# LONG TERM CARE STUDY

## An Analysis of Need of Institutional Capacity for 1987

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# SUMMARY


The Minnesota Legislature directed the State Planning Agency to evaluate the moratorium on the supply of nursing home beds in the state. In 1983 a moratorium on Medicaid certification of nursing home beds was enacted. In 1985 this was extended to bed licensure.

The Legislature ~~also~~ established the Preadmission Screening Program and Alternative Care Grants to curtail the increase of institutional placement of the elderly by providing an option for those who could remain in their homes with some level of support services.

Pre-Admission Screening was required in all counties in July 1983. By fiscal year 1985, 69% of those screened were recommended to remain in the community. The statewide average number of Alternative Care Grant recipients is 9.1 per 1000 residents aged 65 and over. While these services are available in all counties, the rate of services provided varies widely (see page 3).

Minnesota's nursing home bed supply continued to increase following the moratorium on bed certification in 1983. The average number of licensed beds increased from 87.4 per 1000 population 65 and over in 1983 to 87.9 per 1000. The statewide average occupancy rate on September 30, 1984 was 95.1%, compared to 93.9% when the moratorium became effective. Currently, Minnesota has 45,034 licensed nursing home beds (see pages 4-6).

Minnesota's elderly population is projected to grow by 4.2% between 1984 and 1987 (see page 9). The State Planning Agency's evaluation considered the extent to which the population growth of the elderly has been offset by the Pre-Admission Screening/Alternative Care Grant programs.

The State Planning Agency projects that in 1987 (see pages 9-13):

1. There will be 2,313 fewer occupied nursing home beds.
2. The statewide occupancy rate will be below 90%. All regions of the state will have lower average occupancy rates in 1987 than in 1984.
3. At the existing level of funding for the pre-admission screening program and alternative care grants, the state occupancy level will decline to 89.8% in 1987; and
4. All but eleven counties will have ~~more~~ fewer occupied beds in 1987 than in 1984.

The analysis by the State Planning Agency indicates that there is no need to repeal or to modify the moratorium because of projected bed shortages in regions or counties of the state.

## I. INTRODUCTION

In 1983, the legislature passed Chapter 199, which modified the system Minnesota uses for setting rates in nursing homes that participate in the Medical Assistance program. Chapter 199 also directed the State Planning Agency, in consultation with the Departments of Human Services and Health, to report to the Senate Health and Human Services and the House Health and Welfare committees regarding the number of elderly Minnesota residents, the number of residents most at risk of nursing home placement, the need for institutional and non-institutional long term care services, the availability of and access to non-institutional services by geographic region, and the necessity or desirability of continuing, modifying, or repealing the moratorium.

When Chapter 199 was enacted, the moratorium affected only the certification of nursing homes under the Medical Assistance program. In 1985 the legislature broadened the moratorium to encompass licensure.

The data in the report have been compiled on the basis of three different geographic groupings--the state, the health service areas (HSAs), and the eighty-seven counties. Because the intent of the legislation was to address the need for long term care for the elderly, certain specialized facilities (e.g., Rule 80 facilities) that primarily serve non-elderly residents have been excluded despite their licensure as nursing homes. A small number of licensed nursing homes that serve primarily the elderly have been excluded for technical reasons; a list of this latter group appears in Appendix 8.

## II. EXISTING SERVICE SUPPLY

### A. Non-Institutional Health Services for the Elderly

Services to help individuals remain in their homes are offered by a wide variety of service providers as well as financed by a number of funding sources. The Alternative Care Grant Program was developed specifically to provide an alternative to nursing home placement for those individuals who could remain in the community with some level of support services. Other major public programs, as well as private and informal support systems offering some services to the elderly on a non-institutional basis are described briefly in Appendix 1.

#### Preadmission Screening (PAS)/Alternative Care Grants Program (ACG)

In order to receive ACG services the individual must go through preadmission screening and be at risk of nursing home placement--that is, they must either have applied for nursing home placement, be seriously considering it as an option, or be assessed by the screening team as needing skilled or intermediate care nursing. The preadmission screening program began operation statewide in January 1982 and was required in all counties July 1, 1983.

Between January 1982 and June 1984 approximately 58% of the clients screened were recommended for community placement. By FY 85, 69% were recommended to remain in the community.

PREADMISSION SCREENINGS

| State Fiscal Year: | 1984 | | 1985 | |
|---|---|---|---|---|
| Total Screenings | 5,328 | (100%) | 5,316 | (100%) |
| Nursing Home Rec. | 1,984 | (37%) | 1,607 | (30%) |
| Community Rec. | 3,320 | (62%) | 3,660 | (69%) |

FUNDING: ALTERNATIVE CARE GRANTS PROGRAM

| | SFY 1984 | SFY 1985 |
|---|---|---|
| No. clients receiving services | 2,320 | 4,388 |
| Cost of services to state | $3,072,232 | $6,146,672 |
| Ave. cost of ACG services per person | $334/month | $342/month |

Source: Department of Human Services, Preadmission Screening & Alternative Care Grants Program.

For FY 86 the Legislature appropriated $12,731,470 for the PAS/ACG programs. Approximately one-fifth or $2,245,000 of that amount is allocated for PAS with the remaining going to ACG services. The Legislature appropriated $15,668,530 for the PAS/ACG programs for FY 87.

The individual has the final choice of placement, but during FY 84 only 5% of the clients for whom the screening team recommended home or community services entered a nursing home.

Availability

In state fiscal year 1985, case management services were available in all counties and at least one provider of other ACG services was present in each county. Appendix 2 shows the variation of services provided among counties. Statewide, there were 9.1 ACG recipients per 1,000 elderly. The range was from 4.6 in the west central region of Minnesota to 11.1 in the southeastern area (see Figure 1). County ratios varied widely from 0.0 to 32 per 1,000 population because of the operational stages of the program and the availability of service providers (Appendix 3). The number of individuals receiving alternative services is much smaller than that receiving care in an institution.

ACG SERVICES/1,000 ELDERLY

| Health Service Area* | No. ACG Recipients/1000 Pop.65+ |
|---|---|
| Agassiz | 8.9 |
| Western Lake Superior | 8.4 |
| Min-Dak | 4.6 |
| Central Minnesota | 8.5 |
| Metropolitan | 10.0 |
| HSA Six | 7.6 |
| Southeastern Minnesota | 11.1 |
| State Average: | 9.1 |

* Regional Health Planning Areas. See map in Appendix 4.

Homemaker and home health aide services are most frequently used. Adult foster care, personal care and to some extent, adult day care and respite care are not widely provided through the state. Even in the metropolitan area, personal care and domestic services are not in sufficient supply.

Sparsely-populated regions of the state have far fewer services available. Not only are current services fewer in number but potential providers of services have expressed little interest in providing these services in rural areas in the future.** The Department of Human Services report recommends

