# 2015 Long-Term Services and Supports: Nursing Facilities 

## Statewide Summary Report

 Department of Human Services Continuing Care for Older Adults Administration January 2016Prepared by:
Robert Held, Teresa Lewis, Gary M. Johnson and Gary C. Johnson
Nursing Facility Rates and Policy Division

Minnesota Department of Human Services

## Status of Long Term Supports and Services Part VIII. NURSING HOMES

Central to 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 facilities, in addition to industry size, are of interest, namely quality, cost, and the financial status of the industry.

## 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 facilities 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 facility 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. As a purchaser, spending hundreds of millions of dollars of state funds each year for nursing facility care, DHS believes that it has an obligation to nursing facility 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, stakeholders and other experts 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, and it can be aggregated.
- It is feasible to implement the measure, meaning the data is available, preferably electronically or can be acquired economically.
- It doesn't encourage providers to take actions that lead to an 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 (http://nhreportcard.dhs.mn.gov/). 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 including five-star ratings for all seven measures for all listed facilities, and it sorts the list according to the scores of those facilities with emphasis placed on the measures prioritized by the user. The user can then select a facility from the list and see more detail on its quality measure scores.

Other key features of the Report Card include side-by-side facility displays to allow comparisons of quality; over two years of performance history shown for each facility; 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 (http://www.informedpatientinstitute.org/), 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 didn't 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.


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. Upcoming changes include the addition of measures of hospitalization, community discharge, and family satisfaction.

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 nine 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. One domain declined slightly, while two others declined significantly: individuality, which dropped as residents felt staff were less interested in their lives; and relationships, which dropped because residents reported staff were less likely to just visit or to be their friend.

Exhibit 2.


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, in which DHS co-sponsors a quality of life-themed fellowship, and shares provider innovations via annual conference and by facilitating provider connections, as well as the Quality Improvement Incentive Payment Program, both of which are discussed further below. In 2015, DHS also pilot-tested a new mailed satisfaction survey for short-stay residents, to better understand and help facilities improve those experiences.

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 not affected by the MDS revision. Scores on 11 of 15 indicators improved during this time, with inappropriate use of antipsychotic drugs and ADL improvement the best areas of positive change, and bowel continence an area for concern.

Exhibit 3.


Exhibit 4 shows change since 2011 for these plus 11 that were affected by or newly created after the MDS revision. Scores on 19 of 26 measures have improved, with particular positive change in the areas of bladder incontinence care and inappropriate use of antipsychotic drugs. However, seven have worsened during this time, especially pressure ulcer and bowel continence care.

Exhibit 4.


The MDH inspection measure is shown in Exhibit 5. Compared to when DHS and MDH began running the measure in 2007, eight percent more facilities are earning five stars, meaning that

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they have good results on their current and prior inspection surveys and on their one-year complaint record. This almost ties the statewide all-time best record in 2010.

Exhibit 5.


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 20 and $23 \%$ since 2004, to over five hours per resident day.

Exhibit 6.


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.



The last staffing related measure presents the proportion of temporary nurse staffing agency hours to permanent staff. In 2014, $75 \%$ 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. This measure declined to a low of $1 \%$ in 2010, but it has since increased almost to the 2006 peak of $3 \%$.

Exhibit 8.


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 $49 \%$ in 2014-15, possibly in response to financial incentives, changing consumer preferences, competition with assisted living settings, and declining demand for nursing facility services.

Exhibit 9.


In addition to trends, it is useful to track the range of scores on report card measures. Exhibit 10 includes this information for 2014.

Exhibit 10.

| MN Nursing Home Report Card Quality Measure Scores, 2014 | Minimum | Average | Maximum |
| :---: | :---: | :---: | :---: |
| Resident Quality of Life Ratings |  |  |  |
| Overall Score (0-100\% Positive Possible) | 71\% | 83\% | 88\% |
| Comfort Domain | 70\% | 81\% | 87\% |
| Functional Competence Domain | 71\% | 88\% | 95\% |
| Privacy Domain | 77\% | 90\% | 96\% |
| Dignity Domain | 84\% | 96\% | 99\% |
| Meaningful Activity Domain | 52\% | 72\% | 82\% |
| Food Enjoyment Domain | 64\% | 85\% | 95\% |
| Autonomy Domain | 78\% | 86\% | 92\% |
| Individuality Domain | 65\% | 83\% | 92\% |
| Security Domain | 74\% | 89\% | 94\% |
| Relationships Domain | 69\% | 81\% | 88\% |
| Satisfaction Domain | 60\% | 83\% | 93\% |
| Mood Domain | 54\% | 72\% | 82\% |
| MN Risk-Adjusted Clinical Quality Indicators |  |  |  |
| Overall Score (0-100 Points Possible) | 29.29 | 62.23 | 91.86 |
| For the Quality Indicators below, a lower percentage is better. |  |  |  |
| Worsening/Serious Resident Behavior Problems (LS) | 0\% | 13\% | 44\% |
| Depressive Symptoms (LS) | 0\% | 2\% | 26\% |
| Physical Restraints (LS) | 0\% | 1\% | 15\% |
| Worsening/Serious Bowel Incontinence (LS) | 1\% | 28\% | 52\% |
| Worsening/Serious Bladder Incontinence (LS) | 3\% | 27\% | 54\% |
| Bladder Incontinence w/o a Toileting Plan (LS) | 2\% | 75\% | 100\% |
| Bowel Incontinence w/o a Toileting Plan (LS) | 6\% | 85\% | 100\% |
| Indwelling Catheters (LS) | 0\% | 3\% | 17\% |
| Urinary Tract Infections (LS) | 0\% | 4\% | 18\% |
| Infections (LS) | 0\% | 3\% | 21\% |
| Falls with Injury (LS) | 0\% | 4\% | 21\% |
| Unexplained Weight Loss (LS) | 0\% | 5\% | 16\% |
| New or Worsening Pressure Sores (SS) | 2\% | 19\% | 45\% |
| Pressure Sores in High Risk Residents (LS) | 0\% | 4\% | 11\% |
| Antipsychotics w/o a Psychosis Dx (LS) | 0\% | 8\% | 34\% |
| Worsening/Serious Functional Dependence (LS) | 0\% | 16\% | 44\% |
| Worsening/Serious Mobility Dependence (LS) | 0\% | 25\% | 56\% |
| Worsening/Serious Range of Motion (LS) | 0\% | 12\% | 42\% |
| Moderate/Severe Pain (SS) | 1\% | 25\% | 53\% |
| Moderate/Severe Pain (LS) | 0\% | 16\% | 39\% |
| For the Quality Indicators below, a higher percentage is better. |  |  |  |
| Improved/Maintained Bowel Continence (LS) | 10\% | 52\% | 98\% |
| Improved/Maintained Bladder Continence (LS) | 6\% | 28\% | 73\% |


| MN Nursing Home Report Card Quality Measure Scores, 2014 | Minimum | Average | Maximum |
| :--- | ---: | ---: | ---: |
| Cured Pressure Sores (LS) | $17 \%$ | $41 \%$ | $72 \%$ |
| Improved/Maintained Ability to Function (LS) | $12 \%$ | $32 \%$ | $91 \%$ |
| Walking as Well or Better than on Previous Assessment (LS) | $41 \%$ | $72 \%$ | $100 \%$ |
| $\quad$ Decrease in Pain when on Medication at Admit (SS) | $18 \%$ | $50 \%$ | $80 \%$ |
| Direct Care Staff Adjusted Hours per Resident Day |  |  |  |
| Hospital Based Facilities | 3.74 | 5.79 | 14.57 |
| Board-and-Care Facilities | 4.01 | 5.13 | 5.82 |
| Standard Facilities | 4.14 | 5.44 | 8.39 |
| Direct Care Staff Retention | $36 \%$ | $69 \%$ | $100 \%$ |
| Use of Temporary/Pool Staff | $0 \%$ | $1 \%$ | $18 \%$ |
| Proportion of Single Bed Rooms | $0 \%$ | $50 \%$ | $100 \%$ |
| MN Department of Health Survey Findings | 1 Star | 4.5 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 $5 \%$. 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, two-thirds of nursing facilities statewide have participated in the program, representing 186 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

