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DEPARTMENT OF ADMINISTRATION

**MEDICAID COST CONTAINMENT  
AND  
LONG TERM CARE  
IN  
MINNESOTA**

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**MANAGEMENT SERVICES DIVISION**

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MEDICAID COST CONTAINMENT  
AND  
LONG TERM CARE  
IN  
MINNESOTA

STATE OF MINNESOTA  
Department of Administration  
Office of Management  
Management Services Division  
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## PREFACE

This report culminates a research effort undertaken at the request of the Governor by the Management Services Division of the State of Minnesota's Department of Administration, Bureau of Management, early in 1976. The intent of the research was to identify possible ways to contain escalating Medicaid costs in Minnesota, analyze probable impacts, and make recommendations.

The study procedure included a questionnaire survey of the 50 states, interviews with key state personnel, a questionnaire survey of providers and others involved in long term care in Minnesota, review of relevant literature, and the collection of information on state Medicaid expenditures. The results of our analyses of the information thus obtained, along with our recommendations, are presented in this report.

## CREDITS

The individual contributions of the staff of this research project have been outstanding. Their expertise, which required only general guidance and direction, and their professional commitment, which often led them to devote long hours of overtime to overcome unanticipated delays due to data and computer problems, have resulted in a timely and, we feel, useful product. These staff and their primary areas of responsibility are:

Joan Pohl Pasiuk, a second-year graduate student at the University of Minnesota School of Public Affairs and an intern with us, analyzed impacts of cost-containment proposals on the elderly.

Karen Pritz, with an M.A. in Social Policy from the University of Chicago, is a Management Analyst with us under contract, courtesy of a CETA grant from the Governor's Manpower Office. Karen analyzed impacts of cost-containment proposals on quality of care. She also examined the acceptability and feasibility of various alternatives for long term care including changes in source of funding.

Dennis Reeves, a second-year graduate student at the University of Minnesota School of Public Affairs and an intern with us, developed our cost model and analyzed the impacts of cost-containment proposals on government costs.

Martie Van Roekel, with an M.A. in Sociology from the University of Minnesota, is a Senior Management Analyst in the Division. As Assistant Project Leader, Martie contributed heavily to the development of the problem statement, the design of the overall project, and was responsible for statistical design and computer analysis of data.

Suzanne Zuidema, with an M.A. in Public Affairs from the University of Minnesota, is a Management Analyst in the Division, funded under contract, courtesy of a CETA grant from the Governor's Manpower Office. Sue analyzed the impacts of cost-containment proposals on staffing needs, local labor markets, unemployment, and training needs. She also summarized the health care cost literature and analyzed acute care cost-containment approaches.



Bernadette Soltis, an Intermediate Management Analyst in the Division, reviewed literature, including budget documents from other states, during part of the project. James Clardy, Ted Schmidt, and Renee Beloy also assisted with various tasks. Dorothy Erickson, Gail Fish, Linda Hocker, Muriel Montgomery, Janice Todd, and Barbara Watts, typists, patiently deciphered our handwriting, corrected our spelling, and cheerfully helped us meet deadlines despite the many simultaneous demands on their time.

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## HIGHLIGHTS OF FINDINGS

and

## RECOMMENDATIONS

This report presents the results of a research effort undertaken at the request of the Governor by the Management Services Division of the State of Minnesota's Department of Administration, Bureau of Management, early in 1976. The research effort was intended to identify possible ways to contain escalating Medicaid costs in Minnesota, to analyze probable impacts of implementing changes, and to make recommendations.

The study procedure included a questionnaire survey of the 50 states, interviews with key state personnel, a questionnaire survey directed at providers and others involved in long term care in Minnesota, review of relevant literature, and the collection of data on state Medicaid expenditures and indicators of quality of care. A panel of economists and subject-matter experts was convened to assist in design of a cost model to guide the analysis.

This summary HIGHLIGHTS section begins with the Highlights of Findings, which are presented in the form of brief discussions of the results of our testing of 77 commonly-held opinions and hypotheses; each commonly-held opinion or hypothesis is first stated (in italics) and then findings are presented to either disprove or support the commonly-held opinion or hypothesis. The 27 RECOMMENDATIONS which follow the Findings section are grouped by general subject area.

Several terms are abbreviated both in this summary and in the body of the report. Each of these is defined more fully in the Glossary, but a reference list of initialed terms is provided here for easy reference:

CBF = Community Based residential Facility

CD = Chemically Dependent person, chemical dependency

DAC = Daytime Activity Center for the mentally retarded

DI, DI'd, DI'ing = deinstitutionalization, deinstitutionalized, deinstitutionalizing

DPW = Department of Public Welfare

ICF, ICF-I, ICF-II, ICF/MR = Intermediate Care Facility level one,  
level two, and for the mentally  
retarded

LTC = long term residential care

non-LTC = medical care other than long term residential care

MA = Medicaid

MDH = Minnesota Department of Health

MI = Mentally Ill person, mental illness

MR, EMR, TMR = Mentally Retarded persons, Mental Retardation,  
Educable Mentally Retarded person, Trainable  
Mentally Retarded person

NH = Nursing Home

QA&R = Quality Assurance and Review

SH = State Hospital

SNF = Skilled Nursing Facility

Title XIX = Medicaid

## HIGHLIGHTS OF FINDINGS

### Commonly held opinions and hypotheses about the Medicaid program that were tested:

1. *Minnesota is a typical state in terms of Medicaid services offered and populations served.*

NO. Minnesota is one of the very few states that offer the full range of required and optional services to nearly all possible recipients.

2. *The amount that Minnesota spends on Medicaid has grown rapidly.*

YES. The program spent \$69 million in FY 1967 (its first full year of operation), \$261 million in FY 1975, and about \$322 million in FY 1976. The Medicaid program cost increase can be expected to continue but perhaps not as rapidly as in recent years because some of the recent increase was due to the addition of coverage of intermediate care facilities (ICFs).

3. *Minnesota's Medicaid cost increases are not unique.*

TRUE. Nationally, the program expenditures rose from \$3.5 billion in FY68 to \$14.1 billion in FY 1976. This increase has been attributed to three major factors: a rise in medical prices, an increase in number of Medicaid recipients, and the high cost of nursing home care. The rise in medical prices is a problem of national scope and would be difficult to address solely within the context of the Medicaid program. States have limited authority to restrict Medicaid eligibility criteria; to change eligibility criteria in Minnesota would probably result in merely shifting costs to other, totally state-and locally-supported assistance programs. Thus the high cost of nursing home care is the area of greatest potential for Medicaid cost containment.

- 
1. Karen Davis. "Medicaid payments and utilization of medical services by the poor." Inquiry, Vol. 13, June, 1976.



4. *The administrative costs of the Medicaid program overburden Minnesota's Medicaid program costs.*

NO. According to national reports, Minnesota's administrative costs constitute only 3.2% of overall costs compared with national median of 5.3%; only six states have lower Medicaid administrative costs than Minnesota's.

5. *Minnesota's Medicaid program spends more annually per Medicaid recipient than the national average.*

YES, about twice the national average.

6. *Most of Medicaid payments are spent on AFDC recipients.*

FALSE. In FY 1975, less than 1/5 of Minnesota's Medicaid expenditures were for AFDC families. Almost half of the total was spent on all services for the elderly. About 1/3 was spent on the disabled. During a typical month, there are about 5,300 mentally retarded Medicaid recipients, constituting about 5% of all Medicaid recipients; however, about 17% of an average month's Medicaid expenditures are spent on residential care for the retarded. During FY 1975, a total of 26,000 different elderly persons received Medicaid-reimbursed SNF, ICF-I, or ICF-II nursing home care. This was about 10% of the total Medicaid population, but accounted for about 1/3 of total Medicaid expenditures.

7. *Most of Medicaid expenditures are spent on physicians, drugs, and hospital care.*

FALSE. In FY 1976, these three categories accounted for 31% of Minnesota Medicaid expenditures. About 60% of total Medicaid expenditures was spent on long term residential care in SNF, ICF-I and ICF-II homes, ICF/MRs, and state hospitals. About 50% of total Medicaid expenditures was spent on LTC services for the elderly and the mentally retarded alone.

8. *There is a lot of fraud in Minnesota's Medicaid program.*

PROBABLY NOT. Minnesota has implemented all administrative controls currently recommended by HEW, in contrast with most states (including New York) which have not. Evidence so far does not reveal extensive fraud.

9. *There are many Medicaid cost-containment efforts that Minnesota could implement.*

NO. Minnesota has already implemented the major cost-containment measures recommended by other states (including SURS, 3rd party

benefits recovery, and centralized payments). However, more effective utilization of these mechanisms, which we also recommend, could possibly enhance cost containment.

Commonly Held Opinions and Hypotheses about the Mentally Retarded (MRs) That Were Tested:

10. *Minnesota's MR long term care system is unique in the extent of its use of Title XIX funds for community ICF/MRs.*

TRUE. In November, 1976, Minnesota had 135 community ICF/MRs compared with an estimate of fewer than 25 community ICF/MRs in all other states combined.

11. *The increase in availability of CBFs has allowed many mentally retarded SH residents to move back to a community setting and has prevented admission of other MRs to SHs.*

NOT TO THE EXTENT EXPECTED. From 1974 to 1975, 500 additional ICF/MR beds were licensed in community based facilities. During the same period, the net number of MR residents in SHs decreased by only 200. The other 300 beds were not filled by SH residents, and most probably not by persons who would otherwise have entered SHs. This information supports the "woodwork theory" that the availability of the service encourages use of the service. These persons might have been eligible for SH admission but preferred not to enter an SH, or were not considered to need SH care. However, when community based care became available, it was preferred to whatever residential setting they formerly had.

12. *Overall, it costs less to care for an MR person in the community than in a state hospital.*

YES. We found that, on the whole, similar services for a mentally retarded person (MR) of similar age and retardation level currently cost less in the community than in state hospitals. The savings are greatest for the less severely retarded. Projecting from these findings, we conclude that deinstitutionalization (DI) could result in cost savings overall, assuming that the total size of the state hospital system can be reduced and that the community-based system can expand without increasing average daily costs per person in either system of care.

13. *Deinstitutionalization (moving an MR person from a state hospital to a community based residential facility) could result in a reduction in Medicaid expenditures.*

YES (with the same assumptions as above). Projecting from our findings we estimate that annual Medicaid costs would decrease as follows:

If all state hospital MRs were deinstitutionalized- \$17.7 million

If all borderline and mildly retarded state hospital  
MRs were deinstitutionalized- \$ 1.7 million

If all borderline, mildly, and moderately retarded  
state hospital MRs were deinstitutionalized- \$ 4.6 million

If all borderline, mildly, moderately, and severely  
retarded state hospital MRs were deinstitutionalized-  
\$ 9.6 million

39% of the above decreases would be in state Medicaid matching costs, 57% in federal Medicaid costs, and the remainder in local money.

14. *Overall government costs of caring for MRs would decrease if MRs were deinstitutionalized from state hospitals.*

YES, projecting from our findings, we conclude that overall government costs of caring for MRs would decrease if DI occurred. However, DI would affect the costs to the various levels of government in different ways, depending on the nature and extent of the DI effort. (Note that these savings are less than the federal, state and local shares of Medicaid savings. This is because some of the Medicaid dollars saved would be spent by other programs (e.g., Sheltered Workshops).)

- a) We project from our findings that the overall annual federal share of costs of caring for MRs would decrease as follows:

If all state hospital MRs were  
deinstitutionalized - \$9.9 million

If all borderline and mildly retarded  
state hospital MRs were  
deinstitutionalized - \$1.0 million

If all borderline, mildly, and moderately  
retarded state hospital MRs were  
deinstitutionalized - \$2.4 million

If all borderline, mildly, moderately,  
and severely retarded state  
hospital MRs were  
deinstitutionalized - \$5.3 million

- b) We project that overall annual State government costs of caring for MRs would decrease as follows:

If all state hospital MRs were  
deinstitutionalized - \$4.2 million

If all borderline and mildly retarded  
state hospital MRs were  
deinstitutionalized - \$0.7 million

If all borderline, mildly, and moderately  
retarded state hospital MRs were  
deinstitutionalized - \$1.6 million

If all borderline, mildly, moderately,  
and severely retarded state hospital  
MRs were deinstitutionalized - \$2.5 million

c) We project that overall annual local government costs of  
caring for MRs would decrease or increase as follows:

If all state hospital MRs were  
deinstitutionalized - cost increase: \$1.5 million

If all borderline and mildly retarded  
state hospital MRs were  
deinstitutionalized - cost decrease: \$0.07 million

If all borderline, mildly, and moderately  
retarded state hospital MRs were  
deinstitutionalized - cost decrease: \$0.04 million

If all borderline, mildly, moderately,  
and severely retarded state hospital  
MRs were deinstitutionalized -  
cost increase: \$0.6 million

15. *State hospitals serve the same type of MRs as do community  
based Medicaid-funded residential facilities (ICF/MRs).*

NO. Medicaid-funded MRs in community ICF/MRs tend to be  
older, less retarded, and less disabled than those MRs  
in state hospitals. Because these characteristics affect  
the costs of caring for an MR, we controlled for these  
resident differences in the cost projections above.  
(Because there are no data on those MRs in community  
facilities who are not receiving Medicaid, no direct  
comparisons can be made between SH MRs and all MRs in  
community facilities.)

16. *MRs get the same program services in state hospitals as in community settings.*

TRUE, but state hospitals provide all services on grounds while community ICF/MRs have to ensure that services are provided elsewhere in the community. For valid cost comparisons, control for service differences is necessary because the Title XIX reimbursement rate for community based facilities does not include the costs of Sheltered Workshops, Day Activity Centers, etc., that are offered outside the facility. Other Title XIX non-long term care costs, such as medical services, are also not included in the reimbursement rate of community facilities. Both of these kinds of costs are included in the state hospital reimbursement rate.

17. *All community ICF/MRs cost about the same.*

NO. There is much variation in per diem costs for the time period studied (generally corresponding to FY 76). Overall per diems range from \$8.35 to \$31.47 (average of \$17.78 per diem). Daily costs for programming range from \$.00 to \$14.96, for general support range from \$3.55 - \$14.36, and capital expenses range from \$.70 - \$9.40 (average capital expense = \$2.46 per diem).

18. *State hospitals serving MRs all cost about the same.*

NO. There are cost differences among state hospitals serving MRs, with overall per diems ranging from \$35.33 to \$47.89 (average of \$38.75 per diem) in FY 76. MR program costs range from \$16.61 to \$23.45, MR general support costs range from \$17.64 to \$30.93. The average per diem capital cost of state hospitals is \$3.64.

19. *The state can predict and effectively control state expenditures for community ICF/MRs.*

NO. New facilities can set costs independent of prevailing ICF/MR rates. Also, the current unlimited pass-through provision in funding for community ICF/MRs makes it impossible to accurately project future costs for established facilities. Also, growth in the number of new facilities has been essentially unpredictable. Thus, the state has not projected nor adequately controlled total costs of community ICF/MRs.

20. *Funding for construction and renovation of sufficient community ICF/MRs to handle deinstitutionalized MRs would be available.*

YES, it seems so. HUD money could be used more extensively and it appears that other sources of mortgage money will continue to be available.

21. *Adequate funding for Day Activity Centers for deinstitutionalized MRs would be available.*

MAYBE; it would be a local policy decision. Day Activity Centers are funded by counties, generally using Title XX funds, which are presently capped. Additional state or federal aid may be needed.

22. *Additional funding for special education would be available to handle increased numbers of deinstitutionalized MRs.*

YES, theoretically, local school districts are required to provide these services, but whether they could develop or expand these services quickly enough would depend on the time schedule of the DI effort.

23. *Additional funding for sheltered workshops would be available.*

YES, probably. Funding has increased in recent years, but additional state or federal aid may be needed.

24. *Funding for community ICF/MR long term care per diems would appear as needed and would continue.*

YES, as long as Medicaid funds are available.

25. *Medicaid is the best funding source for community ICF/MRs.*

YES, from the State's point of view. The ICF/MR system is in place and is evolving to meet Medicaid requirements; of the two other potential sources of funding, the already capped Title XX would be strained beyond reasonable limits, and would not provide similar coverage, and SSI (Title XVI) would require drastic changes in the current community ICF/MR system.

26. *It will be economically feasible for community ICF/MRs to meet the federal regulations necessary for Medicaid reimbursement.*

YES, the unlimited amount that can be passed through the reimbursement system currently makes it feasible.

27. *The State has the responsibility to fund community care for the retarded.*

NO. The state is responsible for care of MRs, but whether care is provided in state hospitals or somewhere else (foster homes, community ICF/MRs, or at home) is a policy decision, as is use of Medicaid as a funding source.

28. *A "better" environment can be provided outside of state hospitals for all or most MRs.*

CANNOT BE DETERMINED. The answer would be YES, if

- a) Normalization is accepted as a philosophical base, and if
- b) The state hospital did not base care on normalization and developmental potential, and if
- c) The community facility meets minimum standards and is closer to relatives or friends and meets the individual's needs.

While state hospitals have greater difficulty in meeting the normalization goal, efforts are being made to meet standards related to normalization. State hospitals as a group have fewer deficiencies on federal ICF/MR standards than do community ICF/MRs.

Community ICF/MRs are generally in better compliance with normalization standards, and may be closer to friends or relatives. Community ICF/MRs vary greatly in number of ICF/MR deficiencies, with some facilities being in total compliance and some having many more deficiencies than do state hospitals.

29. *Treatment and rehabilitation can be provided outside of state hospitals for all or most MRs.*

YES, it is possible but may not be feasible, due to cost and possible non-availability of needed professional staff.

30. *Quality control would not be a problem if deinstitutionalization occurs.*

PROBABLY FALSE. DPW and MDH would have to license many small facilities rather than eight state hospitals. This would probably require that more time and effort be devoted to licensing activities.

31. *A community ICF/MR will be a permanent home for an MR, like a family environment.*

TRUE, few community ICF/MRs have closed or been closed, so continuity of care has not been a major problem.

32. *State hospital MRs have little opportunity for outside contact while community ICF/MR residents have more opportunity for outside contact (e.g., community involvement, etc.).*

GENERALLY TRUE, but this still varies greatly according to the MR's mobility, the community, and the facility staff.

33. *Medicaid is the main funding source for both SHs and Community ICF/MRs.*

YES, for MRs. Medicaid pays for care of individuals and is funding source for MRs rather than for facilities. But the State Legislature determines the amount of money available to SHs for care of MRs, and Medicaid only reimburses that amount. Community ICF/MRs determine their own expenditure levels (within limits) for Medicaid reimbursement.

34. *State hospitals and community ICF/MRs have the same opportunity for compliance with current standards for quality of care.*

FALSE. Both daily operations and capital expenditures are funded through legislative appropriation; SHs do not have quick access to funds necessary for improvements. Medicaid is only an indirect funding source for SHs. Because their funding mechanisms are different, state hospitals have a harder time financing changes needed to promptly meet standards than do ICF/MRs in the community.

35. *All community ICF/MRs provide the same quality of care.*

NO, as measured by compliance to standards, there are differences in the quality of care among community facilities. There is a wide range in the number of deficiencies issued to 104 community ICF/MRs during the 1976 Medicaid certification process, from 0 to 210 on 1977 requirements. Out of 130 units, 80 had full DPW program licenses, 50 had provisional licenses (as of summer 1976).

36. *All state hospitals provide the same quality of care.*

NO, as measured by compliance to standards, there are differences in the quality of care among state hospitals. The numbers of deficiencies issued to state hospitals during the 1976 Medicaid certification process ranged from 14 to 39 on 1977 requirements. Of 42 state hospital units, all had provisional DPW program licenses or other compliance problems (as of summer, 1976).



37. *State hospitals have more staff per resident than do community ICF/MRs.*

YES, about twice as many staff per resident. However, community ICF/MRs do not provide physicians, dentists, etc., or the staff for daytime programming (Day Activity Centers and Sheltered Workshops) which state hospitals do. Community ICF/MRs do provide nursing care and may provide some day programming to supplement Day Activity Centers, etc. Also, the current resident mix is different; state hospitals have more severely retarded residents requiring, by regulation, more staff per resident.

38. *The kinds of staff are similar in state hospitals and community ICF/MRs.*

NO, state hospitals have larger staffs which are more highly specialized; community ICF/MRs have smaller staffs and each may perform a wider variety of functions.

39. *Administrators of state hospitals and community ICF/MRs can be paid about the same salary.*

YES. It is possible for an administrator of a community ICF/MR to earn the same salary as the CEO of a state hospital.

40. *Costs at state hospitals are unnecessarily high because of overpaid, top-heavy management.*

NOT IN COMPARISON TO CBFs. Rule 52 sets maximum compensation for top management of a CBF at \$35,000. This is about the same as the salary of a CEO at an SH. But SHs are much larger (142 to 940 residents in FY76), while CBFs may be as small as 5 beds. Furthermore, the CEO receives his salary for full-time, well-defined work. There is currently no requirement that CBF administrators work full time for their salaries, nor are job duties defined, nor are there limits on the number of facilities one person may administer and/or be "consultant-to." Community ICF/MR administrators can, therefore, earn far more than SH CEOs.

41. *State hospital staff would earn as much for similar work in the same industry outside the state hospital system.*

YES AND NO. Most professionals would probably earn the same or a little more. Non-professionals would probably earn less.

42. *State hospitals have more general support staff than do community ICF/MRs.*

INDETERMINATE. Information is available only on job title, not function. We know that many community ICF/MR staff are generalists and perform a wide variety of functions. Therefore, valid comparisons, using job title, cannot be made.

43. Professional staff would be available to serve deinstitutionalized MRs in local communities.

INDETERMINATE. The number and geographic distribution of health professionals in Minnesota are unknown.

44. Adequate planning for services to MRs could be done using information currently available.

FALSE. We know the most about state hospital MRs, some about Medicaid-funded MRs in the community, and very little about other MRs. For planning, information would be needed on individual service needs and costs; existing information is insufficient.

45. The community ICF/MR system could expand to accommodate all deinstitutionalized state hospital MRs.

YES, IF;

- a) adequate development time were allowed, and
- b) funding sources cooperate.

46. Community ICF/MRs are acceptable to local communities.

THEY CAN BE IF,

- a) planning is open and community is kept informed, and
- b) community needs, wishes, problems, and biases are seriously considered.

47. The development of ICF/MRs has provided the continuum of care needed for MRs.

FALSE: stable funding sources for less intensive care (e.g, family living or independent living) needed for some MRs has not been developed as has Medicaid funding of ICF/MRs.

48. Community ICF/MRs provide a small family-like environment for MRs.

FALSE. Although most community ICF/MRs are small (mean of 25.3 licensed beds, with a median of 14.6 beds), most of the MRs in the community ICF/MRs live in large facilities: 65% of the facilities have 15 or fewer licensed beds, but 67% of the beds are in facilities with 30 beds or more.

49. *Development of community ICF/MRs is systematized.*

FALSE. Recent development of community ICF/MRs has been rapid (in July, 1974 there were 94 community ICF/MRs; by November of 1976 there were 135) and haphazard. Assessment of regional need for ICF/MRs is just beginning.

50. *Development of auxiliary services for MRs in the community is systematized.*

FALSE. Development of services such as Day Activity Centers is not necessarily linked to prospective development of ICF/MRs.

51. *The quality of long term care provided MRs is known.*

FALSE. It is not known because we cannot yet measure it. While there are certain scales and measurement methods available, none has been universally accepted and none has been implemented across time or across all facilities. The closest approximation to quality of care is measurement of compliance to minimum input standards.

52. *The effects of various programs and/or care settings on long term care residents are known.*

FALSE. Because no scales measuring outcomes have been applied across time, facilities, or programs, no one knows what is better for what type of person.

53. *The system of care for MRs is coordinated.*

FALSE. Many governmental levels are involved, with competing and conflicting roles even within each level of government.

54. *Financial and other aid to care-givers of MRs can save the state money by allowing MRs to remain in or return to their homes.*

This appears to have good potential, although there is little experience to date. Home care would not be a solution for all MRs but has potential for cost-savings.

55. *Residential placement of an MR is determined by the needs of the MR.*

NOT NECESSARILY. MRs receive what is available and what they are eligible for, and parents or others can affect the process (e.g., some parents may prefer the state hospital placement for an MR child because of relative permanency).

56. *"Bad" facilities are closed.*

NOT NECESSARILY. Political, family, and media pressures make difficult the closure of even a grossly deficient ICF/MR.

57. *"Bad" facilities are not allowed to open.*

FALSE. Advance certification/licensure may allow ICF/MRs to open prior to inspection.

58. *Community objections to closing state hospitals could be overcome.*

Not without considerable open planning, minimization of negative economic impact on the local community, and attention to equivalent jobs for state hospital employees.

Commonly-held opinions and hypotheses about nursing home care for the elderly that were tested:

59. *Minnesota's system of care for the elderly is similar to that of other states.*

FALSE. Minnesota has 96.7 nursing home residents per 1,000 elderly persons, more than any other state. Further, the proportion of proprietary-owned nursing homes in Minnesota differs markedly from the national picture: in Minnesota, in 1974, 42% of the nursing homes were proprietary and 58% were nonprofit (non-proprietary and government-owned); nationwide, 75% of the nursing homes were proprietary and 25% non-profit. Finally, Minnesota's nursing homes had higher average occupancy rates than the national average in 1972: Minnesota's SNFs experienced an average occupancy rate of 94.68%, compared with the national average of 88.2%.

60. *Non-Proprietary nursing homes cost less than either proprietary or government nursing homes.*

TRUE, for each level of care.

61. *Higher levels of nursing home care cost more, i.e., SNF care costs more than ICF-I, which costs more than ICF-II care.*

TRUE.

62. *ICF-I and ICF-II costs and care are similar.*

NO. ICF-I is 50% more expensive than ICF-II in Minnesota. Minnesota does differentiate ICF-I and ICF-II for reimbursement purposes, although the federal government does not do so for certification purposes.

63. *People who do not need to be in nursing homes end up there anyway.*

THEY COULD. The current Medicaid certification process is reportedly not an effective screening process. Further, nursing home residents admitted as private-pay patients need not be certified as needing nursing home care. These private pay patients may later become Medicaid recipients once their financial resources are depleted.

Alternatives to nursing home care, e.g., in-home services, are not widely available. Even where in-home services exist, there is no coordinated system of care, partially due to limited and selective funding of alternatives.

64. *Many elderly are getting more extensive nursing home care than they need.*

INDETERMINATE. Relatively few elderly who are Medicaid-funded are determined by the Quality Assurance and Review process to need lower levels of care. This gives a somewhat conservative estimate (see the full report for an explanation of why a lower level of care may not be recommended), but even so, it is unlikely that this situation applies to a great many of the Medicaid-funded elderly in nursing homes. No information is available on how many private-pay elderly receive unneeded nursing home care or receive a higher level of care than needed.

65. *Medicare is for the elderly and Medicaid is for welfare clients.*

NO. Many elderly are also poor, or become poor due to medical and other expenses. Further, Medicare covers only 100 days of SNF care per "spell of illness." Actually, about 33% of Medicaid is spent on nursing home care for the elderly, who have exhausted Medicare or who need services not covered by Medicare.

66. *Elderly persons in SNF care exhaust their Medicare benefits before Medicaid begins to pay for their SNF care.*

NO. Some SNFs consider the amount of paperwork necessary for Medicare funding to be not worthwhile for the relatively few Medicare eligibles. No one knows how many days of care Medicaid paid that Medicare could have paid.

67. *SNFs have a higher staff-to-patient ratio than ICFs.*

FALSE. All nursing homes had similar indirect care staff-to-patient ratios. Direct care staff-to-patient ratios varied considerably, but not as might be expected: there was little difference in direct care ratios between SNFs and ICF-Is, but ICF-Is provide much more direct care than do ICF-IIIs.

68. *Higher nursing home per diem rates are directly attributable to higher staff-to-patient ratios.*

FALSE. Total nursing home costs were not directly related to staff-to-patient ratios.

69. *The quality of long term care provided the elderly is known.*

FALSE. It is not known because we cannot yet measure it. While there are some scales and measurement methods available, none has been universally accepted and none has been implemented across time or across all nursing homes. The closest approximation to quality of care is measurement of compliance to minimum input standards.

70. *The effects of various programs and/or care settings on elderly long term care residents are known.*

FALSE. Because no scales measuring outcomes have been applied across time, facilities, or programs, no one knows what is better for what type of elderly person.

71. *Policy should be directed at encouraging development of nursing homes.*

NO. There is no evidence that more nursing homes are needed; there is evidence that alternative forms of care are needed.

72. *Quality of care is roughly similar in all nursing homes.*

FALSE. Nursing homes vary greatly in the number and kinds of deficiencies received during the Department of Health certification process. The average number of deficiencies varied by region but was not clearly related to ownership, size, or cost.

73. *Long term care in nursing homes that meet minimum federal standards costs more.*

FALSE. Costs were not related to quality of care as measured by deficiencies, i.e., facilities with fewer deficiencies did not necessarily cost more.

74. *"Bad" nursing homes are not allowed to open.*

FALSE. Advance certification/licensure may allow nursing homes to open prior to inspection.

75. *"Bad" nursing homes get shut down.*

FALSE. Political, family, and media pressures make difficult the closure of even a grossly deficient nursing home.

76. *Urban nursing homes cost more than rural nursing homes.*

TRUE. Costs vary by region for all levels of care, with urban regions generally costing more.

77. *The larger a nursing home, the more efficient (the lower the cost).*

FALSE. Smaller and larger nursing home units have higher average per diems than medium-sized units (60 to 100 beds).

## RECOMMENDATIONS

### Recommendation re: Long Term Care in General

1. State policy should be directed at providing alternatives to institutional care for the mentally retarded and elderly or, where such care is unavoidable, at minimizing level of care and length of stay. Because of availability of Medicaid funding, residential care services have developed faster than non-residential care services. Funding must be expanded to cover a continuum of non-residential services - - e.g., in-home services, family subsidies, etc.

#### Responsibility:

DPW should set this policy, and request HEW waivers to permit pilot programs and, later, permanent waivers to allow Medicaid reimbursement for alternatives to institutional LTC.

### Recommendations re: Long Term Care for the Mentally Retarded

2. Based on the evidence available, we recommend that the mentally retarded be cared for in community based facilities or, where possible, independent living, supervised living, or living at home with non-residential services provided, rather than in state hospitals. The cost is lower in the community; there is better potential for quality of care (i.e., state hospitals are limited by legislative appropriation for meeting licensing deficiencies and provisions, whereas community facilities are not so limited); and community facilities are being increasingly used for placement of MRS throughout the state.

#### Responsibility:

DPW should continue its policy of refusing SH admissions whenever a community alternative is possible, should expand its family subsidy program, and should make efforts to expand the availability of additional services needed by MRS who live outside institutions. DPW should also continue to encourage community based living arrangements for MRS who would otherwise enter SHs.

3. A cost effectiveness study should be done to compare the MR Family Subsidy program with community ICF/MR care, using outcomes measures of changes in the condition of the MRS, and controlling for severity of retardation, physical mobility, etc.



Responsibility:

DPW is collecting the cost data needed on both CBF and family subsidy care of MRs, and the family subsidy program includes measures of MR conditions, as well as many control variables. Similar outcomes measures and information on control variables are needed for MRs now served in community ICF/MRs.

4. Regarding the mentally retarded who are now being cared for in state hospitals, we recommend that a decision be made now concerning movement of some or all into the community, so that no unnecessary, costly state hospital remodeling occurs while a decision is being considered. We recommend two phases:

- As a five-year goal, deinstitutionalize all mildly and moderately retarded residents from SHs and those severely retarded who do not have extraordinary behavior or physical problems, and place a moratorium on state hospital remodeling after compliance with the 1977 ICF/MR regulations.

Responsibility:

DPW should determine which SH residents fit this description and should plan in conjunction with the responsible counties for their release to appropriate community residential settings. Pre-placement screening of admissions to community ICF/MRs should probably be instituted to ensure that new facilities (as well as existing facilities) do in fact admit SH residents. This responsibility should also rest with DPW, and could probably be done by the regional SH personnel, using the same criteria for CBF placement that they use for SH admission.

- As a ten or twenty-year goal, deinstitutionalize all mentally retarded from state hospitals.

Responsibility:

DPW should extend the processes described above for all SH MRs over a longer period to implement full DI of the MR SH population.

For both the short-and long-term phases, we recommend the following in order to ensure the continuance of cost-containment and quality of care:

- New ICF/MR facilities in the community should be permitted only if planned to serve the types of MRs currently in SHs, and (at least temporarily) only in areas of the state currently most underserved. Every effort should be made to utilize new ICF/MRs to reduce SH MR populations and to prevent SH admissions, rather than adding new MRs to the LTC system and increasing total costs of care. This may require a pre-placement screening of CBF admissions in addition to restricting new CBFs to those with specified types of MRs as their target client group.

Responsibilities:

- All agencies' need determination processes (including DPW, MDH, and SPA) restrict new facilities as to the target client groups and locations of new facilities.
- Pre-placement screening of ICF/MR admissions by medical and social service and other personnel is needed, using criteria similar to those for SH admissions. This should include physicians reimbursed by Medicaid, or could be done by the staff of the regional SH.
- DPW and the Developmental Disabilities division of the State Planning Agency should consolidate their information on area needs for MR services for coordinated planning.
- Begin plans to close or consolidate state hospitals as the mentally retarded are moved out over the next ten years or so. Close Hastings SH now, and then at least two others over the next ten years. (Based on our analysis, Hastings is the most expensive hospital at present, in every way.) Declare unused space surplus so it can be rented, or have college students live in extra space in exchange for 15 hours per week work, as at Rochester.
- Begin transferring surplus state hospital staff complement to other departments when possible, and make sure that staff have at least two years notice of planned SH closing.
- Establish procedures to ensure maintenance of proper staff mixes at each SH as DI occurs.

Responsibility for the above 3 processes:

Legislative approval is needed to close a SH, but DPW should make the necessary plans and implement the closures. Coordination with other State departments will be needed for those employees who might be transferred to other State jobs. Adequate lead time for planning, and advance information to ( and consultation with) current SH employees and their union will be necessary.

- Test our cost assumptions as DI continues to be implemented: test the validity of the \$15 and \$20 per diems assumed by our cost model, then DI a few severely and profoundly retarded and test the \$30 per diem assumption.

Responsibility:

DPW collects the ICF/MR cost data and could compare actual costs to projected costs (per diems) for each type of MR.

- Study further the cost-related characteristics of MRs. Experiment with reimbursement mechanisms whereby facilities would be reimbursed for the types of patients they have.

Responsibilities:

Information on patient characteristics is currently collected by SH staff and by QA&R. DPW and MDH should, in consultation, combine and expand the data collection as necessary to specify characteristics of each MR (severity of retardation, age, behavior problems, dependence, ambulation and other physical handicaps) which are related to costs of care. POIS data may be used in the analysis of treatments needed as determined by patient characteristics. The cost assumptions in our model could then be further refined using the additional patient information.

- Clamp down on reimbursement of ICF/MRs as we recommend below (see no. 5), or else limit per diem reimbursements to those which our study found to be reasonable for MRs at each level of retardation and which we used in our cost projections.

Responsibility:

Modification of reimbursement mechanisms would require changes in DPW Rule 52, as recommended below. The alternative of reimbursing facilities according to patient characteristics, as discussed

above, would eliminate the need for Rule 52 cost reports (except, possibly, as a check on expenditures).

- The state should adopt a get-tough attitude with facilities which it licenses. Clamp down on "bad" ICF/MRs (i.e., those which are seriously out of compliance with regulations). Make it easier to close deficient facilities and use information on license deficiencies and provisions to pursue closure, assuming (see recommendation #20) that this information has been made reliable and more valid. Also prevent opening of deficient facilities.

Responsibilities:

Both DPW and MDH have responsibility for licensing of ICF/MRs. Each should examine its procedures and the current status of facilities operating in Minnesota, and should determine levels of acceptability below which an ICF/MR will not be permitted to operate. Both legal and administrative mechanisms will probably be required to close seriously deficient facilities. In addition to using existing mechanisms for closing facilities and expanding them, if necessary, both departments should also tighten their criteria for approving advance or preliminary licensure of new facilities; every effort should be made to ensure that these facilities meet licensing and certification requirements before they are permitted to admit residents.

- Develop financial and other incentives (e.g., Certificate of Need) to discourage the over-development of facilities for the mildly and moderately retarded but encourage those for the severely and profoundly retarded and multiply-handicapped and those with behavior problems.

Responsibilities:

The need determination processes should be used to prevent opening of additional facilities for mildly and moderately retarded residents except in any under-served areas. DPW reimbursement mechanisms might be changed, as discussed above, to determine costs of caring for different types of MRs and could provide financial incentives (if really necessary) to encourage facilities to serve residents with more severe problems.

- Explore possible economies of scale benefits in the community of, e.g., supply warehousing and central storage sites, cluster homes or networks of independent living situations to make better use of shared professional staff, development of facilities in regional population centers for pooled local funding and for pooled manpower reasons, etc.

Responsibility:

Experience from the procurement and storage of supplies in quantity for SHs, and possibly information from private chains of ICF/MRs could be analyzed by DPW or by the Department of Administration Procurement Division in exploring this possibility for cost savings by private ICF/MRs.

- Develop a continuum of residential care, especially by requesting HEW waivers to permit more extensive Medicaid funding of home-health care and also by expanding the family subsidy program and/or exploring other possibilities for keeping individuals out of institutions or for making institutions less restrictive.

Responsibility:

DPW has already initiated an experimental family subsidy program for MRs living with their families. If this proves cost-effective, as it now appears, it should be made permanent and expanded. Home health and other services may need to be expanded or developed to serve MRs living in the home. DPW and State Planning should share information to coordinate planning.

- Make a single regional agency responsible for MR planning for the service system in each region.

Responsibilities:

All currently involved state and regional agencies would have to agree to work together

under one auspice. Legislation may be necessary to grant specific powers.

- Use coordinated statewide information systems for planning. Neither QA&R nor POIS is comparable to any other system and neither one can describe the entire system.

Responsibilities:

Both MDH and DPW should combine their information, and, in conjunction with the regional planning agency, collect information needed on patients. The licensing and certification divisions, professional organizations, and any service directories or state boards which license professionals and/or facilities or operators of services should be utilized in examining the existing service system and planning necessary changes.

- Coordinate development of DACs and other non-residential services with expansion of community residential care.

Responsibility:

The regional agency responsible for MR planning should provide this coordination to ensure an adequate package of services available to MRS in the community.

- Provide financial assistance to counties for expansion of DACs.

Responsibility:

For those counties which cannot afford further DAC services, but which need additional ICF/MRs, the state Legislature will probably have to appropriate additional funds for the development and operation of DACs; this need occur, however, only in counties currently underserved by ICF/MRs and opening new ICF/MRs primarily for severely and profoundly retarded persons and those with additional handicaps and dependencies.

- Continue work to determine which programs are effective for which types of MRs and which are not. Make sure that a measurement instrument such as the MDPS or ABS is used to evaluate program effectiveness and that the State does not pay for MR programs that are ineffective.

Responsibility:

DPW should analyze data from ABS and MDPS as it becomes available, and should use this information in its guidelines for both admissions and services for both SHs and community ICF/MRs.

- Study the current financial and other incentives for placement of MRs in state hospitals vs. community facilities, by families, by county social workers, and by county boards. Implement any needed change to create incentives for community or home placement. Experiment further with aid to care-givers; continue the family subsidy program.

Responsibility:

DPW should examine the MR care system for incentives such as differential costs to families, caseloads for social workers, etc., which may result in SH or ICF/MR placement. These should then be overcome so that an MR is not inappropriately placed. DPW should continue to experiment with aid to care-givers and the Family Subsidy Program.

- Investigate the possibilities for more extensive use of HUD for funding community facilities. Make legislative changes if needed, and apply for HUD grants.

Responsibility:

DPW and State Planning, in their technical assistance efforts, should investigate these possibilities.

- Establish a pilot program to have the State develop and operate ICF/MRs in the community where the private sector does not meet the demand.

Responsibilities:

If private operators do not develop facilities for MRS with more severe problems, DPW should request funding from the Legislature to develop a pilot program. The regional planning agencies could provide information about what types of services are needed and where.

- Collect further data on non-long term care Medicaid costs for LTC recipients.

Responsibility:

DPW's Medicaid centralized disbursements system collects information on recipients, services, and costs, but currently does not have information easily accessible according to recipients who are LTC residents. Such information could be collected on a patient-by-patient basis and analyzed, or the system might be modified to include residence in an LTC setting as a control variable for regular reporting of cost data.

Recommendations re: Reimbursement of Community Residences for the Mentally Retarded(ICF/MRs)

5. To contain costs of community ICF/MRs, we recommend the following changes in reimbursement Rule 52 (see Chapter V for more detail):
  - Reduce the 15% annual allowable cost increase to perhaps 10%.
  - Eliminate the 1% annual "unidentified cost increase" for the metropolitan area.
  - Add an economic incentive to increase ICF/MR occupancy rates, similar to that currently in Rule 49 for nursing homes (93%).
  - Relate Medicaid reimbursement rates to patient characteristics, i.e., categorize ICF/MRs by their clientele for reimbursement purposes and establish reasonable cost averages and maximums for each type of resident.



- Prohibit an ICF/MR from purchasing services or products from a private business owned by the ICF/MR operator, or require that the private business do substantially more than 25% of its business with "outsiders."
- Clearly separate staff salary costs by functional area.
- Eliminate or severely restrict the use of "pass-throughs" for costs of meeting existing federal, state, or local regulations.
- Revise the Rule 52 limitation on top management salary for ICF/MR administrators as follows:
  - a) The maximum salary should be paid only for full-time, on-site work; part-time administrative work should be pro-rated.
  - b) Job duties for an ICF/MR administrator should be specified.
  - c) The salary limitation should clearly limit both the salary of the top administrator and the total administrative salaries for a facility, and should relate total administrative salaries to the size of the facility.
  - d) Maximum compensation for an administrator of a CBF should be significantly lower than the salary of an SH CEO, perhaps \$20,000. Any person who considers his/her administrative abilities worth more than those of a CEO should not waste excessive talents on a small facility.

Responsibilities:

DPW should make the necessary changes in Rule 52 to implement these recommendations.

- Place Rule 52 cost data on an EDP system similar to that for nursing home cost data to facilitate cost analysis.

Responsibilities:

DPW and ISD should coordinate efforts to create and use an EDP system for analysis of this data.

6. DPW staff should conduct more field audits of ICF/MRs. This would probably require an increase in field auditing staff time, but the increased effort would probably be justified.

Responsibility:

DPW should expand its effort in field audits, either by reallocating staff to include more field audit responsibilities, or by adding staff (perhaps a shared staff person would be enough) to do field audits.

Recommendations re: Nursing Home Care for the Elderly

7. The patient certification requirements for nursing homes should be more strict, i.e., make it tougher to get in.

Responsibilities:

DPW should toughen the requirement necessary for patient certification as eligible for nursing home care, and reflect this in the form used for this purpose.

8. Nursing home applicants should be required to undergo a comprehensive pre-placement evaluation by a team including a physician whose medical evaluation should be Medicaid-reimbursable. All efforts possible should be made to prevent nursing home admission by referral to community service agencies, both public and private. Consider having the patient certification process distinguish between ICF-I & ICF-II.

Responsibilities:

DPW should continue to encourage the use of alternatives to LTC. DPW should explore with DHEW the possibilities of Medicaid-reimbursed evaluations on the grounds of potential cost savings. DPW and MDH should work together to determine the feasibility of distinguishing patients needing ICF-I vs. ICF-II care, coordinating this with licensing requirements.

9. The State should be prepared to act upon forthcoming results of the current University of Minnesota study of in-home services for the elderly, and to request an HEW waiver to provide a continuum of care for the elderly, including a possible pilot program of Medicaid-reimbursed family subsidies for the care of the elderly persons.

Responsibilities:

DPW, in coordination with planning agencies for elderly services, should investigate these possibilities.

10. Establish some incentive for single level SNF facilities in geographically isolated areas to divide themselves into two or more levels of care.

Responsibility:

DPW could implement incentives through the Rule 49 reimbursement procedure.

11. A study should be undertaken to determine the needed number of nursing home beds per 1,000 elderly and to have the certificate of need process reflect this guideline.

Responsibility:

Because of its responsibility for the certificate of need process, the State Planning Agency would probably be the most appropriate agency for conducting such a study.

12. Establish consistency between the MDH and DPW levels of nursing care, and maintain the three levels (SNF, ICF-I, and ICF-II).

Responsibilities:

DPW and MDH should work together.

13. Require facilities to participate in the Medicare program if they are eligible for it.

Responsibility:

**Legislative action would probably be required.**

14. Study the current financial and other incentives for placement of the elderly in nursing homes vs in-home care, by families, by county social workers, and by county boards. Implement any needed changes to create incentives for home placement.

Responsibility:

DPW should examine the system of care for the elderly for any such incentives which could result in inappropriate placement and over-use of the LTC system. DPW should encourage LTC alternatives.

15. Lobby for more extensive Medicare coverage for long term residential care for the elderly, care in lower levels of care than SNFs, and for liberalization of home health care coverage.

Responsibilities:

DPW, in conjunction with legislators and advocacy groups.

16. Extend the continuum of Medicaid or SSI-reimbursable living situations for the elderly to include foster care, supervised living, group living, and other less structured and non-medically-oriented but supportive residential settings.

Responsibility:

DPW could request waivers for pilot programs, and work with advocacy groups for permanent changes.

Recommendations re: Reimbursement of Nursing Homes

17. To contain costs of nursing homes, we recommend the following changes in reimbursement Rule 49 (see Chapter V for more detail):

- Monitor implementation of direct and indirect cost maximums, and consider setting maximums on each separate cost category if this appears to be cost-effective.

Responsibility:

DPW collects this cost data and should examine the effectiveness of this change in rate-setting maximums.

- Re-examine the appropriateness of the current occupancy incentives in the light of Medicaid cost-containment. The encouragement of high occupancy rates should be tempered by a requirement for more rigorous pre-admission patient screening based on the need for nursing home care.

Responsibility:

DPW should examine the incentives of the Rule 49 reimbursement procedures and should also strengthen the pre-admission patient evaluation system, as recommended above.

- Examine the impacts of the state reimbursing ICF-I and ICF-II care differently, while the federal government does not distinguish between ICF-I and II. Our study found distinctions between these two levels of care in both costs and clients.

Responsibilities:

DPW, in conjunction with MDH, should examine this issue in light of licensing requirements and costs.

- Prohibit a nursing home from purchasing services or products from a private business owned by the nursing home operator, or require that the private business do substantially more than 25% of its business with "outsiders."

Responsibility:

DPW, after study, should modify Rule 49, Section 4922b, as appropriate.

Recommendations re: Mentally Ill persons in Nursing Homes

18. We recommend a study of the appropriateness of nursing homes as residential care settings for the mentally ill (MI). We know from QA&R data that there are many (about 6,000) mentally ill in Minnesota nursing homes; most (about 5,000) of them are elderly. But about 1,000 are non-elderly and have an MI diagnosis, making them Medicaid-eligible; reportedly, many display disruptive behavior. Most are receiving drug treatment; very few are receiving other forms of treatment. It is possible that some non-elderly MIs have been inappropriately placed in nursing homes because of the availability of Medicaid funding.

Responsibilities:

The study recommendations could be implemented by DPW and MDH.

19. Create incentive for nursing homes to develop the capability to care for MIs. "Disruptive" MIs should not be cared for along with non-disruptive nursing home residents. Counties should ensure that MIs are placed properly from state hospitals into the community.

Responsibilities:

County welfare departments should examine and improve their follow-up procedures. DPW could possibly work out incentives through reimbursement; DPW and MDH could create licensing and regulatory incentives.

20. Planning for the deinstitutionalization of MIs should be handled separately from that for MRs because the service needs, community systems, and funding sources differ so greatly. Community residences for MRs have been well developed; the MI community care system is very poorly developed. State and regional developmental plans are badly needed for community care of MIs.

Responsibilities:

DPW, with the involved state and regional agencies, should plan separately and attempt better coordination of statewide MI care.

Recommendations re: Licensing of Long Term Care

21. Serious attempts should be made at consolidating the licensing processes. All annual licensing, certification, and compliance visits should be combined into one procedure and conducted by an interagency team, for convenience of the provider and to force interagency and intergovernmental coordination. Currently, both MDH and DPW license the same facilities but information is not shared and is not consistent even though it covers similar and/or overlapping substantive areas. Further, different standards are applied to the same facility. We recommend that the stricter of any currently differing standards should be applied at the time of the single inspection, rather than the different standards being applied at separate visits. Data obtained from licensure and certification should be standardized in a form usable by more than one agency and could be verified for accuracy at the time of the single visit: for example, currently, MDH staff report that staffing data reported by ICF/MR facilities for licensure are never verified for accuracy nor are job title definitions standardized; DPW independently obtains long term care facility staffing data that is neither coordinated with MDH nor readily usable. Staffing data should be standardized, collected only once, and validated.

#### Responsibilities:

MDH and DPW, fire marshal, etc., must study their respective licensing responsibilities and procedures, and coordinate them, thus eliminating duplication and waste. Legislative action may be necessary if the various departments and/or agencies will not cooperate.

22. A management study should be directed at the long term care licensing process, to evaluate its management efficiency, looking at the appropriateness of tagging as an incentive; the pros and cons of state-forced closure of deficient facilities; the equity of the licensing processes as applied to different kinds of facilities, e.g., SNFs vs ICF/MRs; inter- and intra-rater reliability in issuing deficiencies and provisions (we had difficulty interpreting deficiency and provisions data because of our findings concerning the non-reliability of these data); and the validity of deficiency and provision data in measuring quality of care. The state should consider development of a system of weighting licensing deficiencies and provisions by their relative importance to quality of care and also by degree of non-compliance.

#### Responsibility:

A management services division could undertake such a study, in close coordination with DPW and MDH.

#### Recommendations re: Other Medicaid Cost-Containment

23. Second opinions, possibly by DPW physicians, should be required for non-emergency surgery.

#### Responsibility:

DPW.

24. While we found that Minnesota currently has implemented all the administrative methods possible to contain Medicaid costs (i.e., as many as or more than any other state), we recommend more effort in following through on these administrative controls - - i.e., either procedures must be changed or staff added to correct problems such as the following:

- The Medicaid MMIS does not provide information useful to managers because of definitions used and coding conventions.
- The 3rd party benefits recovery program appears to have some potential; investment of additional staff may yield increased benefits.

- SUR either needs more staff to follow through on checking possible fraud and abuse, or it should test other ways of discouraging fraud and abuse. Reportedly forthcoming improvements in the Medicaid Management Information System may improve the usefulness of SURS.

Responsibility:

For follow-through on these three administrative controls: DPW, with ISD as appropriate, would implement these recommendations.

- The QA&R program needs improvement: additional effort put into it could yield great benefit. The mechanics of the information system should be changed to make the information more accessible, and the design of the system needs input from others in the Medicaid system to make the information more useful to them (e.g., coding should include the basis for Medicaid eligibility, and primary diagnosis should be identified so that double counting does not occur).

Responsibility:

MDH should implement improvements, first determining how the system could reflect data needs of other sections of MDH and other departments such as DPW.

25. Continue to encourage use of HMOs for Medicaid recipients who live in HMO catchment areas and who meet HMO age criteria.

Responsibility:

DPW should encourage use of HMOs for Medicaid recipients through welfare contracts proceedings.

26. DPW should be encouraged to apply Minnesota's enabling legislation for hospital rate regulation to the Medicaid program if an operational program develops. Medicaid involvement would be desirable during any pilot test phase, and Medicaid participation could enhance cost containment once the program is fully implemented.
27. Copayments, altering eligibility criteria, and reducing the coverage of optional services do not appear to have much potential for Medicaid cost containment in Minnesota. Further, reducing provider fees would be inequitable since costs would merely shift to private pay patients.



## CHAPTER I

### INTRODUCTION

#### A. The Problems of Medicaid and Long Term Care

##### 1. Medicaid

Since its inception in 1965, the Medicaid program has grown to its current position as the No. 1 expenditure of the Minnesota Department of Public Welfare. Minnesota has elected to provide all required and optional services to most persons permitted by the federal program.

Not surprisingly, the costs are high and rising, and continued increases are predicted.<sup>1</sup> Minnesota's Medicaid gross vendor payments<sup>2</sup> totaled \$69 million in FY 67, and reached \$320 million in FY 76.<sup>3</sup> This parallels the trend in both the national Medicaid program expenditures, which have grown from \$2 billion in FY 67 to \$14 billion in FY 76,<sup>4</sup> and the increases in overall national health care expenditures in recent years. These cost increases may be attributed to a number of factors, including:

- the rising costs of medical care in general;
- increasing numbers of Medicaid eligibles;
- increased utilization of medical services by at least some of those eligible for Medicaid;

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<sup>1</sup> One estimate predicts expenditures of \$448 million by F.Y. 79 if costs continue to increase at their recent rate. Minnesota Department of Public Welfare. A Plan for State Administration of Minnesota Income Maintenance Programs: Report to the Minnesota Legislature, February 9, 1976.

<sup>2</sup> Expenditures referred to in this section are total payments to vendors for medical services. The Medicaid program also funds administrative costs of the program (DPW's centralized disbursements, etc. ), the EPSDT program, medical review (QA&R), and health facilities standards compliance (inspection and certification), but these costs are not included in this discussion.

<sup>3</sup> Minnesota Department of Public Welfare, Research and Statistics Division. "Summary of Fiscal Expenditures for Medical Assistance by Individual Programs."

<sup>4</sup> Data on the Medicaid Program: Eligibility, Services, Expenditures Fiscal Years 1966-76. Prepared by the Staff for the use of the Sub-committee on Health and Environment of the Committee on Interstate and Foreign Commerce, U. S. House of Representatives. January, 1976, p. 16.

- occasional expansion of the Medicaid program to include previously independent programs or additional services.

Despite the federal contribution of 57% of the vendor payments in Minnesota,<sup>5</sup> the impact on the State budget is tremendous. The sheer magnitude of Minnesota's Medicaid expenditures makes this program a cause for concern, and both the current high expenditure levels and the potential for further increases will be examined in this report for possible cost reductions.

#### a. The Current Program and its Costs

Federal Title XIX regulations require that states cover at least these services:<sup>6</sup> inpatient hospital services; outpatient hospital services; other laboratory and x-ray services; skilled nursing home services for persons age 21 or over; physician services (includes surgical services); home health care services to persons entitled to skilled nursing services; early screening, diagnostic and treatment services for children under age 21; family planning services; and transportation to obtain medical services.

In addition to these required services and required eligible populations, each state may elect to provide any or all of the

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<sup>5</sup>The Federal Medical Assistance Percentage varies from 50% to 83% and is computed by Federal authorities using a formula which takes into account the per capita income of each state. This percentage is re-computed each biennium, and has been about 57% for Minnesota since the F.Y. 70-71 biennium:

<u>Biennium Ending June 30</u>	<u>FMAP</u>
1967	60.31%
1969	58.40%
1971	56.95%
1973	56.82%
1975	57.37%
1976	56.84%
1977	56.84%

Source: Minnesota Department of Public Welfare, Research and Statistics Division.

<sup>6</sup>Studies in Public Welfare, Paper No. 20: Handbook of Public Income Transfer Programs: 1975, Subcommittee on Fiscal Policy, Joint Economic Committee, December 31, 1974, USGPO (1974), P.226.

following medical services in its Medicaid program: clinic services; prescribed drugs; dental services; prosthetic devices; eyeglasses; private duty nursing; physical therapy and related services; other diagnostic, screening, and rehabilitative services; emergency hospital services; skilled nursing facility services for patients under 21; optometrist's services; podiatrist's services; chiropractor's services; care for patients 65 or older in institutions for mental diseases; care for patients 65 or older in institutions for tuberculosis; care for patients under 21 in psychiatric hospitals; and institutional services in intermediate care facilities.<sup>7</sup>

The required services and any optional services selected by the States must be provided to anyone receiving or eligible to receive federally supported financial assistance (SSI or AFDC). In addition, the State may elect to provide any or all of the required and optional services to other groups, those meeting all but the income requirements for such assistance and having medical expenses large enough to bring their remaining income within eligibility limits.

With these requirements and options for both services and eligibility groups, Minnesota offers liberal coverage, providing all possible services to nearly all possible eligible persons.<sup>8</sup> Also, Minnesota's Medicaid program pays the full costs of covered medical services, requiring no deductible or copayment from the recipient (which is permitted by the federal program specifications only for optional groups of recipients). However, as the payer of last resort, Medicaid requires third parties to pay medical bills wherever applicable. Tables 1.1 and 1.2 show the distribution of Minnesota's Medicaid expenditures. Table 1.1 shows FY 76 expenditures by type of service, while Table 1.2 shows the number of persons receiving medical services in FY 75, by eligibility category, and the total expenditures for persons in each category.

A related program deserves mention at this point. General Assistance Medical Care (GAMC) is a statewide program which pays for medical services to low income persons who do not meet other eligibility requirements of the Medicaid program (i.e.,

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<sup>7</sup>Ibid., p. 228.

<sup>8</sup>U.S. Department of Health, Education, and Welfare, Social and Rehabilitation Service, Medical Services Administration, Division of Program Monitoring. Medicaid Services State by State, June 1, 1976. Minnesota covers medically needy persons only if their income is 100% or less than the AFDC maximum. Federal regulations allow coverage up to 133%.

Table 1.1

Minnesota Medicaid Expenditures by Type of Service FY 76<sup>1</sup>

Type of Service	Cost (in millions)	% of Total
<u>Institutional Care</u>	<u>\$246.2</u>	<u>76.5</u>
ICF	118.3	36.8
SNF	67.0	20.8
Inpatient Hospital	55.4	17.2
State Hospital <sup>2</sup>	5.5	1.7
Other LTC	.01	- 3
<u>Personal Services</u>	<u>47.5</u>	<u>14.6</u>
Physician & Surgical	27.6	8.5
Other Practitioners	2.4	.7
Outpatient Hospital	8.0	2.5
Dental Care	8.4	2.6
Other personal services	1.1	.3
<u>Other</u>	<u>27.9</u>	<u>8.7</u>
Prescribed Drugs	16.4	5.1
Health Insurance	1.7	.5
Other	9.8	3.1
Total	\$321.6	100

<sup>1</sup>Source: Minnesota Department of Public Welfare, Division of Research and Statistics.

<sup>2</sup>Includes MI and CD care only. MR care is included in ICF category, and accounts for about \$35 million. (See Glossary for definitions of terms).

<sup>3</sup>Less than .1%.

Table 1.2

Minnesota Medicaid Recipients and Expenditures by Eligibility Category, FY 75<sup>1</sup>

Eligibility Category	No. of Recipients	Total Expenditures (in millions)
<u>SSI</u>	<u>812,652</u>	<u>\$203.9</u>
OAA	563,435	117.1
AB	6,949	1.3
AD	242,268	85.5
<u>Families with</u> <u>Dependent Children</u>	<u>746,869</u>	<u>57.3</u>
Caretakers	314,697	} 47.6
Children	375,955	
Needy Children	56,217	9.8

<sup>1</sup>Source: Minnesota Department of Public Welfare, Division of Research and Statistics. Summary of Total Fiscal Paid Cases for Medical Assistance by Individual Programs and Summary of Fiscal Expenditures for Medical Assistance by Individual Programs.

are not blind, disabled, aged, or members of families with dependent children). GAMC provides the same range of services as does Medicaid, and uses the same income levels in its eligibility determination. However, GAMC receives no federal funds; the State pays 90% and the counties pay 10% of the costs of this program. Cost containment in the Medicaid program might, therefore, affect the GAMC program as well; reductions in overall service utilization, in services offered, or in unit costs would be reflected in the GAMC program costs, as would reductions in the numbers of persons eligible by raising income criteria; however, reductions in Medicaid costs by removing eligible groups would likely shift these persons into the GAMC program, resulting in higher State expenditures.

b. Past Cost Increases and Potential for Future Cost Increases

Minnesota's Medicaid costs have risen dramatically over the years, as shown in Table 1.3. Changes in the program have occurred from time to time, as enumerated in the table, which may partially explain the cost increases. However, a number of other factors are likely explanations as well, and these should be examined not only for their impact on past cost increases, but also for their potential future impact on further cost increases.

1) The Rising Costs of Medical Care in General

The problem of rising costs in the medical industry is not confined to the Medicaid program. National health care expenditures in FY 75 reached \$118.5 billion, an increase of more than 300% over FY 65 expenditures.<sup>9</sup> Per capita expenditures have also increased, from \$198 in FY 65 to \$547 in FY 75<sup>10</sup> with an annual average increase of 10.7% during this decade, despite mandatory price controls from August, 1971 to April, 1974. National Medicaid expenditures have increased as well, from \$3.4 billion in FY 68 to \$14.1 billion in FY 76, with average annual payments per recipient rising from \$300 to \$606 during the same period. However, when adjusted for inflation in the medical care industry, the FY 76 payment per recipient equals only \$355 in constant 1968 dollars.<sup>11</sup> Clearly, inflation has had a strong impact on the costs of the Medicaid program.

Another factor in the increases in medical care costs is the development and introduction of new techniques, often highly specialized, and frequently requiring new, sophisticated, and

<sup>9</sup> Department of Health, Education and Welfare, Public Health Service. Forward Plan for Health, FY 1978 - 82, August, 1976, P.1.

<sup>10</sup> Ibid.

<sup>11</sup> Data on the Medicaid Program: Eligibility, Services, Expenditures Fiscal Years 1966 - 76. p. 25.

Table 1.3

Annual Minnesota Medicaid Gross Vendor Payments, FY 1966 - FY 1976<sup>1</sup>

<u>Fiscal Year Ending June 30</u>	<u>Total Gross Payments</u>
1966 <sup>2</sup>	\$ 34,054,849
1967	69,048,737
1968	82,816,625
1969	96,531,757
1970 <sup>3</sup>	110,668,483
1971 <sup>4</sup>	111,269,453
1972	121,106,079
1973 <sup>5</sup>	188,912,017
1974 <sup>6</sup>	227,389,862
1975 <sup>7</sup>	261,226,844

<sup>1</sup>Source: Minnesota Department of Public Welfare, Division of Research and Statistics.

<sup>2</sup>January, 1966 - June, 1966; Program began January 1, 1966. Also the Mentally Ill Over 65 in State Institutions became eligible for medical assistance for the first time.

<sup>3</sup>Medical Care for the Mentally Retarded in State Institutions (except Children Under 18) became eligible in January, 1970. This did not include cost of care in the state facility which was paid from AD program funds.

Effective July 1, 1969, the Income Limits for eligibility determination of Medically Needy was increased.

<sup>4</sup>July 1, 1970 - Nursing homes were re-classified and certified as Skilled Nursing Homes and Intermediate Care Facilities I and II. The Intermediate Care Facility cases were transferred into the Maintenance Programs - OAA, AB, and AD. Payments (ICF) made under these programs were identified as Vendor Maintenance Payments.

<sup>5</sup>July 1, 1972 - ICF Vendor Maintenance Payments became ICF Vendor Medical Payments. ICF cases were transferred from OAA, AB, and AD to Medical Assistance. Also, Mentally Retarded Children Under 18 in State Institutions became eligible for Medical Assistance.

<sup>6</sup>Effective January 1, 1974 Private Residential Facilities for the Mentally Retarded were certified as Intermediate Care Facilities, and payments began for recipients in these facilities.

Effective January, 1974 Central Disbursement for MA Nursing Home recipients began.

Effective January, 1974 the Income Limits for Eligibility Determination of the Medically Needy were raised.

<sup>7</sup>Central Disbursement expanded to include all providers by June 30, 1975.

very expensive equipment. The CAT scanner, a newly developed machine to expand on former x-ray capabilities, is a recent case in point. The purchase, the use, and the staffing of such equipment increases the costs of care in any hospital offering the service. Increasing availability and use of, for example, kidney dialysis equipment or mobile cardiac care units have similar effects. A 1973 study by HEW analyzed the various causes of increased medical care costs, and found that 38% of the increase (between 1965 and 1972) was due to the combined factors of increased use of services and the introduction of new medical techniques.<sup>12</sup>

## 2) Increasing Numbers of Medicaid Eligibles

Table 1.4 shows sizable increases in the numbers of persons eligible<sup>13</sup> for Medicaid services since the program began. In FY 66, an average of 124,645 Minnesotans were eligible for Medicaid in any given month. By FY 75, the average number of eligibles reached 215,619. Only the numbers of Medicaid eligibles who receive categorical assistance are known for each month; persons who meet "spend down" requirements to become eligible as medically needy Medicaid recipients can be counted only when they use the services -- they may be eligible without using the services, so the actual number of persons eligible as medically needy is not known. Thus, the figures in Table 1.4 are probably underestimates of the actual numbers of persons eligible to receive Medicaid benefits.

As with rising medical costs, two factors influence the numbers of all Medicaid eligibles, both categorical assistance recipients and medically needy. First, economic conditions in general determine the numbers of people who meet the income criteria set for categorical assistance and the "after-spend-down" income criteria for the medically needy. During periods of high unemployment and lowered average income, more people will become eligible for Medicaid. This factor is not under the control of the Medicaid program. Depending on a rapid general economic recovery, expecting it to dramatically reduce the Medicaid rolls, would be both unrealistic and ineffective.

A second factor in the increasing number of Medicaid eligibles is the income standards set by categorical assistance programs for SSI and AFDC eligibility and by the Medicaid program for the medically needy. Under any given set of general economic conditions, an increase or decrease in the amount of income a person

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<sup>12</sup>Department of Health, Education, and Welfare, Social Security Administration, Office of Research and Statistics. Medical Care Expenditures, Prices, and Costs: Background Book, Sept., 1973.

<sup>13</sup>Medicaid recipients may become eligible in either of two ways: by receiving categorical assistance through another program (SSI, AFDC); or by meeting eligibility requirements as medically needy (not receiving cash assistance from another program, but meeting "spend down" requirements due to high medical expenses).



Table 1.4

Medicaid Eligible Persons, FY 66 - FY 75 (Monthly Averages)<sup>1</sup>

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<u>Fiscal Year Ending June 30</u>	<u>Number of Persons Eligible for Medicaid</u>
1966	124,645
1967	143,335
1968	157,833
1969	161,791
1970	172,766
1971	201,685
1972	221,352
1973	223,301
1974	211,792
1975	215,619

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<sup>1</sup>Source: Minnesota Department of Public Welfare, Division of Research and Statistics.

may have in order to be eligible for categorical assistance or to be medically needy will change the number of persons who meet such criteria. This occurred, for example, in July, 1969 and in January, 1974, when the income limits were raised for the medically needy (see Table 1.3). The Medicaid program has no control over income limits set by other categorical assistance programs, but criteria for the medically needy are determined, within limits, by the Minnesota Medicaid program.

### 3) Increased Utilization of Medical Services by Medicaid Eligibles

Again, two factors contribute to this cause for increased Medicaid costs. Table 1.5 shows the average monthly numbers of Medicaid eligibles and recipients, and the average payment per recipient. The first factor, the proportion of Medicaid eligibles who actually use Medicaid services, is computed in the table. No clear trend is evident in the proportion of eligibles who actually use services. However, these data should be interpreted with caution, since the number of eligibles is based on incomplete information (see the discussion above), and since data on the number of recipients were not collected through the centralized disbursement mechanisms until 1974-75 (see Table 1.3).

A second factor, of greater importance in explaining Medicaid expenditure increases based on utilization, is the cost of services used by recipients. Table 1.5 shows an increase in the average payment per recipient from \$99.88 per month in FY 66 (and even less in FY 67) to \$219.57 per month in FY 75. A portion of this increase in per person costs is explained by the general increase in medical costs. Some increase in the number of services used may have occurred since 1966. A more likely explanation, however, is that larger numbers of Medicaid recipients are being served in an institutional or other long term care (LTC) setting. As more persons receive these very expensive services, the average cost per recipient rises. (This is discussed more fully below. See section 5 below).

### 4) Increase in the State Share of Medicaid Payments

While the FMAP has varied only slightly over the past years, leaving a relatively stable proportion of Medicaid payments to State and local governments, a recent change in State law has changed the relative State and local contributions.<sup>14</sup> Until January 1, 1976, the State and the appropriate county shared equally that portion of Medicaid vendor payments not funded by the federal government. As of January 1, 1976, however, the State pays 90% of the non-federal portion. While this has no

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<sup>14</sup>This change was made in Laws of Minnesota, 1975, Chapter 437, Article II, Sec. 7, changed in M.S. 1975 Supplement 256B.19.

Table 1.5

Medicaid Eligibles, Recipients, Utilization Rates, and Average Payments, FY 66 - FY 75 (Monthly Averages)<sup>1</sup>

<u>Fiscal Year Ending June 30th</u>	<u>Eligible Persons</u>	<u>Recipients</u>	<u>Utilization Rates (Recipients as a percentage of Eligibles)</u>	<u>Average Payment Per Recipient</u>
1966	124,645	56,825	45.6%	\$ 99.88
1967	143,335	63,210	44.1%	91.03
1968	157,833	66,506	42.1%	95.94
1969	161,791	74,249	45.9%	104.02
1970	172,766	77,822	45.0%	118.51
1971	201,685	84,425	41.9%	109.83
1972	221,352	94,936	42.9%	106.31
1973	223,301	103,194	46.2%	152.55
1974	211,792	100,462 <sup>2</sup>	47.4%	188.62
1975	215,619	99,144 <sup>2</sup>	46.0%	219.57

<sup>1</sup>Source: Minnesota Department of Public Welfare, Division of Research and Statistics.

<sup>2</sup>Estimated. Duplications between two payment systems eliminated on the basis of utilization rates in 1973.

effect in the overall costs of the Medicaid program, it has a tremendous impact on the size of the State appropriation which must be made to fund the program.

A related, and proportionally larger, increase occurred in the State's responsibility for funding the GAMC programs.<sup>15</sup> This was formerly a rather disjointed series of programs, designed and funded by each county to provide medical services to indigent persons who did not meet standards for SSI or AFDC (i.e., persons who had low incomes, but were not aged, blind, disabled, or members of families with dependent children). As of January 1, 1976, the State set standards of eligibility for these persons and defined services that must be offered under GAMC. The State also assumed 90% of the costs of the program, having previously made no contribution to the county programs. While this is a larger percentage increase (0% to 90%), it is a relatively smaller program, with fewer eligibles, and thus has a smaller dollar impact on the State budget. It is still a sizable amount, however, and some of the potential reductions in the Medicaid program could also apply to GAMC expenditures.