**Department of Human Services "Waivered Services," March 1985.

# TOTAL RECIPIENTS OF ALTERNATE SERVICES

NUMBER PER 1000 ELDERLY

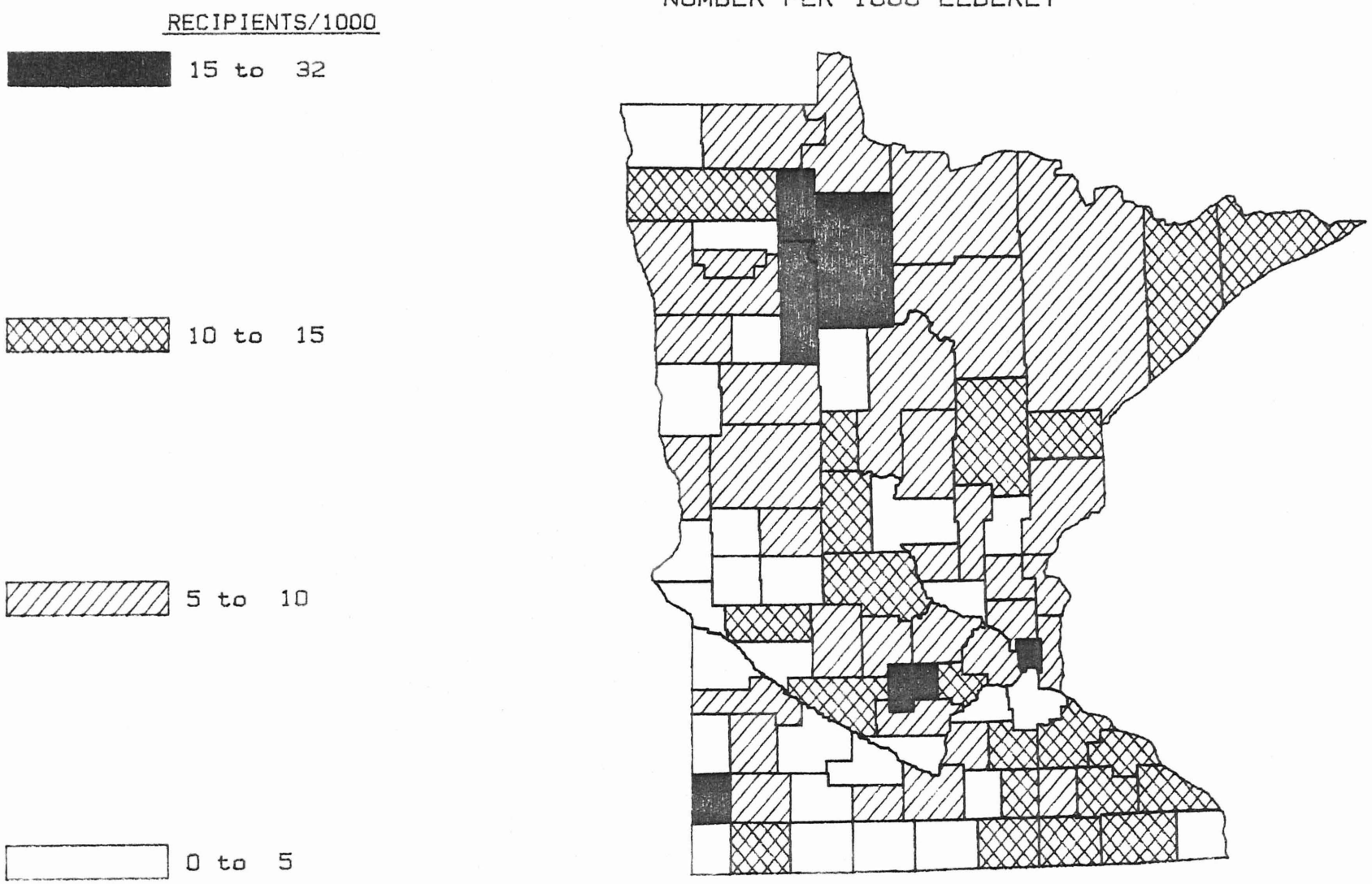



FIGURE 1

that the state and counties consider as regional consortiums to develop services in rural areas. Larger client populations might make the financial rewards more attractive to potential vendors of community-based services.

B. Institutional Capacity

Nursing Home Beds:

Prior to the state's moratorium on Medicaid certification of nursing home beds in 1983, Minnesota's bed to population ratio was 87.4. There were 43,473 nursing home beds in 440 facilities. Since the 1983 moratorium on Medicaid certification was enacted, the number of licensed beds has increased by 1,561. As of January, 1986, Minnesota has 45,034 licensed nursing home beds in 443 facilities. This is equivalent to 87.9 beds per 1,000 elderly.

It is important to distinguish this ratio from the number of Medicare and Medicaid certified beds per 1,000 elderly. The moratorium law provides that a county may obtain an exception to the moratorium if the ratio of certified beds per 1,000 elderly in the county and its contiguous counties is at least 110% of the national ratio. In 1984, the national ratio was 62.1 certified beds per 1,000 elderly, compared to a ratio of 107.4 in Minnesota. Minnesota has more certified beds than licensed beds because many Boarding Care Home beds are certified as ICF-2 beds, but the facilities are not licensed as nursing homes. Because the moratorium on nursing beds was extended to licensure in 1985, this report addresses licensed rather than certified beds.

LICENSED NURSING HOME BEDS
PER 1,000 ELDERLY

| Health Service Area | 1980 | 1983 | 1985 | Projected 1987* |
|---|---|---|---|---|
| Agassiz | 88.0 | 78.6 | 87.3 | 87.0 |
| Western Lake Superior | 73.2 | 72.1 | 71.0 | 69.0 |
| Min-Dak | 82.8 | 91.9 | 90.0 | 89.5 |
| Central | 83.7 | 83.7 | 82.5 | 80.1 |
| Metropolitan | 90.0 | 91.1 | 94.2 | 90.6 |
| Six (Southwest) | 84.4 | 84.0 | 82.2 | 80.8 |
| Southeastern | 89.6 | 99.0 | 93.6 | 91.5 |
| STATE | 86.0 | 87.4 | 87.9 | 85.5 |

* These figures do not include certain facilities not in operation in 1985. See Appendix 8.

Boarding Care Beds

Boarding care homes provide limited medical care and are the next lower level of long term care services. As institutional services, they are less expensive than nursing homes. Many facilities are jointly licensed, providing both nursing home and boarding care.

While the number of nursing beds has increased, the number of boarding care beds has declined consistently statewide since 1980.

BOARDING CARE BEDS

| | No. Beds | No. Facilities |
|---|---|---|
| 1980 | 5,917 | 161 |
| 1985 | 4,753 | 114 |

Nursing Home Bed Utilization

The occupancy rate statewide was 95.1% on September 30, 1984, ranging from 77.3% in Aitkin County to 100.0% in several counties (Figure 2). The occupancy rate has increased 1.2% since the moratorium was enacted. In 1980 the average statewide nursing home occupancy was 92.4%.

STATEWIDE AVERAGE NURSING HOME OCCUPANCY

| 1980 | 1983 | Sept. 30, 1984 | Projected 1987* |
|---|---|---|---|
| 92.4% | 93.9% | 95.1% | 89.8% |

* The projections are discussed in Section III.

REGIONAL AVERAGE NURSING HOME OCCUPANCY RATES
September 30, 1984

| Health Service Area | Occupancy Rate |
|---|---|
| Agassiz | 96.8% |
| Western Lake Superior | 93.2% |
| Min-Dak | 98.0% |
| Central | 95.2% |
| Metropolitan | 93.1% |
| Six (Southwest) | 98.0% |
| Southeastern | 96.8% |
| STATE | 95.1% |

# LICENSED NURSING HOME OCCUPANCY RATES

SEPTEMBER 30, 1984

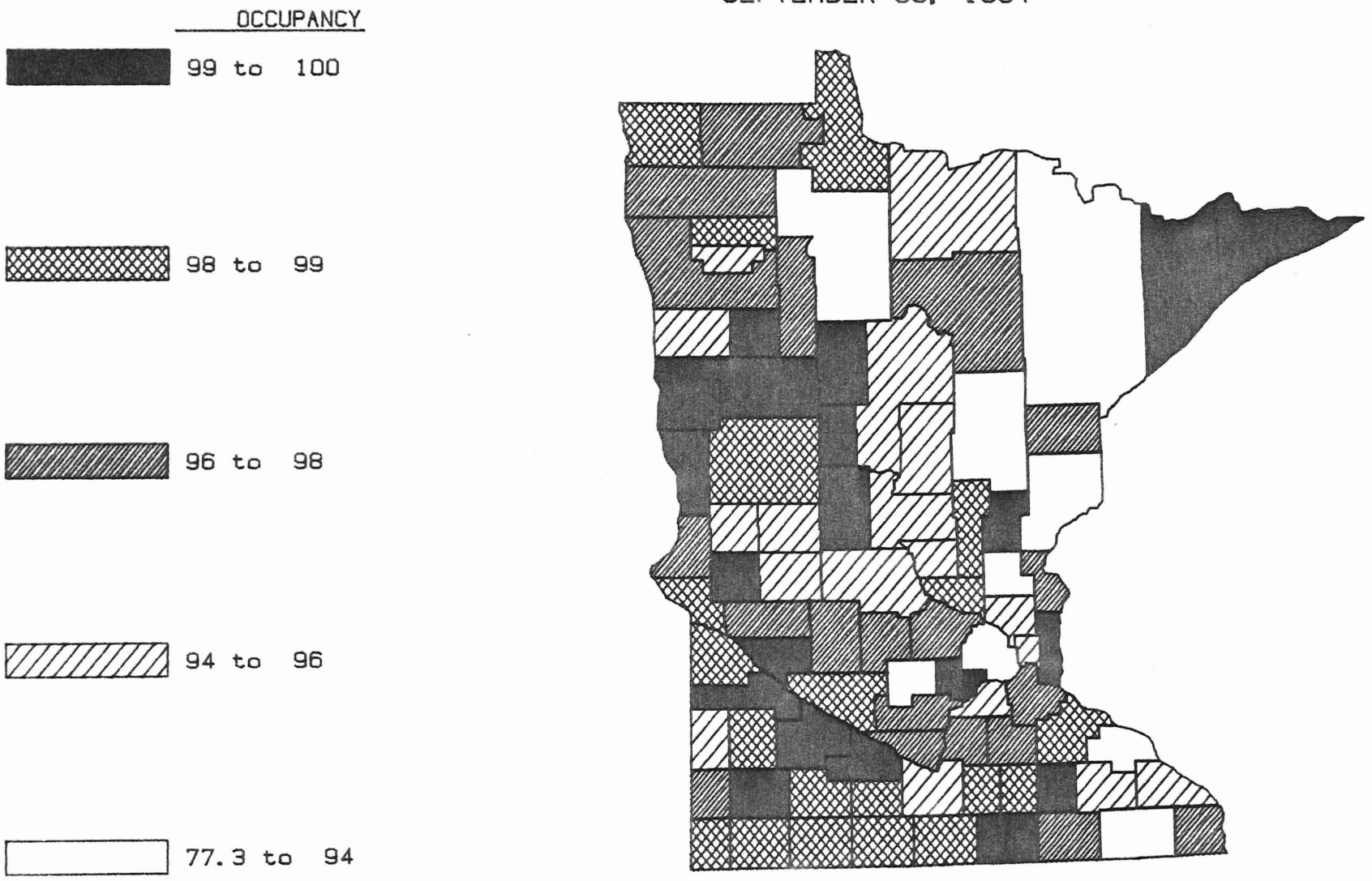



FIGURE 2

On September 30, 1984, eight counties had average nursing home occupancy rates less than 90%. Thirty counties averaged above 98%. The 1982 State Health Plan called for minimum bed occupancies of 93%. All regional Health Systems Agencies except two (Central and Southeastern) adopted a 95% occupancy guideline as a minimum utilization rate.