In 2013 DHS initiated the Quality Improvement Incentive Payment (QIIP) program. QIIP is a voluntary non-competitive program that recognizes and provides financial reward for meaningful levels of provider improvement in quality of care or quality of life, and allows providers to determine the strategies they will use to achieve their goals. Any provider that selects an outcome of focus for the upcoming year can participate. Facilities may earn up to $\$ 3.50$ per resident day for one year based on the proportion of their improvement. In the first year of the program, three-fourths of participating facilities fully or partially met their improvement targets, while one-fourth did not make improvement and will not receive a rate increase. Antipsychotic reduction, pain control, meaningful activities and food enjoyment were the first-year's most popular outcome selections. DHS is conducting a more-complete analysis of the program.

## Evaluation and Dissemination of Quality Improvement Efforts

Dr. Greg Arling, Indiana University has completed 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

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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.


In other analyses, the research team demonstrated that participating facilities improved in multiple clinical areas beyond their chosen topics versus no comparable improvement for nonparticipating facilities; they also showed that completed projects were sustained for years following the end of DHS funding.

DHS and the research team have shared successful interventions among nursing facility providers through conference presentations and publications, and a social network site dedicated to PIPP and other nursing facility pay for performance strategies, and by providing informal peer-to-peer networking assistance.

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 2014, \$759.0 million was spent by the Medicaid Program for nursing home care in Minnesota, of which the state share was $\$ 366.9$ million. For the year ending September 30, 2014, nursing facilities reported total revenues of $\$ 2.050$ billion as shown in Exhibit 12 with an estimate of revenues for non-MA certified nursing homes of $\$ 69.8$ million, yielding a total estimated revenue of $\$ 2.12$ billion.

Exhibit 12.

| Estimated Total Nursing Home Revenues in Minnesota (2014) by Source of Payment |  |
| :--- | ---: |
| Amount <br> (\$s in millions) |  |
| MA payments, including recipient resources and managed <br> care | $\$ 973$ |
| Private pay | 491 |
| Medicare Part A and Part B | 320 |
| Other | 266 |
| Estimated revenues of non-MA nursing homes | 70 |
| Estimated Total Nursing Home Revenues | $\$ 2,120$ |

Exhibit 13 shows total yearly MA spending on nursing homes in Minnesota from 1995 through 2014. The level of spending has been remarkably stable over this period, fluctuating between a low of $\$ 759.0$ million in 2014 to a high of $\$ 913$ million in 2004.

Exhibit 13.


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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 $5,179,118$ in 2014, a reduction of $64 \%$. At the same time, the average daily payment rate (MA payment not counting recipient resources) has increased from $\$ 76.25 /$ day in 1995 to $\$ 146.55 /$ day in 2014, an increase of $92 \%$. Adjusted by removing amounts associated with paying the surcharge, average daily payment has increased from \$74.52 in 1995 to $\$ 137.69$ in 2014, an increase of $85 \%$. As seen in Exhibit 14, the change in average daily payment over this 19 year period was $\$ 21.78$ greater than straight inflation which was $56 \%$. 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.


Exhibit 15.


## 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 analyzes this data to better understand the relationship between actual costs, revenues, payment rates, gains and losses, various facility characteristics and quality. In 2015, the Minnesota legislature enacted major reforms to the nursing facility purchasing system called Value Based Reimbursement (VBR). In VBR, rate setting changed, to a cost based model that uses quality scores to adjust care related rate limits and a pricing model for other operating costs. The new system is estimated to increase MA spending beginning January 1, 2016. This section of the report, the second public disclosure of the findings of this analysis, provides a baseline for analyzing the financial effect of the new payment system.

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. Since many reported costs will now have a direct effect on payment rates, a much more robust audit process will be required.

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 seven report years ending September 30, 2008, through September 30, 2014. 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. Because they do not file cost reports, they are not included in this analysis.

## ANALYSIS OF ALL FACILITIES

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

## EXHIBIT 16

## COMPARISON OF 2008 - 2014 FINANCIAL PERFORMANCE ALL NURSING FACILITIES

| ALL FACILITIES | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL NURSING | 377 | 376 | 378 | 376 | 372 | 371 | 368 |
| FACILITIES |  |  |  |  |  |  |  |
| 1 AVERAGE DAILY | 81 | 79 | 77 | 75 | 74 | 72 | 71 |
| CENSUS |  |  |  |  |  |  |  |
| 2 PERCENT WITH POSITIVE FINANCIAL | 55\% | 64\% | 58\% | 62\% | 45\% | 49\% | 48\% |
| PERFORMANCE |  |  |  |  |  |  |  |
| 3 ALL FACILITIES GAIN/(LOSS) (in millions) | (\$32.8) | \$13.0 | (\$6.8) | \$7.7 | (\$37.6) | (\$55.1) | (\$45.3) |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE | -1.62\% | 0.62\% | -0.33\% | 0.37\% | -1.85\% | -2.74\% | -2.21\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - WEIGHTED | (\$2.95) | \$1.20 | (\$0.65) | \$0.75 | (\$3.75) | (\$5.65) | (\$4.74) |
| AVERAGE |  |  |  |  |  |  |  |
| 6 75th PERCENTILE |  |  | \$10.06 | \$13.52 | \$8.88 | \$7.57 | \$8.76 |
| 7 MEDIAN |  |  | \$3.03 | \$4.35 | (\$1.11) | (\$0.42) | (\$1.20) |
| 8 25th PERCENTILE |  |  | (\$7.15) | (\$8.53) | (\$12.24) | (\$14.34) | (\$14.65) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY | (\$30.70) | (\$33.09) | (\$31.03) | (\$36.01) | (\$37.89) | (\$39.79) | (\$40.65) |

## 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 Center Care, an annual study conducted for the American Health Care Association by ELJAY, LLC.
- During the seven years analyzed, the proportion of Minnesota nursing facilities that have shown financial gains has ranged between $45 \%$ and $64 \%$.


