Nursing Home Rates in the Upper Midwest

January 1997

A Program Evaluation Report

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Office of the Legislative Auditor
State of Minnesota

Program Evaluation Division

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Report #97-02

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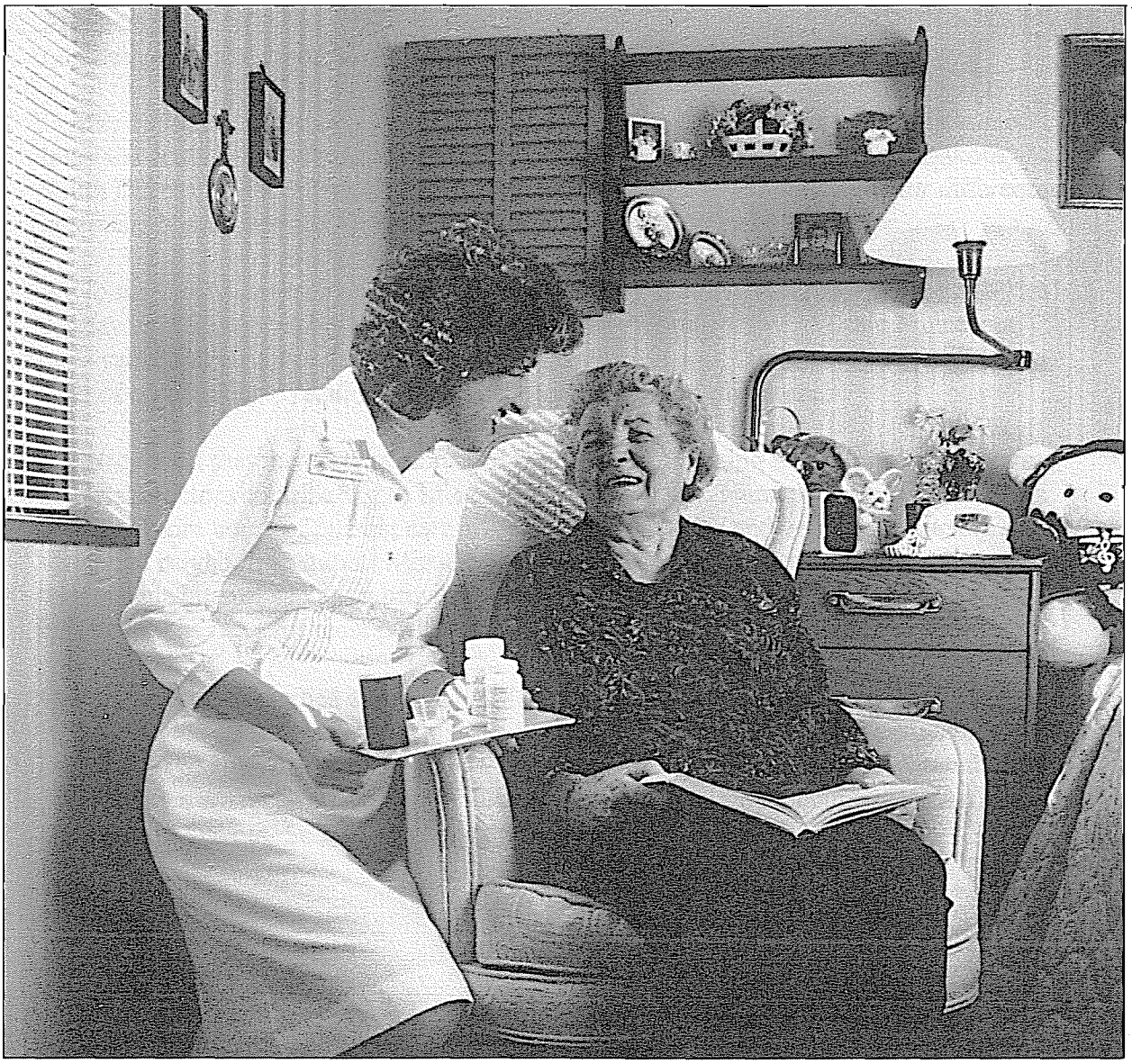

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JAMES R. NOBLES, LEGISLATIVE AUDITOR

January 21, 1997

Members
Legislative Audit Commission

In May 1996, the Legislative Audit Commission directed us to compare nursing home rates and costs in five states in the Upper Midwest: Minnesota, Iowa, North Dakota, South Dakota, and Wisconsin. Legislators wanted to know what accounts for differences in nursing home rates among these states.

We found that Minnesota's average Medicaid nursing home reimbursement rate of $95.61 per day in 1995 was higher than similar rates in neighboring states. Within Minnesota, rates varied widely among nursing homes depending on past, facility-specific costs, the level of care residents require, and the geographic location of a home.

We also found that the costs of labor and the amount of nursing services provided were important factors contributing to Minnesota's higher rates. Nursing homes in Minnesota provided more hours of nursing care and paid higher salaries and benefits to nursing staff than most neighboring states. Minnesota's nursing home rates were also higher because they included items, such as a provider surcharge and pre-admission screening fees, not included in the rates for most of the surrounding states.

Our report was researched and written by Susan Von Mosch (project manager), Tara Jebens-Singh, and Lisa Frankamp. We received the full cooperation of the Minnesota Department of Human Services and the Department of Health. We are also grateful for the assistance we received from Medicaid and/or nursing home reimbursement staff in Iowa, North Dakota, South Dakota, and Wisconsin.

Sincerely,

James Nobles
Legislative Auditor

Roger Brooks
Deputy Legislative Auditor

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MINNESOTA OFFICE OF THE LEGISLATIVE AUDITOR

Nursing Home Rates in the Upper Midwest

SUMMARY

Minnesota's average nursing home reimbursement rate was higher than that of any surrounding state in 1994.

As our nation's population ages, an increasing number of Americans will need some type of long-term care services. While more attention is being focused on the development of alternatives to nursing home care, most public and private spending still pays for institutional care in nursing homes. Minnesota spent over $800 million in Medicaid funds on nursing homes in 1995; the federal government financed 54 percent of this spending. According to federal data, Minnesota's average Medicaid nursing home reimbursement rate of $92.24 per day in 1994 ranked 13th among the states and was higher than any surrounding state.[1] For these reasons, policy makers have shown growing concern about the cost of nursing home services.

This report compares 1995 Medicaid nursing home reimbursement rates in five states in the Upper Midwest: Minnesota, Iowa, North Dakota, South Dakota, and Wisconsin.[2] Based on direction from the Legislative Audit Commission, our evaluation addressed the following questions:

- **To what extent is there variation in the Medicaid reimbursement rates charged to nursing home residents in Minnesota, Iowa, North Dakota, South Dakota, and Wisconsin? How do Medicaid reimbursement rates compare with rates charged to private-pay residents?**

- **What accounts for the differences in nursing home rates among these states?**

- **Are Minnesota's rates higher because its facilities deliver a superior quality of nursing home care or provide services to more medically needy and costly residents compared with other states?**

- **Do Minnesota's geographic groups, which determine in part nursing home rates, hinder the ability of nursing homes in any particular group to provide competitive salaries for nursing staff?**

1 Charlene Harrington, James H. Swan, and others, *1994 State Data Book on Long-Term Care Program and Market Characteristics* (San Francisco: University of California and Wichita: Wichita State University, October 1995).

2 We evaluated Medicaid nursing home reimbursement rates that were in effect for the year beginning January 1, 1995 in North Dakota, and July 1, 1995 in Minnesota, Iowa, South Dakota, and Wisconsin.

This study relied on data from a variety of sources to analyze and compare Medicaid nursing home rates and costs. We interviewed state Medicaid officials, policy makers, nursing home providers, and consumer advocates. We reviewed literature and nursing home reimbursement statutes, rules, and procedures. We analyzed nursing home cost data used to set 1995 nursing home rates. Finally, we used federal government data to examine nursing home quality of care and resident conditions.

Incomplete data and the varying nature of each state's nursing home industry, reimbursement system, cost reporting forms, and financial data frequently complicated the interstate comparisons necessary for this evaluation. At times, the lack of data prohibited us from comparing Minnesota to *each* of the neighboring states. In these cases, only states with adequate comparable data were examined.

Overall, we found that Minnesota's average daily Medicaid nursing home reimbursement rates were higher than the rates in neighboring states in 1995. We also learned that the costs of labor and the amount of nursing services provided were important factors contributing to Minnesota's higher rates. In general, nursing homes in Minnesota provided more hours of nursing care and paid higher salaries and benefits to nursing and other staff than most neighboring states. Minnesota's nursing home rates were also higher because they include items, such as a provider surcharge and pre-admission screening fees, not included in the rates for most of the surrounding states.

State nursing home reimbursement systems are complex and comparisons are difficult.

BACKGROUND

The federal government sets general policy related to nursing home services, but it gives each state flexibility in establishing its own Medicaid reimbursement methods and rates. Consequently, there is wide variation in nursing home reimbursement systems among states. The five states examined all use facility-specific, "prospective" reimbursement methods, but each state uses different cost reporting periods, and different methods to limit reimbursements and adjust rates to resident care needs.[3] In most states the Medicaid reimbursement systems are complex and comparisons are difficult.

We examined Minnesota's nursing home reimbursement system and rates that were in effect for the year beginning July 1, 1995 (called the 1995 rate year).[4] Since that time, however, Minnesota's reimbursement system has changed in several ways, making the current reimbursement system different from the one examined as part of this evaluation. First, in 1995 the Legislature approved an alternative payment demonstration project for nursing home services. Under this

3 State Medicaid programs base reimbursement rates paid to *each* nursing home on *its* costs. "Prospective" payment methods set reimbursement rates in advance based on a prior year's allowed costs (called historical costs).

4 The 1995 rate year was selected for several reasons. First, Minnesota's 1994 cost reports on which the 1995 rates were based have been desk audited, a sample has been field audited, and the costs have been adjusted. Second, South Dakota is adjusting its reimbursement system and will be using 1994 cost data (adjusted for inflation) to set rates for 1996, and their staff suggested we use 1994 cost report data.

project, selected nursing homes will be reimbursed using a purchase-of-service approach instead of a cost-based reimbursement system. As of June 1996, 73 nursing homes were participating in this demonstration project.[5] This project has been characterized by the Department of Human Services as part of Minnesota's general movement toward the direct purchase of nursing home services. Second, in 1996 the Legislature modified some new reimbursement limits that had been implemented in 1995, temporarily suspended other reimbursement limits, and provided a payment increase above inflation of six cents per resident day for the 1996 rate year (which began July 1, 1996).[6]

Iowa's nursing home reimbursement rates are not directly comparable to rates for other states.

In the late 1980s, federal regulations eliminated the distinction between "skilled nursing " and "intermediate care " nursing facilities, and created a single class of "nursing facility."[7] Some states retained the skilled nursing and intermediate care designation to characterize the level of care needed by residents. Iowa continues to maintain a different reimbursement system for intermediate and skilled nursing levels of care. Our analysis of Iowa's rates and costs focuses on nursing facilities that provide an *intermediate level of care.*[8] Data on Iowa's nursing home reimbursement rates and costs are not directly comparable to data for other states because they *do not reflect the costs of providing skilled nursing care.* Whereas, the rates and costs for the other states studied represent the costs of providing *both* intermediate and skilled nursing levels of care. Nevertheless, we included Iowa in our study at the request of the Legislative Audit Commission.

COMPARISON OF MEDICAID REIMBURSEMENT RATES

Reimbursement rates are typically determined by taking each nursing home's allowed costs per resident day, applying reimbursement limits, adjusting for inflation, and adding incentive payments. Since nursing home rates vary within a state, we calculated statewide average rates to compare rates among the states. We found that:

- **Minnesota's statewide average Medicaid nursing home rate of $95.61 per resident day in 1995 was significantly higher than the rates in North Dakota, South Dakota, and Wisconsin.**

5 *Minn. Stat.* §256B.434.

6 *Minn. Laws* (1996), Ch. 451, Art. 3, Section 11.

7 Until 1990, the federal government classified nursing homes into two categories: skilled nursing facilities (SNFs) and intermediate care facilities (ICFs). SNFs provided 24-hour nursing care which was prescribed by a physician with a registered nurse working on the day shift seven days a week. SNFs provided the highest possible level of nursing home care. In contrast, ICFs generally were required to have only one licensed nurse working on the day shift seven days a week. After 1990, *all* nursing facilities (including those providing an intermediate level of care) are required to provide 24-hour licensed nursing care with a registered nurse working seven days a week (8 hours a day). A facility may request a waiver of the registered nurse requirement.

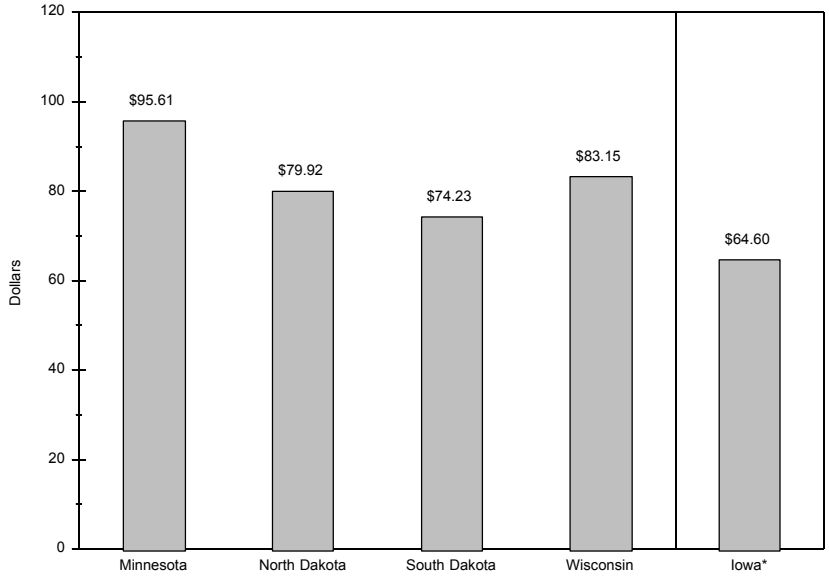
8 Our analysis of nursing home rates and costs in Iowa was limited because we were unable to obtain complete detailed information on current rates, costs, bed numbers, and patient days for Iowa's nursing homes that provide skilled nursing services.

Minnesota's average reimbursement rate was between 15 and 30 percent higher than those in surrounding states in 1995.

For all nursing homes, Minnesota's 1995 average reimbursement rate per resident day was approximately 15 percent higher than the average rate in Wisconsin and nearly 30 percent higher than South Dakota. Iowa's average rates would be higher if they included the costs of providing a skilled nursing level of care.[9]

Minnesota and North Dakota are unique because they are the only states in the nation that prohibit nursing homes from charging private-pay residents more than the rates set for Medicaid residents. Research studies have estimated that in states without rate equalization, private residents pay between 10 and 30 percent higher rates than Medicaid residents.[10] We found that:

Comparison of Average Medicaid Nursing Home Rates Per Resident Day, 1995



Note: Statewide weighted average reimbursement rates are for the rate years beginning January 1, 1995 in North Dakota, and July 1, 1995 in Minnesota, Iowa, South Dakota, and Wisconsin.

Source: Program Evaluation Division analysis of state nursing home cost report and rate setting data; Minnesota Department of Human Services.

[a]The Iowa rate represents the maximum reimbursement rate of nursing facilities providing an intermediate level of care only. It does not reflect the rates for providing skilled nursing care and, consequently, is not directly comparable to rates for the other states. Iowa made a mid-year rate adjustment: the maximum rate was $61.63 per resident day effective July 1, 1995, and $64.60 per resident day effective January 1, 1996.

9 In Iowa, the maximum reimbursement rates for nursing homes providing skilled nursing services were $108.99 per resident day for freestanding homes and $236.84 per day for hospital-attached homes, effective July 1, 1995.

10 James K. Tellatin, "Medicaid Reimbursement in Nursing Home Valuations," *The Appraisal Journal* (Oct. 1990): 461-467; Howard Birnbaum and others, "Why Do Nursing Home Costs Vary? The Determinants of Nursing Home Costs, " *Medical Care* 14, no. 11 (Nov. 1981): 1095-1107; Jane Sneddon Little, "Public-Private Cost Shifts in Nursing Home Care," *New England Economic Review* (July/Aug. 1992): 3-14; Jane Sneddon Little, "Lessons from Variations in State Medicaid Expenditures," *New England Economic Review* (Jan./Feb. 1992): 43-66.

- **While private-pay and Medicaid rates were identical in Minnesota, average private-pay rates were between 25 and 35 percent higher than average Medicaid rates in Wisconsin and between 10 and 14 percent higher in South Dakota.**

Some researchers make the theoretical argument that private residents appear to be subsidizing public residents, and that Medicaid rates in states with little difference between private and public rates are more likely to reflect the true costs of providing nursing home services. However, we do not have evidence to conclude that rate equalization contributes to Minnesota's higher average daily nursing home rates.

COMPARISON OF NURSING HOME COSTS

Allowable nursing home costs consist of different cost categories, such as nursing, dietary, property, and administration costs. To determine what specific factors account for Minnesota's higher than average nursing home rates, we analyzed the average allowable costs per day used to establish the 1995 reimbursement rates.[11] We found that:

- **On average, total nursing home costs per resident day in Minnesota nursing homes were between 7 percent and 27 percent higher than neighboring states in 1994.**

Nursing salaries and supplies accounted for over one-half of total cost differences between Minnesota and surrounding states.

During the 1994 cost reporting year, nursing homes in Minnesota spent an average of $89.82 per resident day, compared with between $70.79 per day in South Dakota and $84.08 per day in Wisconsin. Nursing costs, which include nursing salaries and supplies, accounted for over one-half of the total cost differences between Minnesota and the surrounding states.

Staffing Levels and Labor Costs

The costs of labor dominate nursing home spending in every state examined. Salary and fringe benefit costs for employees of freestanding nursing homes (those not attached to a hospital) accounted for between 65 and 70 percent of total costs in 1994, nearly two-thirds of which was for licensed nurses and nursing aides.[12] Our analysis showed that:

- **Nursing homes in Minnesota provided more hours of nursing care, paid higher salaries to nursing and other staff, and had higher fringe benefit and workers' compensation costs than most neighboring states.**

11 Since each state uses a different cost reporting year, these costs were incurred during different 12 month periods between July 1993 and June 1995, and are referred to as the 1994 cost reporting year.

12 Hospital-attached nursing homes shared a building, specific services, and/or costs with an adjoining or nearby hospital. In Minnesota, hospital-attached homes do not have to submit all the detailed cost information required of freestanding nursing homes. Our analyses of salary, fringe benefit, and workers' compensation costs are based on freestanding nursing homes.

Estimated Average Daily Nursing Home Allowable Costs, 1994

	Minnesota	North Dakota	South Dakota	Wisconsin	Iowa[2]
Nursing	$39.13	$31.19	$28.61	$36.36	$25.89
Other Care-Related	3.67	3.59	5.04	3.05	1.62
Dietary	10.11	9.26	9.57	8.81	8.55
Laundry and Linen	1.86	1.74	1.78	2.02	1.74
Housekeeping	3.01	2.44	2.43	2.74	2.60
Plant Operations and Maintenance	4.72	4.76	4.18	4.66	3.85
Property Taxes/License Fees	2.89	0.12	0.37	0.87	0.67
Property Taxes and Special Assessments	0.67	0.12	0.37	0.87	0.67
Provider Surcharge	1.69	NA	NA	NA	NA
License Fees	0.23	NA	NA	NA	NA
Pre-Admission Screening Fees	0.29	NA	NA	NA	NA
General and Administrative	7.97	7.08	6.33	8.42	5.65
Payroll Taxes/Fringe Benefits[3]	11.02	8.23	7.66	11.20	6.30
Property Costs	5.44[1]	6.40	4.82	5.97	4.48
Total Costs Per Day	$89.82	$74.82	$70.79	$84.08	$61.35

Note: NA = Not Applicable. Some columns may not sum because of rounding errors.

Source: Program Evaluation Division analysis of state nursing home cost report data.

[1]There are no easily identifiable property-related costs for Minnesota nursing homes. We estimated property costs for Minnesota using allowed principal and interest, equipment, and capital repair and replacement costs.

[2]Iowa cost data represent the costs of providing an intermediate level of care only. The data do not reflect the costs of providing skilled nursing care and are not directly comparable to costs for other states.

[3]Fringe benefit costs in Minnesota include $0.22 per resident day for public pension (PERA) contributions, which were reimbursed without limitation.

Minnesota's nursing homes provided a relatively high number of hours of nursing care.

Average Nurse Staffing Levels, 1994

	Minnesota	South Dakota	Wisconsin
Total Nursing Hours per Resident Day[1]	3.33	2.85	3.37
Licensed Nursing Hours per Resident Day[2]	1.11	0.83	1.05
Nursing Aide Hours per Resident Day	2.22	2.02	2.32
Ratio of Licensed Nurses per Nursing Aide	0.50	0.41	0.45

Note: Data on nursing hours were not available for Iowa and North Dakota.

Source: Program Evaluation Division analysis of state nursing home cost report data.

[1]Nursing hours include registered and licensed practical nurses and nursing aides in Minnesota and South Dakota. Wisconsin also includes the director of nurses' hours in nursing hours.

[2]Licensed nursing hours include registered and licensed practical nurses in Minnesota and South Dakota. Wisconsin also includes the director of nurses' hours in this category.

Nursing homes in Minnesota provided more hours of total nursing, licensed nursing, and nursing aide care per resident day, and had a higher ratio of licensed nurses to nursing aides than homes in South Dakota. Homes in Minnesota provided more hours of licensed nursing care per day and had a higher ratio of licensed nurses to nursing aides than homes in Wisconsin. Wisconsin, however, provided more hours of total nursing care per day than Minnesota.

Nursing homes in Minnesota paid higher salaries than those in most surrounding states.

Labor market data showed that the average hourly wage for all private nursing home employees in Minnesota was below the national average in 1994, but higher than in neighboring states. The average hourly wage for nursing home employees in Minnesota was 97 percent of the national average, compared with between 77 percent in North Dakota and 95 percent in Wisconsin. Nursing home wages generally follow the pattern of variation in wages observed for all private industry employees; most jobs in Minnesota paid more than comparable jobs in neighboring states.

Average Hourly Wages by Job Category for Freestanding Nursing Homes, 1994

	Minnesota n = 355	South Dakota n = 83	Wisconsin n = 340
Director of Nursing (DON)	$17.88	$17.40	NA
Registered Nurse (RN)	16.17	13.43	NA
DON/RN combined	16.39	14.03	$16.70
Licensed Practical Nurse	11.69	10.44	12.36
Nursing Aide	8.35	6.51	7.45
Dietary	8.06	6.59	7.29
Housekeeping	7.78	6.11	6.97
Laundry	7.92	6.38	6.91
Plant Operations	10.48	7.48	9.92
All Private Industry Employees	*12.51*	*8.92*	*11.43*
All Private Nursing Home Employees	*7.45*	*6.34*	*7.30*

Note: Data on nursing home staff wages were not available for Iowa and North Dakota.

Source: Program Evaluation Division analysis of state nursing home cost report data; Federal Bureau of Labor Statistics.

Data from nursing home cost reports showed that freestanding nursing homes in Minnesota paid average hourly salaries that were higher for every job classification than homes in South Dakota in 1994. Nursing homes in Minnesota also paid higher salaries than homes in Wisconsin in 1994, except for directors of nursing/registered nurses and licensed practical nurses.

In addition, average fringe benefit costs in Minnesota freestanding nursing homes were higher than those in North and South Dakota, but lower than those in

Wisconsin.[13] Fringe benefit costs in Minnesota nursing homes averaged $3.64 per resident day, compared with between $2.65 per day in South Dakota and $4.77 per day in Wisconsin. Wisconsin's higher costs could be attributed to its broader provision of medical insurance: 99 percent of nursing homes in Wisconsin provided some medical insurance, compared with 95 percent in Minnesota.

On average, the cost of workers' compensation in Minnesota freestanding nursing homes was $3.10 per resident day in 1994, higher than any neighboring state. Workers' compensation costs in North Dakota were $1.85 per day, compared with $2.12 per day in Wisconsin, and $2.25 per day in South Dakota.

Property Taxes, License and Other Fees

Our analysis showed that:

Minnesota's nursing home rates included items not included in the rates for most of the neighboring states.

- **The costs of "property taxes, license and other fees" in Minnesota nursing homes were between 3 and 24 times higher than neighboring states, primarily because Minnesota includes more items in the reimbursement rate than other states.**

In 1994, the costs of "property taxes, license and other fees" for Minnesota nursing homes averaged $2.89 per resident day, compared with between $0.12 per day in North Dakota and $0.87 per day in Wisconsin. As a result of policy decisions, Minnesota includes a provider surcharge and a pre-admission screening fee in this category. Most other states either do not have similar charges or do not include these types of costs in the nursing home reimbursement rates. For instance, in 1994 Minnesota used a nursing home provider surcharge of $625 per licensed bed (or an average of $1.69 per resident day) to maximize the federal Medicaid match. Wisconsin, with a $32 per bed per month assessment or $1.06 per resident day, is the only other state to include a similar surcharge in its reimbursement rates.[14]

In addition,

- **Although small in comparison with other cost categories, Minnesota's licensing fees, which support state nursing home licensing and inspection activities, were higher than other states.**

We estimate that the cost of license fees for Minnesota nursing homes averaged $0.23 per resident day, compared with between $0.003 per day in Iowa and $0.018 per day in Wisconsin. The Minnesota Department of Health's nursing home regulatory activities are funded through a combination of license fees, and Medicaid

13 Fringe benefits generally include medical, dental, life insurance, uniforms, and retirement or pension coverage, and exclude workers' compensation costs. In Minnesota, fringe benefit costs include $0.22 per resident day for public pension (PERA) contributions, which were reimbursed without limitation. In South Dakota and Wisconsin, fringe benefit costs include some public pension costs which were subject to the same reimbursement limitations as non-public nursing homes.

14 In Wisconsin, the costs related to the bed assessment tax were adjusted out of the cost report. The reimbursement rate, however, included an average of $1.06 per resident day to reimburse providers for the assessment.

and Medicare funding. Other states collect nominal nursing home licensing fees, and use state general fund revenues to finance nursing home regulatory activities.

Property taxes are a function of the number of for-profit nursing homes and property tax rates. In 1994, property tax costs for nursing homes in Minnesota and Iowa averaged $0.67 per resident day, more than North Dakota ($0.12 per day) and South Dakota ($0.37 per day), but less than Wisconsin ($0.87 per day).

Property Costs

Property costs comprised between 6 and 9 percent of total nursing home costs per resident day in the states examined. We found that:

- **Average property-related costs per resident day in Minnesota were higher than those in South Dakota and lower than those in North Dakota and Wisconsin.**

Estimated property-related costs for Minnesota nursing homes averaged $5.44 per resident day in 1994, more than similar costs in South Dakota ($4.82), but less than in North Dakota ($6.40) and Wisconsin ($5.97).[15] As with other components of Medicaid reimbursement systems, each state examined has different ways of recognizing and reimbursing allowable property costs. North Dakota, South Dakota, Wisconsin, and Iowa use historical costs allowing for depreciation and actual interest expenses. Minnesota uses a complex formula to calculate an imputed value for property costs.

Ancillary Services

The inclusion of ancillary services, such as physical and other therapies, in the daily nursing home rate can increase both average costs and rates.[16] We found that the inclusion of therapy services in the reimbursement rate did not explain why Minnesota's nursing home rates were higher than surrounding states.

Minnesota nursing homes had an average cost of $0.18 per resident day for therapy services that were included in the 1995 reimbursement rate, compared with between $0.13 per day in Wisconsin and $2.47 per day in South Dakota. Nursing home providers in Minnesota, Wisconsin, and Iowa can choose to include the costs of therapy services in the rate or have therapists bill Medicaid separately. In Minnesota, most therapy costs were billed outside of the daily reimbursement rate. In contrast, North and South Dakota more consistently include therapy services in the rates.

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15 Minnesota's reimbursement system does not contain identifiable property-related costs. Working with the Department of Human Services, we estimated property costs for Minnesota nursing homes based on allowable principle and interest, equipment and capital repair and replacement costs. If unaudited depreciation and interest costs were used, then the estimated cost of property would be $6.05 per day in 1994.

16 Ancillary services include: physical, occupational, and other therapies; prescription and non-prescription drugs; durable medical supplies; and other medical services.

Hospital-Attached and Other Nursing Facilities

Minnesota and South Dakota provide higher reimbursement limits to hospital-attached nursing homes. Minnesota also gives special reimbursement consideration to 12 short-length-of-stay (SLOS) facilities and to 4 facilities that provide nursing home care to residents of all ages with severe physical impairments (called Rule 80 facilities).[17] Based on our analysis, hospital-attached nursing homes contributed to higher nursing home costs in all states examined, including Minnesota.