## III. PROJECTIONS FOR 1987

The elderly population is expected to grow from an estimated 505,886 in 1984 to 527,053 in 1987, an increase of 4.18%. The increase will be distributed across age groups in the following manner:

| Age Group | 1984 | 1987 | Growth | % Growth |
|---|---|---|---|---|
| 65-69 | 153,216 | 156645 | 3,429 | 2.24 % |
| 70-74 | 128,088 | 132,199 | 4,110 | 3.21 % |
| 75-79 | 97,836 | 103,003 | 5,168 | 5.28 % |
| 80-84 | 68,016 | 71,660 | 3,644 | 5.36 % |
| 85+ | 58,730 | 63,546 | 4,816 | 8.20 % |
| STATE | 505,886 | 527,053 | 21,167 | 4.18 % |

Although the older age groups will grow at a faster percentage rate, the increase in the number of elderly will be very similar in all of the age groups.

The projections of nursing home bed need in 1987 incorporate the estimated elderly population in 1987 for each county by age group and sex. Consequently, the different rates of growth among age-sex groups are accounted for in the analysis of future demand.

### Nursing Home Bed Need

The projections indicate a decline of 2313 in the number of occupied nursing home beds for the state in 1987. This represents 5.24% of the licensed capacity analyzed in this study. The statewide occupancy rate in 1984 was 95.1%, but it should drop to 89.8% in 1987. For the state as a whole, therefore, the projections indicate no reason to repeal or modify the moratorium on a statewide basis.

The decline in occupancy will be widespread across the state. All but eleven of Minnesota's counties will have fewer occupied beds in 1987 than in 1984, and in forty-six counties the decline will be at least ten beds. Figures 3 and 4 portray the decline in occupancy on a county basis.

Ten counties will have occupancy rates in 1987 of at least 98.0%. These counties are: Becker, Dakota, Faribault, Kanabec, Kittson, Mahnomen, Sherburne, Stevens, Washington, and Yellow Medicine. Several factors account for the continued high occupancy rates, including the county's average length of stay, the scope of the screening program, the proportion of persons screened who are diverted from nursing home admission, and the number of beds per thousand elderly.