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- In the most recent year analyzed, 2014, total net gains of all nursing facilities, the sum of all gains reduced by the sum of all losses, was a negative $\$ 45.3$ million, $2.21 \%$ of revenues or $\$ 4.74$ per resident day.
- Industry-wide financial performance, over the seven year period analyzed, was somewhat variable. The range of total net gains/losses of all facilities was from a loss of \$55.1 million ( $2.74 \%$ of revenues, or $\$ 5.65$ per resident day) in 2013, 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, \$36.01 in 2011, \$37.89 in 2012, \$39.79 in 2013 and \$40.65 in 2014.
- 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 2014, while the average net loss was $\$ 4.74$ per resident day, the average MA rate was $\$ 40.65$ less than average cost. In other words, while revenues were $2.21 \%$ less than costs, the average rate was $22.78 \%$ less than the average cost. How have nursing facilities been able to have such a big difference between costs and rates and still have a much smaller difference between revenues and costs? Several factors account for this difference:
o 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 bed room when medically necessary.
- Higher charges are allowed for both MA and private pay during the first 30 days of resident stays
o While Medicare rates are substantially higher than MA rates, their costs are also higher, bringing up the overall average cost.
o Many facilities that are owned by cities, counties and hospital districts receive subsidies from their owners.
o Many not-for-profit facilities are able to supplement their resources through charitable gifts.
o 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.
o 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 2014
2. Boarding Care Homes -11 facilities
3. Freestanding Facilities - 306 facilities in 2008 and 304 in 2014

Exhibit 17 summarizes the financial status of nursing facilities in Minnesota, in 2014, broken out by type of facility.

EXHIBIT 17
COMPARISON OF 2014 FINANCIAL PERFORMANCE ALL NURSING FACILITIES BY FACILITY TYPE

|  | Hospital <br> Attached <br> Facilities | Boarding Care <br> Homes | Freestanding <br> Facilities |
| :--- | :---: | :---: | :---: |
| Number of facilities | 53 | 11 | 304 |
| Percent with positive financial <br> performance | $25 \%$ | $64 \%$ | $51 \%$ |
| Total net gain/(loss) | $\mathbf{( \$ 4 8 , 0 7 3 , 5 7 9 )}$ | $\$ 1,244,756$ | $\$ 1,500,350$ |
| Average facility net gain/(loss) | $(\$ 907,049)$ | $\$ 113,160$ | $\$ 4,935$ |
| Net gain/(loss) as a percent of <br> revenues | $(20.18 \%)$ | $3.04 \%$ | $0.08 \%$ |
| Net gain/(loss) per resident day, <br> weighted average | $\mathbf{( \$ 4 2 . 8 7 )}$ | $\$ 4.27$ | $\$ 0.18$ |
| Average MA rate minus average cost <br> per resident day | $\mathbf{( \$ 6 2 . 0 8 )}$ | $\mathbf{( \$ 6 . 9 8 )}$ | $\mathbf{( \$ 3 8 . 7 0 )}$ |

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 freestanding nursing facilities do 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 $18 \%$ higher than others ( $\$ 76.07$ per resident day vs. $\$ 64.34$.)
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 $13 \%$ higher ( $\$ 25.67$ per compensated hour vs. $\$ 22.72$.)

More detail on this breakout is provided Exhibit 18.

## EXHIBIT 18 - COMPARISON OF 2008 - 2014 FINANCIAL PERFORMANCE ALL NURSING FACILITIES - BY FACILITY TYPE

| FACILITY TYPE BREAKOUT | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HOSPITAL ATTACHED FACILITIES | 60 | 58 | 57 | 53 | 53 | 53 | 53 |
| 1 AVERAGE DAILY CENSUS | 67 | 64 | 64 | 63 | 62 | 60 | 58 |
| 2 PERCENT WITH POSITIVE FINANCIAL | 13\% | 12\% | 16\% | 11\% | 17\% | 23\% | 25\% |
| PERFORMANCE |  |  |  |  |  |  |  |
| 3 TOTAL NET GAIN/(LOSS) (in millions) | (\$61.8) | (\$53.8) | (\$52.7) | (\$57.6) | (\$47.6) | (\$52.3) | (\$48.1) |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE | -25.04\% | -21.82\% | -21.54\% | -25.21\% | -19.79\% | -22.19\% | -20.18\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - | (\$42.18) | (39.45) | (\$39.61) | (\$47.17) | (\$39.75) | (\$45.28) | (\$42.87) |
| WEIGHTED AVERAGE |  |  |  |  |  |  |  |
| 6 75th PERCENTILE |  |  | (\$7.60) | (\$22.76) | (\$4.08) | (\$7.28) | (\$3.75) |
| 7 MEDIAN |  |  | (\$39.26) | (\$41.21) | (\$33.51) | (\$41.82) | (\$43.56) |
| 8 25th PERCENTILE |  |  | (\$60.52) | (\$82.11) | (\$58.56) | (\$76.74) | (\$75.33) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY | (\$63.14) | (\$56.71) | (\$59.08) | (\$67.34) | (\$63.62) | (\$65.61) | (\$62.08) |
| BOARDING CARE FACILITIES | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1 AVERAGE DAILY CENSUS | 77 | 77 | 76 | 75 | 75 | 73 | 73 |
| 2 PERCENT WITH POSITIVE FINANCIAL | 45\% | 91\% | 100\% | 73\% | 73\% | 82\% | 64\% |
| PERFORMANCE |  |  |  |  |  |  |  |
| 3 TOTAL NET GAIN/(LOSS) (in millions) | \$1.1 | \$2.6 | \$2.2 | \$1.0 | \$1.4 | \$1.3 | \$1.2 |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE | 2.90\% | 6.44\% | 5.38\% | 2.48\% | 3.60\% | 3.28\% | 3.04\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - | \$3.66 | \$8.46 | \$7.07 | \$3.25 | \$4.81 | \$4.43 | \$4.27 |
| WEIGHTED AVERAGE |  |  |  |  |  |  |  |
| 6 75th PERCENTILE |  |  | \$9.55 | \$7.45 | \$8.32 | \$9.06 | \$7.61 |
| 7 MEDIAN |  |  | \$4.74 | \$2.00 | \$2.70 | \$4.69 | \$4.67 |
| 8 25th PERCENTILE |  |  | \$2.39 | (\$0.81) | (\$0.92) | \$0.42 | (\$4.38) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY | (\$2.94) | \$2.00 | (\$0.72) | (\$3.31) | (\$6.26) | (\$5.09) | (\$6.98) |
| FREESTANDING FACILITIES | 306 | 307 | 310 | 312 | 308 | 307 | 304 |
| 1 AVERAGE DAILY CENSUS | 84 | 82 | 79 | 77 | 76 | 74 | 73 |
| 2 PERCENT WITH POSITIVE FINANCIAL | 64\% | 73\% | 64\% | 71\% | 49\% | 53\% | 51\% |
| PERFORMANCE |  |  |  |  |  |  |  |
| 3 TOTAL NET GAIN/(LOSS) (in millions) | \$27.8 | \$64.2 | \$43.7 | \$64.4 | \$8.5 | (\$4.1) | \$1.5 |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE | 1.60\% | 3.54\% | 2.45\% | 3.54\% | 0.49\% | -0.23\% | 0.08\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - | \$2.98 | \$7.00 | \$4.88 | \$7.37 | \$1.00 | (\$0.49) | \$0.18 |
| WEIGHTED AVERAGE |  |  |  |  |  |  |  |
| 6 75th PERCENTILE |  |  | \$15.23 | \$20.43 | \$9.54 | \$8.43 | \$10.40 |
| 7 MEDIAN |  |  | \$6.61 | \$9.19 | \$0.34 | \$0.90 | \$0.54 |
| 8 25th PERCENTILE |  |  | (\$0.83) | \$1.80 | (\$7.84) | (\$9.35) | (\$9.79) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY | (\$25.34) | (\$23.83) | (\$27.67) | (\$32.48) | (\$34.46) | (\$37.19) | (\$38.70) |

## Status of Long-Term Services and Supports

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 were 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. These peer groupings were repealed in the 2015 reform. It will be interesting to see if the disparities are reduced as VBR is implemented.