#### 5) Expansion of the Medicaid Program

Several changes in the Medicaid program are listed in Table 1.3. Persons over 65, mentally retarded persons (MRs) over 18, and later on, MRs under 18 in state institutions became eligible for Medicaid at various points in time; Intermediate Care Facility (ICF) care was transferred into the Medicaid program from other sources of payment; and private Intermediate Care Facilities for the mentally retarded (ICF/MR) facilities were permitted to receive Medicaid reimbursement. Each of these decisions has resulted in increased Medicaid costs.

The incorporation of other medical services programs into Medicaid, while resulting in great increases in Medicaid expenditures, should not necessarily be viewed as a negative development, however. In most cases, the transfer of a service to Medicaid funding has resulted in greater federal contribution to the financing of the service, since, for example, State Hospitals (SHs) were totally State-funded before Medicaid reimbursement was allowed.

The significant additions to the Medicaid program noted above are all for the provision of long term care (LTC). This extremely high cost service, whether in SHs or in private facilities, now accounts for a large outlay of Medicaid dollars; for this and other reasons, it deserves special

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<sup>15</sup>This change was made in Laws of Minnesota, 1975, Chapter 437 Article II, Sec. 8, adding Subd. 3 to M.S. 1974, Sec. 256D.03, found in M.S. 1975 Supplement, Sec. 256D.03 Subd.3.

attention.

## 2. Long Term Care (LTC) and Deinstitutionalization (DI)

One result of the transfer of other funding programs to Medicaid has been a sizable increase in the amount and proportion of Medicaid expenditures which go toward LTC. Table 1.1 showed that in FY 76 Minnesota's Medicaid program paid \$190.8 million for LTC (institutional care less inpatient hospital care), or 59.3% of its total vendor payments. The costs of LTC, however, are not the only reason for specific attention to this component of Medicaid expenditures. SHs have been a focus of attention recently because of declining populations, an increasing need for renovation, questions about the potential for better service delivery elsewhere, and the extremely high costs of care. Smaller community based facilities (CBFs) appear an attractive alternative because of lower costs of care and the more normal, family-like atmosphere they may provide. DI has, thus, been promoted recently as a solution to many problems of treating MRs, chemically dependent (CDs), and mentally ill (MIs), as well as a solution to the problems of the SHs. DI is commonly thought of as the movement of persons from SHs into smaller community based residences. The more general definition used here also includes preventing admission to an SH or other LTC facility whenever possible, and preventing the provision of more nursing home care than is needed. This report deals primarily with the DI of MRs (typically a move from an SH to a community based ICF/MR) and the elderly (emphasizing both movement from LTC back to independent living situations and the prevention of initial institutionalization), because LTC for these groups is funded largely by Medicaid. The process has been advocated for MIs as well, although, according to Etzioni, DI may be in fashion, but planning for needed services is inadequate, and it is the patient who suffers when services are lost. DI looks good because it contrasts with the former system, not because anyone really knows whether it is better.<sup>16</sup>

Regardless of the state of knowledge about DI, it has begun. The total population of SHs has dropped from 16,400 in FY 60 to 5,600 in FY 76, and the MR population of SHs has dropped from 6,000 to 3,300. (See Table 1.6.) Many of these persons have been moved into nursing homes and, more recently, into community ICF/MRs, and the number of these alternative facilities has risen during this same time period. In 1960, there were 449 licensed nursing homes and boarding care homes in Minnesota; by

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<sup>16</sup>Amitai Etzioni, "'Deinstitutionalization': A Public Policy Fashion" Evaluation. Vol. 3, Nos. 1-2, 1976.

1975 there were 592.<sup>17</sup> Community ICF/MRs have increased rapidly since Medicaid funding has been available: In July, 1974, there were 79 community ICF/MRs; in July, 1975, there were 90, with 2,707 licensed beds; in July, 1976, there were 116 such facilities, with 3,241 licensed beds; and by November, 1976, Minnesota had 135 community ICF/MRs.<sup>18</sup> (Minnesota is unique in the extent to which community ICF/MRs have developed. Few other states have any certified ICF/MR facilities outside their SHs, and no other state approaches the number of facilities in Minnesota.<sup>19</sup>) There is some evidence that the increased availability of community ICF/MRs may be encouraging persons not formerly receiving publicly-funded LTC to enter the system. The evidence here is sketchy at best, but from 1975 to 1976, 500 new community ICF/MR beds were licensed, while the state hospital MR population decreased by only 200 (see Table 1.6 and above).

The cost of care in both state institutions and community facilities has increased during this time period as well. The average per diem cost of ICF/MRs in the community rose from \$15.13 in January, 1974 to \$20.34 in January, 1976, an increase slightly steeper than that of the consumer price index.<sup>20</sup> SH cost trends are also sharply upward: \$18.13 per day in FY 72; \$24.85 per day in FY 74; \$41.00 per day in FY 76; and \$45.85 per day in FY 77.<sup>21</sup>

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<sup>17</sup>1960 figures from A Minnesota Study on the Quality of Medical Care in Nursing Homes. A Report to the Subcommittee. Minnesota State Medical Association, Report of the Special Advisory Committee on Utilization Review, 1969.  
<sup>1975 figures from Directory, Licensed and Certified Health Care Facilities. 1975 Minnesota Department of Health, P. II.</sup>

<sup>18</sup>From the Minnesota Department of Public Welfare, Medical Assistance Division, and the Minnesota Department of Health.

<sup>19</sup>Letter dated August 19, 1976 from Robert M. Gettings, Executive Director, National Association of Coordinators of State Programs for the Mentally Retarded, Inc., to Diane Sprague, Minnesota State Planning Agency.

<sup>20</sup>Minnesota Department of Public Welfare, Reimbursement Division, and Consumer Price Index Detailed Report, Bureau of Labor Statistics, September, 1976, p.1.

<sup>21</sup>Memorandum dated May 28, 1976 from Wesley Restad, Assistant Commissioner for Residential Services, Minnesota Department of Public Welfare to Representative Donald Samuelson.

Table 1.6

State Hospitals: Average Daily Populations, FY 60 - FY 76,  
by Disability Group<sup>1</sup>

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Fiscal Year	Total SH Population	MRs	MI's	CDs
<hr/>				
1960 <sup>2</sup>	16,371	6,008	10,093	254
1965	12,860	5,916	6,670	274
1970	8,290	4,696	3,223	371
1971	7,615	4,412	2,760	427
1972	7,129	4,208	2,378	542
1973	6,722	4,004	2,123	594
1974	6,280	3,772	1,950	558
1975	5,811	3,540	1,717	555
1976	5,595	3,347	1,636	563

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<sup>1</sup>Source: Minnesota Department of Public Welfare Monthly Statistical Report, Minnesota State Institutions, June, 1970 and June, 1976.

<sup>2</sup>End of fiscal year population for 1960 only.

Has DI been rationally and logically planned, with full knowledge about the alternatives for caring for MRS and elderly persons currently or potentially needing long term residential care? Do smaller facilities provide better care and a better environment? Can SHs change to allow a more normal experience for their residents? How can quality of LTC be measured? Why do SHs cost more?

Because of the concerns over both quality and costs of care, and because the "DI movement" thus far has been promoted without full information, we attempt in this report to examine the issues involved in following a policy of DI, test a number of assumptions, answer questions about LTC alternatives, analyze budgetary impacts of SH vs. community based care with regard to Medicaid, the expenses of the state institutions themselves, and impacts of DI on governmental costs of other programs, and to compare costs and quality of care in state institutions vs. community based nursing homes and ICF/MRS. Because the elderly and MRS are the primary recipients of Medicaid funded LTC, our report focuses on alternative modes of care for these groups.



## B. Scope and Approach of This Study

### 1. Scope

Section A has explained our focus on the Medicaid program as well as set the stage for our further focus within the Medicaid program: given limited resources, we knew in advance that limits would have to be set on our study of what efforts Minnesota should take to contain Medicaid costs. Our discussion in Section A thus provided one criterion, that of Medicaid services ranked by amount of money spent per year, for the study focus. Such a criterion points clearly to the area of long term residential care in nursing homes and intermediate care facilities (including state hospitals). Minnesota's legislature had already identified a need to examine the problem and a House Committee had been established to study it. At the federal level, the General Accounting Office (GAO) was already engaged in a study of long term care (specifically, deinstitutionalization, or the movement of the retarded from large state institutions to smaller community facilities) in five states (not Minnesota).

In addition to long term care, we also analyze briefly the cost-containment potential of several efforts selected either because of the relatively large amounts of Medicaid money spent on them (e.g., hospital care), current interest in other states (copayments), or current interest in Minnesota (prior authorization, third party benefits recovery, Health Maintenance Organizations, centralized payments, surveillance for fraud and abuse, etc.)

### 2. Our Approach

#### a. Overall Framework

To assist us in determining the study focus, we sought the opinions and advice of many individuals involved in some way in Minnesota's Medicaid program, in other states' Medicaid programs, in the federal Medicaid program, and in academic or policy research. (We attempted to identify these individuals in the Acknowledgements at the beginning of our report.) We also searched the literature: we examined other states' budget documents and we studied literature related to Medicaid and medical care in general. Finally, we studied the Medicaid system as it operates in Minnesota.

As a result of our own initial literature search and our interviews early in the project, we developed a framework to assist our further study of cost-containment in the Medicaid program. The framework provided a systematic approach to identification of cost-containment alternatives: we used it to help us frame questions to be asked of other states (see Chapter VI

for description of a 50-state survey we initiated) and to organize our study findings. The framework organizes potential cost-containment alternatives into two main groups, those that would change the Medicaid program and those that would change the medical care system in general. The framework is :

MEDICAID COST-CONTAINMENT ALTERNATIVES

Category one: Alternatives which will change the Medicaid Program:

- **Proposals which will primarily impact on the consumer's demand for Medicaid:**
  1. **Alter eligibility criteria:**
    - a. **Categorical**
    - b. **Medically needy**
  2. **Alter services covered:**
    - a. **Type**
    - b. **Level**
  3. **Alter amount of state payment:**
    - a. **Require copayment**
    - b. **Require deductible**
    - c. **Place a fixed rate limit upon a service**
    - d. **Place dollar maximums on care per individual**
- **Alternatives which will primarily impact on the producer's supply of Medicaid services:**
  1. **Limit providers who are eligible for Medicaid reimbursement:**
    - a. **Require service from Health Maintenance Organizations or groups**
    - b. **Further limits on lists of qualified physicians**
    - c. **Require contracts with Early and Periodic Screening, Detection, and Treatment (EPSDT) services**
  2. **Limit amount of money a provider can collect**
  3. **Require second surgical opinions**
- **Alternatives which would primarily impact on the Medicaid program's administration:**
  1. **Install better control systems:**

- a. To detect fraud (e.g., Surveillance and Utilization Review Systems or SURS)
  - b. To detect unintentional error (e.g., 3rd party benefits recovery)
- 2. Reduce administrative overhead:
  - a. By use of centralized payments
  - b. By reducing the cost of claims processing
  - c. By contracting to a private insurer
  - d. By use of other contracts
- 3. Use bulk buying for eyeglasses, drugs, or laboratory
- 4. Change the reimbursement formula
- 5. Deinstitutionalization
- 6. Medicare as it impacts on Medicaid
- 7. Specifying minimum - cost treatment consistent with quality care

Category two: Alternatives which would change the medical care system:

- . Proposals which would primarily impact on the consumer's demand for medical care:
  - 1. Consumer education:
    - a. Quality of care
    - b. Disease and other health specific information
    - c. Second surgical opinions
  - 2. Government sponsored health insurance:
    - a. Federal
    - b. State
    - c. City
    - d. Private
  - 3. Prevention efforts:
    - a. Early and Periodic Screening, Diagnosis, and Treatment (EPSDT)
    - b. Periodic Medical Review (PMR)
- . Proposals which would primarily impact on the producer's supply of medical care services:
  - 1. Regulate facilities
    - a. Construction
    - b. Equipment that facilities can purchase

2. *Limit manpower production*
  - a. *Physicians*
  - b. *Other existing health manpower*
  - c. *New and emergent occupations*
3. *Bed-banking*
4. *Utilization Review*
- *Proposals which would primarily impact on the administration of the medical care system:*
  1. *Encouraging efficiency in the manpower mix:*
    - a. *Use of physician extenders*
    - b. *Use of the team approach*
    - c. *Use of the concept of delegating downwards (e.g., nurse practitioner)*
  2. *Encouraging efficiency in manpower distribution:*
    - a. *Site of training*
    - b. *Incentives to move into area of need*
  3. *Use of Health Maintenance Organizations (HMOs)*
  4. *Use of Professional Service Review Organizations (PSROs)*
  5. *Use of Health Systems Agencies (HSAs) for better planning*
  6. *Regulation of costs:*
    - a. *Hospital*
    - b. *Physician*
    - c. *Drugs and equipment*
  7. *Relieve the malpractice insurance situation*
  8. *Use of Public Health Service programs to provide a specific "needed" service to a target population*
  9. *Other*
- b. *Impacts Studied.*

Our primary interest is, of course, Medicaid cost-containment. However, because Medicaid costs saved might represent merely cost shifts to other public programs, we also attempt to examine cost impacts on government spending overall, by level of government (federal, state, local) for the major cost-containment proposals.

Because costs are only one criterion which policy makers must consider, we also examine possible impacts on

quality of service provided to recipients, on providers of services and their staff where possible, on local economies, and on feasibility.

c. The Opinion - Testing Approach

Once the study focus had been determined, we specified our research questions further by identifying a number of commonly-held opinions ("hypotheses," to use research jargon) which we hoped could be "tested," i.e., either disproved or supported by our research efforts. We formulated lists of commonly-held opinions for each major cost-containment proposal and for each of the impacts in which we were interested. These commonly-held opinions constitute the framework for our summary of findings in the "Highlights of Findings" section.

C. Purpose and Content of this Report

In Chapter II, we describe the long term care system as we found it in Minnesota, with particular focus on Medicaid's role in the system.

Chapter III presents our analytical framework or model for studying the costs, staffing, and quality of care impacts associated with alternatives to the current long term care system.

Findings about the current costs of long term care, staffing, and quality of care are presented in Chapter IV.

Chapter V analyzes probable impacts of some alternatives to the current system of long term care, and Chapter VI analyzes probable impacts of other Medicaid cost-containment proposals.

Note on Abbreviations Used in the Report

There are a number of terms which we use so frequently in our discussion of the Medicaid program and long term care, that we abbreviate them whenever possible in our report. While all of these terms are defined more fully in the Glossary, we list the major abbreviations and what they mean here for the reader's convenience:

CBF = community-based residential facility for  
the mentally retarded

DAC = Day Activity Center

DI = deinstitutionalization

DI'd = deinstitutionalized

DI'ing = deinstitutionalizing

DPW = Department of Public Welfare

ICF-I, ICF-II = Intermediate Care Facility I and II

LTC and Non-LTC = long term residential care and non-  
long term residential care

MA = Medicaid, or Title XIX

MDH = Minnesota Department of Health

MR, TMR, EMR = mentally retarded, trainable mentally  
retarded, and educable mentally retarded

NH = nursing home

QA & R = Quality Assurance and Review Program

SH = state hospital

SNF = skilled nursing facility

SW = sheltered workshop

Title XIX = Medicaid or MA.

Throughout this report, to enhance brevity, we use % for percent and numerals (0,1,2, etc.) rather than written numbers (zero, one, two, etc.)

## CHAPTER II

### LONG TERM CARE IN MINNESOTA: THE CURRENT SYSTEM

#### A. General Introduction

##### 1. Population Groups Served and the Services They Need

###### a. Population Groups Served

Long term care (LTC), broadly defined, serves four major population categories: 1) the elderly, 2) the mentally retarded (MR), 3) the mentally ill (MI), and 4) the chemically dependent (CD). This section describes these population categories and the services they might be expected to need.

###### The Elderly:

The elderly subgroup of the population is defined as persons over age 65. This group is often further divided into the young old (65 - 74 years of age) and the old old (75 + years of age).

A 1975 paper showed that of the more than 20 million Americans over 65 years of age, 80% report at least one chronic illness that requires medical supervision. However, 33% report no physical limitation on their activities; 7% have some limitations, but not on their major activity; 26% have limitations on major activity; and about 16% are unable to carry out their major activity. Especially significant in considering service needs is level of mobility: more than 30% report difficulty in climbing stairs. Only 5% have conditions which necessitate long-term institutionalization, such as in acute care or nursing facilities.<sup>1</sup> In addition to ambulatory difficulties, mental

<sup>1</sup>

U.S. Congress, Senate, Special Committee on Aging, "Nurses in Nursing Homes: The Heavy Burden," Supporting Paper No. 4. Nursing Home Care in the United States: Failure in Public Policy. Hearings before the Subcommittee on Long Term Care, April 1975, (Washington D.C.) p. 403.

impairment is another problem among the elderly. Estimates of the national incidence of this impairment among the over-65 age group range from 10 to 25%.<sup>2</sup>

The elderly population in Minnesota accounts for 10.7% of the total 1970 state census, as compared with 9.9% nationwide.<sup>3</sup> In 1970, the age distribution was as follows:<sup>4</sup>

<u>age</u>	<u>number</u>	<u>% of Minnesota population</u>
65-69	130,155	3.4
70-74	110,251	2.9
75+	168,513	4.4

The other three population subgroups (MR, MI, CD) interface with the elderly. A person over 65 can be mentally retarded, mentally ill, or chemically dependent. However, it is important to separate out the elderly, as most elderly persons receive care in facilities serving primarily the elderly by virtue of the fact that they are over 65, regardless of an MR, MI or CD diagnosis.

#### The Mentally Retarded

Mental retardation refers to "the subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behavior".<sup>5</sup> Broader conceptions of

<sup>2</sup>Stanley J. Brody. "Comprehensive Health Care for the Elderly: An Analysis," The Gerontologist, Winter 1973, p. 413.

<sup>3</sup>Subcommittee on Long Term Care, Testimony of Daphne Krause, Oct. 1975.

<sup>4</sup>Minnesota Statistical Abstract, 1973, MN State Planning Agency.

<sup>5</sup>Community Alternatives and Institutional Reform (CAIR). "Glossary." Minnesota State Planning Agency, Developmental Disabilities Program, January 1975, p. 37.



the mentally retarded subgroup include all those persons considered developmentally disabled. A developmental disability (DD): "... (1) is attributable to mental retardation, cerebral palsy, epilepsy, or other neurological conditions found to be closely related to mental retardation or to require treatment similar to that required for mentally retarded individuals; (2) originated before the individual attained age 18 and has continued or can be expected to continue indefinitely; and (3) constitutes a substantial handicap to the individual."<sup>6</sup>

There are various levels of retardation, most often defined in terms of the American Association of Medical Doctors (AAMD) classification which uses scores on standard intelligence tests to create four groups:

	<u>IQ Tests</u>	
	<u>Stanford-Binet</u>	<u>Wechsler</u>
Mildly retarded	52-67	55-69
Moderately retarded	36-51	40-54
Severely retarded	20-35	25-39
Profoundly retarded	Below 20	Below 25

Levels of retardation based on IQ tests alone have been criticized as: (1) understating the intelligence of anyone not from mainstream white society, and (2) being prone to inaccuracies associated with subjective elements, e.g., tester attitude, individual alertness on the particular day, etc. However, for purposes of description and planning, these general categories are adequate.

The exact number of retarded persons in the population is not known, and estimates vary greatly. Generally, it is assumed that approximately 3% of the population is mentally retarded, given an IQ "cut off" point of 70 and assuming intelligence is normally distributed across the population. Some of the conclusions which have been drawn about the prevalence of MR are: that

<sup>6</sup>CAIR. Glossary, p. 37.

there is a higher prevalence of MR among nonwhites; that MR is four times more likely to occur among children of lower socio-economic backgrounds; that there is a lower percentage of MR among adults than children, due to high mortality rates; that environmental factors such as poor prenatal care and cultural impoverishment can increase the rate of MR; and that IQ tests can overestimate the incidence of MR.<sup>7</sup>

The estimated number of MRs in Minnesota is 117,000 (3% of 3,900,000<sup>8</sup>), some of whom would need long term care services.

### The Mentally Ill

The subgroup in the population considered to be mentally ill (MI) is extremely difficult to describe accurately partly because of disagreement on the definition of mental illness, on who can be termed mentally ill, and on methods of treatment for MI. Mental illness can be defined either in terms of the clinical definitions of pathology (e.g., exhibiting symptoms of schizophrenia, paranoia, etc.), or in terms of pathology and personal distress, behavior disorders, or other societal deviances. If behavioral and personal disorders are included, there are certain social statistics that can be used to predict higher incidence of MI, which include demographic, family, and economic characteristics and indicators of social disruption.<sup>9</sup>

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7. Conclusions from other studies listed by: Ronald W. Conley, Ph.D. "Weighing the Costs and Benefits of Services: An Economist looks at MR." (No date).

8. Rounded from the 3,917,417 Minnesota population figure found on p. 2 of the Minnesota 1975 Pocket Data Book. State Planning Agency.

9. Richard Stewart, Larry Poaster. "Methods of Assessing Mental and Physical Health Needs from Social Statistics." Evaluation. 2:2/1975, p. 68.

Mental illness is less visible than the aging process or severe mental retardation. Certain bizarre symptoms may be evident in individuals, but overall, no one is exactly sure of the extent of mental illness, nor is there a single definition. The prevalence of MI has been nationally estimated to be 10% of the total population. In its Proposed Program Budget (1975-1977),<sup>10</sup> DPW uses this figure to estimate the prevalence of MI in Minnesota at 400,000 persons. The chronic long term mentally ill population is estimated to be 20% of these 400,000, or 80,000.

#### The Chemically Dependent

Persons who are addicted to or dependent on alcohol or other drugs are considered to be chemically dependent (CD). CDs are often considered to be a subset of the mentally ill population, since addiction and dependence are related to behavioral and societal maladjustments. Extensive use or misuse of drugs and alcohol can result in physiological damage to the brain, liver, etc.

The extent of chemical dependency in the population is difficult to estimate. Chemical dependency in its early stages can be quite invisible and many untreated or unreported cases exist, thus rendering estimates difficult. The FY 1977 Minnesota Comprehensive Chemical Dependency Plan estimates approximately 300,000 CDs in Minnesota: 227,000 alcoholics and 73,000 drug addicts.

#### b. Services Needed

The MR, MI, CD, and chronically ill elderly populations requiring long term care have service needs which are both greater than and different from the service needs of others: medical, residential, social and rehabilitative service needs must be met. Ideally, a service system would: a) meet the full range of needs of these persons; b) provide a high quality of service (i.e., be effective), c) allow maximum independence (i.e., would not over-serve a person), d) be economical, and e) ensure accessibility to all persons needing a given service.

Current limitations on a) information regarding precise population needs, b) knowledge of how best to provide

<sup>10</sup>DPW Proposed Program Budget, 1975-1977. p. 71.

effective services, c) funds available, d) availability of certain professionals, and e) precise information on existing services (locations, capacities, costs, effectiveness) place certain **constraints on a comprehensive discussion of service needs**. Service needs of the MR, MI, CD, and elderly populations can be generally described but not quantitatively or qualitatively assessed. Table 2.1<sup>11</sup> arrays services that are needed by the four dependent population groups. Table 2.1 reveals the maximum service needs of population groups; one individual may need only a few of the services or many services in any combination. The specific services needed by an individual are determined by individual planning as well as by local, regional, state, and/or national coordination to ensure the supply of needed services.<sup>12</sup> Table 2.1 also shows the range of service needs which are most suitably addressed by a continuum of services which could serve both the wide variation of needs within the population and the changing needs of individuals.

## 2. Our Focus: Medicaid Long Term Care for the Elderly and Mentally Retarded

The population subgroups of MRs, MIs, CDs, and elderly are dependent on a system of LTC which includes both residential facilities serving a variety of needs and non-residential facilities providing outpatient care and ancillary services. Residential facilities range from large, state-run institutions to individual foster homes and independent living situations. The full range can include both the private sector (private hospitals, group homes, nursing homes, **detoxification centers, etc.**) and the public sector (public hospitals, nursing homes, **health centers, etc.**). There are many elements in the LTC system just as there are many different persons and needs within the four disability groups. The result is a wide variety of residence types, ownership, disabilities served, service needs, control, and sources of funding. There is not a unified, easy-to-describe system, but rather many disparate parts.

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<sup>11</sup>Table 2.1 is modified from: Task Force on Alternatives to Institutional Care. "Client Service Needs and Federal Administering Agencies." Alternatives to Institutional Care, Office of the Regional Director, H.E.W. Region V., p. 4.

<sup>12</sup>DPW's MR program division is compiling area MR plans that include projected service needs and services presently available in each area. When compiled, these plans will give a statewide picture of services and projected needs.

TABLE 2.1  
SERVICE NEEDS

	DEVELOPMENTALLY DISABLED	ELDERLY	MENTALLY ILL	CHEMICALLY DEPENDENT
NEEDED SERVICES				
1. Maintenance/ Supportive	a) income maintenance b) case management c) health care  d) transportation  f) recreation g) information and referral h) advocacy	a) income maintenance b) case management c) health care -routine -home health care d) transportation  f) recreation g) information and referral h) advocacy i) homemaker j) home repair k) meal service	a) income maintenance b) case management c) health care -routine -medication maintenance d) transportation e) aftercare/follow-up f) recreation/social club g) information and referral h) advocacy	a) income maintenance b) case management c) health care -routine -medication control -medical surveillance d) transportation e) aftercare/follow-up f) recreation/social g) information and referral h) advocacy
2. Counseling	a) crisis intervention b) job counseling c) screening/diagnosis d) family counseling  e) family planning f) community consultation and education	a) crisis intervention b) job counseling c) health screening d) mental health/life counseling  f) community consultation & educ g) nutrition counseling	a) crisis intervention b) job counseling c) screening/diagnosis d) psychiatric therapy -short term -long term e) family planning f) community consultation & educ	a) crisis intervention b) job counseling c) screening/diagnosis d) social/psychiatric counsel- -short term -long term f) community consultation & education (self help groups, etc.)
3. Rehabilitation Services	a) medical treatment b) pre-vocational training c) vocational rehab/job training d) sheltered workshops e) job placement f) activities for daily living g) work activities h) education -infant stimulation -special education	a) physical rehabilitation  c) vocational rehab/job training d) sheltered workshops e) job placement g) occupational therapy	b) pre-vocational training c) vocational rehab/job training d) sheltered workshops e) job placement f) activities for daily living	a) Physical restoration, medical treatment b) pre-vocational train- ing c) vocational rehab/job training e) job placement g) occupational therapy
4. Day Programs	a) day care b) day activities	a) day care b) day activities	a) therapeutic day care b) day activities c) partial hospitalization	a) therapeutic day care b) day activities c) partial hospitalization
5. Residential	a) community living b) group home c) transitional living d) respite care e) family care f) intermediate care g) skilled nursing care h) intensive inpatient	a) community living b) group home  d) respite care e) family care f) intermediate care g) skilled nursing care h) intensive inpatient -medical -psychiatric	a) community living b) group home c) transitional living d) respite care e) family care f) intermediate care  h) intensive inpatient	a) community living; detox center b) group home c) transitional living e) family care f) intermediate care h) intensive inpatient

Published data on the LTC system do not clarify the role of Medicaid in the system. Medicaid LTC is only a part of the entire LTC system, but general descriptive data do not show this relationship. Estimates of the population in the entire LTC system in Minnesota vary: the 1970 census estimates 44,561 persons in LTC; a 1973 DHEW report estimates 4,488 MRs in LTC.<sup>13</sup> Various sources use different methods of obtaining figures, and for different purposes. There are wide disparities in data collection years and in definitions of the persons and/or facilities to be counted.<sup>14</sup> Data on separate parts of the system are not additive because different governmental sources have varying reporting responsibilities. Sources reporting total numbers of persons in LTC (such as the census data) do not further refine the data to describe Medicaid vs. non-Medicaid figures. For all these reasons, we found that, in order to study Medicaid cost-containment as it applies to long term care, we were not able to rely on readily-available, published reports, but rather had to conduct some in-depth research.

Within the Medicaid LTC system, further specification is necessary. Our discussion of Medicaid LTC for the mentally ill is hampered by the lack of a system of community care for the mentally ill, and the restrictions in Medicaid coverage of long term services for the mentally ill.

The lack of a community system of care for MIs is a result primarily of restrictions on funding for MI community facilities.

These funding restrictions have led to an ill-developed LTC system that is basically non-regulated. The DPW program rule (Rule 36) governing MI community facilities has not yet been fully enforced. Thus, the number of MI-CBFs is not known precisely; of the estimated 160 facilities, only 4 or 5 now have Rule 36 licenses.<sup>15</sup> Those MI-CBFs that do exist are unevenly distributed across the state and vary

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<sup>13</sup>Sources consulted for LTC characteristics included: U.S. Census 1970, Persons in Institutions and Other Group Quarters. Statistical Note 118, DHEW, PHS, NIMH. Table 8, Jan. 1974; and National Center for Health Statistics, Health Resources Statistics, DHEW, PHS, 1974.

<sup>14</sup>e.g., data collection years ranged from 1970 to 1974. Charts with information on the same population groups used different years for different characteristics. Definitions of mental health facilities ranged from almost all residential settings to facilities with both residential and non-residential services.

<sup>15</sup>Interview with David VanWyk, July 17, 1976.

greatly in quality.<sup>16</sup> Thus, because Medicaid is not directly involved with MI community long term residential care, we eliminate from this report further discussion of Medicaid LTC for the mentally ill. Medicaid has not been extensively used to provide treatment for CDs.<sup>17</sup> A study done by the CD program division of DPW reveals minimal use of Medicaid for CD treatment programs outside of Medicaid-supported facilities.<sup>18</sup> Of the CD programs surveyed, Medicaid funds made up less than 1% of their budgets, (\$676,581 in FY 1976 and an estimated \$484,700 in FY 1977). In addition, there are few CDs in Medicaid-supported LTC facilities: the Medicaid Quality Assurance and Review Survey,<sup>19</sup> reports fewer than 1% of the 27,000 Medicaid LTC recipients with a chemical dependency diagnosis. For these reasons, our study does not focus on CDs as a group.

On any given day during 1975, there were 20,068 Medicaid recipients over the age of 65 in Minnesota's LTC institutions. This figure is short of the total number of institutionalized elderly by the number of those residents funded by Medicare or other public or private sources. Because the data foundation is program or facility rather than any one demographic characteristic, it is difficult to arrive at an aggregate statistic for the number of elderly in LTC facilities.

For our study of the elderly in Minnesota who receive Medicaid LTC, we will focus on nursing homes. This research strategy is justifiable because: 1) only 1.9% of these 20,068 Minnesota elderly MA population reside in ICF/MR or psychiatric facilities;<sup>20</sup> 2) 89.24% (8,549) of the Minnesota SNF population is 65 or over, 88.42% (9,785) of the Minnesota ICF-I population is 65 or over, 71.03% (1,287) of the Minnesota ICF-II population is 65 or over, 87.37% (19,621) of the total Minnesota nursing home population is 65 or over,<sup>21</sup> and Total N = 22,458; 3) the

<sup>16</sup>Office Memorandum from David Van Wyk to James Hiniker, Deputy Commissioner, DPW. July 10, 1974, p. 3.

<sup>17</sup>Memo from Jim Wrich, DPW, CD Program Division, to Lois Anderson. August 13, 1976.

<sup>18</sup>Information on study from John Streufert, DPW, CD Program Division.

<sup>19</sup>1975 QA&R Survey Report, MDH, Dr. Winston Miller. Derived from Table 2.1, p. 78.

<sup>20</sup>QA&R, p. 93.

<sup>21</sup>Derived from QA&R, p. 118.

1970 Census showed 83% of the institutional elderly resided in typically geriatric facilities;<sup>22</sup> 4) no centralized source could be found for the proportion of elderly in each facility; and 5) only six Minnesota nursing homes (with 208 beds in total) were not certified for Medicaid patients in 1975.<sup>23</sup>

For these reasons, we consider the elderly MA LTC population of Minnesota as only those residing in nursing homes, and we consider the population of nursing homes to be elderly. The actual discrepancy is not considered to jeopardize the results of the study to any great extent.

Thus, the main focus of our study is the Medicaid LTC system; within this system we focus on the mentally retarded and the elderly as we study costs, quality of care, staffing, and operations. However, since neither population characteristics nor current supply of services is known, we now examine the actual facilities in the LTC system. We describe the services provided and the general characteristics of the facilities, including staffing, funding, ownership, quality control, and trends in numbers and populations.

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<sup>22</sup>Bureau of the Census. 1970.

<sup>23</sup>QA&R, p. 43.



## B. Medicaid Long Term Residential Care: The Facilities

### 1. State Hospitals

A state hospital (SH) is a publicly-operated institution for the care of the MR, MI, and CD. The elderly as a group are not clients of an SH, although there may be elderly MRs, MIs, and CDs in SHs. Minnesota has 10 SHs, some serving all client groups, others specializing. Basic characteristics of the SH populations are shown in Table 2.2.

TABLE 2.2

MINNESOTA STATE HOSPITALS, 1976						
SH	Population <sup>1</sup>				Licensed Beds <sup>2</sup>	Occupancy Rate <sup>3</sup>
	MI	MR	CD	Total		
ANOKA	257	-	85	342	465	74%
BRAINERD	56	588	34	679	931	73%
CAMBRIDGE	-	624	-	624	723	86%
FARIBAULT	-	1019	-	1019	1095	93%
FERGUS FALLS	135	291	96	522	749	70%
HASTINGS	106	-	59	165	281	59%
MOOSE LAKE	183	147	141	471	667	71%
ROCHESTER	302	164	33	499	670	74%
ST. PETER <sup>4</sup>	278	281	41	600	699	86%
WILLMAR	341	168	109	618	741	83%
TOTAL	1658	3282	598	5538	7021	$\bar{X}$ =77%

<sup>1</sup>"Population" data from Monthly Statistical Report, Minnesota State Public Welfare Institutions and Retardation Guardianship Services March, 1976. MR, MI, CD figures represent average daily resident population for March.

<sup>2</sup>"Licensed Beds" data from MDH, April 23, 1976, update to Directory-Licensed and Certified Health Care Facilities, 1975.

<sup>3</sup>Occupancy rate computed from figures from above 2 sources.

<sup>4</sup>Includes Minnesota Security Hospital.

Thus, the state-operated hospitals vary in both size of population and type of client served.

Historically, SHs have been self-contained units, providing all or most of the service needs of the clients on-grounds. For the most part, this is true today. Of the services listed for the MI and MR populations, SHs address most of the maintenance and supportive needs as well as the residential and counseling needs. The case management function is shared with the county welfare department, particularly during admissions or discharge procedures. Residential services in an SH are generally intermediate care, skilled nursing care, or inpatient care. Of the rehabilitative services, sheltered workshops are not found on SH grounds although similar work activity programs are found on some SH grounds. Vocational training and job placement are also not integral elements of SH service. Educational services for MR children are provided on grounds by the public school system. Daytime activities are provided by SHs.

For the most part, SHs are similar to each other in the comprehensiveness of the service package offered, but there is some specialization among SHs. For example, the Minnesota Security Hospital located at St. Peter SH, has a specifically-designated security function. Another example is the different mix of CD programs offered in 8 SHs in 1975, as shown below:<sup>24</sup>

	<u>Alcohol</u>	<u>Alcohol &amp; Drugs</u>	<u>Opiates</u>	<u>Primary Treat- ment</u>	<u>Extended Care</u>	<u>Training</u>
Anoka	X	X		X	X	
Brainerd	X	X		X		
Fergus Falls	X	X		X	X	
Hastings	X	X		X		
Moose Lake	X	X		X	X	
Rochester	X	X		X		
St. Peter	X	X		X		
Willmar	X	X	X	X	X	X

<sup>24</sup>State of Minnesota, Department of Public Welfare Proposed Program Budget, Detailed Estimates 1975-1977, St. Paul, Minnesota, January 1975, p. 315.

Since SHs have generally been self-contained units, staffing patterns have paralleled those in other hospital settings and have included an administrator, a medical director, a nursing director, several units (wards, cottages) staffed by nurses and aides, with consultant clinical doctors. State hospitals have traditionally employed numerous classifications of support personnel: janitorial, clerical, tradesmen, grounds-keeping, laundry, dietary and other staff classifications. Additionally, a limited number of therapeutic staff (physical/recreational/occupational/vocational therapists, social workers, chaplains, psychologists and special teachers) provide developmental, training, and therapy programs.

There have been some changes in traditional SH staffing patterns in the last several years. One of the major changes has been a switch to a living unit concept associated with a developmental model of care, rather than the ward concept of the medical model. The developmental model, which has been applied primarily to MR populations, has caused some reorganization of staff supervision lines. All living unit staff, regardless of profession, are directly supervised by the Living Unit Supervisor, rather than by the directors of the respective professions.

Even though SH populations have dropped by more than one-half in the last 10 years (from an average of 11,711 in 1965 to 5,538 in March, 1976), SH staff have increased slightly (from 5,045 in 1965-66 to 5,318 in 1976). The result is that the overall staff-to-patient ratio has changed from about 1-to-2.31 in 1965 to 1-to-1.00 in 1976.

Other staffing pattern changes include the emergence of public school personnel on SH grounds and an increase in therapy-related professionals. The public school system is now required to provide special educational services for all educable and trainable MRs; thus the entrance of those personnel to SH MR care. Therapy-related professionals have increased due to the increased emphasis on developmental services for MRs. A national study of public residential facilities for MRs found that the staff-to-resident ratios for therapists changed from 1-to-193 in 1965-66 to 1-to-19 in 1973-74. During that same time period, staff-to-resident ratios for social workers changed from 1-to-314 to 1-to-84; for psychologists from 1-to-501 to 1-to-161; for educators from 1-to-84 to 1-to-20.<sup>25</sup>

There are two basic mechanisms for admission to a Minnesota state hospital: involuntary admission (or commitment) .

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<sup>25</sup>National Association of Superintendents of Public Residential Facilities, Current Trends and Status of Public Residential Services for the Mentally Retarded, 1974, p. 49.

and voluntary admission. Commitment to an institution is a judicial procedure of the probate court that can apply to MIs, MRs, and/or CDs.<sup>26</sup> Any interested person can file a petition to have an individual committed. Two examiners are appointed by the court to examine the individual. A hearing takes place in which the judge makes a final decision on the commitment. The person must be shown to be mentally ill, mentally deficient, or inebriate, and the judge must feel that involuntary hospitalization is necessary to protect society or to increase the welfare of the individual. Before the final commitment determination is made, the court must try to find other means of addressing the need, such as persuading the individual to accept a voluntary placement.

For MRs felt to be in need of supervision or protection, any interested person, MR guardian or conservator, or an MR may nominate the Commissioner of Public Welfare as the guardian of the MR.<sup>27</sup> Upon receiving a nomination, the Commissioner orders the county welfare department to arrange for a comprehensive evaluation of the MR, consisting of assessments: of physical condition by an MD; of intellectual capacity and functioning ability by a psychologist with MR experience; and of social history and adjustment by a social worker with MR experience. Recommendations are made to the Commissioner as to the ability of the MR to function without support. After the evaluation, the Commissioner may accept or reject the nomination. If the nomination is accepted, the Commissioner or any parent, spouse, or relative of the mentally retarded person may file a petition for guardianship. Among the powers of the Commissioner as guardian is general supervisory authority over the ward including "...choosing or changing the residence, care, habilitation, education and employment of the ward..."<sup>28</sup> This does not give the Commissioner the power to place the ward in an SH, except as delineated in the Hospitalization and Commitment Act (Minnesota Statutes, Chapter 253.A01 to 253.21) or for outpatient services.

In an emergency, the head of an SH can consent to admit an MI, CD, or MR with a doctor's written statement that the person is in immediate danger of injuring self or others. A family member, police officer, or other may bring such a person to the SH. Any person hospitalized on this basis

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<sup>26</sup>See 1974 Minnesota Statutes, Chapter 253A for description of specific procedures.

<sup>27</sup>See Mental Retardation Protection Act, Chapter 252A, Minnesota Statutes 1975 Supplement.

<sup>28</sup>Minnesota Statutes 1975 Supplement. Chapter 252A.11 subdivision 1 (a). p. 411.

can be held up to 72 hours after admission (excluding Saturdays, Sundays, and legal holidays) without petitioning the probate court in the county of residence or the county where the SH is located. If a petition is filed, the court can order that the person be held until a determination is made.

There are two methods of voluntary admission: formal application to the SH and informal hospitalization by consent. Chapter 253A.03, Subdivision 1 of 1974 Minnesota Statutes states "Any person may, if he so requests and the head of the hospital consents, be admitted to a hospital as an informal patient for observation, evaluation, diagnosis, care, and treatment, without making formal written application." This provision applies to MRs, MIs, and CDs. Persons entering an SH under this procedure can leave the hospital within 12 hours of a request, unless held under another provision of the law.

Eligibility as a voluntary patient is dependent on Minnesota residency (except where residency cannot be ascertained or circumstances intervene); availability of the necessary treatment program; availability of beds; etc. Referrals from county social workers, doctors, or families are often part of the application process. If a person will need financial support, certain other requirements may need to be fulfilled. For instance, in order for the SH to receive Medicaid funds for an MR, a disability determination is necessary.

SH eligibility can be a matter decided by the court, the Commissioner of DPW, private doctors, social workers, etc., and/or the persons themselves. An SH technically cannot refuse care to someone with no other option. However, each SH has a limited geographic area from which it can admit patients. The SH will accept persons from outside this "receiving district" only in special cases. If a hospital has certain other restrictions (e.g., Moose Lake accepts no MR children), another SH which does accept the restricted category will admit the individual.

Minnesota's SH system operates on legislative appropriation. This appropriation in FY 1976 was over \$80,000,000, part of which was recovered from various funding sources. Some patients or families contribute to the cost of care. Other patients may be eligible for certain reimbursements from programs such as Medicaid: all Medicaid patient days are reimbursed at a per diem rate of \$45/day by the Medicaid program. Other sources include payments by the home county for up to thirty days to cover the cost of care of an individual awaiting a final commitment determination, and county payments of \$10/month for persons for whom this \$10/month cannot be recovered from any other sources.

## 2. Nursing Homes

Nursing homes are long-term residential health facilities offering medical and support services to elderly persons and others requiring such support. There is some disagreement as to the number of community-based nursing homes in Minnesota: even when limited to the number of nursing homes which are certified to receive Medicaid dollars, the reported number of homes ranges from 416 to 592. This variation can partially be explained by different definitions, counting techniques, and reporting requirements. The following descriptions are based primarily on information from the Department of Public Welfare; only the 416 facilities reimbursed through Medicaid in 1974 are included. These nursing homes served a total of 35,611 residents. The range in size of these homes is:

<u>Number of Licensed Beds</u>	<u>Number of Nursing Homes</u>
1-30	34
31-60	95
61-100	150
101-150	82
151+	<u>53</u>
TOTAL =	414 <sup>29</sup>

This shows a concentration of facilities (36%) in the 61-100 licensed bed size, with gradually decreasing numbers towards both ends of the size range.

Of the 416 nursing homes, 174 are owned by corporations or individuals and operated on a for-profit basis, 174 are owned and operated by non-profit agencies or corporations, and the remaining 68 are publicly owned and operated, primarily by county governments, although the State of Minnesota currently operates two nursing facilities: Oak Terrace with 303 residents and Ah-Gwah-Ching with 391.

The average occupancy rate of the homes is 92.10%. For nursing home reimbursement under the Medicaid program in Minnesota there is an incentive to maintain an occupancy level of 93% or above (see Chapter III.A.2. for an explanation of the Rule 49 reimbursement rate mechanism for nursing homes).

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Data were unavailable on two homes at the time of the study.

Nursing homes are certified for one or more levels of care if they meet the appropriate federal qualifications. The two levels recognized by federal Medicaid regulations are Skilled Nursing Facility (SNF) and Intermediate Care Facility (ICF). Skilled nursing care is the highest level of LTC and should be reserved for patients needing round-the-clock staffing by licensed nurses. Intermediate care provides less support and nursing supervision than skilled care but more support than board and lodging (see Table 2.17, Chapter II. D. 3. for further explanation).

Services provided by nursing homes are primarily provided on-grounds, with the exception of surgical or other intensive medical care that may require hospitalization. Both skilled and intermediate residential care needs are served in nursing homes. Rehabilitation therapies are offered, but there is little emphasis on job training, sheltered workshops, etc. Maintenance and supportive services, in general, are offered. Counseling services are provided in most nursing homes.

Once a nursing home has met federal qualifications for either SNF care, ICF care, or both, the home can admit MA residents designated by their physicians as requiring that or a lower level of care. Therefore, a facility certified as SNF is allowed to accept ICF as well as SNF residents (residents are designated as either skilled or intermediate by their physician), but an ICF facility cannot admit residents who need skilled care.

Other requirements determining admission to nursing homes are matters of facility choice. A home may elect to limit admissions to certain ages (e.g., take residents 65 and over only), to geographic areas, etc. If a potential resident has been certified as needing a certain level of care provided by a home and if there is available bed space, admission can become a matter of family or individual choice. The two state-operated nursing homes serve primarily older residents of SHs, who needed special care due to their history of mental illness, retardation, and/or institutionalization.<sup>30</sup>

There are two major public sources of funding for certified nursing homes, Medicaid and Medicare, with the former contributing a much higher percentage. In addition, there are public funds channeled indirectly to the facilities: social security and SSI moneys which take the form of individual cash payments, are sources of revenue to nursing homes under established conditions which are not contingent upon certification. Possible non-public funding sources are private pay and charitable incomes.

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<sup>30</sup> Steve Wellington, "Issue Paper #1, State Operated Nursing Homes: Ah-Gwah-Ching and Oak Terrace." p. 48.

### 3. ICF/MRs

In order to receive Medicaid Funds, community group homes for the mentally retarded must meet federal and state requirements regarding the provision of intermediate care and developmental services specifically geared to the needs of MRs. Thus, the facilities are termed Intermediate Care Facilities for the Mentally Retarded (ICF/MRs). Intermediate care is not as heavily supportive and supervisory as are hospital or skilled nursing facility care, but exceeds mere maintenance or room and board.

A noteworthy characteristic of Minnesota ICF/MRs is the rapid increase in their number. On June 30, 1974, there were 79 ICF/MRs receiving Medicaid funds; on June 30, 1976, there were 116; in November, 1976, there were 135.<sup>31</sup> (See Chapter II. D. 2.d. for further discussion of ICF/MR growth trends). This rapid increase makes accurate collection of descriptive data difficult because official sources of information vary, e.g., a particular facility may be listed by DPW at the time it applies for Rule 34, but not listed by MDH if it has not yet applied for licensure. Descriptive information was gathered in September, 1976 (see Chapter IV for discussion of data sources, etc.), on 104 ICF/MRs.

Table 2.3 shows the number of ICF/MRs in each size range; most Minnesota ICF/MRs are smaller facilities, with approximately 3/4 having 30 or fewer licensed beds. An average occupancy rate for all community ICF/MRs is not known. In a sample of 50 of the 104 ICF/MRs (see Chapter IV for further description of the sample), the mean (average) rate was 91.6%, with a median of 96.5% occupancy.

Of the 104 community ICF/MRs studied, 68 (65%) were owned by corporations or individuals designated as "for-profit." <sup>36</sup> (35%) were owned by non-profit agencies. Owners sometimes own and operate more than one ICF/MR. A trend towards the operation of these chains of ICF/MRs was noted, especially in the development of newer facilities. There are no publicly-operated community ICF/MRs in Minnesota at the present time.

Services received by residents of ICF/MRs are not always provided on the grounds of the facility. Many services, in fact, are provided through arrangement with service providers elsewhere in the community. Services provided directly on-grounds in community ICF/MRs include (as per Table 2.1) the residential services, the maintenance and supportive services, and some rehabilitation and training

<sup>31</sup>Medical Assistance Division, DPW.



TABLE 2.3

## MINNESOTA ICF/MRS BY SIZE

	Licensed Bed Capacity	No. of ICF/MRs	Percent of Total
≤ 15	0-4 <sup>1</sup>	0	65
	5-10	43	
	11-15	25	
16-30	16-20	2	12
	21-25	4	
	26-30	6	
31-99	31-35	2	17
	36-40	2	
	41-45	4	
	46-50	3	
	51-60	5	
	61-70	5	
	71-99	0	
100 or more	100 or more	6	5
TOTAL		104	99 <sup>2</sup>

<sup>1</sup>Facilities with fewer than 5 beds do not require the same licensure and are not certified as ICF/MRs.

<sup>2</sup>Total does not equal 100%, due to rounding.

such as habit training, activities for daily living, crises intervention, etc. Nursing supervision is required by ICF/MR regulations (detailed in Chapter II. D. 4). Other medical services (e.g., physical exam, hospitalization, etc.), day activities, education, sheltered work, and therapies are usually provided through arrangement with providers of these services elsewhere in the community. Thus, the ICF/MR is responsible for seeing that needed services are provided by the outside service givers, but is not responsible for the actual provision of the service. Certain ICF/MRs provide some of these services in the event that the community has no available resource, or supplement an inadequate resource, but generally these services are not a part of the ICF/MR service package, staff, or costs.

Community ICF/MRs have a variety of staffing patterns: there are small group homes operated by live-in house parents who fulfill all parental roles (they cook, clean, repair the house, pay the bills, plan activities, counsel, teach, etc.) and in effect provide 2-3 FTE positions; there are large facilities which may not differ much from SHs in that staff are specialized and work assigned shifts; in between are many facilities with some specialization: one person may do the laundry and cleaning, someone else may cook and do the administrative work, and other staff may provide residential care, recreational program and other resident activities.

Eligibility requirements for admission to an ICF/MR are mainly a matter of facility preference. Since the facilities are privately owned and operated, the courts cannot commit an individual to a community ICF/MR. Since Medicaid funds most residents of ICF/MRs, a disability determination is necessary. Other requirements depend on the availability of beds and the type of resident the facility wishes to serve. For example, a facility might restrict applicants according to age: of the 104 ICF/MRs studied, 20 restrict admissions to children (all residents are under 21), 77 admit only adults (all residents are over 16), and 7 facilities have no age restrictions. Other areas of restriction might include: behavior problems, severity of retardation, physical handicaps, functioning ability, etc.

Medicaid is the prime funding source for ICF/MRs. Facilities are reimbursed according to an individual facility prospective rate-setting mechanism. The average reimbursement rate has risen in recent years from \$15.13 in FY 74 to \$20.34 in FY 76.

## C. Non-Residential Services

### Introduction

A full description of the Medicaid LTC system for the mentally retarded includes certain non-residential services that play an important role, even though not always funded by Medicaid: day activities, sheltered work, and special education. State law requires local school districts to provide special education for all educable (EMR) and trainable (TMR) persons who are mentally retarded. Federal regulations require at least 6 hours daily of programming for MRs, either through schools, Day Activity Centers, or sheltered employment. We now describe Day Activity Centers, Sheltered Workshops and special education services and their important role in the Medicaid LTC system for the mentally retarded. Non-residential medical care funded by Medicaid is discussed in Chapter IV. A. 3.

#### 1. Day Activity Centers<sup>32</sup>

A Day Activity Center (DAC) is a "community-based facility which serves mentally retarded people, both pre-school age and adults, who reside in the community."<sup>33</sup> DACs are "intended to be a step within the continuum of community services for mentally retarded people"<sup>34</sup> and "have been organized to develop the abilities of retarded persons and to help them become better functioning individuals within their own community."<sup>35</sup> DACs serve developmentally disabled individuals who function at a lower level than those served at sheltered workshops and those unable to attend school. Some DACs include a work activity program which is considered a transitional step to the sheltered workshop program. The specific purposes and goals of DACs are to: 1) normalize the individual and upgrade his or her sense of worth, 2) increase independence, 3) improve the social behavior of the individual, 4) improve physical condition, 5) teach academic skills, 6) provide counseling, and 7) gain community acceptance for those in DACs.<sup>36</sup> Day activity centers work closely

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<sup>32</sup>Most of the material on DACs was obtained from: Daytime Activity Centers Manual, prepared by Community Programs Division, Minnesota Department of Public Welfare, 1974, and from a February 12, 1976 DPW Office Memorandum from Edward Constantine, Director, Community Programs Division, DPW, to Vera J. Likins, Commissioner, DPW, with attached budgetary data. The subject of the memo was "1975-76 Status Report - Daytime Activity Center Grant-in-aid."

<sup>33</sup>Daytime Activity Centers Manual, p. 1.

<sup>34</sup>Ibid, p. 1.

<sup>35</sup>Ibid.

<sup>36</sup>Ibid.

with various governmental agencies and volunteer groups both for the purpose of referrals and for gaining broader acceptance as a viable alternative to the institutionalization of those mentally retarded whom they serve.

As of 1973, there were 97 DACs in the state, many of them having two or three branches.<sup>37</sup> The growth in the number of DACs in the state has been phenomenal. In 1961, only three DACs existed; by 1963 there were twenty-three DACs.<sup>38</sup>

Programs similar to community DACs are provided at state hospitals, for six hours a day and five days per week. Funding for the state hospital day activity programs is contained in the individual state hospital's MR program budget.

Many school districts purchase DAC services for mentally retarded school-age individuals in their districts in place of special education classes (which are for the less severely mentally retarded). This "purchase-of-service" agreement is called a school contract.

#### Population:

Four types of MRs use DACs:

- "Homebound participants" (individuals younger than 2 years of age who may exhibit developmental disability problems and are treated at home),
- Preschool participants (ages 2-5),
- Adults (usually age 20 or over depending on the special education requirements of the school district), and
- Those participating under school contracts.

As Table 2.4 shows, there were 569 new DAC participants for FY 76, of whom 395 (69%) were adults. DAC program specialists have attributed this increase to the "de-institutionalization" movement and the requirement of Rule 34 that developmental services such as DACs be located apart from community ICF/MRs when feasible. Of the 2,547 adults attending DACs in FY 76, 1,508 (59%) were from community residential facilities.

Another notable increase was in the "homebound" category: the number served by DACs nearly tripled between FY 75 and 76, from 113 to 313.

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<sup>37</sup>Ibid.

<sup>38</sup>Ibid.

### Costs:

The cost per unit of DAC program services is calculated by ascertaining the total net program budget (total budget minus the following: 1) special forms of reimbursement, 2) equalization aid, and 3) school contracts) for each of the DAC population groups and dividing this by the total number of service units delivered to that group. In essence, it can be interpreted as a per diem cost figure.

In more rigorous terms,

$$UC_{xi} = \frac{NB_{xi}}{TU_{xi}}$$

Where xi = A particular client group

UC = Service unit cost for group xi for a given year

NB = Net program budget for a given fiscal year for group xi

TU = Total number of service units provided to group xi for a given year.

Unit costs for each of the three DAC population groups for FY 76 are:

- 1) Homebound \$21.62
- 2) Preschool \$16.01
- 3) Adult \$10.08

Transportation costs of DACs were reimbursed by the state at a 100% level for the first time in FY 76. Unit costs for transportation were as follows in FY 76:

- 1) Preschool \$3.28
- 2) Adult \$1.94

The current funding ratio for DAC programs is: 1) 52%-state, and 2) 48%-county (counties may use federal dollars available through the Title XX program to fund some or all of their share). Considering the per diem DAC program costs for each group and the transportation per diem costs, one can calculate the distributional per diem costs for each DAC client group, as follows:

<u>DAC Client Group</u>	<u>State</u>	<u>County</u>	<u>Total</u>
1. Homebound	\$11.21	\$9.41	\$21.62
2. Preschool	\$11.60	\$7.70	\$19.30
3. Adult	\$ 7.20	\$4.90	\$12.10

Day activity centers receive funding from the state and appropriate counties. Table 2.5 details sources of funding and expenditures for FY 1973-1976.

It is interesting to note that local contributions to DACs have declined while state contributions rose substantially in FY 76. This trend is expected to continue.

TABLE 2.4  
DAC PARTICIPANTS, FY 1973-1976

DAC Client Categories	FY 73		FY 74		FY 75		FY 76 <sup>1</sup>	
	No.	%	No.	%	No.	%	No.	%
Homebound	- <sup>2</sup>	-	-	-	113	4	313	8
Preschool	754	31	796	28	612	19	707	19
Adults	1,366	56	1,748	63	2,152	68	2,547	68
School Contracts <sup>3</sup>	303	13	248	9	301	9	180	5
TOTAL	<u>2,423</u>	<u>100</u>	<u>2,792</u>	<u>100</u>	<u>3,178</u>	<u>100</u>	<u>3,747</u>	<u>100</u>

<sup>1</sup>Estimated.

<sup>2</sup>Included in preschool category for FY 73-74.

<sup>3</sup>School districts which contract for DAC services.

TABLE 2.5

## STATE AND COUNTY EXPENDITURES FOR DACs, FY 73-76

	FY 73	FY 74	FY 75	FY 76	
	(Expenditures in Millions)			Program	Transportation
Net Adjusted Budget <sup>1</sup>	\$3.760 <sup>2</sup>	\$4.795	\$6.791	\$8.236	\$1.588 <sup>3</sup>
State Aid	\$1.85	\$1.999	\$2.817 <sup>4</sup>	\$4.291 <sup>5</sup>	\$1.588
State Percentage	49.3%	41.8%	41.4%	52%	100%
County Funding	\$1.909	\$2.795	\$3.974	\$3.945	-
County Percentage	50.7%	58.2%	58.6%	48%	-

<sup>1</sup>Equals net budget minus school contracts. School contracts represent local school district expenditures for day activity center services for those individuals who cannot attend special education classes.

<sup>2</sup>Millions of dollars.

<sup>3</sup>100% state funding in FY 76.

<sup>4</sup>Includes equalization aid of \$50,000 for FY 75.

<sup>5</sup>Includes equalization aid of \$67,000 for FY 76.

## 2. Sheltered Workshops

A sheltered workshop is a place where severely handicapped persons (either mentally retarded, cerebral palsied, or mentally ill) can find productive work unavailable to them in the private market. The sheltered workshop is considered by many of its proponents to have a high benefit/cost ratio in terms of state investment. In the state of Minnesota, sheltered workshops are administered by the Vocational Rehabilitation Division, Department of Education.

As of August, 1976, there were thirty-five sheltered workshops in the state which employed 1,700 individuals.<sup>39</sup> Workers at a sheltered workshop are paid an average wage of \$1.00 per hour.<sup>40</sup> The wage rate is: "fully commensurate with the worker's productive capacity and in accordance with both state and Federal wage and hour regulations."<sup>41</sup> Working conditions are constantly reevaluated and supportive services include "vocational counseling, assistance in competitive placement, social work, and work supervision."<sup>42</sup>

### Population

Of the 1,700 sheltered workshop participants, it has been estimated that "approximately 65% are retarded," with the remainder mentally ill or cerebral palsied.<sup>43</sup> It has been noted by program specialists in the field of mental retardation that sheltered workshop clientele function at a higher level than do the clientele of work activity programs at day activity centers.

### Costs

Figure 2.1 details state expenditure patterns for sheltered workshops for fiscal years 1972-1977:

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<sup>39</sup> From Bill Niederloh, Director, Facilities and Long Term Sheltered Workshops, Vocational Rehabilitation Division.

<sup>40</sup> Office memorandum, from August W. Gehrke (Assistant Commissioner for Vocational Rehabilitation) to State Board of Education on "Long Term Sheltered Employment/Work Activity Program Summary", February 9, 1976, p. 2.

<sup>41</sup> Article obtained from Bill Niederloh on "Background Information in Support of Minnesota's Long Term Sheltered Workshop Program." p. 3.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid., p. 1.



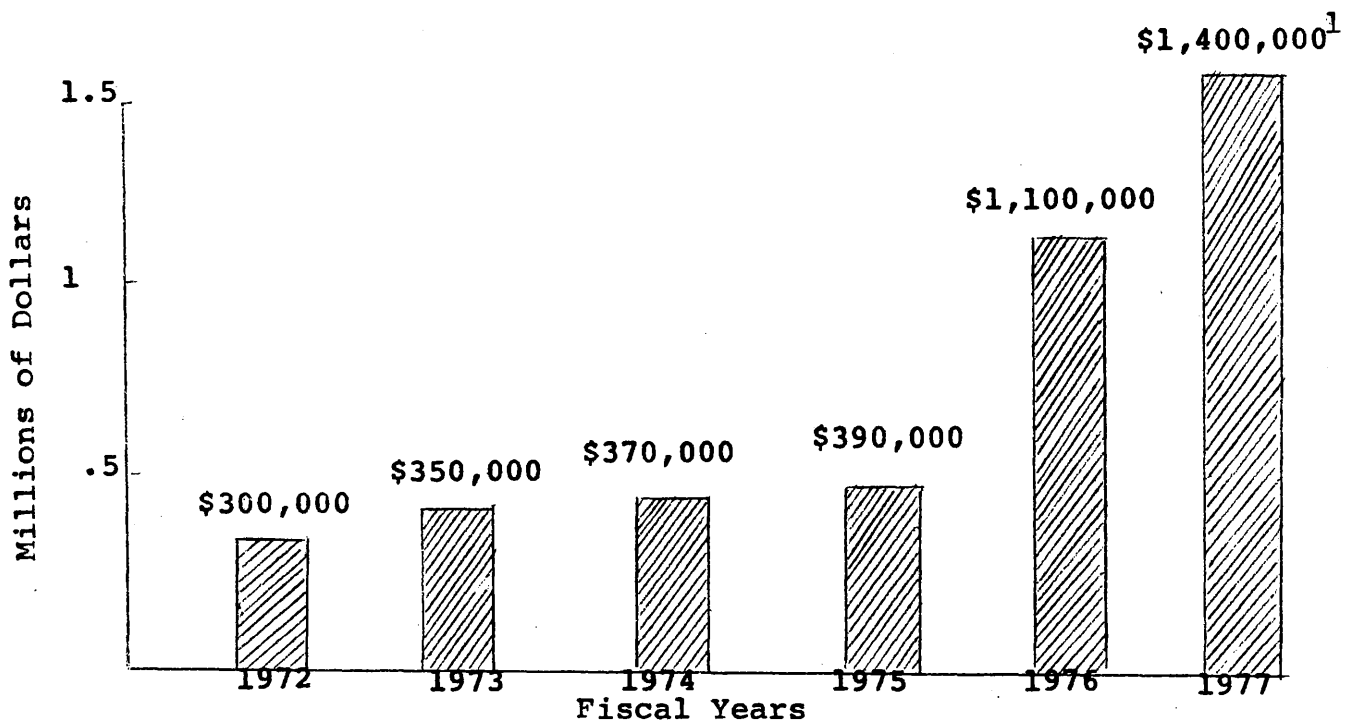


FIGURE 2.1

MINNESOTA STATE SHELTERED WORKSHOP EXPENDITURES: FY 1972-77

<sup>1</sup> Estimate .

The substantial increase in the FY 76 appropriation (nearly 300%) is probably due to the state legislature's increasing interest in the notable benefits of sheltered workshops. Total costs for FY 1975 were estimated at \$15 million; of this amount, over \$9,000,000 in subcontracting production income was acquired. This \$9,000,000 represented 60% of the total \$15 million sheltered workshop program costs. \$3.8 million (or 40%) of this \$9 million production income was expended in the area of wages to workers. The remaining \$6 million (40%) of sheltered workshop total program costs were met through the following other sources: 1) state and federal: 22% of total program costs; 2) local tax support: 8%; 3) United Fund: 5%; and 4) contributions and grants: 6%.<sup>44</sup>

It has been estimated by a sheltered workshop program specialist that the average per diem government cost was \$8.50 for the average participant. This \$8.50 per diem

<sup>44</sup> August W. Gehrke, Assistant Commissioner for Vocational Rehabilitation, Department of Education, memorandum on "Long Term Sheltered Employment/Work Activity Program Summary," 2/9/76, p. 2.

cost was distributed in the following manner:

- 1) Federal - 37.5% - \$3.20/day,
- 2) State - 37.5% - \$3.20/day,
- 3) Local - 25% - \$2.10/day.<sup>45</sup>

### 3. Special Education for the Mentally Retarded<sup>46</sup>

Special Education is a program "which provides instruction and services to handicapped (including the mentally retarded) students whose educational needs cannot be met through local school districts."<sup>47</sup>

In Minnesota, there are special education programs for both the educable (EMR) and trainable (TMR) mentally retarded of school age (five to twenty-five years of age). These two groups represent about 20% of the entire population served by state special education programs.<sup>48</sup> EMR special education programs were initiated in 1965, while TMR special education programs began in 1972. EMR individuals are usually classified as being mildly retarded, while TMR individuals include all others able to function in a school setting.

#### Population and Cost

Table 2.6 describes: 1) total numbers served by special education programs in the state, 2) numbers of EMRs and TMRs served in the school years 1973-74 and 1974-75, and 3) average cost per year for each EMR and TMR individual (includes both state and local expenditures).

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<sup>45</sup>William Niederloh, Director of Facilities and Long Term Sheltered Workshops, Vocational Rehabilitation Division, Department of Education.

<sup>46</sup>The information on Special Education for the Mentally Retarded was obtained from the following three sources: 1) Developmental Disabilities - Newsletter, Volume 1, #3, June 1976; 2) House Research Staff Memorandum on the "Educational Costs of Deinstitutionalization," May 28, 1976; 3) Publication from the Department of Education, Special and Compensatory Education Division, Special Education Section, October, 1975.

<sup>47</sup>Minnesota Department of Education Biennial Budget, 1975-1977.

<sup>48</sup>Other groups served include individuals with: 1) speech problems, 2) severe physical handicaps, 3) hearing and vision problems, and 4) other special learning and behavioral problems.

TABLE 2.6

MINNESOTA SPECIAL EDUCATION FOR THE RETARDED: SCHOOL YEARS '72-'					
<u>School Year</u>	<u>Number Served</u>	<u>Number EMR Pupils</u>	<u>Average Cost Per Pupil</u>	<u>Number TMR Pupils</u>	<u>Average Cost Per Pupil</u>
1971-72	72,104				
1972-73	76,719				
1973-74	78,014	11,541	\$1,137	4,236	\$1,747
1974-75	79,500 <sup>1</sup>	12,000 <sup>2</sup>	NA <sup>3</sup>	4,594	\$1,603

<sup>1</sup>Estimated.

<sup>2</sup>Estimated.

<sup>3</sup>Not available.

The expenditure figures for the school years 1973-74 and 1974-75 are based on a retrospective cost reimbursement system, i.e., 1973-74 local school district expenditures were reimbursed by the state in school year 1974-75. In the 1976-77 school year, there will be direct cost reimbursement of local school districts, as required by the Omnibus School Aids Bill of 1976. School districts will no longer be required to wait an entire year before being reimbursed for expenses.

For the school year 1973-74, total expenditures for the EMR were \$13,122,000 and for the TMR, \$7,450,000. The state reimbursed about 60% of these costs; the remainder was paid by the home school district. For the 1974-75 school year (EMR expenditure data unavailable), TMR expenditures were \$7,458,235 (equal to 1973-74 expenditures), with the state reimbursing \$4,608,604 (61%) of local school district expenditures. Thus the average cost to the state for educating a TMR individual in the 1974-75 school year was \$1,003. One could estimate the cost to the state of educating an EMR individual by using the average cost of \$1,137 for the 1973-74 school year and multiplying it by .60 to acquire an average cost of \$668. Assuming a 180-day school year, the per diem costs to the state would be \$5.57 for the TMR (1974-75) and \$3.82 for the EMR (1973-74). For the local school district, the average per diem cost was \$3.70 for an EMR. For a TMR, the average per diem cost was \$2.60.

Transportation costs are also shared between the state and local school district. In the 1974-75 school year, \$2,251,000 was expended on transportation for 5,943 mentally retarded individuals (at an annual average cost of \$474 for each full-time equivalent student). The state reimbursed local school districts for 79% (or \$1,778,000) of these costs. The average per diem cost (for a 180-day school year) to the state was \$2.23 and to the local school district, \$60.

For the 1974-1975 school year, 1,296 (30%) of the TMR were served in the eight state hospital school districts, while 1,477 (32%) were served in the five major metropolitan school districts in the state.

The home school district (where parents reside) is responsible for the costs of any individual who receives special education, even if the individual receives the special education outside the home school district. Thus, deinstitutionalization will have no effect on the costs of special education for those EMR and TMR currently in state hospitals, but it could affect transportation costs for individual school districts.

## D. Government Role in LTC

### 1. Government Responsibility in LTC

Thus far in Chapter II, we have alluded to various governmental roles and responsibilities. The roles and responsibilities of various governmental units are now briefly described before we detail government involvement in funding and controlling quality of care in LTC facilities.

Government, at all levels, plays many roles within the Medicaid LTC system. The Medicaid program structure involves federal, state, and local (county) units of government. The responsibilities of government units include regulation, funding, direct service provision, and planning. In addition, the roles and responsibilities of government units impact directly on individuals within the LTC system.

#### Federal Role

On the federal level, participation in the LTC system is mainly through structuring funding programs (primarily Medicaid or Title XIX\*, Title XX\* or Social Services, and Medicaid or Title XVIII\*) and setting regulatory standards for these programs. Various other responsibilities of the federal government include certain housing programs, special purpose grants, and income maintenance programs. Federal agencies and departments involved include HEW, DOL, DOT, HUD, ACTION, and VA.

Many segments of HEW have responsibilities in LTC. To name a few: Office of Long-term care, Public Health Service, Social and Rehabilitation Service, Social Security Administration, and Office of Human Development.

HUD provides mortgage insurance programs and some funding for construction and development through the local Housing Finance Agencies or local community development programs.

Some federal departments also have roles in the LTC system: Department of Transportation, providing certain transportation funding programs; ACTION; the Department of Labor, providing guidance and incentives for developing the economic self sufficiency of the elderly or handicapped, including MRs; and the Veterans Administration, providing funding for veterans and dependents in nursing homes.

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\*Sections of Social Security Act.