# PROJECTED DECLINE IN OCCUPIED BEDS, 1987

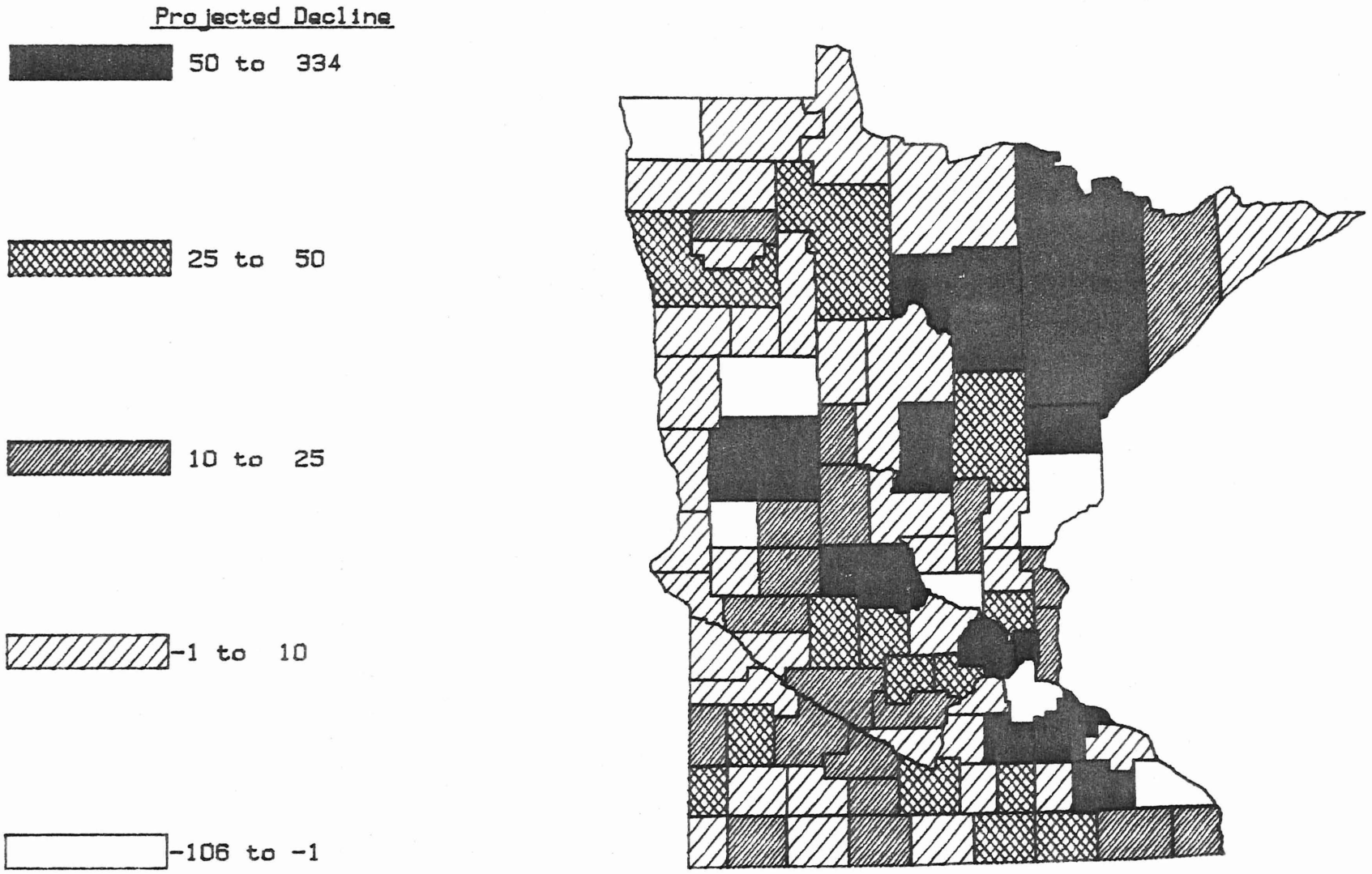



FIGURE 3

# PROJECTED OCCUPANCY RATES, 1987

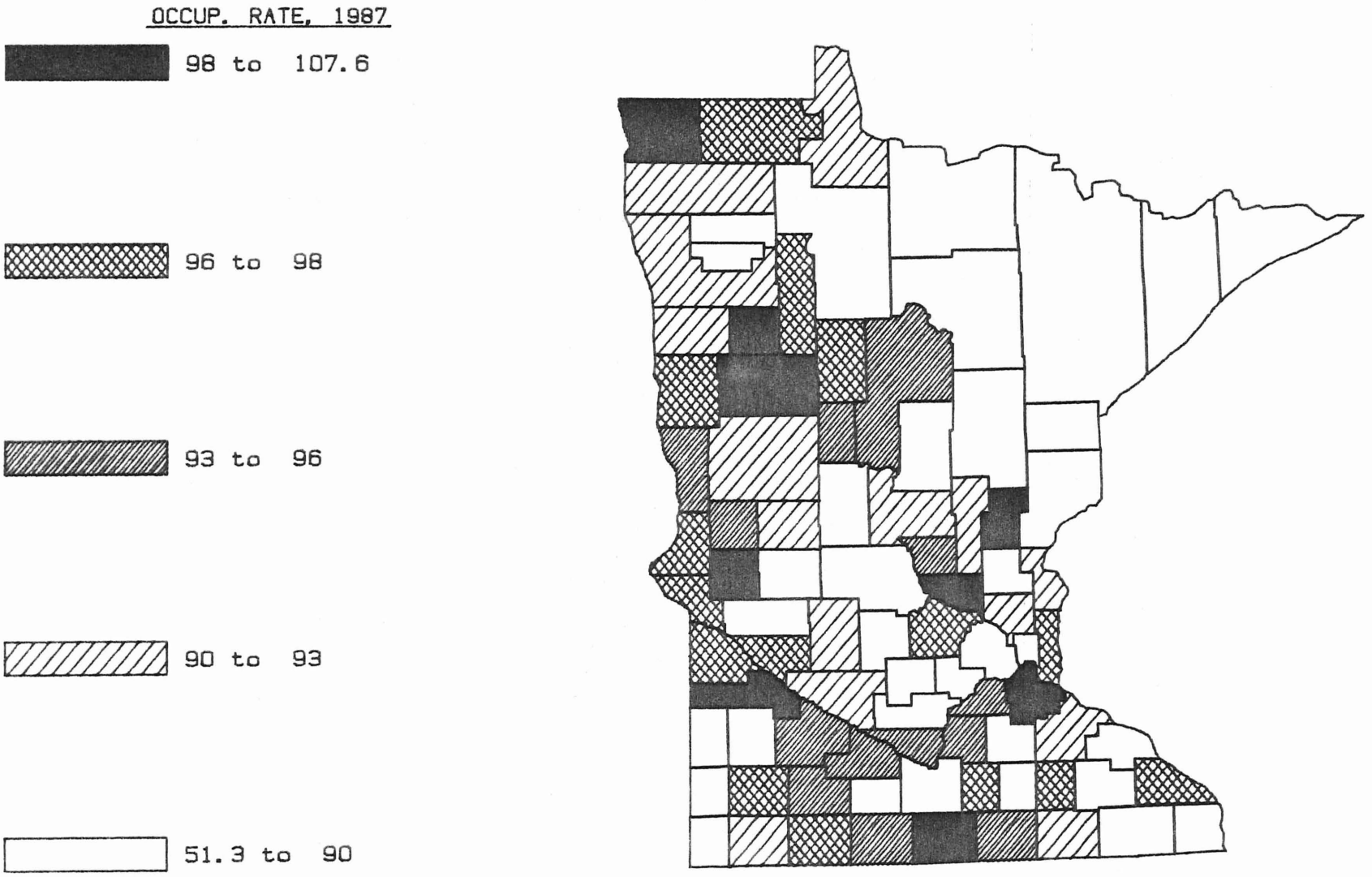



FIGURE 4

In four counties (Kittson, Mahnomen, Stevens and Traverse), the preadmission screening program has not affected many people. These counties do not have many beds, but Kittson has a large number of beds in relation to the size of its elderly population. Because few people were screened in 1985, the projected effect of the screening program and alternative care grants in 1987 is very limited. Diverting only a few people in each of these counties could lower their occupancy rates by several percentage points.

In three counties (Faribault, Sherburne and Yellow Medicine), the unusually high lengths of stay will offset some of the effect of the screening program and alternative care grants. Faribault's average length of stay is 2.2 years, Sherburne's is 2.9 and Yellow Medicine's is 2.7, about double the statewide average. Faribault has only 54 licensed beds per 1,000 elderly, considerably under the statewide average of 88. Yellow Medicine in particular has provided nursing home applicants with alternative care services (6.7 recipients per 1,000 elderly), and the projected occupancy rates will be lower in both counties in 1987. Sherburne has been providing only 3.8 services per 1000 elderly (less than half the state average). It's occupancy rate in 1987 is projected to increase by .3%. Greater use of alternative care services in Sherburne could reverse this trend.

Although the screening program in Kanabec appears to have some effect, the county has one-half the statewide average of beds per 1,000 elderly. Kanabec's average length of stay is also above the statewide average. Given these last two factors, it will take a significant expansion of the alternative services to lower the county's occupancy rate in 1987.

In Becker County, the problem appears to be that although the screening program diverts a large proportion of persons who are screened, not very many people are screened. The number of screenings in Becker is equal to about one-seventh of the number of nursing home admissions; the statewide average is almost 25%. Becker has a relative short average length of stay (1.1 years), so an increase in the number of screenings could lower the occupancy rate fairly quickly.

In Washington and Dakota counties, the high projected occupancy rates reflect an unusually high rate of growth among the elderly. Each county's elderly population will increase by more than ten percent in the three-year period. On the positive side, both counties divert a large proportion of persons who are screened, both counties screen a reasonable proportion of applicants to nursing homes (although Dakota is little below the statewide average), and both counties have about 88 licensed beds per 1,000 elderly. Given the proximity of these counties to the other metropolitan counties, there should be ready access to nursing home beds for Dakota and Washington residents.

Regional Areas

Every region of the state should have lower occupancy rates in 1987 than 1984. The projections are given below:

PROJECTED OCCUPANCY RATES

| HSA | 1984 * Licensed Capacity | Occupancy Rate (1984) | Average Stay (Yrs) | Decrease in Beds | Occup. Rate(1987) |
|---|---|---|---|---|---|
| Agassiz | 2117 | 96.8% | 1.54 | 101 | 92.2% |
| West Lk Sup | 3261 | 93.2% | 1.02 | 385 | 82.2% |
| Min-Dak | 2868 | 98.0% | 1.35 | 109 | 94.3% |
| Central | 5034 | 95.2% | 1.70 | 368 | 87.7% |
| Metropolitan | 18465 | 93.1% | 1.36 | 478 | 90.5% |
| Six | 6882 | 98.0% | 1.78 | 428 | 91.8% |
| Southeastern | 5117 | 96.8% | 1.53 | 319 | 90.6% |
| STATE | 44110 | 95.1% | 1.44 1.79 | 2313 | 89.8% |

On a regional basis, therefore, the projections show no reason to modify or repeal the moratorium.

* See Appendix 8 for excluded facilities and/or beds.

## IV. CHARACTERISTICS OF THE POPULATION AT RISK OF NURSING HOME PLACEMENT

### A. Understanding the Factors that Lead to Nursing Home Placement.

Our estimates of demand for nursing home beds assumed that nursing home applications would remain constant from 1985 to 1987, proportional to the number of persons 65 and older. This would be a reasonable assumption if the factors that put a person at risk of nursing home placement remain constant during this period of time. In addition, we assumed that the number of persons that we could expect to be screened and maintained in the community with alternative care services would remain at the same level as existed at the end of fiscal year 1985.

A potential alternative to allowing more beds to be certified in the few counties where occupancy levels are close to 100% would be to increase alternative service delivery in these counties. To do this efficiently and effectively, one needs to understand what the factors are that put people at risk of nursing home placement and what services these people need to remain in the community.

Recent data collected through the preadmission program made it possible for us to derive client profiles for those persons who are either eligible for Medical Assistance at the time of nursing home application or would be within 180 days. Understanding the needs of this population group should help in planning the most cost-effective means of providing support.

In 1984, the University of Minnesota's Center for Health Research in contract with the Minnesota Department of Human Services carried out a longitudinal study of 340 clients being screened for nursing home admission in four Minnesota counties: Hennepin, Ramsey, Blue Earth and Crow Wing. Preliminary data from this study were analyzed by the Minnesota State Planning Agency's Health Planning unit.

Of all those people screened by the four participating counties, 79% were in the community at the time of the initial screening. Six months later, 29% of these community residents had entered a nursing home, 19% had died, and the remaining 55% were still in the community. Of the 21% who were initially screened in a nursing home, 27% returned to the community, 19% died, and 54% remained in the nursing home.

Figures 5-8 profile and contrast those individuals that remained in the community for the duration of the study with those that at some point needed and used a nursing home bed.

Mental health and disorientation appear to be the major factors in determining nursing home bed utilization (see Figure 5). This is also reflected in Figure 6, where instrumental activities of daily living that require mental concentration or

orientation such as managing finances, preparing meals, and remembering to take medications relate significantly to ability to remain independent in the community versus requiring nursing home care. Doing housework and laundry (not shown), activities more physical in nature and less time oriented, actually show a reverse in association; those persons requiring more help with these activities were more likely to remain in the community than those that did not.

Physical health did not appear to be a factor in determining nursing home bed utilization except for those that were in a nursing home to begin with and then went back to the community. These people were more likely to have been recently hospitalized suggesting that the nursing home bed was used for convalescent reasons.

An underlying factor that appears to account for the outcome in terms of nursing home bed usage is the nature of the support system that individuals have to help them cope with their disabilities. The majority of elderly persons living in the community may never utilize the formal support system (both nursing home and alternative care services) during their lifetime. The informal network of which they are a part (family, friends and neighbors), their environment, and the assets that they have accumulated during their lifetime may provide them with sufficient support to maintain them in the community without formal assistance.

Among people approaching the formal system for support, those judged to have continuing support were most likely to have remained in the community. They tended to live in their own house or a subsidized apartment (the latter implying some link with the formal support system). Those persons living in an unsubsidized apartment or in another person's home tended to have a support system that was considered to be limited in duration and were more likely to eventually use a nursing home bed. Persons that were married and living with their spouse (especially males) were usually able to remain in the community. Persons living alone, especially females (75% as compared with 65% for males) were also less apt to use a nursing home bed. Those living with children or others (related or otherwise) had a greater tendency to use nursing home care. (See Figure 7.)

