	173	2,495	69.3	19	491	352.3	33	8	1,494	24,388	61.3	23	4,907	304.5	39
Crow Wing	Cen	3	286	11,907	24.0	84	1,569	182.3	84	5	998	32,284	30.9	85	4,188	238.3	85
Dakota	Met	8	1,272	41,956	30.3	79	5,534	229.9	77	7	13,859	292,575	47.4	48	46,549	297.7	43
Dodge	SE	2	106	2,576	41.1	65	413	256.7	69	7	2,616	55,786	46.9	49	9,467	276.3	67
Douglas	LDS	4	310	7,236	42.8	61	1,175	263.8	61	7	1,977	47,820	41.3	70	7,387	267.6	73
Faribault	MNR	3	225	3,152	71.4	18	587	383.3	25	5	1,338	24,399	54.8	33	4,620	289.6	54
Fillmore	SE	6	324	4,080	79.4	14	803	403.5	19	5	1,855	40,072	46.3	50	6,947	267.0	74
Freeborn	SE	3	356	6,319	56.3	36	1,105	322.2	45	6	1,373	26,972	50.9	42	5,027	273.1	70
Goodhue	SE	8	643	7,819	82.2	11	1,436	447.8	7	7	3,378	88,516	38.2	76	13,050	258.9	78
Grant	LDS	2	69	1,311	52.6	45	252	273.8	58	7	1,593	26,791	59.5	25	4,542	350.7	21
Hennepin	Met	54	7,437	134,659	55.2	41	22,844	325.6	43	8	13,861	312,282	44.4	59	47,784	290.1	53
Houston	SE	4	190	3,387	56.1	37	577	329.3	37	3	936	14,500	64.6	15	2,563	365.2	13
Hubbard	LDS	1	68	4,350	15.6	87	459	148.1	88	6	1,076	26,939	39.9	71	3,542	303.8	40
Isanti	Cen	2	256	4,946	51.8	50	698	366.8	29	7	1,871	65,116	28.7	86	7,613	245.8	82
Itasca	Arr	4	300	8,649	34.7	73	1,212	247.5	72	6	2,382	59,954	39.7	75	8,942	266.4	75
Jackson	MNR	2	105	2,019	52.0	47	403	260.5	63	6	932	16,292	57.2	27	3,265	285.5	58
Kanabec	Cen	1	77	2,702	28.5	80	298	258.4	67	6	1,059	28,006	37.8	77	3,625	292.1	48
Kandiyohi	MNR	5	440	6,968	63.1	26	1,266	347.6	34	7	1,797	39,371	45.6	54	6,439	279.1	63
Kittson	LDS	2	114	1,015	112.3	1	197	578.7	2	3	327	5,124	63.8	17	844	387.4	3
Koochiching	Arr	3	153	2,570	59.5	31	364	420.3	15	5	2,196	50,068	43.9	62	7,948	276.3	68
Lac Qui Parle	MNR	2	136	1,686	80.7	13	354	384.2	24	5	712	9,355	76.1	3	1,904	373.9	7
Lake	Arr	1	144	2,467	58.4	33	378	381.0	26	3	1,645	35,633	46.2	51	5,853	281.1	62
Lake of the Woods	LDS	1	44	810	54.3	43	111	396.4	21	4	595	11,654	51.1	41	1,765	337.1	28
LeSueur	MNR	3	170	3,975	42.8	62	522	325.7	42	7	1,750	39,889	43.9	61	6,115	286.2	57
Lincoln	MNR	3	121	1,432	84.5	10	296	408.8	18	5	809	10,867	74.4	5	2,208	366.4	12
Lyon	MNR	4	237	3,557	66.6	23	717	330.5	36	6	1,049	14,016	74.8	4	2,851	367.9	10
Mahnomen	LDS	1	48	841	57.1	35	112	428.6	13	5	1,001	14,923	67.1	13	2,337	428.3	1
Marshall	LDS	1	60	1,827	32.8	74	300	200.0	81	6	1,065	18,534	57.5	26	3,153	337.8	27
Martin	MNR	4	221	4,321	51.1	51	931	237.4	74	6	1,227	21,818	56.2	29	4,264	287.8	56
McLeod	MNR	3	300	5,754	52.1	46	1,022	293.5	52	6	1,631	35,857	45.5	56	5,413	301.3	42
Meeker	MNR	3	204	3,938	51.8	49	626	325.9	41	6	2,142	51,095	41.9	68	7,811	274.2	69
Mille Lacs	Cen	3	274	4,251	64.5	25	665	412.0	16	8	2,064	46,023	44.8	57	6,506	317.2	33
Morrison	Cen	3	208	5,430	38.3	70	849	245.0	73	7	1,881	55,507	33.9	81	7,859	239.3	84