## Exhibit 19

1. 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);
2. 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); and
3. 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.

EXHIBIT 20
COMPARISON OF 2014 FINANCIAL PERFORMANCE FREESTANDING FACILITIES AND BOARDING CARE HOMES COMBINED BY GEOGRAPHIC PEER GROUP

|  | Peer Group 1 <br> Metro | Peer Group 2 <br> Rural | Peer Group 3 <br> Deep Rural |
| :--- | :---: | :---: | :---: |
| Number of facilities | 175 | 76 | 64 |
| Percent with positive financial <br> performance | $57 \%$ | $47 \%$ | $41 \%$ |
| Total net gain/(loss) | $\$ 12,137,597$ | $(\$ 4,311,111)$ | $(\$ 5,081,380)$ |
| Average facility net gain/(loss) | $\$ 69,358$ | $(\$ 56,725)$ | $(\$ 79,397)$ |
| Net gain/(loss) as a percent of <br> revenues | $0.96 \%$ | $(1.36 \%)$ | $(2.22 \%)$ |
| Net gain /(loss) per resident day, <br> weighted average | $\$ 2.15$ | $\mathbf{( \$ 2 . 7 2 )}$ | $\mathbf{( \$ 4 . 1 7 )}$ |
| Average MA rate minus average cost <br> per resident day | $\mathbf{( \$ 4 0 . 8 6 )}$ | $\mathbf{( \$ 3 2 . 6 1}$ | $\mathbf{( \$ 3 2 . 7 3 )}$ |

## Observations:

- Metro area (Peer Group 1) nursing facility financial performance is stronger than nonmetro (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 2014:
o For MA:
- Peer group 1-\$188.59
- Peer group 2 - $\$ 176.43$
- Peer group 3 - \$169.01
o For private pay:
- Peer group 1-\$209.25
- Peer group 2 - \$178.62
- Peer group 3 - \$174.19
o For Medicare:
- Peer group 1 - \$374.54
- Peer group 2 - \$318.53
- Peer group 3 - \$329.63
- Average wage rates for RN, LPN and CNA workers are higher in Geographic group 3 than in groups 1 and 2 for 2014, (Geographic group 3 is the Metro nursing facilities):
o Geographic group 1 - RN \$25.97: LPN \$18.60; CNA \$12.50
o Geographic group 2 - RN \$26.31; LPN \$19.34; CNA \$12.95
o Geographic group 3 - RN \$28.19; LPN \$22.12; CNA $\$ 14.40$
- 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 for 2014:
o Peer group 1-\$222.52
o Peer group 2-\$202.79
o Peer group 3-\$191.47
More detail on this breakout is provided in Exhibit 21.


## EXHIBIT 21

## COMPARISON OF 2008 - 2014 FINANCIAL PERFORMANCE FREESTANDING FACILITIES AND BOARDING CARE HOMES COMBINED BY GEOGRAPHIC PEER GROUP

| PEER GROUP BREAKOUT - FREESTANDING FACILITIES | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PEER GROUP ONE - METRO | N/A | 174 | 176 | 175 | 174 | 174 | 175 |
| 1 AVERAGE DAILY CENSUS |  | 99 | 96 | 94 | 93 | 90 | 88 |
| 2 PERCENT WITH POSITIVE FINANCIAL PERFORMANCE |  | 78\% | 74\% | 79\% | 59\% | 56\% | 57\% |
| 3 TOTAL NET GAIN/(LOSS) (in millions) |  | \$50.6 | \$42.0 | \$62.4 | \$16.3 | \$2.6 | \$12.1 |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE |  | 3.92\% | 3.29\% | 4.80\% | 1.30\% | 0.21\% | 0.96\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - WEIGHTED AVERAGE |  | 8.07 | \$6.81 | \$10.43 | \$2.76 | \$0.46 | \$2.15 |
| 6 75th PERCENTILE |  |  | \$15.15 | \$19.53 | \$12.15 | \$9.06 | \$7.61 |
| 7 MEDIAN |  |  | \$6.30 | \$8.94 | \$3.70 | \$4.69 | \$4.67 |
| 8 25th PERCENTILE |  |  | (\$0.21) | \$1.34 | (\$6.06) | \$0.42 | (\$4.38) |
| AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY |  | (\$24.84) | (\$28.79) | (\$33.76) | (\$36.82) | (\$40.01) | (\$40.86) |
| PEER GROUP TWO | N/A | 75 | 75 | 77 | 76 | 76 | 76 |
| 1 AVERAGE DAILY CENSUS |  | 64 | 62 | 59 | 57 | 57 | 57 |
| 2 PERCENT WITH POSITIVE FINANCIAL PERFORMANCE |  | 65\% | 53\% | 61\% | 53\% | 53\% | 47\% |
| 3 TOTAL NET GAIN/(LOSS) (in millions) |  | \$6.7 | \$0.3 | \$0.1 | \$0.7 | \$0.7 | (\$4.3) |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE |  | 2.12\% | 0.18\% | 0.02\% | 0.24\% | 0.24\% | -1.36\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - WEIGH |  | \$3.80 | \$0.33 | \$0.04 | \$0.45 | \$0.45 | (\$2.72) |
| 6 75th PERCENTILE |  |  | \$8.14 | \$9.85 | \$7.47 | \$7.47 | \$7.51 |
| 7 MEDIAN |  |  | \$1.36 | \$3.61 | \$1.01 | \$1.01 | (\$1.85) |
| 25th PERCENTILE |  |  | (\$5.65) | (\$9.58) | (\$7.82) | (\$7.82) | (\$12.40) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY |  | (\$22.26) | (\$25.95) | (\$30.65) | (\$29.30) | (\$29.30) | (\$32.61) |
| PEER GROUP THREE | N/A | 69 | 70 | 71 | 68 | 68 | 64 |
| 1 AVERAGE DAILY CENSUS |  | 58 | 55 | 53 | 52 | 52 | 52 |
| 2 PERCENT WITH POSITIVE FINANCIAL PERFOR | ANCE | 70\% | 57\% | 61\% | 49\% | 49\% | 41\% |
| 3 TOTAL NET GAIN/(LOSS) (in millions) |  | \$9.5 | \$3.3 | \$2.8 | (\$6.2) | (\$6.1) | (\$5.1) |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE |  | 3.81\% | 1.37\% | 1.15\% | -2.67\% | -2.64\% | -2.22\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - WEIGH AVERAGE |  | \$6.57 | \$2.36 | \$2.05 | (\$4.81) | (\$4.77) | (\$4.17) |
| 6 75th PERCENTILE |  |  | \$7.99 | \$9.83 | \$6.41 | \$6.41 | \$3.47 |
| 7 MEDIAN |  |  | \$1.63 | \$2.69 | (\$0.34) | (\$0.34) | (\$1.63) |
| 8 25th PERCENTILE |  |  | (\$4.63) | (\$6.86) | (\$16.10) | (\$16.10) | (\$12.03) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST P RESIDENT DAY |  | (\$18.10) | (\$21.70) | (\$25.90) | (\$31.00) | (\$30.96) | (\$32.73) |

## 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 wages. These findings were used to create three geographic groups (preceding those
discussed above) for rate-setting purposes which then had an ongoing effect on rates. Under Minnesota’s current payment system (prior to January 1, 2016), 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 $18^{\text {th }}$ statewide percentile or by $2.45 \%$, whichever was smaller (256B.441, Subd. 61).