Figure 8 shows the relationship between utilization of nursing home beds and some commonly used demographic measures of need. Sex alone was not found to relate significantly. However, in combination with other factors such as marital status, it does have an effect. Men are most likely to remain in the community if they are married and living with a spouse (84%). They are also less likely to use a nursing home bed than women when single or divorced (50% as compared with 66% for women). On the other hand, they are more likely than women to go into a nursing home (52% as compared with 43%) if widowed.

Age did not appear to be a good predictor of nursing home bed utilization. In most age groups, persons were as likely to remain in the community as enter a nursing home. The factors mentioned above were far more important determinants of community or nursing home placement, and they were not related significantly to age.

Preadmission screening represents the point where an individual and/or another person representing that individual decides that nursing home care may be necessary and applies for admission. This screening may be made while the individual is still residing in the community or after admittance into a nursing home (for example, when discharged from a hospital to a nursing home facility). The reasons most often given for that application and the relationship between these and eventual nursing home bed utilization are shown in figure 9.

The reason for application most frequently given was " a change in functional capacity due to illness or injury" (83%) but this was not significantly related to whether that individual actually entered a nursing home. The reason most significantly related to nursing home utilization was "abuse/neglect - vulnerable adult", but only 5.7% of the persons being screened had this as a problem. The best predictor of community placement among application reasons was that "services being received were inadequate" (27% of the persons studied cited this reason for application). Other frequently mentioned problems were "caregiver exhaustion"(42.5%), "disorientation"(30%), "temporary absence of caregiver"(24%) and "behavioral or emotional problems"(20%).

A simplified flow chart of the process that appears to eventually lead persons into contact with the formal support system is presented in figure 10. The preadmission screening procedure is often the first opportunity the public sector has to influence this process.

With funding constraints, it is important to provide the most appropriate services with realistic capacities to most effectively and efficiently meet the specific demands that will be placed on the formal support system. It may be possible to defer many of these demands by instituting new programs and strengthening old ones that enable the informal networks operating in the community to provide the necessary supervision and relief to allow a family to continue to care for a disoriented individual.

B. Anticipating Need for Nursing Home Beds and Alternative Services:

The analysis of the longitudinal data collected by the University of Minnesota's Center for Health Research provided information on the type of problems and environmental conditions that combine to place a person at risk of nursing home

placement. These data, however, were only available for individuals screened in four counties. To see if the relationships we found in these counties persist at a statewide level, we analyzed the pre-admission screening data available for the state as a whole in fiscal year 1985.

The limitations we encountered in our statewide analysis were:

1. Identically coded information was not available on instrumental activities of daily living or mental health.

2. The information available on living arrangement and current residence did not distinguish between different family situations.

3. The final action taken by the screening team was the best measure we had of determining nursing home placement. The effect of using this decision as a quantitative measure of nursing home bed usage was to decrease the proportion of persons entering nursing homes since we had no way of knowing if an individual initially placed in the community later entered a nursing home.

Despite these limitations, we were able to verify our findings on disorientation, informal support (whether limited in duration or not, strong or weak), sex and marital status, and age. In addition, we discovered two new factors, not apparent in the four county study, that were highly associated with nursing home placement: medical needs and mobility.

In addition to supporting our findings from the four county preadmission screening data, the statewide screening data provided sufficient numbers of clients to study the effects of combinations of factors.

Preliminary analysis of the statewide data indicates that a positive informal support system plays an important role in keeping the elderly out of nursing homes regardless of the severity or nature of their problems.

Three items on the screening document were selected to represent personal problems that are highly associated with a recommendation of nursing home placement:

| | |
|---|---|
| Medical Needs: | individuals needing regular visits from a nurse or doctor and those requiring a nurse or other medical personnel on site daily or at all times (scored as -1 for subsequent analysis); |
| Disorientation: | if exhibiting disoriented behavior (score = -1); if not exhibiting disoriented behavior (score = +1); |
| Mobility: | individuals completely bedridden or up in chair only (score = -1). |

Three items were chosen to measure the strength or weakness of an individual's informal support system:

| | |
|---|---|
| Living Arrangement: | if living with family (score = +1) (this characteristic was found to be related to community placement); |
| Informal Support: | if support is indefinite in duration (score = +1); if support is expected to be limited in duration ( score = -1); |
| Marital Status: | if female and single or divorced or if male and single, divorced or widowed (score = -1); if married and living with spouse (score = +1). |

If one compares individuals statewide with varying combinations of these items (scores can range from -3 to +1 on problems and from -2 to +3 on support) one discovers:

1. Among the 121 individuals who had a problem score of -2 or -3 and a support score of -2 (difficult problems and low support): 42% were recommended for nursing home placement, 44% were determined to be capable of remaining at home with services, and 14% had other recommendations such as remaining home without services, placement in the community or boarding care home, or else they were undecided or refused service.

2. In contrast, out of 128 persons with problem scores of either -2 or -3 (still highly negative) but a strong positive support score of +3: only 16% were recommended for nursing home placement, while 73% were determined to be capable of remaining at home with services.

3. Among those for whom disorientation was the only major problem (494 persons), 43% of the 169 with negative support scores (-2 or -1) were recommended for nursing home placement while only 18% of the 206 persons with positive support scores (+1 to +3) received such recommendations. In home services were suggested for 40% of the 68 persons with negative support situations as compared with 53% of the 147 persons with positive support environments.

4. There were 263 persons who had a problem score of +1 (in other words, they were mobile, did not require medical attention and were not disoriented) but were considered to have a negative support situation (-1 or -2): 20% of these persons were recommended for nursing home placement and 65% were able to remain at home with services.

5. In contrast, only 6% of the 365 persons with +1 problem scores and positive informal support scores (+2 or +3) were recommended for nursing home placement; 80% received in-home services.

Thus, even when the individual was immobile, disoriented and required daily medical attention, the proportion requiring nursing home care was 62% lower (42% and 16%) when the informal support system was positive instead of negative; for disoriented individuals, the difference was 58% lower (43% and 18%); and for individuals without major problems, positive support was associated with 70% fewer nursing home recommendations (20% and 6%).

Some insight on the relative importance that physical and mental problems associated with aging and illness play versus the role of informal support available to an individual in determining eventual nursing home placement may be found in the reasons given for nursing home application and the subsequent action taken. Whereas 76% of the screened applicants noted a change in functional capacity as one reason for application, only 25% of these persons actually were recommended for nursing home placement (the same proportion as for applicants in total). On the other hand, if disorientation was a reason for application (22% of all applicants), nursing home placement was recommended for 37%; and of those mentioning behavior or emotional problems (16% of all applicants), 33% were recommended for nursing home placement. Among the reasons given that suggest a weak informal support system, caregiver exhaustion (mentioned by 28% of the applicants), permanent loss of caregiver (mentioned by 3%), and abuse or neglect (2% of applicants) also accounted for more than their share of nursing home placements:

C. The Services Most Heavily Recommended as Alternatives to Nursing Home Residency.

The state pre-admission screening data collected by the Department of Human Services provides some insight into this issue. Table 1 shows ten services often recommended by the pre-admission screening teams. The total number of people screened by each county who were recommended for some service delivery appears in column 2. This is followed by the percent of these persons who were in need of each service. (Since an individual could receive more than one service, the percents do not add up to 100). These recommendations by the screening teams undoubtably were influenced by the availability of that service in a particular county. Thus, services such as Senior Companion or In-home Family Support may be lower than their importance may warrant because of lack of programs and/or monies for these purposes. Statewide, the services being recommended most frequently by the screening teams are: Homemaker (62%), Home Health Aid (59%) and Skilled Nursing (43%).

Table 2 contrasts the services most recommended for the elderly in general with those suggested for those with severely limited mobility, heavy medical needs, and disorientation problems.

All three problem groups require home health service to a larger degree than the elderly in general. Those with mobility limitations use skilled nursing (57%), respite care (40%), personal care (17%) and in-home family support (7%) to a greater degree than those with other problems. Those with heavy medical needs are more apt to use services such as transportation (16%) and homemaker (62%) than the other two problem groups, and thus they are more similar to the elderly in general. Disoriented persons used adult day care (23%) and respite care (30%) frequently.