## State Role

Minnesota state government has many agencies involved in different aspects of long term care. The major state agencies involved are the Department of Public Welfare (DPW) and the Health Department (MDH).<sup>49</sup>

DPW has a primary role in long term care both for MRs and the elderly. The Bureau of Residential Services is responsible for state institutions and the Bureau of Community Programs is responsible for community programs. Within the Bureau of Community Programs is an MR program division responsible for planning and assisting prospective facility operators<sup>50</sup>, and a licensing division responsible for licensing MR programs. Also within this Bureau is the Aging Program Division which operates the federal Administration on Aging Programs as the Governor's Citizens Council on Aging. The Social Services Division of the Bureau of Community Programs is responsible for state and county social service plans. This Bureau serves as the principal liaison with county governments. The Bureau of Income Maintenance has primary responsibility for administering the state's Medicaid program (including approving rates for Medicaid reimbursement) and other income maintenance programs. The Research & Statistics Division of the Office of Evaluation is responsible for reporting on the Medicaid program.

The Minnesota Department of Health (MDH) has several major roles in MR and elderly services. MDH licenses facilities if they meet state standards for facility safety, environment, and care characteristics. MDH also performs certification reviews for facility compliance with federal Medicaid (and Medicare) regulations. The quality assurance review function required by Medicaid is carried out by MDH. Other roles of MDH include responsibilities for certain diagnosis and evaluation programs (such as Early and Periodic Screening, Diagnosis & Treatment or EPSDT) and Public Health Nursing services.

Other state agencies involved in Medicaid long term care for MRs and the elderly include: the Housing Finance Agency, participating in HUD-funded mortgage insurance and certain construction and development programs for the

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<sup>49</sup>The exposition in this section relies in part on "Roles in Mentally Ill, Mentally Retarded and Chemically Dependent Programs," prepared by Kevin Kenney, Legislative Analyst for the Select Committee on Deinstitutionalization.

<sup>50</sup>The Technical Assistance Project (TAP) within the Bureau of Community programs carries out the function of MR facility consulting.

elderly and handicapped (includes MRs); the Minnesota Dept. of Education, responsible for providing special education services to EMRs and TMRs; Division of Vocational Rehabilitation (presently within the Department of Education), responsible for training, employment counseling, and guidance as well as contracting with DPW for social service funds to provide sheltered employment and work activity programs; and the State Planning Agency, responsible for allocating both Urban Mass Transit Authority grants and some Community Development Funds (HUD program), and for staffing the federally-financed Developmental Disabilities Council which does statewide and regional planning and administers small federal grants for development of new services. Other state agencies may be involved in MR and elderly services in evaluation, performing needs assessments, volunteer programs, etc.

### County Role

County welfare departments are responsible for provision of needed residential, social, medical, and income services to their elderly and MR residents who need them. County welfare boards and/or Human Services Boards can contract with the state for provision of these services and can use other government funding programs as appropriate. Area mental health/mental retardation boards appointed by the county board, provide some direct service, planning and advocacy. Certain facilities, such as DACs, have a single county board structure to plan, offer leadership, etc., to the county DACs.

Other local governmental units with a role in LTC services to MRs and the elderly are Regional Development Commissions (RDCs) which are responsible for human resources planning and regional developmental planning. Area Agencies on Aging may be attached to RDCs.

### Judiciary role

The courts play a role in long term care through the guardianship and commitment processes. Occasionally, such as in the case of the Welsch vs. Likins decision, the courts become involved in specifying conditions, staffing, etc.

In short, the two major aspects of government involvement in Medicaid long term care are: 1) funding and 2) regulating. The next two sections detail these two roles.

## 2. Funding

### a. Government Role in Funding State Hospitals

The state hospital system operates on direct appropriations from the state legislature, and is only partially funded by Medicaid. For those patients in the state hospital system who are eligible for Medicaid, the state is reimbursed by the federal government and appropriate counties. The basis of this reimbursement is a uniform per diem rate for the entire state hospital system (presently about \$45.00 per patient day).

All revenue sources (as distinguished from legislative appropriations) are classified by the Reimbursement Division of DPW as "gross recoveries." These recoveries come from four sources: (1) individual payments, (2) Medicaid reimbursement, (3) hold orders, and (4) poor relief.

The first category, "individual payments," represents payments made by individuals for services rendered. The second category, "Medicaid reimbursement," represents payments by the Federal and appropriate county governments for those Minnesota SH patients covered by Medicaid (of whom the vast majority can be classified as mentally retarded). The third category, "hold orders," involves payments by the home county (or "county of settlement" or "county of financial responsibility") for individuals who have been involuntarily committed<sup>51</sup> to the SH. The fourth category of recovery source, "poor relief," refers to the General Assistance Program in which the home county pays \$10/month for each state hospital patient for whom this \$10 cannot be recovered from any other revenue source. The remainder of the cost of

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<sup>51</sup>"Involuntary commitments" are emergency commitments for up to 72 hours ordered by a court, a police officer, or a health officer. If, at the end of the 72 hours, the state hospital determines that further observation, diagnosis, or treatment is needed, the hospital may request a commitment of up to 30 days. The home county of the patient is then billed by the state for the full cost (currently \$68/day) for up to 30 days. After 30 days, other sources of recovery are tapped where possible; however, if no other payment source is available, the state does not recover costs at all except for \$10/month as discussed in the next category.



the SH stay is borne by the state if the individual is not eligible for Medicaid.

Fiscal data on "gross recoveries" for fiscal years 1975 and 1976, obtained from the Reimbursement Division, DPW, are presented in Tables 2.7 and 2.8.

Minnesota's share of SH Title XIX expenditures was \$15,603,774 in FY 75. This represents about 10.3% of total Minnesota LTC M.A. expenditures for FY 75 (\$150,362,000) and 6% of total Minnesota M.A. expenditures for FY 75.

As Table 2.8 shows, in FY 76, when the SH appropriation was more than \$80,000,000, the state recovered approximately 70% of the total costs for the SH system. Medicaid funds represented almost all of these recoveries in both FY 1975 and 1976.

The FMAP (federal Medical Assistance percentage) for Minnesota's Medicaid program in FY 75 was 57.37%, with the state and county each responsible for 21.31% of the total Medicaid bill. In FY 76, the FMAP declined to 56.84%, with the state and county shares rising to 21.58%. However, as of 1/1/76, the state's share of the total Medicaid bill rose to 38.84% or 90% of the non-federal portion of the total Medicaid bill. We were unable to ascertain Minnesota's FY 76 M.A. expenditures for SHs because of this change.

TABLE 2.7

Fiscal Year 1975 State Hospital Recoveries<sup>1</sup>

<u>Category</u>	<u>Dollars</u>	<u>% of total</u>
Individuals	\$6,216,082	13.8
Medicaid federal and county shares	37,911,804	84.2
Hold orders and poor relief	791,669	2.0
<hr/> TOTAL	<hr/> \$44,919,555	<hr/> 100.0

<sup>1</sup>Source: Reimbursement Division, DPW.

TABLE 2.8

Fiscal Year 1976 State Hospital Recoveries<sup>1</sup>

<u>Category</u>	<u>Dollars</u>	<u>% of total</u>
Individuals	\$6,688,208	11.8
Medicaid federal and county shares	49,328,155	87.0
Hold Orders	442,205	.8
Poor Relief	194,921	.4
<hr/> TOTAL	<hr/> \$56,653,589	<hr/> 100.0

<sup>1</sup>Source: Reimbursement Division, DPW.

b. Government Role in Funding Nursing Homes

The Evolution of the Public Role

Public funding of residential care in Minnesota dates back to the mid-nineteenth century. At that time, the legislature obligated the boards of county commissioners to provide "a suitable place or places" for county charges. Those facilities, precursors of nursing homes, came to be known as "county poorhouses," "county poor farms" and "work houses for paupers," and squalid conditions were the rule. The first such county home was established in Ramsey County in 1857.

The concept of group living arrangements developed and such facilities multiplied, largely at public expense. However, the turning point came in 1935 with the enactment of the federal Social Security Act; the subsequent impact on the county home system was extremely significant. As the original law stipulated, persons living in public institutions were ineligible to receive the new old-age assistance. Consequently, many aged persons moved from county homes in order to qualify for grants. Between 1935 and 1950, 15 county homes in Minnesota were closed.<sup>52</sup>

Later legislation attempted to rectify this situation. In 1945, the Old Age Assistance law was amended to allow additional payment for "licensed rest home care." The effect of this legislation, however, was insignificant until the 1935 law was amended to permit payment of grants to residents of public institutions. The necessary federal change was made in 1950.<sup>53</sup>

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<sup>52</sup>A Minnesota Study on the Quality of Medical Care in Nursing Homes. A Report to the Subcommittee. Minnesota State Medical Association, Report of the Special Advisory Committee on Utilization Review, 1969, p. 12.

<sup>53</sup>The 1972 Amendments to the SSA created the Supplemental Security Income Program (SSI) which replaced Old Age Assistance.

One year later, the state legislature passed a law which allowed counties to establish and operate nursing homes. The movement in this direction was facilitated by previous legislation which permitted the sale or lease of tuberculosis sanatoria no longer needed for that purpose. Between 1952 and 1957, eight TB facilities were closed and reopened as county nursing homes.

By 1960, the public almshouse had become an anachronism and was replaced with publicly-owned nursing homes. At the same time, private nonprofit institutions were rising in popularity: of the 449 licensed nursing and boarding care homes in Minnesota in 1960, 117 were nonprofit facilities, while only 29 were operated by public agencies of the state, county, or municipality.<sup>54</sup> The evident demand for this type of care, in addition to the financial rewards from social security, led to the conceptualization of nursing homes as businesses, not charities. Thus in 1960, proprietary (profit-making) homes had risen to prominence, accounting for 303 of the total 449 institutions.

The system of geriatric facilities had been predominantly non-proprietary prior to 1935. The effects of the Social Security Act, along with several other factors, contributed to the proliferation of proprietary homes: the aging of the population with resulting increase in the number of persons with infirmities or chronic illness; the shortage of housing, especially after World War II; growing inability or unwillingness of families to care for their older and more infirm members; increasing numbers of women seeking employment.<sup>55</sup>

Prior to the social security program, homes for the aged usually accepted residents under a contract plan which provided for a lump sum fee or property assignment for which the home agreed to provide life care. Most institutions eventually abandoned the contract plan, and made other changes in admission policies to enable their residents to receive grants.

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<sup>54</sup> Ibid.

<sup>55</sup> "Homes for the Aged and Chronically Ill Persons in Minnesota, Their Development and Licensure" - Minnesota Department of Health, December 1959, p. 43.

Another significant transformation of the nursing home system came in 1965, with the passage of Social Security Amendments initiating Medicare and Medicaid, which issued steady streams of new federal regulations for standardization of care in hospitals and long term care facilities. "The Medicare-Medicaid Act with its social concept of optimum health care as a human right has had profound effects on the health care system in this country."<sup>56</sup>

Meanwhile, government programs for nursing home care developed to the point where approximately two of every three patients in nursing homes were on one of several government programs - Medicare, Medicaid, Veterans Administration, and local welfare programs.<sup>57</sup> Aside from such vendor payments, there were also direct grant-in-aid programs to persons in such facilities.

After the advent of the Medicaid program, the Skilled Nursing Home classification was supplemented with Intermediate Care to provide for those who did not require as intensive a care program. The subsequent reclassification of patients to the lower level of care forced many facilities to alter resources to comply with the lower standards, and to meet the change in demand. Where facility reclassification "had been used solely as a vehicle for easing the economic burden, the result has been to reduce standards and thus the quality of nursing home care which is in contrast to the efforts of the nursing home industry to raise the standards and improve the quality of care."<sup>58</sup> The historical background related here traces impacts regarding the provision of nursing home care. The system has evolved from a totally public one into a public/private mix of providers, but all with public intervention regarding quality assurance and reimbursement. Although nursing home care has taken on some qualities of entrepreneurship, the public dollar is an entrenched resource to the provision of this type of care.

#### Current Government Funding of Nursing Homes

Nursing homes receive most of their public funds from Medicaid and Medicare. Medicare coverage is limited to a maximum of 100 days of skilled nursing care during any spell of illness.

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<sup>56</sup>"Medical Care for an Aging Population: Implications for Medical Education." Winston R. Miller, M.D., Presented at University of Minnesota School of Medicine, April, 10, 1976.

<sup>57</sup>Nursing Home Fact Book 1970-1971, p. 47.

<sup>58</sup>Ibid, p. 50.

Medicaid, on the other hand, funds unlimited days of skilled and intermediate nursing care. Thus, Medicaid assumes responsibility when Medicare coverage expires.

Although facilities automatically qualify for Medicare by meeting Medicaid standards, 160 of 245 Medicaid - certified<sup>59</sup> skilled nursing home units in Minnesota choose not to participate in the Medicare program. This has been attributed in part to the large volume of paperwork.<sup>60</sup> Thus, Medicaid funds are sometimes used where Medicare funds could be used if all SNFs participated in the Medicare program.

Medicare reimburses reasonable costs of facilities on a retrospective basis. For calendar year 1974, 170,825 SNF patient days in Minnesota were covered by Medicare. The interim reimbursement figure is \$5,023,000; this underestimates actual payments (due to time lags in reporting costs which must then be adjusted, audited, and negotiated).<sup>61</sup>

FY 1974 Medicaid payments to Minnesota nursing homes were \$91,071,384<sup>62</sup>, more than 18 times the amount paid by Medicare. Only six nursing homes with a total of 208 beds were not certified for Medicaid patients in 1975. An additional nine facilities with 250 beds were certified for Medicaid funding, but had no eligible residents.<sup>63</sup> Thus, only 3.2% of the nursing homes in Minnesota did not receive Title XIX funding in 1975.

Another direct public funding source is the Veterans Administration. In fiscal year 1976, \$835,120 was paid to Minnesota nursing homes by the Veterans Administration.<sup>64</sup>

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<sup>59</sup>Figure derived from Directory of Licensed & Certified Health Care Facilities, MDH, 1975 and Report of Quality Assurance and Review Program, 1975.

<sup>60</sup>Meeting with Carol Hirschfeld, MDH, 9/27/76.

<sup>61</sup>Telephone conversation with Charles Fischer, Medicare statistics office, Baltimore, 8/9/76.

<sup>62</sup>1974 MA Biennial Report.

<sup>63</sup>QA&R, p. 43.

<sup>64</sup>C.N. Asa, Chief of Medical Services Division, VA Hospital, 11/24/76.

Indirectly, other public funds are channeled to nursing homes. Social security and SSI cash payments to individuals are sources of revenue for nursing homes under established conditions and are not contingent upon certification. (See Appendix A for greater detail).

Non-public income sources for nursing homes include private-paying residents, donations, grants, and subsidies. The proportion of private-pay funding for nursing homes is declining: in 1969, approximately 44% of the operating costs of these facilities were from government sources, and 56% were from patient payments and other private sources; by 1974, the public share was 53%.<sup>65</sup>

c. Government role in funding ICF/MRs

While there are several public programs to support the costs of residential care for the mentally retarded, Title XIX (Medicaid) is by far the major source of funding. This is discussed in detail in our findings section, CH. IV.

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<sup>65</sup>St. Paul Pioneer Press. "Despite Scandals, Nursing Home Still Booming, Growing Business," LeRoy Pope, 10/14/76, p. 59.

d. Minnesota Medicaid Funding for Long Term Care

Continuing our examination of the role of government in funding LTC we now examine Minnesota Medicaid expenditures for SNF and ICF levels of care, including community ICF/MRs and state hospitals.

Minnesota Medicaid expenditures for LTC have risen substantially within the period FY 1973 - FY 1976.<sup>66</sup> Total expenditures have increased 104% in this four-year period (from \$89.23 million to \$182.32 million). The average rate of increase in this period was 27% per year.

Medicaid expenditures are noted in Tables 2.9, 2.11, 2.13, and 2.15 for the four levels of care defined by Minnesota for reimbursement purposes: SNF, ICF-I, ICF-II, and ICF/MR. These Medicaid LTC expenditures are also compared in Tables 2.10, 2.12, 2.14, and 2.16 in the context of total state Medicaid expenditures for a given fiscal year. It should be emphasized that all of the following expenditure figures represent Minnesota state Medicaid expenditures only and not county or federal Medicaid expenditures. Minnesota Medicaid expenditures for SHs are included in the following tables within the ICF-I category. (These Medicaid expenditures were examined earlier in this section.)

The FMAP (federal Medical Assistance percentage) for FY 1973 was 56.82%. The remaining 43.18% was divided equally between the state and the counties (21.59%, each).

Table 2.12 shows that Minnesota Medicaid expenditures for LTC in FY 74 rose 45% over those of FY 1973. Costs of other-than-LTC services, however, did not rise from FY 1973 to FY 1974. LTC also increased substantially as a proportion of total Minnesota Medicaid expenditures, from 47% to 57%. Federal, state, and county portions of the total Medicaid bill remained the same. Total FY 1974 Minnesota Medicaid expenditures increased by 20% over those of FY 1973.

In FY 1975, the annual rate of increase for Medicaid LTC expenditures slowed significantly (to 16%). However, all categories rose substantially, with total Minnesota Medicaid expenditures 15% greater than in FY 1974. In FY 1975, the FMAP increased to 57.37%, with the state and county contributions to total Medicaid expenditures declining to 21.31% each.

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<sup>66</sup>Expenditure data acquired from Research & Statistics Division, DPW.



TABLE 2.9

FY 1973 - Minnesota State Medicaid  
LTC Expenditures

<u>LEVEL OF CARE</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>
SNF	\$32,032,064	36
ICF-I	52,502,442	59
ICF-II	4,696,910	5
Community ICF/MR <sup>1</sup>	--	--
<u>TOTAL</u>	<u>\$89,231,416</u>	<u>100</u>

<sup>1</sup>Community ICF/MRs not yet reimbursable under Title XIX.

TABLE 2.10

FY 1973 Minnesota State Medicaid Expenditures

<u>EXPENDITURE CATEGORY</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>
Long term Care	\$89,231,146	47
Other Medicaid	98,681,871	53
<u>TOTAL Medicaid</u>	<u>\$187,912,017</u>	<u>100</u>

TABLE 2.11  
FY 1974 Minnesota State Medicaid  
LTC Expenditures

<u>LEVEL OF CARE</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>	<u>% INCREASE<sup>1</sup> OVER FY 73</u>
SNF	\$41,236,317	31.9	29
ICF-I	79,558,278	61.6	52
ICF-II	6,232,253	4.8	33
Community ICF/MR <sup>2</sup>	2,159,848	1.7	--
<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	\$129,186,696	100.0	45

<sup>1</sup>These percentages represent the percent increase in dollars spent over the previous fiscal year.

<sup>2</sup>Community ICF/MRs reimbursable under Title XIX as of 1/1/74.

TABLE 2.12  
FY 1974 Minnesota State Medicaid Expenditures

<u>EXPENDITURE CATEGORY</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>	<u>% INCREASE OVER FY 73</u>
Long term Care	\$129,276,696	57	45
Other Medicaid Services	98,113,266	43	--
<hr/>	<hr/>	<hr/>	<hr/>
TOTAL Medicaid	\$227,389,962	100	20

TABLE 2.13  
FY 1975 Minnesota State Medicaid  
LTC Expenditures

<u>LEVEL OF CARE</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>	<u>% INCREASE OVER FY 74</u>
SNF	\$54,516,432	36.3	32
ICF-I	84,474,744	56.2	6
ICF-II	6,979,533	4.5	12
Community ICF/MR	4,391,407	3.0	--
<u>TOTAL</u>	<u>\$150,362,116</u>	<u>100.0</u>	<u>16</u>

TABLE 2.14  
FY 1975 Minnesota Medicaid State Expenditures

<u>EXPENDITURE CATEGORY</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>	<u>% INCREASE OVER FY 74</u>
Long term Care	\$150,362,116	57.5	16
Other Medicaid Services	110,864,728	42.5	13
<u>TOTAL Medicaid</u>	<u>\$261,226,844</u>	<u>100.0</u>	<u>15</u>

TABLE 2.15

FY 1976 Minnesota State Medicaid Long Term  
Care Expenditures

<u>LEVEL OF CARE</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>	<u>% INCREASE OVER FY 75</u>
SNF	\$65,707,435	36.0	20
ICF-I	99,315,354	54.5	17
ICF-II	6,652,158	3.6	-5
Community ICF/MR	10,646,737	5.9	142
<u>TOTAL</u>	<u>\$182,321,684</u>	<u>100.0</u>	<u>21</u>

TABLE 2.16

FY 1976 Minnesota Medicaid State Expenditures

<u>EXPENDITURE CATEGORY</u>	<u>EXPENDITURES</u>	<u>% OF TOTAL</u>	<u>% INCREASE OVER FY 75</u>
Long term Care	\$182,321,684	56.6	21
Other Medicaid Services	139,341,316	43.4	25.6
<u>TOTAL Medicaid</u>	<u>\$321,662,000</u>	<u>100.0</u>	<u>23</u>

As in FY 1975, FY 1976 LTC expenditures remained at about 57% of total Minnesota state Medicaid expenditures. Expenditures in all categories rose substantially except for the ICF-II category.

Perhaps the most interesting statistic is found in Table 2.15, which indicates an annual increase of 142% in community ICF/MR expenditures, from \$4.39 million to \$10.64 million in FY 1976. This is a significant cost increase, and is only partly due to the increase in the number of community ICF/MR facilities (and beds). The number of community ICF/MRs increased 29% (from 90 on 6/30/75 to 116 on 6/30/76)<sup>67</sup> and the total number of licensed community ICF/MR beds increased 19% (from 2,707 on 6/30/75 to 3,241 on 6/30/76).<sup>68</sup> This explains only part of this cost rise. The average per diem cost for ICF/MRs in FY 1975 was \$15.71 (N=74), while in FY 1976 it was \$20.34 (N=78), a rise of 29%.<sup>69</sup> Figure 2.2 summarizes: 1) an increase in the number of community ICF/MRs; 2) increase in the number of licensed community ICF/MR beds; 3) an increase in the average community ICF/MR per diem rate, and 4) normal inflationary pressures (5.4% in this period).<sup>70</sup>

In FY 1976, the FMAP decreased to 56.84% (from 57.37% in FY 1975). In January, 1976, however, the State of Minnesota agreed to take over 90% of the non-federal portion of the total Medicaid bill. Thus, the state portion became 38.84% of the total Medicaid bill while the county portion declined to 4.32% of the total Medicaid bill.

It is apparent from the above information that the dominant trend for Minnesota Medicaid expenditures has been one of substantial cost increases. Figures 2.3 through 2.9 illustrate these trends in a slightly different format. The average rate of increase was 27% per year for long term Medicaid expenditures and 20% for total Medicaid expenditures (LTC and other M.A. expenditures) in the period of FY 1973 to FY 1976.

If LTC expenditures for FY 77 continue to increase at the same rate, Minnesota Medicaid expenditures for LTC could approach \$230,000,000 and perhaps even higher when one considers Minnesota's increased share of the total Medicaid bill (now 38.84%). Total Minnesota Medicaid expenditures can be estimated to be \$380,000,000 for FY 1977 (assuming 20% growth).

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<sup>67</sup>Medical Assistance Section, DPW.

<sup>68</sup>Minnesota Department of Health.

<sup>69</sup>Audits Division, DPW.

<sup>70</sup>Consumer Price Index, CPI Detailed Report, Bureau of Labor Statistics, September 1975, page 1.

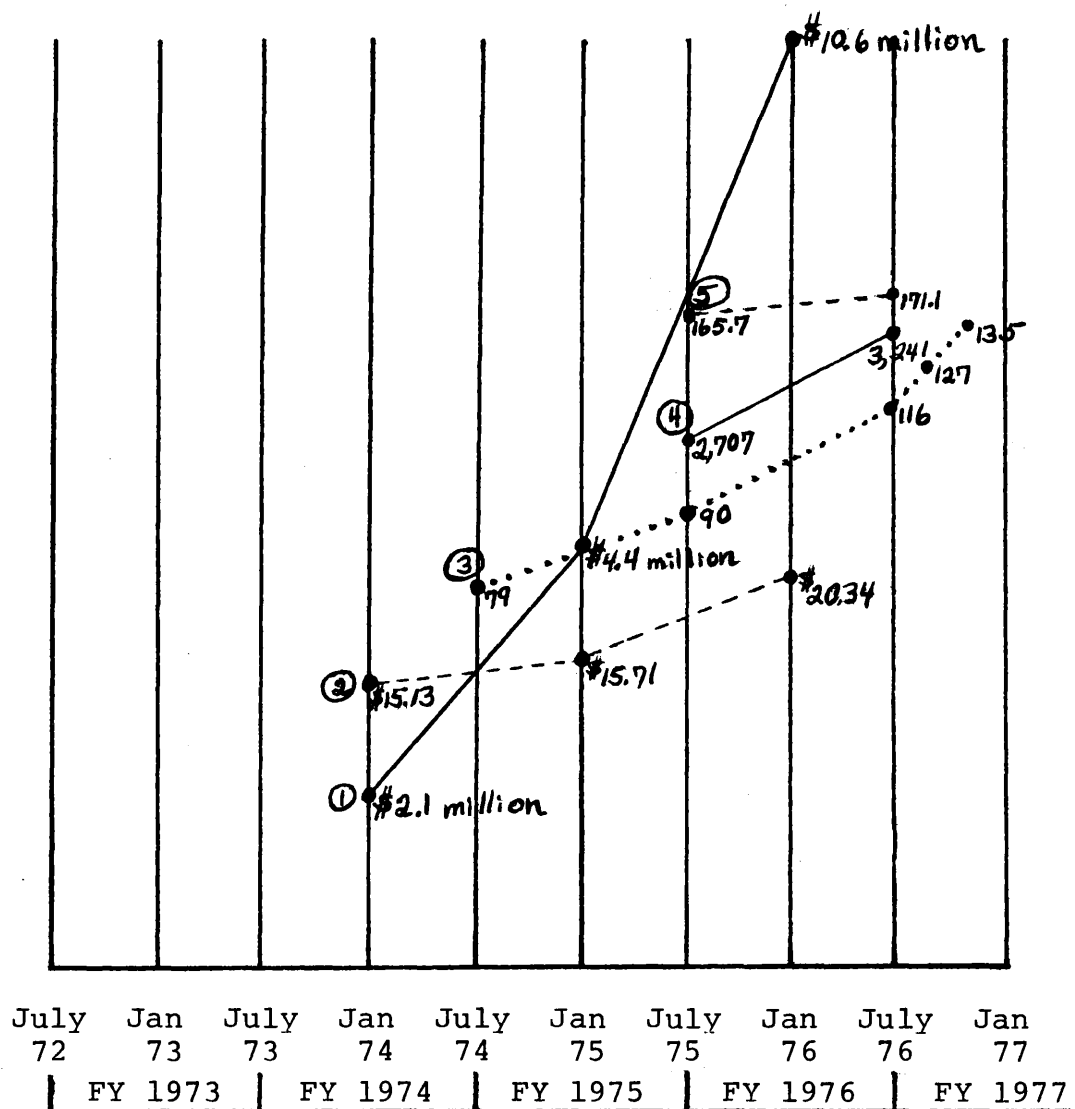


Figure 2.2

### Community ICF/MR Growth Pattern

#### Key

1. Medicaid expenditures for ICF/MRs: FY 1974, FY 1975, FY 1976. (The \$2.1 million is for 1/1/74 to 6/30/74).
2. Average community ICF/MR per diem rate: FY 1974 - FY 1976.
3. Number of community ICF/MRs receiving Medicaid funding.
4. Number of MDH-licensed community ICF/MR beds.
5. Consumer Price Index for all goods (1967 = 100%).

#### Sources

1. Research and Statistics, DPW.
2. Reimbursement Division, DPW.
3. Medical Assistance, DPW.
4. Department of Health.
5. Consumer Price Index (CPI) Detailed Report, U.S. Department of Labor, Bureau of Labor Statistics, September, 1976, p. 1.

NOTE: The reader should be aware that Figure 2.2 displays trend lines in the factors which contribute to increased total ICF/MR expenditures; because there is no common scale, the trend lines cannot be compared with one another.

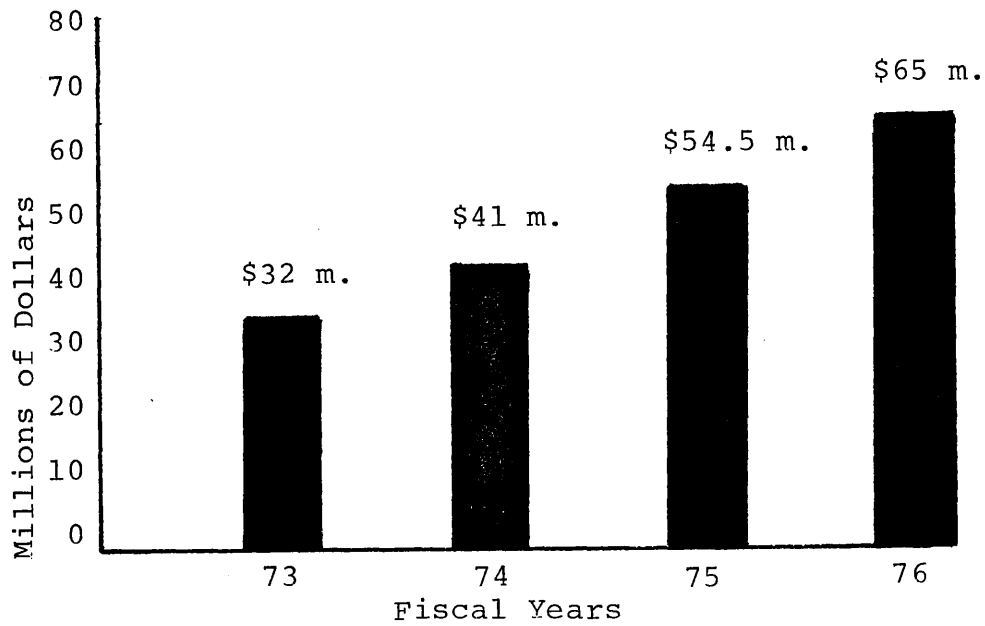


Figure 2.3: Minnesota Medicaid SNF Expenditures, FY 1973-1976<sup>1</sup>

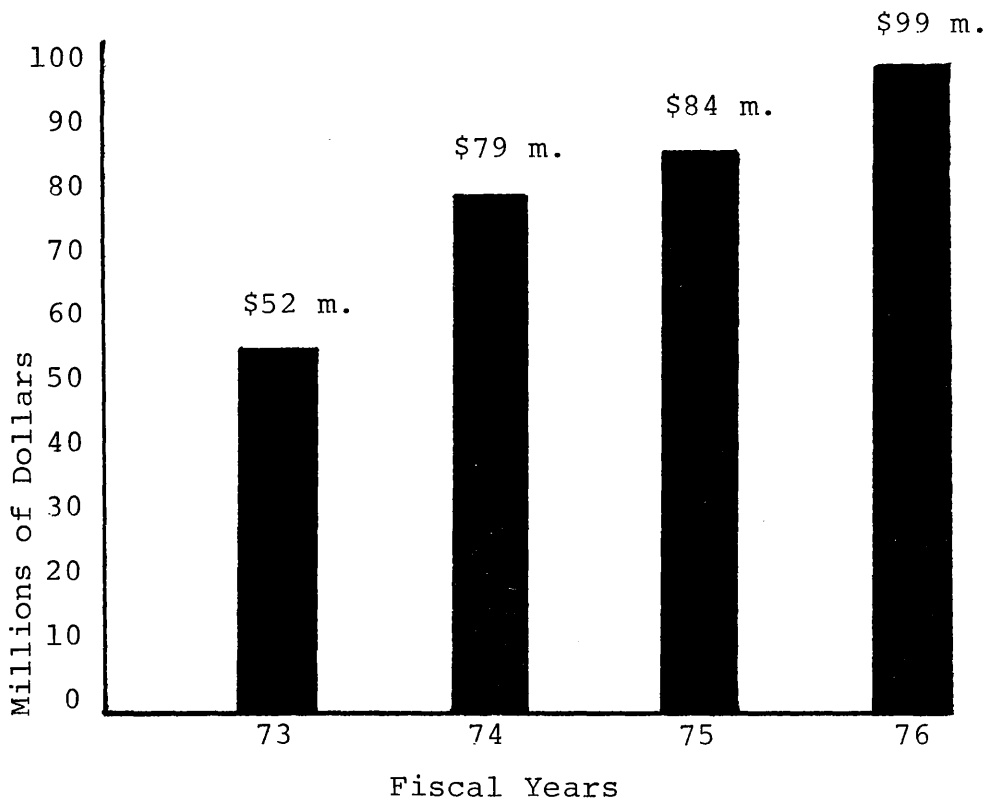


Figure 2.4: Minnesota Medicaid ICF-I Expenditures, FY 1973-1976<sup>1</sup>

<sup>1</sup>Source: Research and Statistics, DPW.

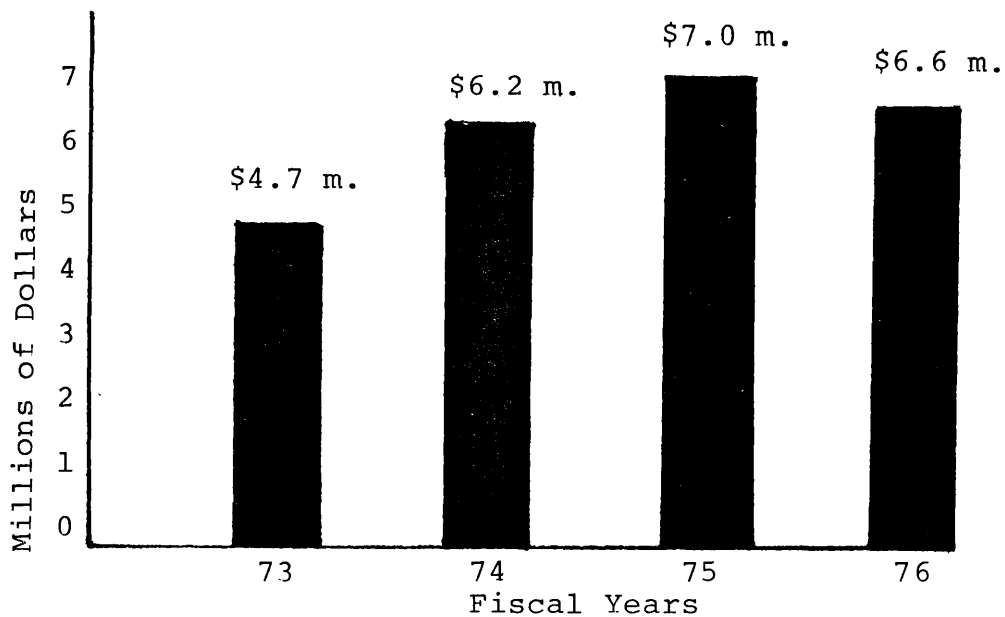


Figure 2.5: Minnesota Medicaid ICF-II Expenditures, FY 1973-1976<sup>1</sup>

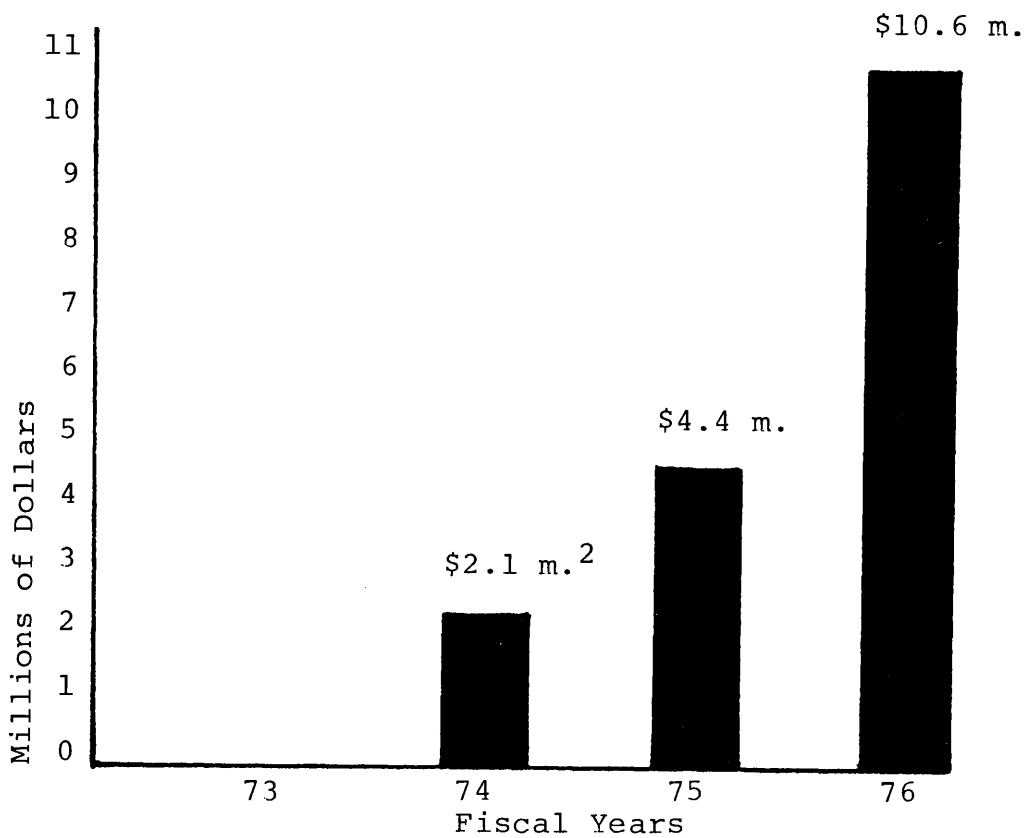


Figure 2.6: Minnesota Medicaid ICF/MR Expenditures, FY 1973-1976<sup>1</sup>

<sup>1</sup>Source: Research and Statistics, DPW.

<sup>2</sup>1/1/74 - 6/30/74.



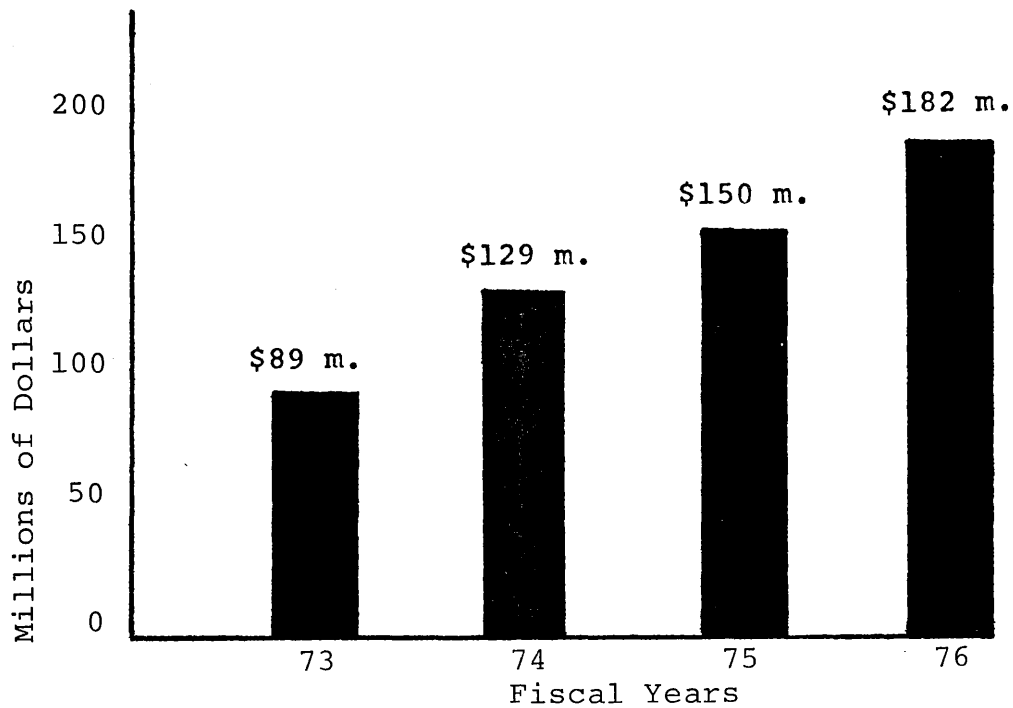


Figure 2.7: Minnesota Medicaid Long Term Care Expenditures, FY 1973-1976

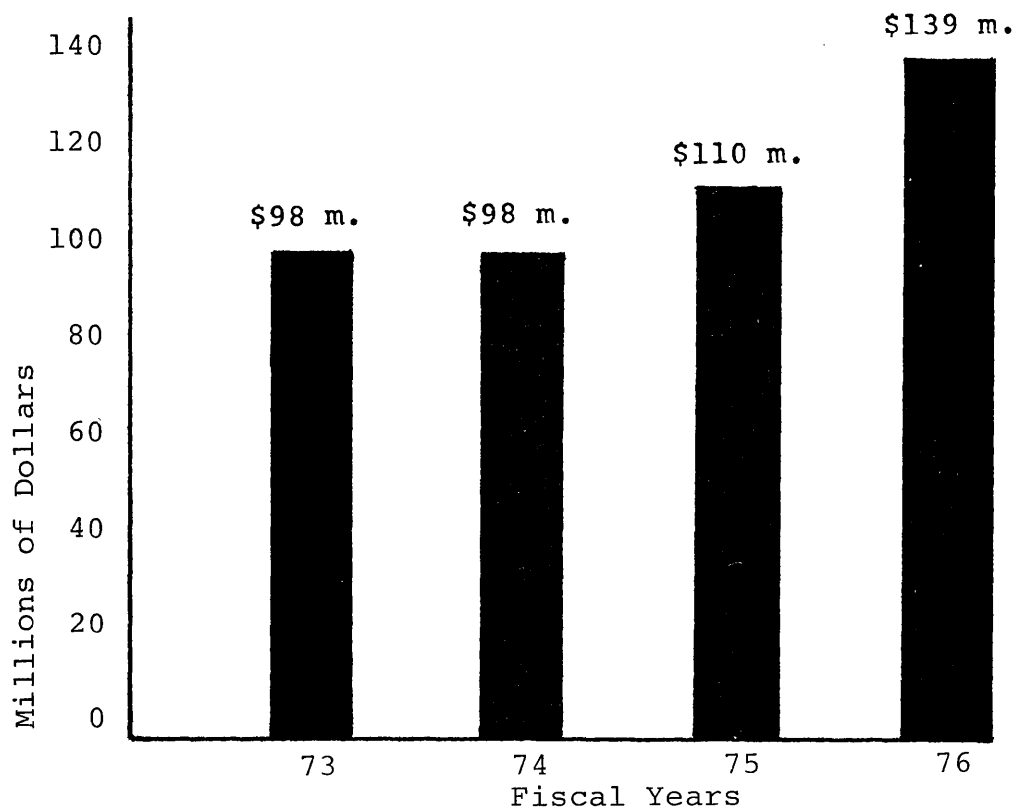


Figure 2.8: Other Minnesota Medicaid Service Expenditures, FY 1973-1976

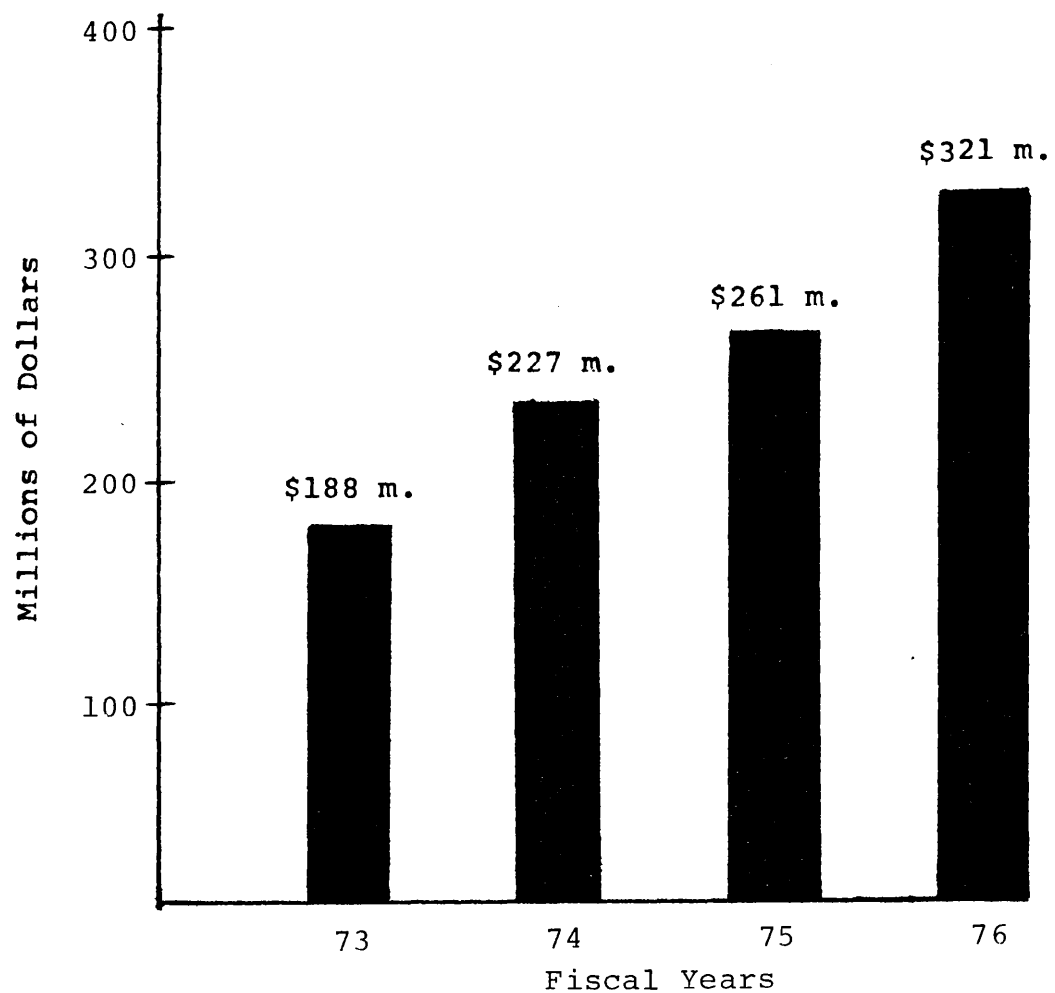


Figure 2.9: Total Minnesota Medicaid Expenditures, FY 1973-1976

### 3. Government Role in Regulation

#### Introduction

The role of government in regulating the quality of the Medicaid long-term care system warrants a detailed explanation. The primary governmental actors in quality control in Minnesota are state Departments of Public Welfare and Health.

#### Standards

Quality regulation in the Minnesota LTC system is primarily exercised through various sets of standards which residential facilities must meet in order to operate in the state. There is no one single set of requirements, however, nor one agency to implement the requirements.

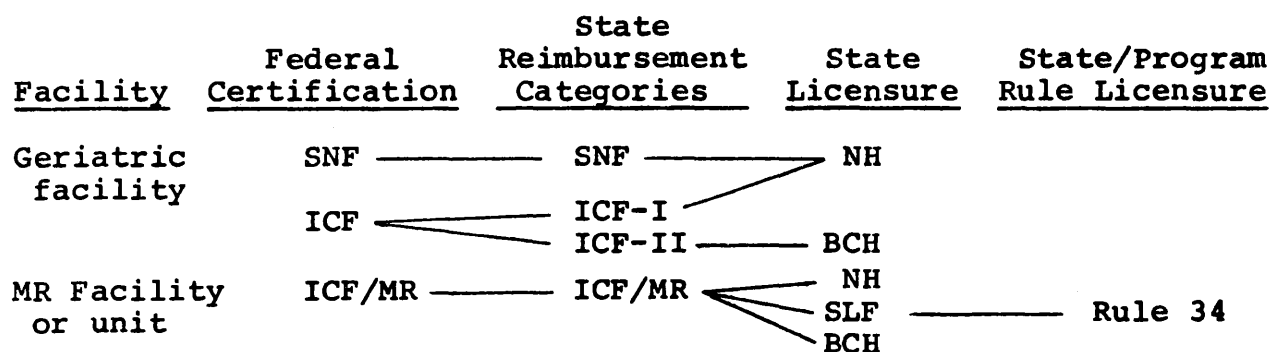
For example, Minnesota health care facilities must show justification for construction or modification expenditures; this is accomplished through various need determination procedures. If a proprietary or non-profit health care facility proposes to change bed capacity, to substantially alter services, or to incur capital expenditures of over \$100,000 (including costs of studies, surveys, planning and other preliminary expenses), and intends to use federal dollars to cover expenditures, a review is required by section 1122 of the Social Security Act. Review consists of proposal examination by the State Health Planning and Development Agency and by the local health systems agencies to ensure that federal funds are not used to support unnecessary capital expenditures in health care facilities. Failure to pass the review means that federal money cannot be used to apply to costs that pertain to interest and amortization of the capital expenditure.

State certificate of need review is necessary for health care facilities proposing construction or modification that (1) costs more than \$50,000 and either adds beds or expands services or (2) costs more than \$100,000. Health care facilities are defined by the Minnesota Certificate of Need Act to include licensed hospitals, nursing homes, and boarding care homes. Proposals for construction or modification are submitted to the local health systems agency. Public hearings are required in the agency's review of the proposal. The recommendation is then sent to the State Board of Health for the final decision. Also involved in the certificate of need process is the State Health Planning and Development Agency, in its role of policy guidance and rule making authority. Community facilities for the mentally retarded are not required to be reviewed for a state certificate of need, but to undergo need determination by the area mental health/retardation boards.

Before construction can begin, there must be a determination that a facility's construction plans meet the Uniform Building Code. The local building official is charged with enforcing the code and must be consulted concerning zoning restriction, building and occupancy permits, etc. The actual building plans may be sent to the State Building Code office for review to determine code compliance. The State office will then make recommendations to the local building official and/or the architect.

Once need and code compliance are determined, LTC facilities must meet requirements of various licensing and certification standards. To receive Medicare or Medicaid dollars, facilities must meet federal certification requirements for the level of care offered. There are two broad categories: SNF (skilled nursing facility) and ICF - general (intermediate care facility), plus separate requirements for MR facilities (ICF/MR). Federal regulations require a facility to meet state licensure requirements before it may be certified to receive Medicaid and Medicare reimbursement. State licensure uses a separate classification of facilities: nursing homes (NH), supervised living facilities (SLF), or boarding care homes (BCH). Certain LTC facilities must also meet standards set out in DPW program rules. These rules deal mostly with client groups in facilities which habilitate or rehabilitate primarily through therapeutic programming. There are no program rules governing geriatric facilities. The only relevant program rule to be discussed in detail for purposes of this study is Rule 34 governing MR facilities. Other program rules do not currently apply to Medicaid - eligible facilities.<sup>71</sup>

The relationship between certification and licensure requirements can be shown in the following chart:



Two sets of ICF/MR regulations are used; both sets of standards were promulgated in 1974. Currently, facilities are measured against both sets of standards, although a three year "lead-in" time, until March, 1977, has been allowed for full compliance with the 1977 regulations.

<sup>71</sup>Rule 36, which governs MI facilities, sometimes applies to Medicaid-eligible facilities but has not been fully implemented. See Appendix C for documentation.

In addition to the requirements above, there are other standards that must be met by LTC facilities. One of these is a Life Safety Code Survey, under the aegis of the Fire Marshal's office, necessary for either Medicare or Medicaid reimbursements. Prior to initial licensure, a fire inspection is also required, although this particular inspection is not a yearly requirement but is performed thereafter upon request. Federal OSHA<sup>72</sup> standards must also be met by all LTC facilities. OSHA is intended to protect job safety and health of workers. Under a plan approved May 29, 1973, by the OSHA division of the U.S. Department of Labor, the Minnesota Department of Labor and Industry is charged with the enforcement of OSHA standards.<sup>73</sup> Inspections are on a "spot check" basis unless there has been a complaint lodged against the facility. SHs are inspected by a DPW employee, classified as an OSHA inspector, on a regular basis with the intent of ensuring compliance, so that any major problem would be identified and could be corrected prior to any possible "spot checks."

LTC facilities can choose to be inspected by the Joint Commission on Accreditation of Hospitals (JCAH). There are separate criteria for MR facilities or units and for nursing homes. A review of SH can last up to 3-4 days and require several surveyors at a cost of approximately \$500 per surveyor. Most SHs in Minnesota have undergone JCAH accreditation procedures with varying results. Surveys in NHs cost \$450 as a flat fee. Some nursing homes have invited JCAH surveys, but no community-based ICF/MRs have, primarily because of the cost. The reviews are important to medical facilities such as SHs and NHs because JCAH standards are the only non-governmental nationally recognized standards, and accreditation is said to help in attracting professional staff, particularly doctors. In addition, an SH with JCAH accreditation need not undergo a full hospital survey for Medicare certification. Utilization review and institutional planning review must still be done, but the JCAH accreditation and a psychiatric survey fulfill the Medicare certification survey requirement. JCAH accreditation status does not affect Medicaid survey requirements.

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<sup>72</sup>OSHA is the Occupational Safety and Health Administration.

<sup>73</sup>Minnesota Department of Labor & Industry. Occupational and Health Division. Safety and Health Protection on the Job.

Because the required standards for long term care in Minnesota have been set by several agencies at several levels of government, much confusion has resulted. Table 2.17 is an attempt to array state and federal regulations for geriatric facilities and ICF/MRs. The format is intended to allow comparison between standards for facility classifications under each governmental entity, and then comparison between regulatory levels for a given type of facility.

Table 2.17 is not intended to be inclusive or detailed; rather, it is designed to give the reader a flavor of the regulations by which facilities are licensed and certified. Exact wording was used where possible, but paraphrasing was often necessary. Quotation marks in Table 2.17 denote language contained in the regulations.

The main sources of information were the survey report forms for SNFs, ICFs, ICF/MRs, NHs, BCHs, and SLFs. These were used in preference to the codified regulations because they use a condensed format and they represent the operationalization of the regulations. An additional source of the geriatric facility standards is a chart prepared by a consultant at government expense.<sup>74</sup> The exceptions are the guidelines for Rule 34 which were taken directly from the Rule, which was more explanatory than the record review sheet.

Because one aim was to abbreviate the regulations into an easily readable form, we had to be somewhat selective. Researchers who were familiar with ICF/MRs and with NHs, respectively, charted those regulations. Eight categories were determined to be relevant to both types of facilities: Physical Plant; Nursing; Other Medical; Recreation, Training and Habilitation; Therapies; Social and Psychological; Dietary; Active Treatment. Some of these headings were taken directly from survey report form headings, others were derived and consolidated as appropriate.

The focus of Table 2.17 is quality of patient care and we limited this more specifically to direct patient care. Several categories found on the forms were not included in this analysis, e.g., Administration, Medical Records, etc. The assumption was made, for purposes of abbreviation, that the day-to-day effect on the resident would be

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<sup>74</sup>"Assessment of Cost and Operational Impacts of SNF/ICF Standards," Vol. II, April 23, 1976, draft final report; JWK International Corporation, 7617 Little River Turnpike, Suite 800, Annandale, Va. 20003.

greater for such items as medical or therapy provisions than for such items as disclosure of ownership or transfer agreements. This is not to suggest that excluded criteria are not relevant to an overall evaluation of health care facilities, but merely that they were somewhat extraneous to our purposes.

Various observations can be drawn from Table 2.17, primarily concerning two variables: orientation and specificity.

a) Orientation

Geriatric facility regulations in general are oriented more toward nursing and medical services than are the guidelines for MR facilities. Conversely, MR regulations (especially 1977) focus more on active treatment and therapies than do those for geriatric facilities. Rule 34 particularly emphasizes the concept of "normalization," (e.g., in free use of space and activities). Whether these orientations are inherent characteristics of the particular types of facilities and residents or whether they have been instituted by the regulations is a question worth pondering but one which this study is not prepared to answer.

b) Specificity

Looking across levels of government, different degrees of specificity can be detected. Standards promulgated by MDH for NHs and SLFs are more specific in the area of physical plant and immediate personal environment (e.g., room furnishings, lighting, and ventilation) than the comparable federal regulations.

For geriatric facilities, "State Board of Health Regulations are fairly high for most items and from a national perspective, Minnesota has a good reputation. The most recent revisions of the State Board of Health Regulations attempt to follow and quantify federal minimums where the federal law does not specify a quantity."<sup>75</sup>

Part of this discrepancy between the levels of government is explained by the fact that definitions of levels of care are not consistent between federal and state guidelines. According to state regulation, ICF-I and SNF levels of care are subject to the same requirements. In comparing federal SNF regulations with state nursing home regulations, the latter

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<sup>75</sup>Ibid, p. III-5.

**TABLE 2.17 SELECTED REGULATIONS**

PHYSICAL PLANT	NURSING	OTHER MEDICAL <sup>1</sup>	RECREATION, TRAINING AND HABILITATION
<p>Patient rooms "designed for adequate nursing care, comfort and privacy of patients"</p> <p>Single-patient rooms: At least 100 sq. ft., per bed</p> <p>Multi-patient rooms: At least 80 sq. ft. per bed; No rooms with more than 4 beds. Compliance with life safety code; ANSI; Emergency power source, facilities for special care; Dining and patient activities rooms; Infection control; Disaster preparedness.</p>	<p>24 hour service by licensed nurses</p> <p>RN: Director of Nursing 5 days per week; Assistant DON 2-days per week; 1.4 FTE's</p> <p>LPN: Under 60 beds - charge nurse 2 shifts a day - 7 days a week - 2.8 FTE's over 60 beds - charge nurse 3 shifts a day - 5 days a week, 2 shifts a day on weekends; 3.8 FTE's; Nurses' Aides, Attendants, and Orderlies: "Sufficient number of qualified nursing personnel to meet total patient needs;"</p> <p>Written patient care plan maintained by nursing staff in coordination with other patient care services.</p>	<p>Medical Advisor/Director: full or part-time for each facility; Annual medical evaluation of each resident's need for SNF care; Admission only upon recommendation of physician; Maximum of 60 days between physician visits (30 days for those requiring specialized rehab services); Dental Advisor: must recommend oral hygiene policies and practices; Pharmacist Consultant: qualified pharmacist who devotes sufficient hours; Provision for promptly obtaining required laboratory, X-ray and other diagnostic services.</p>	<p>Staff development: Ongoing education program; Regular, frequent recreational consultation if Activities Director is not qualified.</p>
<p>"Favorable environment for residents"; Single-patient rooms; at least 100 sq. ft.; Multi-patient rooms; at least 80 sq. ft. per bed; No rooms with more than 4 beds "Adequate" recreation areas; Compliance with life Safety Code; ANSI</p>	<p>Health Services Supervisor</p> <p>Immediate supervision of health services; full-time on day shift;</p> <p>RN: Consultation for Health Services supervisor not less than 4 hours per week if he/she is not an RN; 0.1 FTE</p> <p>LPN: Health Services supervisor all days of each week; 1.4 FTE; Nurses Aides, Attendants, Orderlies: responsible staff person awake at all times.</p>	<p>Arrangements for medical and remedial services required by residents but not regularly provided by facility;</p> <p>Plans of care: individualized plans written by physician and regularly reviewed;</p> <p>Health care under continuing supervision of physician who sees residents as needed and no less than every 60 days.</p> <p>Pharmaceutical consultation arrangement where no licensed pharmacist is employed.</p>	<p>Inservice Education Program</p>
<p>"Favorable environment" for residents; including "Adequate" space, equipment, furnishings etc., to ensure comfort, privacy and safety; (e.g., 100 sq. ft./resident in single rooms 80 sq. ft./resident in Multiple rooms; ANSI</p>	<p>Provided "as needed" all days; Written health care plan. Supervision by RN or LPN (or LVN<sup>3</sup>);<sup>4</sup> who is full-time, day shift;</p> <p>If LPN is supervisor, RN must be under consulting contract- 4 hours weekly;</p> <p>Responsible staff members on duty and awake at all times to act in case of emergency, injury, or illness;</p> <p>RN reviews meds monthly;</p>	<p>Must have arrangements for med. services as required;</p> <p>All personnel administering med- must have state approved training program;</p> <p>M.D.: Annual exam for residents Formal arrangements for emergency care 24 hours, 7 days/week. Meds reviewed quarterly;</p> <p>Dental: Care by licensed dentist or dental surgeon. Annual review; Evaluation, diagnosis and treatment, care of emergencies;</p> <p>Pharmacy: Provided by licensed pharmacist employed directly or by formal arrangement.</p> <p>Consultation and drug handling, prescription filling, etc.</p>	<p>"Organized recreational activities consistent with" needs and capabilities, "Adequate" recreation areas, equipment and materials.</p>
<p>Living unit design and equipage requirements for space, equipment, furnishings, ventilation, temperature, lighting, etc., for comfort, safety and sanitation;</p> <p>Policies for emergency procedures;</p> <p>ANSI</p>	<p>Service as needed; RN participates in evaluation, placement, periodic review, discharge planning, referrals, training in personal hygiene, family life, sex educ., control of disease, and infection; Development of nursing plan; training of facility pers. in detecting illness, basics of first aid and health care;</p> <p>"Sufficient, appropriately qualified" nursing staff (may include LPN and other supporting personnel) Person delivering nursing services must have background in developmental disabilities.</p>	<p>Meds stored safely, administered only by qualified staff;</p> <p>M.D. = Fully licensed M.D. directly or indirectly employed;</p> <p>Formal arrangements for qualified medical care 24 hrs/day, 7 days/week;</p> <p>Arrangement for emergency and other medical care as needed;</p> <p>Dental: Fully licensed dentist and dental hygienist; Formal arrangements for qualified and adequate care all the time; Sufficient, appropriately qualified dental personnel and support staff;</p> <p>Diagnostic, treatment, emergency treatment 24 hr./ 7 days/week;</p> <p>Education and training.</p>	<p>Rec: "Sufficient", qualified staff and support staff; supplies; BA in rec. or special area (music, art, etc.) or AA in rec and 1 year experience or High School diploma or equivalent and 2 years experience of demonstrated proficiency and experience in activities; Periodic survey of interests; Training and Habilitation Available to all residents; Individual evaluations &amp; objectives; Under supervision of MR pro., sufficient staff to carry out program.</p>



TABLE 2.17 (Cont.) SELECTED REGULATIONS

	THERAPIES <sup>5</sup>	SOCIAL AND PSYCHOLOGICAL	DIETARY	ACTIVE TREATMENT
SNF	Rehabilitation services daily for those who need it; evaluated every 30 days	Arrangements for identifying medically related social and emotional needs of residents;  Written procedures for patient referral to appropriate agencies in facilities where social services are not promoted.	Full-time "qualified" dietetic supervisor is "not qualified", he/she has frequent, regular consultation; Food service personnel on duty 12 or more hours per day; Menus to meet nutritional needs of residents in accordance with physician orders; Three meals daily with no more than 14 hour span between evening meal and breakfast.	Activities program, appropriate to needs and interests of each patient, to encourage self-resumption of normal activities and maintenance of an optimal level of psychosocial functioning.
ICF	Arrangements for required institutional services with outside resources where qualified professionals are not employed.	Social services provided or arranged as needed;  Designated staff member, qualified by experience or training, responsible for arranging social services.	Dietary services supervisor "suited by training or experience";  Special diet meals planned by qualified dietician or approved by attending physician;  Menus to meet nutritional needs of residents in accordance with physician orders.	Administrator or professional staff member designated as resident service director; responsible for coordinating and monitoring residents' overall program of care; Activities plan for independent and group activities developed for individual needs and reviewed at least quarterly.
ICF/MR 1974	OT, PT - "as needed" in IPP; under supervision of M.D. or licensed PT who meets 20 CFR 405.1101(q) and OT meeting 20 CFR 405.1101(m);  Speech Path. & Audiology Maximize communication skills need listed in IPP; Under direction of M.D. or Sp. Pathologist or Audiologist meeting 20 CFR 405.1101 (t)	M.A. Psychologist participating in evaluation; and review; gives individual treatment;  Social services "as needed" includes: evaluation counseling referral Participates in review, discharge, planning, follow-up.	3 meals a day, Not more than 14 hours between supper and breakfast;  "Adequate" nutrition; special diets as needed; sanitary, provides self help devices, adequate meals, menus planned;  Designated staff member in charge who is "suited by training or experience."	IPP required; Inter-disciplinary professional evaluation; Annual re-evaluation to review program, appropriateness of plan of care and need for institutionalization; Individual discharge plan; Qualified M.R. prof. must supervise IPPs; "Sufficient" staff must be on duty at all hours; Direct care staff carries out - - resident living program - A.D.L. training - self help & social skill development. - help on IPPs
ICF/MR 1977	"Adequate space, supplies and equipment"; OT, PT: Provided directly or indirectly. Aimed at independent functioning and prevention of progressive disabilities; works with other med. staff in review and evaluation - meet 20 CFR 405.1101 (m),(q) therapy assistants meet 20 CFR 405.1101 (n)(r) and be supervised by OT, PT. Sp. Path. & Audiology Communications improvement Review, evaluation, IPP development. Inservice training for other staff; Sufficient support staff; Responsible clinician meets 20 CFR 405.1101 (t)	M.A. Psychologist with MR experience; direct or indirectly; Participates in IPPs, review evaluation. Psych services to individuals; Sufficient support staff;  Social work to help coping, social functioning; Involved in placement, IPPs, follow-up; Liaison-community, family, MR, and facility; Social worker meets 20 CFR 405.1101 (s); supervises Social worker aides; Sufficient support staff.	3 meals/day, less than 14 hours between supper and breakfast, less than 10 hours between breakfast & supper;  "Adequate" meals, diets, nutrition, quality food; Eat in dining room unless for health; Training in eating skills; "Adequately" staffed dining rooms; Dietician meets 20 CFR 405.1101 (t) for more than 19 beds; Less than 19 beds "designated staff suited by training or experience";	Resident living staff; 1:2 ratio for children under 6, severe & profoundly retarded aggressive, assaultive, security risk, psychotics and severely hyperactive residents. 1:2.5 - moderately retarded in habit training. 1:5 - Those in vocational training adults in sheltered workshops Training in A.D.L., self help, and social skills; Aid in IPPs; Must have activity schedule; Non ambulatory and multiple handicapped shall have planned activities; Guidelines for restraint and punishment; Maximum independence is the goal in health, hygiene and grooming.

TABLE 2.17 (Cont.) SELECTED REGULATIONS

PHYSICAL PLANT	NURSING	OTHER MEDICAL	RECREATION, TRAINING AND HABILITATION
<p>Room size specifications according to new or existing construction;</p> <p>Room furnishing specifications, e.g., bed at least 36" wide, comfortable chair, closet, dresser space, cubicle curtains, signaling device, bed light...; Dayroom - Dining Room - Individual bedside equipment.</p>	<p>Sufficient nursing personnel at all times;</p> <p>RN: Director of Nursing Service on full-time day shift, 1.0 FTE RN on call when none on duty;</p> <p>LPN: Under 60 beds-assistant DON on weekends; 0.4 FTE; over 60 beds - Sufficient number of qualified nursing personnel to meet needs of all patients;</p> <p>Rehabilitative nursing care;</p> <p>Nurses, Aides, Attendants, and Orderlies: at least 2 hours of nursing care per patient day.</p>	<p>"Effective" working relationship with hospitals, other care facilities and public or voluntary health and social agencies (shared services, cooperative education, etc.);</p> <p>Patient Care Policy;</p> <p>Designated physician: agreement to provide emergency services and act as advisor; Examination by physician at least every 6 months;</p> <p>Admission only upon recommendation of physician;</p> <p>Medications administered by physician order;</p> <p>Written agreement for emergency dental care.</p>	<p>Inservice Education;</p> <p>SEE ACTIVE TREATMENT</p>
<p>Sanitation and Safety Requirements;</p> <p>Specific requirements on ventilation, lighting space, furnishing, etc.</p> <p>e.g., single bedroom, ambulatory 70 sq. ft./resident</p> <p>multi-bedrooms, ambulatory 60 sq. ft./resident - 3 ft. between bed - set side by side.</p> <p>1 ft. between beds if end to end.</p> <p>Emergency procedures -</p>	<p>Nursing Attendant awake, dressed and on duty at all times.</p>	<p>Health services to:</p> <ul style="list-style-type: none"> <li>Optimize health</li> <li>Maximize functioning</li> <li>Prevent disability</li> <li>development;</li> </ul> <p>Emergency care provided for;</p> <ul style="list-style-type: none"> <li>Health record dept.;</li> <li>Assessment on admissions;</li> <li>Annual dental assessment;</li> <li>Meds control plan.</li> </ul>	
<p>Room size specifications according to new or existing construction;</p> <p>Room furnishing specifications, e.g., bed at least 36" wide, comfortable chair, closet, dresser space, cubicle curtains, signaling device, bed light...; Dayroom - Dining Room</p>		<p>"Effective" working relationship with hospitals, other care facilities and public or voluntary health and social agencies (shared services, cooperative education, etc.);</p> <p>Resident care record;</p> <p>Designated physician; Agreement to provide emergency services and act as advisor;</p> <p>Examination by physician at least annually;</p> <p>Written agreement for emergency dental care.</p>	<p>Inservice Education;</p> <p>SEE ACTIVE TREATMENT</p>
<p>Living unit requirements oriented towards a normalized environment;</p> <p>e.g., free use of space, separate unit from rest of house, privacy, comfort and aimed towards development.</p> <p>Safety, sanitation requirements and emergency procedures.</p>		<p>Dental care to encourage individual oral care, use of newer equipment;</p> <ul style="list-style-type: none"> <li>Annual dental exam;</li> <li>Annual physical exam;</li> <li>Drug assessments;</li> <li>Physical &amp; motor assessments;</li> </ul> <p>Health services to -</p> <ul style="list-style-type: none"> <li>maximize functioning</li> <li>prevent disability</li> <li>maintain optimal growth</li> </ul>	<p>Activities aimed at normal rhythm of life;</p> <p>See ACTIVE TREATMENT</p>

TABLE 2.17 (Cont.) SELECTED REGULATIONS

RULE 34	BOARDING CARE HOME	SLF	NURSING HOME	THERAPIES	SOCIAL AND PSYCHOLOGICAL	DIETARY	ACTIVE TREATMENT
						<p>"Trained or experienced" dietary supervisor.</p> <p>Dietician consultant for therapeutic diets at least 4 hours/month (unless dietary supervisor qualifies);</p> <p>Personnel on duty at least 12 hours/day;</p> <p>Specific food group requirements.</p>	<p>Organized, supervised activities program;</p> <p>Both at least every other day;</p> <p>2/3 hours of activities per bed per week.</p>
						<p>"Adequate" nutrition, meal frequency, variety, special diets;</p> <p>Lists out food group requirements;</p> <p>Also must meet State Board of Health standards for Food and Beverage service establishment.</p>	<p>Plan for attainment of hygiene practices;</p> <p>Responsible person, awake, healthy, dressed and up, and over 18, on duty.</p>
						<p>"Trained or Experienced" dietary supervisor;</p> <p>Dietician consultant for Therapeutic diets at least 4 hours/month (unless dietary supervisor qualifies);</p> <p>Personnel on duty at least 12 hours/day;</p> <p>Specific food group requirements.</p>	<p>Organized, supervised activities program;</p> <p>2/3 hours of activities per bed per week.</p>
				Speech and language assessment annually if under 16, as needed thereafter.	See "ACTIVE TREATMENT"	<p>Food service in accordance with physical, emotional, cultural, and developmental needs.</p> <p>Foods to stimulate chewing;</p> <p>Eat in dining area where possible;</p> <p>Dining room staff aid in self help eating procedures.</p>	<p>Training in A.D.L.; self help and social skills;</p> <p>Restraint guidelines;</p> <p>Assessments and evaluation;</p> <p>IPP specific guidelines - e.g., developed by interdisciplinary team;</p> <p>Maximum independence in health hygiene &amp; grooming is goal;</p> <p>Sufficient and qualified staff; (some specifics)</p> <p>Services to be provided; (off grounds)</p> <p>DAC Sheltered Work</p> <p>ED. Social Work</p> <p>Rec. Vocational</p> <p>Relig.</p>

TABLE 2.17

FOOTNOTES

- <sup>1</sup> Other Medical = medical services other than nursing. Includes general medical requirements and physician, pharmacy and dental services.
- <sup>2</sup> ANSI = Standards of the American National Standards Institute (no. A117.1, 1961) which apply to specifications for making buildings and facilities accessible to the physically handicapped.
- <sup>3</sup> L.V.N. = Licensed vocational nurse.
- <sup>4</sup> If the facility has less than 16 beds and the residents are certified by an M.D. as not in need of nursing, then a responsible staff member must always be available and a contract must be made with an R.N. for consulting, minor emergencies and illness.
- <sup>5</sup> Therapies = Rehabilitation therapies such as: occupational therapy (OT), physical therapy (PT), and speech pathology and audiology.
- <sup>6</sup> See Appendix B for the specific requirements as listed in 20 CFR 405.1101.
- <sup>7</sup> IPP = individual program plan.
- <sup>8</sup> ADL - activities of daily living.

are more specific on several criteria (e.g., dietician consultant, recreational activities director, physical plant characteristics, and nursing staff.)<sup>76</sup>

In comparing MR facility regulations between levels of government, federal regulations are generally more specific for nursing requirements than are state requirements. For example, both the 1974 and 1977 ICF/MR regulations discuss nursing personnel requirements and the duties to be performed by this staff. Rule 34 and BCH standards do not address nursing requirements at all and SLF standards simply require that a nursing attendant be awake, dressed and on duty at all times.