Exhibit 22 shows statewide rates by both Rule 50 Geographic Groups and by rebasing peer 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 compared to Group 1 are smaller, particularly in Group 2 compared to Group 1. However, disparities between Groups 2 and 3 are greater when looking at peer groups. The 2000-2002 disparity increases had a large positive impact, while the 2011 increase is 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 qualitybased 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. 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.

The introduction of a new Value-based Reimbursement system on January 1, 2016 that considers costs and quality explicitly in rate calculation could have an impact on rate disparities. Preliminary analyses of VBR indicate that rural facilities will see larger percentage increases than metro facilities. DHS will analyze trends as they become available.

Exhibit 22
Total Nursing Facility Operating Rate Disparity between Geographic Groups (1999-2014)

| Rate <br> 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 | $\begin{gathered} 1 \text { as \% } \\ \text { of } 3 \\ \hline \end{gathered}$ | $\begin{gathered} 2 \text { as } \% \\ \text { of } 3 \\ \hline \end{gathered}$ | $\begin{gathered} 3 \text { as \% } \\ \text { of } 1 \\ \hline \end{gathered}$ | $\begin{gathered} 2 \text { as } \% \\ \text { of } 1 \\ \hline \end{gathered}$ |
| 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\% |
| 2013 | \$130 | \$131 | \$152 | \$147 | \$131 | \$129 | 85.6\% | 86.1\% | 87.4\% | 89.1\% |
| 2014 | \$132 | \$132 | \$153 | \$148 | \$133 | \$130 | 86.4\% | 86.5\% | 88.1\% | 90.3\% |

Total operating rate $=$ Total payment rate per resident day, less Property and Other components; 1999-2002 = Minnesota case-mix class "G"; 2003-2014 = 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 2014
2. Not-For-Profit Facilities - 190 facilities in both 2009 and 2014
3. Government Owned Facilities - 26 facilities in 2009 and 19 in 2014

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 2014 FINANCIAL PERFORMANCE FREESTANDING FACILITIES AND BOARDING CARE HOMES COMBINED BY FACILITY OWNERSHIP TYPE

|  | For Profit Facilities | Not-For-Profit <br> Facilities | Government <br> Owned Facilities |
| :--- | :---: | :---: | :---: |
| Number of facilities | 106 | 190 | 19 |
| Percent with positive <br> financial performance | $58 \%$ | $48 \%$ | $47 \%$ |
| Total net gain/(loss) | $\$ 3,652,851$ | $(\$ 679,895)$ | $(\$ 227,850)$ |
| Average facility net <br> gain/(loss) | $\$ 34,461$ | $(\$ 3,578)$ | $(\$ 11,992)$ |
| Net gain/(loss) as a percent <br> of revenues | $0.75 \%$ | $(0.05 \%)$ | $(0.30 \%)$ |
| Net gain /(loss) per resident <br> day, weighted average | $\$ 1.50$ | $(\$ 0.12)$ | $\mathbf{( \$ 0 . 6 3 )}$ |
| Average MA rate minus <br> average cost per resident <br> day | $\mathbf{( \$ 2 8 . 9 2 )}$ | $\mathbf{( \$ 4 2 . 5 6 )}$ | $\mathbf{( \$ 2 1 . 4 3 )}$ |

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, showed stronger performance in 2013 and 2014 as compared with 2010 and 2011. 2012 was 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 $\$ 8.44$ less than For Profit Facilities and $\$ 11.67$ less that Not For-Profit Facilities.

More detail on this breakout is provided in Exhibit 24.

EXHIBIT 24 FREESTANDING FACILITIES AND BOARDING CARE HOMES COMBINED BY FACILITY OWNERSHIP TYPE

| OWNERSHIP TYPE BREAKOUT - <br> FREESTANDING FACILITIES AND B\&C | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FOR PROFIT | N/A | 102 | 103 | 106 | 104 | 107 | 106 |
| 1 AVERAGE DAILY CENSUS |  | 74 | 69 | 66 | 65 | 64 | 63 |
| 2 PERCENT WITH POSITIVE FINANCIAL PERFORMANCE |  | 79\% | 65\% | 74\% | 56\% | 55\% | 58\% |
| 3 TOTAL NET GAIN/(LOSS) (in millions) |  | \$30.2 | \$17.2 | \$28.8 | \$4.7 | \$4.9 | \$3.7 |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE |  | 5.85\% | 3.58\% | 5.73\% | 0.98\% | 1.01\% | 0.75\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - |  | \$10.96 | \$6.68 | \$11.21 | \$1.91 | \$1.97 | \$1.50 |
| WEIGHTED AVERAGE |  |  |  |  |  |  |  |
| 6 75th PERCENTILE |  |  | \$13.94 | \$19.12 | \$9.81 | \$10.11 | \$10.59 |
| 7 MEDIAN |  |  | \$4.93 | \$9.03 | \$1.71 | \$1.14 | \$2.48 |
| 8 25th PERCENTILE |  |  | (\$2.30) | (\$1.36) | (\$10.18) | (\$12.42) | (\$8.68) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY |  | (\$14.65) | (\$20.69) | (\$20.18) | (\$27.19) | (\$26.77) | (\$28.92) |
| NOT FOR | N/A | 190 | 194 | 195 | 195 | 192 | 190 |
| PROFIT |  |  |  |  |  |  |  |
| 1 AVERAGE DAILY CENSUS |  | 89 | 88 | 85 | 81 | 82 | 81 |
| 2 PERCENT WITH POSITIVE FINANCIAL PERFORMANCE |  | 72\% | 69\% | 73\% | 54\% | 54\% | 48\% |
| 3 TOTAL NET GAIN/(LOSS) (in millions) |  | \$36.3 | \$32.6 | \$39.7 | (\$17.7) | (\$7.2) | (\$0.7) |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE |  | 2.93\% | 2.59\% | 3.11\% | -1.45\% | -0.60\% | -0.05\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - |  | \$5.87 | \$5.26 | \$6.57 | (\$3.06) | (\$1.27) | (\$0.12) |
| WEIGHTED AVERAGE |  |  |  |  |  |  |  |
| 6 75th PERCENTILE |  |  | \$11.28 | \$13.67 | \$7.57 | \$7.60 | \$8.82 |
| 7 MEDIAN |  |  | \$4.83 | \$5.83 | \$0.79 | \$0.82 | (\$0.93) |
| 8 25th PERCENTILE |  |  | (\$1.52) | (\$1.38) | (\$8.75) | (\$8.23) | (\$11.33) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY |  | (\$26.85) | (\$26.50) | (\$33.94) | (\$42.67) | (\$41.14) | (\$42.56) |
| GOVERNMENT | N/A | 26 | 24 | 22 | 19 | 19 | 19 |
| 1 AVERAGE DAILY CENSUS |  | 56 | 56 | 52 | 53 | 53 | 52 |
| 2 PERCENT WITH POSITIVE FINANCIAL PERFORMANCE |  | 62\% | 38\% | 36\% | 42\% | 42\% | 47\% |
| 3 TOTAL NET GAIN/(LOSS) (in millions) |  | \$0.3 | (\$4.0) | (\$3.2) | (\$0.5) | (\$0.5) | (\$0.2) |
| 4 NET GAIN/(LOSS) DIVIDED BY REVENUE |  | 0.30\% | -4.58\% | -4.08\% | -0.64\% | -0.64\% | -0.30\% |
| 5 NET GAIN/(LOSS) PER RESIDENT DAY - |  | \$0.55 | (\$8.20) | (\$7.68) | (\$1.28) | (\$1.28) | (\$0.63) |
| WEIGHTED AVERAGE |  |  |  |  |  |  |  |
| 6 75th PERCENTILE |  |  | \$2.39 | \$3.57 | \$5.98 | \$5.98 | \$14.74 |
| 7 MEDIAN |  |  | (\$2.01) | (\$9.09) | (\$1.51) | (\$1.51) | (\$1.48) |
| 8 25th PERCENTILE |  |  | (\$9.88) | (\$14.22) | (\$10.13) | (\$10.13) | (\$8.89) |
| 9 AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY |  | (\$8.86) | (\$27.69) | (\$33.10) | (\$25.13) | (\$25.13) | (\$21.43) |