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County	Region	#facs	beds	pop65+	bpt65+	bpt65+ rank	pop85+	bpt85+	bpt85+ rank	Contiguous Counties					
										counties	beds	pop65+	bpt65+ rank	pop85+	bpt85+ rank
Mower	SE	5	307	6,697	45.8	58	1,439	213.3	79	6	1,924	43,882	43.8 63	7,639	251.9 80
Murray	MNR	2	117	1,952	59.9	30	346	338.2	35	9	1,527	21,691	70.4 11	4,393	347.6 23
Nicollet	MNR	2	165	4,012	41.1	66	637	259.0	66	6	1,428	26,153	54.6 34	4,607	310.0 37
Nobles	MNR	4	189	3,388	55.8	39	690	273.9	57	6	929	13,553	68.5 12	2,737	339.4 26
Norman	LDS	3	151	1,477	102.2	3	295	511.9	3	5	1,277	20,392	62.6 18	3,302	386.7 4
Olmsted	SE	6	612	18,875	32.4	76	2,945	207.8	80	7	2,567	50,870	50.5 43	8,812	291.3 49
Otter Tail	LDS	8	755	12,224	61.8	27	1,960	385.2	23	8	2,332	42,191	55.3 32	6,628	351.8 20
Pennington	LDS	2	112	2,256	49.6	53	420	266.7	60	6	914	17,615	51.9 38	2,933	311.6 35
Pine	Cen	2	106	4,934	21.5	85	540	196.3	82	6	1,049	29,083	36.1 80	3,766	278.5 65
Pipestone	MNR	2	150	1,893	79.2	15	415	361.4	30	6	1,009	14,028	71.9 10	2,856	353.3 18
Polk	LDS	6	381	5,162	73.8	17	946	402.7	20	7	868	13,941	62.3 20	2,397	362.1 15
Pope	LDS	3	160	2,337	68.5	21	407	393.1	22	8	1,777	44,500	39.9 72	7,098	250.4 81
Ramsey	Met	28	3,108	62,743	49.5	55	10,807	287.6	54	5	12,992	299,837	43.3 67	46,022	282.3 61
Red Lake	LDS	1	30	722	41.6	64	92	326.1	40	3	523	8,140	64.3 16	1,458	358.7 16
Redwood	MNR	6	240	3,149	76.2	16	643	373.3	27	7	1,534	21,164	72.5 7	4,223	363.2 14
Renville	MNR	5	261	3,031	86.1	9	593	440.1	11	10	2,413	38,683	62.4 19	7,085	340.6 25
Rice	SE	6	373	8,165	45.7	59	1,195	312.1	47	8	3,315	83,375	39.8 74	11,939	277.7 66
Rock	MNR	2	195	1,806	108.0	2	392	497.4	4	4	651	9,039	72.0 9	1,843	353.2 19
Roseau	LDS	2	153	2,282	67.0	22	347	440.9	10	5	616	11,926	51.7 39	1,898	324.6 31
Saint Louis	Arr	19	1,454	32,047	45.4	60	5,318	273.4	59	6	2,443	55,559	44.0 60	8,569	285.1 59
Scott	Met	4	372	10,656	34.9	72	1,356	274.3	56	7	10,007	209,925	47.7 47	33,004	303.2 41
Sherburne	Cen	3	419	7,706	54.4	42	1,019	411.2	17	7	2,823	86,792	32.5 83	11,063	255.2 79
Sibley	MNR	3	134	2,474	54.2	44	408	328.4	38	7	1,651	37,942	43.5 65	5,683	290.5 52
Stearns	Cen	7	454	18,784	24.2	83	2,685	169.1	85	10	3,235	73,956	43.7 64	11,123	290.8 50
Steele	SE	3	219	5,335	41.0	67	934	234.5	75	7	2,164	39,804	54.4 35	7,071	306.0 38
Stevens	LDS	1	88	1,574	55.9	38	348	252.9	70	7	947	16,628	57.0 28	3,051	310.4 36
Swift	MNR	2	115	1,936	59.4	32	405	284.0	55	7	1,216	18,201	66.8 14	3,491	348.3 22
Todd	Cen	2	141	4,354	32.4	77	560	251.8	71	8	2,370	59,519	39.8 73	8,792	269.6 72
Traverse	LDS	2	91	911	99.9	5	210	433.3	12	5	482	6,317	76.3 2	1,254	384.4 5
Wabasha	SE	3	153	3,790	40.4	69	593	258.0	68	4	1,830	37,517	48.8 46	6,157	297.2 44
Wadena	Cen	3	240	2,956	81.2	12	542	442.8	9	6	1,641	35,869	45.7 53	4,887	335.8 29
Waseca	MNR	3	160	2,893	55.3	40	549	291.4	53	7	1,879	37,553	50.0 44	6,340	296.4 45
Washington	Met	6	654	26,577	24.6	82	3,377	193.7	83	5	5,773	171,853	33.6 82	24,111	239.4 83
Watonwan	MNR	2	127	2,117	60.0	29	404	314.4	46	6	1,324	23,613	56.1 31	4,676	283.1 60
Wilkin	LDS	1	120	1,198	100.2	4	190	631.6	1	5	1,397	22,769	61.4 22	3,809	366.8 11
Winona	SE	5	422	7,033	60.0	28	1,183	356.7	31	5	1,701	37,165	45.8 52	6,101	278.8 64
Wright	Cen	7	483	12,620	38.3	71	1,619	298.3	50	8	10,067	225,403	44.7 58	34,420	292.5 46
Yellow Medicine	MNR	3	184	2,033	90.5	7	434	424.0	14	7	1,342	17,265	77.7 1	3,494	384.1 6
Minnesota			**32,614**	**701,768**	**46.5**		**110,614**	**294.8**							

NOTES

Regions: Arr = Arrowhead, Cen = Central MN, LDS = Land of the Dancing Sky, Met = Metropolitan, MNR = Minnesota River, SE = Southeastern MN

Other abbreviations: facs = facilities, pop = population, bpt = beds per thousand, 65+ = people aged 65 and over, 85+ = people aged 85 and over

Minnesota Department of Human Services
September 2013