In Minnesota, average costs for hospital-attached nursing homes were $1.28 per resident day more than the costs for freestanding homes, while average daily costs for SLOS and Rule 80 facilities were $0.84 per day more. In North Dakota and South Dakota, the differences between the daily costs for hospital-attached and freestanding facilities ($1.69 and $1.60 per day, respectively) were greater than in Minnesota, but lower than the combined costs ($2.12 per day) for hospital-attached and other facilities in Minnesota. Wisconsin's daily costs for hospital-attached homes were $0.39 per day more than the costs for freestanding homes.

RESIDENT CONDITIONS AND QUALITY OF CARE

More residents in Minnesota nursing homes required assistance with daily activities.

Our study examined whether Minnesota nursing home rates were higher because nursing facilities provide services to more medically needy and costly residents or deliver a superior quality of care compared with neighboring states. We found that:

- **Minnesota's higher nursing home rates may be partially attributable to a higher percent of nursing home residents who are dependent on nursing staff for daily care, but do not appear to be related to a higher quality of care compared with neighboring states.**

Nursing homes in Minnesota had a larger percentage of residents who were dependent on nursing staff to perform activities of daily living, such as bathing, dressing, transferring, and eating, compared with neighboring states. The proportion of Minnesota's nursing home residents with special conditions was similar to or lower than other states examined, except Minnesota had more residents with behavior problems and bladder and bowel incontinence than surrounding states.

17 Short-length-of-stay facilities have average stays of 180 days or less and 225 days or less in facilities with more than 315 licensed beds.

Quality of care is a complex concept that is difficult to measure. Based on data collected as part of the federally-mandated nursing home certification survey process, we concluded that:[18]

- **The quality of care in Minnesota's nursing homes appears to be similar to that in neighboring states.**

Based on 36 performance indicators selected to represent resident status, services or activities provided, and environmental factors, Minnesota nursing homes rated worse overall than the national average on 5 measures.[19] In comparison, North and South Dakota nursing homes rated worse than the national average on eight measures, Iowa homes were worse on two, and Wisconsin nursing homes did not perform worse than the national average on any measure.

Public health inspectors cite a nursing home for "substandard quality of care" when deficiencies constitute a pattern or are widespread and there is actual or potential harm or jeopardy to residents. Four percent of nursing homes in Minnesota received substandard quality of care citations in 1995 and 1996, higher than North Dakota (1 percent), South Dakota (1 percent), and Wisconsin (2 percent), but lower than Iowa (6 percent).

IMPACT OF REIMBURSEMENT LIMITS AND INCENTIVE PAYMENTS

Minnesota uses more techniques to limit reimbursement of nursing home costs than other states.

State Medicaid reimbursement limits determine what nursing home allowable costs will be reimbursed through payment rates. Minnesota employed more techniques to limit reimbursement of nursing home costs than other states examined in 1995. For instance, within the "other operating" cost limit, Minnesota had sublimits for maintenance and administrative costs. Minnesota also implemented two additional overall cost limits in 1995. Despite its more numerous limits, we found that:

- **Minnesota's reimbursement limits appear to contain nursing home spending as much or more than North and South Dakota, but less than Wisconsin.**

In 1995, a larger percent of Wisconsin's nursing homes had their costs limited by a greater amount than nursing homes in Minnesota. For instance, Minnesota's combined "other operating " cost limits resulted in nearly 5 percent of all other operat-

18 Some nursing home providers have expressed concern about consistency of the survey data from state to state. A national evaluation of the survey process identified a number of areas in which better procedures could be developed, but it also found that surveyors were reasonably accurate at the extremes in identifying very good and very bad nursing homes. (Institute of Medicine, *Nursing Staff in Hospitals and Nursing Homes: Is It Adequate?* (Washington, D.C.: National Academy Press, 1996): 140.)

19 Minnesota nursing homes ranked worse than the national average for: 1) providing a safe, sanitary environment; 2) comprehensively assessing each resident's needs; 3) preventing urinary track infections in residents with bladder control problems; 4) allowing residents capable of administering their own medication to do so; and 5) providing full visual privacy in resident rooms.

ing costs being unreimbursed during the 1995 rate year. In comparison, approximately 8 percent of support services costs and 9 percent of administrative costs were unreimbursed in Wisconsin.

In addition, most states use "incentive payments" to encourage nursing homes to reduce costs. We found that:

- **Minnesota provided higher average incentive payments to more nursing homes than all neighboring states except North Dakota in 1995.**

In 1995, over 91 percent of Minnesota nursing homes earned an average incentive payment of $1.23 per resident day. Only North Dakota, with an average incentive payment of $1.36 earned by 75 percent of nursing homes, exceeded Minnesota. In contrast, Wisconsin provided the smallest incentive payment ($0.04 per day to 53 percent of its homes), and South Dakota did not provide any incentive payments.

Minnesota did not use incentive payments to encourage nursing homes to reduce costs in 1995.

In Minnesota, a nursing home's "other operating" costs did not have to be below the reimbursement limits to earn an incentive payment in 1995. Minnesota provided an "incentive payment" to 87 nursing homes whose costs exceeded the "other operating " cost limits. This occurred because a nursing home's "other operating " costs were reduced by reimbursement limits, before calculating eligibility for an incentive payment. If Minnesota's incentive payments were based on a home's other operating costs before these costs were reduced by reimbursement limits, the state would have saved an estimated $0.37 per resident day, or $5.8 million in 1995.

Minnesota and Wisconsin also provided incentive adjustments as part of their property reimbursement formulas. In 1995, Minnesota's equity and refinancing incentives cost an average of $0.09 per resident day, compared with Wisconsin's average property incentive of $0.08 per day. South Dakota provided a return on net equity to proprietary homes at an average cost of $0.46 per day.

GEOGRAPHIC GROUPS IN MINNESO TA

In Minnesota, Medicaid nursing home reimbursement rates are based in part on a nursing home's geographic location within the state. Three geographic groups were established using 1983 nursing salary data as a proxy for regional variation in nursing home input costs (see map). To be reimbursed for allowable spending, "care-related" costs must fall within 125 percent and "other operating" costs within 110 percent of the median costs per day for all nursing homes in each geographic group. [20]

20 "Care-related" costs consist of two cost categories: nursing costs which include all nursing salaries and supplies, and other care-related costs which include therapies, social services, activities, raw food. "Other operating" costs include dietary, housekeeping, laundry, plant operations and maintenance, and administration.

Originally, the reimbursement limits were the highest for nursing homes in Group 3 and the lowest for homes in Group 1. Since 1989, nursing homes in Group 1 have been allowed to use the higher Group 2 reimbursement limits for care-related and other operating costs.[21] As a result, nursing homes in Groups 1 and 2 currently have the same reimbursement limits.

In Minnesota, a nursing home's geographic location helps determine its reimbursement rate.

We did not conduct an exhaustive study of the many potential issues and problems created by Minnesota's geographic groups. Rather, we focused on whether the geographic groups reflect average nursing salaries and the effect of applying the reimbursement limits to nursing homes in each of the geographic groups.[22]

We found that the groups do not reflect 1994 average salaries for selected professional and service occupations that are similar to jobs found in nursing homes.[23] We also found that:

- **There was considerable variation in average hourly nursing salaries for individual counties within geographic groups in 1994.**

Average nursing salaries were lowest in western and southwestern Minnesota in Groups 1 and 2. The average nursing salaries for some counties in Group 2 (Wright, Sibley, LeSueur, Olmsted) were similar to but lower than salaries in the Twin Cities area. Finally, only 9 counties out of 14 in Group 3 had average hourly nursing salaries that were above the statewide average of $10.13 in 1994.[24]

Policy makers and nursing home providers have criticized the geographic groups because of the perceived inability of nursing homes with lower reimbursement limits than others to offer competitive nursing salaries. Policy makers have also heard complaints from nursing home providers who are approaching the reimbursement limits. Our analysis shows that some nursing homes in every geographic group exceeded the "care-related" and "other operating" costs reimbursement limits. We found, however, that:

- **Few nursing homes exceeded the limits applied to nursing salaries, while a larger number of homes in every geographic group either exceeded or approached the limits for "other operating" costs in 1995.**

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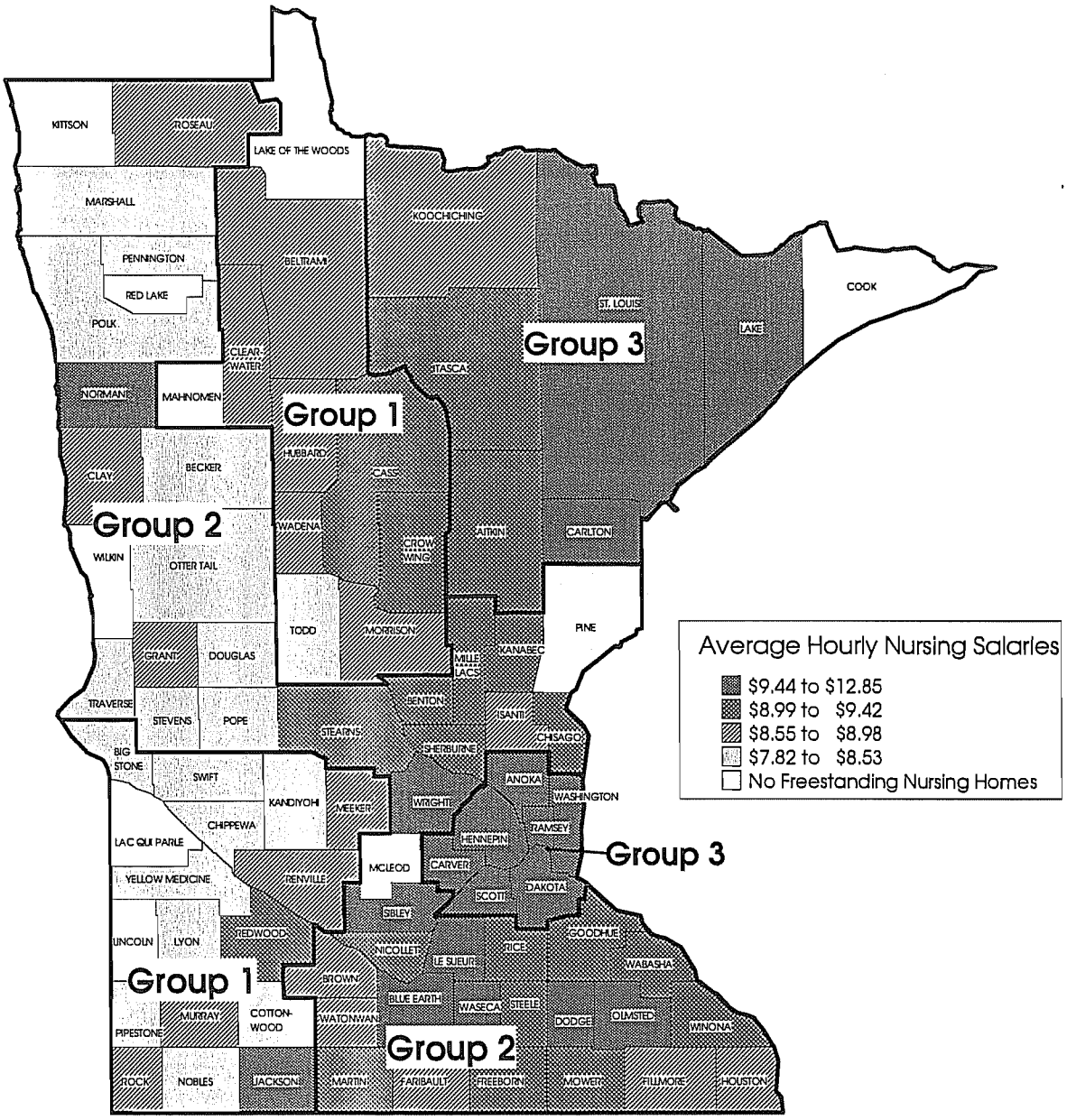
21 *Minn. Stat.* §256B.431, Subd. 2b(d).

22 A 1991 study by our office found that Minnesota's geographic groups do not necessarily reflect local costs of living. Office of the Legislative Auditor, *Nursing Homes: A Financial Review* (St. Paul, 1991): 35, and *Statewide Cost of Living Differences* (St. Paul, 1989).

23 Minnesota Department of Economic Security data shows that the Twin Cities metropolitan area had the highest average wages, followed by northeastern Minnesota. The northwestern and southwestern Minnesota had the lowest average wages.

24 The counties in Group 3 that had average hourly nursing salaries below the statewide average included Carver County in the Twin Cities area, and Aitkin, Itasca and Koochiching counties in northeastern Minnesota. Patterns in average nursing salaries by geographic group may be influenced by the reimbursement limits and rates. For instance, if a nursing home is under the care-related limit (which includes nursing salaries), then it may decide to increase spending on wages and other direct patient care items.

Average Hourly Salaries for All Nursing Staff in Freestanding Nursing Homes, 1994



Source: Program Evaluation Division analysis of Minnesota Department of Human Services nursing home cost data.

Note: Nursing staff includes directors of nursing, licensed nurses and nursing aides.

In 1995, between 4 and 6 percent of nursing homes in each geographic group exceeded the "care-related" limits (which include nursing salaries). In contrast, 34 percent of the homes in Group 2 exceeded the "other operating" cost limit, compared with 26 percent in Group 3 and 15 percent in Group 1. In addition, roughly one third of nursing homes in every geographic group were within 10 percent of the "other operating" cost limit.

Minnesota's reimbursement geographic groups could be changed in numerous ways, from maintaining the existing groups to rearranging the counties in each group to eliminating the groups all together. Given the proportion of nursing homes exceeding or approaching the "other operating" cost limits, the state's costs for nursing home services would likely increase if nursing homes in Groups 1 and 2 were able to use the higher Group 3 reimbursement limits. Costs would also increase because nursing homes below the higher reimbursement limits would qualify for increased incentive payments.

The fiscal consequences for the state involve either maintaining current funding or increasing funding for nursing home reimbursement. If the geographic groups were changed without increasing the total amount of state funding, then the current reimbursement dollars would be shifted from one set of nursing homes to another. On the other hand, while the nursing home industry would probably prefer increasing state funding for nursing home services, this could be an expensive endeavor for the state at a time when federal funding cuts are expected and when recent reports have concluded that Minnesota is likely to face tough fiscal decisions in the future as projected revenues fall short of estimated spending.[25]

An earlier Minnesota State Planning Agency report analyzed alternatives to the geographic groups and concluded that inequities in the present groups could not be addressed without creating new inequities.[26] According to Minnesota Department of Human Services staff, modeling of specific alternatives to the geographic groups would require major modifications to the rate-setting program. A full evaluation of alternatives to Minnesota's geographic groups and the fiscal consequences of each alternative requires a more in-depth analysis than we were able to conduct. If the Minnesota Legislature wants more detailed information about the fiscal consequences of changing the geographic groupings, a significant amount of additional research would be needed.

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25 Minnesota Planning, *Within Our Means: Tough Choices for Government Spending* (January 1995); John Brandl and Vin Weber, *An Agenda for Reform: Competition, Community, Concentration* (A Report to Governor Arne H. Carlson) (November 1995); and Office of the Legislative Auditor, *Trends in State and Local Government Spending* (February 1996).

26 Minnesota State Planning Agency, *Appropriateness Study: Minnesota's Geographic Groups for Nursing Home Reimbursement* (St. Paul, January 1986), 1.

Introduction

The costs paid by government and private citizens for nursing home services is a topic of national and state interest. In state fiscal year 1995, Minnesota spent over $800 million in Medicaid funds on nursing homes; the federal government financed 54 percent of this funding. Medicaid paid for two-thirds of all nursing home residents in Minnesota, Medicare (financed entirely by the federal government) covered about 6 percent, and 26 percent of nursing home residents (or their families) paid for their own care.

The federal government gives each state flexibility in establishing its own Medicaid reimbursement methods and rates for nursing home care. Consequently, nursing home per diem rates vary widely. In 1994, the Health Care Financing Administration (HCFA) reported a range in average Medicaid per diem reimbursement rates from a low of $49.70 in Oklahoma to $211.21 in Alaska.[1] Minnesota's average reimbursement rate of $92.24 per day ranked 13th among the states and was higher than any surrounding state.[2]

Our study compared 1995 nursing home reimbursement rates in five states in the Upper Midwest.

Within Minnesota, nursing home daily rates vary depending on allowable historic facility-specific expenditures, the geographic location of a home (three regions), and the case mix or level of care a resident needs (eleven categories). In 1995, average per diem rates across these divisions ranged from $60.42 to $139.53.

In May 1996, the Legislative Audit Commission directed our office to compare Minnesota's Medicaid reimbursement rates for nursing home services with the rates charged in neighboring states. Our evaluation addressed the following questions:

- **To what extent is there variation in the Medicaid reimbursement rates for nursing home residents in Minnesota, Iowa, North Dakota, South Dakota and Wisconsin? How do Medicaid reimbursement rates compare with rates charged to private-pay residents?**

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1 Charlene Harrington, James H. Swan, and others, *1994 State Data Book on Long-Term Care Program and Market Characteristics* (San Francisco: University of California and Wichita: Wichita State University, October 1995).

2 Wisconsin, with an average per diem reimbursement rate of $76.32, ranked 24th; North Dakota's rate of $75.92 ranked 26th; South Dakota's rate of $64.37 ranked 42nd; and Iowa's rate of $58.75 ranked 45th.

- **What specific costs account for the differences in nursing home rates among these states?**

- **Are Minnesota's rates higher because its facilities deliver a superior quality of nursing home care or provide services to more medically needy and costly residents compared with other states?**

- **Do Minnesota's geographic groups, which determine nursing home reimbursement rates, hinder the ability of nursing homes in any particular group to provide competitive salaries for nursing staff?**

Because there is no central source of information on nursing home reimbursement rates or costs, we collected data from a variety of sources to answer these questions. We interviewed state Medicaid officials, policy makers, nursing home providers, and consumer advocates. We reviewed literature and nursing home reimbursement statutes, rules, and procedures. We analyzed the reimbursement rate and cost report data used to set nursing home rates. Working with the Minnesota Department of Health, we used federal government data to analyze the quality of care provided in nursing homes and resident conditions.

Incomplete data and the varying nature of each state's nursing home industry, reimbursement system, cost reporting forms, and financial data frequently complicated the interstate comparisons necessary to answer our evaluation questions. At times, the lack of data prohibited us from comparing Minnesota to *each* of the neighboring states. In these cases, only states with adequate comparable data were examined.

Our report is organized into six chapters. Chapter 1 describes the nursing home industry and Medicaid reimbursement system in each state. Chapter 2 compares the Medicaid reimbursement rates in each state and discusses rate equalization. Chapter 3 examines the allowable costs reported by nursing home providers in each state to determine which cost factors account for the differences in nursing home rates. Chapter 4 focuses on quality of care and the characteristics of nursing home residents in each state. Chapter 5 discusses the effect of reimbursement limits and incentive payments on nursing home rates. Chapter 6 examines Minnesota's nursing home reimbursement geographic groups.

Background

CHAPTER 1

As the United States population ages, an increasing number of Americans will need some type of long-term care services. While more attention is being focused on the development of alternatives to nursing home care, most public and private spending still pays for institutional care in nursing homes. Federal and state governments provide most of the funding for nursing home care. Medicaid is the largest government payer for nursing home care, and in some states nursing home costs are the largest single category of Medicaid spending. For this reason, policy makers have shown growing concern about the cost of nursing home services.

Our report compares 1995 nursing home rates in five states in the Upper Midwest: Minnesota, Iowa, North and South Dakota, and Wisconsin. This chapter presents an overview of the nursing home industry in each of those states, and describes each state's Medicaid reimbursement system. We asked:

- **What are the main features of the nursing home industry in each state?**
- **What key features characterize the Medicaid nursing home reimbursement system in each state?**

To answer these questions, we analyzed federal government Medicaid data; reviewed statutes, rules, and procedures related to each state's Medicaid reimbursement system; and interviewed state Medicaid officials.

The nursing home industry in each state differs in size and nature of ownership.

The nursing home industry in each state examined share some characteristics, such as more nursing home beds per capita and higher rates of nursing home use than the national average. But they differ in size, nature of ownership, and how they distinguish between different levels of care. In addition, there is wide variation in nursing home reimbursement systems among the states examined, because the federal government gives each state flexibility to establish its own Medicaid reimbursement methods and payment rates. In most states the Medicaid reimbursement systems are complex and comparisons are difficult.

NURSING HOME INDUSTRY IN FIVE MIDWESTERN STATES

This study focuses on Medicaid-certified nursing facilities subject to the payment rates established in Minnesota, Iowa, North Dakota, South Dakota, and Wisconsin.[1] A nursing facility is:

> an institution which is primarily engaged in providing skilled nursing care and related services for residents who require medical or nursing care; or rehabilitation services for injured, disabled, or sick persons; or on a regular basis, health-related care and services to individuals who because of their mental or physical condition require care and services which can be made available to them only through institutional facilities.[2]

Medicaid is an entitlement program in which the federal and state governments share the costs of medical care for the poor, elderly, and disabled. In 1994, Medicaid spending for nursing homes totaled $28 billion nationally and represented 21 percent of all Medicaid expenditures, topped only by the amount spent for hospital services. However,

- **Nursing home payments constituted the *largest* category of Medicaid spending in Minnesota, North and South Dakota, and Wisconsin.**

In Minnesota, nursing home care accounted for 35 percent of all Medicaid spending in 1994.

In Minnesota, total Medicaid spending for all types of care by federal, state, and county governments was approximately $2.5 billion in 1994. Nursing home care accounted for 35 percent of all Medicaid expenditures, well above the national average. Table 1.1 shows that Wisconsin, North Dakota, and South Dakota spent similar portions of their Medicaid budgets on nursing home care. Iowa, on the other hand, looked more like the national average, spending more on hospital care and only 22 percent of its Medicaid budget on nursing home services.

Nationally, Medicaid financed care for nearly 69 percent of nursing home residents in 1993.[3] As Table 1.1 shows, Wisconsin was close to but below the national average, followed by Minnesota, North and South Dakota, and Iowa. One factor that might account for these differences is that some nursing homes may prefer private residents because facilities can charge higher rates to private residents compared with Medicaid patients.[4]

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1 This report uses the terms "nursing facility" and "nursing home" interchangeably. Because every state in our evaluation uses different procedures to finance state-owned facilities, we did not include these facilities in our evaluation.

2 Omnibus Budget Reconciliation Act of 1987 (OBRA), Laws of 100th Congress First Session, Public Law 100-203, Subtitle C: Nursing Home Reform, Part 2 Medicaid Program, Section 1919(a).

3 American Health Care Association, *Facts and Trends: The Nursing Facility Sourcebook* (AHCA: Washington, D.C., 1994), 12-13. In 1995, Medicaid paid for the services of 66 percent of Minnesota's nursing home resident days and 56 percent of South Dakota's resident days. The lack of comparable data prevents a more up-to-date comparison with other states.

4 Richard DuNah and others, "Variations and Trends in Licensed Nursing Home Capacity in the States, 1978-1993," *Health Care Financing Review* 17, no. 1 (Fall 1995): 185.

Table 1.1: Medicaid and Demographic Statistics Related to Nursing Home Services

	Minnesota	Iowa	North Dakota	South Dakota	Wisconsin	U.S. Total
Medicaid Spending, 1994						
Total (in millions)	$2,469.7	$1,089.1	$278.9	$290.6	$2,255.9	$136,886.4
Nursing Facilities (in millions)	863.9	240.5	94.6	86.8	687.4	28,127.0
Percent of Total State Medicaid Spending	35%	22%	34%	30%	30%	21%
Percent of Nursing Home Residents Financed by Medicaid, 1993	63.1%	51.3%	57.5%	56.5%	67.4%	68.8%
Percent of State Population Over the Age of 65, 1994	12.5%	15.4%	14.7%	14.7%	13.4%	12.7%
Nursing Home Beds Per 1,000 Aged 65 and Over, 1994	78.3	82.0	75.8	71.8	69.7	53.3

Sources: Health Care Financing Administration, *Medicaid Statistics: Program and Financial Statistics Fiscal Year 1994*; American Health Care Association, *Facts and Trends*, 1994; Current Population Reports, Bureau of the Census; C. Harrington, *1994 Data Book*.

Historically,

- **States in the Upper Midwest, including Minnesota, have more nursing home beds per capita and a higher rate of nursing home use than the national average.**

Midwestern states had a higher rate of nursing home use than the national average.

In 1994, Minnesota had approximately 78 nursing home beds per 1,000 people age 65 and over, compared with a national average of 53 beds per 1,000.[5] As shown in Table 1.1, each of the neighboring states was also above the national average. In addition, Minnesota also had a higher proportion of its elderly citizens living in nursing homes than the national average. In 1994, 7.1 percent of Minnesota residents aged 65 and over lived in nursing homes, compared with 5 percent nationally. Over time, however, Minnesota has moved closer to the national average: the percent of Minnesotans aged 65 and over living in nursing homes has declined from 8.8 percent in 1980 to 7.1 percent in 1994.[6]

The number, type, ownership, and size of nursing homes in each state is summarized in Table 1.2. In 1995, Minnesota had 444 Medicaid-certified nursing homes with over 44,000 beds, for an average of 100 beds per facility. In total size,

5 Charlene Harrington, James H. Swan, and others, *1994 State Data Book on Long-Term Care Program and Market Characteristics* (San Francisco: University of California and Wichita: Wichita State University, October 1995).

6 Minnesota Departments of Health and Human Services, *Profile of Minnesota Nursing Homes and Long-Term Care Alternatives: 1996* (St. Paul, Feb. 1996), 1-2. The number of nursing home beds compared to the elderly population also has declined in neighboring states. Moratoriums on the licensing and/or construction of new beds has helped regulate the supply of nursing home beds. Minnesota has had a moratorium since 1983. North Dakota, South Dakota, and Wisconsin also have moratoriums, and Iowa has a certificate of need program.

Table 1.2: Comparison of Nursing Homes and Beds, 1995

Type of Facility	Minnesota		North Dakota		South Dakota [1]		Wisconsin [2]		Iowa [3]	
	Number of Facilities	Number of Beds	Number of Facilities	Number of Beds	Number of Facilities	Number of Beds	Number of Facilities	Number of Beds	Number of Facilities	Number of Beds
All	444	44,827	83	7,060	107	7,871	366	41,446	427	32,245
Freestanding	355	37,998	60	5,202	83	6,327	340	39,608	406	30,985
Hospital-Attached	89	6,829	23	1,858	24	1,544	26	1,839	21	1,260
Public	67	5,286	1	38	3	167	40	5,711	18	999
For-profit	145	14,675	9	758	38	2,801	191	21,178	249	18,319
Non-profit	232	24,884	73	6,264	66	4,903	135	14,557	160	12,927
Number of Beds:										
1-49	53	1,881	16	597	19	775	28	1,015	70	2,676
50-99	212	15,328	41	2,804	72	4,902	166	12,198	267	18,190
100-199	154	20,742	24	3,142	15	1,972	131	17,233	86	10,461
200 and Over	25	6,876	2	517	1	222	41	11,001	4	918

Source: Program Evaluation Division analysis of state nursing home cost report data.

[1]South Dakota data represent 107 of 112 nursing homes.

[2]Wisconsin data represent 366 of 411 nursing homes. Wisconsin allows nursing homes to file combined cost reports for nursing facilities (NF) and intermediate care facilities for the mentally retarded (ICF-MR), which have higher costs than nursing facilities. Facilities filing combined cost reports were excluded from this evaluation.

[3]Iowa data represent only nursing facilities that provide an intermediate level of care because detailed data on facilities that provide skilled nursing services were not available.

Minnesota and Wisconsin's nursing home industries were similar.[7] Iowa had a comparable number of facilities, but had an average of only 75 beds per facility.

While definitions vary by state, a facility is "hospital-attached" if it shares a building, specific services, and/or costs with an adjoining or nearby hospital. In some instances in Minnesota, multiple nursing homes in different locations from a hospital may also be considered attached facilities. Some hospital-attached facilities may have higher costs than freestanding homes. One reason for this is that some states, including Minnesota, use Medicare cost reporting procedures for these facilities. Twenty percent of Minnesota's nursing homes were hospital-attached, compared with 22 percent in South Dakota and 28 percent in North Dakota. In contrast, both Wisconsin and Iowa had a much smaller share of hospital-attached facilities (7 and 5 percent respectively). In addition, unlike most other states, Minnesota has 12 short-length-of-stay facilities and 4 facilities providing care for the severely physically impaired (called Rule 80 facilities), which receive special reimbursement considerations.