The immediate federal objective of Title XIX was to encourage the establishment by individual states of unified single Medicaid programs under which a common content of care would be covered for at least everyone receiving federal money payment under any of the categorical public assistance programs. Hence some sort of service standardization was indicated in legislative intent. This objective may be mitigated by the requirement that certification be contingent upon state licensure. For uniform reimbursement nationwide, it is necessary that federal standards be more stringent than all state codes. Otherwise facilities eligible for federal dollars in some states may be denied this money in states with stricter standards. A thorough inter-state comparison of regulations would be necessary to determine if this were the case.

Aside from differentiations of specificity in the regulations themselves, there is the added factor of differentiations of specificity in their transcription onto the survey report forms. We observed that in some cases the exacting standards of the regulations were represented on one report form but abbreviated in another. To illustrate, MDH dietary regulations for NHs, BCHs & SLFs all delineate required food servings. On the report form for the latter these details are listed:

"Two (2) or more servings of protein food of good quality. Consider each of the following as one serving:

- 3 ounces cooked (equivalent to 4 ounces raw) of any meat without bone, such as beef, pork, lamb, poultry or variety meats such as liver, hearts and kidney,
- 2 slices prepared luncheon meat,
- 2 eggs,
- 3 ounces of fresh or frozen cooked fish or shellfish or  $\frac{1}{2}$  cup canned fish,
- 1 cup cooked navy beans.

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<sup>76</sup>Ibid, pp. III 6-11.

However, the report form for NHs and BCHs mentions a more general requirement for meat servings (though still more specific than the federal). As a result, our chart of survey report form stipulations may be less specific than the regulations.

#### Procedures and Enforcement

Regulation of quality of Medicaid-reimbursed long term care facilities is the responsibility of both federal and state government. Federal regulations of the Social and Rehabilitative Services, DHEW, establish the minimum criteria for Title XIX eligibility. States in turn may choose to implement state level legislation and regulations which expand or refine those generated at the federal level. The state government then can enforce stricter standards without having the effect of denying its residents needed bed space. Because federal funding has become so crucial to their operation, long term care facilities realize a powerful incentive to comply with all the requisites of reimbursement. No federal disincentive exists for the states to impose stricter standards, as the formula reimburses for all legitimate compliance costs, not just those required for certification. There is thus an opportunity for significant state input in the federally-initiated Medicaid program. A study of the procedures and enforcement of quality control mechanisms involves examination of both state licensure and certification, with the latter contingent upon the former.

#### Federal Certification

In order to receive reimbursement either through MA or Medicare, a facility must be annually certified as meeting federal standards. In Minnesota, this inspection is conducted by the MDH survey team concurrently with the state licensure inspection, the combined procedure lasting two to four days. Three health facility evaluators comprise the team: nurse specialist, administrative specialist, and sanitation specialist. Each member is responsible for particular survey areas, e.g., the nurse monitors compliance with patient care regulations; the sanitation specialist examines conditions of the physical environment. Licensing teams are assigned to a particular district and conduct the yearly visits to facilities within that area.<sup>77</sup> An issue here is the stability of surveyor assignments. Other than normal promotion and transfer

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<sup>77</sup>Carol Hirschfeld, Supervisor, Records and Information Unit, Minnesota Department of Health, interview: September 27, 1976.

patterns there is no policy for rotation. Thus facility administrators and surveyors become familiar with each other. There are advantages as well as disadvantages to this situation. On one hand the health facility evaluators can develop a rapport with the administrators in their district and have a better opportunity to promote education of quality care.<sup>78</sup> On the other hand, surveyor biases may become entrenched and could be reflected in every annual evaluation. There is also the possibility that the rapport may become more personal than professional, which may jeopardize the surveyor's obligation of enforcement. Staff of the Survey and Compliance Section of MDH were aware of no problem with graft,<sup>79</sup> although it is possible that non-rotated surveyors would be more vulnerable to various corruption schemes than rotated surveyors would be.

The dual processes of state licensure and federal certification for Medicaid and Medicare were consolidated into one visit in order to better utilize staff time. There was also a financial incentive to do so, as federal funds could then subsidize surveyor salaries. Despite obvious savings of time, effort, and state dollars, there is one drawback: while state licensure is a relatively flexible process, federal deadlines are clearly specified. It has thus become necessary to schedule the survey visit approximately 60 days before the termination of the reimbursement provider agreement. This arrangement allows facility administrators to predict the time of their inspection reasonably accurately. An additional warning is provided by the Life Safety Code inspectors: although the federal government stipulates that this visit is to take place within 30-60 days of the certification survey and within 90 days of the expiration of the provider agreement, MDH has ruled that it precede the Health survey team by approximately 30 days. Thus, while Health Commissioner Lawson established a policy on April 7, 1975, that all inspections would be unannounced,<sup>80</sup> required scheduling arrangements based on provider agreements and life safety inspections preceding MDH surveys would appear to mitigate the effects of this policy. With anticipated inspections, it is questionable whether correction orders are indicative of normal conditions in the facility. Although 30 days may not be sufficient notice for an administrator to rectify flagrant violations, a facade of various practices could be implemented for purposes of the survey. The disadvantage of unannounced visits is that the appropriate and knowledgeable staff members may not be present.

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<sup>78</sup>Clarice Seufert, Chief, Survey and Compliance Section, Minnesota Department of Health, interview: October 26, 1976.

<sup>79</sup>Ibid.

<sup>80</sup>"Implementation of the 1973 Nursing Home Tagging Law by the Minnesota Department of Health." Joy Kahlenberg and Robert Ambrose, August 22, 1975.

Enforcement of federal standards is based on reimbursement disqualification. No provider agreements are issued for longer than a one-year period. However, if any deficiency is found, that facility is eligible for a one-period agreement at the maximum, but this may include a provision that certification can be revoked at any time within the year on a 60-day notice. When plans for correction are submitted by the facility, then certification (with the 60-day cancellation clause) is established. Until such plans are submitted, reimbursement eligibility is withheld. If follow-up visits reveal that correction plans have failed to materialize within the designated time frame, certification can be terminated.

The certification process is performance oriented; if intent to comply is exhibited by the facility, then the standard is considered fulfilled.<sup>81</sup> This orientation is illustrated by the following example from the survey report form for Skilled Nursing Facilities:

Y	N	NR	
			<div style="display: flex; justify-content: space-between;"> <span>→ <input type="checkbox"/> Met</span> <span><input type="checkbox"/> Not Met</span> </div>
			(c) Standard: Therapeutic diets
			Therapeutic diets are prescribed by the attending physician.
			Therapeutic menus are planned in writing, and prepared and served as ordered, with supervision or consultation from the dietician and advice from the physician whenever necessary.
			A current therapeutic diet manual approved by the dietician is readily available to attending physicians and nursing and dietetic service personnel.

In this case, the intent of the standard on therapeutic diets may be met without the facility necessarily complying with all the guidelines. This lack of rigidity in the federal certification process allows for more surveyor subjectivity. However, this performance orientation stresses spirit of the law above letter of the law and recognizes the need for relevance at the individual facility level, within a framework of standardization.

A problem with the certification provisions, mentioned by MDH personnel, is the frequency of change, due, for example, to new

<sup>81</sup>Seufert, October 26.



interpretations of the intent of Congress. In trying to realistically reflect federal requirements, formulators of State regulations may be caught in the bind of trying to operationalize the changing guidelines.

One difference between federal and state procedures is that the state charges a fee for licensing.<sup>82</sup>

### State Licensure

Minnesota's efforts toward regulated health care serve as a national model. "It was the first state to establish a Department of Health, the first to have a comprehensive licensing law, the first to establish a complaint team, and the first to pass a 'tagging law.'"<sup>83</sup>

The operationalization of quality control at the state level is the responsibility of the Minnesota Health Department (MDH). Rules generated by the State Board of Health govern the facilities under discussion here: nursing homes, boarding care homes, and supervised living facilities.

Procedures of enforcement at the state level are the responsibility of the Survey and Compliance Section of MDH. This function involves three phases: education, surveys, and tags. It is through these methods that quality control of long-term care facilities is enforced by the state.

Because of differences in procedures, we discuss separately the licensing for: 1) Nursing Homes and Boarding Care Homes, and 2) Supervised Living Facilities.

#### 1) Nursing Homes, Boarding Care Homes

Minnesota's "Omnibus Nursing Homes Act" was enacted in 1973 in an attempt to strengthen the enforcement impact of the state which previously relied upon the lengthy process of license revocation as the primary control over nursing homes. Included in the legislation is a provision which allows for the tagging of facilities, thus enabling MDH to fine homes which, upon the second inspection visit, have failed to comply with department regulations. During the annual facility inspection, correction orders are issued by the survey team for those deficiencies

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<sup>82</sup>The state license fee is \$50, plus \$2 times the number of licensed beds

<sup>83</sup>Kahlenberg, p. 2.

detected. The guideline is the Licensing Survey Report for Nursing Homes and Boarding Care Homes issued by MDH. The present procedures involve several steps once a deficiency has been cited:

- (1) the correction orders must be reviewed by an MDH Survey and Review Unit supervisor in the particular district;
- (2) the package of orders may be submitted to the central MDH office for review by the Assistant Section Chief before they can be issued to the facility;
- (3) a follow-up visit is scheduled within a "reasonable" amount of time allowed for correction and must be conducted before assessments may be levied for uncorrected deficiencies; and
- (4) an appeals hearing of assessments may be requested by the facility in violation within fifteen days of the issuance of assessment.

The above sequence is only temporary. In the past, all correction orders were written in the Department's Central Office; now the orders are sent to the providers through the district offices. Because of this shift in the locus of responsibility, many orders are temporarily being reviewed in the Central Office (step 2 above). It is rare that correction orders would be rescinded at this point, but a lack of documentation would be a reason for doing so.<sup>84</sup> After a certain period of adjustment, this MDH Central Office monitoring will be reduced to a ten percent sample of surveys.

A Minnesota statute states that a facility must comply with the correction orders within a reasonable amount of time. This requirement has been operationalized by MDH to be a period of up to six months (usually 30 days to six months) with shorter periods authorized for cases where patient health and safety are in significant jeopardy, as determined by the supervisor. All uncorrected deficiencies recommended by surveyors for assessment are required to be approved by the unit supervisor. While the MDH Central Office reviews all such recommendations, almost all of the assessments suggested by the surveyors survive this scrutiny.<sup>85</sup> One purpose for the multiple review is that hearings are very difficult processes, and it is in the interest of the Health Department to ensure that documentation of the assessed correction orders will withstand the hearing officer's

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<sup>84</sup>Hirschfeld, interview: October 26, 1976.

<sup>85</sup>Ibid.

examination. Another reason for the assessment review procedures is a concern for residents of the facilities. It would not be beneficial to the affected patients to pursue the litigation only to have the case dismissed in court. In such tenuous cases the Survey and Compliance Section prefers to reason with the facility in an effort to promote voluntary compliance.<sup>86</sup>

Added to the time demanded for administrative and procedural purposes in the review process are facility compliance delays. A facility may implement the correction plan immediately after the first survey visit. For various reasons, however, the deficiency may still exist during the revisit. More time lapses as this violation is processed. Once a fine has been issued, a facility has fifteen days before payment is due or appeal is filed. During this entire time a deficiency, which may relate to patient care, continues. The former policy delegated the responsibility of delinquent fine recovery to the Attorney General's Office. If the facility still refused to submit payment, the matter became the responsibility of the District Court. Under new procedures, however, the facility would be reported to the DPW Commissioner who is empowered to withhold reimbursement money if payment is not met.

The tagging procedure is based on the assumption that financial incentives will have a positive impact on quality of care. The fee schedule as legislated allowed fines up to \$1000 for each uncorrected deficiency. However, the State Board of Health is empowered to establish a schedule according to deficiency types, and since they have not yet done this for the \$1000 fine, the largest fine presently being issued is \$250.

As of January 1, 1977, the nursing home fine schedule will be revised. By the authority of Chapter 173, Section 10, Subdivision 6 of the 1976 Session Laws, flat fines are to be replaced with the accumulation of fines on a daily basis during the period of noncompliance. No fine for a specific violation may exceed \$250 per day.

MDH has established a new fine schedule based on the 1976 legislation. Four categories of nursing home regulations have been determined: patient care, environment, administration, and patient rights. Within each category are three classes, A, B, and C, on a scale of decreasing severity. The new schedule applied to nursing homes will be:

Class C.....	\$0-50 per day
B.....	\$51-199 per day
A.....	\$200-250 per day

Ranges of fines for each class, rather than flat amounts,

allow for flexibility in consideration of extenuating circumstances, e.g., good faith. Final determination of the exact amount of the assessment will be left to the hearing officer in contested cases, subject to the approval of the State Board of Health. Although the policy has not yet been finalized, uncontested cases will probably be assessed at the upper limit of the range.<sup>87</sup> The implementation of this new policy is currently in question. The Minnesota Association of Health Care Facilities has challenged the constitutionality of Sec. 10, Chapter 173.<sup>88</sup>

This enforcement process of tagging can be counteracted through appeals procedures on fine assessments. According to Minnesota Statute § 144.653, subdivision 8 (1975 supplement):

A license of a facility required to be licensed under the provisions of sections 144.50 to 144.58 is entitled to a hearing on any notice of noncompliance with a correction order issued to him as a result of a reinspection, provided that he makes a written request therefor within 15 days of receipt by him of the notice of non-compliance with a correction order.

A common tactic by a facility to gain strategy time is to appeal an assessment. Because there is a 15-day limit after the issuance of the fine, there is not much time to prepare a strong argument for due process procedures. Many times, a conference will be held with the surveyor, the MDH supervisor, and the facility administration. If this meeting reaches the conclusion that there are not sufficient grounds for a hearing (if for example, knowledgeable staff members were not present for the survey and correction orders were issued on the basis of inaccurate information), the facility may cancel the hearing which it had requested. In such situations the correction order still stands, although the fine assessment will not be enforced.

Delays in the hearing process compounded with delays in the followup survey process may allow the facility months of non-compliance, most probably at a cost savings to the facility. It would seem to be advantageous to the institution to request a hearing on correction orders. The appeals process may be utilized to an even greater extent after the daily fine accrual is implemented<sup>89</sup> and a greater financial penalty is involved.

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<sup>87</sup>Michael Tripple, Minnesota Department of Health, telephone interview: October 6, 1976.

<sup>88</sup> Ibid.

<sup>89</sup>Seufert, October 26.

## 2) Supervised Living Facilities

Supervised Living Facilities are subject to the same inspection procedures as are nursing homes and boarding care homes, with the exception that no tagging law has been implemented. Legislation has authorized the application of this enforcement tool to SLFs, but the State Board of Health has not yet outlined a fine schedule. Until such time, quality control in SLFs relies only upon relicensure mechanisms. Correction orders that are issued serve to provide information for renewal of licenses. Plans for a tagging schedule are underway at MDH, but this is not expected to be implemented in the immediate future.

### License Revocation, Delicensure, Decertification

License revocation is a mechanism to be used for those facilities which continually refuse to correct licensure orders.<sup>90</sup> Delicensure is non-renewal of a facility's license. Decertification disqualifies a facility from federal reimbursement monies.

During the 34 years in which licensing laws have been in effect in Minnesota, the license of only one health care facility has been revoked. This statistic, however, does not adequately illustrate the impact and utilization of this enforcement mechanism or of decertification, as twenty to thirty other facilities closed of their own accord pending revocation proceedings during the 34-year period.<sup>91</sup> Within a recent two to three month period during 1976 (mid July to mid October), approximately six facilities in the state either changed classification (either voluntarily or under penalty) or had delicensure or decertification procedures initiated against them.<sup>92</sup>

There is a general consensus among the states of the difficulty of effecting decertification. In Minnesota decertification is more often temporary rather than permanent, with reimbursement funds withheld pending designated changes.<sup>93</sup> One impediment to the use of this mechanism is a reluctance of the federal government to approve decertification, possibly for political reasons.<sup>94</sup>

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<sup>90</sup>Carol Hirschfeld, memo to Joan Pohl: October 6, 1976.

<sup>91</sup>Kahlenberg, p. 71.

<sup>92</sup>Seufert, October 26.

<sup>93</sup>Hirschfeld, October 22.

<sup>94</sup>Seufert, October 26.

MDH is also very selective about resorting to this step. It is considered preferable to keep a facility operating, bearing in mind the traumatic effect that moving can have upon residents.<sup>95</sup> Revocation will only result if the facility is grossly out of compliance on matters of patient care, rather than on other factors such as administration. The revocation process in Minnesota takes two to three years, while for example, Iowa and California proceedings take one year. Pursuant to Minnesota Law (Section 144.55), a public hearing must be held and a 30-day notification must be given. The stated grounds for revocation may be any of the following:

- (1) Violation of any of the provisions of sections 144.50 to 144.56 or the rules, regulations, or standards issued pursuant thereto;
- (2) Permitting, aiding, or abetting the commission of any illegal acts in such institution;
- (3) Conduct or practices detrimental to the welfare of the patient; or
- (4) Obtaining, or attempting to obtain, a license by fraudulent means or misrepresentation.<sup>96</sup>

A comparison of three states (Iowa, California, & Minnesota) illustrates the interface between tagging and delicensure in the enforcement of quality of health care. In Iowa during 1974, ten licenses of the 435 nursing homes were revoked, most commonly for reasons of trained staff deficiencies. In California during 1974, revocation proceedings were begun against 21 SNFs.

Minnesota has one successful revocation on record for the history of this procedure. There is no apparent difference in the utilization of revocation after the passage of the tagging law, although voluntary closures have been more frequent since that time.<sup>97</sup> The added financial penalty would be a likely explanation of this trend.

Although Iowa and California have both instituted a tagging law similar to Minnesota's, both of these states have been reluctant to use it. Neither has issued tags, threatened by the possibility of being sued.<sup>98</sup> Wisconsin also has a new

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<sup>95</sup>Ibid.

<sup>96</sup>Kahlenberg, p. 72.

<sup>97</sup>Hirschfeld, October 22.

<sup>98</sup>Seufert, October 26.

tagging statute, but the Health Department has not yet won a case because of the injunctions against it. In contrast, Minnesota has an established tagging system which appears to be an effective impetus for facilities to act upon correction orders.

#### State Licensure of MR Programs

Rule 34 licensure, for MR programs, is the responsibility of the DPW licensing division. The licensors are each responsible for annual licensure inspections of facilities within a certain geographic area. Appointments are made for these inspections. If the facility is in compliance with the provisions of Rule 34, full licensure is granted for a period of one year; if a facility is in "substantial compliance" with the intent of the rule, but does not meet each requirement because it would cause "undue hardship" at that time, a provisional license can be issued to allow time to conform to the rule. Time limits may be set for meeting the various provisions or the facility may be allowed to take the year to comply. Licensors revisit the facility to determine if time deadlines have been met and also generally revisit all facilities during the year, often on a drop-in basis. Facilities may apply for a waiver of a specific requirement if it can be shown that equivalent programmatic measures are taken to assure that needs are met.

In the event that a facility does not comply with Rule 34 requirements, DPW can refuse to issue a license or revoke an existing license. Facilities have the right of fair hearing and appeal. Very few facilities have had Rule 34 licensures revoked. Licenses have been refused, however, when a facility does not show compliance to the Rule, or at least demonstrate substantial effort to comply with assurance of future compliance.

#### Complaint Unit

Within MDH is a separate unit for handling complaints on all licensed health care facilities. Organized in 1973, the complaint unit in Minnesota was the only separate, organized structure of its kind at that time. The previous method of handling complaints, distribution to District Supervisors throughout the state, proved to have an unsatisfactory response time. In reorganization, the general objectives of the unit were outlined as follows:

"1) To investigate complaints on a priority basis; 2) To maintain complete and comprehensive records; 3) To perform licensing and certification team surveys of health care facilities as assigned; and 4) To provide information for institutions, agencies and individuals requesting same."<sup>99</sup> Of the total 794 complaints received for all facilities statewide in 1975, the three most frequently cited were: inadequate nursing care and neglect of duty by staff (15.38%), inadequate and/or incompetent staff (13.24%), inadequate food quantity and/or quality (11.57%), which amounted to 40.19% of the total.<sup>100</sup> During 1975, 631 or 79.5% of the total complaints were against nursing homes; 49 or 6% were against boarding care homes.<sup>101</sup> The data on complaints for 1975 reveals a differential between nursing homes by basis of ownership. The 246 proprietary (profit-making) facilities accumulated 494 complaints, while the 219 non-proprietary (both private non-profit and public) facilities received 137 complaints in 1975.<sup>102</sup>

In 90% of the cases, a follow-up visit is made to the facility under complaint, and in all cases this is done without notice to the facility. In 5% of the cases, a referral is made to an appropriate agency for follow-up, e.g., State Board of Medical Examiners or DPW. For the remaining 5% of the cases, the complaint is handled directly in the office.

No special complaint units are organized outside of the Metro area, although most outstate complaints are handled by the regular district surveyors. The unit that does exist is in a state of transition at this writing (November 1, 1976), due to new legislation. Although the composition of the unit is not yet certain, legislation has designated that four full-time staff be chosen, and the office of Health Facility Complaints has been assigned this responsibility. The former unit consisted of a nurse specialist and two administrative specialists, one of whom was a pharmacist.

The complaint data are used by the Survey and Compliance Section as only one indication of the type of care available in a facility. In the licensure decision, the entire operation of a facility is always considered.<sup>103</sup>

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<sup>99</sup>Complaint Activities, Calendar Year 1975, Survey and Compliance Section, Licensure and Certification Division of Health Facilities, Minnesota Department of Health, June 30, 1976, pp. 2-3.

<sup>100</sup>Ibid. p. 10.

<sup>101</sup>Ibid. p. 13.

<sup>102</sup>Ibid, pp. 19, 20.

<sup>103</sup>Seufert, October 26.



## Effects of Standards and Process of Enforcement

State and federal standards are intended to regulate the quality of LTC facilities. The complexity of the regulatory process illustrated in this section indicates problems. There is no single, unitary system for developing and/or implementing standards.<sup>104</sup> The many actors involved (MDH, DPW, Fire Marshal, Building Code, etc.) have varying responsibilities and varying methods of fulfilling these responsibilities. The lack of cohesiveness and the inconsistencies present in the system quite naturally lead to confusion and multiply the problems inherent in a judgemental process. This was emphasized in the testimony before the House Committee of Deinstitutionalization:

There are surveys and investigations within the formal mechanisms and there are a variety of informal surveys that are made for personal audits and surveys.<sup>105</sup>

This adds to staff time for the many inspections and the paper work entailed in each one.

There is a problem of coordination between various agencies having jurisdiction. The process is confusing to providers and it involves long time delays.<sup>106</sup>

Utilization Review of medical service necessity and the Quality Assurance and Review Program also are surveys or reviews that must be aided by staff.<sup>107</sup>

When the system requires extensive staff time for inspections and paper work, time for direct care or the performance of duties that affect direct care, suffers. Thus, the very standards set up to ensure that care given residents is at least of minimal quality, can have a potentially damaging impact on actual quality. The extent of this impact in Minnesota is not documented yet,<sup>108</sup> but the maze of requirements and responsibilities coupled with the frustrations of the providers and the departments do indicate that this is a problem. Some facilities appear to be "over-

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<sup>104</sup>See: State of Minnesota. "Evaluability Assessment: Regulation and Control of Human Service Facilities in Minnesota." Program Evaluation Division, Legislative Auditor's Office, August 18, 1976, and any future results of the study for a more detailed attempt to assign costs and benefits to the control procedure.

<sup>105</sup>Testimony of Wes Restad, DPW Assistant Commissioner for Residential Services before the Minnesota House of Representatives Deinstitutionalization Committee. May 17, 1976.

<sup>106</sup>Testimony of Bill Quirin, Director, Office of Human Services, before the House of Representatives Deinstitutionalization Committee. May 17, 1976.

<sup>107</sup>The QA&R review is considered part of the Utilization Review.

<sup>108</sup>The Legislative Auditor's study is addressing this issue.

regulated," while others are not regulated at all.<sup>109</sup> The possible effects on residents range from bad or non-existent programming to unintentional neglect (due to paperwork requirements).

Other system-related problems include the possible effects of non-rotation of evaluators and the non-inclusiveness and ambiguity of some parts of some survey report forms. The lack of a comprehensive survey report form for Rule 34 also could affect the licensing process. The unannounced visit, although desirable in some senses, does mean that the person(s) most knowledgeable on some aspects of facility operation may not be available. Thus, some deficiencies may result simply because the appropriate person was not present during the survey.

Since compliance with the licensing and certification requirements is based on human judgments, bias and errors can be expected. Currently there is no way to control for biases (when the team approach is used, this is mitigated somewhat) or to address differences in weighting or reporting areas of non-compliance. The extent of inter- and intra-rater reliability is not known.

This section, while not attempting to be totally comprehensive, has dealt with standard requirements and procedures of enforcement, and has briefly suggested some of the problems inherent in the quality control process.

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<sup>109</sup>DPW Program Rule 36, which governs programs for MI facilities, has licensed only 4-6 facilities so far due to inadequate licensing staff (testimony of Mike Weber, Assistant Commissioner for Community Programs, DPW, before the House Deinstitutionalization Committee, May 17, 1976) and less emphasis on MI community programs (interview with David Van Wyk).

## E. Characteristics of the Medicaid Long Term Care Population

### Introduction

One aspect of the Minnesota long-term care system that can be described in greater detail is the population of long-term care residents who are Medicaid recipients. We now discuss the Medicaid population by specific characteristics, including the level of care each patient receives and the types of medical and other services he needs and receives.

The Social Security Amendments of 1971 required states to establish an external peer review system for Medicaid recipients in long-term care (LTC) facilities. Two programs, the Periodic Medical Review (PMR) and the Independent Professional Review (IPR) were established for SNFs and ICFs respectively. Although the common goal of these two programs is "to assure the quality, quantity and appropriate level of care" for Medicaid recipients, their function at present is to make recommendations; they have no enforcement power.

Minnesota has combined the PMR and IPR into the Quality Assurance and Review Program (QA&R) conducted by the Minnesota Department of Health. It is the only data source we found of comparable data on all long term care Medicaid recipients.

All data reported here were obtained during Minnesota's 1975 review, which was the first to include all Minnesota Medicaid LTC recipients. The reader interested in more detailed description of Minnesota's Medicaid LTC population is directed to the Quality Assurance and Review Program, Summary Report 1975.<sup>110</sup>

### Basis of Medicaid Eligibility

73% of Minnesota's Medicaid LTC recipients are elderly, of whom 98% live in nursing homes (SNF, ICF-I or ICF-II level of care). On any day between February 15, 1975, and February 29, 1976, there were an average of 27,687<sup>111</sup> persons supported by Medicaid in Minnesota LTC facilities. During this time period, there were 50,707<sup>111</sup> beds in Minnesota LTC facilities.<sup>112</sup> Thus, we can estimate that Medicaid supported about 55% of all

<sup>110</sup>Minnesota Department of Health.

<sup>111</sup>This figure comes from the Summary Report 1975: Quality Assurance and Review Program, MDH, August 1976. Conflicting DPW figures for both exist. Figures for number of Medicaid recipients are close, but some DPW figures report as many as 5,000 fewer nursing home beds.

<sup>112</sup>99% of these beds are certified as eligible for Medicaid reimbursement.

LTC beds. Of the balance, some percentage of the beds were not occupied and the rest supported by Medicare, private pay, private insurance, etc.

Minnesota LTC recipients under 65 years of age are disabled due to mental retardation, mental illness, or total physical disability. Of the 7614 non-elderly recipients, 72% were mentally retarded, 22% had a diagnosis of mental illness,<sup>113</sup> and about 11% were neither mentally ill nor mentally retarded.<sup>114</sup> It is difficult to obtain precise information from existing data on these latter two groups, even though they represent about 7% of the total LTC population. Given Medicaid eligibility standards, we can assume these people are SSI-eligible recipients residing in community nursing homes. 37% of those under 65 years lived in nursing homes, 24% in community homes for the mentally retarded, 38% in state hospital facilities for the mentally retarded, and 1% in other state hospital facilities.

#### General Demographic Characteristics

63% of all Minnesota Medicaid LTC recipients in 1975 were female and 37% male. The average age of Medicaid LTC recipients was 71 years. Table 2.18 details the age distribution of Medicaid LTC recipients.

Table 2.18

#### AGE DISTRIBUTION OF MEDICAID LTC RECIPIENTS

Age in years	% of Total	N
0-15	1.2	328
16-44	14.7	4063
45-64	11.6	3223
65-79	24.9	6900
80 & over	47.6	13168
Total	100%	27682 <sup>1</sup>

<sup>1</sup>Totals will vary due to missing data.

<sup>113</sup>Totals will exceed 100% since it is possible for a person to be mentally retarded and mentally ill.

<sup>114</sup>One can presume these people are physically disabled. It is possible that for some of the people diagnosed mentally ill or mentally retarded, residential care is necessitated by physical disabilities.

Three-fourths of Medicaid LTC recipients were over 65 years and nearly one-half over 80 years. Recipients had been in their present LTC residential setting for an average of 57 months. Table 2.19 displays the source of admission of Medicaid LTC recipients.

Table 2.19

Medicaid LTC Recipients:

Source of Admission

Source	% of Total (N=27520)
Home	31
Acute Hospital	35
Psych Hospital	14
Other LTC Facility	20

As Table 2.19 shows, about one-third came from their homes, one-third from an acute care hospital, and one-third from another LTC facility (including a psych hospital).

Of the total population, 8% were assessed by the QA&R program staff to have improving conditions, 76% static, and 16% declining conditions.<sup>115</sup> Patient/Resident records indicated only 5% of all LTC recipients had as their long-term goal either discharge to home or a lesser level of care.

Residential Placement

Medicaid LTC recipients reside in "community" and "state operated" facilities. Community facilities offer four levels of care: SNF, ICF-I, ICF-II, and ICF/MR. State hospitals and state nursing homes offer SNF, ICF-I, and ICF/MR care in addition to psychiatric care. Table 2.20 details the placement of Minnesota Medicaid LTC recipients by facility type and level of care. In 1975, 85% resided

<sup>115</sup>Instructions to QA&R teams state with regard to this assessment of general condition: "From the record, discussion with the charge nurse, and visit to patient, determine the general condition of the patient and note the appropriate number." No further definitions of the terms, "improving," "static," or "declining" were found, and it is assumed common usage of the term was employed.

Table 2.20  
Medicaid Long Term Care:

PLACEMENTS BY FACILITY TYPE AND  
LEVEL OF CARE

Facility and Level of Care	% of Title XIX funded LTC patients	N
<u>Community Nursing Home</u>		
SNF	33.7	9,329
ICF-I	38.3	10,601
ICF-II	<u>6.5</u>	<u>1,810</u>
	78.5	21,740
<u>Community ICF/MR</u>	7.1	1,975
<u>State Hospital</u>		
ICF/MR	10.6	2,926
Psych <sup>1</sup>	1.2	328
SNF, ICF-I and-II	<u>0.1</u>	<u>24</u>
	11.8	3,278
<u>State Nursing Home</u>		
SNF	0.8	230
ICF-I	<u>1.7</u>	<u>464</u>
	2.5	694
TOTAL	100%	27,686

<sup>1</sup> Used to designate state mental institution care where level of nursing care is not specified.

in community facilities: 78% in nursing homes and 7% in ICF/MRs. Of the remaining 14%, 12% lived in SHs and 2% in state nursing homes.

The following two sections describe the principal Medicaid LTC recipient groups - the mentally retarded and the elderly.<sup>116</sup>

#### Mentally Retarded Medicaid LTC Recipients

Of the surveyed residents of Minnesota LTC facilities, 6,330 or 23% of the total population were diagnosed as mentally retarded.

#### Residence of MRs

For the last several years, the policy of DI has been responsible for movement of MRs from SHs to community-based Medicaid facilities. As Table 2.21 shows, about half of the Medicaid-supported MRs live in SHs and half in community facilities - 22% in nursing homes and 31% in community ICF/MRs. The ICF/MR is generally thought to be the appropriate level of care for MRs not requiring extensive nursing care. Table 2.21 shows over three-fourths of MRs live in SH ICF/MRs or community ICF/MRs.

#### Characteristics of MRs

Of the MRs supported by Medicaid in long term residential facilities, 46% are female and 54% male. The average age is 39 years. Table 2.22 details the distribution by type of facility. Quite a variation is revealed. Those MRs in nursing homes are older on the average and more of them are female. Those in state and community ICF/MRs are younger and more of them are males.

Table 2.23 shows average length of stay in current LTC facility. For MRs, the average is 91 months. This varies by type of facility from 133 months in SHs to 27 months in small community based ICF/MRs. This variation is probably a result of DI: many former residents of SHs have been moved into nursing homes and community ICF/MR residences in the past few years. New ICF/MRs are being opened at a rapid rate; only 79 were licensed as of June 30, 1974, which increased to 116 as of June 30, 1976. Relatively few ICF/MRs had even been operating more than 27 months at the time of this QA&R survey. Indeed, about three-fourths of those in community ICF/MRs and two-thirds of those in nursing homes came from SHs or other LTC facilities. Table 2.24 further details source of admission.

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<sup>116</sup>Earlier, we noted that a small percent of Medicaid LTC recipients were neither elderly nor retarded, but rather totally disabled due to physical condition or mental illness. Appendix C describes characteristics of Medicaid LTC recipients with an MI diagnosis.

Table 2.21

## RESIDENCE OF MR MEDICAID LTC RECIPIENTS

Facility and Level of Care	% of Total	N
<u>Nursing Homes<sup>1</sup></u>		
SNF	6.5	412
ICF-I	12.5	794
ICF-II	<u>3.1</u>	<u>197</u>
	22.2	1,403
<u>Community ICF/MRs</u>		
Large <sup>2</sup>	23.0	1,459
Small <sup>3</sup>	<u>7.6</u>	<u>484</u>
	30.7	1,943
<u>State Hospital</u>		
ICF/MR	46.2	2925
Psych.	0.6	39
SNF	<u>0.3</u>	<u>20</u>
	47.1	2,984
All Facilities	100%	6,330

<sup>1</sup> State operated and community nursing homes are included.

<sup>2</sup> Defined as facilities with 16 or more beds.

<sup>3</sup> Defined as facilities with under 16 beds.



Table 2.22

## MR MEDICAID LTC RECIPIENTS IN MINNESOTA:

## AVERAGE AGE AND PERCENT FEMALE

## BY FACILITY TYPE

Facility Type	Average age (in years)	% Female	N
Nursing Homes <sup>1</sup>	60	56	1402 <sup>2</sup>
Community ICF/MRs	37	43	1943
State Hospital <sup>3</sup>	32	44	2984
<u>All Facilities</u>	39	46	6329

<sup>1</sup>State and community nursing homes are included. Figures are an average for SNF, ICF-I, and ICF-II levels of care.

<sup>2</sup>For percent female, the N was 1403.

<sup>3</sup>Represents the average for all levels of care.

Table 2.23

## MR MEDICAID LTC RECIPIENTS IN MINNESOTA:

## LENGTH OF RESIDENCY IN PRESENT INSTITUTIONAL SETTING

Facility Type	Average Number of Months	N
Nursing Homes	58	1403
Community ICF/MRs - Large <sup>1</sup>	58	1449
Community ICF/MRs - Small	27	479
State Hospitals	133	2982
<u>All Facilities</u>	91	6313

<sup>1</sup>Data from large and small community ICF/MRs are presented separately because of the wide variation. Large ICF/MRs are 16 or more beds. Small ICF/MRs are less than 16 beds.

Table 2.24

## MR MEDICAID LTC RECIPIENTS IN MINNESOTA:

## SOURCE OF ADMISSION

Facility Type	Percent Coming From				N
	Home	Acute Hosp.	Psyc. Hosp.	Other LTC	
Nursing Home	21	15	35	29	1,399
Community ICF/MRs - Large	25	2	31	41	1,447
Community ICF/MRs - Small	23	1	43	34	481
State Hospital	37	1	35	27	2,977
<u>All Facilities</u>	30	4	35	31	6,304

Table 2.25

## MR MEDICAID LTC RECIPIENTS:

## LEVEL OF RETARDATION

Facility Type	% Mild	% Moderate	% Severe	% Profound	% Not Recorded	N
Nursing Home	11	13	14	5	57	980
Community ICF/MRs <sup>1</sup>	14	25	35	4	22	1,942
State Hospitals	6	10	35	47	2	2,981
<u>All Facilities</u>	10	16	31	26	18	5,903

<sup>1</sup>Large and small community ICF/MRs are combined since there is not much variation.

### Appropriateness of Placement

A primary objective of the QA&R program is to determine the appropriateness of Medicaid patients' placement. Table 2.27 summarizes the team's findings. Only in nursing homes were a significant number of MRs judged by the review team to be inappropriately placed. The usual recommendation for change was movement into an ICF/MR.

### Level of Retardation

Table 2.25 displays level of retardation by facility type. Since over half of nursing home residents had no recorded level of retardation, the information is not very useful. Comparing state hospitals and community ICF/MR facilities reveals that community ICF/MR facility residents are more likely to be mildly or moderately retarded and state hospital residents are more likely profoundly retarded.

### Level of Dependency

Two overall measures of dependency are used by the QA&R Program. One, the Activities of Daily Living Scale, measures patients' dependency levels in eating, dressing, hygiene, mobility, communication, and general behavior. Individual measures are combined into a weighted scale; 0 indicates no dependency and 100 total dependency. Another scale of dependency measures the amount of nursing care required by patients (e.g., administer medications, dressings, catheters, tube feeding and other nursing procedures). Table 2.26 shows average scores on these scales.

Table 2.26 shows that state hospital residents score highest on the dependency (ADL) scale and community ICF/MR residents lowest. There is variation among the different levels of care in nursing homes: from an average ADL score of 44 in SNF care to an average of 11 in ICF-IIs. Nursing home and state hospital residents each require an average of 8 nursing points per day, which is equivalent to between 24 and 32 minutes of nursing care. Community ICF/MR residents require only 3 nursing points or between 9 and 12 minutes per day.

### Assessment

In the review team's assessment, 15% of all MRs were "improving," 81% "static," and 4% "declining."<sup>117</sup> Only 9% had long-term goals of discharge to home or a lesser level of care. For 78%, the long-term goal was optional maintenance and for 13%, no long-term goal was recorded. Another judgmental assessment by the QA&R team was that 3% of all MRs had potential for discharge to their homes.

<sup>117</sup>Terms not defined in QA&R team Instruction. See footnote 115.

Table 2.26

MR MEDICAID LTC RECIPIENTS:  
 AVERAGE DEPENDENCY SCORE ON THE ACTIVITIES  
 OF DAILY LIVING SCALE AND AVERAGE  
 NUMBER OF NURSING POINTS<sup>1</sup>

FACILITY TYPE	AVERAGE DEPENDENCY (ADL) SCORE	AVERAGE NURSING POINTS	N
Nursing Homes <sup>2</sup>	29	8	1,403
SNF	44	11	412
ICF-I	26	7	794
ICF-II	11	5	197
Community ICF/MRs	13	3	1,973
State Hospitals	35	8	2,984
All Facilities	27	7	

<sup>1</sup>One nursing point is equal to between three and four minutes of nursing care.

<sup>2</sup>Because of the variation, each level of care is presented.

Table 2.27

## REVIEW TEAM ASSESSMENT OF

## MR PLACEMENT

Facility And Level Of Care	Percent Appropriately Placed
Nursing Homes	
SNF	80%
ICF-I	76%
ICF-II	64%
Community ICF/MR	
Large	100%
Small	99%
State Hospitals	
ICF/MR	99%
Psych.	95%
SNF	85%

## Summary

The picture that emerges of the facilities serving MRs is as follows:

Nursing Homes care for 22% of the MRs on Medicaid. Of this group, 29% are in the SNF level of care, 57% ICF-I, and 14% ICF-II. MRs in nursing homes tend to be older and of lesser retardation. Only half had previously been in a state hospital. From this information, one might hypothesize that many MR nursing home residents have lived in noninstitutional community settings and are currently in nursing homes because they are sick or perhaps have lost the person (e.g., parent) who had been caring for them. In the QA&R program review team's assessment, 13% of SNF, 20% of the ICF-I, and 35% of the ICF-II MR residents of nursing homes would be more appropriately served in community ICF/MRs.

Community ICF/MRs currently care for 31% of the MRs receiving Medicaid. Three-fourths of those in community ICF/MRs reside in facilities of 16 or more beds and one-fourth reside in facilities of fewer than 16 beds. Residents in the two types of facilities are similar except that residents of larger facilities have been in their current residential placement longer. This is probably a function of the newness of small community ICF/MRs.

State Hospitals care for 46% of the MRs receiving Medicaid-supported LTC. The age and sex composition of these residents resemble those of community ICF/MRs. However they tend to be more severely retarded, have more dependency, and require more nursing care than residents of community ICF/MRs.

## Elderly Medicaid LTC Recipients

Data presented earlier showed 73% (20,068) of all Medicaid LTC recipients were over 65 years of age. Table 2.28 details further the age distribution of the elderly. The 'old-old' predominate: 81% of all elderly Medicaid LTC recipients are over 75 years of age and 44% are over 85 years of age. 3% of all elderly receiving Medicaid LTC had diagnoses of mental retardation and 19% had diagnoses of mental illness.

Table 2.28

ELDERLY MEDICAID LTC RECIPIENTS:  
AGE DISTRIBUTION

Age In Years	% of N
65-69	8.0
70-74	10.8
75-79	15.6
80-84	21.7
85+	<u>44.0</u>
	100%
	N=20,068

Table 2.29

ELDERLY MEDICAID LTC RECIPIENTS:  
RESIDENTIAL PLACEMENT

Facility Type Level Of Care	% Of Total	N
Nursing Home <sup>1</sup>		
SNF	42.6	8,549
ICF-I	48.8	9,785
ICF-II	<u>6.4</u>	<u>1,287</u>
	97.7	19,621
Community ICF/MR	0.6	121
State Hospitals		
ICF/MR	0.3	62
Psych	<u>1.3</u>	<u>263</u>
	1.6	325
All Facilities	100%	20,067

<sup>1</sup>Includes State Nursing Homes.

PLACEMENT - Table 2.29 details the placement of elderly Medicaid LTC recipients by facility type and level of care. 98% are in community nursing homes: 43% in SNF care, 49% in ICF-I care, and 6% in ICF-II care. The others (2%), as indicated by their placement, are mentally retarded or mentally ill. Because of the small number of people represented and the fact that the mentally retarded and the mentally ill are discussed elsewhere, subsequent tables in this section consider only nursing homes.

The literature on the elderly indicates that age is a principal determinant of overall health status and need for supportive services -- residential, in-home, and other. In this section, tables are presented for two groupings of elderly -- those under 80 years (34% of all Medicaid LTC elderly) and those 80 years and older (66%).

Source of Admission - Table 2.30 presents source of admission to present LTC residential placement for elderly Medicaid recipients. Overall, those over 80 years are more likely to come from home and less likely to come from a psychiatric hospital than those 65 to 79 years of age. Approximately one-third of those 65 to 79 years and one-fifth of those over 80 years are admitted from another LTC facility (psych hospital is included). Those in SNF care are more likely to have been admitted from an acute hospital, (57% for 65-79 years, 56% for 80+ years); those in ICF-II care are more likely to come from home (41% and 67%); those in ICF-I care come primarily from home (27% and 41%) and from acute hospitals (37% and 38%).

Length of Residential Placement - Table 2.31 shows that the elderly have been in their current LTC residential placement between 3½ and 5 years, on the average.

#### Inappropriate Placement

For 534 (8.2%) of those 65 to 79 years in nursing homes, the review team recommended changes in level of care. The more common recommendation was to move a patient from SNF to ICF care (311 residents). In 215 cases, the team recommended moving the patient from ICF to SNF care. For those 80 years and over in nursing homes, the team recommended changing level of care in 1129 cases; in 703 cases the team recommended moving the patients from SNF to ICF level of care. In 413 cases, the team recommended moving the patient from an ICF to an SNF.

#### State Nursing Homes

Only 3% of the nursing home residents receiving Medicaid reside in the two state nursing homes. These homes provide SNF and ICF-I levels of care, generally for older persons who had been



Table 2.30

**ELDERLY LTC MEDICAID RECIPIENTS:  
SOURCE OF ADMISSION<sup>1</sup>**

Source of Admission	Level of Care							
	SNF		ICF-I		ICF-II		ALL NURSING HOMES	
	65-79	80+	65-79	80+	65-79	80+	65-79	80+
Home	17	26	27	41	41	67	24	36
Acute Hospital	57	56	37	38	17	12	41	44
Psych Hospital	8	2	19	5	18	2	16	4
Other LTC	<u>18</u>	<u>15</u>	<u>17</u>	<u>16</u>	<u>25</u>	<u>19</u>	<u>19</u>	<u>16</u>
Total	100%	100%	100%	100%	100%	100%	100%	100%
N	2552	5942	3383	6332	545	733	6480	13102

<sup>1</sup>Excludes elderly in State Hospitals and Community ICF/MRs.

Table 2.31

**ELDERLY MEDICAID LTC RECIPIENTS: LENGTH OF  
RESIDENCY IN PRESENT INSTITUTIONAL SETTING**

Facility and Level of Care <sup>1</sup>	AGE GROUP	
	65-79	80+
Nursing Homes	(Average length in months)	
SNF	41	47
ICF-I	45	49
ICF-II	50	60

<sup>1</sup>Excludes elderly in SHs or ICF/MRs.

residents of SHs. Of the 694 Medicaid LTC recipients in state nursing homes, 230 were in SNF and 463 in ICF-I care. 94% of these residents were admitted from psychiatric hospitals or other LTC facilities. 97% have "mental disorder" diagnoses, with 20% having an MR diagnosis, and 84% having an MI diagnosis. Of those with an MI diagnosis, 61% have a schizophrenic condition.

## F. Comparisons With Other States

### 1. Introduction

This chapter has described the current Minnesota long term care system in terms of the population, the facilities, and the role of government, within the parameters of our study. Also, we give a general perspective on long term care across the nation for the MRs and the elderly.

We now compare Minnesota with other states in terms of the elderly population and characteristics and cost of nursing homes, and in terms of deinstitutionalization efforts, especially for the retarded.

### 2. Comparison With Other States: The Elderly

In analyzing the Minnesota long term care and Medicaid systems for the elderly, it is illuminating to compare Minnesota with other states and with the nation as a whole.

#### Population

In looking at disability statistics, it is relevant to consider the over 65 population as two groups: the young old (65-74 years) and the old old (75+ years). Of the young old, 1.8% were classified as having a long term institutional disability, while 8.3% of the old-old group were so considered in 1969. 12.4% of the younger category had a long-term noninstitutional disability, as opposed to 20.5% of the older group.<sup>118</sup> Among the elderly 65-74 years, 21.8% of those in nursing and personal care homes are bedfast, while 27.8% of the older group are so restricted, as reported for 1969.<sup>119</sup> The age factor is more evident when the data are disaggregated, as in Table 2.32.<sup>120</sup> Table 2.32 points to a positive relationship between age and dependency.

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<sup>118</sup>Public Health Service, National Center for Health Statistics, unpublished data. Note: institutional and noninstitutional disabilities are not defined with the data. The information is merely intended to illustrate different degrees of chronic conditions between the age subgroups.

<sup>119</sup>Derived from Public Health Service, National Center for Health Statistics, unpublished data.

<sup>120</sup><sup>1</sup>Ibid.

Table 2.32  
Persons in Nursing and Personal Care Homes

	All Residents	Number Bedfast	% Bedfast
All Ages	815,130	212,719	26.1
Under 65 Years	92,866	18,345	19.8
65-74 Years	138,492	32,056	23.1
75-84 Years	321,835	80,515	25.0
85-89 Years	162,771	46,756	28.7
90 Years & Over	99,166	35,047	35.3

Table 2.33  
ELDERLY IN LONG TERM CARE

Facility	% of All Elderly (≥ 65) 1970	% of Institutionalized Elderly
Mental Hospitals	0.6%	11.8%
Homes and Schools for Mentally Handicapped	0.1%	1.1%
Homes for the Aged and Dependent	4.1%	82.9%
Tuberculosis Hospitals	0.0% <sup>1</sup>	0.5%
Other Chronic Disease Hospitals	0.2%	3.7%
	<u>5.0%</u>	<u>100%</u>

<sup>1</sup>Less than 0.05%.

Although most (795,807 or 83% in 1970) of the institutionalized elderly are served in typically geriatric facilities (homes for the aged and dependent), 17% or 164,030 in 1970 resided in other types of institutions as shown in Table 2.33.<sup>121</sup>

These figures, unfortunately, are somewhat outdated. The trends, however, remain representative of the current situation. For instance, homes for the aged and dependent are still the primary institutional residence for the elderly. Nursing home facilities are targeted mainly to the elderly; the average age of residents is 77. Approximately 19% of the NH population are chronic invalids under 60 and 8% are not yet 50.

A survey recording data from August, 1973, to April, 1974, revealed 961,500 patients age 65 or older in nursing homes (defined as homes administering some degree of nursing care).<sup>122</sup>

Nationally in 1976, about 5% of the 65+ population reside in nursing or boarding care homes. The proportion of Americans over 65 who reside in nursing homes has more than doubled in the last 15 years. In Minnesota approximately 6.5% of the elderly are institutionalized.<sup>123</sup>

As Table 2.34 shows, the institutionalized rate varies greatly among the states, from a high of 96.7 residents per 1,000 elderly population in Minnesota to a low of 21.2 residents per elderly population in West Virginia.

A recent national trend has been a sharp reduction in the number of elderly served in state mental hospitals; in the 5-year span between 1969 and 1974, the number of inpatients in state mental hospitals in the U.S. dropped 44%: from 427,799 to 237,692 patients on an average day. During the same period, the elderly inpatient population declined 56%: from 135,322 to 59,685.<sup>124</sup> The pattern in Minnesota reflects the general trend; between 1969 and 1974, total inpatients over age 65 in state mental hospitals dropped from 785 to 478 (39.11%).

<sup>121</sup>Derived from: Bureau of the Census, 1970 Census of Population, Vol. II, Part 4E.

<sup>122</sup>Mrs. J. Van Nostrand, Long-term Care Division, National Center for Health Statistics; telephone conversation, Oct. 12, 1976.

<sup>123</sup>"Medical Care For an Aging Population: Implications for Medical Education," Winston R. Miller, M.D., Presented at U of M School of Medicine, April 10, 1976.

<sup>124</sup>Nursing Home Care in the United States: Failure in Public Policy. Supporting Paper #7: "The Role of Nursing Homes in Caring for Discharged Mental Patients (and the Birth of a For-Profit Boarding Home Industry). Committee on Aging, March 1976, p. XI.

TABLE 2.34

**NUMBER OF RESIDENTS PER 1000 POPULATION 65 AND  
OVER IN NURSING CARE AND RELATED HOMES BY STATE, 1973<sup>1</sup>**

State	Total residents	Nursing care	Personal care and other homes <sup>1</sup>
<b>United States</b> .....	<b>56.1</b>	<b>47.4</b>	<b>8.7</b>
Alabama .....	39.6	37.4	2.2
Alaska .....	59.6	59.6	—
Arizona .....	28.9	27.2	1.7
Arkansas .....	62.7	59.7	3.0
California .....	67.5	52.2	15.3
Colorado .....	75.9	68.9	7.0
Connecticut .....	72.3	60.6	11.7
Delaware .....	44.3	44.1	0.2
District of Columbia .....	38.2	34.3	3.9
Florida .....	24.9	21.1	3.9
Georgia .....	61.0	57.6	3.3
Hawaii .....	48.8	38.6	10.3
Idaho .....	51.7	49.9	1.8
Illinois .....	64.3	54.2	10.1
Indiana .....	60.0	52.2	7.7
Iowa .....	89.4	68.9	20.5
Kansas .....	76.3	59.4	16.8
Kentucky .....	45.5	33.4	12.1
Louisiana .....	48.8	47.6	1.1
Maine .....	71.7	60.5	11.3
Maryland .....	51.1	46.6	4.5
Massachusetts .....	77.0	66.4	10.6
Michigan .....	54.7	46.8	7.9
Minnesota .....	96.7	81.8	14.9
Mississippi .....	30.7	29.3	1.4
Missouri .....	52.9	46.0	6.8
Montana .....	63.5	53.0	10.5
Nebraska .....	83.8	70.5	13.3
Nevada .....	34.0	27.1	6.9
New Hampshire .....	65.2	58.6	6.6
New Jersey .....	43.0	35.2	7.8
New Mexico .....	34.5	27.7	6.8
New York .....	43.4	31.9	11.4
North Carolina .....	43.4	27.8	15.6
North Dakota .....	89.5	62.0	27.6
Ohio .....	57.1	51.4	5.7
Oklahoma .....	82.1	78.7	3.4
Oregon .....	69.2	53.6	15.6
Pennsylvania .....	46.0	40.6	5.4
Rhode Island .....	56.5	48.9	7.7
South Carolina .....	35.8	33.3	2.5
South Dakota .....	87.9	74.8	13.0
Tennessee .....	33.0	29.0	4.1
Texas .....	65.7	60.8	4.9
Utah .....	49.9	43.2	6.7
Vermont .....	68.8	59.5	9.3
Virginia .....	37.6	31.4	6.2
Washington .....	82.2	74.1	8.2
West Virginia .....	21.2	16.1	5.1
Wisconsin .....	84.4	69.7	14.8
Wyoming .....	53.5	43.8	9.7

<sup>1</sup> National Center for Health Statistics, Health Resources Administration.

A Senate subcommittee report on nursing home care attributes the national reduction in SH populations to four factors:<sup>125</sup>

- 1) humanitarian motives based on the notion that patients would be better off almost anywhere else;
- 2) recent court decisions (Donaldson v. O'Connor, Souder v. Brennan) which held that involuntarily committed patients have a constitutional right to treatment and that if such treatment were not forthcoming patients must be released;
- 3) cost differentials between SHs and alternatives which make the latter preferable (the average national cost of 1 year of residence in a SH is \$12,000); and
- 4) Supplemental Security Income, which granted federal cash benefits to noninstitutionalized indigent elderly.

The current nursing home and boarding care home populations are characterized by a significant number of former mental hospital patients. "Unfortunately, nursing homes are poorly equipped to meet the needs of ex-inmates. There are generally no psychiatric services available; no plans to rehabilitate patients; there are not sufficient numbers of trained staff people to care for their needs; and a distinct absence of follow-up on the part of state hospitals to see that patients are appropriately placed. There are few recreation services, and a heavy and perhaps unwise use of tranquilizers to manage patients. Finally, the effect of mixing the physically infirm patients with the mentally impaired is often deleterious. Normal sick patients quite often manifest the behavioral patterns of the disturbed patients they see around them."<sup>126</sup>

In addition, mentally retarded persons have been inappropriately placed in nursing homes. For example, in Minnesota, it is estimated that 350 to 400 of the 2500 retarded persons discharged into the community since 1966 have been inappropriately placed in general nursing homes.<sup>127</sup>

In the U.S., there are 2,046,000 elderly Medicaid recipients. This represents a 3% increase over the same period the previous year. The picture for all the states is shown in Table 2.35.

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<sup>125</sup> Ibid. p. 723-726.

<sup>126</sup> Ibid. p. XI.

<sup>127</sup> Summary of Testimony presented to Minnesota House Committee on Deinstitutionalization. Mary Work, Mental Health Association, 6/28/76.

TABLE 2.35

ELDERLY MEDICAID RECIPIENTS IN THOUSANDS:  
FROM SECOND QUARTER, FY 1976<sup>1</sup>

Age 65 and Over, In Thousands			Age 65 and Over, In Thousands		
		Percent Change From 2nd Quarter FY 1975			Percent Change From 2nd Quarter FY 1975
	FY 76			FY 76	
United States	2,046	3			
Arkansas	50	17	Nebraska	11	3
Michigan	66	-5	Missouri	48	-6
West Virginia	13	47	Indiana	22	3
Idaho	4	12	California	274	2
Ohio	74	34	Utah	4	4
Tennessee	58	31	New Jersey	38	4
South Carolina	39	49	New Hampshire	6	2
Vermont	6	20	Mississippi	57	5
Hawaii	5	18	North Dakota	4	4
North Carolina	35	-6	Connecticut	22	2
Iowa	21	21	Montana	4	13
Louisiana	77	8	Maryland	28	7
Nevada	3	22	Maine	15	7
Wisconsin	49	8	New York	212	9
Kentucky	44	2	Kansas	14	-6
Oregon	11	-5	Washington	28	0
Rhode Island	17	6	Oklahoma	27	-1
Florida	53	13	Virginia	36	8
Dist. of Col.	7	14	Minnesota	33	-28
Georgia	70	5	Puerto Rico	1	-85
Delaware	3	7	Alaska	0	-43
Alabama	81	12	South Dakota	6	-37
Illinois	63	0	Pennsylvania	37	-55
New Mexico	6	33	Arizona	-	-
Texas	162	8	Colorado	22	-
			Guam	-	-
			Massachusetts	83	-
			Virgin Islands	0	-
			Wyoming	-	-

<sup>1</sup>Source: DHEW



## National Population Projections

The increased health needs and demands of the old old category are especially significant for cost projections in light of population estimates. Based on 1970 census data, the rate of increase of persons 75 and over has escalated three times the rate of the 65-74 age group over a ten year period.<sup>128</sup> As the former category is substantially more vulnerable to significant impairment of functions, public and private health costs can be expected to increase. By the end of the decade, the elderly will number more than 24 million. The over-65 population will increase at a rate of approximately 11%, as compared with the U.S. population gain of 5.5%. "The population of America is growing increasingly older, with more than 10% of all people now age 65 years old or older. And as their numbers increase, the elderly will play an even more prominent role in the nation's economic and social life."<sup>129</sup>

## Facilities

For the period August, 1973, to April, 1974, the National Nursing Home Survey projected nationwide figures from the sample which indicated 15,700 nursing homes in the United States had a total of 1,174,800 beds and served 1,075,800 residents.<sup>130</sup> Of the facilities represented in the survey, approximately 75% were proprietary and 25% were nonprofit (nonproprietary and government).<sup>131</sup> The survey data showed 77% of all nursing homes certified by Medicare, Medicaid or both, with approximately half of the total certified for the latter only.<sup>132</sup> Regional differences were detected in the sample:<sup>133</sup>

<u>Region</u>	<u>% Total Homes</u>	<u>% Total Beds</u>	<u>% Total Residents</u>
North Central	36	35	34
South	26	26	26
Northeast	20	21	22
West	18	18	18

<sup>128</sup>Stanley J. Brody. "Comprehensive Health Care for the Elderly: An Analysis." The Gerontologist. Winter 1973, p. 44.

<sup>129</sup>Nursing Home Care in the United States, April, 1975, p. 394.

<sup>130</sup>Selected Operating and Financial Characteristics of Nursing Homes United States: 1973-74 National Nursing Home Survey, U.S. DHEW, Public Health Service, Health Resources, Administration, p. 2.

<sup>131</sup>Ibid. p. 3.

<sup>132</sup>Ibid. p. 4.

<sup>133</sup>Ibid. p. 7.

Note that the pattern of inter-regional rankings is consistent for each of the three descriptors. However, the cause and effect are not clear; is the proportion of homes and beds a response to the number of residents, or is the number of nursing home residents a response to the availability of homes and beds?

### Size

Although there is some disagreement over the total number of facilities and nursing home beds in the U.S. (survey projected 15,700 nursing homes and 1,174,800 beds for 1973-74, another source quoted 24,996 homes and 1.275 million beds),<sup>134</sup> some trends can be cited. The survey data indicated that proprietary homes had the greater proportion of all beds (71%) and residents (70%). However, the average size of these homes (70 beds) was smaller than that for the non-profit homes (88 beds).<sup>135</sup> Certification also proved to be an informative variable of size. Homes certified by both Medicaid and Medicare or only by Medicare averaged 105 beds, while those certified only by Medicaid averaged 92 for SNFs and 57 for ICFs. Those facilities uncertified by either program had the smallest average capacity, with 45 beds. All of the above size differences were statistically significant except the 105 and 92 average sizes.<sup>136</sup> These factors are further disaggregated:<sup>137</sup>

<u>Facility Certification</u>	<u>% Total Homes</u>	<u>% Total Beds</u>	<u>% Total Residents</u>	<u>Average # of Beds</u>
Medicare & Medicaid or Medicare Only	27	38	38	105
SNF, Medicaid Only	22	27	27	92
ICF, Medicaid Only	28	22	22	57
Uncertified	23	13	13	45

The survey categorized four groups by number of beds.

<sup>134</sup>St. Paul Pioneer Press. "Despite Scandals, Nursing Homes Still Booming, Growing Business," LeRoy Pope, 10/14/76, p. 59.

<sup>135</sup>National Nursing Home Survey, p. 3.

<sup>136</sup>Ibid., p. 5.

<sup>137</sup>Ibid., p. 4.

Group A (fewer than 50 beds) included 41% of the nursing homes in the survey and 15% of the total beds (with an average facility size of 28 beds). 38% of the homes were in Group B (50-99 beds), with 33% of the beds (with average facility size of 71 beds). Group C (100-199 beds) included 20% of all the homes and 35% of all the beds (with an average capacity of 130 beds). The largest size, Group D (200 or more beds) accounted for only 4% of the homes, but had 16% of the beds (with an average facility size of 314 beds).<sup>138</sup>

A slight regional difference, which was not statistically significant, was detected in the survey.

<u>Region</u>	<u>Average Bed Size Per Facility</u>
Northeast	81
North Central	73
South	74
West	74

In regional or state comparisons, the number of beds as compared with elderly populations is more relevant than the absolute number only. Table 2.36, which shows these data, reveals that Minnesota has more long term care beds per 1,000 elderly than any other state.

#### Occupancy

The homes in the national survey had an average occupancy rate of 88.2% in 1972. Occupancy rate did not vary significantly by type of ownership or by region.<sup>139</sup>

#### Days of Care

Proprietary facilities provided 71% of the estimated 369 million resident days of care in 1972.<sup>140</sup> Approximately half of the total number of residents days of care in 1972 were provided in nursing homes certified only for Medicaid. SNFs certified only by Medicaid accounted for 27% of the total days, while Medicaid ICFs accounted for 22%. Facilities certified for both programs or for Medicare only provided 14%. In 1972, the former category (both or Medicare only) operated at an average occupancy of 85.6%, which was somewhat lower than the rates for other certified categories. "While a difference might

<sup>138</sup> Ibid., pp. 5,6.

<sup>139</sup> National Nursing Home Survey, p. 3 and 7.

<sup>140</sup> Ibid.

TABLE 2.36

**NUMBER OF BEDS PER 1000 POPULATION 65 AND OVER MAINTAINED  
IN NURSING CARE AND RELATED HOMES BY STATE: 1973<sup>1</sup>**

State	Total beds	Nursing care	Personal care and other homes <sup>1</sup>
United States .....	62.3	51.9	10.3
Alabama .....	41.6	39.2	2.4
Alaska .....	75.8	75.8	—
Arizona .....	32.8	30.5	2.4
Arkansas .....	69.6	66.2	3.4
California .....	78.3	59.9	18.3
Colorado .....	83.4	75.6	7.7
Connecticut .....	76.1	63.5	12.6
Delaware .....	47.1	46.8	0.3
District of Columbia .....	44.3	39.8	4.5
Florida .....	29.4	24.6	4.7
Georgia .....	64.5	60.5	4.0
Hawaii .....	53.5	41.3	12.2
Idaho .....	56.6	54.7	1.9
Illinois .....	71.2	59.8	11.5
Indiana .....	66.8	58.1	8.7
Iowa .....	98.5	74.9	23.6
Kansas .....	82.6	64.3	18.3
Kentucky .....	51.2	37.0	14.3
Louisiana .....	51.7	50.3	1.4
Maine .....	76.3	63.4	12.9
Maryland .....	54.5	49.7	4.8
Massachusetts .....	82.6	70.7	11.9
Michigan .....	61.7	49.2	12.5
Minnesota .....	105.1	88.7	16.4
Mississippi .....	52.8	31.0	1.6
Missouri .....	57.7	50.1	7.6
Montana .....	67.0	56.0	11.0
Nebraska .....	92.0	77.8	14.2
Nevada .....	39.0	31.6	7.4
New Hampshire .....	69.9	62.1	7.8
New Jersey .....	46.9	38.4	8.5
New Mexico .....	40.8	32.3	8.5
New York .....	46.7	34.2	12.5
North Carolina .....	48.6	30.5	18.1
North Dakota .....	94.7	65.2	29.5
Ohio .....	62.8	56.1	6.7
Oklahoma .....	91.9	87.9	4.0
Oregon .....	74.7	57.8	16.9
Pennsylvania .....	49.9	44.0	5.8
Rhode Island .....	59.6	51.1	8.5
South Carolina .....	38.4	35.4	2.9
South Dakota .....	93.9	79.9	14.0
Tennessee .....	35.8	30.8	5.0
Texas .....	74.3	68.7	5.6
Utah .....	53.6	46.4	7.2
Vermont .....	78.0	67.4	10.7
Virginia .....	42.0	35.0	7.0
Washington .....	90.5	81.3	9.3
West Virginia .....	23.3	17.2	6.1
Wisconsin .....	105.0	77.0	28.0
Wyoming .....	59.3	49.0	10.2

<sup>1</sup>National Center for Health Statistics, Health Resources Administration

be expected because of the generally shorter stay of Medicare residents (at the maximum, Medicare will finance 100 days of care) and the resulting turnover vacancy periods, the tests of significance do not confirm this expectation."<sup>141</sup>

#### Cost, Rates

Nationally, 20% of 1975 Medicaid expenditures went to SNFs and 18% to ICFs. Categories such as physician services, prescribed drugs, therapeutic care, and diagnostic services are not reflected in these figures, though they do represent dollars expended on nursing home residents.

In 1972, the average total cost per resident day in nursing homes nationwide was \$15.63. 59% (\$9.17) was expended for labor;<sup>142</sup> 22% (\$3.41) for operating costs; 15% (\$2.37) for fixed costs; and 4% (\$0.68) for miscellaneous costs.<sup>143</sup>

"Although the Nation's nursing homes (in 1972) averaged a total cost per resident day of \$15.63, 59% of the homes had average total costs per resident day below \$15.00. The mean cost per resident day was also greater than the median cost per resident day for each of the major cost categories. Over 50% of the homes had labor, fixed operating, and miscellaneous costs per resident day which were less than the national average for these categories."<sup>144</sup>

During 1973-74, the average monthly nursing home charge per resident was \$479 (or \$15.96 daily). Almost 46% of the facilities had average monthly rates of \$400 or less, and 71% had charges under \$500.<sup>145</sup>

Costs and rates vary across several dimensions of nursing home characteristics. During the 1973-74 survey period, the estimated average monthly charge per resident in proprietary homes was shown to be \$33 more than in nonprofit homes. Although the variation is not statistically significant, the distribution shows that more nonprofit homes fall

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<sup>141</sup>Ibid., p. 5.

<sup>142</sup>Wages to nursing staff accounted for 63% of total wages and about 33% of total expenses.