In summary, disorientation, heavy medical needs, and limited mobility impact negatively on a person's ability to remain independent in a community setting. However, entrance into a nursing home may be delayed as long as an individual with these problems has a strong informal support system to give aid. In addition, formal support services such as: skilled nursing, home health care, personal care, transportation, in-home family support, adult day care and respite care can play an important role in maintaining in the community those persons most at risk of nursing home placement.B

Table 1: PERCENT OF PERSONS SCREENED FOR COMMUNITY PLACEMENT WITH SERVICES: by county and recommended service. (Source: Statewide Preadmission Screening)

| COUNTY | NUMBER PERSONS SCREENED | HOME-MAKER | RESPITE CARE | SKILLED NURSING | ADULT DAY | HOME HEALTH | PERSONAL CARE | MEALS/ CONGREGATE DINING | TRANS-PORTATION | SENIOR COMPANION | IN-HOME FAMILY SUPPORT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aitkin | 43 | 77% | 26% | 9% | 0% | 58% | 49% | 16% | 16% | 0% | 2% |
| Anoka | 89 | 35 | 63 | 33 | 31 | 44 | 0 | 11 | 19 | 6 | 7 |
| Becker | 51 | 49 | 55 | 80 | 2 | 75 | 2 | 12 | 2 | 18 | 6 |
| Beltrami | 77 | 51 | 16 | 21 | 22 | 57 | 22 | 30 | 38 | 1 | 0 |
| Benton | 36 | 47 | 56 | 6 | 22 | 67 | 6 | 0 | 6 | 3 | 0 |
| Big Stone | 7 | 71 | 43 | 43 | 0 | 71 | 0 | 43 | 0 | 29 | 14 |
| Blue Earth | 71 | 66 | 38 | 6 | 4 | 6 | 54 | 13 | 27 | 1 | 6 |
| Brown | 32 | 22 | 34 | 6 | 3 | 31 | 37 | 28 | 47 | 3 | 6 |
| Carlton | 109 | 80 | 42 | 83 | 1 | 81 | 10 | 6 | 7 | 4 | 64 |
| Carver | 84 | 39 | 26 | 19 | 60 | 56 | 0 | 18 | 15 | 14 | 0 |
| Cass | 48 | 77 | 8 | 79 | 2 | 79 | 8 | 6 | 4 | 8 | 0 |
| Chippewa | 28 | 64 | 32 | 32 | 0 | 57 | 11 | 29 | 11 | 0 | 25 |
| Chisago | 32 | 16 | 28 | 9 | 28 | 75 | 9 | 0 | 3 | 0 | 0 |
| Clay | 25 | 24 | 44 | 24 | 4 | 24 | 24 | 4 | 12 | 20 | 12 |
| Clearwater | 26 | 88 | 12 | 15 | 4 | 85 | 0 | 35 | 54 | 0 | 0 |
| Cook | 7 | 57 | 100 | 86 | 0 | 57 | 29 | 57 | 71 | 0 | 29 |
| Cottonwood | 14 | 57 | 36 | 14 | 0 | 14 | 36 | 14 | 50 | 21 | 21 |
| Crow Wing | 63 | 48 | 33 | 84 | 2 | 48 | 37 | 16 | 3 | 6 | 3 |
| Dakota | 114 | 28 | 8 | 18 | 10 | 61 | 1 | 21 | 28 | 9 | 9 |
| Dodge | 22 | 32 | 36 | 41 | 5 | 50 | 18 | 9 | 9 | 5 | 0 |
| Douglas | 80 | 74 | 10 | 74 | 7 | 57 | 19 | 39 | 27 | 6 | 4 |
| Faribault | 23 | 30 | 4 | 17 | 4 | 9 | 48 | 48 | 78 | 52 | 0 |
| Fillmore | 61 | 18 | 13 | 30 | 8 | 52 | 36 | 3 | 8 | 2 | 2 |
| Freeborn | 98 | 78 | 5 | 42 | 9 | 65 | 9 | 27 | 48 | 17 | 3 |
| Goodhue | 107 | 43 | 44 | 23 | 1 | 57 | 3 | 25 | 7 | 4 | 2 |
| Grant | 19 | 79 | 32 | 47 | 5 | 32 | 26 | 42 | 47 | 0 | 0 |
| Hennepin | 1119 | 71 | 16 | 30 | 29 | 69 | 1 | 20 | 25 | 8 | 2 |
| Houston | 34 | 44 | 35 | 76 | 9 | 18 | 6 | 0 | 3 | 0 | 6 |
| Hubbard | 22 | 64 | 23 | 64 | 18 | 68 | 0 | 36 | 14 | 14 | 5 |
| Isanti | 31 | 48 | 32 | 48 | 0 | 48 | 29 | 19 | 6 | 0 | 3 |
| Itasca | 58 | 43 | 17 | 3 | 33 | 16 | 12 | 14 | 5 | 3 | 0 |
| Jackson | 10 | 60 | 20 | 60 | 10 | 50 | 50 | 30 | 40 | 10 | 0 |
| Kanabec | 14 | 71 | 21 | 71 | 0 | 57 | 0 | 43 | 29 | 43 | 0 |
| Kandiyohi | 72 | 57 | 42 | 79 | 36 | 79 | 19 | 17 | 8 | 7 | 1 |
| Kittson | 4 | 75 | 0 | 0 | 0 | 100 | 0 | 75 | 50 | 0 | 0 |
| Koochiching | 16 | 44 | 37 | 0 | 6 | 50 | 19 | 19 | 12 | 6 | 6 |
| Lc Parle | 4 | 75 | 25 | 0 | 0 | 75 | 25 | 75 | 0 | 0 | 25 |
| Lake | 38 | 68 | 24 | 21 | 0 | 79 | 11 | 42 | 8 | 3 | 0 |
| Lk Woods | 6 | 67 | 17 | 83 | 0 | 50 | 0 | 0 | 0 | 0 | 17 |
| LeSueur | 32 | 37 | 3 | 16 | 0 | 50 | 6 | 31 | 37 | 6 | 0 |
| Lincoln | 11 | 82 | 0 | 55 | 9 | 55 | 0 | 36 | 9 | 0 | 0 |
| Lyon | 53 | 83 | 4 | 85 | 0 | 72 | 9 | 34 | 21 | 0 | 0 |
| McLeod | 196 | 77 | 34 | 14 | 23 | 84 | 8 | 25 | 26 | 0 | 0 |
| Mahnomen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Marshall | 25 | 56 | 16 | 32 | 0 | 68 | 28 | 0 | 20 | 12 | 0 |
| Martin | 26 | 15 | 8 | 42 | 0 | 0 | 8 | 0 | 31 | 15 | 19 |
| Meeker | 47 | 68 | 11 | 70 | 2 | 72 | 4 | 21 | 15 | 0 | 4 |
| Mille Lcs | 44 | 61 | 5 | 75 | 16 | 52 | 16 | 34 | 39 | 14 | 5 |
| Morrison | 38 | 34 | 16 | 11 | 24 | 47 | 26 | 0 | 5 | 3 | 0 |

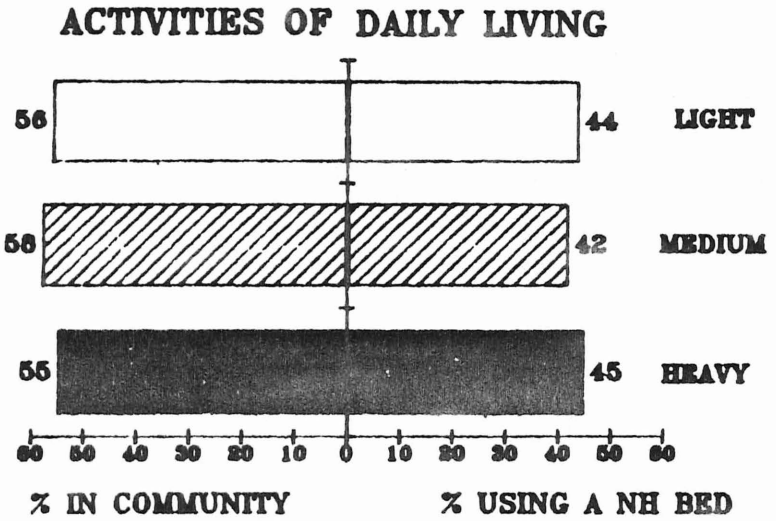
Table 1 continued: PERCENT OF PERSONS SCREENED FOR COMMUNITY PLACEMENT WITH SERVICES: by county and recommended service.
(Source: Statewide Preadmission Screening Data)