- **The nursing home industry in Minnesota and the surrounding states has more non-profit and fewer for-profit homes than the national average.**

7 Wisconsin has 411 nursing facilities, however, we excluded 45 facilities from our analysis. These facilities filed combined cost reports for nursing facilities and intermediate care facilities for the mentally retarded (which have higher average costs than nursing homes).

Minnesota has more non-profit and publicly-owned nursing homes than the national average.

Nationally, only 16 percent of nursing homes were non-profit, compared with 52 percent in Minnesota, 62 percent in South Dakota, and 88 percent in North Dakota.[8] More than one-third of the nursing homes in Wisconsin and Iowa were non-profit enterprises. Also nationally, 73 percent of nursing home were for-profit, compared with 58 percent in Iowa, 52 percent in Wisconsin, 35 percent in South Dakota, 33 percent in Minnesota, 11 percent in North Dakota. Finally, 4 percent of nursing homes nationally were publicly-owned, compared with 15 percent in Minnesota and 11 percent in Wisconsin.[9] Iowa was at the national average with four percent, while North Dakota, and South Dakota had few public nursing homes.

Prior to 1990, nursing homes were classified as either "skilled nursing" or "intermediate care " facilities.[10] Only skilled nursing facilities could provide the highest level of nursing home care. Federal nursing home reform legislation eliminated this distinction effective October 1, 1990, and created a single class of "nursing facility," required to provide 24-hour licensed nursing care. Some states retained the skilled nursing and intermediate care designation to characterize the level of care needed by residents. Federal regulations, however, require that all nursing homes meet the same professional nurse staffing requirements. Minnesota, North Dakota, and South Dakota do not distinguish between intermediate and skilled nursing levels of care. In Wisconsin, nursing facilities provide six different levels of nursing care from intense skilled nursing to intermediate residential care.[11]

Iowa, however, differentiates between two different levels of care: nursing facilities that provide an intermediate level of care and Medicare-certified skilled nursing facilities. Unlike the other states examined, Iowa maintains a different reimbursement system for each level of care. The Iowa data we evaluated in this study represents only the nursing facilities providing an intermediate level of care, and for this reason, is not directly comparable to data for other states.[12]

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8 Marion Merrell Dow, Inc., *Institutional Digest 1995* (Kansas City, 1995): 26.

9 A larger proportion of Wisconsin's municipal- and county-owned nursing homes than for-profit or non-profit homes were eliminated from our evaluation because of their combined nursing facility and ICF-MR cost reporting. Prior to this adjustment, publicly-owned nursing homes represented nearly 15 percent of all nursing homes in Wisconsin.

10 Prior to 1990, skilled nursing facilities provided 24-hour nursing care which was prescribed by a phycisian with a registered nurse working on the day shift seven days a week. In contrast, intermediate care facilities generally were required to have only one licensed nurse working on the day shift seven days a week. After October 1, 1990, *all* nursing facilities (including those providing and intermediate level of care) are required to provide 24-hour licensed nursing care with a registered nurse working seven days a week, eight hours a day. Additional staffing requirements for nursing facilities are discussed in Chapter 3.

11 Intense skilled nursing care requires complex interventions and monitoring by professional nurses with specialized nursing assessment skills. In contrast, intermediate residential care is provided to disabled individuals who need social services and activity therapy. Furthermore, approximately 80 percent of Wisconsin's nursing home residents received a skilled nursing level of care in 1994.

12 Iowa Medicaid staff told us that 102 of the 427 nursing facilities providing an intermediate level of care also have units that provide skilled nursing services. We unsuccessfully attempted to obtain detailed data on current rates, costs, bed numbers, and patient days for Iowa facilities providing skilled nursing services.

DESCRIPTION OF NURSING HOME REIMBURSEMENT SYSTEMS

The federal government requires each state to pay for nursing home services through the use of rates that:

> are reasonable and adequate to meet the costs that must be incurred by efficiently and economically operated facilities to provide services in conformity with state and federal laws, regulations, and quality and safety standards.[13]

Medicaid nursing home reimbursement systems vary widely among the states we examined.

While the federal government sets general policy, it also gives each state flexibility to establish its own Medicaid reimbursement methods and payment rates for nursing home services. Consequently, there is wide variation in nursing home reimbursement systems among states, making comparisons difficult. Nursing home reimbursement policies and procedures are used to determine payment rates and can significantly affect both Medicaid nursing home rates and expenditures. For instance, a reimbursement system with lower spending limits will contain costs more than a system with higher spending limits.

We evaluated nursing home reimbursement systems and rates that were in effect for the year beginning January 1, 1995 in North Dakota, and July 1, 1995 in Minnesota, Iowa, South Dakota, and Wisconsin (called the 1995 rate year). It should also be noted that Minnesota has made changes to its reimbursement system for rates effective July 1, 1996, or the 1996 rate year. Consequently, Minnesota's current reimbursement system is different from the one examined as part of this evaluation. In 1995, the Legislature approved an alternative payment demonstration project for nursing home services.[14] The purpose of this project is to develop a purchase-of-service approach as an alternative to the current cost-based reimbursement system. As of June 1996, the Minnesota Department of Human Services has contracted with 73 nursing home providers to participate in the demonstration. Up to 40 more providers may be added to the project in early 1997.

In 1996, the Legislature modified some new reimbursement limits that had been implemented in 1995, temporarily suspended other reimbursement limits, and provided a payment increase of six cents per resident day in addition to the annual inflation adjustment for the 1996 rate year.[15] These changes apply only for the 1996 rate year. When setting nursing home reimbursement rates for the 1997 and future rate years, the law requires the Commissioner of Human Services to use the reimbursement limits adopted in 1995, and discussed in this report. (See Appendix A.)

The remainder of this chapter describes the general characteristics of nursing home reimbursement systems, particularly those used in Minnesota and each of

13 42 Code of Federal Regulations Chapter IV, Subpart C §447.250 (a).

14 *Minn. Stat.* §256B.434.

15 *Minn. Laws* (1996), Ch. 451, Art. 3, Section 11. See Appendix A.

the surrounding states during the 1995 rate year.[16] The reimbursement systems for most states are highly complex. Figures B.1 through B.5 in Appendix B summarize the key characteristics of each state's 1995 Medicaid nursing home reimbursement system.[17]

Reimbursement Payment Method

State Medicaid programs commonly base reimbursement rates paid to each nursing home on its costs. Most states use "prospective payment" methods, which use past costs to set future reimbursement rates. Reimbursement rates are set in advance based on a prior year's allowed costs (called historical costs).[18] Because prospective systems have a built-in time lag between spending and reimbursement, payments may not match current spending. Prospective methods can be further classified as:

Minnesota's reimbursement system bases payments on past costs.

1. *Facility-specific methods*, which set reimbursement rates for individual nursing homes based on allowed costs incurred by each home during a previous reporting period. Facility-specific rates may also be set based on resident census, facility type, or other conditions. Minnesota, North and South Dakota, Wisconsin, and 15 other states used prospective facility-specific payment methods in 1994.[19]

2. *Class methods*, which set a single flat payment rate for all facilities in a state or set multiple-class rates for groups of homes based on size, geographic location, resident census, or other attributes. Only California, Louisianna, and Oklahoma used this type of reimbursement method in 1994.

3. *Adjusted methods*, which allow prospective reimbursement rates, once set, to be increased during the rate year. Iowa and 23 other states used adjusted, prospective payment methods in 1994.

During the 1970s, states used retrospective reimbursement methods in which nursing homes are reimbursed for allowed costs after services are provided and costs

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16 Charlene Harrington, James H. Swan, and others, *1994 State Data Book*; John Holahan, "State Rate-Setting and Its Effects on the Costs of Nursing Home Care," *Journal of Health Politics, Policy and Law* 9, no. 4 (Winter 1985): 647-667; Robert E. Schenkler, "Comparison of Medicaid Nursing Home Payment Systems," *Health Care Financing Review* 12, no. 1 (Fall 1991): 93-109. For more detailed information on nursing home reimbursement in Minnesota see Minnesota House of Representatives Research Department, *Nursing Home Reimbursement Information Brief* (St. Paul: October 1994) and *Nursing Home Reimbursement Information Brief: July 1996 Update* (St. Paul: July 1996); Office of the Legislative Auditor, *Nursing Homes: A Financial Review* (St. Paul, January 1991).

17 The Glossary contains definitions of many of the terms used below.

18 Allowable costs are a facility's actual costs that are eligible for reimbursement after appropriate adjustments as required by state Medicaid regulations, including the routine costs of nursing home services needed to provide quality care. Nonallowed costs include items such as gift shops and board of director expenses.

19 James H. Swan, Charlene Harrington, and others, *Medicaid Nursing Facility Reimbursement Methods Through 1994*, Draft article presented at the 121st Annual Meeting of the American Public Health Association in October 1993, June 1996 update. This article also identified three states that use combined prospective/retrospective payment methods.

are incurred. Only one state, Pennsylvania, used a retrospective reimbursement method in 1994.

Rate and Cost Reporting Years

The reimbursement systems in the states we evaluated use facility-specific cost reports from previous years to set their prospective payment rates. North Dakota uses a January 1 to December 31 rate year; Minnesota, Iowa, South Dakota, and Wisconsin have July 1 to June 30 rate years. Each state, however, uses different cost reporting periods. Figure C.1 in Appendix C compares the rate and cost reporting years for each state.[20]

Case-Mix Classification

In some states, reimbursement varies with the care needs of residents. Case mix classifies residents based on dependencies in activities of daily living, needs for special nursing care, and behavioral conditions. Higher case-mix scores are assigned to residents with higher care needs; generally, case-mix scores are used to adjust nursing or direct-care per diem rates. Nursing home residents in Minnesota, North Dakota, and South Dakota are assessed and assigned a case-mix classification. Each state, however, uses a different case-mix system: Minnesota has 11 case-mix categories, compared with 16 in North Dakota and 35 in South Dakota.

Reimbursement Limits

To contain and direct nursing home expenditures, each state limits the amount of allowed costs it will reimburse. If a facility's allowed daily costs exceed a limited reimbursement rate, then it is reimbursed at the limited rate.

States use various methods for establishing reimbursement limits. Some states, including Minnesota, North Dakota, South Dakota, and Wisconsin, set reimbursement limits for specific groups of costs (such as care-related, direct-care, other operating, and property costs).[21] Reimbursement limits can be set at a certain percent of the median daily costs for all nursing homes. Usually, the limit for nursing or direct-care services is higher than the limit for other cost categories. In 1995, Minnesota set a maximum reimbursement for "care-related costs" at 125 percent of the median per diem cost and "other operating costs" were capped at 110 percent of the median per diem cost for nursing homes in a specific geographic group. Reimbursement limits can also be set at a percentile of total per diem costs for specific cost categories. Iowa does not use cost categories to limit reimburse-

20 For rates in effect either January 1 or July 1, 1995, the states in our evaluation used nursing home costs that were incurred during different 12 month periods between July 1993 and June 1995. Minnesota and North Dakota use the same cost reporting period for all facilities; Iowa, South Dakota, and Wisconsin base cost reports on a facility's fiscal year.

21 Iowa, South Dakota, and Wisconsin updated and recalculated nursing home reimbursement limits using the most recent year of cost data. Minnesota and North Dakota recalculated reimbursement limits in 1992 and use an inflation index to adjust the limits annually.

ment rates, but sets a maximum per diem Medicaid payment rate at the 70th percentile of *total* daily costs, as determined annually by the Iowa Legislature.

A state may also set reimbursement limits for groups of nursing homes based on geographic location, number of beds, facility type, or other attributes. Minnesota, South Dakota, and Wisconsin limit reimbursement of nursing home costs based on various groupings.

Inflation Adjustments

The method a state chooses to adjust costs for inflation can cause reimbursement rates to increase at a faster pace than other states. Generally, states use either the change in a nursing home market basket or a consumer price index to inflate either reimbursement limits and/or per diem operating costs.

Services Included in Reimbursement Rates

In Minnesota, most therapy costs are not included in the reimbursement rate.

Including ancillary services (such as physical, occupational and speech therapies; and durable medical equipment) in daily payment rates can result in higher rates. North and South Dakota include ancillary services in the daily rates if the services are provided in the nursing home. In Minnesota, Iowa, and Wisconsin ancillary services can be either included in the nursing home reimbursement rate or paid by Medicaid directly to the service provider. In Minnesota, most therapy costs are billed outside of the daily payment rate.

Incentives

Most states provide various incentive payments to encourage nursing homes to reduce spending. Minnesota, North Dakota, Wisconsin, and Iowa provide various types of incentive payments applied to operating costs or total costs. Minnesota also provides refinancing and equity incentives, and Wisconsin provides a property incentive.

Property Reimbursement

North Dakota, South Dakota, Wisconsin, and Iowa base property reimbursement on historical costs allowing for depreciation and actual interest expense. Minnesota uses a fair-rental formula to calculate an imputed value for property reimbursement. Minnesota's modified rental formula is used only to determine changes to a base property rate caused by major projects or annual improvements.

Special Reimbursement Considerations

Statewide average reimbursement rates may be increased when a state provides special reimbursement considerations, usually higher reimbursement limits, to certain types of facilities. In Minnesota, hospital-attached and short-length-of-stay

facilities, and facilities serving the severely physically impaired are subject to special reimbursement considerations. South Dakota also provides special reimbursement considerations to hospital-attached nursing homes.

SUMMARY

Nursing home industries in Minnesota and the surrounding states share some characteristics, such as a higher rate of nursing home use than the national average, but they also differ in important ways. Nursing home industries were larger in Minnesota and Wisconsin than in North and South Dakota in 1995. Minnesota, North Dakota, and South Dakota had more hospital-attached nursing homes than Iowa or Wisconsin. In addition, Minnesota had more publicly-owned nursing homes than Iowa, North Dakota, and South Dakota.

Most states examined do not distinguish between "skilled nursing" and "intermediate care" after federal regulations eliminated this distinction. Minnesota, North Dakota, and South Dakota do not distinguish between intermediate and skilled nursing levels of care. Approximately 80 percent of Wisconsin's nursing home residents received a skilled nursing level of care. In contrast, Iowa continues to distinguish between these two different levels of care, and unlike other states, maintains a different reimbursement system for each level of care. Our analysis of Iowa's rates and costs focuses on nursing facilities that provide an *intermediate level of care*. For this reason, data on Iowa's nursing home reimbursement rates and costs are not directly comparable to data for the other states examined.

While the federal government regulates and sets general policy for the provision and reimbursement of nursing home care, it also gives each state flexibility to establish its own Medicaid reimbursement systems. There are more differences than similarities in the methods each state uses to establish its reimbursement rates. Each state, for instance, uses different cost reporting years, and different methods of limiting reimbursement of costs and adjusting rates to resident care needs. As a result, there is wide variation in nursing home reimbursement systems among the states examined, making comparisons difficult.

The following chapters describe the variation in Medicaid nursing home reimbursement rates in Minnesota and the surrounding states and analyze each state's nursing home cost reports to determine what specific factors account for the variation in average nursing home rates. In Chapter 5, we evaluate the impact of reimbursement limits, inflation adjustments, and incentive payments on nursing home rates and costs.

Nursing Home Reimbursement Rates

CHAPTER 2

As we discussed in Chapter 1, the federal government gives each state flexibility in establishing its own Medicaid reimbursement methods and rates for nursing home services. While the five states examined all use prospective, facility-specific reimbursement methods, the way each state has designed its reimbursement system varies significantly. The combination of historical, facility-specific costs, reimbursement limits, and the use of case-mix adjustments results in considerable variation in daily reimbursement rates both among states and within each state.

This chapter examines Medicaid reimbursement rates for nursing homes in Minnesota and the surrounding states. We asked:

- **To what extent is there variation in the rates charged to nursing home residents in Minnesota, Iowa, North and South Dakota, and Wisconsin?**

- **How do Medicaid reimbursement rates for nursing homes compare with rates charged to private-pay residents?**

Minnesota's average daily reimbursement rate was higher than rates in neighboring states.

To answer these questions, we analyzed nursing home reimbursement rates in effect for the 1995 rate year which began January 1, 1995, in North Dakota, and July 1, 1995, in Minnesota, Iowa, South Dakota, and Wisconsin.[1] We reviewed national literature, and collected private-pay rate data from Wisconsin, South Dakota, and Iowa.

We found that there is a wide variation in nursing home per diem reimbursement rates among the states. In 1995, Minnesota's statewide average Medicaid payment rate of $95.61 per day was significantly higher than the rates in North and South Dakota and Wisconsin. In states without rate equalization, we found that nursing homes charge private-pay residents more than Medicaid residents.

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1 This evaluation analyzed Minnesota's nursing home rates in effect on July 1, 1995 based on 1994 nursing home cost reports (October 1, 1993 to September 30, 1994). These rate and cost years were selected for several reasons. First, Minnesota's 1994 cost reports on which the 1995 rates were based have been desk audited, a sample has been field audited, and costs have been adjusted. Second, South Dakota is adjusting its reimbursement system and will be using rebased 1994 cost data to set rates for 1996, and their staff suggested we use 1994 cost report data. Third, more current data for Iowa were not available until late in the evaluation process.

AVERAGE DAILY NURSING HOME RATES

Daily reimbursement rates are typically determined by taking each nursing home's allowable costs per day, applying reimbursement limits, adjusting for inflation, and adding incentive payments. Since nursing home rates can vary within a state, it is necessary to calculate statewide average rates in order to compare rates among states. Table 2.1 illustrates the 1995 statewide average per diem rates weighted by resident days for nursing homes in Minnesota and the neighboring states.[2] We found that:

- **In 1995, Minnesota's statewide average Medicaid nursing home rate of $95.61 per resident day was significantly higher than the rates in North Dakota, South Dakota, and Wisconsin.**

Table 2.1: Comparison of Average Medicaid Nursing Home Rates Per Resident Day, 1995

Facility Type	Minnesota Weighted Statewide Average Rate	North Dakota Weighted Statewide Average Rate	South Dakota Weighted Statewide Average Rate	Wisconsin Weighted Statewide Average Rate	Iowa Maximum Reimbursement Rates[1]
All	$95.61	$79.92	$74.23	$83.15	$61.63 / 64.60
Freestanding	95.49	79.01	72.28	83.29	61.63 / 64.60
Hospital-Attached	99.02	82.45	82.03	80.28	61.63 / 64.60
Public	96.68	--[2]	80.79	83.62	61.63 / 64.60
For-profit	97.52	76.51	73.01	81.71	59.42 / 60.83
Non-profit	95.03	80.23	74.67	85.01	61.63 / 64.60
Number of Beds:					
1-49	92.99	80.19	67.90	81.78	61.63 / 64.60
50-99	89.65	75.81	72.27	79.88	61.63 / 63.90
100-199	97.22	81.21	81.11	83.10	61.63 / 64.60
200 and over	107.74	93.49	--[3]	87.00	61.63 / 64.60

Note: Statewide average reimbursement rates are for the January 1, 1995 through December 30, 1995 rate year for North Dakota, and the July 1, 1995 through June 30, 1996 rate year for Minnesota, Iowa, South Dakota, and Wisconsin.

Source: Program Evaluation Division analysis of state nursing home cost report and rate setting data; Minnesota Department of Human Services.

[1]Iowa reimbursement rates represent the maximum reimbursement rate for nursing facilities providing an intermediate level of care only. The rates do not reflect the costs of providing skilled nursing care and, consequently, are not directly comparable to rates for other states. The first rate was effective July 1, 1995; the second rate was effective January 1, 1996.

[2]North Dakota's only public facility had an average rate of $95.28 per day.

[3]South Dakota's only facility with over 200 beds had an average rate of $83.82 per day.

2 The Program Evaluation Division calculated the weighted average rates for Iowa, North and South Dakota, and Wisconsin. The specific procedures used to calculate the rates varied for each state. Generally, we used facility per diem rates contained in each state's financial data base and weighted the rate by resident days and resident case-mix census (when available). The Minnesota Department of Human Services calculated Minnesota's rates, which reflect a case-mix adjusted weighted average rate.

For all nursing homes, Minnesota's average daily payment rate for the 1995 rate year was approximately 15 percent higher than the average rate in Wisconsin ($83.15) and nearly 30 percent higher than South Dakota ($74.23).[3] In contrast, the average daily rates in Wisconsin were 4 percent higher than those in North Dakota and 12 percent higher than the rates in South Dakota.

Iowa's nursing home reimbursement rates are not directly comparable to rates in the other states we reviewed.

Iowa's statewide average rates are not directly comparable to the rates for other states because they reflect the costs of nursing facilities providing an intermediate level of care only.[4] Iowa's rates *do not reflect the costs of providing skilled nursing care*, whereas the rate data for all other states represent the costs of providing *both* intermediate and skilled nursing levels of care. In most cases, the reimbursement rates for Iowa's intermediate level of care nursing facilities were the maximum daily reimbursement rate allowed, $61.63 or $64.60 per diem (see Table 2.1). In contrast, Iowa's skilled nursing facilities had maximum reimbursement rates of $108.99 per day for freestanding homes and $236.84 per day for hospital-attached homes, effective July 1, 1995. Iowa's average rates would be higher if they included the costs of providing a skilled nursing level of care.

Table 2.1 also illustrates that daily reimbursement rates vary by nursing home type and size. We found that:

- **Hospital-attached nursing facilities had higher average per diem reimbursement rates than freestanding nursing homes in Minnesota, North Dakota, and South Dakota during the 1995 rate year.**

In Minnesota, the average reimbursement rate for hospital-attached homes of $99.02 was nearly 4 percent higher than the average rate for freestanding homes ($95.49). The difference between North Dakota's average rates for freestanding and hospital-attached facilities was also 4 percent, while South Dakota's was 13 percent.

Several factors could account for higher rates for hospital-attached facilities. First, in Minnesota and some other states, hospital-attached homes file different (Medicare) cost reports than freestanding homes.[5] Instead of reporting direct costs, a hospital-attached home allocates costs between the nursing home and hospital using various formulas. For instance, large proportions of costs are allocated based on the amount of square feet in each facility, not on the service provided. Other costs are allocated based on services, such as the number of meals served in each part of the facility. Second, Minnesota and South Dakota, provide special

3 Iowa's rates represent only nursing facilities providing an intermediate level of care and therefore, are not directly comparable to Minnesota's rates. Nursing home rates in Minnesota were between 48 and 55 percent higher than Iowa's rates of $61.63 per resident day effective July 1, 1995 and $64.60 per day effective January 1, 1996.

4 We were unable to obtain detailed information on costs, rates, resident census, and number of beds for Iowa homes providing skilled nursing services. See earlier discussion in Chapter 1.

5 The cost reports for hospital-attached facilities in Minnesota do not include detailed salary or other cost information that is available for freestanding homes. For example, hospital-attached facilities report a total cost for nursing services, but no detail is available for salaries, supplies, or other line items.

reimbursement considerations for hospital-attached homes which results in higher costs and rates. This latter issue is discussed in more detail in Chapter 3.

No pattern is evident when average rates are examined by ownership type. In Minnesota, for-profit homes, one-third of all homes in the state, had the highest average daily rate. In Wisconsin, for-profit homes had the lowest average daily rate and non-profit homes had the highest average daily rate. While few in number, the publicly-owned facilities in North Dakota (1) and South Dakota (3) had the highest rates.

The average rate by number of beds showed that:

- **In Minnesota and neighboring states, nursing homes with over 200 beds had the highest statewide average daily rates in 1995.**

Although nursing homes with over 200 beds comprise a small share of each state's total nursing homes, in Minnesota and Wisconsin these facilities account for 15 percent and 27 percent of all nursing home beds, respectively.[6] These large nursing homes had the highest average daily reimbursement rate in every state examined. In Minnesota, the average daily reimbursement rate for nursing homes with over 200 beds was $107.74. In contrast, Minnesota's nursing homes with between 50 and 99 beds (34 percent of total nursing home beds) had the lowest average daily rate, $89.65.

In Minnesota, differences in location and average case-mix score explain some of the variation in nursing home reimbursement rates. The majority (88 percent) of Minnesota's largest homes were located in the geographic group with the highest reimbursement (Group 3). The largest homes also had a higher average case-mix score (2.46) than the smallest homes (2.30 for homes with 1 to 49 beds and 2.40 for those with 50 to 99 beds). Homes with between 100 and 200 beds had the highest average case mix score (2.48) and the second highest average daily rate ($97.22).

We also examined the change in statewide average reimbursement rates from 1990 to 1994. Table 2.2 shows that Minnesota's nursing home rate per day had an average annual increase of 7.6 percent during this period, faster than the general inflation rate (3.3 percent), but about the same as the medical inflation rate (7.8 percent). Minnesota's reimbursement rates increased slightly more than the rates in most of the surrounding states. South Dakota, the one exception, implemented its case-mix reimbursement system in 1993 causing rates to increase. In states using case mix, the average daily rates may be affected by increased occupancy of higher case-mix residents. For all states, the larger rate increases from 1990 to 1992 could be attributed to the costs of implementing federal nursing home reforms. Many provisions of the Omnibus Budget Reconciliation Act of 1987 became effective January 1, 1990, such as new nursing staff requirements (discussed in Chapter 3) and additional training for certified nursing aides.

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6 Table 1.2 in Chapter 1 compares the number and types of nursing homes in each state. Nursing homes with over 200 beds accounted for 7 percent of all beds in North Dakota and 3 percent of all beds in South Dakota and Iowa.

Table 2.2: Trends in Average Nursing Home Rates, 1990 to 1994

	Percent Change from Previous Year in Average Nursing Home Rates				
	1991	1992	1993	1994	Annual Average Percent Change 1990-94
Minnesota	10.9%	4.8%	7.5%	4.6%	7.6%
Iowa	8.0	5.5	6.0	4.4	6.5
North Dakota	10.4	8.2	3.2	2.2	6.5
South Dakota	8.7	15.9	10.5	7.3	12.3
Wisconsin	9.9	12.3	-2.4	4.0	6.3
National Average	6.2	6.5	3.7	5.3	5.9
Consumer Price Index-Urban	4.2	3.0	3.0	2.7	3.3
Consumer Price Index-Medical	8.9	7.6	6.5	5.2	7.8

Source: James H. Swan, Charlene Harrington, and others, *Medicaid Nursing Facility Reimbursement Methods Through 1994,* June 1996 update of draft article; U.S. Department of Labor, Bureau of Labor Statistics.

In Minnesota and the Dakotas, reimbursement rates vary with resident care needs.

As mentioned in Chapter 1, reimbursement rates can vary with the care needs of residents. Reimbursement rates in Minnesota, North Dakota, and South Dakota are established using resident case-mix classifications: Minnesota has 11 case-mix categories, compared with 16 in North Dakota and 35 in South Dakota.[7] Wisconsin distinguishes among six levels of care. As Table 2.3 shows, the statewide average reimbursement rate for the 1995 rate year in Minnesota ranged from $65.84 for a case mix "A" resident needing the least amount of care to $125.40 for a case mix "K" resident requiring the most costly care. Since each state uses a different system to assess and score resident needs, comparison of the case-mix weighted average daily rates among states is not possible. Research studies suggest that case-mix systems may have higher rates overall because more costly, high needs residents (including hospital patients) will have access to nursing home services, reimbursement rates will more accurately reflect the care needs of all residents, and it will cost more to administer a more complex case-mix system.[8]

7 We did not have the detailed resident census data necessary to calculate a range of case-mix weighted rates for South Dakota.

8 John Holahan, "State Rate-Setting and its Effect on the Costs of Nursing Home Care," *Journal of Health Politics, Policy and Law* 9, no. 4 (Winter 1985): 647-667. Robert E. Schlenker, "Comparison of Medicaid Nursing Home Payment Systems," *Health Care Financing Review* 13, no. 1 (Fall 1991): 93-108. Kenneth E. Thorpe and others, "The Resource Utilization Group System: Its Effect on Nursing Home Case Mix and Costs," *Inquiry* 28, no. 4 (Winter 1991): 357-365. Brant E. Fries, "Comparing Case-Mix Systems for Nursing Home Payment," *Health Care Financing Review* 11, no. 4 (Summer 1990): 103-119.

Table 2.3: Comparison of Average Case-Mix Weighted Medicaid Nursing Home Rates, 1995

Facility Type	Minnesota Case Mix Weighted Average Range	North Dakota Case Mix Weighted Average Range	Wisconsin Level of Care Weighted Average Range[1]
All	$65.84 to $125.40	$66.18 to $111.87	$41.83 to $101.60
Freestanding	$70.83 to $124.50	$64.73 to $111.34	$41.99 to $101.88
Hospital-Attached	$76.68 to $131.37	$70.71 to $113.41	$39.86 to $95.38
Public	$67.32 to $124.94	$84.65 to $139.74	$38.38 to $102.59
For-profit	$66.81 to $127.38	$63.31 to $102.89	$43.57 to $99.71
Non-profit	$65.62 to $125.21	$66.36 to $113.70	$40.57 to $104.42
Number of Beds:			
1-49	$67.20 to $127.64	$64.36 to $111.72	--[2] to $104.31
50-99	$64.23 to $120.54	$64.05 to $106.44	$40.77 to $96.93
100-199	$67.57 to $129.77	$66.35 to $111.23	$40.93 to $101.70
200 and Over	$73.49 to $143.39	$78.87 to $125.65	$43.47 to $105.04

Note: The statewide average reimbursement rates are for the January 1, 1995 through December 30, 1995 rate year for North Dakota, and the July 1, 1995 through June 30, 1996 rate year for Minnesota and Wisconsin.