<sup>143</sup>National Nursing Home Survey, p. 3.

<sup>144</sup>Ibid.

<sup>145</sup>Ibid.

at the lower end of the range of average charge than do proprietary homes. "These findings are indicative of the proprietary facility's greater dependence on user charges to cover costs, while nonprofit facilities are more apt to cover part of their costs through donations, grants, and subsidies."<sup>146</sup> The per diem costs for 1972 reiterate a variation by ownership (nonprofit - \$17.71, proprietary - \$14.86), but one contrary to the relationship for charges found in the survey. This discrepancy between charges and costs is probably explained by the availability of alternate funding sources for the nonprofit homes, e.g., donations, grants, subsidies. This situation thus allows for the possibility of higher costs but lower charges for nonprofit facilities.

A substantial part of the cost difference between types is explained by the labor component. Labor costs amounted to \$10.90 per resident day for nonprofit homes, and \$8.53 for proprietary homes. A greater proportion of nonprofit facilities' budgets (61.5%) was devoted to the labor category than for proprietary homes (57.4%). Although not statistically significant, the estimated total of operating, fixed, and miscellaneous costs per resident day also averaged higher for nonprofit homes (\$6.81) than for proprietary homes (\$6.33).<sup>147</sup>

With certification as a comparative element, the '73-'74 survey indicated that per-resident charges were highest for homes certified by both programs or by Medicare only, and decreased with the lesser certification status of the home. An increment of \$108 in the monthly rate was estimated between the levels of certified homes - both or Medicare only to SNF Medicaid only, and SNF Medicaid only to ICF Medicaid only, and SNF Medicaid only to ICF Medicaid only (thus \$592, \$484, and \$376 respectively). The differential between the ICF level and noncertified homes is only \$47. Per diem variation is shown below:<sup>148</sup>

<u>Certification status</u>	<u>Per diem</u>
Certified for both or Medicare only -	\$21.17
SNF, Medicaid only -	\$15.58
ICF, Medicaid only -	\$11.99
Non-Certified -	\$14.03

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<sup>146</sup>Ibid.

<sup>147</sup>Ibid.

<sup>148</sup>Ibid., p. 5.

Survey data also revealed size as an explanatory variable of cost. In general, charges and facility size vary directly. "This direct relationship between charges and size was probably due in part to the greater number of services which larger facilities tend to offer."<sup>149</sup> This finding is consistent with 1972 data.

A final cost differential is by region:<sup>150</sup>

	<u>1973-74 Average Monthly Charges per Resident</u>
Northeast	\$651
West	454
North Central	433
South	410

According to 1972 data, total costs per resident day averaged higher in the Northeast (\$19.60) than in any other region. This regional disparity can be attributed primarily to labor costs. In the Northeast, the labor component averaged \$12.03 per resident day, which was 35% higher than the next highest average (\$8.90 in the North Central Region). Operating, fixed, and miscellaneous expenses averaged significantly higher in the Northeast (\$7.57) than in any other region, except for the West (\$6.88).

#### Staff

For the 1973-'74 survey, the average facility had 63.9 FTE employees available per 100 beds, of whom 61% were categorized as part of the nursing staff. 74% of nursing staff were nurses' aids.<sup>151</sup>

This factor is also influenced by various facility characteristics. Regarding ownership, nonprofit homes had a substantially larger number of FTE employees per 100 beds (83.5) than did the proprietary homes (57.4). Nonprofit homes averaged more than twice as many "all other" FTE employees<sup>152</sup> per 100 beds than proprietary

<sup>149</sup>Ibid., p. 6.

<sup>150</sup>Ibid., p. 7.

<sup>151</sup>National Nursing Home Survey, p. 3.

<sup>152</sup>Ibid.

homes. "Acting as a possible offset to the lower number of total personnel per bed in proprietary homes was the fact that these homes averaged more administrative, medical, and therapeutic FTE employees per 100 beds (4.9) than did the nonprofit homes (3.8), with the difference statistically significant."<sup>153</sup>

Staff proportions also varied by certification status, as would be expected from Federal regulations. SNFs averaged 76.3 FTE employees per 100 beds, while ICFs averaged 55.8 in the 1973-74 survey. The difference in total personnel between the SNF group and the other certification groups was primarily due to the substantially greater number of "all other" employees in SNFs, not health staff requirements.<sup>154</sup>

Size was not related to differences in total numbers of employees or to individual occupation groups. One finding, however, was the greater availability of professional staff in homes with less than 50 beds. These homes average substantially more administrative, medical, and therapeutic FTE's per 100 beds (6.6) than any of the other size groups.<sup>155</sup>

The final factor of staff differentials is region. Although no statistically significant regional differences were found in the survey for nursing, administrative, medical, and therapeutic employees, the "all other" component differs by area. Homes in the North Central and Northeast Regions had more FTE employees per 100 beds available (70.2 and 68.9, respectively) than did homes in the West and South (57.1 and 56.1 respectively).<sup>156</sup>

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<sup>153</sup>Ibid.

<sup>154</sup>Ibid., p. 5.

<sup>155</sup>Ibid., p. 6.

<sup>156</sup>Ibid., p. 7.



### 3. Comparison With Other States: Deinstitutionalization of MRS

#### The National Picture:

Deinstitutionalization (DI) in some form and to some extent appears to be a nationwide phenomenon: the Council of State Governments in its Book of the States, 1974-1975 reports that

Each state without exception is moving to reduce emphasis on in-patient hospitalization and initiate and expand the systems of community care. In many cases this means phasing out old, large mental institutions; in other situations, it means drastically reducing the size of the institutions and altering their role in the treatment system, bringing them to a more cooperative relationship with community programs.<sup>157</sup>

Deinstitutionalization has occurred at different rates in different states, and at this point states are dealing with it in very different ways. Early experiments and continued problems have caused a re-thinking of the entire situation and there is not now any clear trend of movement either toward or away from deinstitutionalization.

The varieties of DI patterns can be observed through an examination of changes in admissions, releases, and state hospital inpatient censuses.

Some variations in SH systems and patterns of deinstitutionalization are evident from national statistics. Figure 2.10 reveals the extent of variability in the number of state and county mental hospital beds per 100,000 population across the United States. Along with 21 other states, Minnesota has between 75 and 149 beds per 100,000 population.

Table 2.37 lists the numbers of psychiatric beds per 100,000 population by type of mental health facility in D.H.E.W. regions. Several things are evident from this table. Minnesota has 114.9 SH beds/100,000 population. Table 2.37 also shows the relationships among

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<sup>157</sup> H. Schnible and R. Kreimeyer. "State Mental Health and Retardation Programs, 1972 - 1973", in Book of the States 1974-1975. The Council of State Governments, Lexington, Ky., April 1974, p. 380.

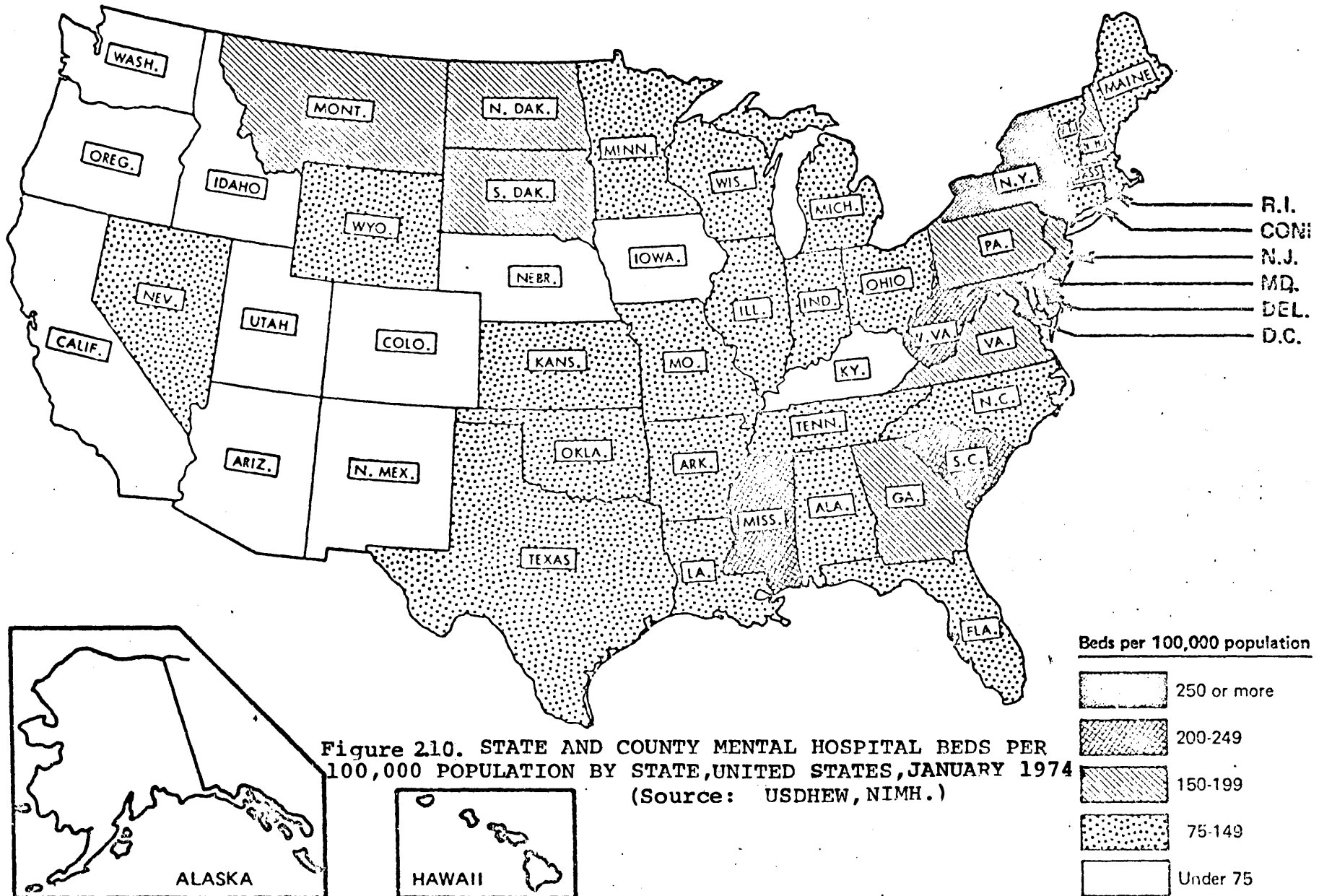


TABLE 2.37 Psychiatric beds per 100,000 population (8) by type of  
Mental Health Facility DHEW Region & State, January 1974 (1)

	State and County Psychiatric Hospitals	Other Psychiatric Hospitals (2)	CMHC (3)	Residential Treatment Centers (4)	General Hospitals + other multi-service facilities (5)
<b>Region I</b>					
Connecticut	121.5	26.5	3.2	18.1	15.3
Maine	127.3	47.7	8.4	11.9	3.3
Massachusetts	139.6	61.8	14.7	17.1	5.2
New Hampshire	198.2	-	3.5	21.2	1.3
Rhode Island	201.8	19.2	-	11.9	3.0
Vermont	142.5	50.6	22.6	4.3	6.8
<b>Region II</b>					
New Jersey	192.7	31.8	3.0	3.9	12.4
New York	271.0	27.9	3.6	15.2	21.0
Puerto Rico	27.1	8.9 (6)	-	-	1.1
<b>Region III</b>					
Delaware	(7)242.5	-	11.5	-	9.7
Dist. of Columbia	472.9	36.0	16.5	7.5	22.9
Maryland	169.5	38.6	3.5	5.2	5.7
Pennsylvania	182.6	15.9	6.6	15.6	11.3
Virginia	176.1	21.8	2.5	3.9	9.7
West Virginia	230.1	4.3	10.1	-	10.8
<b>Region IV</b>					
Alabama	139.1	41.7	5.9	-	11.2
Florida	119.8	13.4	6.7	7.7	13.6
Georgia	188.0	30.5	6.9	3.4	10.0
Kentucky	60.1	24.6	40.3	4.0	11.2
Mississippi	217.7	27.5	5.1	-	4.0
North Carolina	129.3	25.5	5.8	1.0	7.2
South Carolina	215.5	3.3	3.4	0.6	6.7
Tennessee	134.8	34.3	4.1	1.4	11.3
<b>Region V</b>					
Illinois	92.3	32.7	2.1	6.2	14.2
Indiana	140.1	24.7	3.2	3.5	13.6
Michigan	88.8	23.1	4.8	9.7	11.5
Minnesota	114.9	28.9	5.6	13.7	25.1
Ohio	137.3	29.5	2.2	6.7	15.3
Wisconsin	149.4	29.2	15.0	31.6	18.5
<b>Region VI</b>					
Arkansas	82.3	39.2	8.4	0.6	4.7
Louisiana	108.6	16.4	5.3	4.5	8.3
New Mexico	33.1	15.1	4.0	1.1	1.4
Oklahoma	124.9	4.5	4.4	4.9	11.3
Texas	99.3	20.2	5.0	12.9	16.4
<b>Region VII</b>					
Iowa	55.1	27.2	5.4	4.5	17.3
Kansas	86.8	39.2	5.1	11.3	11.5
Missouri	106.4	12.5	5.5	7.4	16.7
Nebraska	66.1	9.7	2.8	1.7	20.2
<b>Region VIII</b>					
Colorado	64.5	36.1	8.6	14.1	7.4
Montana	174.5	-	5.0	-	7.7
North Dakota	151.7	-	16.9	-	16.4
South Dakota	171.2	42.0	4.9	6.2	13.2
Utah	28.4	14.1	5.2	6.4	15.3
Wyoming	117.0	117.0	5.1	21.2	-
<b>Region IX</b>					
Arizona	42.6	4.6	7.7	7.1	6.9
California	52.7	21.6	4.7	11.9	10.0
Hawaii	28.4	-	12.8	7.1	9.1
Nevada	81.4	3.8	7.2	-	7.9
<b>Region X</b>					
Alaska	65.1	-	3.9	-	-
Idaho	44.6	-	21.4	12.4	1.0
Oregon	74.2	21.8	6.6	11.7	5.8
Washington	62.0	24.7	1.0	9.1	6.9
U.S. TOTAL	132.4	26.3	5.8	9.0	12.3

continued

Table 2.37 - Continued

FOOTNOTES:

- 1 Information from Table 3, Statistical Note 118. Dept. of Health, Education, and Welfare, Public Health Service, National Institute of Mental Health. Beds in non-reporting facilities estimated or obtained from alternative sources.
- 2 Includes private/non-profit mental hospitals, veteran's administration psychiatric inpatient units and V.A. neuropsychiatric hospitals.
- 3 Comprehensive Federally funded Community Mental Health Centers. Represents only beds specifically set aside for inpatient psychiatric care.
- 4 Residential Treatment Centers for Emotionally Disturbed Children.
- 5 Includes public and private/non-profit general hospitals and other facilities providing inpatient, outpatient, and either day treatment or other partial hospitalization for mental health services not receiving Federal funds under P.L. 88-164 or P.L. 89-105.
- 6 No beds are counted for two private mental hospitals for which no information could be obtained by N.I.M.H.
- 7 The major D.C. psychiatric hospital is Federally operated, but considered a "State Mental Hospital" by N.I.M.H. D.C. has many more out-of-State residents in its "state" hospital than is common in other states. This partially explains the relatively high number of beds per 100,000 population.
- 8 N.M.I.H. used the estimated civilian resident population of the U.S. as of January 1, 1974 in the calculation of these rates. The January 1 estimate was obtained by averaging the populations as of July 1, 1973 and July 1, 1974 in Current Population Reports, Series P-25, No. 533, U.S. Bureau of the Census; October 1974.

numbers of psychiatric beds in SHs and other inpatient service modes such as general hospitals and community mental health centers. As might be expected, state and county mental hospitals nationally have more psychiatric beds/100,000 population than do other facilities. The same relationship holds true for Minnesota, with a total of 73.3 psychiatric beds/100,000 in all other inpatient mental health facilities vs the 114.9 beds/100,000 in SHs.

Table 2.38 shows DI trends in public residential facilities for the mentally retarded from July, 1970, to January, 1975. Public residential facilities include SHs solely for service to the mentally retarded, state schools for the mentally retarded, and any other publicly operated residential facility for the mentally retarded. Trends show substantial variation among the states: the range in percent change is from +91% to -36%. Again, some of this variability may be due to different classification schemes for institutions or different reporting techniques, but overall, Table 2.38 does reveal great differences in public facilities for the mentally retarded from 1970-1975. Minnesota had a 16.7% decrease in the resident population of public residential facilities for the mentally retarded, substantially greater than the 9.8% nationwide decrease of the total resident population from 1970-1975.

We now examine in more detail the deinstitutionalization experiences of several states.

The states have taken different approaches to deinstitutionalization. For example, California took an abrupt approach when it closed three of its eleven state hospitals in 1969, 1970, and 1971. However, reports of abuses and patient neglect led to fierce opposition from communities and unions, forcing Governor Reagan to announce in February, 1974, that no more closures would occur.<sup>158</sup> Lessons learned from the California experience led other states to use less abrupt approaches in both institutional transfer and community placement. When Massachusetts closed Grafton State Hospital in 1972, staff worked out a system of patient choice, peer group transfer, patient and staff transfer, and extra volunteer support, resulting in successful facilitation of patient movement

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<sup>158</sup> "State Hospitals in Transition. Impact on Patients." Currents. Summer 1975. pp. 2,4.

TABLE 2.38

Population Trends in Public Residential Facilities for  
the Mentally Retarded: 1970-1975<sup>1</sup>

	Resident Population as of		Percent Increase/ Decrease
	Jan. 1975	July 1970	
Alabama	1,762	2,300	-23.4
Alaska	110	109	+ 0.9
Arizona	1,050	971	+ 8.1
Arkansas	1,620	1,294	+25.0
California	10,000 (2)	11,483	-12.9
Colorado	1,700 (2)	2,113	-19.5
Connecticut	3,500	4,074	-14.0
Delaware	575	568	+ 1.2
District of Columbia	1,364	1,242	+ 9.8
Florida	5,509	6,128	-10.1
Georgia	3,568	1,864	+91.4
Hawaii	712	747	- 4.7
Idaho	465	654	-28.9
Illinois	6,800	7,877	-13.7
Indiana	3,000	3,604	-16.7
Iowa	1,460	1,623	-10.0
Kansas	1,658	2,016	-17.7
Kentucky	945	989	- 4.5
Louisiana	3,800 (2)	2,959	+28.4
Maine	586	799	-26.7
Maryland	3,800	3,215	+18.1
Massachusetts	6,000	7,554	-20.5
Michigan	7,100	11,834	-40.0
Minnesota	3,600	4,321	-16.7
Mississippi	2,332	1,340	+74.0
Missouri	2,567	2,535	+ 1.3
Montana	550	944	-41.7
Nebraska	1,000 (2)	1,759	-43.1
Nevada	NR (3)	NR (3)	---
New Hampshire	740	970	-23.7
New Jersey	7,500	6,846	+ 9.5
New Mexico	780	708	+10.1
New York	19,854	26,551	-25.0
North Carolina	4,300	5,068	-15.1
North Dakota	950	1,497	-36.5
Ohio	8,000 (2)	9,462	-15.4
Oklahoma	2,100 (2)	1,934	+ 8.6
Oregon	2,160	2,836	-23.8
Pennsylvania	10,000 (2)	10,621	- 5.8
Rhode Island	839	851	- 1.4
South Carolina	4,275	3,633	+17.7
South Dakota	1,180	1,197	- 1.4
Tennessee	2,500 (2)	2,785	-10.2
Texas	13,200 (2)	11,037	+19.5
Utah	850	863	- 1.5
Vermont	466	628	-25.7
Virginia	4,900 (2)	3,661	+33.8
Washington	2,500 (2)	3,738	-33.1
West Virginia	500 (2)	461	+ 8.4
Wisconsin	3,000 (2)	3,781	-20.6
Wyoming	600 (2)	699	-14.1
TOTALS	168,327	186,743	- 9.8

<sup>1</sup> Information from Table VI of Trends in State Services to the Mentally Retarded: A Survey Report, by Robert M. Gettings, National Association of Coordinators of State Programs for the Mentally Retarded, Inc., July 3, 1975.

<sup>2</sup> Estimated

<sup>3</sup> NR=Non-reporting

without regression or increased mortality rates. Community placement efforts during closure of Cleveland (Ohio) State Hospital were facilitated by the formation of a Community Rehabilitation Unit at the SH.<sup>159</sup> This unit worked with patients, preparing them for community life as well as assisting community based facilities to arrange for the necessary services that the ex-patients would require in the community.

Various small-scale experiments across the county have been implemented in the attempt to create viable alternatives to SH care. These have ranged from efforts to intervene with families which have retarded children<sup>160</sup> to the development of foster care settings for adults.<sup>161</sup> Other experiments have included supportive apartment living programs,<sup>162</sup> the use of regional community programs to attempt to reduce SH admittance,<sup>163</sup> the use of a special SH unit as a training ground for more

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<sup>159</sup>Currents, p. 6.

<sup>160</sup>For one example see: Evelyn H. Baumann, "A Day Treatment Program for Severely Disturbed Young Children." Hospital and Community Psychiatry. Vol 27. No. 3, Mar. 76. pp. 174-179.

<sup>161</sup>For example see: Edward Chouinard, "Family Homes for Adults." Social and Rehabilitation Record, USDHEW, Vol. 2, No. 2, Feb-Mar. 1975, pp. 10-15, where they used public assistance recipients as self-employed family home sponsors; and B. Book, et. al., "Community Families: An Alternative to Psychiatric Hospital Intensive Care." Hospital and Community Psychiatry, Vol. 27. No. 3, March, 76, pp. 195-197.

<sup>162</sup>For a few examples see: "Gold Award: A Community Treatment Program." Hosp. and Comm. Psychiatry. Vol. 25, Oct. 74. pp. 669-672; M. Test, L. Stein. "Training in Community Living: A Follow-up Look at a Gold Award Program." Hosp. & Comm. Psychiatry. Vol. 27, Mar. 76. pp. 193, 194; L. Stein. M. Test, A. Mary. "Alternative to the Hospital: A Controlled Study," American Journal of Psychiatry. 132:5. May 1975, pp. 517-522; and M. Kresky, J. Mayeda, N. Rothwell. "The Apartment Program: A Community Living Option for Halfway House Residents." Brief Reports, Hospital and Community Psychiatry. Vol. 27, No. 3, Mar. 1976. pp. 153-163.

<sup>163</sup>For example see: W.G. Smith, D. Hart. "Community Mental Health: A Noble Failure?" Hospital and Community Psychiatry. Vol. 26. No. 9, Sept. 75. pp. 581-583; J. Elpers. "Orange County's Alternative to State Hospital Treatment," Hosp. and Comm. Psychiatry, Vol. 26. No. 9, September 1975. pp. 589-592; and "Alternatives to Mental Hospital Treatment - Highlights from a Conference in Madison, Wisconsin." Hospital and Community Psychiatry. Vol. 27. No. 3, March 1976. pp. 186-192.

independent living,<sup>164</sup> the use of the Broker Advocates (discussed in more detail in Chapter III C as part of the Virginia model) and Assessment and Prescription teams, and the development of family care training homes and group placement homes.<sup>165</sup>

These experimental programs have not yet demonstrated unequivocally the value of community versus state hospital care. The inconclusiveness of the findings to date is due partly to lack of available measures of quality, partly to the small scale, nongeneralizable nature of the programs, and partly to the relatively uncontrolled nature of some of the experiments. A few have reported cost savings in the community, increased "humanization," and "successes" (measured in various ways), but the only real conclusions which can be made at this time from these experiments seem to be that there are currently a variety of versions and phases of deinstitutionalization and that there are a multitude of alternatives to the traditional state hospital system. Some alternatives to state hospitals are more appropriate than others for specific situations; the savings or success rates also vary by situation. None stand out as the "answer" but rather one can conclude that many methods could be integrated into a system. Factors such as client characteristics, available community resources, etc., seem to be the major influences on what type of community alternative is feasible in the particular system.

A national study of mental retardation services<sup>166</sup> indicates a trend toward consolidation of state administrative authority, most often in the form of an umbrella human services agency. This discrete administrative authority includes planning, coordination, and management of all state mental retardation services. Many states indicated current or anticipated movement toward a decentralized regional or county-based service system.<sup>167</sup> Program trends in services for the mentally retarded include heavy public school involvement: 48 states have mandatory special education laws pertaining to the retarded.<sup>168</sup>

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<sup>164</sup> For one example see: B. Lamb, J. Oller. "The Registered Dietician's Role in Rehabilitating Chronic Psychiatric Patients." Brief Reports, Hospital and Community Psychiatry. Vol 27, No. 3. March 76, pp. 153-163.

<sup>165</sup> Currents, pp. 6, 8.

<sup>166</sup> Robert M. Gettings. Trends in State Services for the Mentally Retarded: A Survey Report. National Association of Coordinators of State Programs for the Mentally Retarded, Inc., July 3, 1975.

<sup>167</sup> Gettings, pp 19, 20.

<sup>168</sup> Gettings, p. 31.



A study of state mental hospital trends was undertaken by the Horizon House Institute for Research and Development with the support and cooperation of the Department of Public Welfare in Pennsylvania. Replies, which were received from 44 of the 50 states surveyed, reveal different patterns of utilization of SHs. Since 1970, SHs have been closed in several states (California, Illinois, Massachusetts, New York, Oklahoma, Washington, and Wisconsin), but state hospitals have been opened in other states (Delaware, Florida, Georgia, and Virginia).<sup>169</sup> The decline in the resident population, reported since 1955, has continued, as indicated by provisional data submitted for FY 1975; there was an overall drop of 22,148 (-10.8%) in patients in state and county mental hospitals nationwide as compared with FY 1974.<sup>170</sup> This decrease has resulted in overall improvement in patient-staff ratios<sup>171</sup> as well as significant changes in the purpose and/or configuration of the SH system.<sup>172</sup> Other nationwide SH population trends include: higher percentages of severely and profoundly retarded, multiply handicapped residents; an increase in the average age of mentally retarded residents; growth in the proportion of mentally retarded residents with severe behavior problems; and increases in the proportion of residents with other special problems such as deafness, blindness, etc.<sup>173</sup> It can be reasonably assumed from these facts that the nationwide decline in SH resident populations has been a result of selective discharging of mildly or moderately retarded, younger mentally retarded persons, and persons without severe behavior or other special problems, and also of preventing admission of these types of patients.

<sup>169</sup>Horizon House Institute for Research and Development. "The Future Role of State Mental Hospitals," A National Survey of Planning and Program Trends. July 1975, p. 3.

<sup>170</sup>National Institute of M.H., Division of Biometry: Statistical Note 132, July 1976, p. 1.

<sup>171</sup>Statistical Note 132, p. 4 reveals a staff member for every 0.9 patients in 1975 compared to 1.0 for 1974. This improvement has been a trend. This ratio calculated with all staff included.

<sup>172</sup>Horizon House, p. 4.

<sup>173</sup>Robert M. Gettings, National Association of Coordinators of State Programs for the Mentally Retarded, Inc. Trends in State Services for the Mentally Retarded: A Survey Report. July 3, 1975. pp. 44.

Most of the states surveyed in the Horizon House study are not planning closures or additions to their state hospital systems.<sup>174</sup> Several states, primarily in the South, are planning additional state hospitals but are intending to use them as regional facilities of a smaller size than has been traditional in the past. Many states have been involved in intensive analyses of their state hospital systems and have begun to reform or change their systems. The most common changes include reducing improper placement, improving staff-patient ratios, adding other services, subdividing larger facilities, integrating with communities, and developing community alternatives. Some states such as Indiana have reported the desire to remain in direct service only so long as community alternatives are not available.<sup>175</sup>

Some of the more populous, budget-pressed states (California, Illinois, Massachusetts, Ohio, New York) which had moved toward deinstitutionalization more rapidly than other states are now in a holding pattern due to community and political opposition.<sup>176</sup> Other changes reported by the states include:<sup>177</sup>

- 19 states have considered or altered state hospital specialization, in order to serve as a central resource for certain services and
- 17 states are attempting to unify or integrate state hospital and community systems of care.

The emphasis on community residential programs varies from state to state. Twenty states which responded to a question on necessary prerequisites to state hospital change<sup>178</sup> report that they intend to rely on the development of community programs as alternatives. One state, Florida, requires state hospital programs to develop community residential programs. Some states mentioned a lack of community alternatives as a problem.<sup>179</sup> Yet another study, surveying public

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<sup>174</sup>This paragraph from Horizon House, pp. 127, 128.

<sup>175</sup>Horizon House, p. 130.

<sup>176</sup>Horizon House, p. 130.

<sup>177</sup>Horizon House, p. 131, 132.

<sup>178</sup>Horizon House, p. 141.

<sup>179</sup>Horizon House, p. 141, 142.

residential facilities for the retarded, indicated that there were not sufficient community placement alternatives and that there were problems in some of the existing community based facilities, such as inadequate programming, staff training, etc.<sup>180</sup>

#### Minnesota and Its ICF/MRs

Perhaps the most spectacular differences among states' community facility configurations occur in facilities for the mentally retarded. Minnesota has developed an extensive ICF/MR community-based facility system, with well over 100 such facilities at the present time. (See Chapter II B 3 for a discussion of the growth and development trends of Minnesota's Medicaid-certified ICF/MRs.) As Table 2.39 shows, no other state even approaches this number; in fact, very few other states have any ICF/MR - certified community-based facilities at all. As Table 2.39 further details, a few other states report that they have begun to work toward ICF/MR certification, but at this time Minnesota stands alone in ICF/MR development. Because of this, specific comparisons between Minnesota and other states cannot be made. Nevertheless, some programs in other states do warrant examination as we explore Medicaid cost-containment alternatives for Minnesota. We look first at the state of Washington.

#### Washington and Its SR/TCs

The network of publicly operated MR-CBFs in Washington is still primarily in the planning stages, but merits further explication as a unique method of completing the DI process. The plan entails the development of state operated State Residential Training Centers (SR/TCs).<sup>181</sup> A center is defined as three residential group homes of 16 or fewer residents (ranging from 3-16 beds), and one training center (equivalent to a DAC). These facilities are to be scattered in various community residential neighborhoods where possible, and are never to be further than a 30 minute mini-bus ride from the training center.

The rationale behind the development of this system of SR/TCs is essentially the continued phasedown of the large state institutions. Previous DI efforts in Washington had fostered the growth of community facilities for MRs but had left the SH with the hard-to

<sup>180</sup>R. C. Scheerenberger, Ph.D. Current Trends and Status of Public Residential Services for MRs, 1974. National Association of Superintendents of Public Residential Facilities. 1975, p. 19, pp. 24,25.

<sup>181</sup>All information on this from phone interview with Maurice Harmon, Director, Bureau of Developmental Disabilities, Department of Social and Health Services., Olympia, Washington, - September 22, 1976 (and from information sent).

TABLE 2.39

Extent to which Title XIX-certified ICF/MRs are being used as community residences for the retarded in the 50 states.<sup>1</sup>

STATE	Extent of ICF/MR development
Connecticut	In the process of certifying CBF <sup>2</sup> -MRs as ICF/MRs; 1 or 2 out of 30 group homes certified so far.
Georgia	Exploring certification possibility
Illinois	In the process of certifying as ICF/MRs selected small group facilities for the mentally retarded.
Iowa	Exploring ICF/MR certification for CBFs.
Massachusetts	Attempting certification of some group homes. Has several presently certified.
Minnesota	Has already certified well over 100 ICF/MRs.
Montana	Is attempting to qualify its group homes as ICF/MR providers.
Nebraska	Has only a few CBFs certified; is exploring other certification possibilities.
Ohio	Is in the process of qualifying CBFs as ICF/MRs.
Rhode Island	Is planning to certify group homes as ICF/MRs.
South Carolina	Is in the process of ICF/MR certification; has 2 or 3 group homes certified.
Washington	Decertified over 30 group home ICF/MRs when final regulations came out. Now considering network of publicly operated MR-CBFs. (see following pages for details)

<sup>1</sup>Information supplied by Robert M. Gettings, Executive Director of the National Association of State Programs for the Mentally Retarded, Inc. This was information known to him as of August 10, 1976, and as such is not necessarily all-inclusive.

<sup>2</sup>CBF = community based facility

place MRs-- those who are severely and profoundly retarded, multiply physically handicapped, etc. In order to complete the community continuum of care, and to be able to reduce SH populations to the point of closing some, the state Department of Social and Health services (particularly the Bureau of Developmental Disabilities) decided to develop facilities to serve the hard-to-place MRs. SH population phasedowns are not expected to result in actual closures in the near future, however. The system of SR/TCs is not intended to replace private community group homes or congregate care facilities, as private facility developers at first feared, but is intended to provide an additional step in a state-operated continuum of services, having the eventual aim of moving individuals to an even less restrictive environment when possible. Therefore, the SR/TCs are seen as encouraging private facility development.

SR/TCs will be funded through state appropriations. The exact nature of the funding mechanisms involved is not known at this time, since there are no operational SR/TCs yet and the legislature will be approached on the subject in its forthcoming session. The Bureau of Developmental Disabilities (D.D.) is anticipating requesting one line item for all center operations but is not certain whether this request will be granted. Three SR/TCs (12 separate facilities), presently under construction with state dollars, are anticipating completion before the end of calendar year 1977, with phase-in of operations beginning at that point. The Bureau will be requesting construction funds for more SR/TCs during the next session.

Administratively, the overall planning and control functions are located in the Bureau of D.D., but the superintendents of the SHs have managerial control over any SR/TCs in their catchment or receiving areas. This managerial control includes accounting and business functions; supply and warehousing of food and other items; and supplying the necessary ancillary professional staff as necessary, e.g., doctors, nurses, psychiatrists, various therapists, etc. Staff of an SR/TC consist of a manager who is responsible for the day to day operation of the 3 residential units and the training centers; attendant counselors (equivalent to house or cottage "parents"); training center staff (perhaps recreational and occupational therapists, etc); and maintenance or support staff. The attendant counselors accompany the residents to the training center, and assist in those activities. The manager

of the center is also responsible for relations between the center and the community. All staff positions would be civil service. Although civil service wage levels in Washington are higher than private-sector wage levels, this is seen not as a problem but rather as an incentive and rationale for private facilities to move their wage levels to a higher level.

A central office for field work provides statewide "case services" out of regional offices for all MRs. Case services include an involvement in placement efforts. SH staff and the field worker would be responsible for the original placement in the SR/TC; the field worker would then participate in any adjustment problems and would be heavily involved in a decision to move an individual to another level of care. The decision to move a resident to a private CBF would be based primarily on his/her functioning level. If, for instance, an individual is ready for sheltered workshop activities, he/she would most likely be moved to a private CBF where he/she could be involved in a sheltered workshop.

Regulation of the SR/TC would be the state's responsibility. Since it is anticipated that Title XIX money will be used, facilities must comply with ICF/MR regulations. The Department of Social and Health Services is an umbrella organization which includes mental health, health, and developmental disabilities divisions. The health division deals with the regulation of facility characteristics (much like MDH) while the Bureau of D.D. certifies programs. While the SR/TCs will not be subject to the same state level review and monitoring as are private CBFs, it is expected that they will meet the state standards by virtue of the fact that they are state-operated.

Washington's answer, then, to continuing the DI process when only the lower-functioning MRs remain in SHs is to develop a network of state operated group home-day activity center clusters. It is anticipated that this will allow for eventual closing of some of the bulky, hard-to-run-efficiently state institutions. The state, county MR boards, private developers, and SH staff are all involved in the process. Through this joint involvement, it is felt that some of the potential problems associated with SH closure and inadequate CBF development can be averted.

#### Other states and MR residential care

There are other extensively developed community based systems for MR residential care, even though they are not Title XIX ICF/MRs. One notable example is Nebraska which, as discussed in Chapter III C, has a system of clustered very small facilities.

Some additional information of a more specific nature on how community placement and DI have been implemented is found in recent General Accounting Office (GAO) audits on DI efforts in 5 states: Maryland, Massachusetts, Michigan, Nebraska and Oregon.<sup>182</sup> The aim of these audits, which was to identify the problems and progress of the DI effort in the states, was accomplished by examining the status of DI and the implementation of community placement by federal, state and local agencies. Data were obtained on the impact of Federal programs on DI.

Overall, the audits revealed some state-specific problems in DI efforts and some general problems common to all five states. The general problems included: fragmented responsibility for DI and community placement on the state, local and federal levels; inadequate resources for the development of community facilities and services; and inappropriate placements as a result of the first two factors.

The five states were found to differ on the extent of their DI efforts, as well as on some different specific problems, but the fragmentation of responsibility and its concurrent lack of coordination, lack of centralized information, and lack of follow-up have resulted in systems that are not fulfilling the goals of DI.

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<sup>182</sup>U.S. General Accounting Office. Report to the Congress by the Controller General of the United States: Summary of a Report -- Returning the Mentally Disabled to the Community: Government Needs to do More. Jan. 7, 1977; and (ibid) (full report) Returning the Mentally Disabled to the Community: Government Needs to do More. Jan. 7, 1977. (HRD-76-152 and HRD-76-152.)

## CHAPTER III ANALYTICAL FRAMEWORK

Chapter II described the LTC system, its recipients, and Medicaid's role in that system. It demonstrated the complexity of the system, the fragmentation, and the incredible number of government and private sector groups involved in planning, providing services, funding, regulating, and evaluating the LTC system.

The reader should now have the understanding that the Medicaid LTC system consists almost entirely of elderly or mentally retarded persons who reside in nursing homes, other community facilities, or state hospitals which provide SNF, ICF-I, ICF-II and/or ICF/MR levels of care.

We now describe and analyze the current Medicaid LTC system and alternatives to it in terms of several variables which we call impacts. Those impacts are:

- cost
- funding source
- quality of care
- staff
- local economic impacts
- feasibility (analyzed for alternatives only).

Before beginning an analysis of an incredibly complex system, an analytical framework is needed. In this chapter we present the frameworks developed to study our impacts. In Chapter IV, we apply the frameworks to describe and analyze the current system and, in Chapter V, to explore alternatives.

### A. A Framework for Analyzing Costs of LTC

#### 1. Cost Comparison Approaches

In order to study costs of LTC, some type of methodological approach is necessary which is both appropriate and realizable given time and resource constraints.

Three types of methodologies which may be employed when making cost comparisons in the area of LTC are: 1) cost-effectiveness analysis, 2) cost-benefit analysis, and 3) cost of service analysis.<sup>1</sup> We now describe each of these cost-comparison methodologies and comment upon their utility for this study.

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<sup>1</sup>A. Lenzer and A. Donabedian, "Needed... Research in Home Care," Nursing Outlook, October 15, 1967. Refer also to: "A Planning Study of Services to Non-Institutionalized Older Persons in Minnesota," The Governor's Citizens Council on Aging, State of Minnesota 1974: Prepared under contract by the staff of the School of Public Affairs, University of Minnesota, Nancy N. Anderson-Principal Investigator.



## Cost-Effectiveness Analysis

Cost-effectiveness analysis applied to the area of LTC is a form of policy analysis which estimates the monetary and non-monetary costs of alternative programs that attain specified levels of client outcome defined through "effectiveness" measures. Crystal and Brewster define cost-effectiveness analysis as a "series of analytical and mathematical procedures which aid in the selection of a course of action from among various alternative approaches."<sup>2</sup> They also note three basic conceptual characteristics of cost-effectiveness analysis: 1) that the optimal alternative may not necessarily be the least costly one, 2) that there exist at least two ways to accomplish the same task (or reach the same level of client outcome), and 3) that cost-effectiveness analysis is not necessarily a cost reduction methodology, but rather an optimization process.<sup>3</sup> Valid cost-effectiveness analysis requires the formulation of measurements of: effectiveness, operational utility, personnel and equipment needed, and costs for each alternative.<sup>4</sup> The decisionmakers are then able to select the optimal programs according to their cost and effectiveness measurements.

At the present time, however, cost-effectiveness analysis is not feasible for this study of the costs of LTC in Minnesota. There are many different types of client groups in Title XIX certified facilities, and to find similar "effectiveness" or "outcome" measures for each of these groups (the elderly, the mentally retarded, and the other disabled) would be an extraordinarily difficult task. The present understanding of the "outcomes" associated with the DI process lacks both sophistication and reliability, and requires further refinement. In the future, with more research on "outcome" measurements (especially for the mentally retarded) and more uniform measuring and reporting of costs of different types of facilities and treatment programs, cost-effectiveness analysis might be feasible.

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<sup>2</sup>Royal A. Crystal and Agnes W. Brewster, "Cost Benefit and Cost Effectiveness Analyses in the Health Field: An Introduction," Inquiry: A Review of Current Research in Hospital and Medical Economics, December 1966, p. 7.

<sup>3</sup>Ibid., p. 8.

<sup>4</sup>Ibid., p. 9.

### Cost-Benefit Analysis

Cost-benefit analysis is a cost-comparison methodology that translates the social benefits and social costs of a project or program for a given group or society into monetary terms.<sup>5</sup> At best, however, this task is very difficult in the area of social programs. Prest and Turvey note that cost-benefit analysis is more useful in the public utility area than in the social service area of government.<sup>6</sup> Like cost-effectiveness analysis, cost-benefit analysis is also inappropriate for examining the social costs and benefits associated with the DI process. Many of the "social costs" and "social benefits" of the DI process are, and will remain, unquantifiable in pecuniary terms. Cost-benefit analyses have nevertheless been attempted in the area of developmental disabilities.<sup>7</sup> It is our view, however, that cost-benefit analysis is not the appropriate methodology in evaluating the costs and benefits of the DI process because of its underlying premise that all benefits and costs can be validly converted into a monetary benefit/cost ratio.

### Cost Of Service Study

A third type of cost-comparison methodology is the "cost of service" analysis, which we use in this study. A cost "model" or "framework", which permits valid cost comparisons across different types of Title XIX - reimbursed facilities (including state hospitals) is presented later. This method of cost comparison requires no assumptions about measurements of "effectiveness" or differing client "outcomes" as causal explanations of cost differentials among differing programs or facilities.

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<sup>5</sup>E.J. Mishan, Economics for Social Decisions: Elements of Cost-Benefit Analysis (Praeger, 1973), p. 13.

<sup>6</sup>A.R. Prest and R. Turvey, "Cost-Benefit Analysis: A Survey," The Economic Journal, Volume LXXV, December, 1965, p. 686.

<sup>7</sup>They include: 1) Steven Sharfstein and J. Calvin Nafziger, "Community Care: Costs and Benefits for a Chronic Patient," Hospital and Community Psychiatry, Vol. 27, No. 3, March 1976, pages 170-3, 2) Arthur Bolton Associates, "A Benefit/Cost Analysis of Programs for the Adult Mentally Retarded," May 1972, and 3) Jane G. Murphy and William E. Datel, "A Cost-Benefit Analysis of Community Versus Institutional Living," Hospital and Community Psychiatry, Vol. 27, No. 3, March 1976, pp. 165-170.

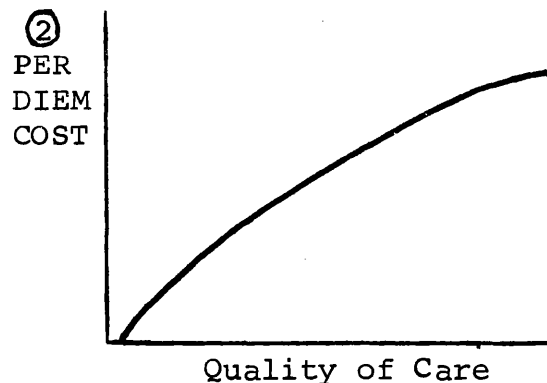
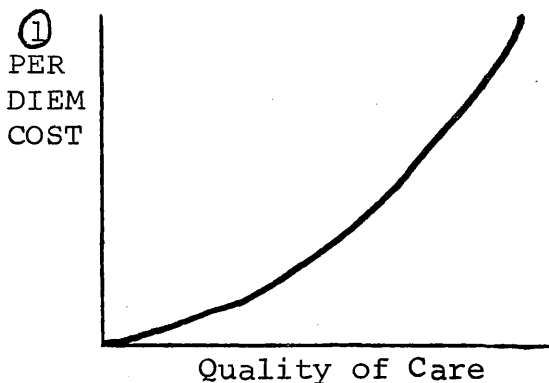
Before developing "effectiveness" or "outcome" measurements regarding the effects of DI, it is first necessary to adequately identify costs. This study attempts to identify the costs associated with different types of Title XIX - reimbursed facilities, services, and levels of care more coherently than has ever been done in Minnesota.

Cost differentials among different types of Title XIX - reimbursed facilities and levels of care are undoubtedly due to a multitude of factors such as patient characteristics, quality of care, services, and staffing. Although this study cannot determine the exact relationships among these factors and costs, we can provide a more accurate and informative evaluation of inter-facility cost differentials and the roles of patient characteristics, staffing levels, cost accounting systems, "quality of care," and services in explaining these cost differentials.

For example, the exact relationship between the abstract concept of "quality of care" and per diem cost remains unclear. One can, however, hypothesize the relationship as one or a combination of the following:

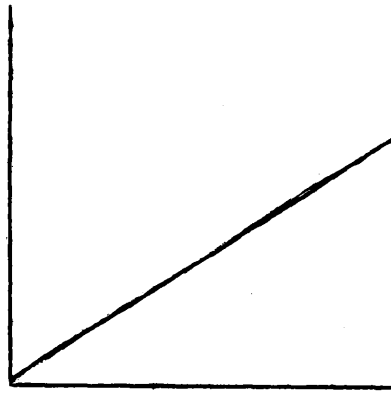
- 1) as quality of care increases, per diem costs increase proportionately more rapidly;
- 2) as quality of care increases, per diem costs increase proportionately less rapidly; or
- 3) as quality of care increases, per diem costs increase proportionately.

The above three relationships are illustrated below:<sup>8</sup>



<sup>8</sup>"A Planning Study of Services..., Part Two - The Costs of In-Home Services" - Jay Greenberg, p. 4. Diagrams included were useful in aiding diagrammatic formulations.

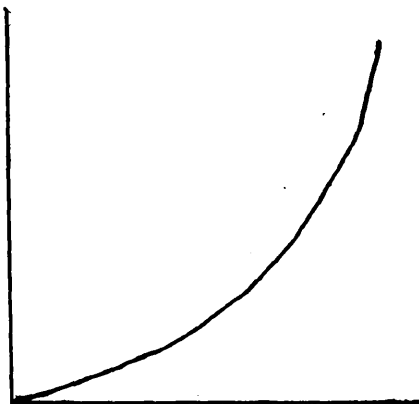
③  
PER  
DIEM  
COST



Quality of Care

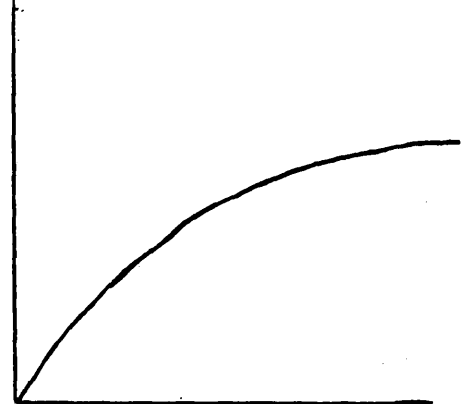
The same relationships can be hypothesized between the patient characteristic "severity of condition" (most relevant to the elderly and the mentally retarded) and per diem costs:

①  
PER  
DIEM  
COST



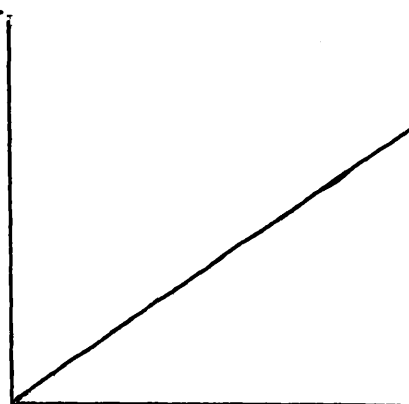
Severity of Condition

②  
PER  
DIEM  
COST



Severity of Condition

③  
PER  
DIEM  
COST



Severity of Condition

Two recent studies have examined the interrelationships of economics, deinstitutionalization, and mental retardation.<sup>9</sup> These studies are described and analyzed in Appendix D. The reader should refer to this appendix.

## 2. The Cost Model

In general terms, we would hypothesize costs of LTC to be a function of:

- type of resident
- level of care
- type of facility
- resident characteristics
- facility characteristics, including programs and services offered.

The purpose of our cost model is to permit valid cost comparisons, i.e., to compare "apples" with "apples" and not "oranges." Our aim is to compare costs for a given type of resident in a given level of care (e.g., MRs in an ICF/MR, or elderly in SNFs) across facility type.

*Ceteris paribus*, straightforward cost comparisons could be made. However, it is immediately apparent that these cost-related characteristics vary in Title XIX facilities. Thus, adjustments are needed.

Before the cost model is further described, we discuss its applicability and limitations. The purpose of the cost model is to provide an analytical framework through which the per diem costs of state hospitals and Title XIX - certified levels of care can be interpreted. The cost model is not intended to be predictive but rather it provides a structure allowing valid cost comparisons. As a cost of service model, it makes no assumptions regarding measurements of "effectiveness" or "outcomes" as causal explanations of cost differentials among different types of Title XIX LTC facilities. The cost model applies only to costs for persons in residential care settings.

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<sup>9</sup>They are: 1) Ronald W. Conley, The Economics of Mental Retardation, John Hopkins University Press (Baltimore, 1973); and 2) Tadashi Mayeda and Francine Wai, The Cost of Long-Term Developmental Disabilities Care. Prepared for the Office of the Assistant Secretary for Planning and Evaluation, DHEW. Undertaken at the University of California, Los Angeles - Neuropsychiatric Institute, Research Group at Pacific State Hospital, Pomona, California, July 1975.

Figure 3.1 presents our cost model conceptualization. We now describe in more detail each of the variables in the model:

- Cost - Because of the Medicaid reimbursement system, we define this as a per diem cost per resident.<sup>10</sup>
- Type of Resident - To repeat, the majority of residents in the Medicaid - supported LTC System are elderly and mentally retarded: average 1975 figures for Medicaid LTC recipients showed 72% elderly and 23% mentally retarded.
- Level of Care - For the mentally retarded, the relevant level of care is ICF/MR; for the elderly, the relevant levels of care are SNF, ICF-I and ICF-II.
- Type of Facility - For the mentally retarded, ICF/MR care is provided in the state hospital system or in a growing number of community residential facilities. For the elderly, SNF, ICF-I, and ICF-II care is provided only in nursing homes.
- Resident Characteristics - Based on our review of the research literature, we hypothesize that the two most important resident characteristics which affect costs are severity of condition and age. For the elderly, the different levels of care serve as a proxy for these characteristics. For MRs, both severity of condition and age are important.
- Facility Characteristics - Important facility characteristics are:
  - ownership
  - size
  - location
  - occupancy rate
  - number of levels of care offered by the facility
  - program package offered by the facility.

The first step in inter-facility cost comparison requires controlling for these characteristics. We have done this as we collected cost data for facilities, arriving

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<sup>10</sup>Explanatory note: Title XIX per diem rate = estimated allowable costs for a given period divided by estimated Title XIX actual resident days for the same period. The Title XIX per diem reimbursement rate for a Title XIX facility is usually calculated annually. The above equation assumes a prospective rate-setting mechanism. DPW Rules 49 and 52 are prospective rate-setting mechanisms.

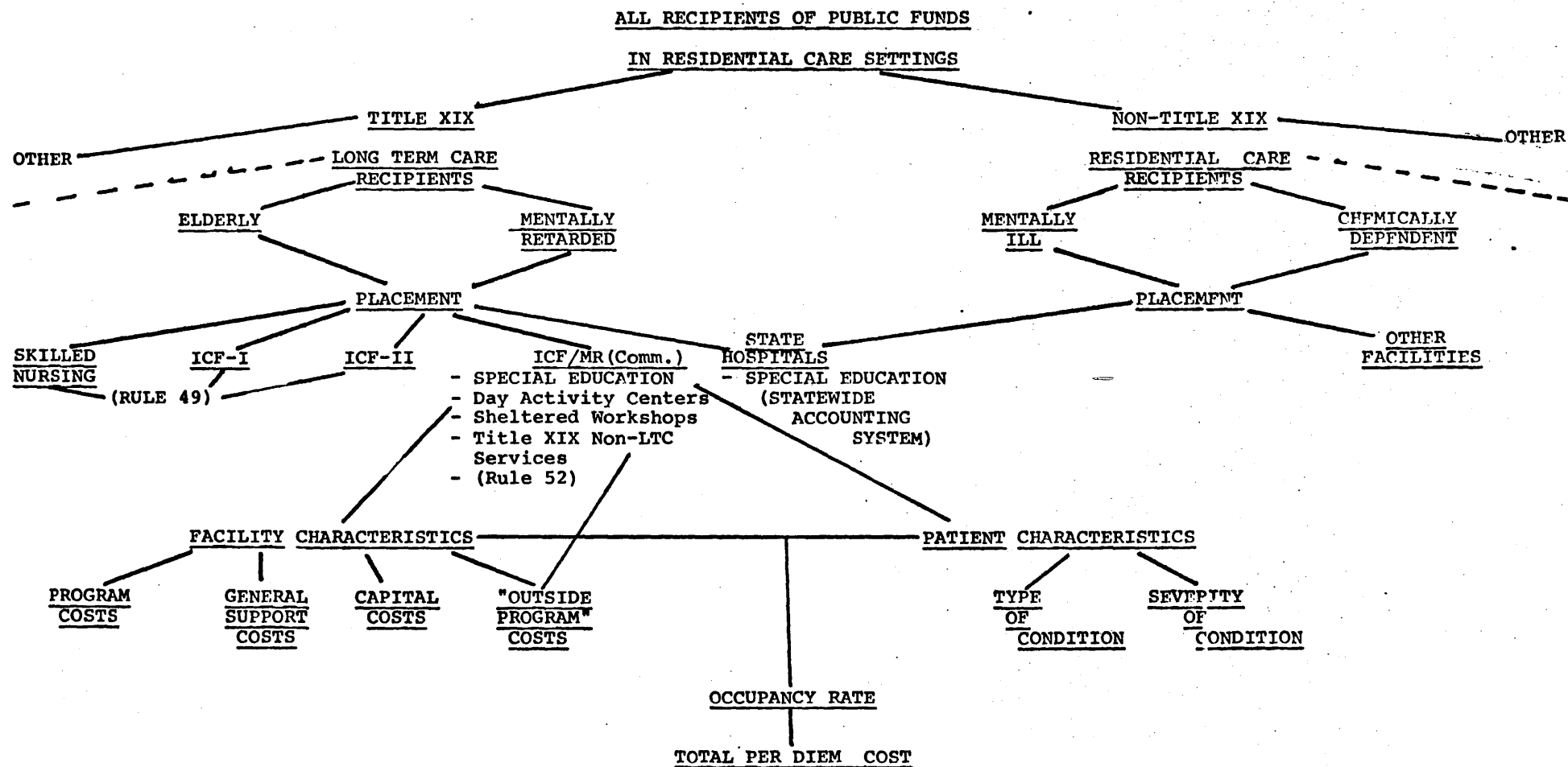


Figure 3.1: Per Diem Cost Model

Technical Note for Figure 3.1: The Relationship Between Title XIX Per Diem and Title XIX Monthly Costs.

In this Technical Note for the empirical per diem cost model, we more rigorously present our approach for ascertaining monthly costs of long term care. We now present the underlying variables which determine the total monthly costs of long term care for Medicaid recipients in a given Title XIX facility for the mentally retarded or elderly. In simple economic terminology, these variables are:

(1)  $TC = P \times Q$  where:

$TC$  = total cost

$P$  = price per unit

$Q$  = quantity of units demanded

(2)  $TC = \text{Title XIX per diem rate} \times \text{Total monthly Title XIX patient days for a given facility}$ , where:

$TC$  = total monthly costs to the Medicaid program for the given facility

Per diem cost = Title XIX per diem rate

Total Title XIX = total Medicaid patient days for a given month

However, equation (2) represents only part of the true total monthly costs to the state in caring for Medicaid recipients in long term care facilities. The state also contributes to other programs such as state funded day activity centers, sheltered workshops, and special education for the mentally retarded. In addition, there are other non-residential care Title XIX service costs for both the MR and elderly.

Now that we know what determines the total costs to the state in caring for Medicaid recipients in long term care facilities for a given month, we next examine the determinants of the Title XIX per diem rate ( $P$ ) and utilization rate ( $Q$  or # of patient days for x month) for a given facility certified under Medicaid.

1. Title XIX Per Diem Rate

There are many variables which determine the Title XIX per diem rate for a given Medicaid facility. For a given facility, Title XIX per diem rate can be denoted as  $X_{ijk}$  where:

$X$  = per diem cost

$i$  = Title XIX level of care (ICF/MR, SNF, ICF-I, ICF-II)

$j$  = condition of the population (MR or elderly)

$k$  = severity of condition  $j$ .

The determinants of  $X_{ijk}$  (Title XIX rate) include:



- 1) type of patient or patient characteristics (type of condition and its severity),
- 2) types of programs offered,
- 3) characteristics of the facility which are cost-related such as size, type of ownership, etc.,
- 4) the quality of care provided in the facility,
- 5) managerial efficiency, or how efficiently the resources of the facility are utilized, and
- 6) occupancy rate.

## 2. Utilization Rate

For the same facility the utilization rate (total Medicaid patient days for a given period or  $Q$ ) can be denoted as  $Y_{ijk}$ , where:

$Y$  = utilization rate (# Medicaid patient days)  
 $i$  = Title XIX level of care (ICF/MR, SNF, ICF-I, ICF-II)  
 $j$  = type of condition (MR, elderly)  
 $k$  = severity of condition  $j$ .

The determinants of  $Y_{ijk}$  are as follows:

- 1) population characteristics of potential recipients in the surrounding area,
- 2) number of Medicaid eligibles in the surrounding area,
- 3) knowledge of the facility's programs by consumers and/or providers, and
- 4) the availability of other similar facilities in the surrounding area.

## 3. Total Costs

Thus, the total costs for a given Medicaid facility for a given month can be denoted as:

$TC = X_{ijk} \times Y_{ijk}$ , where:

$TC$  = Total Title XIX monthly cost  
 $X$  = Title XIX per diem rate  
 $Y$  = # Medicaid patient days for a given month  
 $i$  = Title XIX level of care (ICF/MR, SNF, ICF-I, ICF-II)  
 $j$  = type of condition (MR or elderly)  
 $k$  = severity of condition  $j$ .

at four cost areas which are defined similarly across facilities:

- 1) program costs (salary and service costs),
- 2) general support costs (includes health care costs, food costs, laundry costs, housekeeping costs, and general and administrative costs),
- 3) capital costs (includes capital expenditures, interest, rent, and depreciation), and
- 4) "outside" program costs (includes DACs, Sheltered Workshops, Special Education, and medical costs).

Facility cost-reporting mechanisms are extremely important. They are the source for much of the data required by the cost model. They are also the subject of some of our later discussion of cost-containment alternatives.

In the Title XIX program in Minnesota, costs are reported under three types of cost-accounting mechanisms:

- 1) DPW Rule 49 (for Title XIX facilities with SNF, ICF-I, and ICF-II levels of care),
- 2) DPW Rule 52 (for community ICF/MRs), and
- 3) Statewide Accounting System (SWA) (for State Hospitals).

Detailed discussions of DPW Rules 49 and 52 (community facility cost accounting mechanisms) follow. (We discuss the Statewide Accounting System in a later section).

### 3. Cost Reporting Mechanisms

#### a. Rule 49

Minnesota Department of Public Welfare Rule 49 specifies the mechanism for Medicaid reimbursement of nursing homes. It establishes a method for approval of per diem welfare rates for nursing homes participating in the Medical Assistance program. The aims of Rule 49 are to promote efficiency and economy while treating all providers equitably.<sup>11</sup>

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<sup>11</sup>DPW Provider Manual, Rule 49, May 1976, p. 1.

Federal statutory provisions delegate the responsibility for cost oversight to the states, specifying that "the single State agency will take whatever measures are necessary to assure appropriate audit of records wherever reimbursement is based on costs of providing care or service, or fee plus costs of materials "(Title 45, CFR 250.30). Through the Minnesota State Plan for Title XIX, DPW is designated as this agency of responsibility.

Within DPW, the reimbursement function is located in the Cost Analysis and Field Audits Division of the Support Services Office. The auditors employed have an opportunity to observe and affect several areas of concern related to the reimbursement process: quality care for nursing home residents, accountability of public funds, and fair rates to providers for services rendered.

DPW personnel perform a desk audit on each annual report to determine acceptability of projected costs. If unacceptable, the facility is notified of the rejection of the rate requested in the cost report. In addition, a specialized field audit is performed on each home when a desk audit indicates the need for additional investigation, and/or on a random basis. In this process, the facility's records are reviewed to verify numbers filed in the cost reports.

Certified and licensed LTC facilities receive revenue in monthly intervals based on a yearly prospective cost estimate for each day of occupancy by a Medicaid - eligible resident. The nursing home receives the appropriate sum of money from DPW, which in turn is partially reimbursed by federal and county government.

Each facility's reimbursement rate is adjusted annually, based on a yearly cost report filed with DPW. These reports, standardized statewide, must be submitted within three months of the end of the provider's fiscal year.<sup>12</sup>

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<sup>12</sup>If this condition is not met, the provider's welfare rate will be reduced by 20% on the first day of the fourth month unless a routine extension of 60 days or an exception to the reporting deadline has been granted by the Commissioner for just cause.

The annual report includes a request for a welfare rate for the next fiscal year based on historical allowable costs plus known cost changes expected to be incurred during the period in which the rate will be effective. Allowable cost categories which are regulated by Rule 49 are: nursing salaries and wages, other nursing costs, other care-related services, dietary, laundry and linen, housekeeping, plant operations, general and administration, property and related expenses, and earnings allowance.

When more than one level of care is provided in a facility, costs must be disaggregated by level. For example, in a home caring for both ICF-I and ICF-II Medicaid recipients, the annual report must document the historical costs and expected cost increases for each level of care for each of the ten cost categories.

Other service costs, e.g., physician services, pharmacy, physical therapist, and diagnostic laboratory, are reimbursed directly to the provider through Title XIX and not included in Rule 49 reports, although these are certainly a significant portion of the total cost of care for nursing home residents.

An exception to the requirement for detailed cost reports applies to facilities with capacities for fewer than 30 beds. Such facilities may choose to receive a flat rate based upon an average regional rate.<sup>13</sup>

All costs are subject to DPW review using reasonable cost principles:

- "1) They must be necessary and ordinary costs related to patient care.
- 2) They must be costs that prudent and cost-conscious management would pay for a given item or service" (Rule 49, 4931a).

As explained to the providers, " The intent of the regulations is to determine individual home rates that recognize differences in costs and yet insure that unnecessary care and costs resulting from

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<sup>13</sup>Of the homes in the 1974 data file, only one selected this alternative.

inefficient management are not reimbursed by public moneys."<sup>14</sup>

In the operationalization of these concepts, DPW has established various cost principles for rate determination, discussed below.

#### Maximum Rate Limitation

The relevant factors for this limitation are region (as designated for regional planning and economic development purposes) and ownership (proprietary, non-proprietary, or hospital-attached). For reimbursement purposes, regions are divided into two categories: urban (regions 3 and 11) and rural (all other).

Individual facility welfare rates are subject to a maximum of 125% of regional average costs for the two prior years plus certain known cost changes which may exceed this limitation. The regional averages are calculated separately for proprietary and non-proprietary homes, and hospital-attached convalescent and nursing care units. The limitation is adjusted annually to allow for circumstances such as high inflation trends. Thus, this provision establishes a maximum reimbursement.

To determine rates, patient days for each facility, adjusted for occupancy incentives, are divided into historical reasonable costs plus allowable known cost increases. This regulation assumes that the costs of care for welfare and private pay patients are comparable; thus no distinction is made between these two categories of patients in the computations.

Legislation effective January 1, 1977 applies the maximum rate limitation separately to two cost categories: direct care and indirect care. These have been operationally defined as: direct care-nursing, dietary, laundry/linen, and house-keeping cost; indirect care - plant operations general and administration, property and related expenses, and earnings allowance. The limitations will be calculated as before (differentiated by level of care, region, and ownership), and costs exceeding 125% of the average for each category of nursing home will not be reimbursed.

### Nursing Hours Limitation

Maximum rate provisions acknowledge differentials in region, ownership, and level of care, but the allowable limits for nursing hours recognize a variation only with level of care, as follows: SNF, 2.9 hours/day/patient; ICF-I, 2.3 hours/day/patient; and ICF-II, 1.0 hours/day/patient. Hours of care beyond these limits are not reimbursable by Title XIX. Each type of facility must comply with a range of nursing care hours, with DPW enforcing maximum levels, and the Health Department enforcing minimum levels. (see Table 2.17 for an account of regulations).

### Investment Per Bed Limitation

A maximum of \$15,413 investment per bed is allowed for reimbursement in 1976. This figure is adjusted annually and restricts depreciable assets: buildings, equipment, and vehicles.

### Top Management Limitation

The cost allowed for top management (e.g., owners, administrators, presidents, board members, etc.) varies with bed capacity: 0-50 beds, \$3.19/day/bed; 50-100 beds, \$1.60/day/bed; and over 100 beds, \$80/day/bed. The maximum reimbursable annual compensation for top management is \$35,000.

Ownership considerations are allowed here also. In situations where providers are sole proprietorships or partnerships and do not pay salaries, the provider makes the best estimate of reasonable compensation for services performed in the facility.

### Private Pay Limitation

Currently the regulation states that the rate for welfare patients may not exceed the rate for private pay patients. It has come to light, through this effort to prevent abuse of public dollars, that some facilities are able to shift the burden to non-welfare

residents.<sup>15</sup>

Because private pay rates are without controls, they are purely a function of supply and demand. The protection of welfare moneys created a type of backlash which capitalized on the economic vulnerability of private resources.

Legislation passed in the 1976 session alters this opportunity for disparate charges: as of January 1, 1977, private rates may exceed welfare rates by a maximum of 10%, with equalization to be effective by July 1, 1978.

#### Depreciation Limitation

To simplify a rather complicated principle, depreciation is allowed on assets relating to patient care, subject to an annual limitation per licensed bed based on historical costs.

#### Cost of Capital Limitation

Rule 49 establishes an allowable cost for return on capital for owners of proprietary facilities. The rule assumes that the owner controls 35% of the facility. A 10% return is allowed on that percentage of the book value of the home (land plus buildings plus automobiles plus equipment minus depreciation). On holdings above 35%, a 6% return is allowed.

The <maximum> cost of capital allowance is interest on indebtedness plus \$.35 per patient day plus any disallowed interest. Through this principle, providers have an "opportunity to earn a 10% after-income-tax return on an assumed equity investment of 35% of net nursing home assets."<sup>16</sup> This measurement of return

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<sup>15</sup> Several cases of this were documented in Final Report, Senate and House Select Committees on Nursing Homes, January, 1976; memo from Bob Ambrose and Dwight Smith. For example:

<u>Facility</u>	<u>MA reimbursement rate (1975)</u>	<u>Private pay rate (1975)</u>
Rose of Sharon Manor.....	\$20.95.....	\$25.00
Oaktown of Mankato.....	Skilled \$16.54.....	\$21.57)
	.....ICF \$13.61.....	\$21.57)
Crystal Care Rest Home....	Skilled \$20.27.....	\$22.00)
	.....ICF \$18.12.....	\$22.00)

<sup>16</sup> DPW Provider Manual, p. 9.

of capital, however, does not indicate the realized earnings on the facility. The return is "applicable only to the portion of investment devoted to welfare recipients, and the return represents an earnings opportunity, not a guarantee. This return does not represent an attempt to regulate the actual return realized by proprietary providers."<sup>17</sup>

While this earnings allowance for return on capital for proprietary homes is based on percentage of ownership, the allowance for non-proprietary homes is a maximum of \$.35 per patient day for homes below 93% occupancy. For homes exceeding this level, the rate per patient day is reduced.

#### Occupancy Incentive

The allowable amount per patient day for fixed costs (depreciation, interest, property taxes, administration, and earnings allowance) is calculated by dividing these costs by 93% of maximum possible patient days (total capacity days for licensed beds). Nursing homes thus have an incentive to operate at occupancy levels above 93% as this portion of the welfare per diem rate is not affected by actual patient days.

#### Incentive allowance

An incentive allowance provision is included for purposes of rewarding facilities with decreasing costs. If providers are successful in effecting cost reductions between fiscal years, only one-half of this reduction will be considered in calculating a future welfare rate. Providers, through this incentive, are permitted to retain all cost reductions for the year in which they are realized, and 50% of such reductions in the subsequent year's welfare rate.<sup>18</sup>

#### Proposed Rule Change

Recent legislation has eliminated interest and earnings allowances on proprietary homes, replacing them with an annually adjusted return to reflect inflated values. This rule change process was scheduled to

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<sup>17</sup>Rule 49, 4936 b. 1.

<sup>18</sup>DPW Provider Manual, p. 3.



begin in late November 1976.

The principles outlined above, though aimed at achieving reasonable costs, may lead to controversial reimbursement rates for individual providers. An appeals procedure in Rule 49 allows review of such disputes between providers and DPW auditors. The provider has thirty days from the date of notification of the approved welfare per diem rate in which to file an appeal. Legal counsel and outside accounting assistance may be retained by the provider to present arguments before the Minnesota Hearings Examiner Office. After considering both sides of the dispute, this office makes a recommendation to the DPW Commissioner, who makes the final resolution.

In summary then, Rule 49 establishes a reimbursement system for Minnesota nursing homes which is prospective, individualized for each facility, annually audited, and based on reasonable cost principles. Enforcement is possible through two basic means: 1) rejection of unreasonable rate requests, and 2) rate reductions upon failure to file timely reports.

b. DPW Rule 52

Rule 52 is a prospective cost-reporting system used by the Minnesota Department of Public Welfare to reimburse community-based "ICF/MR facilities with more than four beds participating in the Medical Assistance and cost-of-care program."<sup>19,20</sup>

ICF/MR units in state hospitals do not report costs under Rule 52. Rule 52 is an attempt to induce accurate and uniform cost-accounting among ICF/MR facilities thus permitting more valid cost comparisons among facilities having similar cost-related characteristics.