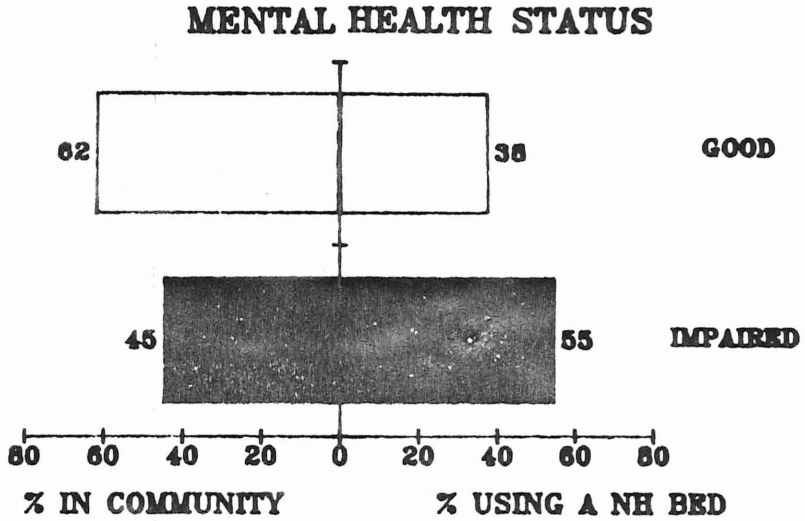
| COUNTY | NUMBER PERSONS SCREENED | HOME-MAKER | RESPITE CARE | SKILLED NURSING | ADULT DAY | HOME HEALTH | PERSONAL CARE | MEALS/ CONGREGATE DINING | TRANS-PORTATION | SENIOR COMPANION | IN-HOME FAMILY SUPPORT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mower | 132 | 9 | 27 | 14 | 33 | 57 | 67 | 0 | 0 | 0 | 0 |
| Murray | 21 | 57 | 5 | 14 | 0 | 67 | 14 | 5 | 0 | 0 | 0 |
| Nicollet | 25 | 68 | 0 | 24 | 8 | 0 | 20 | 20 | 12 | 0 | 0 |
| Nobles | 65 | 55 | 6 | 22 | 12 | 68 | 2 | 0 | 3 | 9 | 3 |
| Norman | 34 | 65 | 15 | 30 | 24 | 71 | 0 | 24 | 12 | 32 | 29 |
| Olmsted | 120 | 59 | 22 | 37 | 17 | 56 | 12 | 16 | 0 | 11 | 3 |
| Otter Tl | 130 | 42 | 23 | 50 | 5 | 36 | 42 | 3 | 4 | 5 | 8 |
| Penington | 19 | 47 | 42 | 21 | 11 | 16 | 16 | 0 | 0 | 0 | 11 |
| Pine | 11 | 55 | 64 | 36 | 0 | 64 | 9 | 18 | 0 | 0 | 0 |
| Pipestone | 70 | 84 | 4 | 10 | 0 | 84 | 0 | 0 | 1 | 0 | 0 |
| Polk | 53 | 60 | 19 | 21 | 11 | 72 | 11 | 28 | 11 | 6 | 0 |
| Pope | 8 | 75 | 12 | 25 | 0 | 62 | 62 | 0 | 12 | 0 | 0 |
| Ramsey | 1259 | 73 | 15 | 74 | 18 | 68 | 3 | 27 | 8 | 7 | 1 |
| Red Lake | 11 | 9 | 18 | 27 | 0 | 82 | 0 | 27 | 0 | 0 | 9 |
| Redwood | 26 | 62 | 19 | 35 | 4 | 58 | 19 | 35 | 19 | 4 | 0 |
| Renville | 56 | 48 | 20 | 41 | 12 | 64 | 18 | 54 | 2 | 2 | 2 |
| Rice | 73 | 58 | 25 | 12 | 4 | 70 | 25 | 21 | 3 | 1 | 4 |
| Rock | 9 | 44 | 22 | 44 | 0 | 67 | 22 | 11 | 11 | 22 | 0 |
| Roseau | 31 | 52 | 39 | 42 | 0 | 71 | 13 | 13 | 6 | 0 | 0 |
| St.Louis | 284 | 81 | 25 | 48 | 23 | 7 | 30 | 26 | 29 | 2 | 3 |
| Scott | 28 | 89 | 4 | 54 | 0 | 79 | 4 | 71 | 50 | 7 | 0 |
| Sherburne | 21 | 57 | 33 | 10 | 24 | 19 | 10 | 19 | 14 | 10 | 5 |
| Sibley | 45 | 33 | 36 | 42 | 7 | 71 | 13 | 38 | 36 | 4 | 11 |
| Stearns | 245 | 60 | 11 | 8 | 4 | 44 | 11 | 0 | 11 | 6 | 2 |
| Steele | 59 | 92 | 0 | 66 | 0 | 69 | 27 | 0 | 0 | 0 | 0 |
| Stevens | 3 | 0 | 0 | 67 | 0 | 0 | 33 | 33 | 0 | 0 | 0 |
| Swift | 58 | 67 | 47 | 91 | 2 | 83 | 12 | 19 | 3 | 5 | 2 |
| Todd | 59 | 66 | 17 | 66 | 8 | 68 | 10 | 7 | 3 | 5 | 0 |
| Traverse | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wabasha | 38 | 66 | 26 | 42 | 0 | 34 | 18 | 11 | 11 | 0 | 0 |
| Wadena | 68 | 62 | 22 | 60 | 0 | 53 | 0 | 15 | 3 | 18 | 4 |
| Waseca | 21 | 14 | 14 | 62 | 0 | 5 | 62 | 24 | 62 | 38 | 5 |
| Washngton | 68 | 49 | 21 | 46 | 24 | 32 | 46 | 19 | 13 | 21 | 7 |
| Watonwan | 33 | 61 | 48 | 39 | 0 | 21 | 33 | 48 | 12 | 12 | 15 |
| Wilkin | 14 | 64 | 7 | 43 | 21 | 50 | 0 | 64 | 43 | 7 | 0 |
| Winona | 65 | 40 | 28 | 57 | 3 | 45 | 15 | 14 | 31 | 6 | 18 |
| Wright | 59 | 47 | 22 | 25 | 5 | 76 | 7 | 25 | 10 | 7 | 5 |
| Yell Med | 36 | 61 | 28 | 42 | 6 | 50 | 25 | 17 | 8 | 0 | 33 |
| STATE TOTALS | 6596 | 62% | 21% | 43% | 16% | 59% | 12% | 20% | 16% | 7% | 4% |

Table 2: COMPARISON OF PERCENT SERVICE RECOMMENDATION BETWEEN SCREENED PERSONS STATEWIDE AND SELECTED PROBLEM GROUPS (Source: Statewide Preadmission Screening Data).

| | NUMBER PERSONS SCREENED | HOME-MAKER | RESPITE CARE | SKILLED NURSING | ADULT DAY | HOME HEALTH | PERSONAL CARE | MEALS/ CONGREGATE DINING | TRANS-PORTATION | SENIOR COMPANION | IN-HOME FAMILY SUPPORT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STATE TOTAL | 6596 | 62% | 21% | 43% | 16% | 59% | 12% | 20% | 16% | 7% | 4 |
| LIMITED MOBILITY | 703 | 48 | 40 | 57 | 7 | 66 | 17 | 8 | 12 | 5 | 7 |
| HEAVY MEDICAL NEEDS | 4994 | 62 | 22 | 45 | 15 | 62 | 13 | 19 | 16 | 6 | 4 |
| DISORIENTATION | 1759 | 58 | 30 | 44 | 23 | 62 | 12 | 18 | 10 | 3 | 3 |

Figure 5: RELATIONSHIP BETWEEN PRESENCE OF PHYSICAL/MENTAL PROBLEMS AND NURSING HOME BED USAGE ( Data source: U. of Minnesota Center for Health Research Preadmission Screening/Alternative Care Grant Longitudinal Study)




ACTIVITIES OF DAILY LIVING: Dressing, grooming, bathing, eating, toileting, bed mobility, transferring, walking, wheeling, communication, hearing, vision, orientation, behavior, self preservation skills, mobility:

- Light = 0-3 dependencies
- Medium = 4-6 dependencies
- Heavy = 7+ dependencies

MENTAL HEALTH STATUS:

- Good = outstanding, good, or mildly impaired (can handle daily routine)
- Impaired = moderate to complete impairment (cannot handle major problems of life)

DEGREE OF DISORIENTATION:

- Low = Confusion on one or two areas.
- High = Confusion on three or more areas.

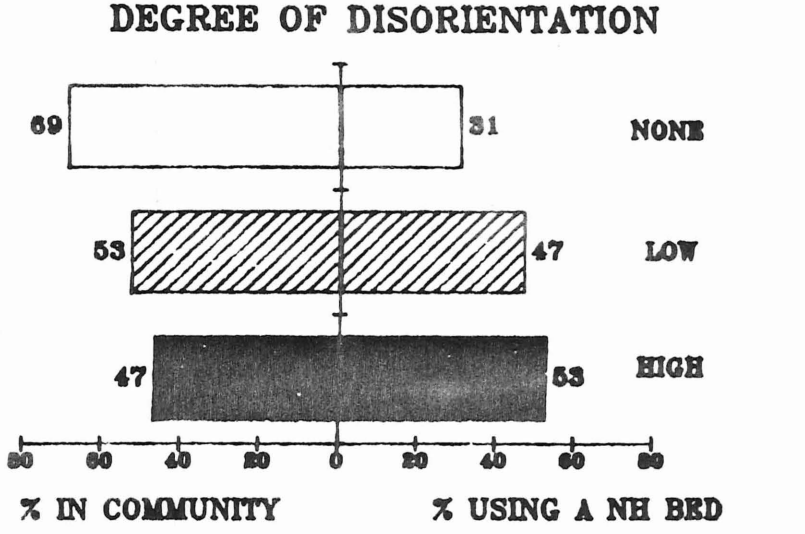


Figure 6: RELATIONSHIP BETWEEN INSTRUMENTAL ACTIVITIES OF DAILY LIVING AND NURSING HOME BED USAGE (Data source: U. of Minnesota Center for Health Research Preadmission Screening/Alternative Care Grant Longitudinal Study)