## 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 2014 FINANCIAL PERFORMANCE FREESTANDING FACILITIES AND BOARDING CARE HOMES COMBINED BY FACILITY AFFILIATION

|  | AFFILIATION GROUP SIZE |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1 | $2-3$ | $4-7$ | $8+$ |
| Number of facilities | 132 | 27 | 43 | 113 |
| Percent with positive <br> financial performance | $55 \%$ | $52 \%$ | $44 \%$ | $50 \%$ |
| Total net gain/(loss) | $(\$ 1,038,940)$ | $\$ 927,371$ | $(\$ 295,044)$ | $\$ 3,151,719$ |
| Average facility net <br> gain/(loss) | $(7,871)$ | $\$ 34,347$ | $(\$ 6,861)$ | $\$ 27,891$ |
| Net gain/(loss) as a <br> ercent of revenues | $(0.14 \%)$ | $0.60 \%$ | $(0.11 \%)$ | $0.51 \%$ |
| Net gain /(loss) per <br> resident day, weighted <br> average | $\mathbf{( \$ 0 . 2 9 )}$ | $\$ 1.22$ | $\mathbf{( \$ 0 . 2 3 )}$ | $\$ 1.13$ |
| Average MA rate minus <br> average cost per resident <br> day | $\mathbf{( \$ 3 5 . 5 5 )}$ | $\mathbf{( \$ 3 5 . 8 7 )}$ | $\mathbf{( \$ 3 4 . 2 9 )}$ | $\mathbf{( \$ 4 3 . 5 5 )}$ |

## 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 2008-2014FINANCIAL PERFORMANCE FREESTANDING FACILITIES AND BOARDING CARE HOMES COMBINED BY FACILITY AFFILIATION

| AFFILIATION BREAKOUT - <br> FREESTANDING FACILITIES AND B\&C | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NOT <br> AFFILIATED | N/A | 116 | 115 | 117 | 131 | 131 | 132 |
|  |  |  |  |  |  |  |  |
| 1 AVERAGE DAILY |  | 79 | 77 | 74 | 73 | 73 | 75 |
| CENSUS |  |  |  |  |  |  |  |
| 2 PERCENT WITH POSITIVE FINANCIAL PERFORMANCE |  | 72\% | 70\% | 65\% | 56\% | 56\% | 55\% |
| 3 TOTAL NET GAIN/(LOSS) (in millions) |  | \$20.6 | \$12.6 | \$17.9 | (\$4.54) | (\$4.04) | (\$1.0) |