Rule 52 is designed to reimburse only projected costs which are "reasonable." Reasonable costs "must be necessary and ordinary costs related to resident care" and "must be costs that prudent and cost-conscious

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<sup>19</sup>Regulations of the Minnesota Department of Public Welfare for Determining Welfare Per Diem Rates for ICF/MR Providers under the Title XIX Medical Assistance Program, DPW Rule 52, p. 3.

<sup>20</sup>To receive Title XIX funding, an ICF/MR must be fully certified and licensed under all appropriate state and federal standards.

management would pay for a given item or service."<sup>21</sup> Projected costs reimbursable through Rule 52 must also be "allowable" for reimbursement through Title XIX.

#### The Calculation of the Per Diem Rate:

##### - The Use of Historical Costs

Historical cost data, if available, along with known cost changes and pass throughs, form the basis for determining total "reasonable" costs for a given ICF/MR. The new per diem rate is calculated by dividing this figure by the number of estimated resident days for the facility's next fiscal year.

##### - Incentive Factor

Rule 52 contains an "incentive factor" to reduce costs. This "incentive factor" operates only when the calculated per diem rate for the facility's next fiscal year is lower than that of the last year. The provider acquires a "return" of one-half of the difference between the previous and new per diem rates. For example, if the previous year's per diem rate was \$20.00 and the projected per diem rate for the next fiscal year is \$16.00 (including all known cost changes for the next year), an \$18.00 per diem rate will be the per diem rate for the next year. However, with an inflation rate approaching 10% for the last three years, this "incentive factor" was rarely used.

In a Rule 52 report, an ICF/MR's Title XIX per diem rate is calculated on the basis of projected costs for the facility's next fiscal year with reference to historical cost data and known cost changes, and adjusted for "pass-through" costs (costs of complying with regulations).

##### - Known Cost Changes

With the prevalence of inflation, nearly all facilities will experience cost increases for the next fiscal year.

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<sup>21</sup>DPW Rule 52 Regulations, p. 15.

These "cost changes" relate to previous historical costs. The provider must prove that additional costs are legitimate. Legitimate "cost changes" can occur in the following areas:<sup>22</sup>

- 1) salary and wage cost changes,
- 2) facility cost changes and equipment purchases,
- 3) costs of meeting regulations,
- 4) tax changes (payroll and property),
- 5) interest cost changes,
- 6) depreciation cost changes,
- 7) utility and insurance cost changes,
- 8) food cost changes,
- 9) additions to or reductions in program service levels, and
- 10) other minor cost changes.

These known cost changes plus the historical per diem rate form the basis of the prospective Title XIX reimbursement rate.

- New Facilities and Interim Rates

New facilities completing their initial Rule 52 reports are given "interim rates." The interim rate is subject to the same requirements as those rates determined under historical cost data. Calculation of interim rates includes certain occupancy requirements. The rate can be adjusted if occupancy falls below 80% (for facilities of more than 10 beds).<sup>23</sup> A "post-interim" rate or "historically-based" per diem rate requires at least 90% occupancy for the immediately preceding six months period.<sup>24</sup>

- The Flat Rate

ICF/MRs having fewer than sixteen beds can be reimbursed according to a flat rate. Currently, the flat rate is \$9.00 (as of 1/1/76). Providers on a flat rate are not required to file a Rule 52 report.

- Rate Limitations

A provider's Title XIX reimbursement rate may

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<sup>22</sup>Ibid., pp. 4-5.

<sup>23</sup>Ibid., p. 7.

<sup>24</sup>Ibid.

be less than or equal to, but not greater than, the per diem rate charged to private-pay patients (who are exceedingly rare in ICF/MR facilities). An ICF/MR facility's Title XIX per diem rate for the next fiscal year cannot be more than 15% greater than that of the previous fiscal year, excluding pass-through. In addition, the 15% "rate limitation will not apply to providers whose welfare (Title XIX) rate requests do not exceed \$19.00 per resident day for facilities located in the 7-county metropolitan area and \$16.00 per resident day for facilities located outside the stated metropolitan area."<sup>25</sup> Providers can challenge a DPW-established per diem rate.

### Cost Reporting Requirements and Cost Categories

#### - Cost Reporting

Reporting requirements under Rule 52 are numerous. A provider must submit appropriate documentation along with the actual Rule 52 report. There are also deadlines and penalties regarding submission of Rule 52 reports and documentation.

#### - Cost Categories

The major Rule 52 cost categories examined here are:<sup>26</sup>

- 1) resident-living costs (personnel costs associated with residential living);
- 2) developmental services costs;
- 3) health service costs;
- 4) resident-related service costs (relates to various services such as recreation, arts, etc.);
- 5) food service costs;
- 6) laundry and linen costs;
- 7) housekeeping costs;
- 8) plant operation and maintenance costs;
- 9) general and administration costs; and
- 10) property and related costs (includes depreciation,<sup>27</sup> rent, and interest).

<sup>25</sup>Ibid., p. 8.

<sup>26</sup>Ibid.

<sup>27</sup>Depreciation costs are based on historical cost experience (for an older facility), except when an ownership change occurs. A straight-line method of depreciation is used, with depreciation rates differing depending on the item in question. Depreciation of land is not an allowable cost.

- 11) Also, for proprietary providers, an "earnings allowance" is given. This represents a "return" or profit on a proprietary provider's investment. The minimum earnings allowance given is thirty-five cents per patient day.

#### 4. Cost Comparison Methodology

Valid cost comparisons require the use of cost categories which are similar in meaning across different types of cost reporting mechanisms.

In this cost study, we deal with three cost reporting mechanisms: 1) DPW Rule 49 for nursing homes, 2) DPW Rule 52 for community ICF/MRs, and 3) the Statewide Accounting System for reporting of state hospital costs. All costs are converted into per diem figures to control for facility size (in the form of the proxy variable of patient days). These per diem costs are presented in Chapter IV.

For purposes of comparing cost data obtained from the three cost reporting mechanisms, we define three broad cost areas: 1) program costs, 2) general support costs, and 3) capital costs.

##### a. Program Costs

###### -DPW Rule 49<sup>28</sup>

The Rule 49 cost category, "other care related services," is most comparable to program costs. This category includes the costs of social services (salaries and supplies), religious activity costs, and "other" (undefined) costs.<sup>29</sup> "Nursing salary and wage costs" (for given levels of care in a Title XIX facility) and "other nursing service costs" could possibly be considered as program costs, but these "health care" costs represent a "general support" cost.

###### -DPW Rule 52<sup>30</sup>

In Rule 52, three cost categories can be considered program costs: 1) resident-living costs, 2) development-

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<sup>28</sup>Minnesota Department of Public Welfare Provider Manual, Rule 49, 3rd edition, May, 1976.

<sup>29</sup>Ibid., pp. 6a-6b.

<sup>30</sup>Regulations of the Minnesota Department of Public Welfare for Determining Welfare Per Diem Rates for ICF/MR Providers Under the Title XIX Medical Assistance Program, DPW Rule 52, revised edition: January 1, 1976.

al services costs, and 3) resident-related services costs.<sup>31</sup>

The first cost category, "resident-living," includes "all directly identifiable personnel costs associated with residential service." These personnel costs consist of the "salaries of the director of residential living, supervisors of residential-living staff, and residential-living staff." Many of these types of personnel are actively involved in daily program activities of MRs, and these costs are thus more appropriately placed in the program cost area.

The second cost category, "developmental services," is defined as "all directly identifiable costs of developmental services such as training, rehabilitation, and social services ..." Clearly, this is a program cost category.

The third program cost category, "resident-related services," relates to activities in the areas of religion, arts and crafts, and recreation, also clearly program costs.

#### -Statewide Accounting System

In FY 1976, each state hospital implemented a program budget for each of its client groups (MR, MI, CD). The program costs for each client group at a given state hospital include salary expenditures, which represent about 85% of all program budgets. We assume that staff included in these program costs are "program" staff. These program costs therefore can be validly compared with those in Rules 49 and 52.

#### b. General Support

##### -DPW Rule 49

We consider the following Rule 49 cost categories to be general support costs:

- 1) nursing service costs (for each level of care, if a given facility has more than one);<sup>32</sup>
- 2) other nursing service costs (nursing costs not directly identifiable with a given level of care);<sup>33</sup>

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<sup>31</sup>Ibid., p. 12 for descriptions of these cost categories.

<sup>32</sup>Rule 49 Provider Manual, p. 27.

<sup>33</sup>Ibid., p. 29.

- 3) dietary costs;
- 4) laundry, housekeeping, and plant costs; and
- 5) general and administrative costs.

-DPW Rule 52

We consider the following Rule 52 cost categories to be general support costs:

- 1) "health service" costs;
- 2) dietary costs;
- 3) laundry, housekeeping, and plant costs; and
- 4) general and administrative costs.

-Statewide Accounting System

Each state hospital has a general support expenditure report for FY 76 which includes items such as the salaries for general support staff, food costs, equipment costs, laundry and linen costs, and other minor general support costs. Thus, costs classified as "general support" in the state hospital cost reporting system can be compared validly with corresponding Rule 49 and Rule 52 cost categories.

c. Capital Costs

-DPW Rules 49 and 52

In both Rules 49 and 52, the following cost categories are appropriate for examining capital costs:

- 1) property and related costs (including depreciation on various facets of the Title XIX facility, interest payments, rental payments, and taxes); and
- 2) the earnings allowance (representing a return on the investment of the Title XIX facility proprietors).

-State Hospitals

It is in the area of capital costs that we face the most difficulty in discerning similar cost categories, mainly because the state hospitals do not report depreciation or capital expenditures in their FY 76 SWA expenditure reports.

However, data on planned state hospital capital expenditures for the 1975-1977 biennium were obtained from the State Architect's Office, Department of Administration.

With these data, it is possible to estimate capital costs for the state hospital system in FY 76.

These data are refined into four categories of capital expenditures: 1) life safety expenditures, 2) code remodeling expenditures, 3) new construction, and 4) other capital expenditures. Life safety and code remodeling expenditures are necessary to insure continued Title XIX funding for each of the state hospitals. Adjustments were made to permit comparisons with other cost data.



## B. A Framework for Analyzing Staffing Patterns in LTC Facilities

### Introduction

For description and comparison of staffing patterns in LTC facilities, we will attempt to apply the same model as in the cost analysis, namely, postulating that staffing is a function of the type of patient, patient characteristics, type of facility, and program characteristics. Type of patient is the key organizing variable for our discussion. In the Medicaid LTC system, there are two main types of residents -- the elderly and the mentally retarded.

### The Model Variables

1. Type of patient -- The elderly and the mentally retarded.
2. Facility Type -- There are three general facility types: state hospitals, nursing homes, and community facilities for the mentally retarded. 47% of the mentally retarded in Medicaid LTC reside in state hospitals, 31% in community based facilities, and 22% in nursing homes. MRs in nursing homes are generally elderly (average age 60 years), and we consider them as elderly for purposes of our analysis. 98% of the elderly Medicaid LTC recipients reside in nursing homes. Thus, a discussion of staffing patterns for mentally retarded individuals in LTC compares state hospitals and community facilities; a discussion for the elderly considers only nursing homes.<sup>34</sup>
3. Facility Characteristics -- Staffing patterns may vary by location, size, ownership, services offered, and level of care. For the mentally retarded who are served only in one level of care (ICF/MR), we hypothesize that services offered would be of most importance in explaining staffing differences between state hospitals and community ICF/MRs. The following kinds of services which could be provided to the mentally retarded can be used when describing and comparing staffing.
  - Residential Services -- This includes general supervision and services related to activities of daily living -- dressing, eating, recreation, and nursing (basically monitoring the administration of drugs).

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<sup>34</sup>As reported by The Minnesota Department of Health's Quality Assurance and Review Program.

These services are usually provided by nurses -- RNs, LPNs, assistants, and aides -- and by other residential staff-called human service technicians, house parents, resident counselors, child care workers or psychiatric technicians, -- and by activity staff, etc.

- Professional Program Services -- Special/structured programming is required for MRs. It is provided in the public school system, sheltered workshops and day activity centers. Education, therapy, counseling, and training services are provided, based upon individual needs. These services are provided by a full range of professionals, para-professionals and aides in the professions of teaching, rehabilitation or vocational counseling, behavior modification, physical therapy, occupational therapy, recreational therapy, speech therapy, hearing therapy, social work and psychology/psychiatry. Occasionally, residents receive professional services described above outside a structured program because either no structured program is available or an individual need requires a service not provided in the structured program.
- Supportive Services -- This category includes residential and program support services. Residential support services are the larger group and include dietary, laundry, housekeeping, maintenance, administrative and clerical services. Program support services consist of administrative, clerical, and building maintenance. The kinds of staff providing these services are apparent.
- Medical Services -- This category includes medical, dental, and pharmaceutical services required by residents; it does not include nursing services.

For the elderly, we hypothesize that level of care (SNF, ICF-I, or ICF-II) is most important in explaining staffing differences among nursing homes.

4. Resident Characteristics -- For the mentally retarded, the following resident-related variables seem important for a discussion of staffing patterns:

- Severity of Retardation -- The mildly or moderately retarded are fairly independent in the activities of

daily living -- eating, dressing, self-care, etc. By contrast, the severely and profoundly retarded require more residential care services. Level of retardation is a factor in determining the professional program services a resident participates in and programs may have different staff mixes.

- Other Physical or Mental Disabilities -- Residents with physical and mental disabilities require additional care from medical staff, more nursing care, and more attendant care in the living unit. For example, a non-ambulatory resident could require more assistance than the ambulatory resident. The presence of other disabilities will also determine what kinds of professional program services the resident will need.
- Age -- Given a similar level of retardation and similar physical condition, both program and residential living staffing requirements may vary by the resident's age. The younger resident may require more counselor/attendant time in habit training -- eating, dressing, toilet training -- than an older person (who may require reinforcement and special assistance). Program services will also vary: residents under 25 generally go to school and older residents to a DAC or Sheltered Workshop.

For the elderly, the above characteristics combine into a general category which could be called general health status. Each elderly Medicaid LTC recipient is certified as needing a particular level of care, dependent on health status. Thus, level of care serves as a proxy for general health status.

In applying this model, the first two variables are used to define and describe the numbers and kinds of staff in the two systems of care; the third and fourth variables are used to compare and explain staffing variation.

### C. The Assessment of Quality of Care in LTC Facilities

We now discuss in detail the concept of quality of LTC only as it applies to the mentally retarded because:

- (1) the main DI question facing the State of Minnesota at the present time involves the mentally retarded, and
- (2) the measurement of the quality of LTC for the retarded has undergone significant recent development in Minnesota. In the foreseeable future one or more of these measures will be developed to the point where they can be used in evaluation statewide, hence it is important that the reader be aware of them.

The quality of LTC for the elderly has been the subject of intensive research efforts nationally in recent years; we refer the reader to other reviews of the state of the art.<sup>35</sup> Although we do not discuss the literature for the elderly here, we do indeed study the quality of LTC for the elderly, using the only statewide measures currently available. We discuss these measures later in this Section.

Quality in the provision of services to MRs is difficult to conceptualize because it is dependent on the definition of "good" care vs. "bad" care, which in turn is dependent on the philosophical base of service to MRs. This philosophy has undergone drastic changes over the years -- changes that form the basis of the nationwide DI movement. Society has traditionally dealt with deviation by prevention efforts, reversal attempts, segregation or isolation, or destruction.<sup>36</sup> Early in the 1800's, ideas of reversing the retardation, or rehabilitation, began to predominate. Shortly thereafter, the retarded began to be "sheltered" from society. This idea gradually turned around until society began to protect itself from the retarded. Thus began the era of the large, dehumanizing institutions. These institutions continued unchecked until a combination of factors led to the DI movement.

First came reports from observers documenting the consequences of ignoring the institutions that were intended to protect society by isolating the deviant population: there were stories of neglect, overcrowding, inhumane conditions, and all the other abuses associated with warehousing human beings. The

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<sup>35</sup> See for example, U.S. Senate Committee on Aging, Subcommittee on Long Term Care, recent hearings reports.

<sup>36</sup> These conceptions based primarily on W. Wolfensberger, Normalization: The Principle of Normalization in Human Services. Nat'l Institute on MR, Canada: 1972.

gradual public awakening to the institutionalization and de-personalization of the "warehouses," combined with the push for community mental health services, the desire to provide more normal settings for the retarded, and the concern for rising costs caused a major emphasis on getting people out of the institutions.

The thrust of DI was to provide better quality of care for MRs, MIs, CDs, and elderly and at the same time to ease the financial burden associated with state hospitals. The push for DI, however, came before adequate planning was done, causing some different kinds of quality problems.

Nationally, problems have centered around the speed with which the community was expected to absorb the discharged patients and to develop adequate systems of care. The communities were not ready. State hospital patients were essentially "dumped" onto the streets and into dismal facilities that rarely offered programming. Some facilities offered subsistence services that were barely adequate. Abuses, such as the confiscation of welfare checks, "bidding" on patients, etc., were discovered. There have been many reports of community "back wards" that have the same effects as the state hospitals at their worst.<sup>37</sup>

Other unanticipated problems began to develop as DI continued. SHs that had begun to reform were suddenly forced to deal with severe cutbacks, as money was too rapidly transferred to the community.<sup>38</sup> Problems encountered in closing or phasing down SHs included: uncertainties that caused community and political problems, staff morale and recruitment problems, gaps in services left as SHs were closed before CBFs were available, and the concurrent impact of these problems on the patient.<sup>39</sup> Some families were not prepared

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<sup>37</sup> AFSCME. Deinstitutionalization: Out of Their Beds and Into the Streets. Washington D.C.: February 1975.; R. Reider. "Hospital, Patients, and Politics." Schizophrenia Bulletin. Issue 11, Winter 1974.; and "Mental Health Reform Fails." Modern Healthcare. December 1975. pp. 45-48.

<sup>38</sup> For some examples see: M. Sill, MD. "The Transfer of State Hospital Resources to Community Programs." Hospital and Community Psychiatry. Vol 26. No. 9., September 1975., pp. 577-581.; S. Weiner et. al., Process and Impacts of the Closure of DeWitt State Hospital. Stanford Research Institute. California. May 1973.

<sup>39</sup> Ethel Bonn, MD. "The Impact of Redeployment of Funds on a Model State Hospital." Hospital and Community Psychiatry. Vol 26, No. 9, Sept. 1975., pp. 584, 586.

to accept DI'd individuals into the home,<sup>40</sup> but also did not approve of other residential alternatives. Some parents believed that the SHs were better equipped to deal with their child's disability at this time, especially in the case of more severe disability.<sup>41</sup> All of these problems have resulted in a "backlash" effect that is now causing a slow-down in State DI efforts. Many states are now in a phase of re-evaluation.

The states are no longer willing to base the allocation of scarce resources on unclear assumptions about what is happening to quality of care during DI. Before we examine quality of care, we discuss concepts underlying current definitions of quality of care.

### Self-Sufficiency

Medicaid MRs in LTC facilities are low income persons who are dependent on the system for both economic and personal sufficiency. The costs of such dependency, such as loneliness of an MR, the pain of parents, etc., cannot be quantified. Estimates have been made, however, of the loss of gainful activity (loss of earnings, homemaking services, and other unpaid work) and the loss of resources due to mental retardation.<sup>42</sup> In a 1970 study, the total cost nationally due to loss of potential earnings, homemaking services, and other unpaid work was estimated at \$4.8 billion. This figure was derived from a combination of estimates as follows:

\$ .7 billion total earnings possible if MRs in residential care had the same employment and earnings rate as non-MR age and sex counterparts.

\$3.4 billion increase in total earnings if MRs not institutionalized had the same employment and earnings rate as non-MR age and sex counterparts.

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<sup>40</sup> Wm. Doll, Ph.D. "Family Coping with the Mentally Ill: An Unanticipated Problem of Deinstitutionalization." Hospital and Community Psychiatry. Vol. 27. No. 3, March 1976. pp. 183-185.

<sup>41</sup> James Payne. "The Deinstitutionalization Backlash." Mental Retardation. June 1976. Vol. 14, No. 3. pp. 43-45.

<sup>42</sup> This exposition relies heavily on Ronald W. Conley, Ph.D., "Weighing the Costs and Benefits of Services: An Economist Looks at Mental Retardation." Program Budgeting for The Mentally Retarded. National Association of Coordinators of State Programs for the Mentally Retarded, Inc. 1974, pp. 23-24.

\$ .4 billion increase in the value of homemaking services if the percentage of MR women with IQs below 50 who were homemakers were the same as for non-retarded women, if homemakers services were valued at 75% of what women earn when employed.

\$ .3 billion increase in the value of other unpaid work such as volunteer work, gardening, etc., if MRs with IQs below 50 performed these services at the same level as non-MR population. (Assumption that there is no loss of home-making service or other unpaid work among mildly retarded).

\$4.8 billion

The 1970 study also estimated \$2.2 billion as the cost of resources used for MR programs that could have been used elsewhere if retardation had not existed. The total figure of \$7.0 billion is a 1970 estimate of the "social cost of retardation."

Further studies on employment and earnings of the retarded<sup>43</sup> indicate that MRs with IQs of less than 40 are rarely employed. The studies indicate that persons considered to be mildly retarded (IQs over 50 as defined by the studies), when they find employment, can earn almost normal amounts. The moderately retarded (IQ of 40-50), however, have lower employment rates and earn less than normal wages. Conclusions reached by the studies suggest that a failure to provide needed vocational services was a primary factor in low employment and earning rates, particularly among moderately retarded persons. Also cited as factors are the presence of physical handicaps and emotional or behavioral problems among mildly retarded persons.

How the system of MR LTC addresses the issue of increased personal and economic self-sufficiency is thought to be an important dimension in judging the quality of the system. The current Minnesota LTC system does offer MRs the opportunity to increase self-sufficiency, through both the philosophy underlying the MR programs and the standards for facilities and programs. Requirements for ICF/MRs include the provision of training in activities of daily living as needed. This can be the first step in increasing the self-sufficiency of an individual. While it does not necessarily directly lead to economic self-sufficiency, it does increase levels of skill functioning, thus increasing feelings of adequacy. Increased abilities to perform daily living tasks can have a "ripple effect" by increasing confidence, and consequently efforts toward vocational or other training. This ultimately might influence economic self-sufficiency.

ICF/MR facilities are required to ensure that their residents receive daily programming outside of the living unit. Where

these program services are offered depends on the age and abilities of the MR. Educable or trainable MRs receive special education services from the local school districts up to age 25. Other MRs go to day activity centers or sheltered workshops, depending on individual ability. All three of these programs are aimed at increasing independence and upgrading personal and economic self-sufficiency. Sheltered workshops provide a measure of economic self-sufficiency: MRs in sheltered workshops are paid a wage for the work they perform. In addition, they receive experience and training in coping with employment situations. This, hopefully, can lead to eventual employment in a normal setting.

### Normalization

The programs mentioned above follow from a particular philosophy of MR care, often called "Normalization," which stems from a belief in the developmental potential of MRs. Normalization makes available to MRs "...patterns and conditions as similar as possible to the norms and patterns of the mainstream society." <sup>44</sup> The concept of normalization does have relevance to other disability groups as well.

The normalization concept began in Scandinavia and has played an important role in DI. Normalization has led to a reevaluation of MR care: instead of segregating MRs, the emphasis is on integrating them into the community, providing rhythms of life as close to normal as possible. Elements of care that follow from this principle include individualized programming, more "homelike" residences through use of the "living unit" concept, and emphasis on provision of a continuum of care.

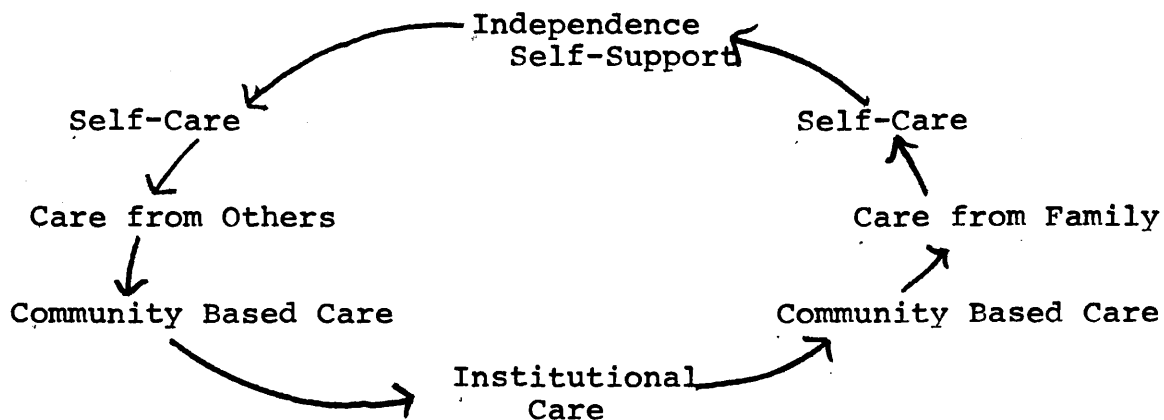
With individual programming and developmental training and programs, the individual MR is able to gain in personal self-sufficiency and move toward economic sufficiency. A continuum of care allows movement through various levels of supportive care as appropriate. As MRs gain in personal self-sufficiency, movement to less restrictive residential environments is possible. As potential for economic self-sufficiency increases, movement from education or DAC to work activity centers and sheltered workshops, and ultimately to normal work situations, becomes possible.

### A Continuum of Care

We examined several continuum of care models inspired by the normalization movement. The basis of these models is the establishment of a continuum of care which encourages movement through the system according to individual needs. Three examples of models that appeared to "work" were developed in



Kansas, Nebraska and Virginia. We discuss these models, as well as a model developed to guide the process in Minnesota. The Kansas plan for a continuum of services for MR, MI, and CD looks like this: <sup>45</sup>



This Kansas plan conceptualizes an individual's movement through the system from whatever starting point to whatever point is appropriate for his/her specific needs. The Kansas Department of Social and Rehabilitation Services has developed specific procedures to be followed when implementing this plan, including planning guides and specific task steps of various actors (state department, social workers, counselors, etc.). <sup>46</sup>

The Eastern Nebraska Community Office of Retardation (ENCOR) has developed a model system aimed at avoiding institutional placements where possible. <sup>47</sup> ENCOR uses an Alternative Living Unit (ALU) rather than an institution as the basic model. These ALUs serve three or fewer persons. The ALUs are clustered into regional groupings containing a core residence and several alternative residences. The core residence serves as a receiving center as well as a management structure to provide monitoring, assessment, supervision, and support. Alternative residences can be in foster or natural homes, or in rented facilities, with various levels of support from various staff configurations. The clustering allows for individualized programming integrated into the community with a built-in system of administrative control.

<sup>45</sup> Kansas Dept. of Social & Rehabilitation Services. Reintegration Handbook: Kansas Plan for Helping Persons Remain in or Return to Their Homes or Communities. 1974.

<sup>46</sup> Kansas Dept. of Social and Rehabilitation Services.

<sup>47</sup> The information on ENCOR is from: Eastern Nebraska Community Office of Retardation (ENCOR) Residential Services Division. Fact Sheet.

The Virginia model was a federally-funded research and demonstration project entitled "Services Integration for Deinstitutionalization" (or SID).<sup>48</sup> In developing the SID model, twelve state agencies and the local counterparts worked together to form a systematic and service-integrating model for DI. The components of the system are:

1. Assessment and Prescription (A&P) teams with membership from both the community and institutions;
2. Broker Advocates, the case managers, who more closely follow individual cases to ensure proper placement;
3. Automated Information System that electronically files information to generate case management reports and program evaluation reports;
4. Quality Control Team; and
5. Committee of commissioners acting as a board of directors to formulate a framework for administrative service integration at the state level.<sup>49</sup>

These three models for conceptualizing residential placement can yield useful suggestions. They all emphasize the need for a planning process that is both comprehensive and coordinated among the various interests.

A model process for the establishment of community alternatives for developmentally disabled individuals has also been developed in Minnesota by the Community Alternatives and Institutional Reform (CAIR) project, which concentrated "...on developing an individual-centered process for determining the needs of all developmentally disabled residents of state-operated facilities and planning from those needs."<sup>50</sup> This was accomplished by looking at the major steps and decision points in the DI process. The CAIR model process involves three types of assessment: individual physical and behavioral assessments to determine the necessary services, program assessment to determine the individual program plan, and community assessment to determine the availability of the necessary program and service needs as well as to locate alternatives in the absence of necessary programs.<sup>51</sup>

<sup>48</sup> State of Virginia. The Services Integration for Deinstitutionalization Final Report. Project funded in part by Rehabilitation Services Administration, Office of Human Development, DHEW. 6-1-75.

<sup>49</sup> SID report, Vol I, pp. 3-6.

<sup>50</sup> Minnesota State Planning Agency, Developmental Disability Program. CAIR: Community Alternatives and Institutional Reform. St. Paul 1975: preface.

<sup>51</sup> CAIR. pp. 2 & 3.

Guidelines for the process include specific support information such as a list of skill areas and behavioral descriptions, a continuum of residential services, a model for functional descriptions of physical limitations, suggestions for evaluation criteria, proposed zoning statutes, and a diagram of steps in the development of a residential program.<sup>52</sup>

The models discussed above help to conceptualize, in a general way, what quality of care should consist of during DI in the total system. In order for us to determine the current status of the quality of care in Minnesota for the various disability groups, it was necessary for us to first identify the available quantitative methods of measuring quality of care. With such measures, we would then be able to describe the effects of DI alternatives on quality of care as well to answer question on problems of quality control, on the viability of the community as a continued resource, and on necessary steps to ensure quality of care.

There are essentially three ways of measuring quality in human service programs: measuring inputs, processes, or outputs/outcomes. Outcome measures are traditionally used to determine progress and effectiveness in industry and other fields, but in human services this has been difficult, primarily because of lack of agreement on what actually constitutes a desirable outcome. For the mentally ill, there are numerous theories of diagnosis, methods of treatment, and definitions of a "cure." For the mentally retarded there is disagreement on service goals and a lack of instruments for measuring progress toward goals. Because of these problems, human service interests have instead developed measures of inputs and processes which are seen as necessary preconditions to quality of care. We discuss here each of these types of measurement method.

### Input Measures

Measures of input consist of general facility, staff, and program requirements as determined by those responsible for maintaining quality of care. These requirements, if followed, serve not as a guarantee of quality but as necessary preconditions to quality. By determining how well a certain program meets these requirements, one has a rough measure of quality. Input measures are most commonly associated with the licensing rules and/or regulations of state and federal government and independent accreditation standards, as well as with any additional criteria or guidelines for the implementation of these rules or regulations. On occasion, there may be input measures from other sources, such as court decisions.

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<sup>52</sup>CAIR, pp. 46-60.

## Process Measures

Process measures are concerned basically with how programs are being carried out -- what is offered and by whom. Process variables are closely related to input variables but go a step further and look at the functioning and interrelationships of internal and external variables.

Process measures could be specific enough to study a single program or broad enough to cover an entire system of care. The process instruments which we discuss are generally based on a philosophical determination or bias toward a certain process based on a perceived goal. These instruments do not directly indicate quality, but rather reflect procedures that have been determined to indicate quality.

Very few instruments have actually been designed to measure process. One such instrument that is being developed is intended to quantitatively evaluate the human services. Its use is limited, however, partly due to its newness and the need for continued development. This instrument, the Program Analysis of Service Systems (or PASS),<sup>53</sup> was intended to have applicability to all human service fields but was specifically oriented toward the developmental disabilities. The rating system separates program components and rates each on the basis of adherence to the normalization principle. The intent of the instrument is to eventually obtain a quantitative rating on the structure and process of services, but in its current form, scale ratings are too subjective to provide acceptable scale reliability and validity. Thus at the present time the PASS system can be used only for research purposes. The PASS literature does provide an example of process measurement, however, and serves to explicate the normalization concept. An individual facility might wish to use the PASS scales to get a rough idea of how its program relates to the normalization concept, but the tool is inappropriate in its present form for use in comparing SHs with CBFs.

Another instrument designed to measure process is the ALERT system (Alternative Living Environments Rating and Tracking system).<sup>54</sup> This system attempts to assess DI progress by tracking individuals from restrictive to more normal environments. A scale was developed to measure number and distribution of individual service needs and/or the number and distribution of facilities supplying certain services. The model is based on individual needs, therefore a range of services is felt to be

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<sup>53</sup>All information on the PASS system from: W. Wolfensberger and L. Glenn. PASS: Program Analysis of Service Systems. National Institute on Mental Retardation.

<sup>54</sup>J. Budde and the Kansas University Affiliated Facility. Analyzing and Measuring Deinstitutionalization Across Residential Environments with ALERT. University of Kansas. 1976.

needed. The chart is based on a matrix of services and residential characteristics of living situations: <sup>55</sup>

NUMBER OF FACILITIES	#	1	2	3	TOTAL	4	5	TOTAL	6	7	TOTAL	8	9	TOTAL
	S	Subsistence Services	Subsistence & Habilitation Services	Comprehensive Habilitation Services		Mass Maintenance Services	Individual Maintenance Services		Intense Individual Services	Supervision Services		Preventive Services	Preservation Services	
	G	A				B			C			D		
		SEGREGATED CUSTODIAL				INTEGRATED CUSTODIAL			INTEGRATED INDIVIDUALIZED			INTEGRATED INDEPENDENT		
	D	RESTRICTIVE ALTERNATIVES							LEAST RESTRICTIVE ALTERNATIVES					

The ALERT matrix could be used to chart the Minnesota facility picture, but care in interpretation would be necessary due to the assumptions underlying the instrument and the subjectivity needed to classify facilities according to the classification scheme.

The PASS and ALERT measures were the only process measures identified by this study. Neither of them has been used to apply specifically to the Minnesota system, but they are useful as examples.

### Outcome Measures

Outcomes are measures of progress toward defined goals. An outcome can be an individual measure to determine whether the program is effective for that person, or a measure of the general effectiveness of the program or system for all clients. This is the most direct way to measure quality. Unfortunately, outcome measures are not well developed. However, numerous attempts have been made in the direction of examining outcomes, and this study looked at several of those efforts. Most dealt with the developmentally disabled (for our purposes--the MR), the mentally ill, or a combination MR-MI category which some call the mentally disabled.

One method of determining outcome measures is to first assess the needs of the individual. Once this has been done, goals can be set and progress measured. In the mental health field one of the few examples of this consists of several studies by Ellsworth measuring the differences in outcomes among various treatment modes. <sup>56</sup> Ellsworth's scale measures various factors in the pre-and post-treatment community adjustment of an individual receiving psychiatric treatment. The instrument is the Personal Adjustment and Role Skills (PARS) scale, administered to a friend or relative of the patient or client.

<sup>55</sup> ALERT p.13.

<sup>56</sup> R. B. Ellsworth, "Initial and Outcome Differences Between Community Clients and Psychiatric Hospital Patients" Prepublication report and R. B. Ellsworth, et. al. "The Comparative Effectiveness of Community, Intensive, and Traditional Programs in Treating Psychiatric Patients." Prepublication report.

The friend or relative who rates the client on the PARS scale is identified by the client as a "significant other." The accepted goal in the Ellsworth studies was increased community adjustment as perceived by community residents ("significant others" of the clients). The generalizability of the conclusions that a certain treatment mode increases community adjustment to a greater degree, is dependent on several factors. First, the treatment modes and client situation are fairly site-specific, necessitating care in comparisons. Second, the client population represented by the samples in the studies may be quite different across settings. The method itself, however, can be adapted to various situations. As administered in the Ellsworth studies, the PARS scale can measure treatment effectiveness by examining perceived community adjustment. An example of an adaptation is DPW's current study using a PARS-type scale to measure perceived community adjustment of MRs who have been deinstitutionalized. <sup>57</sup>

Extensive use of a scale such as PARS to obtain outcome measures, however, is rare. Other similar scales have been developed but these are often identified with a specific orientation and thus have not been generalizable.

More general types of rating instruments have been formulated. The most prominent of these approaches is Goal Attainment Scaling,<sup>58</sup> which consists of setting treatment goals or outcome expectancies in each of several problem areas and then measuring progress periodically by the outcome levels achieved. The clinician, aided at times by the patient, determines the expected outcomes and records these in chart form, thus moving the information with the client throughout the system. There are many variations on this method and some problems with it. Hennepin County Mental Health Service, among many others, is making use of this method of evaluating client outcomes.

Measurements like the PARS Scale and Goal Attainment Scaling are not widely enough used to be considered as tools for determining quality of care in this study, but are pointed out here as possibilities and methodological models.

Although no specific measures of outcomes for the developmental disabilities are now in use nationally, there are two instruments gaining in usage, especially in Minnesota: the Adaptive Behavior Scale (ABS) and the Minnesota Developmental Programming System (MDPS). Both instruments are used to assess, for an individual with an MR diagnosis, level of dependence or independence on scales measuring behaviors related to daily living.

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57 A study of the Office of Evaluation, DPW; Bruce Libby, project director. Results expected around December 15, 1976. (Study includes other developmentally disabled.)

58 See: T. Bonstedt, T. Kiresuk, A. Ellis and N. Wilson, G. Honigfeld and D. Klein, and H. Davis. "Four Ways to Goal Attainment." Evaluation. Special Monograph #1, 1973.

When an individual is rated on such a scale, the instrument can be used to determine the needed services and to aid in the development of an individual program plan. Over time, as goals on the program plan are reached, progress can be measured to show the outcome of the program. The readministration of the ABS or MDPS over time can be used to roughly measure quality of care as well, by showing what specific outcome followed from the program. At present, measures on these scales are not available over time, although the Department of Public Welfare's MR program division has been using the MDPS for about one year now and eventually will have data measuring client behavior over time.<sup>59</sup> When this information becomes available, it will provide a first step toward measuring quality of LTC for MRs directly through outcomes.

### Measures Used in This Study

Because actual measures on these particular outcome scales are not available at this time, our study relies on two other methodologies for measuring quality of care: the degree to which a facility meets regulatory standards and the appropriateness of individual placement in LTC facilities. These are operationalized as (1) license deficiencies and provisions and (2) QA&R survey results. We now discuss these in more detail:

#### (1) License deficiencies and provisions:

For both the retarded and the elderly, we examined the numbers and kinds of deficiencies noted during the facility certification process. In addition, we examined the state program licenses to determine the numbers and kinds of provisional licenses issued. Thus, our measure of quality of care in a facility for the elderly was the number of nursing home deficiencies cited during the SNF or ICF certification process. Our measures of quality of care in a facility for MRs were the number of provisions received during the Rule 34 licensure and the number of deficiencies cited during ICF/MR certification.

#### (2) QA&R survey results:

The QA&R program is a quality control requirement of Medicaid. The Department of Public Welfare contracts with the Department of Health to perform the QA&R survey, which is conducted in all facilities that have Medicaid LTC residents, and is patient-oriented. A review team examines information on each patient to determine the needs of the patient versus the treatment offered and then recommends appropriate changes in the level of care the patient receives, and/or a strengthening in the treatment program.

The data from this review are compiled and analyzed by the Health Department. Our study used this information on Medicaid recipients and what needs are or are not met in various facilities as a quality of care measure.

In summary, the three types of measures---input, process, and outcome---were all examined by this study as potential ways to analyze the effects of DI on the quality of LTC. While many methods have potential for serving as quality of care measures, few can be used to analyze the entire Medicaid LTC system. The two major measures that can be used at present are the information from the QA&R program, and the data on deficiencies noted during the certification procedure and provisions issued on program licensure.



## CHAPTER IV

### FINDINGS

#### A. Findings: The Costs of Caring For The Mentally Retarded

In this section the costs of caring for mentally retarded (MR) persons in the ICF/MR level of care will be compared for state hospitals (SHs) and community facilities (CBFs). The approach used is to first describe the costs of SHs, noting and explaining, to the extent possible, variations in the system. The same approach is next applied to CBFs. Then a comparison of the two facility types is presented, adjusting for differences in facility (including programs offered) and patient characteristics.

##### 1. Findings: State Hospital Costs for MRs

###### a. Data Used

Each SH had, for FY 1976 (beginning July 1, 1975), a program budget for each of its client groups as well as a general support budget. SH program and general support expenditure data were obtained from the Bureau of Residential Services, DPW. All SH expenditure reporting is done through the Statewide Accounting System (SWA). Expenditure data used in this section were acquired from an August 1, 1976, SWA printout on SH expenditures through July 30, 1976 for general support purposes and through July 20, 1976 for salary expenditure. Salary expenditures represent a constant 85% of program and general support expenditures for each SH. (Expenditures rather than budgetary allocations were used in our calculations of per diem costs because expenditures represent actual rather than projected costs). Data were also obtained on total patient days for each client group at each SH for FY 76.

The following formulas were used in calculating various per diem costs from the expenditure and patient days data:

- 1) the program per diem costs for each client group at each SH equals:  
$$\frac{\text{total client group program expenditures at an SH}}{\text{total client group patient days for the SH}}$$
- 2) the general support per diem cost for each SH equals:  
$$\frac{\text{total general support expenditures for an SH}}{\text{total patient days for the SH}}$$
- 3) the total per diem cost for each client group at each SH equals:  
$$\left( \frac{\text{total client group program expenditures at an SH}}{\text{total client group patient days for the SH}} \right)$$

Plus, 
$$\frac{\text{total general support expenditures for an SH}}{\text{total patient days for the SH}}$$

- 4) the total per diem cost at each SH, regardless of client group, equals:

$$\frac{\text{total SH expenditures}}{\text{total SH patient days;}}$$

- 5) the program per diem for each client group in the SH system equals:

$$\frac{\text{total SH system client group program expenditures}}{\text{total SH system client group patient days;}}$$

- 6) the general support per diem cost for the SH system equals:

$$\frac{\text{total SH system general support expenditures}}{\text{total SH system patient days;}}$$

- 7) the total per diem cost for each client group in the SH system equals:

$$\left( \frac{\text{total SH system general support expenditures}}{\text{total SH system patient days}} \right) \text{ plus}$$

$$\frac{\text{total SH system client group program expenditures}}{\text{total SH system client group patient days;}}$$

- 8) the total per diem cost for the entire SH system, regardless of client group, equals:

$$\frac{\text{total SH system expenditures}}{\text{total SH system patient days.}}$$

Our budgetary allocation and expenditure data do not include the following SH system cost areas:

- 1) Brainerd Learning Center,
- 2) School for the Blind,
- 3) School for the Deaf,
- 4) St. Peter Security Hospital, and
- 5) Faribault Self-Injury Residence.

Our data do include the budgetary allocations and expenditures for the Rochester State Hospital Surgical Unit.

b. State Hospital MR Costs

In Minnesota, ten SHs exist to care for the mentally retarded, mentally ill and chemically dependent. In FY 1976, the total expenditures reported for SH program and general support were \$77,611,147<sup>1</sup> or 96% of the \$80,839,489 allocation.<sup>2</sup>

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<sup>1</sup>As of 8/1/76 printouts from SWA.

<sup>2</sup>The remaining 4% represent "unliquidated encumbrances" (e.g., ordered materials which had not yet arrived) or authorized budgetary allocations which were not expended.

Tables 4.1 to 4.12 present data on SHs. While our main focus is on MR costs, we also present costs for MIs and CDs for comparative purposes, and discuss these very briefly.

#### The concept of per diem costs

In comparing program costs among SHs, we used the per diem basis of cost measurement which allows for comparison of costs while controlling somewhat for facility size. To make these comparisons, we obtained total FY 76 patient days for each client group at each SH (shown in Tables 4.1 and 4.2).

#### Patient days in FY 1976

Tables 4.1 and 4.2 show that MRs had by far the highest number of patient days in the SH system in FY 1976: 60% of total patient days. This proportion was twice that for MIs (at 29%) and six times that for CDs (at 11%).

#### SH per diem costs in FY 1976

Tables 4.3, 4.4 and 4.5 show per diem program costs by SH for FY 76. Table 4.8 shows an overall MR program per diem cost of \$18, system-wide, compared with \$17 for MIs and \$16 for CDs. These averages are very close, revealing that program costs per patient day in the SH system are very similar regardless of patient type.

Tables 4.6 shows general support per diem costs by SH for all clients served in each hospital. The system average for FY 76 was \$20.65, ranging from \$17.64 at St. Peter to \$30.94 at Hastings.

Table 4.7 presents overall per diems by SH. The system average for FY 76 was \$38.28, ranging from \$35.04 at St. Peter to \$54.01 at Hastings.

System-wide by client group, as Table 4.8 shows, the MR total per diem cost is \$38.75; MI is \$37.73; CD is \$36.98. This would appear to indicate that total expenditures (program plus general support) are distributed quite evenly among the client groups in the SH system. However, Tables 4.3 through 4.5 reveal what appear to be imbalances in allocation of client group program funds among individual SHs. One might speculate that these apparent program expenditure differences among individual SHs could be due to any of the following, either alone or in combination:

Table 4.1  
FY 1976 Total Patient Days,  
by SH and Client Group<sup>3</sup>

SH	Client Group			
	MR	MI	CD	Total Patient Days
Anoka	- <sup>1</sup>	(Patient Days) 91,341	30,342	121,683
Brainerd	212,810	17,931	12,998	243,739
Cambridge	249,994	- <sup>2</sup>	- <sup>2</sup>	249,994
Faribault	373,742	- <sup>2</sup>	- <sup>2</sup>	373,742
Fergus Falls	107,567	48,539	32,676	188,782
Hastings	5,724 <sup>1</sup>	37,623	19,799	63,146
Moose Lake	53,561	67,276	46,316	167,153
Rochester	60,650	112,623	11,890	185,163
St. Peter	101,624	101,198	11,405	214,227
Willmar	59,458	120,141	40,458	220,057
Total	1,225,130	596,672	205,884	2,027,686
Patient Days				

<sup>1</sup>Hastings no longer has MRs; Anoka has no MRs.

<sup>2</sup>Neither Cambridge nor Faribault has MIs or CDs.

<sup>3</sup>Source: Collections Reimbursement Division, Residential Facilities Administrative Division, DPW.

Table 4.2  
FY 1976 Total SH Patient Days,  
by Client Group<sup>1</sup>

Client group	SH Patient Days	
	Total patient days	% of total
MR	1,225,130	60
MI	596,672	29
<u>CD</u>	<u>205,884</u>	<u>11</u>
Total	2,027,686	100

<sup>1</sup>Source: Collections Reimbursement Division, Residential Facilities Administrative Division, DPW.

Table 4.3  
FY 1976 Per Diem Costs for MRs,  
by SH<sup>1</sup>

SH	Per Diem Costs for MRs		
	Program	General Support	Total
Brainerd	\$17.09	\$18.24	\$35.33
Cambridge	17.88	18.94	36.82
Faribault	16.61	19.36	35.97
Fergus Falls	19.49	20.81	40.30
Moose Lake	19.60	18.99	38.59
Rochester	18.18	29.71	47.89
St. Peter	19.94	17.64	37.58
Willmar	23.45	17.79	41.24

<sup>1</sup>Source: Bureau of Residential Services, DPW.

Table 4.4  
FY 1976 Per Diem Costs for MIs, by SH<sup>1</sup>

SH	Per Diem Costs for MIs		
	Program	General Support	Total
Anoka	\$17.51	\$26.27	\$43.78
Brainerd	23.47	18.24	41.71
Fergus Falls	16.78	20.81	37.59
Hastings	26.70	30.93	57.63
Moose Lake	21.10	18.99	40.09
Rochester	15.61	29.71	45.32
St. Peter	14.48	17.64	32.12
Willmar	14.26	17.79	32.05

<sup>1</sup>Source: Bureau of Residential Services, DPW.

Table 4.5  
FY 1976 Per Diem Costs for CDs, by SH<sup>1</sup>

SH	Per Diem Costs for CD		
	Program	General Support	Total
Anoka	\$25.89	\$26.27	\$52.16
Brainerd	25.55	18.24	43.79
Fergus Falls	12.64	20.81	33.45
Hastings	13.44	30.93	44.37
Moose Lake	8.01	18.99	26.00
Rochester	15.63	29.71	45.34
St. Peter	20.59	17.64	38.23
Willmar	19.12	17.79	36.91

<sup>1</sup>Source: Bureau of Residential Services, DPW.

Table 4.6  
FY 1976 General Support Per Diem Cost, by SH<sup>1</sup>

SH	General Support Per Diem Cost
Anoka	\$26.27
Brainerd	18.24
Cambridge	18.94
Faribault	19.36
Fergus Falls	20.81
Hastings	30.93
Moose Lake	18.99
Rochester	29.71
St. Peter	17.64
<u>Willmar</u>	<u>17.79</u>
Average for system	\$20.65

<sup>1</sup>Source: Bureau of Residential Services, DPW.

Table 4.7  
FY 1976 Overall Per Diem Cost, by SH<sup>1</sup>

SH	Overall Total Per Diem Cost
Anoka	\$45.87
Brainerd	36.25
Cambridge	36.85
Faribault	35.95
Fergus Falls	38.42
Hastings	54.01 <sup>2</sup>
Moose Lake	35.99
Rochester	46.24
St. Peter	35.04
<u>Willmar</u>	<u>35.43</u>
Average for system	\$38.28

<sup>1</sup>Source: Bureau of Residential Services, DPW.

<sup>2</sup>Figure for Hastings includes MR expenditures and patient days in FY 1976.



Table 4.8  
FY 1976 SH Per Diem Costs, by Client Group<sup>1</sup>

SH Client Group	Per Diem Costs		
	Program <sup>2</sup>	General Support	Total
MR	\$18.10	\$20.65	\$38.75
MI	17.08	20.65	37.73
CD	16.33	20.65	36.98
Average for system			\$38.28

<sup>1</sup>Source: Bureau of Residential Services, DPW.

<sup>2</sup>Program Per Diem Costs = Total system expenditures on each client group divided by total patient days for that client group in the state hospital system for FY 76.

Table 4.9  
FY 1976 SH Program Expenditures,  
by Client Group<sup>1</sup>

SH Client Group	Program Expenditures	% of total
MR	\$22,174,878	62.0
MI	10,196,906	28.6
CD	3,362,758	9.4
Total	\$35,734,542	100.0

<sup>1</sup>Source: Bureau of Residential Services, DPW.

Table 4.10  
FY 1976 SH Total Expenditures, by  
Program and General Support  
Categories<sup>1</sup>

Expenditure Category	Expenditures	% of total
MR Program	\$22,174,878	29
MI Program	10,196,906	13
CD Program	3,362,758	4
<u>General Support</u>	<u>41,876,605</u>	<u>54</u>
Total Expenditures	\$77,611,147	100

<sup>1</sup>Source: Bureau of Residential Services, DPW.

Table 4.11  
FY 1976 Percentages of Total Program  
Expenditures and Total Patient Days  
for SH System, by Client Group<sup>1</sup>

Client Group	Percent of Overall SH Totals	
	% Program Expends.	% Patient Days
MR	62.0	60
MI	28.5	29
CD	9.5	11

<sup>1</sup>Source: Reimbursement Division and Bureau of Residential Services, DPW.

Table 4.12  
1975-1977 Biennium Planned Capital Expenditures,  
by SH and Expenditure Category (in thousands)<sup>1</sup>

SH	Planned Capital Expenditures, in Thousands				
	Total	Life Safety <sup>2</sup>	Code Remodeling <sup>2</sup>	New Const- ruction	Other
Anoka	\$ 2,270	350	150	1,500	270
Brainerd	1,768	400	1,245	-	123
Cambridge	1,695	850	590	-	255
Faribault	2,120	1,000	650	-	470
Fergus Falls	920	600	200	-	120
Hastings	440	233	-	-	207
Moose Lake	1,195	730	85	-	380
Rochester	1,229	634	150	-	445
St. Peter	625	430	185	-	10
Willmar	2,493	350	85	2,000	58
Total	\$14,755	\$5,577	\$3,340	\$3,500	\$2,338

<sup>1</sup>Source: State Architect's Office, Department of Administration.

<sup>2</sup>Life Safety and Code Remodeling are both necessary expenditures to retain Title XIX funding for the state hospitals.

1) unequal allocation of client group program funds by individual SH administrators (implying also an unequal allocation of staff), 2) differing programmatic needs of individual SHs, and 3) differing client group patient characteristics among the SHs (severity of condition, age, etc.).

#### SH Expenditure Categories in FY 1976

Table 4.10 shows of one dollar spent on Minnesota SHs in FY 1976, the largest share (54¢) was for general support; 29¢ was for MR programs; 13¢ for MI programs; and 4¢ for CD programs. Looking only at the 46¢ spent on programs for client groups, Table 4.9 shows that 62% was spent on MRs, 29% for MIs, and 9% for CDs. As Table 4.11 shows, these expenditure proportions parallel very closely the proportions of total patient days for the three client groups.

#### MR Total Per Diem Costs

Table 4.3 revealed little variation in total per diem costs for MRs, system-wide, ranging from \$35.33 at Brainerd to \$47.89 at Rochester.

#### MR Program Per Diem Costs

Our primary interest is in the MR program per diem costs, since the vast majority (96%)<sup>3</sup> of the MRs in the SH system are receiving Medicaid funding. As Table 4.3 shows, except for a per diem cost of \$23.45 for Willmar's MR program, there is little variation among the SHs' MR program per diem costs, ranging from \$16.61 at Faribault to \$19.94 at St. Peter. Thus, the SH system-wide MR program per diem of \$18.10 (shown in Table 4.8) would appear to be an adequate summary statistic with which one can compare SH MR program costs with other Title XIX level of care program costs, including, most importantly, the program costs of CBFs.

#### Capital Expenditures

Since Table 4.12 represents planned capital expenditures for the 1975-1977 biennium, it is not intrinsically appropriate to acquire a per diem cost figure for FY '76. However, some basis is needed in order to compare these costs with the capital costs of CBFs. If one divides

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<sup>3</sup>Reimbursement Division, DPW.

the biennium figure of \$14,755,250 by two, one acquires the figure \$7,377,625. Thus one has an estimate for FY '76, albeit imprecise. This figure can then be divided by FY '76 total patient days for the SH system ( 2,027,686). One then acquires a per diem figure of \$3.64 for FY '76. If one accepts the above assumptions, then this per diem cost figure can be compared with the capital costs of CBFs.

## 2. Findings: Community ICF/MR Costs

### a. Data Used

Cost information for a sample of 50 CBFs was obtained from DPW Rule 52 cost reports located in the Audits Division, Bureau of Support Services, DPW. The cost data were collected during the period of July - September 1976. The following criteria were used in selecting a sample of Title XIX CBFs for cost comparison purposes:

- 1) CBFs receiving flat reimbursement rates were excluded since they are not required to submit Rule 52 cost reports;
- 2) CBFs which had only recently opened and thus had only "interim" or "start-up" rates were excluded. It was believed that their interim per diem rates and cost category projections were biased upward and their "property and related" costs higher than those of the older facilities;
- 3) If a CBF's Rule 52 cost report (based on historical cost data) contained obvious inaccuracies, it was excluded from the final sample;
- 4) CBFs which had adequate historical cost data but which had recently closed were excluded from the sample;
- 5) CBFs whose Rule 52 reports did not represent at least one year of historical cost background were excluded. It was hypothesized that historical cost data covering a minimum of one year necessarily implied higher data reliability for cost projections; and
- 6) CBFs whose Rule 52 reports were not available, for whatever reason, during the period when the final sample was drawn were also excluded.
- 7) Only audited cost reports with approved rates were used.

The final sample of fifty Rule 52 cost reports met all the above criteria, and provided the basis for the current (as of July - September, 1976) Medicaid reimbursement rates for these particular facilities.

The Rule 52 reports used in this study were dated as follows:

- 1) 11 reports - 7/31/74 - 5/30/75,
- 2) 14 reports - 6/30/75
- 3) 8 reports - 8/31/75 - 11/30/75,
- 4) 16 reports - 12/31/75, and
- 5) 1 report - 1/1/76.

b. CBF Costs

We now present our findings on costs for CBFs. Tables 4.13 - 4.21 present the following descriptive statistics<sup>4</sup> for each cost category and each cost area: 1) the median, 2) the mean (average),<sup>4</sup> 3) the range, and 4) sample size. The median is the appropriate summary statistic for our cost comparison later, between SH costs and Title XIX CBF level of care costs.

Cost area (program, general support, capital) statistics represent the aggregation of the appropriate cost subcategories for each facility as these aggregated costs were obtained for each facility and then summary statistics computed for each cost area for the entire sample. Table 4.13 presents, for the sample of 50 CBFs, per diem costs for the Rule 52 cost categories. Costs for these categories are also grouped into the three broader cost areas as follows: 1) program, 2) general support, and 3) capital costs.

Table 4.13 shows the overall median Title XIX per diem reimbursement rate for the sample to be \$16.64 with a mean of \$17.78. The range of the Title XIX rates for the sample was substantial (\$8.35 - \$31.47). The most interesting finding of Table 4.13 is the wide range in facility costs for all cost areas; overall program per diem costs ranged from 0.00 to \$14.96, general support from \$3.55 to \$14.36, and capital costs from \$.70 to \$9.40.

This variation warrants further investigation; because program costs showed the greatest range and the widest dispersion across this range, we chose to investigate further the program cost differences. Such investigation was necessary to determine whether CBFs were similar enough to each other to permit valid cost comparisons, as a group, with SHs. We discuss the results of our further investigation (our Case Study) later in this section.

<sup>4</sup>Both mean and median are presented because: 1) mean is a more widely used statistic, but median is frequently more appropriate for small samples; and 2) the median (the point above which and below which 50% of the costs fall) is a more stable measure of central tendency in the presence of isolated extreme scores and in the CBF data, for each cost category, the mean did indeed exceed the median, thus indicating the presence of a few cases with reported costs much higher than the majority of cases.

TABLE 4.13

## 50 CBFs: Per Diem Costs by Cost Area and by Cost Category

Cost Area and Cost Category	Per Diem Costs			
	Median	Mean	Range	N
<u>Program Cost Area</u>	<u>\$4.28</u>	<u>\$5.09</u>	<u>\$ .00-14.96</u>	<u>50</u>
a. Resident-living	3.28	3.80	.55-12.14	42
b. Developmental Services	.86	1.19	.06-4.96	40
c. Resident-Related	.87	.97	.00-4.22	43
<u>General Support Cost Area</u>	<u>7.58</u>	<u>7.88</u>	<u>3.55-14.36</u>	<u>50</u>
a. Health Services	.35	.55	.01-3.92	31
b. Dietary	2.20	2.37	.80-5.79	49
c. Laundry, House- keeping, Plant	1.63	1.94	.17-5.38	50
d. General and Administrative	3.12	3.24	.66-6.85	50
<u>Capital Cost Area</u>	<u>2.46</u>	<u>2.94</u>	<u>.70-9.40</u>	<u>50</u>
a. Property and Related	1.92	2.42	.01-7.12	50
1. Interest	.51	.85	.04-2.93	37
2. Depreciation	.95	1.19	.18-6.96	33
b. Earnings Allowance	.52	.72	.35-2.28	33
<u>Title XIX Reimburse- ment Rates</u>	<u>16.64</u>	<u>17.78</u>	<u>8.35-31.47</u>	<u>50</u>

Table 4.14 describes our sample of 50 CBFs in terms of facility size (licensed beds) and ownership (Proprietary or Non-proprietary). Two-thirds (33) of the CBFs in the sample were proprietary (for profit). Of these, 14 (42%) had 10 or fewer licensed beds. The other one-third (17) of the sample were non-proprietary (non-profit) CBFs. Of these, 8 (47%) had 26 or more licensed beds.

For the entire sample of 50, 20 (40%) had 5-10 licensed beds, 11 (22%) had 11-25 licensed beds, and 19 (38%) had 26 or more licensed beds. The largest CBF had 171 beds.

Table 4.15 provides information on the Title XIX per diem reimbursement rates by facility size and ownership. There is little difference between proprietary and non-proprietary CBFs in Title XIX reimbursement rates. It is interesting to note, however, that the Title XIX reimbursement rate increases slightly with facility size, especially for non-proprietary facilities. Thus, CBFs do not always experience significant "economies of scale."

Table 4.16 describes program per diem costs in our sample of 50 CBFs by both facility size and ownership. The non-proprietary CBFs consistently have higher median and mean program per diem costs than do the proprietary CBFs. This is most pronounced in larger facilities with 26 or more beds. Although program costs increase with facility size in the non-proprietary group, there is no consistent trend in the relationship between program costs and facility size. This indicates that "economies of scale" do not always exist in the provision of CBF program services, since program costs do not decline as facility size increases.

#### Case Study of CBFs: Additional Examination of Variation in Program Costs

We now discuss our "case study," in which we investigate further factors related to the variation in program costs<sup>5</sup> among CBFs. Although keeping costs down is

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<sup>5</sup>"Program costs" refer to the total of three categories: Resident living costs, Developmental services costs, and Resident related costs.

TABLE 4.14

50 CBFs: Ownership by Facility Size				
Facility Size	OWNERSHIP		Total	% of Total
	Proprietary	Non-Proprietary (Numbers)		
5-10 beds	14	6	20	40
11-15 beds	3	2	5	10
16-15 beds	5	1	6	12
<u>26 or more beds</u>	<u>11</u>	<u>8</u>	<u>19</u>	<u>38</u>
Total	33	17	50	100

TABLE 4.15

## 50 CBFs: Title XIX Reimbursement Rate by Ownership and Facility Size

Ownership and Facility Size	Title XIX Reimbursement Rate			
	Median	Mean	Range	N
<u>Proprietary</u>	<u>\$16.00</u>	<u>\$16.96</u>	<u>\$8.35-26.70</u>	<u>33</u>
a. 5-10 beds	16.00	17.33	8.35-26.70	14
b. 11-25 beds	14.82	17.15	9.00-21.64	8
c. 26 or more beds	16.68	16.34	9.71-20.78	11
<u>Non-proprietary</u>	<u>16.79</u>	<u>20.04</u>	<u>9.58-31.47</u>	<u>17</u>
a. 5-10 beds	14.86	17.18	9.58-30.44	6
b. 11-25 beds	16.32	19.39	13.32-28.72	3
c. 26 or more beds	21.82	22.43	14.08-31.47	8
<u>All</u>	<u>16.64</u>	<u>17.78</u>	<u>8.35-31.47</u>	<u>50</u>
a. 5-10 beds	15.94	17.29	8.35-30.44	20
b. 11-25 beds	16.13	17.76	9.00-28.72	11
c. 26 or more beds	17.02	17.96	9.71-31.47	19



TABLE 4.16

50 CBFs: Program Per Diem Costs by Ownership and Facility Size

Ownership and Facility Size	Program Per Diem Costs			
	Median	Mean	Range	N
<u>Proprietary</u>	<u>\$3.82</u>	<u>\$4.10</u>	<u>\$.00-\$8.39</u>	<u>33</u>
a. 5-10 beds	4.58	4.67	.00-8.10	14
b. 11-25 beds	2.63	3.39	.41-8.39	8
c. 26 or more beds	3.75	3.72	.42-7.86	11
<u>Non-proprietary</u>	<u>5.59</u>	<u>7.02</u>	<u>1.63-14.96</u>	<u>17</u>
a. 5-10 beds	4.47	5.47	2.07-12.61	6
b. 11-25 beds	4.23	6.66	1.89-13.86	3
c. 26 or more beds	6.96	8.40	1.63-14.96	8
<u>All</u>	<u>4.28</u>	<u>5.09</u>	<u>.00-14.96</u>	<u>50</u>
a. 5-10 beds	4.58	4.91	.00-12.61	20
b. 11-25 beds	3.41	4.28	.41-13.86	11
c. 26 or more beds	4.08	5.69	.42-14.96	19

considered desirable in any public-funded program, it would be incorrect to conclude that high program costs are "bad," or necessarily should be lower, nor that low program costs are necessarily "good." Any evaluation should also examine the program services provided, their quality, their quantity, and their appropriateness for the residents of the particular facility. A number of explanations for program cost differences seem possible. To investigate further, we ranked CBFs according to per diem costs in the program area. The top 5 and the bottom 5 were examined, and other information available on these facilities was used in trying to explain the wide variation in program costs. Both resident and facility characteristics were considered in our study. We analyzed our data file on CBFs, results of a telephone survey of CBFs, data from the Quality Assurance and Review Survey, and data on Title XIX non-LTC medical care costs for residents of these facilities.

Table 4.17 compares the 5 facilities having the highest per diem program costs (the "Group A" facilities) with the 5 facilities having the lowest per diem program costs (the "Group B" facilities), and with the total group of 50 CBFs for which we had cost data. Facilities with high and low program costs differ slightly in size, with the Group A facilities being slightly larger than other facilities. An examination of the three cost factors shown (Total reimbursement rate, Program costs, and Non-program costs) shows that program costs account for nearly all of the difference in reimbursement rates; the mean program per diem for Group A facilities is \$13.43, and for Group B, \$0.60 (a difference of \$12.83), while the mean program costs for all 50 facilities is \$5.09. The mean non-program per diem for Group A facilities is \$16.08, for Group B facilities, \$13.12 (a difference of only \$2.96), and for all facilities, \$12.69.

Ownership and location, however, are distinctly different for Group A facilities, Group B facilities, and the total group of 50 facilities. All 5 Group A facilities are non-profit, while 4 of the 5 Group B facilities are proprietary. While this is clearly a difference between the two groups, it should not be concluded that proprietary ownership causes program costs to be lower, nor that non-profit ownership causes program costs to be higher. With the exception of the Group A facilities, proprietary vs. non-profit ownership had no relationship to program costs; non-profit facilities were randomly distributed among the full range of program costs.

Table 4.17

10 CBFs: Comparison of Group A CBFs (high program costs), Group B CBFs (low program costs), and the total group of CBFs

Characteristic	CBFs		
	Group A (high program cost) (N = 5)	Group B (low program cost) (N = 5)	All (N = 50)
Size of facility:			
Range	5 - 70	8 - 61	5 - 171
Mean size	37	32	31
Ownership:			
Non-profit	5	1	17
Proprietary	0	4	33
Location (by Region)			
Region I			2
Region II			1
Region III		1	4
Region IV	1		4
Region V			0
Region VI			1
Region VII		3	4
Region VIII			4
Region IX			1
Region X			2
Region XI (metro)	4	1	20
Total Reimbursement- rate (per diem):			
Range	\$27.17 - \$31.47	\$9.71 - \$16.79	\$8.35 - \$31.47
Mean	\$29.51	\$13.73	\$17.78
Median	\$28.72	\$14.82	
Reported Program Costs (per diem):			
Range	\$11.78 - \$14.96	\$0.00 - \$1.63	\$0.00 - \$14.96
Mean	\$13.43	\$.60	\$5.09
Median	\$13.86	\$.41	\$4.28
Reported Non-program Costs (Total reim- bursement rate) minus program costs):			
Mean	\$16.08	\$13.12	\$12.69
Deficiencies in ICF/ MR regulations:			
Mean	27.6	22.0	35.1 (N = 103)

Location is also a factor which distinguishes Group A and Group B facilities from other CBFs: facilities with higher program costs are concentrated in the metropolitan area, while 3 of the 5 facilities with low program costs are located in Region VII. This could, logically, help to explain the program cost differences (since wages and other costs are frequently higher in the metro area) but is not the complete explanation for two reasons: 1) one of the facilities with the lowest program costs is also located in Region XI, and competes in the same market for wages and other goods and services as the Group A facilities; and 2) program costs still vary far more widely than all other costs together; if metropolitan location caused the difference in program costs, one would expect that other (non-program) costs would be similarly higher in the metro region, but this difference does not occur.

The deficiencies cited on ICF/MR certifications do show some differences between Group A and Group B facilities. Group A facilities had an average of 27.6 deficiencies each, while Group B facilities actually had fewer deficiencies, with an average of 22.0 deficiencies each. However, both groups were well below the overall average of 35.1 deficiencies for the 103 CBFs (which we discuss in more detail later in this Chapter). Program licensure for CBFs (see Chapter II D 3 for an explanation of the difference between certification and program licensure) distinguishes only two of the facilities from the norm, according to the responsible licensing consultants and TAP staff: two of the low program cost facilities have had serious problems in meeting the standards for staffing patterns.

Information from a telephone survey of a sample of the CBFs sheds further light on some possible explanations or causes of the program cost differences. Table 4.18 shows the telephone survey results for the Group A and Group B facilities (data are available on 4 of the 5 facilities in each group).

These telephone survey results help explain more directly the differences in program costs. We found that the two groups serve different types of residents: Group A facilities generally serve younger, more physically handicapped, more behaviorally disturbed, and more severely retarded residents. A logical assumption is that this type of resident is harder to care for and requires more attention than a mildly retarded adult with fewer physical handicaps or behavior problems. Not only is this a logical assumption, it is also a regulation for ICF/MR facilities:<sup>6</sup> units with children under 6 years of age, severely or profoundly retarded, severely physically

Table 4.18

8 CBFs: Telephone Survey of Group A CBFs (high program cost) and Group B CBFs (low program costs)

Characteristic	CBFs	
	Group A (high program costs) (N = 4)	Group B (low program costs) (N = 4)
Ages of residents served by the facility	Adults only: 1 Children only: 2 Children and adults (mostly children): 1	Adults only: 4
Non-ambulatory residents	None: 3 Most: 1	None: 4
Physically handicapped problems	None: 1 Some: 2 Most: 1	None: 2 Few: 2
Residents with behavior problems	Few: 3 All: 1	None: 1 Some: 2 Most: 1
Level of retardation of residents	Mild/moderate: 1 Moderate/severe: 1 Severe/profound: 2	Mild/moderate: 2 Moderate/severe: 1  All levels: 1
Staff to resident ratio	160 staff (F.T.E.) in 4 facilities 144 residents in 4 facilities Overall ratio of 1-to-.9	40 staff (F.T.E.) in 4 facilities 96 residents in 4 facilities Overall ratio of 1-to-2.4
Medical and professional staff	14 F.T.E. RNs and LPNs in 4 facilities	2.3 F.T.E. RNs and LPNs and 1 nursing aide in 4 facilities

(continued)

Table 4.18 (continued)

	6 Social workers (at least 3 with M.S.W. degrees) in 4 facilities One facility reported "about 1/3 B.A.s" (about 8) One facility reported "mostly B.A.s" (about 25)  One facility reported having 4 "qualified mental retardation specialists"	1 Social worker (total for 4 facilities)
	(note: each facility is required to have at least one "qualif- ied mental retardation specialist;" these data were not speci- fically collected for other facilities.)	
On-site programming during evening hours and weekends	yes: 4 programming done by regular staff: 4	yes: 4 programming done by regular staff: 4
On-site programming during summers (when D.A.C.s or special education day- programming is not available)	yes: 3 Not applicable: 1 (all residents attend full- year day programs, either D.A.C. or sheltered workshop)  programming done by regular staff plus additional summer staff: 2  programming done by school personnel: 1 Not applicable: 1	yes: 3 Not applicable: 1 (same reason)  programming done by regular staff: 2 programming done by regular staff plus additional summer staff (1 additional staff): 1  Not applicable: 1

handicapped residents, aggressive, assaultive or security risk residents, severely hyperactive residents, or residents exhibiting psychotic-like behavior must have an overall staff to resident ratio of 1-to-2; units with moderately retarded residents who require habit training must have an overall staff to resident ratio of 1-to-2.5; and units with residents in vocational training programs or adults in sheltered workshops must have an overall staff to resident ratio of 1-to-5. The staff to resident ratios shown in Table 4.18 exceed these requirements, but reflect the differences in requirements for facilities serving different types of residents. Group A facilities, with an overall ratio of 1-to-.9 (even more staff are added during summer months), serve residents who, by regulation, must have a staff to resident ratio of at least 1-to-2. Group B facilities serve residents who, by regulation, must have a staff to resident ratio of 1-to-2.5 or 1-to-5, and these facilities actually have an overall ratio of 1-to-2.4 (with only one facility adding one staff member during summer months).