Source: Program Evaluation Division analysis of state nursing home cost report and rate setting data; Minnesota Department of Human Services.

[1]Wisconsin's average rates represent six different levels of care.

[2]Wisconsin did not have any facilities providing residential intermediate care, the lowest level of care, with between 1 and 49 beds.

RATE EQUALIZATION

Minnesota and North Dakota are the only states that equalize rates between private- and public-pay residents.

The main sources of nursing home payment include Medicaid, as the primary government payer, and residents paying for their own care. In Minnesota, about 26 percent of nursing home residents paid for their own care in 1995, compared with about 45 percent in Iowa. Our review of literature and interviews with industry representatives suggests that the source of payment could explain some of the variation in nursing home rates.

In Minnesota and North Dakota, nursing homes participating in the Medicaid program cannot charge higher rates to private residents than the rates set for similar Medicaid residents. [9] The purpose of rate equalization is to prevent discrimination and ensure access to nursing home care for Medicaid-supported residents. In some states without rate equalization, nursing homes are able to charge private-pay residents higher per diem rates than Medicaid residents and use these higher private-pay rates to subsidize lower Medicaid rates. Research studies have estimated that nursing facilities in some states charge private-pay residents from 10 to

9 Minn. Stat. §256B.48, Subd. 1(a); North Dakota Department of Human Services, *Rate Setting Manual for Nursing Facilities,* (Bismarck, Oct. 1995), 11. In Minnesota, rate equalization does not apply to single-bed rooms.

30 percent higher rates than Medicaid residents.[10] Wisconsin and South Dakota routinely collect data on the average rates charged to private-pay residents.[11] We found:

- **Average nursing home private-pay rates were between 25 and 35 percent higher than average Medicaid rates in Wisconsin in 1994 and between 10 and 14 percent higher in South Dakota in 1995.**

As Table 2.4 illustrates, the differences in average private-pay and Medicaid rates in Wisconsin ranges from 25 percent higher for intense skilled nursing to 35 percent higher for an intermediate level of care.[12] The majority of nursing home residents (77 percent) in Wisconsin receive a skilled nursing level of care, which had a difference of 29 percent between average private-pay and Medicaid rates. Similarly, the average private-pay rate for all nursing homes in South Dakota was $81.94 in 1995, or 10 percent higher than the statewide average rate weighted by resident days ($74.23) and 14 percent higher than the non-weighted statewide average Medicaid rate ($71.83).[13]

Iowa also collects some private-pay rate data from a random survey of approximately 30 percent of all nursing homes. These data should be considered with caution because the survey process did not attempt to consistently account for costs included in the rates reported. The average private-pay rate of $70.62 in Decem-

Table 2.4: Comparison of Average Medicaid and Private-Pay Nursing Home Per Diem Rates in Wisconsin, 1994

Level of Care	Average Per Diem Medicaid Rate	Average Private-Pay Rate	Private-Pay Rate as a Percent of Medicaid Rate
Intense Skilled Nursing	$96.90	$121.28	125.2%
Skilled Nursing	82.24	106.32	129.3
Intermediate Care	69.18	93.37	135.0
Limited Care (ICF-2)	69.75	88.16	126.4
Personal Care (ICF-3)	50.12	71.93	143.5
Residential Care (ICF-4)	40.80	56.44	138.3

Source: Wisconsin Department of Health and Social Services, *Wisconsin Nursing Homes: 1994*, January 1996, Table 16. Source of data for this report was the 1994 Annual Survey of Nursing Homes.

10 James K. Tellatin, "Medicaid Reimbursement in Nursing Home Valuations," *The Appraisal Journal* (Oct. 1990): 461-467; Howard Birnbaum and others, "Why Do Nursing Home Costs Vary? The Determinants of Nursing Home Costs," *Medical Care* 14, no. 11 (Nov. 1981): 1095-1107; Jane Sneddon Little, "Public-Private Cost Shifts in Nursing Home Care," *New England Economic Review* (July/Aug. 1992): 3-14; Jane Sneddon Little, "Lessons from Variations in State Medicaid Expenditures," *New England Economic Review* (Jan./Feb. 1992): 43-66.

11 The Wisconsin Department of Health and Social Services reviews and audits private-pay rate data to calculate the spend-down of residents' assets before qualifying for Medicaid services.

12 Private-pay rates for personal care and residential care were 43 and 38 percent higher than the Medicaid rates, respectively, but less than one percent of Wisconsin nursing home residents received these two levels of care combined.

13 Source: Program Evaluation Division analysis of South Dakota private and public rate data.

ber 1995 was between 9 and 16 percent higher than Iowa's maximum Medicaid reimbursement rates of $61.63 per day effective on July 1, 1995 and $64.60 effective on January 1, 1996.

One research study found that as cost-controlling reimbursement features increase, so does the difference between private-pay and Medicaid rates, suggesting that "private patients appear to be subsidizing public patients."[14] Below-average Medicaid spending for nursing home care may indicate a more efficient delivery of services, but it may also reflect below-average quality, or above-average use of cross subsidies. In some states, Medicaid nursing home spending may only appear to be low cost because private-pay residents are subsidizing the public residents. In comparison, some states' Medicaid spending may appear relatively high partly because spending better reflects the full cost of providing nursing home care.[15]

SUMMARY

In this chapter we have demonstrated that Minnesota's 1995 nursing home Medicaid payment rates were higher than those in neighboring states. Minnesota's statewide average rate was $95.61 per day in 1995, or between 15 and 30 percent higher than the statewide average rates in North Dakota, South Dakota, and Wisconsin.

Minnesota and North Dakota are unique because they are the only two states in the nation that limit the rates nursing homes can charge private-pay residents to no more than the rates set for Medicaid residents. In states without rate equalization, private-pay rates have been estimated to be between 10 and 30 percent higher than Medicaid rates. Some researchers have made the theoretical argument that private residents appear to be subsidizing public residents. However, we do not have evidence to conclude that rate equalization contributes to Minnesota's higher average daily nursing home rates. In Chapter 3, we examine the detailed nursing home cost reports used to establish reimbursement rates to determine what specific costs account for the differences in rates among the states.

14 Birnbaum, 1107.

15 Little, "Public-Private Cost Shifts," 3, 8.

Analysis of Nursing Home Costs

CHAPTER 3

As discussed in Chapter 1, state Medicaid programs set nursing home reimbursement rates for individual homes based on the allowed costs incurred by each home during a previous reporting period. This chapter analyzes the nursing home costs reported to the Medicaid agency for the purposes of setting the 1995 reimbursement rates. Specifically, we asked:

- **What specific costs account for higher nursing home rates in Minnesota?**

Our study examined nursing home costs to determine why Minnesota had higher rates.

We examined the nursing home cost data used to establish reimbursement rates for the year beginning January 1, 1995 in North Dakota, and July 1, 1995 in Minnesota, Iowa, South Dakota, and Wisconsin. As discussed in Chapter 1, since each state uses a different cost reporting year, these costs were incurred during different 12 month periods between July 1993 and June 1995, and are referred to as the 1994 cost reporting year. (See Figure C.1 in Appendix C.) We used Minnesota's cost reporting form as a framework for analyzing nursing home costs, the specific cost categories of which are summarized in Figure 3.1. We reallocated each state's audited, allowable costs as accurately as possible to Minnesota's cost categories. [1]

In general, we found that on average total nursing home costs in Minnesota nursing homes were between 7 percent and 27 percent higher than homes in surrounding states. Minnesota nursing homes also had higher costs for many, but not all, individual categories of nursing home costs than the other states examined. We found that nursing homes in Minnesota provided more nursing hours of care per resident day, paid higher salaries to nursing and other staff, and had higher fringe benefit and workers' compensation costs than most neighboring states.

Minnesota's total nursing home costs were also higher because they included items, such as a provider surcharge and pre-admission screening fees, not included in the reimbursement rates in the other states examined. In addition, Minnesota's licensing fees, which support state licensing and inspection activities, were higher than surrounding states. Minnesota's property costs, which were estimated for this analysis, were higher than one other state examined. Hospital-attached homes contributed to increased average nursing home costs in Minnesota.

1 Our analysis was complicated because each state uses different cost reporting forms with different levels of detail, states aggregate costs differently, and some states report a large share of costs in "other" categories. Consequently, it was not always possible to identify and reallocate the exact same costs in each state's cost report.

Figure 3.1: Cost Categories in Minnesota's Nursing Home Cost Reporting Form

NURSING:
- Nursing salaries
- Nursing equipment and supplies
- Nurses training
- Non-prescription drugs
- Medical director

OTHER CARE-RELATED SERVICES:
- Social service, activities, therapy salaries
- Related equipment and supplies

DIETARY:
- Salaries, supplies, contracted services
- Dietary consultant fees
- Raw food

LAUNDRY AND LINEN:
- Salaries, supplies, contracted services

HOUSEKEEPING:
- Salaries, supplies, contracted services

PLANT OPERATIONS AND MAINTENANCE:
- Salaries
- Utilities
- Purchased services
- Building and equipment repairs
- Maintenance supplies/minor equipment

PROPERTY TAXES, LICENSE AND OTHER FEES:
- Property taxes
- Special assessments
- Provider surcharge
- Licensing fees
- Pre-admission screening fees

GENERAL AND ADMINISTRATION:
- Administrator and office salaries
- Supplies
- Telephone charges
- Insurance: liability, property, etc.
- Travel
- Advertising
- Professional development
- Purchase of professional services (legal, accounting, data processing)

PAYROLL TAXES AND FRINGE BENEFITS:
- FICA
- Group life, medical, dental insurance
- Uniform allowance
- Pension
- Unemployment insurance
- Workers' compensation insurance
- Clerical training
- PERA contributions

PROPERTY COSTS:[1]
- Depreciation
- Lease and rental
- Interest

[1]Nursing homes in Minnesota report property costs as part of the property taxes, license and other fees category.

MINNESOTA'S DAILY NURSING HOME COSTS COMPARED WITH NEIGHBORING STATES

To determine what specific factors account for Minnesota's higher than average nursing home rates, we analyzed each state's average daily nursing home allow-

able costs during the cost years used to establish the 1995 reimbursement rates. Table 3.1 summarizes the statewide average nursing home costs per resident day, and Table 3.2 shows the distribution of statewide average nursing home costs.[2] When Minnesota's average nursing home costs per day were compared with those in surrounding states, we found that:

- **On average, total nursing home costs per resident day in Minnesota nursing homes were between 7 percent and 27 percent higher than neighboring states in 1994.**

Table 3.1: Estimated Average Nursing Home Costs Per Resident Day, 1994

	Minnesota	North Dakota	South Dakota	Wisconsin	Iowa[2]
Nursing	$39.13	$31.19	$28.61	$36.36	$25.89
Other Care-Related	3.67	3.59	5.04	3.05	1.62
Dietary	10.11	9.26	9.57	8.81	8.55
Laundry and Linen	1.86	1.74	1.78	2.02	1.74
Housekeeping	3.01	2.44	2.43	2.74	2.60
Plant Operations and Maintenance	4.72	4.76	4.18	4.66	3.85
Property Taxes/License Fees	2.89	0.12	0.37	0.87	0.67
Property Taxes and Special Assessments	0.67	0.12	0.37	0.87	0.67
Provider Surcharge	1.69	NA	NA	NA	NA
License Fees	0.23	NA	NA	NA	NA
Pre-Admission Screening Fees	0.29	NA	NA	NA	NA
General and Administrative	7.97	7.08	6.33	8.42	5.65
Payroll Taxes/Fringe Benefits[3]	11.02	8.23	7.66	11.20	6.30
Property Costs	5.44[1]	6.40	4.82	5.97	4.48
Total Costs Per Day	$89.82	$74.82	$70.79	$84.08	$61.35

Note: NA = Not applicable. Some columns may not sum because of rounding errors.

Source: Program Evaluation Division analysis of state nursing home cost report data.

[1]There are no easily identifiable property-related costs for Minnesota nursing homes. We estimated property costs for Minnesota using allowed principal and interest, equipment, and capital repair and replacement costs.

[2]Iowa cost data represent the cost of providing an intermediate level of care only. The data do not reflect the cost of providing skilled nursing care and are not directly comparable to costs for other states.

[3]Fringe benefit costs in Minnesota include $0.22 per resident day for public pension (PERA) contributions, which were reimbursed without limitation.

2 Nursing homes in Minnesota report property costs (such as depreciation and interest) but these costs are not audited or used to establish reimbursement rates. Consequently, there are no data on property-related costs for Minnesota nursing homes. With the assistance of the Department of Human Services, we estimated that property-related costs for nursing homes in Minnesota averaged $5.44 per day in 1994. This estimate is based on allowed principal and interest, equipment, and capital repair and replacement costs divided by resident days. If the unaudited depreciation and interest costs were used, Minnesota's property costs would be an estimated $6.05 per day.

Table 3.2: Distribution of Estimated Average Nursing Home Costs Per Resident Day, 1994

	Minnesota	North Dakota	South Dakota	Wisconsin	Iowa
Nursing	43.6%	41.7%	40.4%	43.2%	42.2%
Other Care-Related	4.1	4.8	7.1	3.6	2.6
Dietary	11.3	12.4	13.5	10.5	14.0
Laundry and Linen	2.1	2.3	2.5	2.4	2.8
Housekeeping	3.3	3.3	3.4	3.3	4.2
Plant Operations and Maintenance	5.2	6.4	5.9	5.5	6.3
Property Taxes/License Fees	3.2	0.2	0.5	1.0	1.1
Property Taxes and Special Assessments	0.7	0.2	0.5	1.0	1.1
Provider Surcharge	1.9	NA	NA	NA	NA
Licensing Fees	0.3	NA	NA	NA	NA
Pre-Admission Screening Fees	0.3	NA	NA	NA	NA
General and Administrative	8.9	9.5	8.9	10.0	9.2
Payroll Taxes and Fringe Benefits	12.3	11.0	10.8	13.3	10.3
Property Costs	6.1	8.6	6.8	7.1	7.3
Total Costs	100.0%	100.0%	100.0%	100.0%	100.0%

NA = Not applicable.

Note: Totals may not sum to 100 percent because of rounding error.

Source: Program Evaluation Division analysis of state nursing home cost report data.

Nursing salaries accounted for over one-half of the total cost difference between Minnesota and surrounding states.

During the 1994 cost reporting year, nursing homes in Minnesota had an average of $89.82 per resident day in allowed costs.[3] Minnesota's total nursing home costs per day were 7 percent higher than daily costs in Wisconsin, 20 percent higher than in North Dakota, and 27 percent higher than in South Dakota.[4] We analyzed categories of nursing home costs to determine what specific factors contribute to Minnesota's higher average daily costs. We found that:

- **In 1994, nursing costs per day, the largest category of nursing home costs, accounted for over one-half of the differences in total nursing home costs between Minnesota and the surrounding states.**

Nursing costs, which include nursing salaries and supplies, accounted for over 40 percent of total nursing home costs among the states examined (see Table 3.2). Nursing costs in Minnesota nursing homes averaged $39.13 per day, and were between 8 percent and 37 percent more than neighboring states. When the cost category with the greatest difference from neighboring states was examined, we found that:

3 Analysis of costs for all states was based on actual resident days, a day for which nursing services were provided and billable.

4 Iowa's costs represent only nursing facilities providing an intermediate level of care and, therefore, are not comparable to costs for other states. On average, nursing homes in Minnesota spent 46 percent more per day than the $61.35 per day spent in Iowa's nursing facilities.

- **In 1994, the costs of "property taxes, license and other fees " in Minnesota nursing homes were between 3 and 24 times higher than neighboring states.**

The costs of property taxes, license and other fees for Minnesota nursing homes averaged $2.89 per day, compared with between $0.12 and $0.87 per day in neighboring states. Reasons for these cost differences are discussed in greater detail below.

Minnesota nursing homes also had higher average costs per day than homes in neighboring states for dietary and housekeeping services. In other cost categories (laundry, plant operations, general and administration, payroll taxes/fringe benefits, and property) the patterns were more mixed. Minnesota nursing homes did not always have the highest costs in every cost category.

FACTORS CONTRIBUTING TO DIFFERENCES IN NURSING HOME COSTS

Various national studies indicate that differences in nursing home costs among states can be attributed to staffing levels, the proportion of professional nursing staff, salary and benefit costs, and the inclusion of ancillary services in the rates.[5] This section begins with a discussion of staffing levels and labor costs.[6]

Staffing Levels

All nursing homes must meet the same federal minimum nursing staff requirements.

Federal laws and regulations require that Medicaid-certified nursing facilities:

> ...must have sufficient nursing staff to provide nursing and related services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident.[7]

Specifically, a nursing home must have a licensed nurse on duty 24-hours a day; a registered nurse on duty at least 8 hours a day, 7 days a week; a licensed nurse

5 James H. Swan, Charlene Harrington, and others, *Medicaid Nursing Facility Reimbursement Methods Through 1994,* Draft article presented at the 121st annual meeting of the American Public Health Administration in October 1993, June 1996 update; John Holahan and Joel Cohen, "Nursing Home Reimbursement: Implications for Cost Containment, Access and Quality," *The Milbank Quarterly* 65, no. 1 (1987): 112-147; Jane Sneddon Little, "Lessons from Variations in State Medicaid Expenditures," *New England Economic Review* (Jan./Feb. 1992): 43-66.

6 Our analysis of staffing levels focuses on nursing staff. We were unable to analyze administrative staffing levels because data on the number of administrative staff, hours worked, and salaries were either limited or unavailable. The lack of detail on the nature of purchased professional services further complicated our analysis of administrative staffing.

7 42 Code of Federal Regulations §483.30.

serving as a charge nurse on each tour of duty; and a registered nurse serving as the director of nursing on a full-time basis.[8]

Federal regulations do not specify a minimum nursing staff requirement per resident for nursing care. We reviewed the Medicaid-certified nursing facility rules and regulations for each state, and found that:

- **In addition to the federal requirements, Minnesota and Wisconsin have specific minimum requirements for the number of hours of nursing care provided.**

Minnesota and Wisconsin have additional state requirements for minimum nursing care.

Minnesota laws require nursing homes to provide a minimum of 2 productive hours of nursing care per resident day or 0.95 productive hours per standardized (or case-mix adjusted) day, whichever is greater.[9] Wisconsin requires that nursing facilities provide between 0.5 and 2.25 hours of nursing care per resident day depending on the level of care required.[10] The staffing requirements in other states examined parallel the language in federal regulations.

Nursing homes in Minnesota, South Dakota, and Wisconsin report the number of hours worked by various staff positions as part of the Medicaid nursing home cost report. We examined these data and found that:

- **On average, nursing homes in Minnesota provide more hours of nursing care per resident than is required by state law.**

In 1994, nursing homes in Minnesota provided 2.9 hours of productive nursing care per resident day on average and 1.2 hours of productive nursing care per standardized (case-mix adjusted) day. In addition, we found that:

- **On average, nursing homes in Minnesota and Wisconsin provided more hours of nursing care per resident day than homes in South Dakota in 1994.**

Table 3.3 shows that nursing homes in Minnesota consistently provided more hours of total nursing, licensed nursing, and nursing aide care per resident day, and had a higher ratio of licensed nurses to aides than homes in South Dakota. Nursing homes in Minnesota provided more hours of licensed nursing care per resident day and had a higher ratio of licensed nurses to nursing aides than homes in Wisconsin. Homes in Wisconsin provided more hours of total nursing care per

8 A nursing facility may request a waiver of the registered nurse requirement. The director of nursing may serve as a charge nurse only when the facility has an average daily occupancy of 60 or fewer residents. Federal regulations also contain specific requirements for dietary, social services, and activities staff.

9 *Minn. Stat. §*144A.04, Subd. 7. "Hours of nursing care" means the *paid, productive* nursing hours of all nurses and nursing assistants, which means on-duty hours during which nurses and nursing assistants are engaged in nursing duties. Productive hours exclude vacations, holidays, sick leave, in-service training, and lunches. A "standardized day" is the actual number of residents in each case-mix class multiplied by the case-mix score for that resident class.

10 Wisconsin Department of Health and Social Services, *Wisconsin Administrative Code*, Chapter HSS 132.62 (3): 163. In Wisconsin, productive hours include meal times and non-productive hours include paid vacation, holiday and sick leave, and other time off including training.

Table 3.3: Average Nurse Staffing Levels, 1994

	Minnesota	South Dakota	Wisconsin
Nursing Hours per Resident Day[1]			
Total	3.33	2.85	3.37
Productive	2.94	--	3.08
Nursing Hours per Standardized Day			
Total	1.37	--	--
Productive	1.21	--	--
Licensed Nursing Hours per Resident Day[2]			
Total	1.11	0.83	1.05
Productive	0.93	--	0.96
Nursing Aide Hours per Resident Day			
Total	2.22	2.02	2.32
Productive	1.97	--	2.12
Ratio of Licensed Nurses per Nursing Aide			
Total	0.50	0.41	0.45
Productive	0.47	--	0.45

Note: Data on nursing hours were not available for Iowa and North Dakota.

Source: Program Evaluation Division analysis of state nursing home cost report data.

[1]Nursing hours include registered and licensed practical nurses and nursing aides in Minnesota and South Dakota. Wisconsin also includes the director of nurses' hours in nursing hours.

[2]Licensed nursing hours include registered and licensed practical nurses in Minnesota and South Dakota. Wisconsin also includes the director of nurses' hours in this category.

Minnesota's nursing homes provided a relatively high number of hours of nursing care.

resident day than those in Minnesota, however, a larger proportion of the care was provided by nursing aides than licensed nurses.[11]

A difference in the types of nurses included in the total nursing and licensed nursing categories complicates the above comparison. Minnesota and South Dakota exclude directors of nursing from total nursing or licensed nursing hours. Wisconsin, however, includes directors of nursing in the calculation of total nursing and licensed nursing hours, which could inflate the hours of care provided per day.

We also examined nurse staffing information reported by nursing homes as part of the federal survey certification process.[12] As shown in Table 3.4, nursing homes in Minnesota had more full-time equivalent total nursing staff per facility than

11 According to nursing cost report data from each state, licensed nurses accounted for approximately 34 percent of total nursing hours in Minnesota, compared with 31 percent in both South Dakota and Wisconsin.

12 These unaudited data represent nurse staffing patterns during the two-week pay period immediately preceding a facility's certification survey and are not necessarily representative of staffing patterns throughout the year. In addition, a representative from the Iowa Department of Inspections and Appeals told us that nursing facilities inflated the number of hours reported.

Table 3.4: Average Full-Time Equivalent Nurse Staffing per Facility, 1995-96

	Licensed Nurses[1]	Nursing Aides	Total	Ratio of Licensed Nurses to Aides
Minnesota	18.4	35.3	53.7	.52
Iowa[2]	19.0	26.8	45.9	.71
North Dakota	13.6	33.3	47.0	.41
South Dakota	11.1	25.0	36.2	.44
Wisconsin	18.6	42.6	61.3	.44

Note: Full-time equivalent is defined as 70 hours for a two-week pay period. Unaudited data represent nurse staffing patterns for the pay period preceding a facility's certification survey.

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, On-Line Survey Certification and Reporting System data generated by the Minnesota Department of Health, July 1995 to July 1996.

[1]Licensed nurses includes registered and licensed practical nurses.

[2]A representative from the Iowa Department of Inspections and Appeals told us that nursing facilities inflated the number of hours reported.

every state except Wisconsin, and a higher ratio of licensed nurses to aides except for Iowa.

Salary and Fringe Benefit Costs

The costs of labor dominate nursing home spending.

The costs of labor dominate nursing home spending. In the states we examined, salary and fringe benefit costs for freestanding nursing home employees accounted for between 65 and 70 percent of total nursing home costs in 1994, nearly two-thirds of which was for licensed nurses and nursing aides.[13] Consequently, the costs of labor could be a significant factor in explaining why Minnesota's nursing home costs are higher than neighboring states. Analysis of federal and state labor market data revealed that:

- **Average hourly wages for all private nursing home employees in Minnesota were higher than in neighboring states, but were lower than the national average in 1994. The same wage pattern, however, is evident for all private industry employees.**

Table 3.5 shows that average hourly wages for all private nursing home employees in Minnesota were 97 percent of the national average in 1994, compared with 77 percent in North Dakota, 79 percent in Iowa, 83 percent in South Dakota, and 95 percent in Wisconsin. Nursing home wages, however, follow the same pattern for wages observed for all private industry employees; most jobs in Minnesota paid more than comparable jobs in surrounding states, but less than the national average.

13 The salary and fringe benefits analysis focuses on freestanding nursing homes only, because in Minnesota hospital-attached homes use a different, less detailed cost reporting form.

Table 3.5: Average Hourly Wages as a Percent of U.S. Average, 1994

	Minnesota	North Dakota	South Dakota	Wisconsin	Iowa	U.S. Average
All Private Nursing Home Employees[1]	$7.47	$5.95	$6.34	$7.30	$6.04	$7.68
Percent of U.S. Average	97%	77%	83%	95%	79%	100%
All Private Industry Employees	$12.51	$9.29	$8.92	$11.43	$10.43	$12.74
Percent of U.S. Average	98%	73%	70%	90%	82%	100%

Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]Federal Bureau of Labor Statistics data represent a combined average wage for all workers employed in private nursing facilities covered by unemployment insurance.

Table 3.6 shows that average hourly wages for nursing home occupations in Minnesota exceed those in most other states in the region.[14] On average, nursing aides were paid more in Minnesota than in neighboring states. The average salaries for licensed practical nurses in Wisconsin nursing homes were four cents higher than comparable salaries in Minnesota. Average salaries for registered nurses in North and South Dakota were higher than in Minnesota, but also included registered nurses employed in hospitals.

Data from nursing home cost reports showed that:

- **Freestanding nursing homes in Minnesota paid higher average hourly salaries for nearly every occupation than homes in South Dakota and Wisconsin in 1994.**

Table 3.6: Average Hourly Wages for Nursing Home Occupations, 1994-95

	Minnesota[1]	North Dakota[2]	South Dakota[3]	Wisconsin[4]	Iowa[5]
Administrators	$19.61	NA	NA	$21.53	$17.61
Registered Nurses	15.10	16.13	15.55	14.75	12.02
Licensed Practical Nurses	11.24	10.38	10.05	11.28	9.81
Nursing Aides	7.76	6.25	6.55	7.00	6.30

Source: Minnesota Department of Economic Security; Iowa Department of Employment Services; Job Service of North Dakota; South Dakota Department of Labor; Wisconsin Depatment of Industry, Labor and Human Relations.

[1]Data represent nursing facility employees exclusively.

[2]Data for all occupations represent employees in all service industries.

[3]1995 wage survey data represent experienced employees in all industries.

[4]1995 wage survey data for nursing aides represent employees in all health services; data for other occupations represent nursing facility employees exclusively.

[5]Data for nursing aides represent employees in all services; data for other occupations represent nursing facility employees exclusively.

14 This analysis uses 1994 and 1995 state labor market salary data for nursing home occupations. Since nurses in nursing homes are paid less on average than nurses in hospitals, we attempted to get salary data for nursing homes alone, but were not always able to do this.

As shown in Table 3.7, the average hourly salaries for both registered and licensed practical nurses, and nursing aides in Minnesota's freestanding nursing homes was consistently higher than the salaries paid for the same occupations in South Dakota. Both directors of nursing/registered and licensed practical nurses in Wisconsin nursing homes had higher average hourly salaries than those in Minnesota in 1994. Nursing homes in Minnesota also paid higher average hourly salaries for *other* nursing home staff than homes in South Dakota and Wisconsin, contributing to Minnesota's higher daily costs in the areas of dietary, laundry, housekeeping, and plant operations.

Nursing homes in Minnesota paid higher salaries than those in most neighboring states.

Table 3.7: Average Hourly Wages by Job Category for Freestanding Nursing Homes, 1994

	Minnesota n = 355	South Dakota n = 83	Wisconsin n = 340
Director of Nursing (DON)	$17.88	$17.40	NA
Registered Nurse (RN)	16.17	13.43	NA
DON/RN combined	16.39	14.03	$16.70
Licensed Practical Nurse	11.69	10.44	12.36
Nursing Aide	8.35	6.51	7.45
Dietary	8.06	6.59	7.29
Housekeeping	7.78	6.11	6.97
Laundry	7.92	6.38	6.91
Plant Operations	10.48	7.48	9.92
All Private Industry Employees	*12.51*	*8.92*	*11.43*

Note: The nursing home cost reports for Iowa and North Dakota do not include data necessary to calculate nursing home staff wages.