| AFFILIATION BREAKOUT FREESTANDING FACILITIES AND B\&C | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 3.28\% <br> \$6.17 <br> (\$21.80) | 2.08\% $\$ 3.92$ $\$ 10.42$ $\$ 4.55$ $(\$ 1.30)$ $(\$ 24.65)$ | $2.89 \%$ $\$ 5.63$ $\$ 13.68$ $\$ 4.51$ $(\$ 6.85)$ $(\$ 29.86)$ | $-0.66 \%$ <br> $(\$ 1.30)$ <br>  <br> $\$ 7.48$ <br> $\$ 1.61$ <br> $(\$ 8.01)$ <br> $(\$ 32.69)$ | $\begin{gathered} -0.58 \% \\ (\$ 1.15) \\ \\ \$ 7.84 \\ \$ 1.82 \\ (\$ 7.51) \\ (\$ 32.69) \end{gathered}$ | $-0.14 \%$ $(\$ 0.29)$ $\$ 9.86$ $\$ 1.18$ $(\$ 7.69)$ $(\$ 35.55)$ |
| ```GROUPS OF TWO OR THREE FACILITIES 1 AVERAGE DAILY CENSUS PERCENT WITH POSITIVE FINANCIAL PERFORMANCE TOTAL NET GAIN/(LOSS) (in millions) NET GAIN/(LOSS) DIVIDED BY REVENUE NET GAIN/(LOSS) PER RESIDENT DAY - WEIGHTED AVERAGE 75th PERCENTILE MEDIAN 25th PERCENTILE AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY``` | N/A | 28 <br> 100 <br> $75 \%$ <br>  <br> $\$ 2.5$ <br> $1.22 \%$ <br> $\$ 2.44$ <br>  <br>  <br>  <br> $\$ 35.34)$ |  <br> 31 <br> 92 <br>  <br> $71 \%$ <br>  <br> $\$ 3.9$ <br> $1.86 \%$ <br> $\$ 3.74$ <br>  <br> $\$ 9.51$ <br> $\$ 4.28$ <br> $(\$ 1.59)$ <br> $(\$ 37.02)$ |  <br> 31 <br> 90 <br>  <br> $68 \%$ <br>  <br> $\$ 3.5$ <br> $1.60 \%$ <br> $\$ 3.38$ <br>  <br> $\$ 8.46$ <br> $\$ 4.10$ <br> $(\$ 3.00)$ <br> $(\$ 45.31)$ | 26 90 $69 \%$ $(\$ 0.6)$ $-0.36 \%$ $(\$ 0.75)$ $\$ 9.10$ $\$ 1.62$ $(\$ 3.86)$ $(\$ 46.91)$ | 26 90 $69 \%$ $(\$ 0.3)$ $-0.15 \%$ $(\$ 0.31)$ $\$ 10.68$ $\$ 1.62$ $(\$ 3.88)$ $(\$ 45.97)$ | 27 77 $52 \%$ $\$ 0.9$ $0.60 \%$ $\$ 1.22$ $\$ 10.80$ $\$ 0.48$ $(\$ 11.01)$ $(\$ 35.87)$ |
| ```GROUPS OF FOUR TO EIGHT FACILITIES AVERAGE DAILY CENSUS PERCENT WITH POSITIVE FINANCIAL PERFORMANCE TOTAL NET GAIN/(LOSS) (in millions) NET GAIN/(LOSS) DIVIDED BY REVENUE NET GAIN/(LOSS) PER RESIDENT DAY - WEIGHTED AVERAGE 75th PERCENTILE MEDIAN 25th PERCENTILE AVERAGE MA RATE MINUS AVERAGE COST PER RESIDENT DAY``` | N/A | 49 <br> 99 <br>  <br> $67 \%$ <br> $\$ 8.2$ <br> $2.29 \%$ <br> $\$ 4.63$ <br>  <br>  <br>  <br> $\$ 25.31)$ | 41 93 $61 \%$ $\$ 8.6$ $3.05 \%$ $\$ 6.20$ $\$ 11.79$ $\$ 3.64$ $(\$ 2.71)$ $(\$ 25.51)$ | 44 89 $68 \%$ $\$ 11.6$ $3.88 \%$ $\$ 8.12$ $\$ 14.50$ $\$ 7.41$ $(\$ 5.23)$ $(\$ 29.01)$ | 35 92 $40 \%$ $(\$ 2.7)$ $-1.10 \%$ $(\$ 2.29)$ $\$ 7.08$ $(\$ 2.66)$ $(\$ 9.62)$ $(\$ 33.39)$ | 35 92 $40 \%$ $(\$ 2.7)$ $-1.09 \%$ $(\$ 2.29)$ $\$ 7.08$ $(\$ 2.66)$ $(\$ 9.62)$ $(\$ 33.39)$ | 43 81 $44 \%$ $(\$ 0.3)$ $-0.11 \%$ $(\$ 0.23)$ $\$ 7.51$ $(\$ 1.88)$ $(\$ 9.04)$ $(\$ 34.29)$ |
| GROUPS OF GREATER THAN EIGHT <br> FACILITIES <br> 1 AVERAGE DAILY <br> CENSUS <br> 2 PERCENT WITH POSITIVE FINANCIAL <br> PERFORMANCE <br> TOTAL NET GAIN/(LOSS) (in millions) <br> NET GAIN/(LOSS) DIVIDED BY REVENUE <br> NET GAIN/(LOSS) PER RESIDENT DAY - <br> WEIGHTED AVERAGE <br> 75th PERCENTILE <br> MEDIAN <br> 25th PERCENTILE <br> AVERAGE MA RATE MINUS AVERAGE <br> COST PER RESIDENT DAY | N/A | 125 <br> 73 <br> $76 \%$ <br>  <br> $\$ 35.5$ <br> $5.34 \%$ <br> $\$ 10.62$ <br>  <br>  <br>  <br> $\$ 19.98)$ | 134 71 $63 \%$ $\$ 21.7$ $2.99 \%$ $\$ 6.02$ $\$ 12.89$ $\$ 4.68$ $(\$ 2.82)$ $(\$ 26.99)$ |  <br> 131 <br> 71 <br> $78 \%$ <br>  <br> $\$ 38.8$ <br> $5.36 \%$ <br> $\$ 11.41$ <br>  <br> $\$ 18.33$ <br> $\$ 8.01$ <br> $\$ 1.33$ <br> $(\$ 21.34)$ | 126 68 $52 \%$ $(\$ 6.1)$ $-0.93 \%$ $(\$ 2.01)$ $\$ 8.89$ $\$ 0.89$ $(\$ 12.37)$ $(\$ 43.01)$ | 126 68 $52 \%$ $\$ 4.2$ $0.64 \%$ $\$ 1.38$ $\$ 8.89$ $\$ 0.87$ $(\$ 12.20)$ $(\$ 39.77)$ | 113 67 $50 \%$ $\$ 3.2$ $0.51 \%$ $\$ 1.13$ $\$ 11.80$ $(\$ 0.78)$ $(\$ 11.22)$ $(\$ 43.55)$ |

## 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

Exhibit 27

question: "Will Minnesota soon experience a shortage of nursing home beds, and specifically, should the moratorium on adding new beds be repealed?"

## Number of Nursing

 Facilities and Number ofBeds. As of September 30, 2014, Minnesota had 387 licensed nursing homes and licensed and certified boarding care homes with a total of 30,879 beds in active service, with 370 facilities and 29,309 beds certified to participate in the Medicaid Program.

The number of nursing homes and licensed beds has been declining since 1987, when the number of facilities and beds in Minnesota peaked at 468 facilities with 48,307 beds. By September 2014, 81 facilities had closed altogether (net of new facilities opened) and 15,719 beds had been completely delicensed. An additional 1,709 beds were out of active service, in layaway status. The supply of active beds has declined

[^0]by $36 \%$ over the 27 years since the 1987 peak. In the last two years, the bed supply has declined by 1,087 beds or $3.4 \%$.

## Exhibit 28



## Exhibit 29



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. In 2011, Minnesota had only $13 \%$ more beds per 1000 age 65+ and had $0.4 \%$ fewer for the $85+$ population than the national average. And in 2012, the most recent year with national data available, Minnesota had only $10.9 \%$ more beds per 1000 age 65+ and had $1.9 \%$ fewer for the $85+$ population than the national average.

Exhibit 30 provides more detailed comparisons of Minnesota data on nursing home supply with comparable national data.

| Exhibit 30 |  |  |  |
| :---: | :---: | :---: | :---: |
| Comparison of Minnesota and U.S. Data on Nursing Home Supply |  |  |  |
|  | Minnesota | U.S. | MN as \% of U.S. |
| Historic number of beds | 1987-48,307 |  |  |
|  | 1995-47,181 | 1995-1,751,302 | 2.69\% |
| Current number of beds | 2012-31,966 | 2012-1,703,213 | 1.88\% |
|  | 2013-31,376 |  |  |
| Average annual \% change in number of beds, 1995 to 2012 | -2.3\% | -0.2\% |  |
| Peak beds per 1000 age 65+ | 1987-91.2 |  |  |
|  | 1995-82.0 | 1995-51.9 | 158\% |
| Current beds per 1000 age 65+ | 2012-43.8 | 2012-39.5 | 111\% |
|  | 2013-41.5 |  |  |
| Average annual \% change in beds per 1000 age 65+, 1995 to 2012 | -3.9\% | -1.6\% |  |
| Peak beds per 1000 age 85+ | 1987-745.3 |  |  |
|  | 1995-611.4 | 1995-475.8 | 128\% |
| Current beds per 1000 age 85+ | 2012-283.8 | 2012-289.3 | 98.1\% |
|  | 2013-272.3 |  |  |
| Average annual \% change in beds per 1000 age 85+, 1995 to 2012 | -4.6\% | -3.0\% |  |