The types of staff hired also point toward higher costs in the Group A facilities, with at least one-third of the staff members being R.N., L.P.N., B.A., or M.S.W. degreed (53 or more out of 160 staff). The Group B facilities reported fewer than one out of eleven staff members being R.N., L.P.N., or B.A. degreed (3.3 out of 40 staff).<sup>7</sup>

Data from the Quality Assurance and Review survey (see Chapter II E) illustrate further some of the differences between the resident populations in Group A and Group B facilities. Table 4.19 shows selected information from the QA & R. (Many other items are included in the QA & R, but items which did not differentiate Group A from Group B residents and uninterpretable items are not shown.) The QA & R survey collects data on Medicaid residents in long term care facilities, not on the facilities themselves, and covers only persons whose care is funded by Medicaid. Thus, adult MRs are more likely than are MRs under 18 to appear in QA & R data. Group A facilities have only 57 Medicaid-funded residents out of a total of 207 residents. The one facility serving only adult residents and the facility serving both adults and children are over-represented in comparison with other Group A facilities. 124 of the 145 residents of Group B facilities (which serve only adults) are included in the QA & R

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<sup>7</sup>Either of these figures may be slightly lower than the actual number of professional and medical staff, since these terms were broadly, but not precisely, defined during the interviews.

Table 4.19  
10 CBFs: Comparison of residents of Group A and Group B  
facilities on QA & R information

QA & R Information	CBF Residents	
	Group A residents (N = 57)	Group B residents (N = 124)
Age of residents: Mean	18	46
Number of etiologic medical diagnoses: Mean number per resident	2.3	1.7
Dressing: % of residents with moderate to extensive dependencies	27	11
Personal hygiene: % of residents with mo- derate to extensive dependencies	54	27
Communications: % of residents with moderate to extensive dependencies	43	27
Emotional/behavioral: % of residents with moderate to extensive dependencies	61	40
Total dependency scores: Mean score per resident	25	13
Nursing program (Total points): Mean # Points per resident	6	4
General condition of residents:		
% improving	35	25
% static	61	73
% declining	4	2
Recommendations by QA & R team (general): Mean number of recommendations made per resident	86	95
Severity of retardation: % severe and profound	45	26
Recommendations by QA & R team (relating to MR condition): % of residents with 0 recom- mendations	88	69
Special psychiatric problems:		
% of residents with no special psychiatric problems	67	100
% assaultive	33	0
% disruptive	33	0



survey; in some of these facilities, all residents are Medicaid funded.<sup>8</sup>

Table 4.19 shows clearly that the residents of Group A facilities had more medical problems, higher levels of dependency, more severe retardation, and more special psychiatric problems than did residents of Group B facilities. This supports the earlier indications that the facilities with higher program costs had residents who required more and/or more expensive care. The Group A facility residents also received more nursing care and were more likely to be improving in condition than the Group B facility residents, as shown in the table. In addition, more recommendations were made for changes in the care given to Group B facility residents. While many other items of information are collected during the QA & R survey, those selected for Table 4.19 show the greatest differences between the two populations. Other items showed differences in the same direction, or little difference at all between the groups, and no major categories showed differences in the opposite direction (i.e., that residents of Group B facilities would have more or greater problems requiring more care, more extensive professional help, etc.).

The MR Title XIX recipient living in a CBF receives not only Title XIX LTC residential services but also other (non-LTC) medical care services provided under Title XIX, e.g., inpatient and outpatient hospital care, drug payments, physician services, and dental services. To further describe and compare the residents in Group A and B facilities, we now present data on Title XIX payments for these non-LTC services provided to these residents.

To ascertain the costs of these Title XIX non-LTC services, cost data were obtained from the Medical Assistance Division of DPW. These cost data were collected for 148 Title XIX recipients who had resided, during a full six-months period, in the 10 CBFs examined in our case study. Fifty of these individuals were from Group A (high program cost) CBFs, while 98 were from the Group B (low program cost) CBFs. All Title XIX non-LTC payments were calculated for each individual in the sample for the six-month period of April 1, 1976 to October 1, 1976. Monthly payment rates and annual payment rates were then calculated for each individual from the six-month cost figure.

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<sup>8</sup>The data on total number of residents were available for the four facilities in each group which had been included in the telephone survey sample reported in Table 4.18. The numbers of residents in the other 2 facilities were computed using the number of licensed beds and the occupancy rate from the data file.

We assumed that a six-month period would be more stable than a single month's payment level. Payment dates, rather than dates on which services were rendered, were used to ascertain costs. Only Title XIX payments were recorded, since a few Title XIX services for which claims were submitted were "disallowed"---i.e., the provider did not receive Title XIX reimbursement. However, nearly all claims were reimbursed for the full amount. Table 4.20 presents the average Title XIX non-LTC payments<sup>9</sup> per month, and shows higher non-LTC costs for Group A residents. Figure 4.1 illustrates further the results shown in Table 4.20.

Even though the means of Group A and B are quite different, the medians are quite similar. This would indicate that Group A serves some individuals who have extremely high monthly Title XIX non-LTC costs.

Table 4.21 shows cumulative frequency distributions for non-LTC costs of residents in Groups A and B and the total for both groups. Table 4.21 is highly revealing: 20% of the Group A residents' monthly cost figures were above \$50 while only 5.2% of the Group B residents' monthly cost figures were above \$50. 80% of the Group B Residents had monthly costs below \$30. Although these Title XIX non-LTC costs were not as high as we had expected, they nevertheless merit consideration. For the Group A residents, monthly non-LTC costs were about \$20, while for the Group B residents, monthly non-LTC costs were about \$15. Median costs are noted above since we believe they are more representative of each group. For the average CBF resident (i.e., when both Groups A and B were combined), Title XIX non-LTC costs were about \$16.50 per month.

In summary, we found that Groups A and B differed in:

- (1) ownership: it might be hypothesized that non-profit groups are more likely to open and operate CBFs for persons needing more extensive care;
- (2) location: it might be hypothesized that metropolitan regions have a larger population from which to draw residents needing these specialized services; and, probably most importantly,

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<sup>9</sup>The six-month and twelve-month cost figures were computed from the median monthly cost figures. The range of monthly costs is given for residents in each group of facilities.

Table 4.20  
10 CBFs: Title XIX Non-LTC Monthly Costs for Residents in Group  
A (high program costs) and Group B (low program costs)

CBF Case Study	N	Titls XIX Non-LTC Costs				
		Monthly Median	Monthly Mean	Monthly Range	6 Months	12 Months
Group A	50	\$19.81	41.73	3.00-335.57	118.86	237.72
Group B	98	15.52	23.55	.00-257.03	93.12	186.24
All 10	148	16.48	29.69	.00-335.57	98.88	197.76

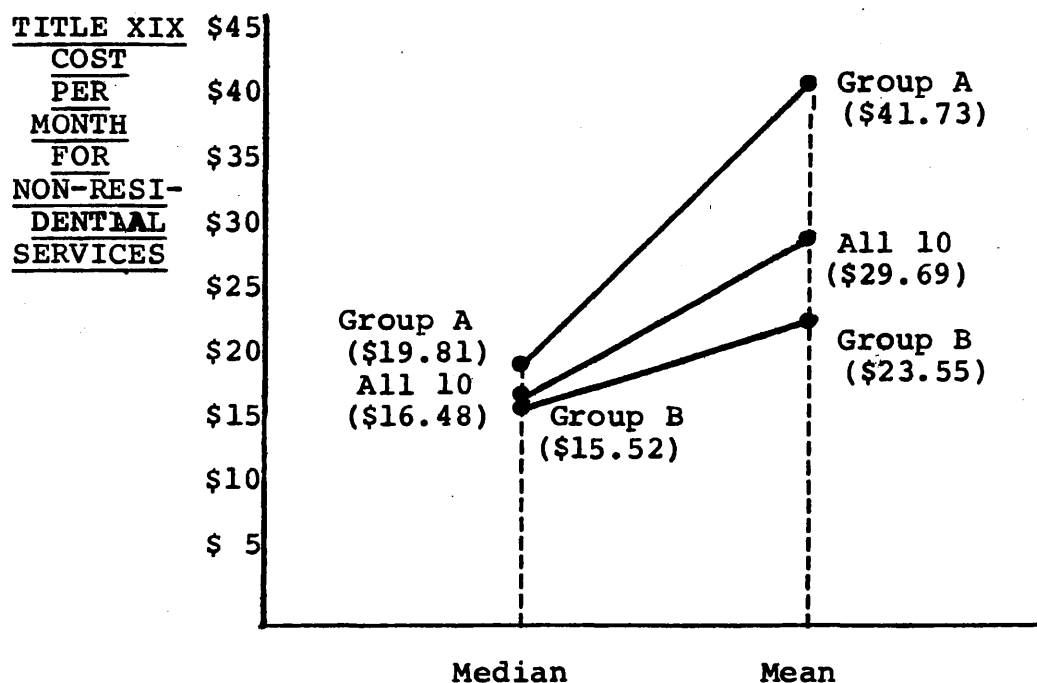


Figure 4.1 10 CBFs: Median and Mean Monthly Title XIX Non-LTC Costs for Residents in Groups A and B

Table 4.21

10 CBFs: Title XIX Monthly Non-LTC Costs for Residents of Groups A and B:  
Cumulative Frequency by Cost Interval

Cost Interval	Residents of 10 CBFs								
	Residents of Group A (N = 50)			Residents of Group B (N = 98)			Residents of Both A and B (N = 148)		
	N	Cumulative Frequency	Cumulative Percent	N	Cumulative Frequency	Cumulative Percent	N	Cumulative Frequency	Cumulative Percent
\$ .00-10.00	10	10	20	29	29	29.5	39	39	26.3
10.01-20.00	15	25	50	33	62	63.2	48	87	58.7
247 20.01-30.00	6	31	62	16	78	79.5	22	109	73.6
30.01-40.00	5	36	72	9	87	88.7	14	123	83.1
40.01-50.00	4	40	80	6	93	94.8	10	133	89.8
50.01 and over	10	50	100	5	98	100.0	15	148	100.0

- (3) different populations served: more Group A residents have relatively high Title XIX non-LTC costs in a month, suggesting that more of them are indeed "sicker." Additional evidence of differences in populations served is provided by differences in services needed by the two groups (and required by staffing regulations for facilities serving these different populations), and by both quantitative and qualitative differences in care actually available to the two populations.

### 3. Comparisons: SH vs CBF Costs

We now compare costs of care for each type of MR resident in CBF and SH residential care settings. Total monthly costs of care for each type of setting for each type of MR are estimated, and the distribution of these costs by governmental level is examined.

We also discuss the relationships between cost differences and other differences, including staffing patterns, resident characteristics, services provided, and cost accounting structures.

Table 4.22 shows that program per diem costs for the average MR individual in the SH system were more than three times greater than those of the average CBF resident. Although the ranges did not overlap, some CBFs had program costs which approached program costs for SH MRs.

General support per diem costs for SH residents were also almost three times greater than those of the average CBF resident, as shown in Table 4.23. Capital per diem costs, shown in Table 4.24, were slightly higher in the SH system than in CBFs.

MR total per diem rates, shown in Table 4.25, were about twice as high in SHs as in CBFs (SH total per diems are SWA estimates of per diem costs; CBF per diems are Title XIX reimbursement rates).

#### Possible Reasons for SH vs CBF Cost Differences

We now discuss three possible causes of these SH vs CBF cost differences: 1) staffing patterns, 2) patient characteristics, and 3) services and cost accounting structures.

##### 1) Staffing patterns:

CBFs and SHs have different staffing patterns, as we detail later in this section.

Table 4.22  
SHs and CBFs: Program Per Diem Costs for MRs

MR Facility	Program Per Diem Costs			
	Mean	Median	Range	N
CBFs	\$5.09	\$4.28	\$ .00-14.96	50
SHs: MRs only	18.10		16.61-23.45	8

Table 4.23  
SHs and CBFs: General Support Per Diem Costs

MR Facility	General Support Per Diem Costs			
	Mean	Median	Range	N
CBFs	\$7.88	\$7.58	\$3.55-14.36	50
SH: all clients	20.65		17.64-30.93	10

Table 4.24  
SHs and CBFs: Capital Per Diem Costs

Facility	Capital Per Diem Costs			
	Mean	Median	Range	N
CBFs	\$2.94	\$2.46	\$ .70-9.40	50
SHs: all clients	3.64			10

Table 4.25  
SHs and CBFs: Total Per Diem Rates

Facility	Total Per Diem Rates			
	Mean	Median	Range	N
CBFs	\$17.78	\$16.64	\$8.35-31.47	50
All SH Clients	38.28		35.04-54.01	10
SH: MRs only	38.75		35.33-47.89	8

## 2) Patient characteristics:

Differing patient (resident) characteristics are another important factor in explaining these cost differentials. Although some of the following QA & R patient characteristics were discussed earlier, we also present them here to facilitate comparisons between CBFs and SHs.

The Minnesota Quality Assurance and Review Program has resident characteristic data on CBF Medicaid residents for 1975. We obtained resident characteristic data on SH MRs for June, 1976 from the Research and Statistics Division, DPW. These two MR populations are described in terms of severity of retardation in Table 4.26. (For the SH MR population, borderline MRs were combined with mildly retarded MRs to obtain comparable figures.)

Table 4.26 shows that MRs in the SHs were, on the average, more retarded. Only 4% of the CBF residents were diagnosed as profoundly retarded while 50% of the SH MR population were so diagnosed. On the other hand, 40% of CBF residents were mildly or moderately retarded, while only 15% of SH MRs were mildly or moderately retarded. In addition to being more severely retarded, the SH MR population was, on the whole, more physically disabled, as we discussed in Chapter II E. In view of the different patient characteristic data presented above and earlier in our study, we would expect, and our empirical findings confirm, that as severity of retardation increases so also do per diem costs. The average cost of care per day for an MR resident in the SH system was \$38.75, while the average per diem cost for the CBF resident was \$17.78. These results agree with a 1975 California study which also found that average costs of care increased as level of retardation became more severe.<sup>10</sup>

## 3) Services and cost accounting structures

Services provided by the facility, combined with cost-accounting structures for these services are, in our view, a third important factor in explaining CBF and SH cost differentials.

Sheltered employment and day activity centers are programs provided in the community for CBF residents. However, the costs of these programs are not included in the CBF Title XIX rate. Similar programs conducted for SH MR residents are included in SH SWA expenditure reports. The costs of Title XIX non-LTC services are not included in a CBF's Title XIX rate. In the SH system

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<sup>10</sup>Tadashi Mayeda and Francine Wai, The Cost of Long Term Developmental Disabilities Care, Prepared for the Office of the Assistant Secretary for Planning and Evaluation, DHEW. Undertaken at the University of California Los Angeles - Neuropsychiatric Institute, Research Group at Pacific State Hospital, Pomona, California, July 1975, p. 51.

Table 4.26  
CBFs vs SHs: Residents by Level of Retardation

Level of retardation	Residents			
	CBFs		SHs	
	N	% of total	N	% of total
Mild	282	15	160	5
Moderate	486	25	330	10
Severe	685	35	1015	31
Profound	72	4	1625	50
<u>Unknown</u>	<u>417</u>	<u>21</u>	<u>120</u>	<u>4</u>
Total	1942	100	3250	100



however, these medical care costs are included in general support budgets. Considering the fact that, on the average, SH MR residents are more severely retarded and physically handicapped than those in CBFs, these medical care costs for SH MR residents have an important role in explaining cost differentials.

Special education programs are provided to both CBF and SH MR residents. Since the home school district and the state itself are responsible for costs of special education for EMRs and TMRs, special education programs do not explain cost differentials. Special education costs are not included in either DPW Rule 52 or the SWA expenditure reports on MR costs.

An additional resource, the SSI \$25 per month personal needs allowance, is paid to eligible MRs in both SHs and CBFs; this \$25 is not included in the cost comparisons.

The clearest and most valid cost comparisons are based on residents with similar characteristics receiving similar services under uniform cost-reporting structures. We now attempt to do this as we compare the total costs of care for the same type of MR individual in the CBF and SH settings.

#### Total Costs of Care: Cost Components

##### -Service utilization pattern

A valid estimate of total costs of care for a given type of MR requires the specification of services utilized and the costs of these services.

Cost estimates are based on the following assumptions:

Assumption 1: Day activity center costs, sheltered employment costs, and Title XIX non-LTC costs must be estimated and added to per diem LTC costs in CBFs. However, these costs need not be estimated for SH MR residents because these costs are reported by the SWA. Thus, the current FY 1977 \$45.00 Title XIX per diem reimbursement rate for SHs will be compared with total costs of caring for MRs in the community. Although it would have been interesting to use individual state hospital costs, Medicaid currently reimburses the state for MR SH care at this \$45 per diem rate regardless of actual cost.

Assumption 2: In our case study and in the 1975 California study<sup>11</sup> it was found that as severity of retarda-

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<sup>11</sup>Ibid.

tion increases, so do the costs of care. In our cost estimates we assume the following Title XIX per diem reimbursement rates for each type of CBF resident:

<u>Severity of retardation</u>	<u>CBF Title XIX per diem rate</u>
Borderline and Mild	\$15.00
Moderate	\$20.00
Severe	\$30.00
Profound	\$30.00

We believe these to be reasonable estimates of per diem cost for the average CBF resident of a given level of retardation. The \$15.00 Title XIX rate is based on our case study. Group B facilities had mildly retarded residents and had an average Title XIX rate of about \$14.00 per day. Thus, we assume the costs of caring for a borderline or mild MR individual in the community to be a Title XIX rate of \$15.00.

We have evidence that as severity of retardation increases, so do costs. Thus, we assume that the Title XIX CBF reimbursement rate for moderate MRs is \$20.00 per day.

For both severe and profound MRs, we assume a \$30.00 Title XIX rate. This figure is based on our case study where we found that Group A individuals were likely to be severely or profoundly retarded. The average Title XIX reimbursement rate for Group A was \$29.51. Thus we assume their Title XIX per diem reimbursement to be \$30.00.

Assumption 3: We assume that MRs in CBFs use the following additional services:

<u>MR Age Group</u>	<u>Program Services</u>
0-4	DAC programs (homebound and preschool)
5-19	Special Education
20-65 <sup>12</sup>	Adult DAC programs and/or Sheltered employment
65 and over	DAC programs or retirement

<sup>12</sup>Some of the 20-24 year old MRs will be participating in Special Education programs.

Assumption 4: We assume that each CBF resident uses Title XIX non-LTC (primarily medical care) services, the costs of which are not included in the Title XIX per diem reimbursement rate. (Refer to Case Study in previous section).

In Assumptions #1-#4, we have specified the general CBF service utilization pattern for each type of MR. Tables 4.27-4.30 further refine the above information about services, retardation severity, age groups, and Title XIX rates. In Tables 4.27-4.30, CBF service utilization patterns are delineated by severity of retardation and age. These tables provide the bases for our monthly cost comparisons between CBF and SH residential care settings.

#### -Service Costs

We now estimate the per diem and monthly costs of the various services described in Table 4.27-4.30. These estimates will enable us to compare the monthly costs of care for an MR in a CBF setting with those of the SH setting. In addition, these service costs are delineated by governmental level (federal, state, local) in order to determine the distributional costs across levels of government and residential care setting.

The funding ratios for the various service programs for MRs are shown in Table 4.31. Table 4.32 reveals the per diem costs of these services and the distribution of these costs. Since special education costs are born by the home school district and the state, regardless of where the MR resides, they are not included; neither are the \$25.00 monthly personal needs allowances paid by SSI to eligible MRs in both SHs and CBFs. The \$45.00 Title XIX rate represents the costs of care for the MR individual in the SH setting.

In calculating the monthly costs of the above services, the following estimates and assumptions were used:

- 1) For DAC participants, we determined the average number of visits per month by dividing number of FY 76 delivered units of service (i.e., number of person days) by total number of FY 76 participants in each type of DAC program. This annual average was then divided by twelve to obtain the monthly average number of visits for each type of DAC client. Our results were:
  - 1) homebound - 6 visits per month,
  - 2) preschool - 20 visits per month, and
  - 3) adult - 18 visits per month.

Table 4.27  
CBFs: Service Utilization Patterns for Borderline and Mildly Retarded, by Age Group

Borderline and Mildly Retarded, by Age Group	Services
0-1	\$15.00 Title XIX rate, home-bound DAC, other Title XIX non-LTC services
2-4	\$15.00 Title XIX rate, pre-school DAC, other Title XIX non-LTC services
5-19	\$15.00 Title XIX rate, special education, other Title XIX non-LTC services
20-65 <sup>1</sup>	\$15.00 Title XIX rate, regular employment, <sup>2</sup> other Title XIX non-LTC services
66 and over	\$15.00 Title XIX rate, adult DAC, other Title XIX non-LTC services

<sup>1</sup>Some of the 20-24 year old MRs participate in Special Education programs.

<sup>2</sup>These individuals are in either sheltered or regular employment or in DACs; for cost comparison purposes, we consider them to competitively employed.

Table 4.28  
CBFs: Service Utilization Patterns for Moderately Retarded,  
by Age Group

Moderately Retarded, by Age Group	Services
0-1	\$20.00 Title XIX rate, home-bound DAC, other Title XIX non-LTC services
2-4	\$20.00 Title XIX rate, pre-school DAC, other Title XIX non-LTC services
5-19	\$20.00 Title XIX rate, special education, other Title XIX non-LTC services
20-65 <sup>1</sup>	\$20.00 Title XIX rate, sheltered employment, other Title XIX non-LTC services
66 and over	\$20.00 Title XIX rate, adult DAC, other Title XIX non-LTC services

<sup>1</sup>Some of the 20-24 year old MRs participate in Special Education programs.

Table 4.29  
CBFs: Service Utilization Patterns for Severely Retarded,  
by Age Group

Severely Retarded, by Age Group	Services
0-1	\$30.00 Title XIX rate, home-bound DAC, other Title XIX non-LTC services
2-4	\$30.00 Title XIX rate, pre-school DAC, other Title XIX non-LTC services
5-19	\$30.00 Title XIX rate, special education, other Title XIX non-LTC services
20-65 <sup>1</sup>	\$30.00 Title XIX rate, adult DAC, other Title XIX non-LTC services
66 and over	\$30.00 Title XIX rate, retirement

<sup>1</sup>Some of the 20-24 year old MRs participate in Special Education programs.

Table 4.30  
CBFs: Service Utilization Patterns for Profoundly Re-  
tarded, by Age Group

Profoundly Retarded, by Age Group	Services
0-1	\$30.00 Title XIX rate, home- bound DAC, other Title XIX non-LTC services
2-4	\$30.00 Title XIX rate, pre- school DAC, other Title XIX non-LTC services
5-19	\$30.00 Title XIX rate, special education, other Title XIX non-LTC services
20-65 <sup>1</sup>	\$30.00 Title XIX rate, adult DAC, other Title XIX non-LTC services
66 and over	\$30.00 Title XIX rate, retire- ment

<sup>1</sup>Some of the 20-24 year old MRs participate in Special Education programs.

Table 4.31  
Services to Title XIX MRs: Funding Ratios of Government  
Levels, by Service

Service	Level of Government			
	Federal	State	Local	Total
DAC program	-	52%	48%	100%
DAC transpor- tation	-	100%	-	100%
Sheltered Workshop	37.5%	37.5%	25%	100%
Title XIX	57%	39%	4%	100%

Table 4.32  
CBFs vs SHs: Per Diem Costs by Government Level, for  
Services to MRs

Service	Per Diem Costs			
	By Government Level			
	Federal	State	Local	Total
<u>DAC:</u>				
a. homebound	-	\$11.20	\$10.40	\$21.60
b. preschool	-	11.60	7.70	19.30
c. adult	-	7.20	4.90	12.10
<u>Sheltered Workshop</u>	\$3.20	3.20	2.10	8.50
<u>Title XIX Rates:</u>				
Mild (\$15.00)	8.55	5.85	.60	15.00
Moderate (\$20.00)	11.40	7.80	.80	20.00
Severe & Profound (\$30.00)	17.10	11.70	1.20	30.00
State Hospital (\$45.00)	26.20	17.00	1.80	45.00



- 2) For sheltered workshop participants, 20 visits per month (five-day work week x 4 weeks) were assumed.
- 3) For total monthly costs of Title XIX residential care for CBF and SH residents, a thirty-day month was assumed.
- 4) For borderline, mild, and moderate MRs, other Title XIX service costs are estimated to be \$15/month, while for severe and profound MRs, the costs are estimated to be \$20/month (please refer to Case Study above). Using these figures and the per diem cost data in Table 4.32, the total monthly costs for these various services were estimated and are presented in Table 4.33. Table 4.33 also shows monthly costs for these various services by governmental level. Using Table 4.33 estimates of monthly costs for each service, we can compare total monthly costs.

#### Monthly Cost Comparison

The total monthly costs of care by government level for the average SH MR resident are presented below. These costs are of course, based on a Title XIX per diem reimbursement rate of \$45.00.

	Federal	State	Local	Total
MR resident in SH system:	\$769.50	526.50	54.00	1350.00

Tables 4.34-4.37 present total monthly cost estimates, by government level, for each MR type in CBFs and in SHs by age and severity of retardation. These total monthly cost figures represent the accumulation of all costs for each type of CBF resident. Since most SH MRs are severely or profoundly retarded and in the 20-65 age group, SH monthly care costs should be compared with the monthly costs of caring for similar residents of CBFs. However, for purposes of general reference, the SH monthly cost is presented in the bottom row of each table.

#### Cost Comparison Analysis

Tables 4.34-4.37 contain some interesting cost comparisons, both in terms of total costs and in terms of the distributional costs of care.

Table 4.34 reveals the costs of care for borderline and mildly retarded residents in SHs and CBFs. Table 4.26 showed only 5% of the SH MR population and 15% of the CBF population to be borderline or mildly retarded. Federal expenditures for this type of individual are much lower in the CBF

Table 4.33  
CBFs: Total Monthly Cost by Level of Government  
for Services Provided

Services	<u>Monthly Cost by Level of Government</u>			
	Federal	State	Local	Total
<u>DAC:</u>				
a. homebound	-	\$67.20	\$62.40	\$129.60
b. preschool	-	232.00	154.00	386.00
c. adult	-	129.60	88.20	217.80
<u>Sheltered Workshops</u>	\$64.00	64.00	42.00	170.00
<u>Title XIX Rates:</u>				
Mild (\$15.00)	256.50	175.50	18.00	450.00
Moderate (\$20.00)	342.00	234.00	24.00	600.00
Severe & Profound (\$30.00)	513.00	351.00	36.00	900.00
State Hospital (\$45.00)	769.50	526.50	54.00	1350.00
<u>Other Title XIX (non-LTC) services to:</u>				
a. Borderline, Mild, Moderate	8.55	5.85	.60	15.00
b. Severe, Profound	11.40	7.80	.80	20.00

Table 4.34  
SHs vs CBFs: Monthly Costs by Government Level for  
Borderline and Mildly Retarded by Age Group

Borderline and Mildly Retarded by Age group	<u>Monthly Costs by Government Level</u>			
	Federal	State	Local	Total
0-1	\$265.05	248.55	81.00	594.60
2-4	265.05	413.35	172.60	851.00
5-19	265.05	181.35	18.60	465.00
20-65	265.05	181.35	18.60	465.00
66 and over	265.05	310.95	106.80	682.80
State Hospital	769.50	526.50	54.00	1350.00

Table 4.35  
SHs vs CBFs: Monthly Costs by Government Level for Moderately  
Retarded by Age Group

Moderately Retarded by age group	<u>Monthly Costs by Government Level</u>			
	Federal	State	Local	Total
0-1	\$350.55	307.05	86.00	743.60
2-4	350.55	471.85	148.60	971.00
5-19	350.55	239.85	24.60	615.00
20-65	414.55	303.85	66.60	785.00
66 and over	350.55	369.45	112.80	832.80
State Hospital	769.50	526.50	54.00	1350.00

Table 4.36  
SHs and CBFs: Monthly Costs by Government Level for  
Severely Retarded, by Age Group

Severely Retarded by age group	<u>Monthly Costs by Government Level</u>			
	Federal	State	Local	Total
0-1	\$524.40	424.05	99.20	1047.65
2-4	524.40	590.80	190.80	1306.00
5-19	524.40	358.80	36.80	920.00
20-65	524.40	488.40	125.00	1137.80
66 and over	524.40	358.80	36.80	920.00
State Hospital	769.50	526.50	54.00	1350.00

Table 4.37  
SHs and CBFs: Monthly Costs by Government Level for  
Profoundly Retarded, by Age Group

Profoundly Retarded by age group	<u>Monthly Costs by Government Level</u>			
	Federal	State	Local	Total
0-1	\$524.40	424.05	99.20	1047.65
2-4	524.40	590.80	190.80	1306.00
5-19	524.40	358.60	36.80	920.00
20-65	524.40	488.40	125.00	1137.80
66 and over	524.40	358.40	36.80	920.00
State Hospital	769.50	526.50	54.00	1350.00

setting than in the SH setting; state costs are also lower except for the 2-4 age group. Local costs however are greater in CBFs than in SHs for MRs under age 5 and over age 65.

Table 4.35 shows the monthly cost of CBF care for moderately retarded individuals. Moderately retarded individuals comprise 10% of the SH and 25% of the CBF population (as shown in Table 4.26). Once again, both the federal and state levels of government would pay less for CBF care than for care in the SH setting. For MRs under 5 or over 65, local costs are higher in the CBF setting. Total costs of care are still far less in the CBF setting.

Tables 4.36 and 4.37 present the most interesting cost comparisons. While only 39% of the CBF population are severely or profoundly retarded, nearly 81% of the SH population are severely or profoundly retarded. In addition, nearly 75% of the SHs' severely and profoundly retarded population are in the 20-65 age group (Research and Statistics, DPW, for June, 1976). It can be seen from Tables 4.36-4.37 that if CBFs were to care for the same type of MR individual as presently cared for in SHs, the total costs of care would be similar. To care for the 20-65 year-old severely and profoundly retarded group would require comparable costs in either setting (\$1137.80 and \$1350.00 for the CBF and SH setting, respectively).

Federal costs are less in the CBF setting for both severely and profoundly retarded individuals. State costs are also slightly lower for severely and profoundly retarded individuals in a CBF setting.

Local costs, however, are higher for CBF care than for SH care in the case of those severely and profoundly retarded individuals who are in the 0-1, 2-4, and 20-65 age groups.

In summary, we have attempted here to compare the costs of care in the CBF and SH for MR individuals of different ages and levels of retardation. We found that the distributional costs of caring for MRs in each of the two settings are quite different, especially for local government. This analysis forms the basis upon which we estimate the costs of deinstitutionalizing the SH MR population in Chapter V.

B. Findings: Staffing for MRs

1. Findings: SH Staffing for MRs

Overall SH Staff

State hospitals have been organized to be self-contained communities fulfilling all the needs of caring for residents/patients.<sup>13</sup> Thus, staff employed by SHs range from electricians and cabinetmakers to physicians and teachers.

As of October 10, 1976, there were 5,311 FTE positions in the staff complement of the ten SHs. 61% (3247.6 FTE positions) were considered direct care positions.<sup>14</sup> Of the direct care positions, 64.1% were assigned to the MR program, 24.6% to the MI program, 8.4% to the CD program, and 2.9% to other direct care programs.<sup>15</sup>

These staff provide residential, professional, program, medical, and supportive services for 5573 SH residents: 3334 (59.8%) mentally retarded, 1651 (29.6%) mentally ill, and 588 (10.6%) chemically dependent.<sup>16</sup>

Comparing staff assignments with residents, it can be seen that while MRs comprise 60% of SH residents, staff assigned to the MR program account for 64% of all direct care staff. For the MI program, the figures are 30% of the patients and 25% of the staff, and for the CD programs 11% and 8%. Thus, the MR program receives proportionately more direct care staff support.

Table 4.38 presents a very general view of the kinds of staff employed in SHs and the civil service titles<sup>17</sup> of the authorized staff complement. It should be noted that this indicates only as much as job title does - it tells who people are, but not necessarily what they do nor with whom they work.

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<sup>13</sup>MRs are referred to as 'residents;' MIs and CDs are 'patients.'

<sup>14</sup>Data obtained from a DPW survey of SHs.

<sup>15</sup>Rochester's medical and surgical units.

<sup>16</sup>DPW, Monthly Statistical Report, Minnesota State Public Welfare Institutions and Retardation Guardianship Services, March 1976.

<sup>17</sup>Attachment - positions authorized 4/1/76. Memo from Wes Restad to D. Samuelson.

Table 4.38  
SH Authorized Staff Complement,  
4/1/76, by Job Title Category

<u>Category</u>		<u>Percent of Total Complement</u> (N = 5318)
A.	Attendants: Human Service Technicians, Guards, Group Supervisors	44.2
B.	Nurses: RNs, LPNs	12.9
C.	Professional Program: Therapists, Teachers, Counselors, Psychologists (aides and para- professionals are not included)	9.2
D.	Medical: Doctors (including Psychiatrists), Dentists, Pharmacists, Medical Technologists, X-Ray Technologists, etc.	3.3
E.	Food Service: Dietitians, Dining Hall Supervisor, Cook, Baker	7.2
F.	Administrative: Clerk, Secretary, Accountant, Personnel Administrator, Switchboard Operator, etc.	7.4
G.	Plant Maintenance: Janitor, Groundskeeper, Housekeeper, Tradesman, etc.	15.0
H.	Other: Barber, Beautician, Chaplain	<u>.7</u>
		99.9

The largest percent of staff are employed in the Human Services career ladder (also included here are guards from St. Peter Security Hospital and group supervisors). Plant Maintenance staff are the next largest category of employees, followed closely by Nursing staff. These three groups account for nearly three-fourths of all SH employees.

Generally speaking, attendants, nurses, professional program, and medical staff are considered direct care staff.<sup>18</sup> Of these direct care staff, about one-third are professionally trained (B, C, D on Table 4.38) and two-thirds are not (A on Table 4.38).

It is the staff working with MRS who are of primary interest to this description, since few MIs or CDs are Medicaid recipients. Unfortunately, DPW does not currently have information systems which can tell the job titles and functions of the staff working with MRS.<sup>19</sup>

Information on staff working with MRS (e.g., how many, what kind and what they do) must be obtained from individual SHs; a study by DPW/TAP staff in the fall of 1975 obtained this information, which we now discuss.

#### MR Authorized Staff Complement

As part of its study,<sup>20</sup> DPW staff surveyed the eight Minnesota SHs serving the mentally retarded.<sup>21</sup> Of the eight, two serve only MRS<sup>22</sup> and the remaining six serve all resident groups.<sup>23</sup> To determine MR-related

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<sup>18</sup>Totaling A-D in Table 4.38 gives 69.6%. Data presented earlier indicated 61% of the complement had direct care assignments. This probably means about 9% of the staff with job titles sounding as if they are direct care related are actually in indirect care (e.g., administrative) positions.

<sup>19</sup>While DPW has systems to report costs by type of resident (MR, MI, CD), it does not provide information on staffing which accounts for 85% of the costs.

<sup>20</sup>Warren Bock, Kathryn Roberts and Bruce Libby, "A Study of Midwest Institutions for the Mentally Retarded," DPW, Nov. 17, 1975.

<sup>21</sup>Anoka and Hastings do not serve MRS.

<sup>22</sup>Faribault and Cambridge.

<sup>23</sup>For these six, MRS comprise an average of 40% of the hospital population, ranging from 23-88%.



staff in institutions serving multiple client groups, the study asked hospitals to count FTE direct-care staff assigned to the MR program, to prorate the time of direct-care staff working with all client groups (e.g., a physician) by the percent of MRs in the hospital's population, and to prorate all indirect care staff similarly.

The DPW study reported that there were 3,109 authorized FTE positions in the SH system, providing care to 3,400 MRs. The study included Lake Owasso Children's Home, which is now county operated. If Lake Owasso's 50 FTE staff positions and 66 residents are removed, there are 3,059 full-time equivalent staff working with 3,334 MRs. This represents a staff-to-resident ratio of 1-to-1.09.

#### Relationship of Job Function to Job Title

The DPW study collected FTE staff by job category (title) and function, providing a unique opportunity to determine how closely job title correlates with job function. Job functions included in the study are:

- Residential Living Unit Program. Staff caring for residents but not delivering structured program services are included here.
- Developmental Training and Therapies Program. According to the survey instructions, "staff in structured (versus routine training) habit training programs such as toilet training program conducted in the living unit should be counted ..." (here).
- Support Program. Staff functions which do not normally interact with residents are included here.

These job functions correspond closely to our model's program components; the exception is that medical services are not separated.

Job categories used by the DPW study can be combined to correspond to the three groups just described, as follows:

- Residential Living Unit Staff - Human Service Technicians, Group Supervisors, Child Care Workers, Nurses (RNs, LPNs, and Aides);<sup>24</sup>
- Program Staff - Teachers, Social Workers, Psychologists, Behavior Analysts, Recreational/Occupational/Vocational/Physical Therapists, Doctors, Dentists, and assistant/aides to these professionals;

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<sup>24</sup>The decision to place nurses in the Residential Category was based upon their usual function.

- Support Staff - Administrative, clerical, food service, laundry, plant maintenance, and house-keeping.
- The 'other' category is discounted.

Table 4.39 correlates job function with job category, answering the question 'What percent of state hospital employees perform a function related to job title.' The relationship is clear: job title is a good predictor of job function. SHs are large enough to permit functional specialization of employees. The major exceptions are that about one-eighth of the time of staff with a residential title is spent in the structured program function and one-tenth of the time of staff with a support title is spent in the residential living unit function.

Additional description will use the job title categorization to facilitate comparison with community facilities.

#### Number of Staff

Using the categorization scheme discussed above, we can look at number of employees delivering each service. Table 4.40 shows that two-thirds of SH employees working with MRs are involved in residential or professional program services and nearly one-third in supportive services. Medical services are included both in the Program Category and in the 'Other' Category. It is relatively simple to identify the doctors, dentists, and dental auxiliaries in the Program and Residential Categories; it is not so simple to determine how many of those in the 'Other' category are medical staff. The category can include medical technologists, pharmacists, and x-ray technicians as well as barbers and beauticians. By examining the civil service titles of the entire SH staff complement, it is possible to approximate the percent of medical staff in the 'Other' category. This approximation is 75%. The 25% balance of the 'Other' category, mostly beauticians and barbers, can be added to the program services component, as is done in Table 4.41.

The picture doesn't change much: half of the staff are involved in residential/living unit services, one-sixth in program services, three-tenths in support services and the balance in medical services. Of the program services staff, 56% are professionals and 44% are assistants or aides employed in the Human Services career ladder, generally as Human Service Specialists. Of the residential living unit staff, 20% are nurses and the

Table 4.39

Percent of SH Employees with  
Job Title Corresponding to Job Function

Job Function	Job Title		
	Residential	Program	Support
Support	0.1	2.4	88.8
Program	12.5	94.5	1.0
Residential	87.4	3.1	10.2
	100%	100%	100%
	N = 1,565.4	N = 513.9	N = 929.8

Table 4.40

Number and Percent of SH Employees  
with Residential, Program and  
Support Category Titles

Job Category	N	% of Total
Residential	1,565.4	51.2
Professional Program	513.9	16.8
Support	929.8	30.4
Other	50.0	1.6
	N = 3,059.1	100%

Table 4.41  
Number and Percent of SH Employees in  
Residential Program, Medical  
or Support Categories

Job Category	N	% of Total
Residential	1,565.4	51.2
Program	479.5	15.7
Medical	71.9	2.4
Support	<u>942.3</u>	<u>30.8</u>
	N = 3,059.1	100%

Table 4.42  
Total FTE Staff Working  
With the Mentally  
Retarded In SHs

Component	Complement	Additional Staff	Complement Plus Additional	% of Total
Residential	1,565.4	259.9	1,825.3	47.6
Program	492.0	450.6	942.6	24.6
Medical	71.9	14.0	85.9	2.2
Supportive	929.8	22.1	951.9	24.8
Unallocated	0	26.4	26.4	0.7
Total	3,059	773	3,832	100%

balance are in the Human Services career ladder.<sup>25</sup> Overall, about two-thirds of staff (residential plus program) are direct-care staff, 31% are indirect-care (support), and 2% are mixed direct/indirect (medical).

#### Other Staff in SH Care of MRs

The authorized staff complement does not account for all staff working with MRs in SHs. The TAP/DPW study identified the following additional sources of staff support to the MR program:

- Public School System. The TAP/DPW study found that 419 FTE positions<sup>26</sup> were provided by the local public school system for the Educable and Trainable Mentally Retarded programs. This program was estimated to cost 4.5 million (\$10,783 per FTE staff position) and serve 1175 SH residents.<sup>27</sup> These staff provide part of the professional program component of care.
- CETA Program. CETA provides 147.5 FTE positions for MR care at a cost of 1.1 million dollars. This is \$7458 per FTE staff position. Approximately 80% of these positions are HSTs, 15% are supportive service positions (i.e. janitor or food service worker), and balance are program and residential unit staff (i.e., social workers and RNs).<sup>28</sup>
- Foster Grandparents Program. This program provides 136 FTE staff positions at a cost of \$.38 million or an average of \$2652 per FTE position. The Foster Grandparent Program is designed to provide tender loving care to MR children. The services are best classified as residential living program services.

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<sup>25</sup>There are some Group Supervisors in the residential living unit staff, but this is under 30 FTE positions or less than 2% of residential living staff.

<sup>26</sup>Material provided to Representative Donald Samuelson by DPW/Bureau of Residential Services in a 5/25/76 memo (cover memo by W. Restad dated 5/28/76) indicated there were 523 public school employees providing the TMR program. This is not adjusted for FTE as the above data are.

<sup>27</sup>Ibid.

<sup>28</sup>Data compiled from CETA payroll reports on file in the Department of Administration Offices. This information was obtained from 1976 records while the TAP/DPW study is dated 1975. However, the intent was to obtain good approximation.

- Vocational Rehabilitation. This program is estimated to provide 30 FTE staff to the care of MRs at a cost of 1.5 million or \$16,581 per FTE staff. Staff provide therapeutic and training program services.
- Consultants/Special Services. This category provides an estimated 18 plus FTE staff at a cost of \$0.64 million. Often hospitals could not estimate the staff time associated with consultants/contracts. A look at the fiscal year 1976 budget contracts<sup>29</sup> for this category revealed that for the eight state hospitals with MR residents, 78% of the contracts were for medical services.<sup>30</sup> This included general and specialized physician services as well as laboratory services. The balance was used for a wide variety of things, e.g., security and staff training.
- Special Grants and Other Staff. Special Grants (e.g., Title I) and 'other' staff provided 22.4 FTE staff. Three-fourths of these staff positions are at Brainerd, most of them designated for the Minnesota Learning Center.

In all, the DPW study found that 773 FTE staff, in addition to the budget complement, were providing care to mentally retarded SH residents.<sup>31</sup> The estimated cost of all these services was \$7.3 million. These positions (773 FTE) would represent about a one-fourth addition to the MR staff complement.

#### Total Staff Caring for SH MRs

Table 4.42 adds the additional staff to the authorized staff as presented in Table 4.41, and provides an estimate of the number of FTE staff working with the mentally retarded at SHs, by service categorization. The following summarizes the judgements made in allocating additional staff to program components:

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<sup>29</sup>Examined were budgeted, not actual expenditures. The latter figure was more difficult to compute. A sample computation showed budgeted figures were a good approximation of actual expenditures.

<sup>30</sup>The program component scheme used in this section places psychiatric care in the medical services categories. This is because psychiatrist's job category is physician. For sake of consistency, psychiatric care was included in medical services in computing the 78% figure.

<sup>31</sup>Two additional categories, not considered here, are volunteer time and resident's work time for pay. The former receives no reimbursement and the latter's pay is complicated by measures of "productivity."

- Public School Program - 100% (419 FTE) to Professional Program component;
- CETA - 84% (123.9 FTE) to residential, 15% (22.1 FTE) to supportive, and 1% (1.5 FTE) to program;
- Foster Grandparents - 100% (136 FTE) to residential;
- Vocational Rehabilitation - 100% (30.1 FTE) to program;
- Consultants - 78% (14 FTE) to medical. Balance unallocated (4 FTE); and
- Special Grants - 100% (22.4 FTE) unallocated.

These figures change the percentages associated with the components of care: the percent of total staff assigned to professional program services increases from 16% to 25%; staff assigned to residential services declines from 51% to 48%; those assigned to supportive services decreases from 30% to 25%; staff providing Medical Services remains constant.

Including all 3,832 FTE staff, we obtain an overall staff-to-resident ratio of 1-to-0.87. Thus, for each SH MR resident, about 1.2 FTE staff positions are needed to provide residential, program, medical, and support services.

## 2. Findings: CBF Staffing for MRs

CBFs differ from SH MR units in size and in philosophy. CBFs are smaller and do not attempt to be self-contained service-providers: they rely on Day Activity Centers, Sheltered Workshops and Public School programs for professional program services; they utilize community medical, dental, and pharmaceutical resources; they generally contract plumbers, electricians, and other tradesmen as needed.

### Information Source

Information on the numbers and kinds of staff in CBFs is collected by both the Minnesota Department of Health and the Department of Public Welfare during their respective licensure processes. After examination of the records of both these agencies, it was determined that MDH

information was easier to extract and more likely to be current.<sup>32</sup>

Originally, staff information was to be extracted directly from the MDH 1976 licensure application.<sup>33</sup> However, the categories used did not fit CBFs well. Frequently, 90% of a facility's staff would be in the 'other' category. At the time an ICF/MR completed its 1976 licensure application, it filled out a personnel report form. For each employee, this form reported name, title, and hours worked during each day of a sample week. This report provided the data for our description of CBFs. Information on the licensure form was used as the source for computing Full Time Equivalent (FTE) staff and to reconcile problems and missing data.

#### Sample of CBFs

DPW's list, "Licensed Residential Facilities in Minnesota" (dated 4/76), with one undated addendum, of facilities with a Rule 34 license (N = 127) was used to determine the population. In the process of reconciling this list to facilities having suitable Rule 52 (reimbursement) information, one omission was discovered and added. Thus, the population of CBFs was 128 facilities.

Of the population, 25 facilities had to be discarded because they had closed, dropped their ICF/MR certification, or were new facilities without a completed ICF/MR certification review. This yielded 103 facilities with usable data on file. For the staffing description, another 12 facilities had to be totally dropped: 6 were new facilities and staffing information was for 'proposed' rather than actually employed staff; 4 had no current information (license application and Quarterly Personnel Report); one provided information in an unusable manner; and one additional facility was discarded since it was primarily a nursing home. Thus we analyzed the staff data of 91 facilities.

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<sup>32</sup>DPW collects staff information at initial program licensure. During the relicensure process, only changes in staff must be reported. Further, sometimes changes are documented in narrative or correspondence. Thus, to get current staff, it would be necessary to look at all license applications, narrative, and correspondence. This would be a long, tedious project. MDH collects information in a more readily-usable fashion during its annual facility licensure process.

<sup>33</sup>Eventually, this information will be available on an EDP system--part of the Health Manpower Information system.



## General Description

The 91 CBFs in this sample had 2,338 certified beds for the care of the mentally retarded, or an average of 25.7 beds per facility. Staff employed by 90 of the 91 facilities averaged 13.1 FTE staff per facility. This represents an overall average staff to bed ratio of 1-to-2.0.<sup>34</sup>

Tables 4.43 and 4.44 show bed and staff size distributions. Examination shows most facilities are small: two-thirds have fewer than 20 beds and fewer than 10 FTE staff. CBFs range in size from 5 to 171 beds. The number of FTE staff employed by facilities ranges from 2 to 160. The spread represented is numerically less than that of SHs, but of more importance for a discussion of the kinds and numbers of staff typically employed. SHs have more nearly uniform staffing patterns than CBFs since their specialized staff are hired by a civil service schedule under DPW guidelines; CBFs by contrast have a wide range of approaches.

Because of the variety of staffing arrangements in CBFs, a description of FTE staff would ideally be based on function rather than title. Unfortunately, no such data exist; this description,<sup>35</sup> which represents our assessment of the best data available, uses job title. This creates a problem, since title may not be an accurate reflection of function, particularly for small facilities. To handle the problem, we divided CBFs into three categories: those with fewer than 6 FTE staff, those with more than 6 but fewer than 12, and those with 12 or more FTE staff. In the first category, we would expect little or no specialization of staff as measured by job titles; in the second, some specialization would be expected; in the third, a fairly complete specialization would be expected.

### Facilities Employing Fewer Than 6 FTE Staff

Forty-four CBFs (48% of all examined here) employ fewer than 6 FTE staff. On the average, facilities in this category employ 2.4 full-time and 2.9 part-time employees

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<sup>34</sup>Staff-to-bed, rather than staff-to-resident ratios are used since the occupancy rate of all facilities was not known. Thus it was not possible to compute a staff-to-resident ratio from these data. For those facilities on which occupancy rates were known, the median occupancy was 91%.

<sup>35</sup>Quarterly personnel reports from MDH Licensure File.

Table 4.43  
CBFs by Facility Size

Beds	Number of CBFs
10 or fewer	35
11- 20	25
21- 30	10
31- 40	3
41- 50	7
51-100	6
100+	5
<hr/>	<hr/>
Total	91

Table 4.44  
CBFs by Staff Size

FTE Staff <sup>1</sup>	Number of CBFs
2- 3	32
4- 5	11
6- 7	12
8- 9	7
10-14	6
15-19	4
20-24	6
25+	12
<hr/>	<hr/>
Total	90

<sup>1</sup>Used interval, not rounded numbers.

working an average of 43 hours per week. Thus facilities in this category employed an average of 3.4 FTE staff. With an average of 3.4 FTE staff, specialization by job title is not likely. Thus, to describe staff by program component on the basis of job title, as was done for state hospitals, is not meaningful. Typically, these facilities employ live-in-houseparents who provide residential and support services. Twenty-eight of these facilities (64%) had live-in houseparents, 2 (5%) did not, and it was unclear for the remainder. A live-in houseparent usually provides 24 hour coverage; to count the person as 1 FTE staff in a staff to bed ratio may underestimate facility coverage.

If a person, group, or corporation owns two or more facilities in close proximity, it is possible to share staff among the facilities. This may allow the employment of specialized staff (e.g. nurse, social worker), which would not be feasible in a single smaller facility. Of the 44 smaller facilities employing fewer than 6 FTE staff, 21 are part of a chain of facilities. Of the 21, 17 share staff: 10 share support (including administrative) staff only, 2 share residential staff<sup>36</sup> only, and 5 share both support and residential staff.

#### Facilities Employing Between 6 and 12 FTE Staff

Twenty-three CBFs employ between 6 and 12 FTE staff, averaging 8.3 FTE staff. These facilities have a total of 454 beds, ranging from 9 to 54 beds and averaging 19.7 beds (Median is 15.2). Thus, the staff-to-bed ratio averages 1-to-2.4. Facilities employ an average of 5.0 full-time and 9.6 part-time employees. In these facilities, it is expected some specialization of staff occurs. Using job title to categorize, as was done in the description of SH staff, we find 73% of all staff have residential titles (e.g., houseparent, nurse), 2% have program titles (e.g., social worker), and 23% have support titles (e.g., administrator, secretary, housekeeper, cook, janitor).<sup>37</sup> Live-in houseparents are less likely in this group of facilities: only 3 (13%) had live-in houseparents, while 11 (48%) did not, and it was unclear for the other cases.

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<sup>36</sup>Usually this means sharing a nurse.

<sup>37</sup>2% have 'other' (unclassifiable) job titles. The categorizations are based upon 17 of the 23 facilities which had usable data.

Fifteen of these facilities are part of a chain of two or more facilities and twelve of these share staff: four share administrative support staff only and eight share support, residential, and program services.

#### Facilities Employing More Than 12 FTE Staff

Twenty-four CBFs employ more than 12 FTE staff, averaging 34.0 FTE staff. The facilities have 1,461 beds (62% of all CBF beds), ranging from 14 to 171 beds with an average of 60.9 (Median is 47.8). The average staff-to-bed ratio is 1-to-1.8. Facilities employ an average of 21.4 full-time and 16 part-time staff. Because a live-in house-parent situation was not noted in these CBFs, it is expected that specialization is more complete, that is, job title is a better indicator of job function.

Shared staff are also less prevalent: only 8 (35%) of the facilities are part of a chain and only 4 of those share staff. For facilities with usable job title information (18 of the 24), 68% of the staff have titles indicating they provide residential services, 5% program and 27% support services.

#### Comparisons

Table 4.45 highlights some of the variables just discussed for each of the three categorizations of CBFs. Facilities employing fewer than 6 FTE staff account for 48% of all facilities but have 18% of total beds; facilities employing between 6 and 12 FTE staff account for 25% of all facilities and 19% of all beds; facilities employing more than 12 FTE are 25% of all facilities but have 62% of all beds. Thus while the typical facility is small, the typical resident is in a large facility.

As CBFs get larger and employ more FTE staff, they are less likely to utilize live-in house parents, more likely to employ professional program staff (principally the title 'social worker'), and employ more staff per bed. Facilities employing between 6 and 12 staff are most likely to be part of a chain - two or more facilities owned by one individual, group or corporation - and to share staff among the facilities. This approach is also common in facilities employing fewer than 6 FTE staff. One might expect specialized staff could be employed and perhaps some economies of scale could be realized using this approach.

Table 4.45

CBFs Employing Fewer Than 6, 6-12 and 12+ FTE Staff, by  
Characteristic

CBF Characteristics	Number of Staff			Total
	Fewer than 6 FTE Staff	6-12 FTE Staff	12+ FTE Staff	
Total Number of Facilities	44	23	24	91
Total Number of Beds	423	454	1,461	2,338
Median Number of Beds/Facility	8.8	15.2	47.8	25.7
Average Staff For Category	3.4	8.3	47.8	13.1
1 Staff: x Beds	2.8	2.4	1.8	2.0
Average Number FTE Professional Program Staff	0	.2	1.4	.4
% with Live-In House Parents	64	13	0	34
% Part of a Chain	48	65	35	48
% with Shared Staff	39	52	17	36

### 3. COMPARISONS: SH vs CBF Staffing for MRs

In SHs, the staff-to-resident ratio for the MR program is 1-to-1.1.<sup>38</sup> This means about one FTE staff for each resident. In CBFs, the staff-to-bed ratio is 1-to-2.0 or one staff for two beds.<sup>39</sup> On the face of it then, SHs provide twice as many staff as CBFs.

Comparisons of job title categorizations show that SHs employ considerable staff. On the average, this is true in all the categories which we developed for staff analysis: residential/living unit staff (including nurses), program support, and medical. The greatest differences are in program and medical staff: SHs provide more professional program and medical staff than do CBFs. CBFs employ no medical staff directly, whereas at SHs, 2.4% of all MR-related staff are medical staff. Only 3.1% of the typical CBF staff have a job title indicating they deliver professional program services, whereas 15.7% of all MR-related SH staff do. Medical and program staff (e.g., physicians, medical technologists, physical therapists, occupational therapists, teachers, social workers, and psychologists) are generally more expensive staff to employ than residential or support staff. Thus it would be expected that SH costs per staff member would be higher.

Our model hypothesizes that variation in staffing patterns may be explained by the fact that facilities provide different services and/or care for different kinds of residents.

Services Offered - If SHs provide services not provided by CBFs, or vice versa, this will be one explanation of differences in staffing between the two facility types.

Table 4.46, which summarizes whether the services described earlier are normally provided and funded in-house or outside the facility, shows that CBFs and SHs both provide residential living services. Of program services, neither provides the public school training program, although SHs do make a small contribution;<sup>40</sup> SHs provide in-house programs equivalent to the Day Activity Centers and Sheltered Workshop programs, while CBFs do not; SHs provide other special program services, while CBFs may or may not.

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<sup>38</sup> 3,059 staff and 3,334 residents.

<sup>39</sup> The reader is reminded once again that for CBFs, staff-to-bed is used since occupancy rate was not known for all facilities.

<sup>40</sup> 6 of 8 SHs contribute space and janitorial/maintenance support staff time.

Table 4.46

Services Normally Provided  
In-House and Outside Facility,  
for SHs and CBFs

Service	SHs	CBFs
Residential	In	In
Professional Program Services		
a. Public School	Out <sup>1</sup>	Out
b. DAC	In	Out
c. SW	In <sup>2</sup>	Out
d. Other	In	Both <sup>3</sup>
Medical	In <sup>4</sup>	Out
Supportive	In	Both <sup>5</sup>

<sup>1</sup> For 6 of the 8 hospitals serving MRs, the public school program is provided in hospital campus buildings. However, staff (with the exception of maintenance and janitorial support) are funded by the local school district.

<sup>2</sup> Strictly speaking, SHs do not offer Sheltered Workshop (SW) program. However, they do have some work programs offered on campus that are similiar to SWs. DVR staff at a SH, or the SH itself, may provide the staff for the sheltered work setting.

<sup>3</sup> These services may be provided by contract or by salaried staff. Some or all of the contracted services will be billed directly to Medicaid.

<sup>4</sup> These services may be provided by contract or by salaried staff; in either case, it is paid out of the facility budget.

<sup>5</sup> Residential support would be included, but program and Medical support would not.

SHs provide medical services, while CBFs do not. Finally, SHs provide all supportive services, whereas CBFs provide only residential-related support services.

Thus, adjustments must be made before attempting any comparison of CBFs and SHs. If all staff providing program and medical services are eliminated from consideration, then SHs employ 1 staff for every 1.3 residents and CBFs 1 staff for 2.0 beds. Thus, SHs still employ considerably more staff. Of residential and support services, 62% of the SH staff have residential titles compared with 72% in community facilities. Thus, SHs employ proportionately more staff in support job titles than CBFs.

Resident Characteristics - The model posits that resident characteristics may explain why staffing patterns vary. It assumes that younger, more physically handicapped and more severely retarded residents will require more staff assistance.<sup>41</sup> Thus, another explanation of differences between SH and CBF staffing patterns is differences in resident characteristics.

The Quality Assurance and Review (QA&R) Program conducted by the Department of Health is the only source of comparable data on both SH and CBF MRs. However, the QA&R data are collected only on Medicaid residents. It can be assumed most of the mentally retarded in LTC are Medicaid recipients.<sup>42</sup> Examination of the QA&R data on Medicaid-supported MRs reveals important differences. On the average, SH MR residents are younger than CBF Medicaid MR residents (31 as contrasted with 37 years). SH MR residents have more medical diagnoses than CBF Medicaid MR residents (2.5 versus 2.2). SH MR residents require more than twice as much nursing time: they are more likely to be receiving oral medication (82% versus 60%) and injected medications (19% versus 2%). SH MR residents are more retarded: 16% are mildly and moderately retarded, compared with 39% in CBFs; 35% are severely retarded for both groups; and 47% of SH MR residents are profoundly retarded compared with 4% of CBF Medicaid MR residents.<sup>43</sup>

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<sup>41</sup> This assumption is commonly made and generally accepted. However, to our knowledge, it is not a proven fact. The 1977 federal regulations accept this premise, requiring more residential staff for children, severely and profoundly retarded adults, and those with severe behavioral and/or physical problems.

<sup>42</sup> Medicaid reimburses care for anyone certified as mentally retarded and meeting the income criteria. Only children, where parents' income is counted, usually encounter problems meeting the income criteria. Thus almost all MRs are Medicaid-eligible. In SHs, 95% of the MRs are Medicaid-reimbursed (memo from Duane Cooney).

<sup>43</sup> 2% of SH MR residents and 21% of CBF Medicaid MR residents did not have level of retardation recorded.



Because they are more retarded and more disabled, SH MR residents have a higher dependency score on activities of daily living scale: on a scale of 0 to 100, with 0 signifying no dependency and 100 total dependency, SH MR residents averaged a score of 35, and CBF Medicaid MR residents a score of 13.

In short, it is clear that SHs and CBFs do not have the same types of Medicaid MR residents: SHs have younger, more retarded, and more handicapped MR residents who require more assistance in activities of daily living and more nursing care.

If one accepts the hypotheses that the more disabled residents require more staff, one would expect SHs to employ more staff per resident. These staff would be particularly required in the residential program--both nursing and human services technical job categories. How much more is not known. To our knowledge, no one has validated a formula for linking kinds of residents to the kinds and numbers of required staff. The new federal ICF/MR regulations make a judgement requiring an overall residential living unit FTE staff-to-resident ratio requirement, and Judge Larson of the U.S. District Court has made similar judgements.

### Summary

SHs employ about 1 staff for each mentally retarded resident, while CBFs employ about 1 staff for two residents. Differences in services offered and kinds of residents served can probably explain the variations. CBFs do not normally provide DAC or SW programs, while SHs do. CBFs purchase medical services outside the facility on a fee-for-service or contract basis, while SHs provide the service directly.<sup>44</sup> SHs and CBFs care for different kinds of Medicaid MR residents - SH MR residents have greater dependency and thus require more care in activities of daily living.

To our knowledge, no one has ever validated a scheme linking the amount of services different kinds of MRs need. Thus, it is impossible to know if service and resident differences totally explain the variation between CBFs and SHs. To the extent they do not, one may conclude:

- a) CBFs are more efficient in staff utilization, and/or,
- b) SHs provide more (better) care.

Given the variation in average numbers and kinds of staff employed per resident, we would expect CBF staff costs to be substantially lower than SHs.

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<sup>44</sup> SHs may contract for medical services, but these contracts are still funded by the SH operating budget. In CBFs, medical bills go directly to Medicaid--the facility does not fund the service.

### Other Staff Working With LTC Systems

Additional staff from public and private agencies are involved in the LTC system for the mentally retarded: these include DPW licensing staff, DPW comprehensive program and technical advisory staff, DPW reimbursements staff, DPW Medicaid staff, DPW evaluation and research staff, DPW Bureau of Residential Services staff, MDH licensing staff, MDH Quality Assurance and Review Program staff, plus professional and client organizations (e.g., JCAH, AARM), special study groups (such as the legislature or us). One might also think of the people training staff in the educational system, people credentialing those educational programs and on and on.

Trying to attach a FTE staff or dollar amount to these positions is difficult. Many of those people spend only a portion of their time with LTC for MRs. Many work both with community and state hospital facilities. Many are not normally considered program or system costs.

Nevertheless, one can conclude that many additional staff and considerable dollars are spent in the LTC system for MRs, and policy alternatives ought consider the effect of these additional staff.

### C. Findings: Quality of Care for MRs

To measure the quality of care for MRs, we compared facilities on their compliance with various standards which included state, federal, and independent requirements for certification, licensure, and accreditation.

Residential facilities for MRs must meet the requirements of DPW program Rule 34, MDH licensure as a Supervised Living Facility (SLF) or Boarding Care Home (BCH), and federal certification as an intermediate care facility for MRs (ICF/MR).

In this section, SHs and CBFs are compared on:

- the numbers and types of deficiencies issued during the federal ICF/MR certification process,
- the numbers of provisions received during DPW program licensure, and
- JCAH accreditation status (for SHs only).

MDH licensure deficiencies were not used for three reasons:

1) certification is necessary to receive Medicaid funding, 2) federal and state categories do not always mesh,<sup>45</sup> and 3) ICF/MR certification is basically more comprehensive (though less specific in some categories) and MR-specific than MDH licensure.

#### 1. Findings: Deficiency Study

Data on the numbers and types of deficiencies issued to CBFs and SHs in the Medicaid certification process<sup>46</sup> were obtained from MDH licensing files in August, 1976. All 8 SHs serving MR populations and 103 CBFs were studied.<sup>47</sup>

Each facility's file was examined for the most recent list of deficiencies issued during the ICF/MR<sup>48</sup> review process. The deficiencies were tabulated for both sets of regulations, by category. The categories were determined by the various specific numerical cites to the Code of Federal Regulations found on the survey report forms used in the review. There are 51 major categories and innumerable subcategories on the survey report forms. To make data gathering manageable, we collected data by major category, collapsing categories as appropriate: separate deficiencies in subcategories were each counted in the applicable category. Once the data had been gathered, the information was computerized. Data were collapsed somewhat for analysis. In the 1974 regulations, several categories were dropped or combined as follows

<sup>45</sup>

See Chapter II D 3 for details.

<sup>46</sup>

See Chapter II D for explanation of process.

<sup>47</sup>

See description of CBF population in Chapter IV B 2.

<sup>48</sup>

Federal regulations for ICF/MR issued in 1974 are now in effect but facilities are also being rated on ICF/MR regulations effective in 1977 to gradually prepare for the mandatory 1977 compliance to these regulations.

- Conformity With Federal, State, and Local Laws is listed as a separate category on the review but is actually a part of the category Administrative Management, and was tabulated as such.
- Arrangements for Services: Three categories were combined.
- Staff Requirements and Written Policies: Four categories were combined.
- Life Safety Code category in the review form refers primarily to the fact that a separate Life Safety survey is required and does not indicate specific deficiencies on that survey.
- State Licensure and Disclosure of Ownership were not considered for analysis because fewer than four facilities were cited in these areas and other categories reflect quality issues more specifically.

The 1977 regulation deficiency data were also collapsed:

- Resident Records: All of the categories were combined.
- Grouping and Organization, and Design and Equipage: Two categories dealing with living unit configurations were combined.
- Clothing and Health and Hygiene were combined.
- Research and Sanitation categories were dropped as no facilities were deficient in these areas.

Thus, the categories used to analyze data for the 1974 Regulations were:

- Program Services, which includes Transfer Agreement, Arrangements for Services; and Services as Needed;
- Admission and Treatment, which includes Admissions and Active Treatment;
- Staff and Administration, which includes Administrative Management, Administrator, Qualified MR Personnel, and Direct Care Staff;
- Health Services;
- Dietetic Services;
- Drugs and Biologicals;
- Records, which includes Resident Record System; and
- Environment and Sanitation.

For the 1977 Regulations, we used the Data Categories:

- General Policies and Practices;
- Admission and Release Policies;

- Personnel Policies;
- Staff/Resident Relationships and Activities;
- Hygiene and Clothing, which includes Clothing and Health, Hygiene, and Grooming;
- Living Unit, which includes Grouping and Organization of Living Unit, and Design and Equipage of Living Unit;
- Resident Living Staff;
- General Provisions;
- Dental Services;
- Training and Habilitation;
- Food and Nutrition;
- Medical Services;
- Pharmacy Services;
- Physical Therapy (PT) and Occupational Therapy (OT);
- Psychological Services;
- Recreation Services;
- Social Services;
- Speech Pathology and Audiology;
- Records, which includes Maintenance of Resident Records, Content of Records, Confidentiality of Records, Central Records Service, and Records Personnel;
- Safety; and
- Administrative Support, which includes Functions, Personnel, and Facilities, Communications, Engineering and Maintenance, and Laundry Services.

The above categories were used to obtain preliminary descriptive information on the number of deficiencies issued in each category for SH and CBF units. From this descriptive data, it was determined that variation among SHs was minimal (see SH Deficiencies), but quite extensive among CBFs. To determine the basis of variation, we hypothesized that the number of deficiencies could vary as a function of size of facility, ownership of facility, age of facility, ages served in the facility, location of the facility (measured by region), or the costs of the facility. These data on each facility had been gathered along with the deficiency data. These effects were tested for each category, for total 1974 and total 1977 deficiencies, and also on some further groupings of categories of deficiencies. The categories were grouped as follows:

For 1974 Regulations, the groupings were:

- Services, which included Health Services, Drugs and Biologicals, Dietetic Services, and Program Services;
- Administration and Staff, which included Staff and Administration and Records; and
- Environment and Sanitation.

For 1977 Regulations, the groupings were:

- Medical Services, which included Dental Services, Medical Services (physicians), Nursing Services, and Pharmacy Services;

- Rehabilitative Services, which included PT and OT, Speech Pathology and Audiology, Psychological Services, and Social Services;
- Training and other services, which included Training and Habilitation and Recreation Services;
- Policies and Records, which included General Policies and Practices, Admission and Release Policies, Personnel Policies, Records, and Administrative Support;
- Resident Living, which included Staff/Resident Relationships and Activities; Hygiene and Clothing; Living Unit, and Resident Living Staff; and
- Safety and Sanitation.

Statistical tests used to determine the relationships among the variables listed (size, ownership, etc.) for the deficiency categories and groupings of categories were one-way analysis of variance and the Pearson product-moment correlation.

Data gathered on deficiencies represent the entire population of facilities at the time of the study. Since we are dealing with populations, and not samples, the correlations or differences noted are all real. When discussing significance, we will be indicating the magnitude of difference or correlation. Thus if a correlation is reported to be highly significant, it is indicative of the strength of the correlation.