Source: Program Evaluation Division analysis of state nursing home cost report data.

In addition, we found that:

- **Nursing homes in Minnesota paid administrators higher salaries than homes in South Dakota in 1994.**

Table 3.8 shows that the median annual salary for nursing home administrators in Minnesota was $47,602 in 1994, which was 21 percent higher than comparable salaries in South Dakota.[15] Administrator salaries increased with the size of the home in each state. Further, sixteen administrators in Minnesota received annual salaries in excess of $100,000 to manage homes that ranged in size from 50 to over 200 beds. In South Dakota, the highest paid administrator received $62,838 in 1994.

15 Minnesota statutes prohibit the limitation of salaries for top management positions in nursing homes (*Minn. Stat*. 265B.431, Subd. 1). In contrast, North Dakota regulations limited top management compensation to $101,423 in 1995, and Iowa limited compensation for owner administrators to $2,852 per month. South Dakota and Wisconsin did not have specific limits for top management compensation.

Table 3.8: Median Annual Nursing Home Administrator Salaries, 1994

Facility Size Number of Beds	Minnesota n = 334	South Dakota n = 81
1-49	$25,437	$29,818
50-99	44,501	39,660
100-199	54,121	39,863
200+	66,800	46,038
All	$47,602	$39,362

Source: Program Evaluation Division analysis of state nursing home cost report data.

Nursing homes in Minnesota paid more for fringe benefits and workers' compensation than those in most surrounding states.

Fringe benefits generally include medical, dental, and life insurance, uniforms, and retirement or pension coverage. We found that:

- **Average fringe benefit costs per resident day in Minnesota freestanding nursing homes were higher than those in North and South Dakota, but lower than those in Wisconsin.**

As shown on Table 3.9, fringe benefit costs in Minnesota nursing homes averaged $3.64 per resident day, compared with between $2.65 per day in South Dakota and $4.77 per day in Wisconsin. Minnesota's fringe benefit costs include $0.22 per resident day for public pension (PERA) contributions for publicly-owned nursing homes. These costs are reimbursed without limitation. In South Dakota and Wisconsin, fringe benefit costs include pension costs for publicly-owned homes

Table 3.9: Fringe Benefit and Workers' Compensation Costs for Freestanding Nursing Homes, 1994

	Minnesota n = 355	North Dakota n = 60	South Dakota n = 83	Wisconsin n = 340	Iowa n = 406
Fringe Benefit Costs, Excluding Workers' Compensation					
Percent of Total Salaries	7.1%	6.6%	6.7%	9.8%	NA
Per Resident Day	$3.64	$2.88	$2.65	$4.77	NA
Workers' Compensation					
Percent of Total Salaries	6.0%	4.3%	5.7%	4.4%	NA
Per Resident Day	$3.10	$1.85	$2.25	$2.12	NA
Fringe Benefit Costs, Including Workers' Compensation					
Percent of Total Salaries	13.1%	10.9%	12.4%	14.2%	3.3%
Per Resident Day	$6.74	$4.73	$4.90	$6.90	$1.12

Source: Program Evaluation Division analysis of state nursing home cost report data.

which were subject to the same reimbursement limits as non-public nursing homes.

Fringe benefit costs represented 9.8 percent of total salaries in Wisconsin compared with 7.1 percent in Minnesota. Wisconsin's higher costs could be attributed to broader provision of medical insurance; 99 percent of the nursing homes in Wisconsin provided some medical insurance, compared with 95 percent in Minnesota (see Table 3.10). These data only reflect that a home made an expenditure for fringe benefits, they do not provide any information on how many or what types of employees received a particular benefit package.

Table 3.10: Percent of Freestanding Nursing Homes Providing Fringe Benefits, 1994

Percent of Nursing Homes Providing:	Minnesota n = 355	North Dakota n = 60	South Dakota n = 83	Wisconsin n = 340	Iowa n = 406
Medical Insurance	94.6%	90.0%	NA	99.1%	NA
Dental Insurance	30.1	5.0	NA	--	NA
Life Insurance	53.8	18.3	NA	58.8	NA
Uniforms	47.0	38.3	NA	40.9	NA
Pension/Retirement[1]	74.4	73.3	NA	60.3	NA
Insurance[2]	--	--	97.6%	--	94.8%

Source: Program Evaluation Division analysis of state nursing home cost report data.

[1]For Minnesota, this category includes public pension contributions.

[2]South Dakota's cost report lists "fringe benefits" and Iowa's cost report lists "group insurance."

We also examined the costs of workers' compensation and found that:

- **On average, Minnesota freestanding nursing homes had higher workers' compensation costs per resident day than homes in neighboring states.**

In 1994, workers' compensation costs averaged $3.10 per resident day for Minnesota nursing homes, more than any neighboring state (see Table 3.9).[16] In Minnesota, workers' compensation represented 6.0 percent of total salary costs compared with between 5.7 percent in South Dakota and 4.3 percent in North Dakota.

Property Taxes, License and Other Fees

The costs of "property taxes, license and other fees" for nursing homes in Minnesota averaged $2.89 per day in 1994, compared with between $0.12 and $0.87 per day in neighboring states (see Tables 3.1 and 3.2). As discussed earlier, these costs in Minnesota nursing homes were between 3 and 24 times higher than neigh-

16 North Dakota Medicaid staff told us that their workers' compensation costs increased nearly 100 percent between the 1995 rate year examined and the 1996 rate year.

boring states, primarily because Minnesota includes more items in the reimbursement rate than neighboring states.

Minnesota's nursing home rates include a provider surcharge and a pre-admission screening fee.

As a result of policy decisions, Minnesota includes a provider surcharge and a charge for pre-admission screening in the reimbursement rate. Other states either do not have similar charges or do not include these types of costs in the reimbursement rates. For instance, in 1994, Minnesota used a nursing home provider surcharge of $625 per licensed bed (or $1.69 per resident day) to maximize the federal Medicaid match and to maintain or avoid proposed reductions in Medicaid reimbursement to providers.[17] In Wisconsin, nursing home providers pay a $32 per bed assessment each month, the costs of which are not reflected in the nursing home cost report. The reimbursement rate, however, contains an average of $1.06 per day adjustment to reimburse providers for the bed assessment. The other states examined do not include provider surcharges in the nursing home reimbursement rates.

Minnesota also includes pre-admission screening fees, which are used to reimburse counties for pre-admission screening services, in its reimbursement rates.[18] According to Minnesota Department of Human Services staff, Minnesota receives a higher federal match (53 percent) by including these costs in the reimbursement rates rather than in its Medicaid administrative costs. In contrast, the North Dakota Department of Human Services includes the costs for similar screening services in the state's Medicaid administrative costs, rather than in the reimbursement rates. In Wisconsin, nursing home providers are reimbursed $30 each time a nursing home resident is screened, however, these costs are included in the state's Medicaid administrative costs and are not reflected in the reimbursement rates.[19]

Nursing homes in Minnesota and the neighboring states reported costs for property taxes and special assessments.[20] Property taxes are a function of the number of for-profit nursing homes and property tax rates. In 1994, property tax and special assessment costs for nursing homes in Minnesota and Iowa averaged $0.67 per resident day.[21] In comparison, property tax costs averaged $0.87 per day in

17 *Minn. Stat.* §256.9657, Subd. 1 and §256B.431, Subd. 2. Minnesota classifies the surcharge as an allowable cost in the plant operations and maintenance costs, making it subject to reimbursement limits.

18 Minnesota also uses an intergovernmental transfer to maximize the federal Medicaid match, however, the transfer is not included in the nursing home reimbursement rates. (*Minn. Stat.* §256B.19, Subd. 1d.)

19 In Wisconsin, local government-operated homes with a Medicaid direct-care deficit can apply to the state for supplemental funding outside of the reimbursement rate. In 1995, Wisconsin paid 46 local units of government an additional $37 million to operate public nursing homes. We evaluated the rates and costs for 40 public nursing homes; 16 public nursing homes that filed a combined cost report for a nursing home and intermediate care facility for the mentally retarded were eliminated from our analysis.

20 Property taxes are pass-through costs in Minnesota, North Dakota and Wisconsin. South Dakota includes property taxes in its non-direct care cost center which is subject to reimbursement limits. Property taxes in Iowa are included in total per day costs and subject to the maximum daily reimbursement limit. Wisconsin's costs include both property and personal property taxes.

21 Under certain conditions, Minnesota rules allow public and non-profit homes to make payments in lieu of property taxes. In 1994, a total of 39 public and non-profit homes paid $1.19 million in property taxes, which equates to approximately $0.08 per resident day. Wisconsin allows payments in lieu of property taxes, but North and South Dakota do not.

Wisconsin, $0.37 per day in South Dakota, $0.12 per day in North Dakota, which had only nine for-profit nursing homes.

As shown in Table 3.11,

- **Minnesota license fees, which support state nursing home licensing and inspection activities, were higher than fees in neighboring states.**

Table 3.11: Estimated Nursing Home License Fees, 1994

	Annual Fee Structure	Estimated Total Annual Cost	Estimated Cost Per Resident Day
Minnesota	$324 per facility plus $76 per bed	$3.5 million	$0.23
North Dakota	$5 per licensed bed	$35,355	$0.014
South Dakota	$50 per facility plus $2 per licensed bed	$21,092	$0.008
Wisconsin	$6 per bed	$248,676	$0.018
Iowa	Per facility: Less than 10 beds = $20 11-25 beds = $40 26-75 beds = $60 76-150 beds = $80 More than 150 beds = $100	$29,120	$0.003

Source: State licensing regulations and codes; Program Evaluation Division.

In Minnesota, nursing home regulatory activities do not receive a general fund appropriation.

We estimate that the costs of license fees for nursing homes in Minnesota averaged $0.23 per resident day in 1994, compared with between $0.003 per day in Iowa and $0.018 per day in Wisconsin. The Minnesota Health Department's nursing home regulatory activities are funded through a combination of license fees, and Medicaid and Medicare funding; these activities do not receive a state general fund appropriation. Other states collect nominal nursing home licensing fees, and fund regulatory activities through a combination of state general fund revenues, license fee revenues, and Medicaid and Medicare funds.

Property Costs

Property costs comprised between 6 and 9 percent of total nursing home costs per day in the states examined. We found that:

- **Average property-related costs for nursing homes in Minnesota were higher than those in South Dakota and lower than those in North Dakota and Wisconsin in 1994.**

Estimated property-related costs for Minnesota nursing homes averaged $5.44 per resident day in 1994, more than similar costs in South Dakota ($4.82), but less than in North Dakota ($6.40) and Wisconsin ($5.97).[22] As we will discuss in Chapter 5, property-related costs in South Dakota were subject to a reimbursement limit, while those in North Dakota were fully reimbursed as part of the daily payment rate.

As with other components of state Medicaid reimbursement systems, each state examined has different ways of recognizing and reimbursing allowable property costs. Iowa, North and South Dakota, and Wisconsin determine property-related reimbursement using historical costs including depreciation, interest, and rental costs. Minnesota uses a modified fair-rental formula to determine the property reimbursement rate. Nursing homes in Minnesota report property costs (such as depreciation and interest), but these costs are not audited or used to establish reimbursement rates. Working with the Minnesota Department of Human Services, we estimated the nursing home costs for Minnesota.[23]

Ancillary Services

Ancillary services include physical, speech, occupational, and other therapies, prescription and non-prescription drugs, medical services, durable medical supplies, and medical transportation services. The inclusion of ancillary services in the daily nursing home rate can increase both average nursing home rates and costs.[24] We found that:

- **The inclusion of therapy services as part of the reimbursement rate did not explain why Minnesota's nursing home costs were higher than surrounding states.**

In Minnesota, most therapy costs are billed outside of the reimbursement rate.

As shown in Table 3.12, freestanding nursing homes in Minnesota had an average cost of $0.18 per day for therapy services that were included in the 1995 reimbursement rates, compared with between $0.13 per day in Wisconsin and $2.47 per day in South Dakota.

The inclusion of therapy services as part of the reimbursement rate appears to explain why South Dakota spends more than other states for "other care-related " costs. In Minnesota, Wisconsin, and Iowa, nursing home providers can choose to have the costs of therapy services included in the reimbursement rate, billed to Medicaid separately and outside of the rate, or paid by another program. Whereas, in North and South Dakota, the costs of therapy services were more consistently included in the rates.

22 Property reimbursement rates and payment incentives are discussed in Chapter 5.

23 Minnesota's estimated average property cost of $5.44 per day 1994 was based on allowed principal and interest, equipment, and capital repair and replacement costs divided by resident days. If the unaudited depreciation and interest costs were used, then Minnesota's property costs would be an estimated average of $6.05 per day.

24 This analysis focuses on non-hospital-attached nursing homes because some hospital-attached facilities are not required to file fully detailed cost reports.

Table 3.12: Therapy Services Included in the Reimbursement Rate for Freestanding Nursing Homes, 1995 Rate Year

	Minnesota n = 355		North Dakota n = 61		South Dakota n = 83		Wisconsin n = 340		Iowa n = 406	
	Number of Facilities	Per Diem Costs	Number of Facilities	Per Diem Costs	Number of Facilities	Per Diem Costs	Number of Facilities	Per Diem Costs	Number of Facilities	Per Diem Costs
Physical Therapy	48	$0.02	--	--	74	$0.94	62	$0.06	117	$0.31
Speech Therapy	25	0.01	--	--	31	0.56	70	0.02	--	--
Occupational Therapy	32	0.02	--	--	30	0.97	27	0.04	59	0.11
Other[1]	73	0.13	--	--	--	--	11	0.01	72	0.06
Total	113	$0.18	51	$0.88	74	$2.47	130	$0.13	175	$0.48
Percent of Facilities	37.5%		83.6%		89.2%		38.2%		43.1%	

[1]The "other" category includes psychotherapy in Wisconsin, laboratory and x-ray services in Iowa, and other, nonspecified therapy services in Minnesota.

All five states included non-prescription drugs in the rates. Minnesota, South Dakota and Iowa excluded prescription drugs from their rates, choosing instead to bill pharmacies directly. Most states included various combinations of medical services and durable medical equipment in the reimbursement rates. The nursing home cost reports lacked the detail needed to determine the financial impact of each ancillary service included in the rates.

Special Considerations for Hospital-Attached and Other Nursing Facilities

As presented in Chapter 2, the Medicaid reimbursement rates for hospital-attached nursing homes in most states, including Minnesota, were higher than the rates for freestanding nursing homes. Several factors contribute to this trend. Among the states examined, Minnesota and South Dakota provide special reimbursement considerations in the form of higher reimbursement limits to hospital-attached homes. As previously mentioned, Minnesota also provides higher reimbursement limits to 12 short-length-of-stay (SLOS) facilities and 4 Rule 80 facilities.[25] In many states, including Minnesota, hospital-attached homes use the Medicare cost reporting form which, instead of reporting direct costs, allocates costs between the nursing home and the hospital. Often times, large proportions of costs are allocated based on the amount of square feet in each facility. This can result in higher costs. We found that:

- **In every state examined, the average costs per day for hospital-attached nursing homes were higher than the average costs for freestanding nursing homes in 1994.**

25 Short-length-of-stay facilities have average stays of 180 days or less and 225 days or less in nursing facilities with more than 315 licensed beds. Rule 80 facilities provide nursing home care to non-geriatric residents with severe physical impairments.

In 1994, Minnesota's average costs for hospital-attached nursing homes were $1.28 per resident day more than the average costs for freestanding homes, while the average costs for SLOS and Rule 80 facilities were $0.84 per day more. The difference between the daily costs for hospital-attached and freestanding nursing homes was $1.69 per day in North Dakota, $1.60 per day in South Dakota, and $0.39 per day in Wisconsin.

SUMMARY

In this chapter, we analyzed the average nursing home costs per resident day for Minnesota and the surrounding states to determine what specific factors account for Minnesota's higher than average nursing home rates. In 1994, nursing homes in Minnesota on average spent between 7 and 27 percent more than in neighboring states for total nursing home costs per resident day.

Labor costs dominated nursing home spending in every state examined. Salary and fringe benefit costs for all nursing home employees accounted for between 65 and 70 percent of total costs, with the labor costs for licensed nurses and nursing aides representing nearly two-thirds of the total labor costs. We found that nursing homes in Minnesota provided more hours of nursing care per resident day, paid higher salaries to nurses and other staff, and spent more on fringe benefit costs than most other states examined. Nursing home wages, however, generally followed the interstate pattern of variation in wages observed for all private industry employees; on average, most jobs in Minnesota paid more than comparable jobs in neighboring states. Workers' compensation costs in Minnesota nursing homes were higher than similar costs in neighboring states.

Minnesota's nursing home costs were also higher because its reimbursement rates included a provider surcharge, pre-admission screening fees, and other items not included in the reimbursement rates in surrounding states. In addition, Minnesota's licensing fees, which support state licensing and inspection activities, were higher than other states. Minnesota's property costs, which were estimated for this analysis, were higher than one other state examined. Hospital-attached homes contributed to increased costs in most of the states examined, including Minnesota. The inclusion of therapy services as part of the reimbursement rate did not contribute to Minnesota's higher nursing home costs compared with surrounding states.

Resident Conditions and Quality of Care

CHAPTER 4

Federal nursing home reform during the late 1980s shifted the focus of regulation away from physical plant issues and toward resident outcomes, such as functional status, quality of life, and satisfaction. With this shift came a greater emphasis on the quality of care provided in nursing homes. This chapter describes the condition of nursing home residents and the quality of care they receive in Minnesota and the surrounding states. We asked:

- **Are Minnesota's nursing home costs higher because facilities are providing services to more costly and medically needy residents than neighboring states?**

- **Are Minnesota's costs higher because its facilities deliver a superior quality of nursing home care compared with neighboring states?**

To assess the condition of nursing home residents, we analyzed federal data on residents' functional ability and special care needs. For our evaluation of nursing home quality of care, we interviewed ombudsman staff, long-term care advocates, and public health department staff; analyzed federal data on selected performance indicators; and reviewed national literature.[1] Staffing levels, which is one component of quality care, was discussed in Chapter 3.

RESIDENT ABILITIES AND CONDITIONS

Nursing homes frequently use a resident's ability to perform activities of daily living to assess the level of care needed. Activities of daily living (ADLs) are basic self-care tasks such as eating, bathing, dressing, getting to and using the bathroom, and getting in and out of a bed or chair. A resident who is dependent on staff to

1 The Minnesota Department of Health generated data from the HCFA's On-Line Survey Certification and Reporting (OSCAR) system. Data on performance indicators are collected as part of the federally-mandated nursing home certification survey process. Every Medicaid-certified nursing home is surveyed (at least once every 18 months) by a team of inspectors from their state Department of Health. Some nursing home providers have expressed concern about consistency of the survey process and resulting data from state to state. A national evaluation of the survey process published in 1993 identified a number of areas in which better procedures were needed, but it also found that surveyors were reasonably accurate at the extremes in identifying very good and very bad nursing homes. (Institute of Medicine, *Nursing Staff in Hospitals and Nursing Homes: Is It Adequate?* (Washington, D.C.: National Academy Press, 1996): 140.) The latest revision of the survey was effective beginning July 1, 1995.

perform ADLs will need more hours of direct nursing care than someone who is able to perform these activities independently. The functional status of nursing home residents, as measured by activities of daily living, is an important predictor of the cost of a resident's nursing home care.[2] Minnesota and other states use a resident's ability to perform ADLs as one factor in determining a person's case-mix category. We found that:

More residents in Minnesota nursing homes required nursing assistance with daily activities.

- **Compared with neighboring states, Minnesota had more nursing home residents who were dependent on nursing staff to perform activities of daily living.**

Table 4.1 shows that, nursing homes in Minnesota had a higher percentage of residents who were dependent on nursing staff for bathing, dressing, transferring, toilet use, and eating than neighboring states.[3] The data also show that the percent of Minnesota's nursing home residents with ADL dependencies, while generally higher than neighboring states, was below the national average.

We also evaluated the share of residents with special needs who require increased nursing care and careful review by nursing and other staff to ensure that an adequate care program is being provided. Analysis of federal data on residents with special care needs revealed that:

Table 4.1: Percent of Residents Requiring Assistance or Dependent on Nursing Staff to Perform Activities of Daily Living, 1995-96

		Percent of Residents					
Status	Activity	Minnesota	Iowa	North Dakota	South Dakota	Wisconsin	National Average
Dependent	Bathing	42%	34%	37%	29%	37%	46%
	Dressing	39	31	32	21	33	40
	Transferring	27	24	24	18	25	32
	Toilet Use	35	28	30	23	31	39
	Eating	16	13	17	13	15	22
Requiring Assistance	Bathing	53%	61%	57%	68%	56%	48%
	Dressing	44	52	49	59	50	46
	Transferring	38	39	41	47	42	42
	Toilet Use	37	40	41	47	41	38
	Eating	30	26	25	28	26	29

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, Online Survey Certification and Reporting System, 1995-1996.

2 Brent C. Williams and others, "Activities of Daily Living and Costs in Nursing Homes," *Health Care Financing Review* 15, no. 4 (Summer 1994): 117. This article found that four ADL measures (transferring, toileting, eating, and bed mobility) explain 30 percent of the variance in nursing costs among nursing home residents.

3 Data on resident conditions are generated from unaudited reports completed by each nursing home. Some questions have been raised about the accurateness of this data. Although imperfect, the OSCAR system is the best source of data for state-by-state comparisons of resident abilities and conditions.

- **The proportion of Minnesota's nursing home residents with special conditions was similar to neighboring states in most areas, although Minnesota had more residents with behavior problems and bladder and bowel incontinence.**

As shown in Table 4.2, approximately 35 percent of Minnesota's nursing home residents had behavioral problems. Of these, 79 percent were enrolled in behavior management programs, substantially more than surrounding states, except North Dakota. Compared with neighboring states, more Minnesota residents had incontinent bladders (54 percent) and bowels (38 percent). The percent of Minnesota nursing home residents who were physically restrained (23 percent) is higher than the national average, but lower than South Dakota and Wisconsin.

In other areas, the proportion of Minnesota nursing home residents with special conditions was similar to or lower than neighboring states. In some instances this may be indicative of quality care. For example, Minnesota had fewer residents with contractures than some states, 15 percent compared with 16 to 39 percent in neighboring states. A contracture, an abnormal shortening of a muscle making it resistant to stretching, may occur if joints are improperly supported and positioned, and inadequately exercised. Contractures and pressure sores can often be prevented through proper treatment and care.

Table 4.2: Percent of Nursing Home Residents With Special Conditions, 1995-96

		Percent of Residents					
Category	Condition	Minnesota	Iowa	North Dakota	South Dakota	Wisconsin	National Average
Mobility	Bedfast	2%	3%	3%	3%	4%	6%
	Chairbound	46	39	47	47	49	52
	Physically restrained	23	4	12	24	34	19
	Contractures	15	20	23	39	16	23
Skin Integrity	Pressure sores	4	4	3	5	5	8
Bladder/Bowel Status	Indwelling or external catheter	5	5	5	6	7	8
	Bladder incontinence	54	48	48	46	49	52
	Bowel incontinence	38	29	30	25	35	45
Mental Status	Dementia	42	44	42	39	41	43
	Behavioral symptoms	35	20	25	27	24	20
	In a behavior management program	79	45	81	63	50	58
Special Care	Tracheotomy care	< 1	< 1	< 1	< 1	< 1	1
	Ostomy care	2	2	2	2	2	2
	Suctioning	1	1	1	1	1	2
	Tube feeding	2	2	3	2	3	8
	Respiratory treatment	6	6	6	6	5	6

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, Online Survey Certification and Reporting System, 1995-1996.

QUALITY OF CARE

The quality of care provided in nursing homes is difficult to measure.

Quality of care in nursing homes is a complex concept that is difficult to measure. The Institute of Medicine defines quality of care as, "...the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[4] Advocates and ombudsman staff for the elderly told us that staffing level, mix (licensed nurses to aides), and competency; individualized care; staff-resident relationships; and overall feelings of safety and security are important quality of care indicators for nursing home residents and their families. Advocates we spoke with generally consider the quality of care in Minnesota nursing homes to be above average compared with surrounding states, but acknowledged the difficulty in objectively measuring quality of care.

According to the research, nursing homes with higher costs do not necessarily provide a higher quality of care.[5] Providing adequate and competent staffing at each level of nursing care is important in providing quality nursing home care. Reimbursement methods, particularly the use of reimbursement limits for nursing or direct care, have been found to influence nurse staffing levels, which directly impacts resident outcomes.[6] An ideal analysis of quality of care would compare a broad range of factors including: staffing level and mix, environmental factors, assistance with ADLs, infection control, quality of resident-staff relationships, changes in health status, conditions attributable to the care provided (facility-acquired pressure sores and injuries), and resident and family satisfaction. Unfortunately, data are not available to perform such a comprehensive analysis.

Analysis in Chapter 3 revealed that Minnesota provided more hours of nursing care per resident day and a higher ratio of licensed nurses to nursing aides than most of the states evaluated. To further examine quality of care, we reviewed performance indicators selected to represent resident outcomes, services or activities provided, and environmental factors. These performance indicators are summarized in Table 4.3. We ranked states worse than the national average if the percentage of homes with deficiencies was more than two percentage points above the national average. We found that:

- **While Minnesota performs above the national average on many performance indicators, the quality of care in Minnesota's nursing homes appears to be similar to that in neighboring states.**

Based on 36 selected performance indictors, Minnesota's homes rated worse overall than the national average on 5 measures: 1) providing a safe, sanitary and com-

4 Institute of Medicine, Division of Health Care Services, *Nursing Staff in Hospitals and Nursing Homes: Is It Adequate?* (Washington, D.C.: National Academy Press, 1996), 107.

5 Joel W. Cohen and William D. Spector, "The Effect of Medicaid Reimbursement on Quality of Care in Nursing Homes," *Journal of Health Economics* Vol. 15 (1996): 24; John Holahan and Joel Cohen, "Nursing Home Reimbursement: Implications for Cost Containment, Access and Quality," The Milbank Quarterly 65 no. 1 (1987): 139.