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. A solution to this

| Exhibit 31 |  |
| :--- | :--- |
| NH Utilization in MN |  |
| By Age Group, 2013 |  |$|$| Age Group | Util Rate |
| :--- | :--- |
| $65-69$ | $0.6 \%$ |
| $70-74$ | $1.0 \%$ |
| $75-79$ | $2.0 \%$ |
| $80-84$ | $4.0 \%$ |
| $85+$ | $12.6 \%$ | problem is 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 5year age group is weighted using the utilization rates, shown in Exhibit 31. 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 32 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 32 <br> Average Nursing Home Beds per Thousand Persons Age 65+ and 85+ <br> (and Range) -- Minnesota 2013 |  |  |  |
| :--- | :--- | :--- | :--- |
| VARIABLE | AGE 65+ | AGE 85+ | Age Intensity <br> Adjusted |
| Statewide beds per 1000 | 41.5 | 272.3 |  |
| County beds per 1000 - Low | 0.0 in Red Lake | 0.0 in Red Lake | 0.0 in Red Lake |
| County beds per 1000- High | 112.5 in Kittson | 652.2 in Wilkin | 95.4 in Kittson |
| Contiguous county groups beds <br> per 1000 - Low | 20.1 in Chisago | 174.5 in Chisago |  |
| Contiguous county groups beds <br> per 1000 - High | 75.6 in Yellow <br> Medicine | 404.0 in Mahnomen |  |

See Exhibit 42 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 purposes of this analysis, we exclude Red Lake County because it has no licensed beds, and instead we use the county with the fewest licensed beds but greater than zero. 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.

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 89.1\% in 2014. 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

## Exhibit 33

 facilities, and perhaps, reduce the overall efficiency of the industry.

Hardship Areas. As noted earlier, the distribution of nursing home beds is not uniform across the state. 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 longterm supports and service, and declarations of hardship due to insufficient access by local county agencies and area agencies on aging. (See Exhibit 41 for data on these criteria.) MDH, in consultation with DHS, began a process in August 2013, and again in August 2015, 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. The August 2013 process did not result in any beds being added.

Nursing Facility Utilization. With increasing numbers of elderly and declining numbers of nursing home beds, why are occupancy rates declining? 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 29 years. In 1984, the utilization rate for persons aged $65+$ was $8.4 \%$, and by 2013, it had declined to $3.2 \%$-a $62 \%$ reduction. The utilization rate for people age $85+$ declined even more dramatically, from $36.4 \%$ in 1984 to $12.6 \%$ in 2013, a $65 \%$ 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.

Status of Long-Term Services and Supports

Exhibit 34


## Exhibit 35



| Exhibit 36 <br> Nursing Home Utilization Rates in Selected Years from 1984-2013 for Persons 65+ and 85+ in Minnesota |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | $65+$ <br> 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\% |
| 2006 | 4.9\% | -5.6\% | 18.7\% | -7.3\% |
| 2007 | 4.7\% | -4.3\% | 17.6\% | -5.7\% |
| 2008 | 4.4\% | -6.9\% | 17.1\% | -2.9\% |
| 2009 | 4.0 \% | -8.0\% | 15.1\% | -11.9\% |
| 2010 | 3.9\% | -3.5\% | 14.9\% | -0.9\% |
| 2011 | 3.7\% | -3.6\% | 14.1\% | -4.9\% |
| 2012 | 3.5\% | -7.0\% | 13.4\% | -5.6\% |
| 2013 | 3.2\% | -7.4\% | 12.6\% | -6.0\% |
| 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. |  |  |  |  |

Another key measure of utilization, admissions to nursing facilities, illustrates the increased availability and use of short stay care (see Exhibit 39). While the annual number of admissions has risen from less than 50,000 in 2005 to over 72,000 in 2014, these stays have steadily become shorter. These trends suggest that most individuals using nursing facilities today require morefrequent, briefer stays, likely for short-term health needs before returning to long-term residences in the community. (It should be noted that the higher number of admissions in 2014 was due, in part, to a change in the Federal assessment protocol.)

Exhibit 37


Will Minnesota soon experience a shortage of nursing home beds, and specifically, should the moratorium on adding new beds be repealed? The growth in the elderly population causes policy makers to be concerned that access to nursing facility services will become constrained. Perhaps the state needs to alter or remove the moratorium to allow new nursing homes to be built. Three steps are taken to answer this question:

- Project bed availability based upon the downward trend in the number of beds
- Project bed need based upon the downward trend in the rate of utilization of nursing home services and the upward trend in the elderly population
- Compare these two projections to see how the current surplus in bed supply will likely change.


## Exhibit 38

Projecting Number of Nursing Home Beds

| Available in Minnesota -- <br> 2014-2030 |  |
| :---: | :---: |
| $2014^{*}$ | 30,879 |
| 2015 | 30,301 |
| 2020 | 27,571 |
| 2025 | 25,086 |
| 2030 | 22,825 |
| $* 2014=$ actual number of <br> beds, $9 / 30 / 2014$ |  |

Projected availability based on changes in the number of beds. The number of nursing home beds in Minnesota has been decreasing consistently over the last 25 years. The projection for the next 16 years continues the trend.
Exhibits 41 and 42 show the projected nursing home bed availability in Minnesota to 2030, starting with 30,879 beds in 2014 and resulting in 22,825 beds in 2030.

Projected need based on the changing utilization rate of nursing home services and population estimates. Utilization rates have been falling consistently for 29 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 39


Exhibit 40 compares the bed availability projection with the bed need projection. Minnesota starts with a projected surplus, in 2014, of 3,335 beds. That surplus is still 2,900 beds in 2030.

## Exhibit 40



In conclusion, 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, and specifically, should the moratorium on adding new beds be repealed?" 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.

So, yes, the moratorium on new nursing home beds is still needed. The evidence that Minnesota will not experience a shortage of nursing facility beds during the next several years is very strong. Nonetheless, Minnesota should:

- Watch for local and regional access problems,
- Continue to allow the use of the existing mechanism that allows beds to be relocated from high bedded areas to low bedded areas,
- Monitor the results of the new hardship provision,


## Status of Long-Term Services and Supports

- 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.


## Status of Long-Term Services and Supports

## Exhibit 41 - Data For Hardship Area Criteria








| Pine |
| :--- |
| Pipestone |
| Polk |
| Pope |
| Ramsey |
| Red Lake |
| Redwood |
| Renville |
| Rice | | Mower |
| :--- |
| Murray |
| Nicollet |
| Nobles |
| Norman |
| Olmsted |
| Otter Tail |
| Pennington | | Mahnomen |
| :--- |
| Marshall |
| Martin |
| Meeker |
| Mille Lacs |
| Morrison |
| Mower | McLeod | Lake Of The Woods |
| :--- |
| Le Sueur |
| Lincoln | Lake

 Kittson
County
Kandiyohi





 N.

[^1]
 Home Care Expenditures：public expenditures for EW and AC
 AIA：age intensity adjusted PURPLE／BOLD：hardship eligible on all three criteria，（11 counties）
PINK：hardship eligible

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Saint Louis <br>
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## Status of Long-Term Services and Supports

Exhibit 42 - Minnesota Nursing Facility Beds Per 1000 (page 1 of 2)

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## Status of Long-Term Services and Supports

Exhibit 42 - Minnesota Nursing Facility Beds Per 1000 (page 2 of 2)



[^0]:    ${ }^{1}$ 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 longterm 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) Senior Linkage Line; (j)Nursing facility consolidation; (k) Return to Community Program; (I) NF level of care; (m) Essential Community Services; (n) Moving Home Minnesota Program; and (o) Olmstead planning.

[^1]:    