#### a. SHs Deficiencies

All eight MR-serving SHs were deficient to some extent in meeting some of the 1974 and some of the 1977 regulations. The minimum number of deficiencies a SH received on the 1974 regulations was 9.0, while the maximum number was 39. The average number of deficiencies issued to an SH on 1974 requirements was 12.5. The minimum number of deficiencies issued to an SH on 1977 requirements was 14, while the maximum was 39, with an average of 24.8 deficiencies. The combined picture for numbers of SH deficiencies is as follows:

#### Numbers of SH Deficiencies

	<u>1974 regs.</u>	<u>1977 regs.</u>
Minimum	9	14
Maximum	18	39
Range	9	25
Average	12.5	24.8

The range in numbers of deficiencies issued is not large enough to warrant further analysis on the variance between hospitals. No SH complied with the regulations totally but none had more than a total of 39 1977 deficiencies. It can be noted again that the 1974 regulations are in effect at present while measurement against the 1977 regulations is done to aid facilities in gradual compliance. On the 1974 regulations, SHs had as few as 9 deficiencies and only 18 as a maximum.

Tables 4.47 and 4.48 list the average numbers of deficiencies issued to SHs.

As can be noted, the areas cited most often are the 1974 Environment and Sanitation category and the 1977 Living Unit category. Both of these categories relate to the normalization issues of private space, developmental opportunities, etc., for residents. The fact that SHs seem to have difficulties meeting these particular requirements can reflect the changes SHs have been undergoing in recent years: changes from the traditional medical model and ward concept of care to the more individualized living unit concept and developmental model. On the average, SHs appear to be in less compliance with those particular requirements than other requirements, but the overall average number does not seem to indicate a problem of any great magnitude.

#### b. CBF Deficiencies

The 103 CBFs with deficiency data varied widely in number of deficiencies issued to them, ranging from 0 to 58 on the 1974 regulations, with a mean of 17.1, and from 0 to 210 on the 1977 regulations, with a mean of 35.1. The ranges and means for deficiencies issued against 1974 and 1977 regulations to the 103 CBFs are shown below:

	Number of Deficiencies	
	1974	1977
Minimum	0	0
Maximum	58.0	210.0
Range	58	210
Mean	17.1	35.1

Some CBFs are in full compliance with the regulations, but some have as many as 210 deficiencies. To further detail the range in numbers of deficiencies, Table 4.49 displays the average number of deficiencies by data collection category, by category groupings and by totals of 1974 and 1977 deficiencies.

The lower overall average for number of 1974 deficiencies is not unexpected; facilities have been required to be in compliance with the 1974 regulations or risk losing Medicaid dollars. The 1977 regulations are in effect now as a mechanism for facilities to reach full compliance by March 1977. The 1974 regulations are not as specific as the 1977 regulations are in certain areas. Within the 1977 category groupings, there is a notably high average number of deficiencies in the medical and rehabilitative service categories and in the written policies and records categories.

To explain some of these differences, we examined the number of deficiencies issued in relation to size of facility, ownership of facility, the ages served in the facilities, occupancy rates, costs, region, and the age of the facility.

Table 4.47

SHs: Deficiencies on 1974 ICF/MR Regulations,  
Average Numbers issued to all 8 SHs, by Category<sup>1</sup>

Category <sup>1</sup>	Average No. issued to all SHs
Program Services	1.1
Admissions and Treatment	.8
Staff, Administration	1.4
Health Services	.6
Dietetic Services	1.3
Drugs and Biologicals	1.5
Records	.5
Environment and Sanitation	5.4

<sup>1</sup>

Categories represent data collection categories listed earlier in this section.

Table 4.48

SHs: Deficiencies on 1977 ICF/MR Regulations,  
Average Numbers issued to all 8 SHs, by Category

Category	Average No. issued to all SHs
Written Policies and Practices	.5
Admissions and Release	1.4
Personnel Policies	.3
Staff/Resident Relationships and Activities	2.0
Hygiene and Clothing	.8
Living Unit	4.5
Resident Living Staff	1.3
General Program	.5
Dental Services	.3
Training and Habilitation	.3
Food and Nutrition	3.5
Medical Services	.3
Nursing Services	1.3
Pharmacy Services	2.3
PT, OT	.8
Psychological Services	.4
Recreation Services	.3
Social Services	.5
Speech Pathology and Audiology	1.0
Records	1.8
Safety	1.2
Administrative Support	.3



Table 4.49

103 CBFs: Average Number of Deficiencies by  
Category, Group, and Totals

Deficiency Type	Average Number of Deficiencies for CBFs	
74 Services	6.5	
Health Services		1.3
Drugs and Biologicals		2.6
Dietetic Services		.8
Program Services		2.0
74 Administration and Staff	4.4	
Staff and Administration		2.6
Records		1.8
74 Environment and Sanitation	5.2	
74 Admission and Treatment	1.2	
TOTAL 1974 DEFICIENCY AVERAGE		17.1
77 Medical Services	10.5	
Dental Services		1.7
Medical Services (physician)		1.7
Nursing Services		2.1
Pharmacy Services		5.0
77 Rehabilitative Services	4.4	
PT, OT		1.1
Speech Pathology and Audiology		1.6
Psychological Services		1.2
Social Services		.6
77 Training and other services	.6	
Training and Habilitation		.3
Recreation Services		.3
77 Policies and Records	11.1	
General Policies and Practices		2.4
Admission and Release Policies		2.6
Personnel Policies		1.9
Records		3.9
Administrative Support		.4
77 Resident Living	4.3	
Staff/Resident Relationships and		
Activities		2.0
Hygiene and Clothing		.3
Living Unit		1.8
Resident Living Staff		.3
77 Safety	2.0	
77 Food and Nutrition	1.7	
77 General Provisions	.6	
TOTAL 1977 DEFICIENCIES AVERAGE		35.1

## SIZE

Size of facility could account for variation in deficiencies issued to CBFs. The 103 CBFs ranged in size from 5 to 171 licensed beds. The size distribution is listed in Table 4.50.

Table 4.51 shows the average numbers of deficiencies received by CBFs in each size range. Table 4.51 shows that smaller CBFs have more deficiencies, on average.

To more precisely determine the magnitude of the relationship between size and number of deficiencies issued to facilities, Pearson product moment correlation was used. There was a negative correlation between total deficiencies and size for both 1974 and 1977 regulations, confirming the finding that smaller CBFs tended to have more deficiencies issued to them than did larger CBFs. This relationship was more pronounced between 1974 deficiencies and size.<sup>49</sup>

When size was tested, using the Pearson correlation, with groupings of deficiency categories, we found that size correlated negatively in all cases except for the 1977 grouping of "Resident Living," which includes deficiencies in living unit and resident requirements. Size correlated only slightly positively with resident living.<sup>50</sup>

These findings are not surprising in view of the general feeling that the ICF/MR regulations are more appropriate for larger, more medical types of facilities. The specificity of the regulations and the costs associated with meeting regulations may be explanatory factors.

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The specific statistics are:

### Correlation Coefficient

1974 Deficiencies	-.23
1977 Deficiencies	-.08

50

The specific findings:

<u>1977 Category Group</u>	<u>Coefficient</u>
Medical Services	-.06
Rehabilitation Service	-.08
Training and Other Service	-.16
Policy and Records	-.09
Resident Living	.01
Safety and Sanitation	-.19
Services	-.20
Administration and Staff	-.13
Environment and Sanitation	-.28

Table 4.50

## 103 CBFs by Numbers of Licensed Beds

# Beds	# ICF/MRs	# Beds	# ICF/MRs	# Beds	# ICF/MRs
5	-	1	23	-	2
6	-	14	24	-	2
7	-	4	26	-	1
8	-	8	27	-	1
9	-	5	30	-	4
10	-	11	31	-	1
11	-	1	34	-	1
12	-	1	36	-	1
13	-	4	37	-	1
14	-	2	41	-	1
15	-	17	42	-	1
16	-	1	44	-	1
20	-	1	45	-	1
				48	-
				54	-
				55	-
				59	-
				60	-
				61	-
				70	-
				108	-
				110	-
				113	-
				132	-
				171	-

Table 4.51

## 103 CBFs: Average Deficiencies Issued, by Facility Size

Licensed Beds		Average Deficiencies	
		1974	1977
1-16	(n=69)	19.4	38.4
1-10	(n=43)	18.7	35.7
11-16	(n=26)	20.7	37.9
17+	(n=34)	12.5	28.6
17-32	(n=12)	13.2	24.8
33-48	(n=10)	12.9	36.4
49-96	(n= 6)	14.0	29.6
97+	(n= 6)	9.0	22.0

## OWNERSHIP

CBFs are all privately owned, either by non-profit agencies or profit-making individuals or corporations. Of the 103 facilities, 68 were proprietary (profit-making), 35 non-profit. To determine whether numbers of deficiencies issued varied by ownership status, we used analysis of variance and found essentially no difference on either 1974 or 1977 regulations.<sup>51</sup> The average number of deficiencies for each type of ownership can be displayed as follows:

Ownership	Average Deficiencies	
	1974	1977
Profit (n=68)	17.3	37.8
Non Profit (n=35)	16.8	38.9

Analyzing ownership type by grouped categories revealed no variation in most categories. The category groupings showing some variation were 1974 Environment grouping and the 1977 Training, Rehabilitation, and Safety groupings. The average numbers of deficiencies issued to those facilities in these groupings only are shown below:

Category Groups	Average Deficiencies		Significance
	Profit	Non-Profit	
1977 Safety	1.8	2.4	.17
1977 Rehabilitation	5.1	2.9	.32
1977 Training	.7	.5	.36
1974 Environment	5.3	4.7	.4

In all of these cases except the 1977 Safety category, non-profit facilities had fewer deficiencies, on the average. The relationship between type of ownership and number of deficiencies was not strong, however. In the overall picture, as discussed earlier, there was essentially no variance between the number of deficiencies received by CBFs that can be accounted for by different ownership of the facilities.

## OCCUPANCY RATE

Occupancy rate data, or the numbers of licensed beds actually used by facility residents, were gathered for the same 50 CBFs that had established cost histories. The average numbers of deficiencies by occupancy rate are shown in Table 4.52, revealing no clear linear relationship.

<sup>51</sup>		1974	1977
Specifically: F		.05	.02
Significance		.82	.89

Table 4.52

50 CBFs: Average Number of Deficiencies  
on 1974 and 1977 ICF/MR Regulations,  
by Occupancy Rate

Occupancy Rate	Average Deficiencies	
	1974	1977
50% and under (n=1)	17.2	35.4
51-70% (N=3)	14.3	20.3
71-90% (N=9)	16.8	33.7
91-93% (N=4)	31.5	73.0
94-95% (N=4)	8.3	12.8
96-97% (N=8)	13.1	20.5
98-99% (N=7)	14.0	26.4
100% (n=14)	19.6	45.9

## COST

Cost data available for 50 CBFs, analyzed and described in Section A of this chapter, were correlated with number of deficiencies. We found a significant negative correlation between total costs and deficiencies, using 1974 deficiencies and 1977 deficiencies.<sup>52</sup> Thus, of the 50 facilities, those that had higher costs tended to have fewer deficiencies; those that had lower costs tended to have more deficiencies. The same negative relationship was found when costs were related to deficiencies disaggregated by category.

## FACILITY AGE

In our study, facility age is defined as the number of years the facility has been in operation as an ICF/MR. A division between those facilities that had been in operation two years or less and those that had been in operation for over two years was made. Facilities over two years of age were those that had cost histories. Other facilities with interim or start-up cost data were considered to be new, or 0-2 years of operation. Data on this variable were unobtainable for 14 facilities.

The average number of deficiencies on 1974 regulations and 1977 regulations by facility age is as follows:

Facility Age	Average Deficiencies	
	1974	1977
0-2 years in operation (n=16)	16.7	25.8
2+ years in operation (n=74)	17.4	36.6

Some variation was found when ANOVAs were computed by facility age and number of deficiencies. There was essentially no variation in numbers of 1974 deficiencies by facility age, but for the 1977 deficiencies, older facilities tended to have more deficiencies than newer facilities.<sup>53</sup>

52

Specifically, the correlation is:

Deficiencies	Coefficient	Significance
1974	-.38	.003
1977	-.31	.01

53

The specific ANOVA results are:

Deficiencies	F	Significance
1974	.05	.82
1977	1.08	.30

Variation between categorical groupings of deficiencies revealed a similar pattern: there was some variation by facility age, especially for 1977 deficiencies. Older facilities tended to have more deficiencies in the following categories: for the 1977 General Policy and Practices category, 1977 Resident Living category, and the 1974 Services category. Newer facilities tended to have more deficiencies on: 1977 Environment category and the 1977 Safety category. In other categories there was little variation.

#### AGES SERVED

20 of the 103 facilities served only children, 76 served only adults and 7 served both children and adults. To determine whether average numbers of deficiencies were related to the ages served in the facilities, analysis of variance tests were run on the data.

Numbers of deficiencies varied among the three categories, as shown below.<sup>54</sup>

Ages Served	<u>Average Deficiencies</u>	
	1974	1977
Children only, 0-21 years (n=20)	12.0	24.4
Adults only, > 16 years (n=76)	18.9	39.3
Children and Adults (n=7)	12.6	19.1

Facilities for adults only had the highest average number of deficiencies. This difference was also evident for categorical groupings of deficiencies. Exceptions were noted in two categories: 1974 Environment and 1977 Safety categories showed slightly higher average deficiencies for facilities serving both children and adults.

#### REGION

CBFs located in different regions varied widely in average number of deficiencies on 1974 and 1977 regulations, as shown below:

<sup>54</sup>

The ANOVA produced these statistics:

Deficiencies	F	Significance
1974	3.3	.04
1977	1.9	.15

Region	<u>Average Deficiencies</u>	
	1974	1977
1	14.5	21.8
2	30.3	28.3
3	11.1	17.9
4	37.8	100.3
5*	-	-
6	26.1	68.2
7	18.9	29.4
8	15.3	38.9
9	18.0	42.8
10	7.9	16.9
11	10.9	17.3

In most cases the highest deficiency averages were in Region 4. Reasons for the disparity in average deficiencies among regions fall into two categories: real differences associated with facility characteristics such as size, and non-real differences, associated with possible differences between evaluators in various Regions. Time did not permit us to explore further the possible reasons for these interregional differences.

Analyses of variance confirmed regional differences in 1974 and 1977 deficiencies, and in each categorical grouping. In all cases the magnitude of difference between the means was extremely great, with significance beyond the .00001 level.

#### c. Deficiency Study: Discussion and Comparisons

Conclusions that can be drawn from deficiency data gathered at one point in time must be qualified. First, deficiencies are issued to facilities which are then given time to plan for and carry out corrections. Thus, our data do not reveal whether these deficiencies have been corrected. Time series data could show deficiencies corrected, deficiencies continued, and new deficiencies. Second, the numbers and types of deficiencies do not reveal the extent of the problem: e.g., if it was a policy deficiency, was it due to the policy's non-existence, non-implementation, or its not having been written out properly? More detailed study of the deficiencies cited and the plans for corrections would be necessary to adequately assess this factor. Third, a difference was noted in the styles of reporting and recording deficiencies. Some evaluators cited a facility in a particular area, explaining all issues of non-compliance in a single citation, while others cited each issue separately. In some cases this could reveal severity of non-compliance, but in other cases, this revealed differences in inter-rater and intra-rater reporting and recording styles.

\*Note: There are no CBFs in region 5.



Our data revealed certain trends. First, numbers of deficiencies for the eight SHs all fell within a relatively small range, from 9 to 18 on the 1974 regulations. CBFs varied greatly, however, from 0 deficiencies to 58 on the 1974 regulations and from 0 to 210 on the 1977 regulations. CBFs had higher average numbers of deficiencies on both 1974 and 1977 regulations, as shown below.

	Average Number of Deficiencies			
	1974		1977	
	SH	CBF	SH	CBF
Minimum	9	0	14	0
Maximum	18	58	39	210
Range	9	58	25	210
Mean	12.5	17.1	24.8	35.1

The wide variation in number of deficiencies among CBFs is reason for concern about those in the highest ranges.

Certain variables (i.e., size, ownership, costs, occupancy rate, facility age, ages served, and region) were hypothesized as possibly explaining the variation among CBFs. We found that deficiencies were related to size, with smaller CBFs averaging more deficiencies than larger. One exception to this was that smaller CBFs tended to have slightly fewer deficiencies on Resident Living regulations. This is not a marked trend, but is consistent with the fact that SHs, which are all large, received more deficiencies in the Resident Living category than in any other category. Deficiencies virtually did not vary at all by different ownership status, and only moderately by facility age. The ages a CBF served accounted for moderate variations in deficiencies, with adult-only facilities tending to receive slightly higher averages. Numbers of deficiencies were not related to occupancy rate. Costs and numbers of deficiencies were negatively related.

Most significant by far in our study was the wide inter-regional variation in average numbers of deficiencies. We hypothesize that this variation could be due to a number of real factors such as cost or size and/or to non-real factors such as lack of inter-rater reliability.

## 2. Findings: Provisions Study

### a. SHs Provisions

Results of a recent DPW study<sup>55</sup> on the extent of

<sup>55</sup>

DPW Rule 34 Provision Analysis done by Christine J. Heath, DPW Mental Retardation Program Division, 8-31-76.

standards compliance indicate that SHs have trouble meeting some requirements. The requirements in question were those of Rule 34 (see Chapter II D 3 for explanation of Rule 34). The study shows that of 42 SH units eligible to receive Rule 34 licenses, 18 had current provisional licenses, 9 were in the process of being issued provisional licenses, one unit had lost its license due to non-compliance with Rule 34 standards, and for 14 units license renewal had not been decided because of Rule 34 compliance problems. The DPW study examined only the 18 SH units with current provisional licenses.

SHs can operate with provisional licenses, provided attempts are made to correct provisions within deadlines. Without Rule 34 licensure, Health Department licensure and federal certification for the SH unit are in jeopardy. Since SHs must operate within legislative appropriations, compliance with provisions cannot always be accomplished within the required time period, if at all.

Only limited conclusions can be drawn from the DPW study. As mentioned previously, the licensing process is dependent on human judgements and thus can reflect differences in documenting and issuing provisions, reporting style, and other inter- and intra- licenser differences. As is evident from Table 2.17, Rule 34 is based on, and most of its requirements reflect, the principle of normalization. It looks at the processes of programming and the physical configurations that either help or hinder in the provision of developmental programming in a normalized environment. Thus, it is no surprise that our SHs, with their histories of large size and institutional-type care patterns, have trouble complying with Rule 34: unless a large facility takes special care to avoid it, its size can result in institutionalization, which is the antithesis of normalization. Because the DPW analysis did not consider the types of provisions issued on provisional licenses, a clear reflection of SH and CBF quality differences is not possible. What is apparent, however, is that SHs still have changes to be made before their full compliance with DPW Rule 34 is possible.

#### b. CBFs Provisions

DPW's study of provisional Rule 34 licenses<sup>56</sup> also studied CBF Rule 34 licenses. Of 130 CBF units with Rule 34

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56

DPW Rule 34 Provision Analysis done by Christine J. Heath, Mental Retardation Program Division, 8-31-76.

licenses,<sup>57</sup> 50 had provisional licenses, while 80 CBFs had full Rule 34 licenses with no provisions. The 50 facilities with provisional licenses have a total licensed capacity of 1,311 beds, while the 80 fully licensed facilities have a licensed capacity of 1,644 beds. Of the 50 facilities with provisional licenses, 30 had a licensed capacity greater than 15; this represents 75% of the Minnesota CBFs with licensed capacities greater than 15. Of the 70 smaller Minnesota facilities (those with a licensed capacity of less than or equal to 15 beds), 20 (28%) have provisional licenses. This indicates a tendency for larger CBFs to have greater problems meeting Rule 34 requirements.

Between non-profit and proprietary CBFs, no significant difference was found in the number of provisional licenses issued. One CBF had a unit whose license was not renewed for non-compliance reasons.

The same limitations apply to conclusions that can be drawn from this information as to the SH provision study data. The inter- and intra- licensor differences and the lack of knowledge of type of provisions issued severely limit the conclusions that can be drawn. The fact that larger CBFs had more provisional licenses could be a result of the normalization base of Rule 34, but this is supposition. It is evident that, overall, CBFs have fewer Rule 34 compliance problems than do SHs.

### 3. JCAH Accreditation: SHs only

JCAH accreditation status, discussed in Chapter II D 3, permits a facility to indicate its quality as measured against non-governmental nationally recognized standards and is reported to help in attracting professional staff, particularly doctors. As of August, 1976, the JCAH-accreditation status of Minnesota SH MR units was:<sup>58</sup>

<u>SH MR Units</u>	<u>Accreditation Status</u>	<u>Date of Accreditation</u>	<u>Bed Capacity</u>
Fergus Falls SH	2 years	3/2/76	332
Moose Lake SH	1 year	3/2/76	147
Rochester Social Adaptation Center	1 year (continued)	3/8/75	175

<sup>57</sup>

MR CBF facilities with Rule 34 licenses as of July, 1976, receiving Medicaid, taken from DPW list entitled "Data Collection Information."

<sup>58</sup>

From chart entitled "State Hospital Accreditation Status" August 1976 obtained from DPW Residential Services Division. Retardation Program Division, 8-31-76.

(continued)

<u>SH MR Units</u>	<u>Accreditation Status</u>	<u>Date of Accreditation</u>	<u>Bed Capacity</u>
Minnesota Valley Social Adaptation Center (St. Peter SH)	Denied (has reapplied Feb. 1976)	11/15/74	293
Glacial Ridge Training Center (Willmar SH)	2 years	3/2/75	223
Brainerd SH	Denied	3/11/76	799
Cambridge SH (minus 25 Medical beds)	In Process		698
Faribault SH (minus 35 Medical, SNF beds)	Denied	9/15/75	1070

Accreditation reflects only the fact that some of Minnesota's SH MR units have demonstrated compliance with the standards of the national independent professional organization. In addition to reportedly facilitating recruitment of professional staff, JCAH accreditation saves a SH some of the staff time and effort that would otherwise be required for Medicare certification. Other requirements, such as utilization review, are still necessary, but the actual full Medicare hospital survey need not take place: a psychiatric survey and the accreditation fulfill the survey requirement.

JCAH accreditation cannot be used to compare SHs and CBFs, however, since MR/CBFs have not been surveyed by JCAH.

#### 4. Welsch vs Likins: SHs

An additional indication of the problems that SHs have in meeting requirements for the health and safety of their residents was a decision in the case of Welsch vs Likins 373F. Supp. 487 (D. Minnesota 1974), a class action suit brought against Cambridge SH and the state agencies with oversight authority. In this case, concerning MRs, Judge Larson ruled that "...the court has found that they are inadequately housed, equipped, fed, treated, and cared for, and that their very safety is imperiled by their surroundings and by lack of adequate staff." The Judge specified specific staff ratios and physical plant changes. This case is not yet settled; the decision has been challenged and appealed. The end result of the case is not as important as the documentation of some of the problems of DI. As MRs move out, SHs are geared down and problems result in the interim stages: SHs, some with old or out-dated physical plants, struggle along on reduced budgets; inadequate staffing patterns result. The point is that quality must still be maintained in facilities, even if the eventual aim is shut-down. Given the current DI system it is crucial to set firm policies on what to do now and how to proceed in the future.

## 5. Comparisons: SHs vs CBF Quality of Care for MRs

The concept of quality of care is, as we have discussed, not easily quantified. Minnesota has attempted, however, to quantify the concept by monitoring its long term care system for compliance with set input standards. Our analysis of this monitoring process reveals variation among facilities in the extent of their compliance with these standards.

In comparing quality of care in SHs and CBFs, it is obvious that the two systems operate under different constraints, even though the aims and some of the standards are the same. For example, Rule 34, the program rule for MRs, is unique in that it applies both to CBFs and SHs; Minnesota was the first state to apply identical program standards to CBFs and SHs.<sup>59</sup> Most states assume that state-run facilities meet standards because they are run by the state. This is not necessarily the case, because SHs can work only within the limits of legislative appropriation. Since CBFs operate under a reimbursement mechanism that is based on standards compliance, they can respond to provisions or deficiencies rapidly.

In fact, it is possible in Minnesota for a CBF to be opened without being in full compliance, but with the intent of coming up to compliance, and "passing through" the costs of improvement to the Medicaid program by means of DPW Rule 52. SHs, on the other hand, get a single appropriation for the year. If substantial changes must be financed, the legislature must be approached for a supplementary appropriation which, if denied, can result in problems. For example, in the case of Rule 34 compliance, the result is a situation where one part of DPW is in conflict with another. Just as MDH does not fine another state entity in its licensing process, so it is difficult for one segment of a department to advocate shutting down a facility overseen by another segment when the real problem might lie in the financing mechanism.

Funding mechanism differences thus can be seen as impacting on quality of care. If a facility is able to respond to cited deficiencies because it is assured of the necessary financial support, it logically follows that it can approach quality, as measured by standards compliance, relatively quickly. However, since SHs have limited funds and since the funding of SHs is not contingent on their compliance with Rule 34, actions to meet that standard would almost surely have lower priority than changes necessary to meet federal ICF/MR standards, which have clear financial incentives.

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<sup>59</sup>Interview with Ardo Wrobel, Director, DPW MR Program Division, July 27, 1976.

While there may be problems, as we discuss above, with the current standards of quality and with implementation of these standards, they are the only standards we have; quality defined in terms other than standards is even more difficult to assess. The lack of information on the effects of various environments on various disabilities is a major constraint. SHs have been around longer than CBFs, and as a result can be expected to have greater experience at hand; an equally likely result, however, is that certain staff attitudes may be more rigid, institutionalized, and geared towards efficiency issues due to the larger nature and, in some cases, outdated facilities. The rapid growth of CBFs, on the other hand, makes it hard for quality assurance efforts to even keep track of all aspects of quality.

Overall, services to MRs in Minnesota appear to be of acceptable if not exemplary quality. This is not to say that the system is the "best" it could be: many changes do need to be made. In general, however, since MR facilities in this state are measured against the relatively tough ICF/MR regulations (especially regarding health and safety of residents) and a common program rule (especially regarding normalized environments), the minimum levels of quality appear to be rising.

One way to address quality, once adequate staffing, health, and safety are ensured, is to look at the appropriateness of placements of Medicaid recipients in the long term care system. Minnesota DPW has determined that almost all non-ICF/MR placements are inappropriate for MRs under 65, unless a skilled level of nursing care is needed. One measurement of the appropriateness of the level of care for individual Medicaid MRs is the judgement of the Quality Assurance and Review (QA&R) teams as they assess Medicaid residents. In the 1975 QA&R survey, the level of care was felt inappropriate for 282 of the 1423 MR residents of SNFs and ICFs;<sup>60</sup> the recommended change was to an ICF/MR. Approximately 10% of these recommendations were carried out. In the 90% of the cases where recommendations were not followed, the recommended change in level of care was felt to be harmful to the resident physically, socially, or psychologically; or the appropriate facility was too far away from family or friends; or a discharge plan had not been formulated to accomplish the change. In some cases, other reasons were given for not changing placements, such as: non-practicality of the move, facility disagreement with the recommendations; parents or MRs themselves who did not want to move, etc.

What this information shows is that, overall, MR Medicaid recipients in the Minnesota long term care system are in appropriate levels of care. A 1975 follow-up study of the

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<sup>60</sup>QA&R Summary Report 1975, p. 103.

inappropriate placements identified by the 1974 QA&R reached the conclusion that the problem was not of great magnitude, but rather was a problem of unclear perceptions of responsibilities and other management-related difficulties in the placement process.<sup>61</sup> The continuation of placements deemed inappropriate by the QA&R survey indicates a need for examination of the placement process, perhaps with an eye towards a preplacement review mechanism not only to avoid too-costly placements but to facilitate placements that are better able to meet the needs of MRs.

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<sup>61</sup> Gordon C. Krantz. "Mentally Retarded Persons Reported to be in Non-MR Residential Placement in Minnesota." A Report to the Minnesota Department of Public Welfare. December, 1975.

#### D. Findings: LTC for the Elderly

Cost and other data for nursing homes were obtained from the Cost Analysis and Field Audits section of the DPW Bureau of Support Services in July, 1976. Yearly cost reports filed by each reimbursed facility are approved by DPW auditors and the information transcribed onto coding sheets. Although a computer printout of these costs and other data was available from DPW, these data were aggregated by region, type of ownership, and level of care. For purposes of statewide analysis and alternative groupings, we obtained data from the original coding sheets. Other data, e.g., total patient days, welfare patient days, type of ownership, occupancy rate, and level of care in each facility, were obtained from the DPW cost reports. Additional data on staffing and deficiencies for these nursing homes were obtained from MDH.

##### 1. Descriptions of Nursing Homes in Minnesota - Level of Care

The 416 Minnesota nursing homes with DPW cost reports are categorized using a combination of state and federal definitions. Facilities from a federal perspective are: Skilled Nursing Facility (SNF) and Intermediate Care Facility (ICF). This latter category was formerly disaggregated further at the federal level into ICF-I and ICF-II, in order of decreasing level of care. Although this distinction is no longer recognized by the Medicaid program, Minnesota's DPW has retained it for reimbursement purposes. A facility certified as an ICF and licensed by MDH as a Boarding Care Home (BCH) is designated ICF-II; a facility certified as an ICF and licensed by MDH as a nursing home is designated ICF-I. Thus, although both these types of facilities are meeting the identical federal requirements, they are differentiated in reimbursement. For this reason our study describes three types of nursing home care: SNF, ICF-I, and ICF-II.

A nursing home (NH) is certified for one or more levels of care if it meets the appropriate federal qualifications (see Chapter II D 3). Once certified, the NH can admit MA residents designated by their physicians as requiring that or a lower level of care.

Skilled Nursing Care is the highest level of LTC and should be reserved for patients needing round-the-clock staffing by licensed nurses. Four types of patients justify this level of care, those needing:<sup>61</sup>

- 1) restoration to independent living or lower level of dependency,
- 2) optimum care for unstable disease states,
- 3) complex nursing treatment modalities, or
- 4) constant complex management.

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<sup>61</sup>QA&R, pp. 28-29.



Several factors may prevent the proper placement of patients in a lower level of care and result in misuse of SNF beds, e.g., unavailability of space in the appropriate level of care, preference for certain facilities by residents and families, and scarcity of proper bed space within reasonable traveling distance of relatives and friends.

There has been controversy over this SNF classification, stemming from the implication that other types of health care are "unskilled": "The term skilled seems to imply limitations and exclusions in those areas of service which are central to standards of competence and to the achievement of excellence in the quality of health care which is an essential need in the whole population."<sup>62</sup> "Skilled" care, it is argued, is immeasurable and undefinable from the perspective of the total needs of the chronically ill LTC residents.

Intermediate Care Facilities are staffed by licensed nurses 8 hours per day, 7 days per week and on call during the other two shifts. This level of care "is sufficient for patients with relatively stable disease and disability states requiring services and management by licensed nurses which can be given satisfactorily during daytime hours.... Emphasis in nursing care goals is on optimum maintenance of stability of disease and disability, and prevention of institutional deterioration."<sup>63</sup>

Level of care is a significant facility characteristic in a study of Medicaid cost-containment since, as we discuss above, reimbursement formulas recognize the differentiation. The costs associated with the requirements of higher levels of care are taken into consideration by Rule 49.

#### - Levels Within Facilities

The 3 basic levels of care (SNF, ICF-I, and ICF-II) can be provided in NH facilities either singly or in combination; thus we examine 4 types of facilities in terms of level of care mix: SNF Single (SNF care only), ICF-I Single (ICF-I care only), ICF-II Single (ICF-II care only), and Total Mixed (which includes all facilities offering more than one level of care). In addition, because some of the data were available by level of care within a facility, we were able to further refine the Total Mixed category for some of the analyses, as follows: SNF Mixed (the data relevant for SNF care in a facility offering more than SNF care), ICF-I Mixed (the data relevant for ICF-I care in a facility offering more than ICF-I care), and ICF-II Mixed (the data relevant for ICF-II care in a facility offering more than ICF-II care).

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<sup>62</sup>Senate Committee, April 1975. "Nurses in Nursing Homes..."

<sup>63</sup>Ibid, p. 29.

We refer to a unit as one level of care in a nursing home, whether it be a facility which offers only one level of care or one level of care within a facility offering more than one level of care. For example, a facility offering SNF and ICF-I care has 2 units.

Data were analyzed by level of care, facility type, and unit. For example, costs were first analyzed by level. Significant results here prompted additional analysis by unit, to determine if costs varied between Single and Mixed units within the same level. Limitations of some data, e.g., occupancy and staffing, precluded analysis by unit. In such cases, the data were recorded only by facility, not accounting for multiple levels.

Tables 4.53 and 4.54 show numbers of Minnesota NH facilities and units, respectively. There are 414 NHs with 600 units or levels of care. SNF care only is offered in 88 facilities, ICF-I care only is offered in 133 facilities, and ICF-II care only is offered in 30 facilities. There are 163 facilities which offer more than one level of care.

#### - Ownership

NH ownership can be categorized as either proprietary (P), nonproprietary (NP), or governmental (G) (county or state), as recorded in DPW Nursing Home statistics. We hypothesized that ownership might contribute to cost differences. Of the 416 reimbursed nursing homes, there were 174 (42%) proprietary, 174 (42%) non-proprietary, and 68 (16%) governmental. Of the 68 government-owned, 2 were state owned and 66 county-owned. The average numbers of beds were as follows: P = 73, NP = 74, and G = 66.

#### - Region

Minnesota NHs are also categorized according to location, namely the eleven regions in the state as designated for regional planning and economic purposes. Table 4.55 shows numbers of NHs in 1974, by type of facility and region.

#### - Size of Facility

We divided Minnesota NHs into five size categories for analytic purposes: 30 or fewer beds, 31 - 60 beds, 61 - 100 beds, 101 - 150 beds, and over 150 beds. Table 4.56 shows the distribution of NHs by size. Table 4.56 reveals that the majority of facilities are concentrated in the middle ranges, with fewer very large and very small facilities. Distributions by level of care, however, do not maintain this pattern, as Table 4.57 shows.

Table 4.57 shows a general relationship between size of unit and level of care. The median ranges of number of beds by unit are: SNF, 61-100 beds; ICF-I, 31-60 beds; ICF-II, 30 or fewer beds. Although there is considerable variability within each level, as level of care decreases so does the median unit size, in general.

TABLE 4.53  
414 Minnesota NHs: Number of Each Type of Facility

Type of Facility	Number of Facilities
SNF Single	88
ICF-I Single	133
ICF-II Single	30
<u>Total Mixed</u>	<u>163</u>
<u>Total</u>	<u>414</u>

TABLE 4.54  
600 Minnesota NH Units: Number by Level of Care

Level of Care	Number of Units
SNF:	
Single	88
Mixed	121
<u>Total SNF</u>	<u>209</u>
ICF-I:	
Single	133
Mixed	139
<u>Total ICF-I</u>	<u>272</u>
ICF-II:	
Single	30
Mixed	89
<u>Total ICF-II</u>	<u>119</u>
<u>Total Units</u>	<u>600</u>

TABLE 4.55  
Minnesota NHs: Type of Facility by Region

Region	Type of Facility				Regional Total
	SNF Single	ICF-I Single	ICF-II Single	Total Mixed	
1	5	8	3	6	22
2	2	5	1	-	8
3	11	9	1	11	32
4	3	11	1	15	30
5	1	8	1	6	16
6	3	14	2	9	28
7	16	5	2	9	32
8	5	16	-	9	30
9	4	16	1	10	31
10	16	9	2	22	49
11	20	31	15	66	132
Total	86	132	29	163	412

TABLE 4.56  
Minnesota NHs: Number of Facilities by Size  
Size of Facility  
(Number of Beds)

	Number of Facilities
≤ 30	34 (8%)
31 - 60	95 (23%)
61 - 100	150 (36%)
101 - 150	82 (20%)
> 150	53 (13%)
Total	414 (100%)

TABLE 4.57  
600 Minnesota NH Units: Level of Care Units by Size of Unit

Size of Unit (No. of Beds)	Level of Care Units		
	SNF	ICF-I	ICF-II
≤ 30	21 (10%)	65 (24%)	61 (51%)
31 - 60	61 (29%)	93 (34%)	34 (29%)
61 - 100	77 (37%)	90 (33%)	12 (10%)
101 - 150	31 (15%)	22 (8%)	8 (7%)
> 150	19 (9%)	2 (1%)	4 (3%)
Total	209 (100%)	272 (100%)	119 (100%)

- Occupancy Rates

Minnesota NHS average 92.1% occupancy rate overall, ranging from 30% to 100%. We divided occupancy rates into eight categories and found a distribution by level as shown in Table 4.58.

Results indicate an overall relationship between level and occupancy. As 93% occupancy is used as a break-even incentive point in Rule 49, this seems an appropriate figure to use here as well. The percentages of homes operating below 93 percent capacity are: SNF single - 17%, ICF-I Single - 32%, ICF-II Single - 60%, Total Mixed - 38%. Thus, the more intense the level of care provided, the more likely that the facility is above the capacity eligible for occupancy incentives. The respective means illustrate the trend: 94.68, 92.30, 88.49, 92.26. The financial incentive related to the 93% occupancy rate appears to work better for SNFs and ICF-Is than for ICF-IIs.

See Appendix F for further descriptions of Minnesota nursing homes.

TABLE 4.58  
414 Minnesota Nursing Homes:  
Type of Facility by Occupancy Rate

Occupancy Rate	Type of Facility							
	SNF Single		ICF-I Single		ICF-II Single		Total Mixed	
	N	%	N	%	N	%	N	%
30 - 50%	2	2	3	2	2	7	1	1
50.1 - 70.0	1	1	1	1	1	3	3	2
70.1 - 90.0	5	6	24	18	10	33	36	22
90.1 - 93.0	7	8	14	11	5	17	21	13
93.1 - 95.0	20	23	17	13	3	10	24	15
95.1 - 97.0	25	28	20	15	1	3	32	20
97.1 - 99.0	23	26	44	33	2	7	35	21
> 99.0	5	6	10	8	6	20	11	7
Total	88	100	133	101 <sup>1</sup>	30	100	163	101 <sup>1</sup>

<sup>1</sup>Percents may not equal 100 due to rounding.

## 2. Costs of Nursing Homes in Minnesota

NH costs are reported in yearly totals and it was necessary to convert all the costs to per diem amounts to control for size of facility and to make comparisons. The per diem figures were derived by dividing the seven variable cost categories for each facility (Nursing Salaries and Wages, Other Nursing Costs, Other Care Services, Dietary, Laundry and Linen, Housekeeping, and Plant Operations) by the number of total patient days for that facility, and by dividing the three fixed cost categories (Property and Related Expenses, General and Administration, and Earnings Allowance) by the number of capacity days certified as eligible for Title XIX (total certified bed capacity times number of days applicable).

All of our cost figures were taken from cost reports filed for each facility's fiscal year in 1974. Reports for FY 1975 were still in the auditing process and not available to us.

Although more recent figures would have been preferable, 1974 costs seemed acceptable for several reasons: nursing homes are not starting up at the same high rate as are ICF/MRs and it was assumed that general trends, (e.g., type of ownership, region, size), would not be significantly different from the one year period.

Cost data used in this report represent 414 of the total universe of 416 nursing homes reimbursed for 1974. One facility with fewer than 30 licensed beds chose to receive a flat per diem rate in lieu of filing a Rule 49 cost report; one other cost report was not available.

We hypothesized that NH costs would vary by level of care, and that within levels of care, other variables would affect cost in different ways. We compared single vs. multi-levels of care offered by facilities, ownership, location, size, occupancy, and staffing ratios. Our findings are presented below.

NH costs were first analyzed by level of care and, as would be expected (see table 4.59), the higher the level of care, the higher the total cost. This trend also holds generally within the cost categories.

We further disaggregated average per diem costs by units

TABLE 4.59

Minnesota Nursing Homes: Average Per Diem Cost for Levels of  
Care by Cost Category

Cost Category	Level of Care		
	SNF	ICF-I	ICF-II
Nursing Salary & Wages	\$6.35	\$4.70	\$1.70
Other Nursing Costs	.33	.23	.07
Total Nursing Costs	7.94	5.25	2.09
Other Care Costs	.34	.29	.29
Dietary	2.87	2.63	2.64
Laundry & Linen	.50	.44	.30
Housekeeping	.64	.57	.56
Plant Operations	1.19	1.12	1.11
Property	2.06	1.77	1.32
Gen. & Administrative	2.78	2.27	1.50
Earnings Allowance	.59	.53	.30
Total Cost	\$17.68	\$14.47	\$9.84
Reimbursement	\$19.21	\$15.66	\$10.49

of care; little difference was found between single and mixed level facilities:

SNF Single	\$17.85
SNF Mixed	\$17.45
ICF-I Single	\$14.68
ICF-I Mixed	\$14.24
ICF-II Single	\$ 9.67
ICF-II Mixed	\$10.33.

We hypothesized that ownership would have an effect upon facility costs; this relationship was partially supported by the data shown in Table 4.60: NP had the lowest per diem cost regardless of level of care. For ICF-I and II levels of care, P had the highest per diem, but for SNF, G was the highest.

Table 4.61 examines average total per diem NH costs for each level of care by region. The regional averages vary considerably within each level of care. The urban areas, Regions 3 and 11, were segregated in rate determination because of assumed higher costs in an urban economy. Table 4.61 shows that urban costs were generally higher (except for the ICF-II level, where the average costs in Regions 1 and 2 were higher than in other regions).

Table 4.62 shows that average total per diem costs were higher for the smaller as well as the larger units. For SNF and ICF-I units, the highest average costs were for the largest size units. However, the relationship does not appear to be linear; the lowest average per diems were found in the middle of the size range (as were the majority of the facilities). For ICF-II, however, the trend is not as clear.

If the lower nursing home costs reflect economies of scale, then economies of scale exist for units having 60 to 100 beds. Units larger than this appeared to have reached a point of diminishing returns.

Average total per diems were also analyzed by occupancy rates. Results, shown in Table 4.63, show no discernible trends.

For staffing ratios, we would have expected that, for a given level of care, the higher the staff-to-patient ratio, the higher the cost. However, our analysis did not show this to be the case. Table 4.64 shows that, especially for direct care staff in ICF-I Single units, the higher the staff-to-patient ratio, the lower the total cost.



TABLE 4.60

Minnesota Nursing Homes: Total Per Diem Cost for Level of  
Care by Ownership

Ownership	Level of Care		
	SNF	ICF-I	ICF-II
Government (G)	<u>\$17.76</u>	\$13.79	\$9.57
Proprietary (P)	17.29	<u>14.71</u>	<u>9.64</u>
<u>Non-Proprietary (NP)</u>	<u>16.85</u>	<u>13.26</u>	<u>9.24</u>
Total	\$17.19	\$13.96	\$9.38

Table 4.61

600 Minnesota NH Units: Average Total Per Diem Costs for Level  
of Care by Region

REGION	Level of Care					
	SNF		ICF-I		ICF-II	
	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
1	\$17.00	9	\$13.46	13	\$11.43	7
2	14.50	2	11.80	5	16.00	1
3	20.27	22	17.94	16	11.20	5
4	15.50	10	12.04	26	8.90	11
5	16.40	5	12.86	14	8.75	4
6	14.00	10	12.52	21	8.43	7
7	16.36	22	12.64	11	8.22	9
8	15.00	6	12.56	25	7.80	10
9	14.92	13	13.25	24	8.33	6
10	15.71	34	13.23	26	9.53	15
<u>11</u>	<u>18.55</u>	<u>76</u>	<u>15.46</u>	<u>90</u>	<u>9.91</u>	<u>44</u>
Total	\$17.19	209	\$13.96	271	\$9.38	119
Range	\$ 6.27		\$ 6.14		\$ 8.20	

Table 4.62

599 Minnesota NH Units: Total Per Diem Costs by Level of  
Care and Number of Beds

Size of Unit	Units					
	SNF		ICF-I		ICF-II	
	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>	<u>Mean</u>	<u>N</u>
≤ 30	\$17.43	21	\$14.75	65	\$9.69	61
31- 60	17.30	61	13.92	93	8.88	34
61-100	16.29	77	13.22	90	9.08	12
101-150	17.10	31	14.57	21	9.88	8
<u>&gt;150</u>	<u>20.42</u>	<u>19</u>	<u>16.50</u>	<u>2</u>	<u>8.75</u>	<u>4</u>
Total	\$17.19	209	\$13.96	271	\$9.38	119

Table 4.63

Minnesota Nursing Homes: Average Total Per Diem Costs for Level  
of Care by Occupancy Rate

Occupancy Rate		Level of Care							
		SNF-Single $\bar{X}$	N	ICF-I Single $\bar{X}$	N	ICF-II Single $\bar{X}$	N	Total $\bar{X}$	Mixed N
30 -50%		\$15.50	2	\$12.67	3	\$12.00	2	\$10.00	1
50.1-70%		19.00	1	14.00	1	8.00	1	15.00	3
70.1-90%		18.80	5	14.79	24	9.40	10	14.44	36
90.1-93%		18.86	7	13.50	14	11.20	5	14.67	21
93.1-95%		16.95	20	12.88	17	8.00	3	13.08	24
95.1-97%		16.60	25	14.15	20	11.00	1	14.09	32
97.1-99%		16.65	23	13.43	44	11.00	2	13.29	35
>99%		15.80	5	13.40	10	9.67	6	14.82	11
Total		\$16.95	88	\$13.71	133	\$ 9.90	30	\$13.96	163

Table 4.64

Minnesota NHs: Cost as Correlated with Staff-to-Patient Ratios,  
by Facility Type

Type of Facility	Staff-to-Patient Ratios		
	Total Staff	Direct Staff	Indirect Staff
SNF Single	$r=.07$ (Sig=.26)	$r=-.02$ (Sig=.42)	$r=.17$ (Sig=.06)
ICF-I Single	$r=-.19$ (Sig=.01)	$r=-.21$ (Sig=.01)	$r=-.13$ (Sig=.06)
ICF-II Single	$r=-.01$ (Sig=.47)	$r=.06$ (Sig=.33)	$r=-.13$ (Sig=.24)

### 3. Staffing Patterns of Minnesota Nursing Homes

Manpower data for nursing homes were taken from the Application for License to Operate a Hospital and/or Related Institution, 1976, filed with the Health Department by each facility. This form recognizes 17 major staffing categories. We altered these categories by eliminating those which were not applicable to nursing homes (e.g., physician services, physician extender, and other specialists), disaggregating those which have a greater impact on patient care (e.g., therapeutic services were divided into occupational therapists, physical therapists, etc.), and combining those we felt offered no relevant distinction for our purposes (e.g., health education and medical records services).

From the application, we took both full-time staff and part-time hours. Total manpower hours for each category were then derived by multiplying the number of full-time staff by 36 hours and adding this to the number of part-time hours. Discrepancies between the number of homes for the cost data and the number of homes for staffing data are a function of different data bases (DPW, MDH).

For all Minnesota nursing homes combined, regardless of size, we found the average numbers of weekly hours by staffing category to be as shown in Table 4.65. For analysis, we grouped the eighteen categories as shown in Table 4.65, into two broader categories: Direct Patient Care Staff and Indirect Care Staff.

In arriving at staff hours/patient ratios, the number of patients was determined by dividing total patient days for each facility by 365. The ratios of total staff hours per week to patients showed negligible difference between the SNF Single and ICF-I Single levels:

SNF Single:	mean = 20.895
ICF-I Single:	mean = 21.546
ICF-II Single:	mean = 14.302

When differentiated by direct and indirect care staffing, there was still no apparent disparity between the SNF Single and ICF-I Single levels:

	<u>Direct Care</u> <u>Staffing</u> (mean)	<u>Indirect Care</u> <u>Staffing</u> (mean)
SNF Single	13.708	7.164
ICF-I Single	13.179	7.735
ICF-II Single	7.290	7.011

Table 4.65

## 343 Minnesota NHs: Average Weekly Hours Per NH by Staff Category

Staff Category	Average Hours Per Week Per NH
<u>Direct Care Staff:</u>	
RN	117.2
LPN	167.4
Nursing Assistant	167.6
Aides and Orderlies	827.7
Occupational Therapists (OT)	10.3
OT Assistant	9.5
OT Aides	40.4
Physical Therapists (PT)	27.4
PT Assistant	6.5
PT Aides	8.6
Recreational Therapists (RT)	10.4
RT Technician	8.5
Other Therapeutic Services	9.8
Other Health Professional and Technical	21.6
<u>Indirect Care Staff:</u>	
Administrative	57.3
Supervisory/ Administrator Nurses	43.6
Dietary	69.8
Other non-health personnel	655.4

What is evident from this analysis, however, is that on the average, all facilities provide approximately the same indirect care manpower regardless of level. Real staffing differences appear in direct care and only then with the ICF-II levels.

Although differences in regulations would seem to be a likely cause of staffing patterns, this is clearly not the case. ICF-I and ICF-II facilities meet the same federal requirements, and although there are distinct licensures involved, these standards do not stipulate such divergence. The more probable causal factor should be attributed to patient characteristics. (It would have been interesting to study the staffing patterns of multiple-level facilities also. It is possible that these would be more manpower-efficient for a given level of care, as some overlapping of care between levels could take place. Because MDH application forms only account for staff by the total facility rather than by level, the data precluded this undertaking.)

Because manpower availability (particularly specialty manpower) can vary by location, staffing patterns were analyzed by region, as shown in Tables 4.66, 4.67, and 4.68.

From Tables 4.66, 4.67, and 4.68, we see that there is little regional variation in total staffing ratios in the skilled level, but considerable variation in the ICF levels. The pattern of staffing within each level may be better illustrated by the ranges of direct care as a percentage of total hours:

Range of direct care as a percentage  
of total hours across regions

SNF Single	54.8%	-	88.6%
ICF-I Single	51.3%	-	65.1%
ICF-II Single	12.5%	-	77.9%

Although our data show SNFs averaging fewer weekly staff hours per patient than ICF-I homes (a difference of .66 hours), a greater percentage of SNF manpower is devoted to direct patient care than for ICFs. However, the range is greatest for ICF-II homes, from 12.5% to 78%.



TABLE 4.66

Minnesota Nursing Homes, SNF Single Level: Weekly Staff Hours to Patient Ratios for Direct and Indirect Care by Region

Region	Weekly Staff Hours to Patient Ratios					
	<u>Total</u>	<u>Direct Care</u>		<u>Indirect Care</u>		N
	Mean	Mean	% of total hours	Mean	% of total hours	
1	19.03	15.74	82.7	3.30	17.3	5
2	20.14	16.01	79.5	4.13	20.5	2
3	22.74	12.46	54.8	10.27	45.2	11
4	27.47	18.31	66.7	9.17	33.3	3
5	19.24	17.04	88.6	2.20	11.4	1
6	26.83	18.48	68.9	8.35	31.1	3
7	22.63	13.73	60.7	8.90	39.3	16
8	23.69	18.56	78.3	5.14	21.7	5
9	19.33	13.84	71.6	5.49	28.4	5
10	20.21	12.35	61.1	7.70	38.9	15
11	17.61	11.93	67.7	5.68	32.3	21
Total	20.89	13.71	65.6	7.16	34.4	87

Table 4.67

Minnesota Nursing Homes, ICF-I Single Level: Weekly Staff Hours to Patient Ratios, for Direct and Indirect Care, by Region

Weekly Staff Hours to Patient Ratios						
Region	Total	Direct Care		Indirect Care		N
	Mean	Mean	% of total hours	Mean	% of total hours	
1	20.70	12.06	58.3	8.65	41.7	8
2	23.98	13.68	57.0	10.30	43.0	5
3	22.40	11.50	51.3	5.82	48.7	8
4	32.44	20.61	63.5	7.50	36.5	10
5	17.87	11.63	65.1	6.24	34.9	8
6	22.18	13.82	62.3	8.26	37.7	14
7	35.26	21.66	61.4	13.60	38.6	5
8	21.08	12.94	61.4	8.14	38.6	16
9	16.58	10.61	64.0	5.97	36.0	16
10	16.59	10.42	62.8	6.40	37.2	8
11	19.81	12.25	61.8	7.91	38.2	32
Total	21.55	13.18	61.2	7.74	38.8	130

Table 4.68

Minnesota Nursing Homes, ICF-II Single Level: Weekly Staff Hours to Patient Ratios, for Direct and Indirect Care, by Region

Weekly Staff Hours to Patient Ratios						
Region	Total	Direct Care		Indirect Care		N
	Mean	Mean	% of total hours	Mean	% of total hours	
1	7.17	2.71	37.8	4.46	62.2	4
2	no data	no data		no data		1
3	13.07	2.40	18.4	10.66	81.6	1
4	11.43	1.43	12.5	9.99	87.5	1
5	36.95	14.52	39.3	22.43	60.7	1
6	8.86	6.90	77.9	1.96	22.1	2
7	5.47	1.91	34.9	3.56	65.1	2
8	-	-	-	-	-	-
9	15.99	4.81	30.1	11.18	69.9	1
10	19.27	10.24	53.1	9.03	46.9	2
11	17.05	9.77	57.3	7.28	42.7	15
Total	14.30	7.29	51.0	7.01	49.0	30

Tables 4.66 - 4.68 show that in five regions, total staffing ratios for ICF-I Only exceeded those for SNF Only, and in two regions, total staffing ratios for ICF-II Only homes exceeded those for ICF-I Only homes.

There are no apparent urban/rural regional differences for total staffing; in all three levels the ratios for regions 3 and 11 straddle the level total averages. Total staffing ratios by facility size are shown in Table 4.69. For SNFs, staff-to-patient ratio decreases as size increases. For ICFs, this trend is less consistent.

Table 4.69

Minnesota Nursing Homes: Total Staffing Ratios for Type of Facility by Facility Size

Facility Size	Type Of Facility					
	SNF Single $\bar{X}$	N	ICF-I Single $\bar{X}$	N	ICF-II Single $\bar{X}$	N
≤ 30 beds	27.48	3	18.36	14	14.17	16
31- 60	24.15	24	23.55	45	13.35	8
61-100	20.56	36	22.32	55	12.17	2
101-150	18.06	19	18.36	14	13.82	3
>150	14.50	5	no data	2	29.80	1
Total	20.89	87	21.55	130	14.30	30

#### 4. Quality of Care in Minnesota Nursing Homes

Deficiency data were collected for the nursing homes in our data base - those listed on the DPW cost reports. The number of deficiencies was extracted from the most recent correction orders issued to these facilities (in most cases 1975 or 1976) by the Health Department evaluators and on file in the Health Facilities Division at MDH. Discrepancies between MDH and DPW nursing home data bases reduced the number of facilities for which deficiency information could

be computed. Because the cost reports were less recent than MDH data, changes since that time could have caused the data to be uncodable. For example, a facility that filed a 1974 cost report as ICF-I, but later added certified SNF beds, would not have complete current cost and deficiency information in our study. If homes had changed names, they could sometimes not be located on our DPW list. For these reasons, not all of the facilities and levels from DPW files were matched with deficiency data from MDH.

Correction orders are issued according to both federal certification and state licensure standards. Both types of regulations are monitored for each facility by the same evaluators, thus we anticipated similar results from both standards; because of time and resource constraints, it was decided to collect data according to only one of these standards. The federal SNF/ICF regulations were chosen because of our Medicaid focus.

Survey report forms, the evaluators' guidelines for certification requirements, list eighteen major deficiency categories for both SNF and ICF facilities. To acquire our information, the number of correction orders for each facility within each category was coded. Note that the data are a compilation of the original orders only. If, for example, a facility were later issued a waiver for a certain deficiency, this would not have been taken into consideration.

The deficiency data are valid, we believe, to the extent that the correction order process is consistent. The most serious coder problem involved a possible discrepancy among the evaluators in attempting to apply standards such as follows:

	Yes	No	N/A
F25			
F26		X	
F27			

☐

Met

☐

Not Met

(e) Standard: Administrator.

The governing body appoints a qualified administrator who is responsible for the overall management of the facility,

enforces the rules and regulations relative to the level of health care and safety of patients, and to the protection of their personal and property rights, and,

(continued)

(continued)

	Yes	No	N/A	
F28				plans, organizes, and directs those responsibilities delegated to the administrator by the governing body.
F29				Through meetings and periodic reports, the administrator maintains ongoing liaison among the governing body, medical and nursing staffs, and other professional and supervisory staff of the facility, and
F30		X		studies and acts upon recommendations made by the utilization review and other committees.
F31				In the absence of administrator, an employee is authorized, in writing, to act on the administrator's behalf.

In the correction orders, we found that in some cases only one correction order would be issued for a situation such as the one above because the evaluator determined a state of noncompliance in regard to this standard. In other cases, each substandard would be listed as a correction order. Because coders were not immediately aware of this problem, there may be some inaccuracy, though not enough to invalidate our efforts.

After the data-gathering process, we found that some categories were only rarely cited in noncompliance and others were closely related in content, so as to justify some combinations. The original deficiency categories and our coding categories appear as follows:

SNF

Survey report form categories

Our coding categories

Compliance with Federal,  
State, and local laws

eliminated

Governing body and  
Management  
Transfer Agreement

Administration

Medical direction  
Physician services

Medical Services

Nursing services  
 Dietetic services  
 Specialized rehabilitation  
 services  
 Pharmaceutical services  
 Laboratory and radiologic  
 services  
 Dental services  
 Social services  
 Patient activities  
 Physical environment  
 Infection control  
 Disaster preparedness  
 Utilization review

ICF

State licensure  
 Conforming with Federal,  
 State and local laws  
 Disclosure of Ownership  
 Transfer agreement  
 Administrative management  
 Administrator  
 Resident record system  
 Resident services director  
 Arrangements for services  
 Rehabilitative services  
 Social services  
 Activities program  
 Physician services  
 Health services  
 Dietetic services  
 Drugs and Biological  
 Life Safety Code  
 Environment and  
 Sanitation

Nursing services  
 Dietetic services  
 Specialized rehabili-  
 tation services  
 Dental, Pharmaceutical,  
 and other services  
 Social services  
 Physical environment  
 Infection, disaster  
 protection  
 Utilization review

eliminated  
 eliminated  
 Administration  
 Services  
 Rehabilitative services  
 Social and Activity  
 services  
 Physician services  
 Health services  
 Dietetic services  
 Drugs and Biologicals  
 eliminated (separate  
 survey)  
 Environment and  
 Sanitation

Tables 4.70 and 4.71 report average numbers of deficiencies per facility by level and type of deficiency. From Table 4.70, it appears that SNF-Mixed facilities have consistently greater numbers of correction orders in each category than do SNF Single facilities. The categories of highest deficiency concentration involved both indirect and direct patient care: administration, medical services, nursing services, and physical environment.

Table 4.70

Minnesota Nursing Homes: Average Number of SNF Deficiencies by Type of Deficiency

Type Of Deficiency	Average Number of SNF Deficiencies	
	SNF Single (N = 76)	SNF Mixed (N = 103)
Administration	1.87	2.81
Medical Services	1.33	2.06
Nursing Services	1.53	1.85
Dietetic Services	.62	.70
Rehabilitative Services	.31	.35
Dental, Pharma- ceutical and Other Services	1.11	1.38
Social Services	.47	.73
Physical Environment	2.07	2.04
Infection, disaster prevention	.91	1.21
Utilization Review	.79	.81
Total	9.35	11.69

Any relationship of the number of deficiencies between single-level and multiple-level ICF facilities is not apparent from Table 4.71. The highest average deficiencies were found in the following categories: environment, administration, drugs and biologicals, social, and activity services. If direct patient care seems to be a less frequent source of noncompliance for ICF as compared with SNF homes, it is probably due to the nature of the care prescribed for those facilities rather than to any difference



Table 4.71

Minnesota Nursing Homes: Average Numbers of ICF Deficiencies  
for Type of Deficiency

Type of Deficiency	Average Numbers of ICF Deficiencies			
	ICF-I Single (N=120)	ICF-I Mixed (N=112)	ICF-II Single (N=28)	ICF-II Mixed (N=17)
Administration	2.35	2.41	4.14	2.11
Services	.38	.49	.89	.47
Rehabilitative Services	.14	.33	.11	.19
Social and Activity Services	.84	.87	1.68	.82
Physician Services	.23	.20	.43	.53
Health Services	.39	.45	1.00	.29
Dietetic Services	.62	.67	.89	.41
Drugs and biologicals	1.03	.87	1.43	.77
Environment	2.33	2.05	3.29	1.94
Total	7.50	6.84	12.46	1.60

in quality of care.

The data tell us that within facility types, nursing homes are not, on the average, in overall compliance or in overall noncompliance. Rather, there is considerable variation by deficiency category.

Regional analysis in Table 4.72 showed a large difference for ICF-I homes, and moderate differences for SNF and ICF-II.

We examined the relationship between number of deficiencies and costs. Correlations revealed essentially no relationship as follows:

SNF:  $r = -.06$

ICF-I:  $r = -.11$

ICF-II:  $r = .11$

Cost data were further analyzed by type of ownership as shown in Table 4.73. Essentially no relationships were found.

A final analysis of deficiencies, by size, revealed no clear trends, as shown in Table 4.74.

##### 5. Minnesota's Nursing Home System in National Perspective<sup>64</sup>

Minnesota has more nursing home residents (91.4) per 1,000 elderly persons than any other state.<sup>65</sup>

In Minnesota in 1974, 41.83% of the nursing homes were proprietary, and 58.17% were non-profit (non-proprietary and governmental). This is compared with a 75%, 25% proportion nationwide, during the same approximate time period as our data.

The national survey<sup>64</sup> found an average occupancy rate in 1972 of 88.2%; Minnesota's rate exceeded this for every level of care, the highest being 94.68% for SNFs.

During 1973-74, the national average per diem NH charge per resident was \$15.96. Our data show the Minnesota average per diem cost (which is not necessarily the same as the

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<sup>64</sup> For further detail of the interstate data in this section please refer to Chapter IIF.

<sup>65</sup> USDHEW, National Center for Health Statistics, Health Resources Administration.

Table 4.72

Minnesota Nursing Homes: Average Number of Deficiencies by  
Level of Care by Region

Region	Level of Care					
	SNF		ICF-I		ICF-II	
	Mean	N	Mean	N	Mean	N
1	8.78	9	1.85	13	2.14	7
2	6.50	2	4.60	5	2.00	1
3	8.32	22	4.75	16	5.00	5
4	10.10	10	6.08	26	.36	11
5	8.00	5	7.29	14	1.50	4
6	14.40	10	8.95	21	6.86	7
7	6.45	22	9.18	11	2.44	9
8	13.83	6	10.12	25	0	10
9	14.15	13	8.17	24	4.17	6
10	7.30	34	3.15	26	2.47	15
11	13.43	76	8.20	91	7.57	44
Total	10.71	209	7.17	272	4.34	119

Table 4.73

Minnesota Nursing Homes: The Relationship between Total Cost  
and Total Deficiencies, by Level of Care and by Ownership

Ownership	Level of Care		
	SNF	ICF-I	ICF-II
Governmental	r=-.26 (SIG=.06)	r=-.07 (SIG=.34)	r=.24 (SIG=.30)
Proprietary	r=-.15 (SIG=.09)	r=-.24 (SIG=.005)	r=.15 (SIG=.19)
Non-proprietary	r=.08 (SIG=.22)	r=.06 (SIG=.27)	r=.07 (SIG=.28)

Table 4.74

Minnesota Nursing Homes: Average Number of Deficiencies by Level  
Of Care by Unit Size

Unit Size (No. of Beds)	Level of Care					
	SNF		ICF-I		ICF-II	
	Mean	N	Mean	N	Mean	N
≤ 30	5.14	21	5.29	65	4.23	61
31- 60	11.18	61	8.16	93	3.68	34
61-100	10.47	77	7.62	90	7.17	12
101-150	12.48	31	7.00	22	3.50	8
> 150	13.42	19	3.00	2	5.00	4
Total	10.71	209	7.17	272	4.34	119

charges) to be \$14.67 for 1974. This statistic, however, may offer poor comparison because national costs were not described by level of care.

Staffing data from the national survey found 61% of NH staff categorized as nursing manpower. Our data for direct care staffing (which includes all nursing staff) were comparable: SNF Singles had 66%, ICF-I Singles had 61%, and ICF-II Singles had 51%.

#### E. Cost Comparisons Among Minnesota LTC Facilities

In addition to the specific cost comparisons for MRs and the elderly, we also examined, system-wide, cost comparisons among facilities regardless of clients served. We now compare the costs of caring for the MRs, MIs, and CDs in the SH system and the MRs and elderly in community settings as reported through the three cost reporting systems used in this study: 1) DPW Rule 49, 2) DPW Rule 52, and 3) the Statewide Accounting System (SWA).

For each general cost area, we now present the average per diem costs for each Title XIX level of care (SNF, ICF-I, and ICF-II) or Title XIX facility (CBF or SH). These averages represent costs for the typical resident in these levels of care or facilities. In addition, the median, range, and sample size are presented where appropriate. DPW Rule 49 nursing home costs are reported by level of care for multi-care level or single-care level nursing homes.

##### Program Per Diem Costs

Table 4.75 compares what we have defined as program per diem costs reported through the three cost reporting mechanisms.

Program per diem costs do not vary substantially for nursing home units whose costs are reported under Rule 49. CBF program costs are slightly higher than nursing home program costs but this is to be expected since more emphasis is placed by both federal regulations and Rule 34 on programming in the ICF/MR level of care than in the others.

SH program per diem costs for the MR (state hospital ICF/MR level of care), MI, and CD are all substantially higher than those program costs reported under DPW Rules 49 and 52. As discussed earlier in this Chapter, the most interesting aspect of Table 4.75 is the truly extraordinary cost differential between CBF and SH MR program per diem costs.

Table 4.75

DPW Rule 49, Rule 52, and SWA: Program Per Diem Costs for  
Typical Residents

Facility	Program Per Diem Costs		
	Mean	Range	N
<u>DPW Rule 49:</u>			
a. SNF Mixed	\$ 3.63	\$ .50-22.00	109
b. SNF Single	3.09	.50-11.80	70
c. ICF-I Mixed	3.20	.10-22.00	125
d. ICF-I Single	2.66	.10-11.30	110
e. ICF-II Mixed	2.78	.96- 9.80	79
f. ICF-II Single	3.10	.74- 7.70	23
<u>DPW Rule 52:</u>			
CBFs	5.09 (Mdn = \$4.28)	.00-14.96	50
<u>SWA:</u>			
a. MR	18.10	16.61-23.45	8
b. MI	17.08	14.26-26.70	8
c. CD	16.33	8.01-25.89	8

### General Support Per Diem Costs

Table 4.76 presents general support costs reported under the three cost reporting mechanisms. General support per diem costs vary by level of care in DPW Rule 49 facilities.

Table 4.76

DPW Rule 49, Rule 52, and SWA: General Support Per Diem Costs for Typical Residents

Facility	General Support Per Diem Costs		
	Mean	Range	N
<u>DPW Rule 49</u>			
a. SNF Mixed	\$14.75	\$ 7.87 - 33.06	121
b. SNF Single	14.68	10.16 - 24.26	88
c. ICF-I Mixed	11.97	5.75 - 23.54	139
d. ICF-I Single	11.95	8.10 - 18.36	133
e. ICF-II Mixed	7.68	5.17 - 12.91	89
f. ICF-II Single	8.65	5.07 - 15.30	30
<u>DPW Rule 52</u>			
CBFs	7.88	3.55 - 14.36	50
	(Mdn = \$7.58)		
<u>SWA</u>			
Ten SHs	20.65	17.64 - 30.93	10

General support per diem costs are higher in SHs than in other facilities.

### Capital Per Diem Costs

Table 4.77 reveals capital per diem costs reported under the three cost reporting mechanisms.

Capital costs are extraordinarily similar across the three types of cost reporting mechanisms. There is one interesting trend: as level of nursing home care moves from SNF to ICF-II, capital costs decline; multiple care (mixed level) facilities have higher capital costs than single care level facilities. This would seem



Table 4.77

DPW Rule 49, Rule 52, and SWA: Capital Per Diem Costs

Facility	Capital Per Diem Costs	
	Mean	N
<u>DPW Rule 49:</u>		
a. SNF Mixed	\$2.70	121
b. SNF Single	2.40	88
c. ICF-I Mixed	2.43	139
d. ICF-I Single	2.09	133
e. ICF-II Mixed	1.62	88
f. ICF-II Single	1.50	31
<u>DPW Rule 52:</u>		
CBFs	2.94	50
	(\$Mdn= 2.46)	
<u>SWA:</u>		
Ten SHs	3.64	10

to indicate that those elderly with higher nursing care needs live in more costly facilities than those with lower nursing care needs.

State hospital and community ICF/MR capital costs are both higher than nursing home capital costs, as would be expected because of requirements of the new ICF/MR regulations.

#### Total Per Diem Rates

Before the total per diem rates are presented, it should be noted that the SH per diem rates represent cost figures calculated from the Statewide Accounting System (SWA) and do not represent the Title XIX per diem reimbursement rate. All other per diem rates are Title XIX reimbursement rates.

In Table 4.78, nursing home Title XIX rates are presented by the three levels of care. As one would expect, the per diem rate rises as level of care increases. CBFs per diem rates are relatively similar to Rule 49 facilities per diem rates. All of the SH per diem rates are substantially higher than those of Rule 49 and Rule 52 facilities. As we have noted earlier in this Chapter, the SH ICF/MR per diem rate is more than twice as high as that of the average CBF. It should again be emphasized that any cost comparisons involve "apples" and "oranges": these facilities serve different residents, on average, and offer different services, on average. Therefore, per diem costs would be expected to differ.

The per diem costs presented in this section represent only those costs reported through the three cost reporting mechanisms used in this study.

Table 4.78

DPW Rule 49, Rule 52, and SWA: Total Per Diem Rates

Facility	Total Per Diem Rates		
	Mean	Range	N
<u>DPW Rule 49:</u>			
a. SNF	\$19.71	-	207
b. ICF-I	15.70	-	271
c. ICF-II	10.10	-	120
<u>DPW Rule 52:</u>			
CBFs	17.78 (Mdn=\$16.64)	\$ 8.35-31.47	50
<u>SWA:</u>			
a. Ten SHs overall	38.28	35.04-54.01	10
b. MRS	38.75	35.33-47.89	8
c. MIs	37.73	32.05-57.63	8
d. CDs	36.98	26.00-52.66	8