6 Cohen and Spector, 44; Institute of Medicine, *Nursing Staff in Hospitals and Nursing Homes*, 148-149.

Table 4.3: Selected Performance Indicators, 1995-96

DESCRIPTION	Percent of Facilities Not Meeting Requirements					
	MN	IA	ND	SD	WI	Ntl
The facility immediately informs the resident, resident's physician, and legal guardian or family member of an accident requiring intervention, a significant change in resident's health status, a need to alter treatment, or a decision to transfer or discharge the resident from the facility.	2%	3%	11%	4%	4%	6%
Each resident is given privacy during medical treatment, written and telephone communications, personal care, and visits.	9	3	9	7	5	8
Each resident who wishes to self-administer his or her own medications is allowed to once the interdisciplinary team has determined that it is safe.	10	1	5	6	1	3
Each resident is free from any physical restraints imposed for purposes of discipline or convenience, and not required to treat medical symptoms.	13	12	14	20	10	16
Each resident is free from any chemical restraints imposed for purposes of discipline or convenience, and not required to treat medical symptoms.	1	0	1	0	0	1
Each resident is free from verbal, sexual, physical, and mental abuse.	1	1	0	0	1	2
Each resident is cared for in a manner and in an environment that maintains or enhances his or her dignity and respect.	15	6	22	11	7	17
The facility provides an ongoing program of meaningful activities to meet the interests and the physical, mental and psychosocial well-being of each resident.	6	4	13	13	12	12
The facility provides medically-related social services to attain or maintain the highest practicable physical, mental and psychosocial well-being of each resident.	7	4	0	7	7	9
The facility provides a safe, clean, comfortable, and homelike environment, allowing each resident to use his or her personal belongings to the extent possible.	4	6	5	14	6	11
Each resident is provided with clean bed and bath linen in good condition.	1	<1	1	0	1	3
The facility makes a comprehensive assessment of each resident's needs, including physical and mental status, impairments, nutritional status, treatment needs, and activity and rehabilitation potential.	34	23	14	43	23	26
A comprehensive care plan is developed for each resident by a team of qualified professionals and is periodically reviewed and revised.	3	3	17	2	7	6
Services required in residents' care plans are provided by qualified persons.	5	2	9	4	3	5
Each resident receives the care and services necessary to attain or maintain his or her highest practicable physical, mental, and psychosocial well-being.	6	11	9	2	12	12
Each resident receives the care needed to maintain or improve his or her activities of daily living (bathe, dress, walk, eat, communicate, and toilet).	6	7	6	1	3	5
Each resident unable to independently perform the activities of daily living receives the necessary care and services to maintain good nutrition, grooming, and personal and oral hygiene.	5	7	9	2	6	10
Each resident receives the care necessary to prevent skin breakdown, and a resident with a bed sore also receives treatment to promote healing and prevent infection.	11	28	21	14	7	16
A resident who enters the facility without a urinary catheter is not catheterized unless clinically necessary.	1	2	0	1	1	1
A resident who has problems with bladder control receives the treatment and care necessary to prevent urinary tract infections and to restore as much normal bladder function as possible.	17	20	13	3	8	12

Table 4.3: Selected Performance Indicators, 1995-96, continued

DESCRIPTION	Percent of Facilities Not Meeting Requirements					
	MN	IA	ND	SD	WI	Ntl
A resident who enters the facility without a limited range of motion (ROM) does not experience a reduction ROM in these abilities unless unavoidable for clinical reasons.	0%	2%	0%	0%	2%	1%
A resident with limited range of motion receives appropriate treatment and services to increase his or her movement capacity and/or prevent further decrease in ROM.	9	11	3	0	7	9
A resident who is fed by a tube receives the appropriate treatment and service to prevent complications (pneumonia, vomiting, dehydration) and to restore, if possible, normal eating skills.	2	6	2	0	1	5
The facility ensures that the resident environment remains as free of accident hazards as possible.	11	7	1	26	13	18
Each resident receives adequate supervision and assistance devices to prevent accidents.	3	7	6	2	3	8
The facility ensures that each resident maintains his or her nutritional status (such as body weight), unless unavoidable due to clinical reasons.	2	4	1	11	1	8
Each resident receives sufficient fluids to maintain proper hydration and health.	3	3	5	1	1	3
Each resident receives proper care for injections, fluids supplied through tubes, colostomy/ileostomy, respiratory, tracheotomy, foot care, suctioning, and prostheses.	2	3	2	2	<1	4
Each resident's drug regimen is of proper dosage and duration with adequate monitoring.	7	10	3	25	8	11
Sufficient nursing services are provided at all times to meet the needs of residents.	3	5	6	3	2	5
Each resident receives a nourishing, palatable, well-balanced diet that meets his or her daily nutritional and special dietary needs.	<1	0	0	0	1	<1
Food is stored, prepared, distributed and served under sanitary conditions.	13	19	23	17	6	25
The facility has established and maintains an infection control program designed to provide a safe, sanitary, and comfortable environment that helps prevent the development and spread of disease and infection.	14	9	31	5	2	13
All essential mechanical, electrical, and patient care equipment is maintained in safe operating condition.	1	0	0	0	0	3
Resident rooms are designed or equipped to ensure full visual privacy for each resident.	8	<1	11	21	2	3
The facility provides a safe, functional, sanitary, and comfortable environment for residents, staff and the public.[1]	19	2	17	0	2	6

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, Online Survey and Certification Reporting (OSCAR) Report #18, "Comparison of Deficiency Patterns in Tag Number Order," 1995-1996. Generated by the Minnesota Department of Health on July 16, 1996.

[1]According to staff at the Minnesota Department of Health, this performance indicator is applied differently in Minnesota than other states.

fortable environment; 2) comprehensively assessing each resident's needs; 3) caring for residents with bladder control problems in a manner that prevents urinary tract infections; 4) allowing residents capable of administering their own medications to do so; and 5) providing full visual privacy in resident rooms.[7] Nursing homes in North and South Dakota rated worse overall than the national average on eight measures, while homes in Iowa were worse on two measures, and homes in Wisconsin did not perform worse than the national average on any measure.[8]

Nursing homes in Minnesota ranked above the national average on many performance measures.

When these deficiencies are compared among the states, we found that nursing homes in Minnesota, North Dakota, and South Dakota were worse than the national average in providing full visual privacy in resident rooms. Nursing homes in Minnesota and South Dakota ranked worse than the national average for not allowing self-administration of medications and not comprehensively assessing residents. Homes in Minnesota and Iowa ranked worse than the national average in providing adequate treatment and care for residents with bladder control problems, while homes in Minnesota and North Dakota were worse than the national average in not providing a safe, sanitary and comfortable environment.

The use of physical restraints on residents in nursing homes has been criticized because restraining residents may decrease muscle tone, and increase the likelihood of falls, incontinence, pressure ulcers, depression, confusion, and mental deterioration.[9] We found that 13 percent of Minnesota nursing homes were cited for the overuse of physical restraints, which is better than the national average (16 percent). Staff from the Minnesota Department of Health told us that the use of physical restraints in Minnesota nursing homes is still too high, and the department would like to reduce the use of physical restraints.

Federal regulations categorize nursing home deficiencies by the scope of the problem (whether deficiencies are isolated, constitute a pattern, or are widespread) and the severity of the violations (whether there is harm or jeopardy to residents). The inspection and certification process focuses on substandard quality of care when inspecting a nursing home. Inspectors cite a nursing home for substandard quality of care when: 1) a resident has been or is likely to be seriously injured or harmed; 2) there is a pattern of, or widespread actual harm occurring to residents; or 3) there is a widespread potential for more than minimal harm.[10]

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7 Environmental deficiencies usually involved unclean floors, low hot water temperatures, and inaccessible call-light switches in bathrooms. Assessment deficiencies were cited because specific assessments were not performed on complex residents, such as pain control, hot pack use, indwelling catheter justification, and continued use of physical restraints. The bladder function deficiencies cited identified improper placement and care of catheter bags and failure to provide residents with toileting opportunities.

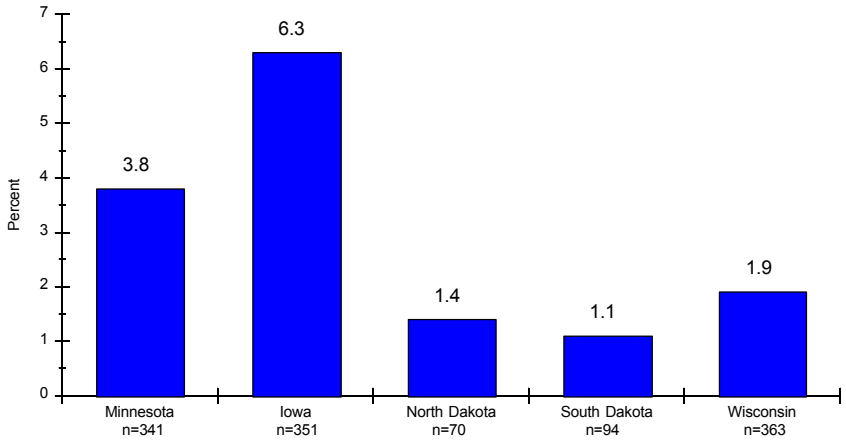
8 We ranked states better than the national average if the percentage of homes with deficiencies was more than two percentage points below the national average. Nursing homes in Minnesota and South Dakota rated better than the national average on 14 measures, compared with 10 in North Dakota, 19 in Iowa, and 21 in Wisconsin.

9 Institute of Medicine, *Nursing Staff in Hospitals and Nursing Homes*, 138.

10 U.S. Department of Health and Human Services, State Operations Manual, Transmittal No. 273 (June 1995): 7-41 - 7-43. Due to changes made in the survey and survey process beginning July 1, 1995, only survey certification information collected between July 1, 1995, and July 16, 1996 were used when comparing the scope and severity of nursing home citations.

Between July 1995 and July 1996, 6.8 percent of all deficiencies cited in Minnesota nursing homes were substandard quality of care citations, compared with 2.8 percent in Wisconsin, 4.7 percent in North Dakota, 7.3 percent in Iowa, and 21.6 percent in South Dakota.[11] Figure 4.1 illustrates the percent of nursing homes receiving substandard quality of care citations in each state.[12] Minnesota, with 4 percent of facilities receiving substandard quality of care citations, was higher than all other states examined, except Iowa.

Figure 4.1: Percent of Nursing Homes with Substandard Quality of Care Citations, 1995-96



Source: U.S. Department of Health and Human Services, Health Care Financing Administration, On-Line Survey Certification and Reporting System, July 1995-July 16, 1996.

SUMMARY

This chapter examined whether Minnesota nursing home costs are higher because facilities provide services to more medically needy and costly residents, or because they deliver a superior quality of care compared with neighboring states. We found that nursing homes in Minnesota had a larger percentage of residents who were dependent on nursing staff to perform activities of daily living, including bathing, dressing, transferring, using the toilet, and eating than surrounding states.

Nursing home residents with special care needs require more nursing care and more careful review by nursing and other staff to ensure that adequate care is being provided. Minnesota had more residents with behavior problems, and bladder and bowel incontinence than surrounding states. In other areas, the proportion of

11 South Dakota had a total of 125 citations, compared with totals ranging from 407 in Wisconsin to 1,358 in Iowa.

12 Thirteen nursing homes in Minnesota were cited for substandard quality of care, compared with one facility each in North and South Dakota, seven in Wisconsin, and 22 in Iowa.

Minnesota's nursing home residents with special conditions was similar to or lower than surrounding states. In some instances this may be indicative of quality care. For instance, Minnesota had fewer residents with muscle contractures, a condition that can often be prevented through proper care and treatment.

Unfortunately, comprehensive data are not available to measure the quality of care in nursing homes. Using federal data, we found that, while Minnesota performed above the national average on many performance indicators, the quality of care in Minnesota's nursing homes appears to be similar to that in neighboring states. In summary, Minnesota's higher nursing home costs may be partially attributable to a higher percent of nursing home residents who are dependent on nursing staff for daily care, but do not appear to be related to a higher quality of care than neighboring states.

Analysis of Reimbursement Policies

CHAPTER 5

State Medicaid reimbursement policies determine which nursing home allowable costs will be reimbursed through payment rates in the coming year. Generally, states use reimbursement limits and incentive payments to contain nursing home spending. During the rate setting process, states apply these reimbursement policies to allowable costs to generate Medicaid per diem rates. A nursing home's allowed costs may not be fully reimbursed through Medicaid nursing home reimbursement rates. In this chapter, we discuss the implications of reimbursement policies on nursing home costs and reimbursement rates. We asked:

- **Do Minnesota's reimbursement policies contribute to its higher nursing home rates?**

In general, we found that Minnesota uses more reimbursement limits than neighboring states. Nursing home reimbursement limits in Minnesota appear to reduce nursing home spending as much or more than North and South Dakota, but less than Wisconsin. To adjust nursing home costs and reimbursement limits for inflation, Minnesota used inflation factors and adjustment methods that may allow more generous growth than some of the other states. In addition, Minnesota provided a larger average incentive payment per day to more nursing homes than other states in 1995. Appendix B contains a brief description of each state's Medicaid nursing home reimbursement system.

REIMBURSEMENT LIMITS

States establish nursing home payment rates using various methods to limit reimbursement. States can choose to limit reimbursement payments at a certain percentage above the median daily costs or at a specific percentile of daily costs for all nursing homes. Minnesota and South Dakota set limits using a percent of median daily costs for nursing homes in certain groups. North Dakota and Iowa set limits at a percentile of daily costs. Wisconsin, on the other hand, uses various formulas with pre-set spending targets to calculate reimbursement limits.

States can choose to set limits on total costs or for specific groups of costs. Limiting *total* nursing home costs, gives nursing homes the option of cutting spending in one area to accommodate high costs in another. In contrast, applying reimbursement limits to specific groups of cost gives states greater control over nursing

home expenditures.[1] States can direct more resources toward direct-care services by setting higher limits for care-related costs and lower limits for others costs, such as operating and administrative costs.

Iowa limits *total* daily nursing home costs. Iowa's maximum Medicaid reimbursement rate was set at the 70th percentile of total per diem costs for all nursing homes; $61.63 effective July 1, 1995 and $64.60 effective January 1, 1996.[2] The maximum reimbursement rate is applied after per diem costs have been increased by an "inflation factor" and an "incentive payment" (both discussed below). In 1995, 63 percent of nursing homes received their historical per diem costs plus the full inflation factor, and 54 percent received their per diem costs plus the full inflation and incentive payment. Limiting maximum reimbursement at the 70th percentile of total daily costs is a strong cost containment measure, but does little to control how resources are used within nursing facilities.

Minnesota limits nursing home spending for specific groups of costs.

Minnesota, North Dakota, South Dakota, and Wisconsin set reimbursement limits for specific groups of costs.[3] The remainder of this section examines the effect of the care-related and other operating cost limits in these states. Each state applies different reimbursement limits to different groups of costs, making comparisons difficult.

"Care-Related" Cost Limits

Nursing home costs directly related to the provision of patient care are called "care-related" or "direct-care" costs. These costs, which consisted of nearly one-half of total nursing home costs in 1994, generally include nursing salaries and supplies, therapies, pharmacy, and other patient services, such as medical records. In Minnesota and Wisconsin, social services and activities expenditures are also included in care-related costs.

In each of the states examined, either nursing costs or direct-care costs are adjusted for case mix or level of care. Minnesota and South Dakota limit care-related costs to no more than 125 percent of the median daily costs for all nursing homes in each geographic or peer group.[4] North Dakota caps reimbursement for direct-care costs at the 99th percentile of per diem costs for all homes. Wisconsin uses a formula to calculate direct-care limits with adjustments for geographic location. We found that:

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1 Robert J. Buchanan and others, "Medicaid Payment Policies for Nursing Home Care: A National Survey," *Health Care Finance Review*: 60.

2 In June 1996, the Iowa Legislature provided funding for a semi-annual rate adjustment to $64.60 effective retroactive to January 1, 1996. These rates apply only to nursing facilities providing an intermediate level of care.

3 Minnesota and North Dakota have not recalculated the reimbursement limits since 1992. Instead, the limits are adjusted annually for inflation.

4 In Minnesota, four Rule 80 facilities, providing care to non-geriatric physically impaired individuals, are exempt from the care-related cost limit.

- **In Minnesota, and most other states, nearly all of nursing homes' expenditures for care-related services were covered by state Medicaid reimbursement rates in 1995.**

In Minnesota, less than one percent of "care-related" costs exceeded the spending limits in 1995.

As shown in Table 5.1, only 5 percent of nursing homes in Minnesota exceeded the "care-related" cost limits and less than 1 percent of all care-related costs were unreimbursed during the 1995 rate year.[5] Few nursing homes in North and South Dakota spent more for direct care-related services than they were reimbursed by the state. In Wisconsin, however, over one-quarter of the nursing homes spent more for direct-care services than the state reimbursed. Nearly 5 percent of the direct-care costs in Wisconsin were unreimbursed during the 1995 rate year.

Table 5.1: Percent of Nursing Homes Exceeding Major Spending Limits, 1995

State	Limits	Percent of Homes Over Limit	Estimated Percent of Costs Unreimbursed
Minnesota	Care-Related	4.9%	0.5%
n = 444	Other Operating	27.5	3.1
	- Maintenance Disallowance	56.3	4.6
	- General/Administration	20.0	3.6
	Care-Related Spend-up	32.2	0.9
	Other Operating Spend-up	21.8	0.8
	High Cost Facilities	32.0	0.6
North Dakota	Direct Care	2.4%	0.1%
n = 83	Other Direct Care[1]	9.6	0.5
	Indirect Care	25.3	3.1
South Dakota	Direct Care	7.5%	1.5%
n = 107	Non-direct Care Free-standing Facilities (n = 83)	25.3	1.8
	Capital Freestanding Facilities	12.0	3.8
	Non-direct Care Plus Capital Hospital-Attached Facilities (n = 24)	20.8	1.4
Wisconsin	Direct Care	27.3%	4.9%
n = 366	Support Services	47.0	8.4
	Administration/General	48.1	9.3
	Fuel/Utilities	28.1	4.7

Source: Program Evaluation Division analysis of state nursing home cost report and rate setting data.

[1]North Dakota's "other direct care" cost center includes food, laundry, and social services. "Indirect care" includes administration, plant operations, dietary, and housekeeping.

5 We used each state's rate setting data base to estimate the percent of unreimbursed allowable nursing home costs. Generally, unreimbursed costs consisted of costs which exceeded a specific reimbursement limit.

"Other Operating" Cost Limits

"Other operating" costs generally include dietary, housekeeping, laundry and linen, plant operations and maintenance, and general and administrative expenditures, although some states also include social service and activity expenditures in this area. Each state groups other operating costs in different ways (see Table 5.1) and sets lower reimbursement limits for these costs than for care-related costs.

In Minnesota, reimbursement for "other operating" costs is limited at 110 percent of the median daily costs for all facilities in the geographic region.[6] Unlike other states, Minnesota also limits general and administration costs (excluding fringe benefits, payroll taxes, and professional liability and property insurance) and plant operations and maintenance costs for uncapitalized expenses within the other operating costs limit.[7] The limits are applied first to the sub-groups and then to all other operating costs combined.

South Dakota groups all other operating costs, including property taxes, into a "non-direct care " cost category and limits reimbursement to 110 percent of median daily costs for freestanding facilities.[8] North Dakota caps "other direct care" costs at the 85th percentile of daily costs, and "indirect care" costs at the 75th percentile of costs for all nursing homes.[9] Wisconsin uses formulas with pre-set spending targets to set the reimbursement limits for "support services," "administrative and general services," and "fuel and utility" costs.

In Minnesota, nearly five percent of all other operating costs exceeded the spending limits in 1995.

We examined the impact of the other operating cost reimbursement limits and found that:

- **About one-quarter of the nursing homes in Minnesota, North Dakota and South Dakota, but over 45 percent of the homes in Wisconsin, spent more for other operating costs than the states reimbursed through the 1995 rates.**

Roughly one quarter of the nursing homes in Minnesota, North and South Dakota had their other operating or indirect care costs limited in 1995. A larger proportion of Wisconsin nursing homes had their support services (47 percent), administrative (48 percent), and fuel expenses (28 percent) limited. In addition, 20 percent of Minnesota's nursing homes had their general and administrative costs limited and over half had their plant operation and maintenance costs limited prior to the application of the "other operating" cost limit.

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6 In Minnesota, the "other operating" cost limits are calculated separately for hospital-attached facilities and other special facilities.

7 General and administrative costs are limited to between 13 and 15 percent of a facility's operating costs depending on the number of beds in the facility. Plant operations and maintenance costs for supplies, minor equipment, equipment and building repairs, purchased services and service contracts are limited to $325 per bed annually.

8 For hospital-attached nursing homes, South Dakota includes capital costs with other non-direct care costs subject to the 110 percent reimbursement limit.

9 In North Dakota, "other direct care costs" include food, laundry, and social service, and indirect care costs include administration, plant operations, dietary, and housekeeping.

Minnesota's combined other operating cost, maintenance, and administration limits resulted in nearly 5 percent of all other operating costs being unreimbursed during the 1995 rate year. Both North and South Dakota had smaller proportions of unreimbursed nursing home operating costs, 3 percent and 2 percent respectively. In comparison, about 8 percent of support services costs and 9 percent of administrative costs were unreimbursed in Wisconsin.

Additional Reimbursement Limits

Minnesota uses more techniques to limit reimbursement of nursing home costs than surrounding states.

Beginning with the 1995 rate year, the Minnesota Legislature adopted two new reimbursement limits to reduce the rate of increase in nursing home reimbursements.[10] "Spend-up limits" established new overall reimbursement limits for care-related and other operating costs. "High-cost facility limits" reduced reimbursement by 1 or 2 percent depending on where a facility's operating cost per diems fell in relation to the median for similar nursing homes in each of Minnesota's geographic groups. The "spend-up" and "high-cost facility" limits were applied after the "care-related" and "other operating" cost limit. Both of these measures are explained in more detail in Figure B.1 in Appendix B. We found that:

- **Even with the additional reimbursement limits implemented in 1995, Minnesota's reimbursement policies did not contain nursing home costs as much as Wisconsin's.**

In 1995, between one-fifth and one-third of nursing homes in Minnesota were above either the "spend-up" or "high-cost facilities" limits. None of these measures limited the reimbursement of nursing home costs by more than 1 percent individually, and combined, the new limits reduced reimbursement by an estimated 1.4 percent, or $12.1 million. Even with implementation of these new reimbursement limits, Minnesota had a lower percentage of unreimbursed nursing home costs than Wisconsin.

Property Cost Limits

As discussed in Chapter 1, each state uses a different method for reimbursing property costs. North and South Dakota calculate property reimbursement based on allowed historical costs for depreciation, interest and other property-related costs. In North Dakota, property costs are reimbursed without limits. South Dakota limited capital costs for freestanding nursing homes at $9.34 per resident day in 1995.[11]

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10 Legislative changes in 1996 provided additional Medicaid funding to nursing homes and offset some of the reductions implemented in 1995. The Legislature modified the "spend-up limits" for the 1996 rate year; suspended for one year the "high-cost facility" limits; and removed the care-related, other operating, and plant and maintenance reimbursement limits. These modifications apply only for the 1996 rate year (which began July 1, 1996). When setting nursing home reimbursement rates for the 1997 and future rate years, the law requires the Commissioner of Human Services to use the reimbursement limits adopted in 1995. See Appendix A.

11 For hospital-attached homes, capital costs are included in the other operating cost center and subject to the 110 percent of median daily costs for all homes. South Dakota also limits the maximum property reimbursement for leased facilities.

Minnesota uses a complex formula to determine its property reimbursement rate.

Both Minnesota and Wisconsin use formulas to reimburse property costs. Minnesota reimburses property costs using a base property rate that is adjusted using the modified fair-rental value formula, plus a capital repair and replacement payment, plus various incentive payments. Facilities are subject to a capital repair and replacement limit which is not part of the fair-rental value formula.[12] In Wisconsin, allowable property-related expenses for property insurance, interest, depreciation, operating and capitalized leases were limited to 15 percent of allowed equalized value.[13] We found that:

- **The average property reimbursement rate accounted for between 7 and 8 percent of the average total reimbursement rate in every state examined.**

Minnesota's average property reimbursement rate per day of $7.85 in 1995 was higher than similar rates in other states: $6.28 per day in Wisconsin, $6.40 per day in North Dakota, and $5.50 per day in South Dakota.[14] As a proportion of the total average reimbursement rate per diem, the property rate in every state accounted for between 7 and 8 percent of the total reimbursement rate. It should be noted that in Wisconsin $1.06 of the per diem property reimbursement rate was used to reimburse nursing home providers for the state's bed assessment, or provider surcharge. This reduces Wisconsin's property rate to about 6 percent of the total reimbursement rate.

When property reimbursement rates are compared to property costs (discussed in Chapter 3), Minnesota's average property rate of $7.85 per resident day in 1995 was over 40 percent higher than the estimated average $5.44 in property costs per day. This differential was higher than those for neighboring states. For instance, South Dakota's average property rate ($5.50 per day) was 14 percent higher than its average property cost ($4.82 per day), North Dakota's property rate was the same as its costs, and Wisconsin's was 13 percent lower.

INFLATION ADJUSTMENTS

States use different methods and inflation indexes to adjust the prior year's allowable nursing home costs to the next rate year. Reimbursement limits that are not recalculated using the most recent cost data are also adjusted for inflation. Inflation adjustments are usually based on a health care price index (such as a nursing home market basket) or a general price index (typically a consumer price index).

12 In Minnesota capital repair and replacement costs related to wall, floor, and window coverings, paint, roof repair, heating or cooling system repair and replacement, window repair and replacement, and repair or replacement of capital assets were limited to $160 per bed in 1995. If a facility spends more than the limit, the amount spent over the limit can be carried over to succeeding cost reporting periods.

13 In Wisconsin, allowed equalized value was based on an investment per bed limit.

14 As discussed in Chapter 3, we estimated Minnesota's property costs to be $5.44 based on allowable principle and interest, equipment, and capital repair and replacement costs. If unaudited depreciation and interest costs are used, then the estimated costs of property would be $6.05 per resident day. Minnesota's average property reimbursement rate does not include refinancing and equity incentives, which averaged $0.09 per resident day.

Health care indexes historically have grown faster than general price indexes, allowing for faster growth in nursing home spending.

Table 5.2 summarizes the inflation factors used in each state. The diversity of methods used to adjust costs and rates for inflation makes comparison among states difficult. We concluded that:

- **Minnesota used inflation factors and adjustment methods that may allow for more generous growth than some of the other states examined.**

Minnesota has not recalculated its reimbursement limits since 1992.[15] Instead, Minnesota uses a 12-month change in a nursing home market basket index to increase the reimbursement limits each year. In 1995, Minnesota's reimbursement limits were increased by 3.8 percent. After applying all of the inflation-adjusted reimbursement limits, Minnesota inflated the resulting operating cost per diems by 5.8 percent, based on a 21-month change in a consumer price index. Minnesota uses a 21-month inflation factor to account for the 9 month time lag between the end of cost reporting year (September 30) and the beginning of the rate year (July 1).

Table 5.2: Nursing Home Reimbursement Inflation Adjusters, 1995

State	Index Used	Inflation Rate	Months of Adjustment	Applied To
Minnesota	CPI-U[1]	5.8%	21	Operating costs
	Nursing Home Market Basket	3.8	12	Reimbursement limits
North Dakota	CPI-W[2]	3.0	12	Reimbursement limits Operating costs
South Dakota	Long-Term Care Index	5.6 to 9.6	3 to 12	Facility fiscal year costs[3]
Wisconsin	Various Nursing Home Market Baskets	Numerous	6 to 12	Facility fiscal year costs
	Nursing Home Market Basket	3.7	12	Operating costs
Iowa	CPI-U	2.7	12	Operating costs

Note: The nursing home market baskets used in Minnesota and Wisconsin and the long-term care index used in South Dakota are state-specific indeces typically calculated by DRI, Inc.

Source: State Medicaid reimbursement policy manuals and procedures.

[1]CPI-U = Consumer Price Index for all urban consumers. Minnesota uses a 21-month inflation factor to account for the 9 month time lag between the end of the cost reporting year to the beginning of the rate year.

[2]CPI-W = Consumer Price Index for all urban wage earners and clerical workers.

[3]South Dakota and Wisconsin adjust various provider fiscal year costs to a common period.

15 North Dakota also has not recalculated its reimbursement limits since 1992.

It appears that the inflation factors used in other states would allow similar or slightly more conservative cost increases. In South Dakota, costs are adjusted from the end of a facility's fiscal year to the start of the following rate year using a state long-term care inflation index.[16] Inflation adjustments ranged from 5.6 to 9.6 percent, depending on a facility's fiscal year end. Wisconsin uses numerous nursing home market basket indexes to trend facility fiscal year costs forward to a common period. For instance, salaries were increased by a range of 1.8 to 4.5 percent, supply costs were increased by a range of 1.4 percent to 3.4 percent, depending on a facility's fiscal year end. Operating cost per diems were then multiplied by 3.7 percent to increase rates for the new rate year. North Dakota used a 3 percent inflation rate, based on a 12-month change in the consumer price index, to adjust *both* its reimbursement limits and operating cost per diems.

Among the states examined, Iowa had the most restrictive inflationary adjustment. Iowa inflated nursing home operating costs by 2.7 percent based on a change in the consumer price index. Since the inflation factor is applied before Iowa's maximum reimbursement limits were applied, some nursing homes did not receive the full inflation adjustment.

INCENTIVE PAYMENTS

Most states use "incentive payments" to encourage nursing homes to reduce costs.

Most states use various types of "incentive payments" to encourage nursing homes to reduce costs. Some states provide incentive payments based on groups of costs. North Dakota provides an incentive payment based on 70 percent of the difference between the actual indirect care rate and the prior rate year's limited rate, up to a maximum of $2.60 per day. North Dakota also provides a 3 percent operating margin based on direct and indirect care costs to all nursing homes. In Wisconsin, facilities with support services costs below a pre-set target receive an incentive payment equal to 4 percent of the difference between the facility's costs and the target. In Minnesota, an incentive payment up to a maximum of $2.25 per resident day is provided to nursing homes with other operating costs (*after* all reimbursement limits are applied and costs are adjusted) below the per diem reimbursement limit.

Iowa provided incentive payments based on overall spending. In 1995, Iowa nursing homes could receive an incentive payment of up to $1.75, subject to the maximum daily reimbursement limit. South Dakota did not provide any incentive payments.

We found that:

- **Minnesota provided larger average incentive payments to more nursing homes than most neighboring states except North Dakota in 1995.**

16 South Dakota changed its inflation index for the rate year beginning July 1, 1996, and is currently using a South Dakota-based consumer price index for all items.

As shown in Table 5.3, 91 percent of nursing homes in Minnesota earned an average incentive payment of $1.23 per resident day. Only North Dakota, with an average incentive payment of $1.36 per day earned by 75 percent of nursing homes, exceeded Minnesota. In contrast, Wisconsin provided the smallest average incentive payment ($0.04 per day to 53 percent of its homes).

Minnesota provided incentive payments to nursing homes whose operating costs exceeded the spending limits in 1995.

Table 5.3: Incentive Payments, 1995

State	Incentive	Percent of Nursing Homes Receiving Incentive Payment	Per Resident Day Costs
Minnesota	Efficiency Incentive	90.8%	$1.23
North Dakota	Indirect Care Incentive	74.7	1.36
	Operating Margin:		
	Direct	100.0	1.11
	Other Direct	100.0	0.27
South Dakota	None	NA	NA
Wisconsin	Support Services Incentive	53.0	0.04
Iowa	Incentive Factor	62.5	1.02

NA = Not applicable.

Source: Program Evaluation Division analysis of state nursing home cost report and rate setting data.

While most states use incentive payments to encourage nursing homes to reduce costs, we found that:

- **Minnesota provided "incentive payments " to 87 nursing homes whose allowable other operating costs exceeded the other operating costs spending limits in 1995.**

This occurs because a nursing home's other operating costs per day were first reduced by the reimbursement limits, before calculating eligibility for an incentive payment. For example, one freestanding facility's other operating costs of $69.31 per day in 1995 were capped at $29.13 (the other operating cost limit) and further reduced to $28.55 by the high cost facility reduction. After its other operating costs were reduced by more than $40 per day, this facility qualified for an incentive payment of $0.39 per day. A similar situation occurs with nursing homes that are subject to the "spend-up" limit.

If the state had not provided incentive payments to facilities whose costs were reduced by the other operating cost limit, it would have saved an estimated $0.07 per resident day, or $1.2 million in 1995. Similarly, if the state had not provided incentive payments to facilities whose costs were reduced by *both* the other operating costs limits and the other operating spend-up limits, the state would have saved an estimated $0.37 per day or $5.8 million in 1995.

Minnesota and Wisconsin also provided incentive adjustments as part of their property reimbursement formulas, while South Dakota provided a return on net equity to proprietary nursing homes. Minnesota's refinance incentive encourages debt refinancing with lower interest rates. In 1995, nearly 11 percent of Minnesota's nursing homes received the refinance incentive at a cost of $0.02 per resident day. Nearly 30 percent of Minnesota's nursing homes received an equity incentive which cost the state an average of $0.07 per resident day. Wisconsin provided a property incentive to approximately 45 percent of its homes whose property expenses were below the targeted total equalized value. Wisconsin's average incentive payment was $0.08 per day. Proprietary nursing homes in South Dakota received a 6.8 percent return on net equity, which was included in capital costs and was subject to the reimbursement limit. South Dakota's average return on net equity was $0.46 per day in 1995.

SUMMARY

State Medicaid reimbursement policies determine what nursing home allowable costs will be reimbursed through payment rates. States set reimbursement limits, make incentive payments and apply inflation adjustments to contain nursing home spending. This chapter analyzed the impact of these reimbursement policies.

Minnesota employs more techniques to limit reimbursement of nursing home costs than other states. For instance, within the "other operating cost" reimbursement limit, Minnesota has sub-limits for maintenance costs and administrative costs. Minnesota also implemented two additional overall cost limits in 1995. Minnesota's reimbursement limits appear to contain nursing home spending as much or more than North and South Dakota. Despite its more numerous limits, Minnesota does not contain nursing home spending as much as Wisconsin.

Compared with Minnesota nursing homes, a larger percent of Wisconsin's nursing homes have their spending limited by a greater amount. For instance, Minnesota's combined other operating cost limits resulted in nearly 5 percent of all other operating costs being unreimbursed during the 1995 rate year. In comparison, nearly 8 percent of support services costs and nearly 9 percent of administrative costs were not reimbursed in Wisconsin.

Most state uses some form of incentive payment to encourage nursing homes to reduce costs. Minnesota provided higher incentive payments to more nursing homes than all other states except North Dakota in 1995. One possible reason for this is that Minnesota provided "incentive payments" to 87 nursing homes whose costs exceeded the other operating costs spending limits in 1995. This occurred because a nursing home's other operating costs were first reduced by the reimbursement limits, and then the limited costs were used calculate eligibility for an incentive payment. If incentive payments were based on a facility's other operating costs before these costs are reduced by the other operating cost limit and the other operating cost spend-up limit, then the state would have saved an estimated $0.37 per resident day, or $5.8 million in 1995.

Minnesota's Geographic Groups

CHAPTER 6

Minnesota sets Medicaid nursing home reimbursement rates based in part on a nursing home's geographic location within the state. In 1985, the state was divided into three separate groups with different reimbursement limits. This chapter examines Minnesota's nursing home reimbursement geographic groups. We asked:

- **Do Minnesota's geographic groups hinder the ability of nursing homes in any particular group to provide competitive salaries for nursing staff?**

- **How do the "care-related" and "other operating" cost reimbursement limits effect nursing homes in each of the geographic groups?**

We did not conduct an exhaustive study of the many potential issues and problems created by Minnesota's geographic groups. Rather, we focused on whether the geographic groups reflect average nursing salaries and the effect of applying the reimbursement limits to nursing homes in each of the geographic groups.

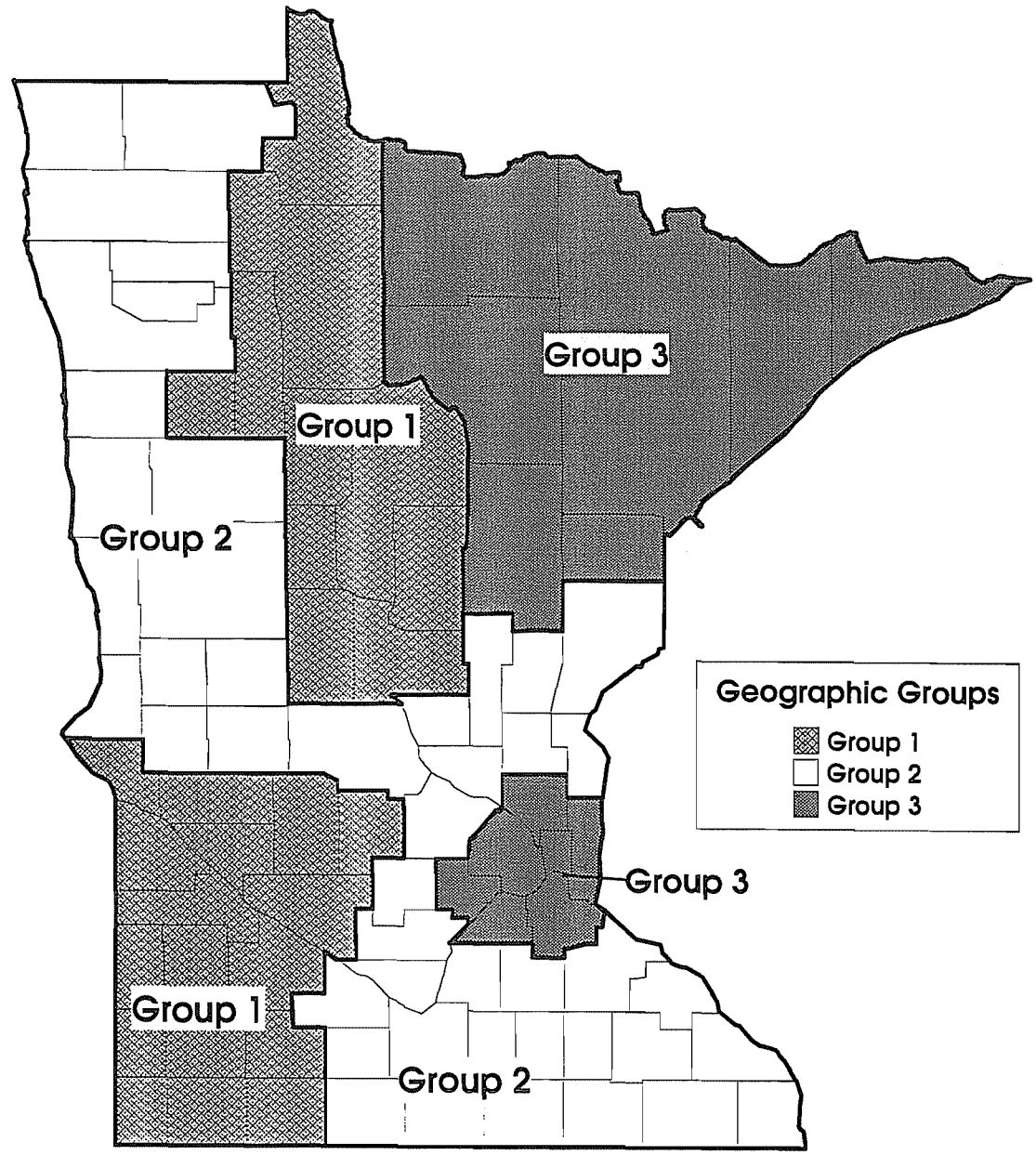
Minnesota's nursing home geographic groups were established using nursing salary data to reflect local cost variations. In general, we found that the geographic groups do not reflect differences in statewide average salaries for selected occupations that are similar to jobs in nursing homes. Using nursing home cost report data, there was also considerable variation in average nursing salaries for individual counties within geographic groups in 1994.

Nursing home providers have expressed concern about the ability to offer competitive salaries for licensed nursing staff. In every geographic group, however, few nursing homes exceeded the reimbursement limits applied to nursing salaries (between 4 and 6 percent). In contrast, approximately 28 percent of all homes exceeded the "other operating" cost limit. A larger proportion of homes in Group 2 (34 percent) exceeded the "other operating" cost limits than other groups.

BACKGROUND

In Minnesota, Medicaid nursing home reimbursement limits are based in part on three geographic groups (see Figure 6.1). The geographic groups were established using 1983 nursing salary data by economic development region as a proxy for

Figure 6.1: Nursing Home Reimbursement Geographic Groups



Source: Department of Human Services.

regional variation in nursing home input costs.[1] To be reimbursed for all allowable spending, care-related costs must fall within 125 percent and other operating costs within 110 percent of the median costs per day for all nursing homes in each geographic group. Consequently, reimbursement rates vary depending on where a nursing home is located within the state. Rates also vary based on each nursing home's historical costs and case mix or level of care residents need. In 1995, all of these factors combined resulted in average per diem rates that range from $60.42 to $139.53 (see Table 6.1).

Within Minnesota there is wide variation in nursing home rates.

Table 6.1: Average Daily Reimbursement Rates by Geographic Region and Case-Mix Class, 1995

Case Mix	Group 1	Group 2	Group 3
A	$60.42	$62.47	$71.87
B	65.44	67.77	78.39
C	71.13	73.77	85.77
D	76.31	79.24	92.49
E	81.67	84.88	99.43
F	82.00	85.23	99.87
G	86.52	90.00	105.72
H	95.05	98.99	116.77
I	98.06	102.17	120.67
J	102.75	107.11	126.74
K	112.62	117.51	139.53

Source: Minnesota Department of Human Services, "Nursing Home Impact of Case-Mix Reimbursement: 1995," August 1995.

Originally, the reimbursement limits were the highest for nursing homes in Group 3 and the lowest for homes in Group 1. Since 1989, nursing homes in Group 1 have been allowed to use the higher Group 2 reimbursement limits for care-related and other operating costs.[2] As a result, nursing homes in Groups 1 and 2 currently have the same "care-related" and "other operating" cost reimbursement limits.

Policy makers and nursing home providers have expressed concern about perceived inequities in reimbursement rates caused by the geographic groups. A primary problem cited is the inability of nursing homes located in counties that border another group with higher reimbursement limits to offer competitive salaries for licensed nursing staff. Policy makers have also heard complaints from nursing home providers who are approaching the reimbursement limits.

1 Two factors affected the formation of the existing geographic groupings. The prior existing Twin Cities/Northeastern Minnesota group remained intact as Group 3, and the remaining counties were divided into two groups with counties in each new group being contiguous to other counties within the group.

2 *Minn. Stat. §*256B.431, Subd. 2b(d). The efficiency incentive for nursing homes in Group 1, however, continues to be calculated using the Group 1 limit for other operating costs.

AVERAGE SALARIES BY GEOGRAPHIC GROUP

Previous studies found that Minnesota's geographic groups do not necessarily reflect local costs of living.[3] In 1989, the highest living costs were in the Twin Cities area, in the St. Cloud to Rochester corridor, and immediately north of the metropolitan area. Although nursing facilities in some northern counties are reimbursed as metropolitan facilities (Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis), the average cost of living for consumers in these counties was only 89 percent of what it was in the seven-county Twin Cities area. The cost of living for consumers was lowest in western Minnesota, particularly in the southwest and along the Iowa border.

The lack of current data on regional cost of living differences hampers detailed analysis of Minnesota's geographic groups.[4] Therefore, we examined differences in average salaries for professional occupations and nursing staff between the geographic groups. Our comparison of average wages for selected professional and service occupations that are similar to jobs found in nursing homes revealed that:[5]

The Twin Cities area had higher average salaries than northeastern Minnesota.

- **The geographic groups did not reflect differences in average salaries for selected occupations.**

As shown in Table 6.2, average salaries in Group 3 were between 5 and 10 percentage points above the statewide average, except for waiters and waitresses. In contrast, average salaries for Group 2 counties were between 7 and 11 percentage points below the statewide average (except for waiters and waitresses), while Group 1 counties were between 10 and 20 percentage points below the statewide average.[6]

When average salaries for the two distinct parts of Group 3 are separated we found that the Twin Cities metropolitan area, however, had higher average salaries than northeastern Minnesota portion of Group 3. Average salaries for selected occupations in the Twin Cities area were 6 to 8 percentage points above the state-

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3 See Office of the Legislative Auditor, *Nursing Homes: A Financial Review* (1991): 35, and *Statewide Cost of Living Differences* (1989). Any use of the 1989 cost of living data should be done with caution because it assumes that the cost of living differences, as well as the relationships between shelter, goods, and services, in Minnesota's counties have remained the same since 1989. In addition, the 1989 cost of living index highlighted differences in costs to consumers, which may or may not apply to nursing homes.

4 There is not a current regional consumer price index or "market basket" of items representing nursing home input costs in Minnesota. A prior study noted the expense of maintaining such databases on a regular basis. (Minnesota Planning, *Appropriateness Study: Minnesota's Geographic Groups for Nursing Home Reimbursement,* (St. Paul, 1987): 18).

5 Nursing salaries are in the "Professional, Paraprofessional, Technical" category.

6 The Minnesota Department of Economic Security breaks the state into six regions that do not correspond with the nursing home reimbursement geographic groups. Generally, Economic Security's "Northwest" and "Southwest" regions (which encompass parts of nursing home geographic groups 1 and 2) had the lowest average wages in the state in 1994. In the "Central" region, which includes Sherburne, Stearns, and Wright counties, the average salaries for professional employees was four percentage points below the statewide average.

Table 6.2: Average Hourly Wages as a Percent of the State Average for Selected Occupations, 1994

Occupation	Group 1	Group 2	Group 3
Professional, Paraprofessional, Technical[1]	90%	93%	105%
Retail Salespersons	80	90	107
Food Preparation Workers	85	89	106
Cashiers	85	89	110
Waiters/Waitresses	89	109	98

Source: Minnesota Department of Economic Security.

[1]Salaries for licensed nurses are in the "professional, paraprofessional, and technical" category.

wide average, except for waiters and waitresses. In northeastern Minnesota, average salaries were either at or below the statewide average, except average salaries for professional employees (including licensed nurses) were 2 percentage points above the statewide average.[7]

We examined average hourly nursing salaries in freestanding nursing facilities.[8] As shown in Table 6.3, the average salary for all nursing staff in Group 3 nursing homes located in the Twin Cities area was 29 percent above the statewide average, and was higher than the salaries for Group 3 nursing homes in northeastern Minnesota. In contrast, average total nursing salaries in Groups 1 and 2 were 86 and 89 percent of the statewide average.

These patterns in average nursing salaries by geographic group could be influenced by the reimbursement rates and limits. For instance, if a nursing home is under the "care-related" reimbursement limit (which includes nursing salaries), then

Table 6.3: Average Hourly Wages as a Percent of State Average for Nursing Home Occupations, 1994

Occupation	Group 1	Group 2	Group 3	Group 3 Twin Cities Metro Area	Group 3 Northeastern Minnesota
Director of Nursing	95%	100%	102%	108%	77%
Registered Nurses	92	92	104	105	99
Licensed Practical Nurses	88	92	110	116	103
Nursing Aides	85	89	111	113	101
Average Total	86%	89%	111%	129%	100%

Source: Program Evaluation Division analysis of Minnesota Department of Human Services nursing home cost report data.

7 Minnesota Department of Economic Security, *Minnesota Salary Survey, 1994* (March 1995).

8 Our analysis focused on freestanding nursing homes because hospital-attached homes file a different cost report that does not include detailed salary data. Cook County, along with nine other Minnesota counties, did not have any freestanding nursing homes. Nursing salary data represent total compensated hours for directors of nursing, registered and licensed practical nurses, and nursing aides.

it may decide to increase spending on wages and other direct patient care. These spending increases are incorporated into the homes historical costs, and lead to an increase in the future reimbursement rate. On the other hand, a nursing home with costs over the "care-related" cost limit may decide to reduce spending on wages.[9]

Average nursing salaries were lowest in western and southwestern Minnesota.

When countywide average nursing salaries are examined, we found that:

- **There was considerable variation in average nursing salaries for individual counties within geographic groups in 1994.**

Figure 6.2 shows that the average nursing salaries for some counties in Group 2 were similar to salaries in Group 3. For instance, Wright, Sibley, LeSueur, and Olmsted counties had the highest average salaries in Group 2. Although these average salaries were higher than those in Koochiching County in Group 3, they were *lower* than similar salaries in the Twin Cities area.

The average nursing salaries were lowest in western and southwestern Minnesota, along the North and South Dakota and Iowa borders, an area that includes counties in both Groups 1 and 2. In addition, the distinctions in average nursing salaries between Groups 1 and 2 were much less marked than between Groups 2 and 3. The range in average nursing salaries was $8.00 to $9.76 per hour in Group 1, compared with $7.82 to $10.11 in Group 2. This could be expected because nursing homes in Group 1 have been allowed to use the higher Group 2 reimbursement limits since 1989.

Finally, only Group 3 counties had average hourly salaries for all nursing staff that were above the statewide average hourly nursing salary of $10.13 in 1994. These included six Twin Cities metropolitan counties (Anoka, Dakota, Hennepin, Ramsey, Scott, and Washington), along with Carlton, Lake, and St. Louis counties in northeastern Minnesota. The counties in Group 3 that had average hourly nursing salaries that were below the statewide average included Carver County in the Twin Cities area, and Aitkin, Itasca, and Koochiching counties in northeastern Minnesota.

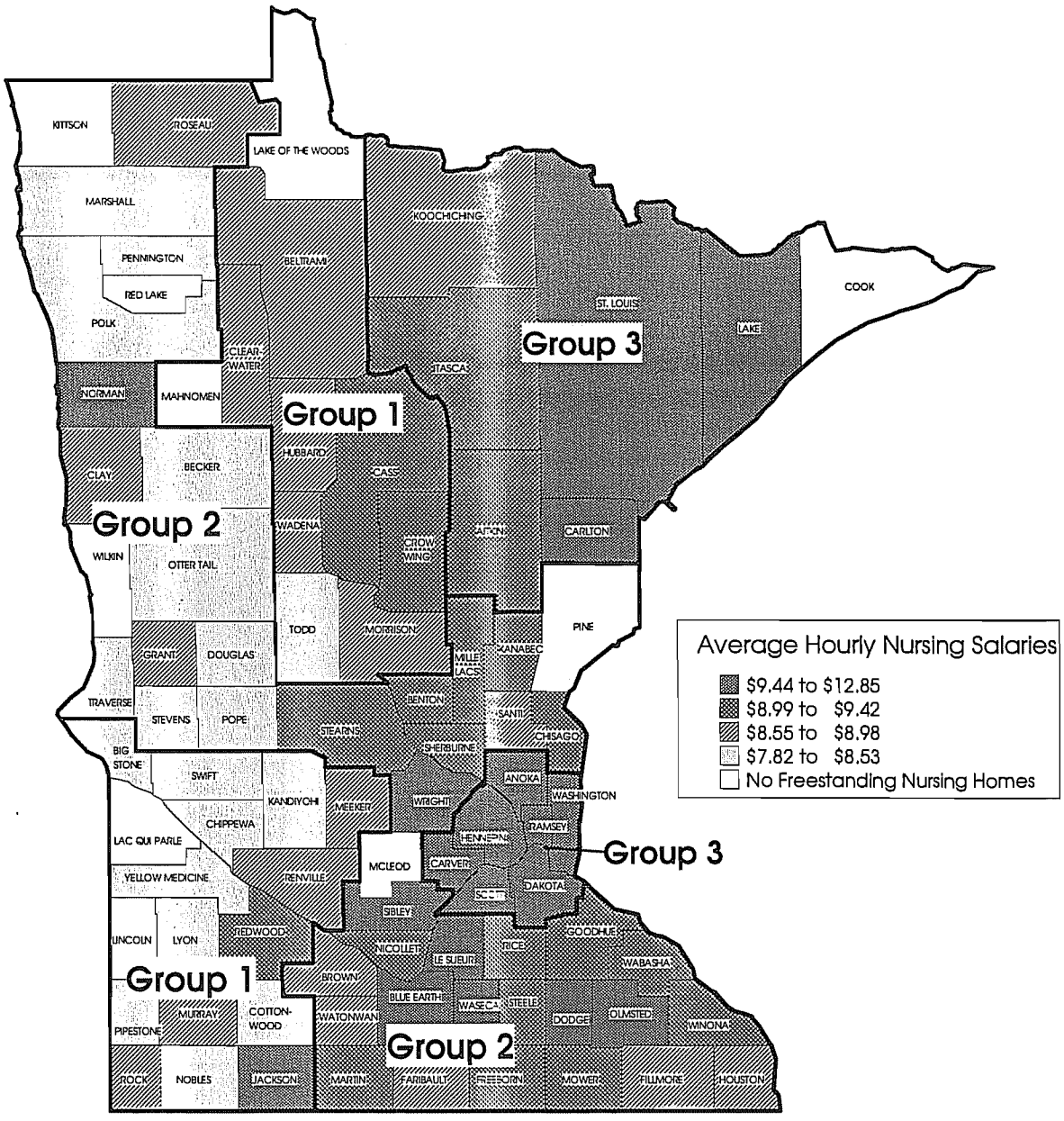
Providers are concerned about the ability to offer competitive nursing salaries.

REIMBURSEMENT LIMITS AND INCENTIVE PAYMENTS BY GEOGRAPHIC GROUP

Policy makers and nursing home providers told us that the use of geographic groups hinders the ability of nursing homes with lower reimbursement than others to offer competitive salaries for licensed nursing staff. Policy makers have also heard complaints about the geographic groups from nursing home providers who are either exceeding or approaching the reimbursement limits. To analyze these concerns, we examined reimbursement limits by geographic group.

9 As discussed shortly, only 22 nursing homes were over the "care-related" limit in 1995.

Figure 6.2: Average Hourly Salaries for All Nursing Staff in Freestanding Nursing Homes, 1994



Source: Program Evaluation Division analysis of Minnesota Department of Human Services nursing home cost data.

Note: Nursing staff includes directors of nursing, licensed nurses and nursing aides.

"Care-Related" Cost Limits

Few nursing homes exceeded the spending limits for nursing salaries in 1995.

The "care-related" reimbursement limit consists of two components: "nursing" costs (which include nursing salaries for all staff providing direct resident care) and "other care-related" costs (which include therapies, social services, and raw food). A nursing home is over the "care-related" cost limit when its combined nursing and other care-related per diem costs exceed the combined nursing and other care-related cost limit. We found that:

- **In each geographic group, a relatively small proportion of all nursing homes exceeded the "care-related" reimbursement limit.**

As shown in Table 6.4, roughly 5 percent (or 22) of all nursing homes exceeded their "care-related" cost limits in 1995. Four percent of the homes in Group 2 exceeded the limit, compared with 5 percent in Group 1 and 6 percent in Group 3. However, 24 percent of the nursing homes in Group 3 had care-related costs within 10 percent of their reimbursement limit, compared with 19 percent in both Groups 2 and 1.

Table 6.4: Care-Related Cost Limit by Geographic Group, 1995

Geographic Group	Percent of Homes Over the Limit	Percent Within 10 Percent of the Limit	Percent of Costs Reimbursed	Percent of Homes with Less than 90 Percent of Costs Reimbursed
Group 1 (n = 85)	4.7%	18.8%	99.7%	0.0%
Group 2 (n = 180)	4.4	18.9	99.9	0.0
Group 3 (n = 175)	5.7	24.0	99.1	1.7
Total: n = 440	5.0%	20.9%	99.5%	0.7%

Note: Four Rule 80 facilities, providing care to non-geriatric physically impaired individuals, are exempt from the care-related cost limit.

Source: Program Evaluation Division analysis of Minnesota nursing home cost report and rate setting data.

Because the "care-related" cost limit is a combination of the nursing and other care-related costs and trade-offs between these costs are permitted, a facility could be over either the "nursing" cost or the "other care-related" cost component of the limit and still be under the combined care-related reimbursement limit. We found that:

- **In each geographic group, a larger number of nursing homes exceeded the per diem limit on activities, therapy, social services, and food costs than exceeded the limit on nursing salary and supply costs.**

Of all the nursing homes in each geographic group, between 2 and 6 percent exceeded the "nursing" cost component of the "care-related" cost limit, while between 11 and 20 percent were over the "other care-related" cost component of the limit.

"Other Operating" Cost Limits

Nearly 30 percent of Minnesota's nursing homes exceeded the spending limits for other operating costs in 1995.

Other operating costs, include dietary, laundry, housekeeping, plant operations and maintenance, and administration. We found that:

- **A larger proportion of nursing homes in Group 2 exceeded the "other operating" cost limits than in the other groups; however, approximately one-third of nursing homes in each geographic group were within 10 percent of the reimbursement limit.**

As seen in Table 6.5, 27.5 percent (or 122) of all nursing homes in Minnesota exceeded the "other operating" cost limits. In Group 2, 34 percent of homes exceeded the "other operating" cost limit, compared with 15 percent in Group 1 and 26 percent in Group 3. In every geographic group, however, roughly one third of nursing homes' other operating costs were within 10 percent of the reimbursement limit. In each geographic group, a larger percentage of nursing homes neared or exceeded the "other operating" cost limit than the "care-related" cost limit. This indicates that the "other operating" cost limits are putting more pressure on nursing homes than the "care-related" cost limits. These patterns are consistent with legislative intent to permit higher spending for care-related costs which most directly affect resident care needs.

Incentive Payments

Nursing homes with "other operating" costs (after all reimbursement limits are applied and costs adjusted) below the per diem reimbursement limit received an in-

Table 6.5: Other Operating Cost Limits by Geographic Group, 1995

Geographic Group	Percent of Homes Over the Limit	Percent of Homes Within 10 Percent of the Limit	Percent of Costs Reimbursed	Percent of Homes with Less Than 90 Percent of Costs Reimbursed
Group 1 (n = 85)	15.3%	31.8%	98.7%	2.4%
Group 2 (n = 181)	34.3	36.5	97.7	5.0
Group 3 (n = 178)	26.4	36.0	95.9	10.1
Total: n = 444	27.5%	35.4%	96.9%	6.5%

Source: Program Evaluation Division analysis of Minnesota nursing home cost report and rate setting data.

centive payment of up to $2.25 per resident day in 1995. In 1995, the state provided incentive payments to 404 facilities.[10] We analyzed the provision of incentive payments in each geographic group and found that:

- **A larger proportion of nursing homes in Group 2 received an incentive payment than in other geographic groups.**

As seen in Table 6.6, 94 percent of nursing homes in Group 2 received an incentive payment followed by 91 percent in Group 3 and 85 percent in Group 1. However, almost one-third of the Group 2 homes that received an incentive payment had allowable "other operating" costs that exceeded the reimbursement limit, compared to 20 percent in Group 3 and 7 percent in Group 1. If the state would have provided incentive payments only to facilities with costs below the other operating costs limit *before all reimbursement limits were applied,* then Group 2 would have the smallest percentage of facilities receiving the efficiency incentive.

Table 6.6: Efficiency Incentive by Geographic Group, 1995

Geographic Group	Percent of Facilities Receiving Incentive	Average Payment Per Day
Group 1 (n = 85)	84.7%	$1.14
Group 2 (n = 181)	93.9	1.12
Group 3 (n = 178)	91.0	1.34
Total: n = 444	91.0%	$1.23

Source: Program Evaluation Division analysis of Minnesota nursing home cost report and rate setting data.

ALTERNATIVES

Minnesota's nursing home reimbursement geographic groups could be changed in any one of numerous ways. Some alternatives could include: 1) rearrange the composition of the existing geographic groups by moving counties from one group to another; 2) eliminate the geographic groups and base reimbursement limits on the current Group 3 limit or the median of per diem costs for all nursing homes in the state; 3) maintain the existing geographic groups; or 4) apply the reimbursement limits based on geographic groups to care-related but not other operating costs.[11]

Given the proportion of nursing homes exceeding or approaching the "other operating" cost limits (as discussed above), the state's costs for nursing home services would likely increase if nursing homes in Groups 1 and 2 were able to use the higher Group 3 reimbursement limits. Costs would also increase because nursing homes below the higher reimbursement limits would qualify for increased incen-

10 As discussed in Chapter 5, Minnesota provided efficiency incentives to 87 homes whose allowable costs exceeded the other operating costs spending limits.

11 Wisconsin sets reimbursement limits for direct-care costs based on labor market regions within the state.

tive payments. The fiscal consequences for the state involve either maintaining current funding levels or increasing funding for reimbursement of nursing home services. If the geographic groups were changed without increasing the total amount of state funding, then the current reimbursement dollars would be shifted from one set of nursing homes to another. One possible consequence would be to lower reimbursement rates for nursing homes in the Twin Cities metropolitan area in order to increase rates in other parts of the state.[12] If the state increased funding for nursing home services, then the rates for some homes could increase with changes in geographic groups, but no nursing home would receive a reduction solely as a result of changes in the groups. This could increase costs to the state at a time when federal funding cuts are expected and when recent reports have concluded that Minnesota is likely to face tough fiscal decisions in the long-term as projected revenues fall short of estimated spending.[13]

An earlier Minnesota State Planning Agency report analyzed geographic grouping alternatives and concluded that inequities in the present groups would not be addressed without creating new inequities.[14] According to Minnesota Department of Human Services staff, modeling of specific alternatives to the geographic groups would require major modifications to the rate setting program. A full evaluation of alternatives to Minnesota's geographic groups and the fiscal consequences of each alternative requires a more in-depth analysis than we were able to conduct. If the Minnesota Legislature wants more detailed information about the fiscal consequences of changing the geographic groups, a significant amount of additional research would be required.

SUMMARY

Minnesota's nursing home reimbursement geographic groups were originally developed to take regional variation in nursing input costs into account when setting reimbursement rates. Our evaluation found that the groups did not reflect average salaries for selected professional and service occupations in Minnesota. In addition, there was considerable variation in average nursing salaries for individual counties within geographic groups in 1994.

Policy makers and nursing home providers have criticized the geographic groups because of perceived inequities in the ability of nursing homes with lower reimbursement than others to offer competitive nursing salaries. We found, however, that relatively few nursing homes have exceeded the reimbursement limits for nursing salaries. Instead, most of the pressure for changing geographic groups appears to be from nursing homes that are either exceeding or approaching the "other operating " cost reimbursement limits of their group.

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12 Minnesota Department of Human Services, *Report to the Legislature on Nursing Facility Geographic Groups* (St. Paul: January 1996), 7.

13 Minnesota Planning, *Within Our Means: Tough Choices for Government Spending* (January 1995); John Brandl and Vin Weber, *An Agenda for Reform: Competition, Community, Concentration* (A Report to Governor Arne H. Carlson) (November 1995); and Office of the Legislative Auditor, *Trends in State and Local Government Spending* (February 1996).

14 Minnesota Planning, *Appropriateness Study*, 1.

1996 Legislative Changes to Minnesota's Medicaid Nursing Home Reimbursement System

APPENDIX A

This report examined Minnesota's nursing home reimbursement policies that were used to establish Medicaid rates for the 1995 rate year (which began July 1, 1995). Table B.1. in Appendix B contains a brief description of Minnesota's Medicaid nursing home reimbursement system in 1995. The Minnesota Legislature made several changes to the nursing home reimbursement system for the 1996 rate year (which began July 1, 1996), making the current system different from the one examined in this report.

The following changes apply only for the 1996 rate year. When setting nursing home reimbursement rates for 1997 and future rate years, the law requires the Commissioner of Human Services to use the reimbursement limits adopted in 1995.[1] For the 1996 rate year, the Legislature:

1. Modified "spend-up limits" and suspended the "high-cost facility reduction." Beginning in the 1995 rate year, the Legislature adopted two new reimbursement limits -- spend-up limits and high-cost facility reductions -- to reduce the rate of increase in nursing home spending.

   The spend-up limits in effect for the 1996 rate year were modified in two ways. First, the spend-up limit was changed to equal a home's operating costs inflated by the change in the nursing home market basket plus zero, one or two percent (or 3.2, 4.2, or 5.2 percent) depending on a nursing home's costs relative to similar homes in the same group. Originally, the spend-up limit would have been based on operating costs inflated by the change in the nursing home market basket plus one percent (or 4.2 percent). Second, the thresholds used to determine where a home's costs fell in relation to other homes were changed so that more nursing homes in 1996 than 1995 would be subject to the highest spend-up limit.[2]

   If implemented for the 1996 rate year, the "high cost facility reduction" would have reduced reimbursement by 2 or 3 percent depending on where a nursing home's operating cost per diems fell in relation to nursing homes in the same group.

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1 *Minn. Laws* (1996), Ch. 451, Art. 3, Section 11.

2 The 1996 Legislature also required that per diem operating cost reductions be divided proportionately between "care-related" and "other-operating" costs. Rule 80 facilities were exempted from the "care-related" spend-up limits.

2. Suspended the "care-related, " "other operating," and plant and maintenance cost reimbursement limits. For the 1995 rate year, "care-related " costs were limited to 125 percent and "other operating " costs to 110 percent of the median costs per day for all nursing homes in each geographic group. Plant and maintenance costs were limited to $325 per bed annually.

3. Provided a one-time payment increase of six cents per resident per day to each nursing home's reimbursement rate.[3]

3 *Minn. Laws* (1996), Ch. 451, Art. 1, Section 1.

Figure B.1: Summary of Minnesota's Nursing Home Reimbursement System, 1995

Reimbursement Method:	Prospective facility-specific rates.
Rate Year:	July 1, 1995 to June 30, 1996.
Cost Year:	October 1, 1993 to September 30, 1994.
Peer Groups:	Three geographic regions based on 1983 nursing salaries and economic development regions.[1]
Case Mix:	Eleven categories, nursing costs are adjusted for resident care needs.
Reimbursement Limits:[2]	Care-related costs (nursing, therapies, social services, raw food, dietary consultant fees) are limited to 125 percent of median costs for peer group. Other operating costs (dietary, laundry, housekeeping, plant operations/maintenance, and general and administration) are limited to 110 percent of median costs for peer group. Plant operations/maintenance costs are limited to $325 per bed annually. General and administration costs are limited to between 13 and 15 percent of a facility's operating costs, depending on the number of beds in the facility. Pass-through costs that are not limited include property taxes, special assessments, license fees, pre-admission screening fees, and other costs. A provider surcharge is reallocated to plant operations and maintenance, making it subject to reimbursement limits. Property costs are reimbursed using a base property rate (of $4 per resident per day or the rate in effect on September 30, 1992, whichever is greater) with changes to this base rate determined by a "modified fair-rental value formula," plus a capital repair and replacement payment, an equity incentive and a refinancing incentive.[3] Appraised value plus improvements are subject to an investment per bed limit, which is adjusted annually for construction inflation. Annual capital repair and replacement allowance is limited to $160 per bed, with the amount over the limit carried over to succeeding cost reporting periods.
Additional Limits:	For the 1995 rate year, two new limits were implemented to reduce the rate of increase in nursing home reimbursement. "Spend-up limits" are the prior reporting year's care-related and other operating costs adjusted by the change in the consumer price index plus either three, four, or six percent (or 6.8, 7.8, or 9.8 percent for 1995 rates) depending where a facility's costs are relative to other facilities in the same group. If the lesser of a home's actual daily costs or the reimbursement limits is more than the spend-up limit, then the spend-up limit is applied. "High-cost facility limits" reduced reimbursement by two percent if a facility's operating costs per diems were more than 1.0 standard deviation above the group median, and by one percent if a facility's operating cost per diems were less than or equal to 1.0 standard deviation above the group median.[4]

Figure B.1: Summary of Minnesota's Nursing Home Reimbursement System, 1995, continued

Inflation Adjusters:	Change in the nursing home market basket over a 12-month period was used to adjust the reimbursement limits for inflation. Change in the consumer price index for all urban consumers (CPI-U) over a 21-month period was used to increase operating cost per diems. For 1995 rates, these two factors were 3.81 percent and 5.8 percent, respectively.
Special Reimbursement Considerations:	For hospital-attached and short-length-of-stay facilities (SLOS), and facilities caring for all age groups with severe physical impairments (called Rule 80 facilities). Rule 80 facilities are exempt from the care-related limit. The other operating costs, which are calculated separately for these facilities, are limited to 110 percent of the median for hospital-attached facilities and 105 percent of the limit for hospital-attached homes for SLOS and Rule 80 facilities.
Incentive Payments:	An efficiency incentive up to a maximum of $2.25 per resident day is paid to facilities with other operating costs (after all reimbursement limits are applied and costs are limited) below the per diem reimbursement limit. Equity and debt refinancing incentives are available as part of the property cost reimbursement formula.
Unique Features:	Under rate equalization, private-pay residents must not be charged more than the rate for Medicaid residents. Rate equalization does not apply to single-bedrooms.

[1]Since 1989, nursing homes in Group 1 have been allowed to use the higher Group 2 reimbursement limits for care-related and other operating costs. The efficiency incentive for Group 1 homes continues to be calculated using the Group 1 limit for other operating costs.

[2]Reimbursement limits were last rebased in 1992.

[3]Generally, the modified fair-rental formula is the sum of allowed interest on allowed debt, a rental factor of 5.66 percent times appraised value less allowable debt, and an equipment allowance.

[4]In 1996, the Legislature modified the "spend-up limits" for the 1996 rate year, suspended the "high-cost facility limit" for one year, removed the care-related, other operating, and plant and maintenance reimbursement limits, and provided a payment increase of six cents per resident day for the 1996 rate year. These changes apply only for the 1996 rate year (which began July 1, 1996). When setting nursing home reimbursement rates for the 1997 and future rate years, the law requires the Commissioner of Human Services to use the reimbursement limits adopted in 1995.

Figure B.2: Summary of Iowa's Nursing Home Reimbursement System for Intermediate Level of Care, 1995

Reimbursement Method:	Prospective facility-specific rates with mid-year adjustments at the discretion of the Legislature.
Rate Year:	Rates were set July 1, 1995 and adjusted upward January 1, 1996.
Cost Year:	Cost reports are made every six months, at the sixth month and the end of each provider's fiscal year.
Peer Groups:	None.
Case Mix:	None.
Reimbursement Limit:	Maximum per diem reimbursement rate is set at the 70th percentile of per diem costs for nursing facilities providing an intermediate level of care.
Inflation Adjuster:	2.7 percent, subject to the reimbursement limit. Inflation rate equals the percentage change in the weighted average cost per day in the two most recent cost reports. Inflation rate is not to exceed the increase in the consumer price index for urban consumers (CPI-U) during the preceding year.
Special Reimbursement Considerations:	None.
Incentive Payments:	Up to $1.75 per day, subject to the reimbursement limit. The incentive payment is equal to one-half the difference between 46th and 74th percentiles of allowed 1986 costs, but cannot be less than $1 or more than $1.75 per resident day.
Unique Features:	Iowa maintains two different reimbursement systems for Medicaid-certified nursing facilities providing an intermediate level of care and Medicare-certified skilled nursing facilities.

Figure B.3 Summary of North Dakota's Nursing Home Reimbursement System, 1995

Reimbursement Method:	Prospective facility-specific rates.
Rate Year:	January 1, 1995 to December 31, 1995.
Cost Year:	July 1, 1993 to June 30, 1994.
Peer Groups:	None.
Case Mix:	Sixteen categories; direct care costs are adjusted for resident care needs.
Reimbursement Limits:[1]	Direct care costs (nursing, therapies) are capped at 99th percentile of costs for all nursing homes. Other direct care costs (food, laundry, social services) are capped at 85th percentile of costs for all nursing homes. Indirect care costs (administration, plant operations, dietary, housekeeping) are capped at 75th percentile of costs for all nursing homes. Property costs (depreciation, interest, property taxes) are not limited.
Inflation Adjuster:	The consumer price index for urban wage earners (CPI-W) is used to adjust reimbursement limits and operating costs. The inflation factor was 3 percent in 1995.
Special Reimbursement Considerations:	One facility for non-geriatric, physically handicapped residents is not subject to any reimbursement limits.
Incentive Payments:	1) Incentive payment up to a maximum of $2.60 per day based on 70 percent of amount the actual indirect care rate, before the inflation adjustment, is below the prior rate year's limited rate. 2) Operating margin of three percent based on the lesser of the actual direct and other direct care rates, before the inflation adjustment is applied, and the prior year's limited rates.
Unique Features:	Rate equalization for private-pay and Medicaid residents since 1990.

[1]Reimbursement limits were last rebased in 1992.

Figure B.4: Summary of South Dakota's Nursing Home Reimbursement System, 1995

Reimbursement Method:	Prospective facility-specific rates.
Rate Year:	July 1, 1995 to June 30, 1996.
Cost Year:	Based on providers' prior fiscal year.
Peer Groups:	Four groups: 1) hospital-affiliated; 2) urban-freestanding homes in a community with more than 200 nursing home beds; 3) rural-freestanding homes in a community with less than 200 beds; 4) rural homes with a waiver of federal staffing requirements.[1]
Case Mix:	Thirty-five categories, direct care costs are adjusted for resident care needs.
Reimbursement Limits:	Direct care costs (nursing, therapy) are limited to 125 percent of median costs for the peer group. Non-direct care costs (social services, dietary, laundry, general administration, plant/operations, housekeeping, maintenance, property taxes, and other operating) are limited to 110 percent of median costs for freestanding facilities. Capital costs (building insurance, depreciation, mortgage interest, rental costs) are limited to $9.34 per bed for freestanding facilities in 1995. Proprietary facilities get a 6.8 percent return on net equity, as calculated by the state.
Inflation Adjusters:[2]	A South Dakota long-term care inflation index is used to adjust costs from the end of each facility's fiscal year to the start of the following rate year. Inflation adjustments ranged from 9.6 percent to 5.6 percent in period evaluated.
Special Reimbursement Considerations:	For hospital-affiliated homes, capital costs are included as part of the non-direct care costs and are subject to the 110 percent of median reimbursement limit for the peer group.
Incentive payments:	None.

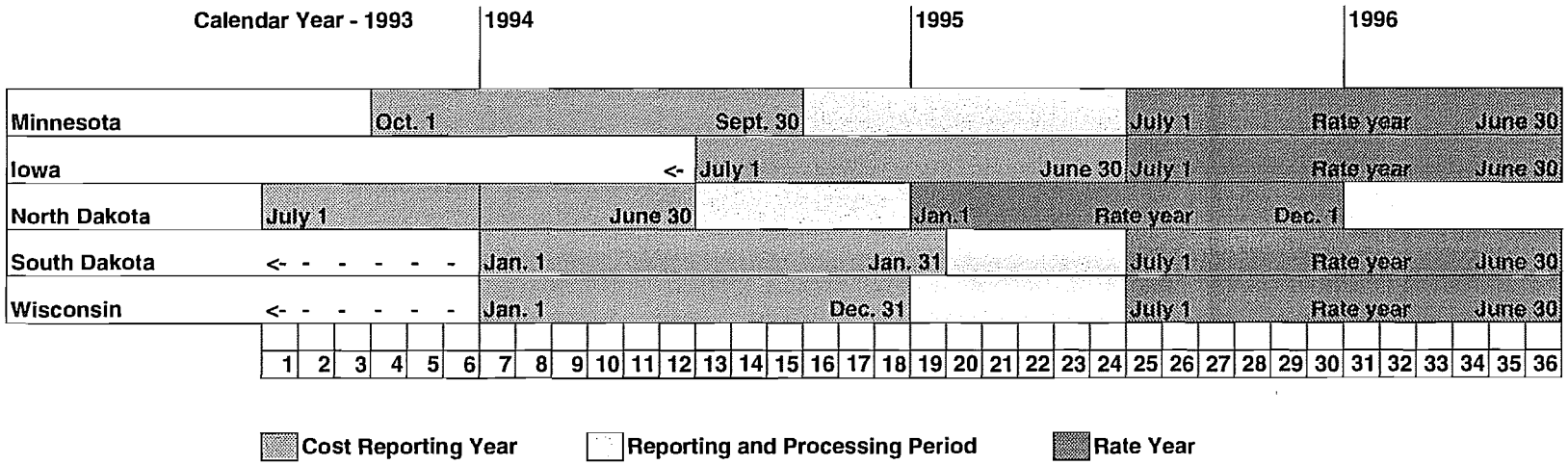
[1]There have not been any homes with a waiver of staffing requirements since the early 1990s.

[2]South Dakota changed to a consumer price index inflation factor for rates effective July 1, 1996.

Figure B.5: Summary of Wisconsin's Nursing Home Reimbursement System, 1995

Reimbursement Method:	Prospective facility-specific rates.
Rate Year:	July 1, 1995 to June 30, 1996.
Cost Year:	Based on providers' fiscal year ending the prior calendar year.
Peer Groups	Three geographic groups based on labor regions.
Case Mix:	None. Direct care costs are adjusted using six levels of care (such as intense skilled nursing, skilled nursing, intermediate care).
Reimbursement Limits:	Reimbursement limits for most of the following cost centers are established annually using various formulas, contained in Medicaid reimbursement rate regulations. Generally: Direct care costs (nursing, therapies, social services, activities) are limited to 110 percent of the median costs for the peer group. Support services costs (dietary, maintenance, housekeeping, laundry, security) are limited to 103 percent of median costs. Administrative and general service costs are limited to 103 percent of median costs. Fuel and utility costs are limited to 115 percent of median costs for six regional groups based on heating degree days. Property taxes and special assessments are reimbursed based on estimated actual costs. Over the counter drug costs are reimbursed based on estimated actual costs. Allowable property costs (which include depreciation, interest, amortization and lease/rental expenses) are limited to 15 percent of allowed equalized value.
Inflation Adjusters:	Numerous nursing home market basket inflation indexes are used to adjust cost centers and specific line items from the end of each facility's fiscal year to the start of the following rate year. 3.7 percent increase in operating cost per diems based on a nursing home market basket index.
Special Reimbursement Considerations:	An allowance is made for non-public facilities with exceptional Medicaid utilization.
Incentive Payments:	1) Support services incentive of four percent of the difference between a facility's support services costs and a target. 2) Property incentive is provided if a facility's property-related expenses are less than 6 percent equalized value, called Target 1. The incentive is equal to 9 1/2 percent of the difference between allowed expenses and the target .

Figure C.1: Nursing Home Cost Reporting and Rate Years



Sources: Program Evaluation division based on state Medicaid nursing home reimbursement policies and plans, and interviews with state Medicaid staff.

Notes:

Minnesota:	The cost reporting year runs from October 1 to September 30. Provider must submit cost reports by December 31. These reports are used to calculate reimbursement rates for the July 1 to June 30 rate year.
Iowa:	Cost reports are based on each provider's fiscal year. Providers submit cost reports every six months; at the sixth month and the end of their fiscal year. Rates are set on July 1, and adjusted on January 1, at the discretion of the Legislature.
North Dakota:	The cost reporting year runs from July 1 to June 30. These costs are used to set rates for the January 1 to December 31 rate year.
South Dakota:	Cost reports are based on each provider's fiscal year. Providers must submit cost reports within 90 days following their fiscal year end or by April 30, whichever is earlier. The costs are used to calculate reimbursement rates for the rate year beginning July 1.
Wisconsin:	Cost reports are based on each provider's fiscal year ending in the prior calendar year. Cost reports are submitted 3 months following the end of the fiscal year. The reports are used to calculate reimbursement rates for the rate year beginning July 1.

Glossary

Activities of daily living (ADLs): A set of measures used to gauge a person's ability to perform basic self-care tasks such as: eating, bathing, dressing, getting to and using the bathroom, and getting in and out of a chair or bed. A person may require assistance from others to perform these activities. A nursing home resident's ability to perform ADLs are usually classified as independent, requiring assistance, or dependent. States frequently use a person's ability to perform these activities as one factor in defining a person's case-mix category.

Allowable costs: Allowable costs are a facility's actual costs that are eligible for reimbursement after appropriate adjustments as required by state Medicaid regulations. Allowable costs include the routine costs of nursing home services needed to provide quality care.

Ancillary services: Ancillary services include physical, speech and other therapies, prescription and non-prescription drugs, medical services, durable medical supplies, and medical transportation services. Ancillary services may be included in the Medicaid nursing home reimbursement rate or billed to Medicaid separately and outside of the rate. The level and type of ancillary services included in the Medicaid nursing home reimbursement rate differ among the states examined.

Care-related or direct-care costs: Each state examined defines care-related or direct-care costs differently. Care-related or direct-care costs generally include nursing salaries and supplies, therapies, pharmacy, and other direct patient care services. In Minnesota, social services, activities, raw food and dietary consultant fees are also included in care-related costs.

Case mix: Case mix classifies residents based on dependencies in activities of daily living, needs for special nursing, and behavioral conditions. In states with case-mix classification systems, nursing home residents are assessed and assigned a case-mix score. Higher case-mix scores are assigned to residents with higher care needs. Then, case-mix scores are used to adjust nursing or direct-care rates and reflect differences in the costs of providing care. Minnesota, North Dakota and South Dakota use different case-mix systems: Minnesota has 11 case-mix categories, compared with 16 in North Dakota and 35 in South Dakota.

Cost reporting year: The cost reporting year is the year for which a nursing home incurs costs which are used to set a future reimbursement rate. In Minnesota, the cost report year runs from October 1 to September 30. North Dakota's cost year runs from July 1 to June 30. In Iowa, South Dakota and Wisconsin, cost reporting years are based on each nursing home provider's fiscal year.

Freestanding nursing home: Freestanding nursing homes are not affiliated with or attached to a hospital.

Hospital-attached nursing home: Specific definitions vary by state, however, a nursing home is "hospital-attached" if it shares a building, specific services, and/or costs with an adjoining or nearby hospital. In Minnesota, a nursing home is considered hospital-attached if it is recognized by the federal Medicare program to be a hospital-based nursing facility for purposes of being subject to higher cost limits and uses the Medicare cost reporting format. In some instances in Minnesota, multiple nursing homes in different locations from a hospital may also be considered attached facilities. To be considered a "hospital-attached" nursing home, effective for the 1995 rate year, any additional homes must be physically attached or connected by a tunnel or skyway to a hospital, or be recognized as hospital-attached by Medicare as of January 1, 1995, and must have continuously maintained this status. (*Minn. Stat.* §256B.431, Subd. 2(j)(c).)

Nursing facility: A nursing facility is "an institution which is primarily engaged in providing skilled nursing care and related services for residents who require medical or nursing care; or rehabilitation services for injured, disabled, or sick persons; or on a regular basis, health-related care and services to individuals who because of their mental or physical condition require care and services which can be made available to them only through institutional facilities." (Omnibus Budget Reconciliation Act of 1987 (OBRA), Laws of 100th Congress First Session, Public Law 100-203, Subtitle C: Nursing Homes Reform, Part 2 Medicaid Program, Section 1919(a).)

Until 1990, the federal government classified nursing homes into two categories: skilled nursing facilities (SNFs) and intermediate care facilities (ICFs). SNFs provided 24-hour nursing care which was prescribed by a physician with a registered nurse working on the day shift seven days a week. SNFs provided the highest possible level of care. In contrast, ICFs generally were required to have only one licensed nurse working on the day shift seven days a week. After October 1, 1990, all nursing facilities are required to provide 24-hour nursing care.

Omnibus Budget Reconciliation Act of 1987 (OBRA): Federal nursing home reform legislation which required states to improve access to and quality in Medicaid and Medicare facilities, mandated comprehensive assessment and care planning, and eliminated the distinctions between intermediate care facilities and skilled nursing facilities. (Swan, et. al., *Medicaid Nursing Facility Reimbursement Methods Through 1994*, 5.)

Other operating costs: Each state defines, groups and names other operating costs differently. Other operating costs generally include dietary, housekeeping, laundry and linen, plant operations and maintenance, and general and administrative expenditures, as adjusted by state Medicaid regulations on allowed costs.

Pass-through costs: Pass-through costs are reimbursed without application of a cost limitation.

Productive nursing hours: In Minnesota, productive nursing hours are on-duty hours during which nurses and nursing assistants are engaged in nursing duties. Productive hours exclude vacations, holidays, sick leave, in-service training, and lunches. (*Minn. Stat.* §144A.04, Subd. 7.)

Prospective facility-specific payment methods: Prospective facility-specific payment methods set reimbursement rates in advance for individual nursing homes based on a prior year's allowable costs, or historical costs, for each home.

Rate year: The year for which the Medicaid payment rate is effective. In Minnesota, Iowa, South Dakota and Wisconsin, the rate year runs from July 1 to June 30. North Dakota's rate year runs from January 1 to December 31.

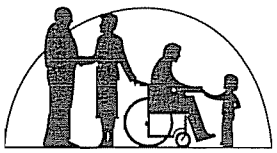
Rate equalization: Nursing homes participating in the Medicaid program cannot charge higher rates to private residents than the rates set for similar Medicaid residents. Minnesota and North Dakota are the only states with rate equalization. In Minnesota, rate equalization does not apply to single-bed rooms. (*Minn. Stat.* §256B.48; North Dakota Department of Human Services, Rate Setting Manual for Nursing Facilities, (Bismarck. Oct. 1995), 11.)

Resident day: A day for which nursing services are provided and billable.

Rule 80 facility (Minnesota): Rule 80 facilities provide nursing home care to non-geriatric residents with severe impairments.

Short-length-of-stay facility (Minnesota): A short-length-of-stay facility is certified to provide a skilled level of care and has an average length of stay of 180 days or less and 225 days or less in facilities with more than 315 licensed beds.

Standardized resident day: In states using case mix, a standardized resident day is the sum of actual resident days in a nursing home in each case-mix category multiplied by the case-mix weight for that category.



Minnesota Department of **Human Services**

January 7, 1997

Mr. Roger Brooks
Deputy Legislative Auditor
Office of the Legislative Auditor
Centennial Office Building
658 Cedar Street
St. Paul, Minnesota 55155

Dear Mr. Brooks:

Thank you for the opportunity to review and respond to your report, *Nursing Home Rates in the Upper Midwest.* Due to the complex nature of nursing facility rates, both in Minnesota and surrounding states, you and your staff had a difficult assignment producing this report. It is obvious from discussions with your staff, as well as the final product, that you were very thorough in your task. While the Department has no issue with the content of your report, I would like to comment on a couple of projects related to the purchasing of nursing facility care.

As you discuss in the report, the nursing facility alternative contract demonstration project, authorized by Minnesota Statutes, section 256B.434, is a step away from cost-based reimbursement in our move toward a purchasing approach to provide nursing facility level of care. Contract negotiations are currently underway for the third round of the selection process and 39 additional facilities are expected to finalize contracts this month.

Another important demonstration project in the area of financing and delivery of nursing facility level of care is the Minnesota Senior Health Options (MnSHO) project, previously known as the Long Term Care Options Project (LTCOP). The five-year project will facilitate the integration of primary, acute, and long term care services for persons over age 65 who are dually eligible for both Medicare and Medicaid. Minnesota has received federal waivers, the first of their kind, to implement this demonstration. The waivers allow us to combine the purchasing of both Medicare and Medicaid services into the same contract. We are working with contractors

capable of providing a full range of integrated primary, acute, and long term care services (both community and nursing facility services) on a capitated risk basis. The project builds on the current Prepaid Medical Assistance Program (PMAP). It is our hope that this project will reduce administrative complexity, provide a seamless point of entry for consumers, control overall cost growth, and create a single point of accountability for both costs and outcomes.

Sincerely,

David S. Doth
Commissioner

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Motor Vehicle Deputy Registrars, March 1994	94-05
Minnesota Supercomputer Center, June 1994	94-06
Sex Offender Treatment Programs, July 1994	94-07
Residential Facilities for Juvenile Offenders, February 1995	95-01
Health Care Administrative Costs, February 1995	95-02
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Special Education, forthcoming	
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Additional reports relevant to performance reporting:

PR95-22 *Development and Use of the 1994 Agency Performance Reports*, July 1995
PR95-23 *State Agency Use of Customer Satisfaction Surveys*, October 1995

Evaluation reports and reviews of agency performance reports can be obtained free of charge from the Program Evaluation Division, Centennial Office Building, First Floor South, Saint Paul, Minnesota 55155, 612/296-4708. A complete list of reports issued is available upon request. Full text versions of recent reports are also available at the OLA web site: http://www.auditor.leg.state.mn.us/ped2.htm.