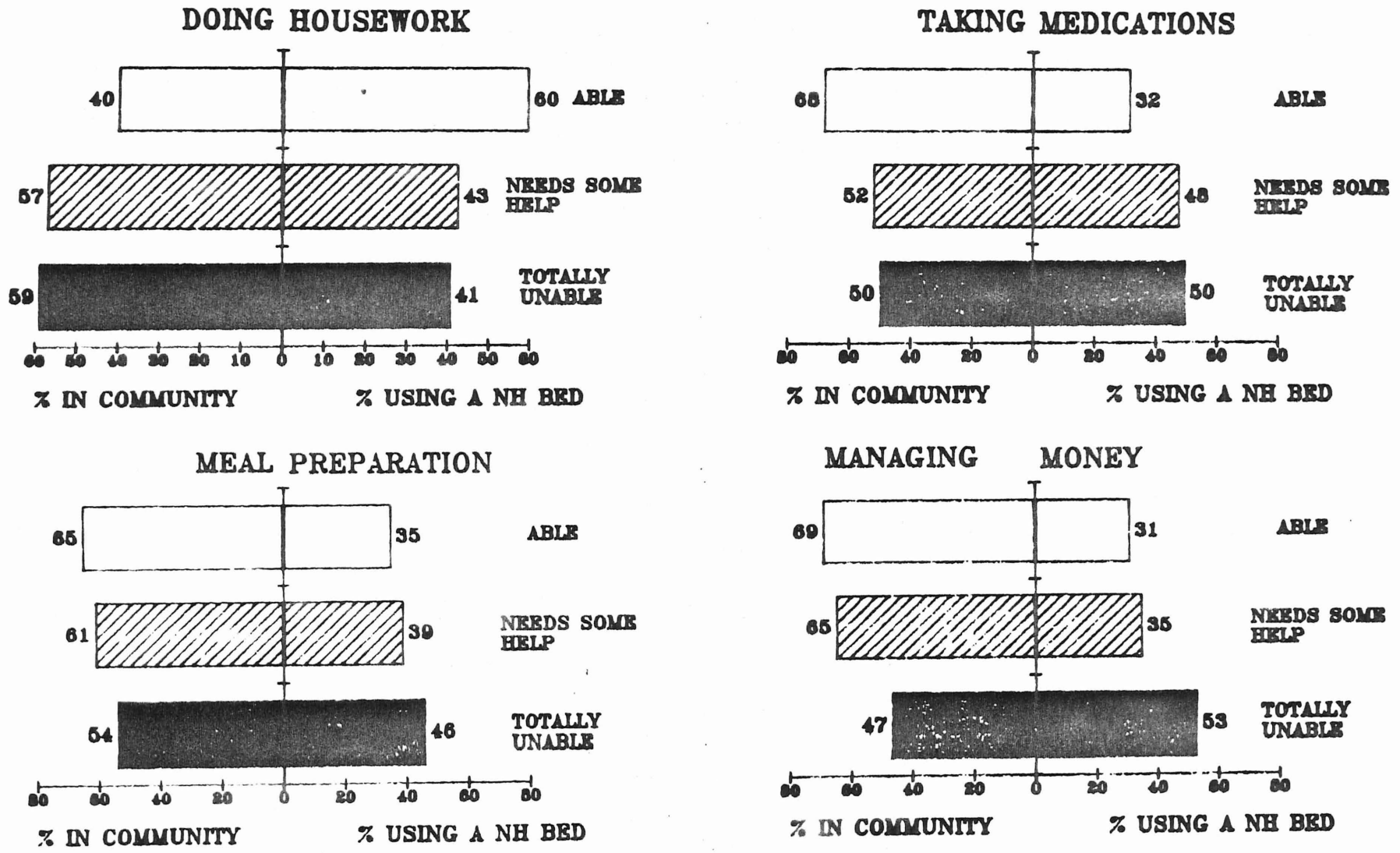
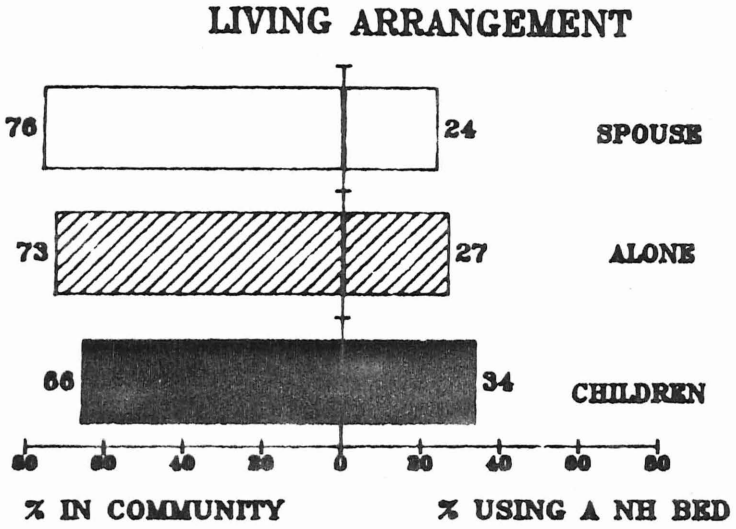
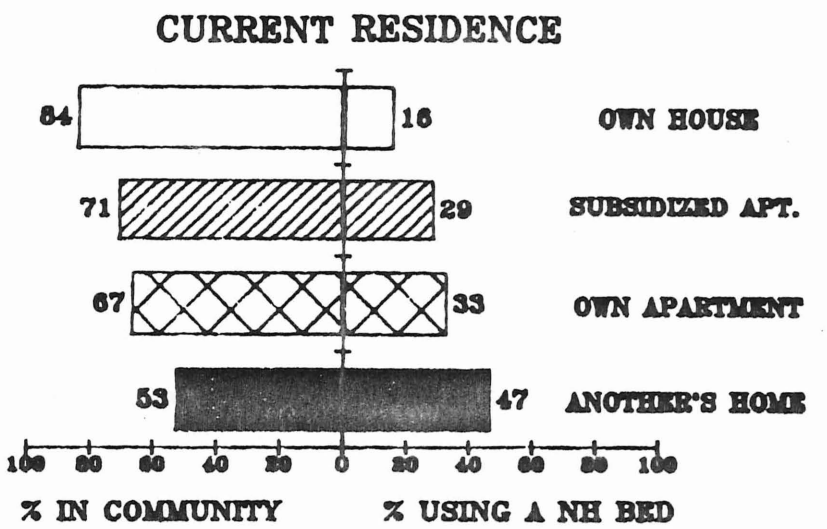
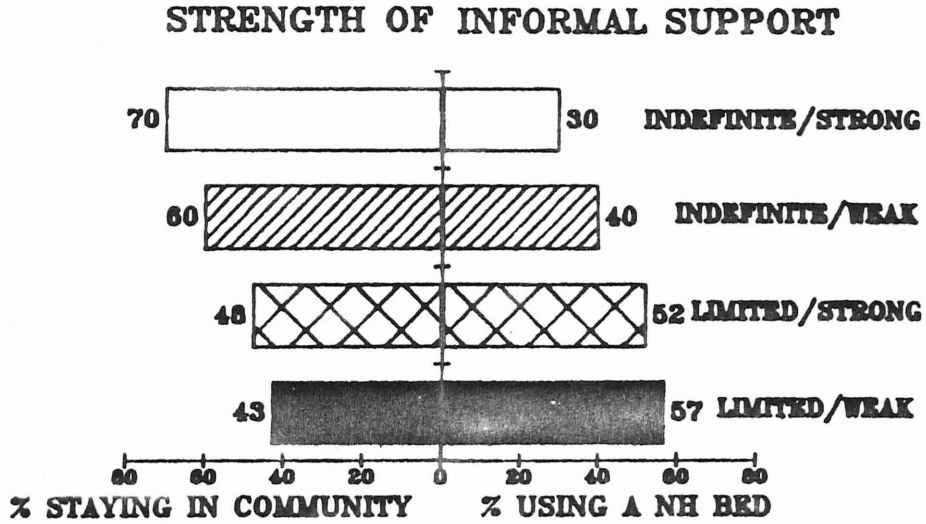


Figure 7: RELATIONSHIP BETWEEN INFORMAL ENVIRONMENTAL SUPPORT AND NURSING HOME BED USAGE (Data source: U. of Minnesota Center for Health Research Preadmission Screening and Alternative Care Grant Longitudinal Study)




Significant association was found between informal support and current residence but not between informal support and living arrangement. Living in one's own house was associated with indefinite support (especially where support was strong); living in a subsidized apartment was associated with indefinite but weak support; living in one's own apartment was associated with limited and weak support; and living in someone else's home was associated with limited support (most likely strong).

Figure 8: RELATIONSHIP BETWEEN AGE, SEX AND MARITAL STATUS AND NURSING HOME BED USAGE (Data source: U. of Minnesota Center for Health Research Preadmission Screening and Alternative Care Grant Longitudinal Study)

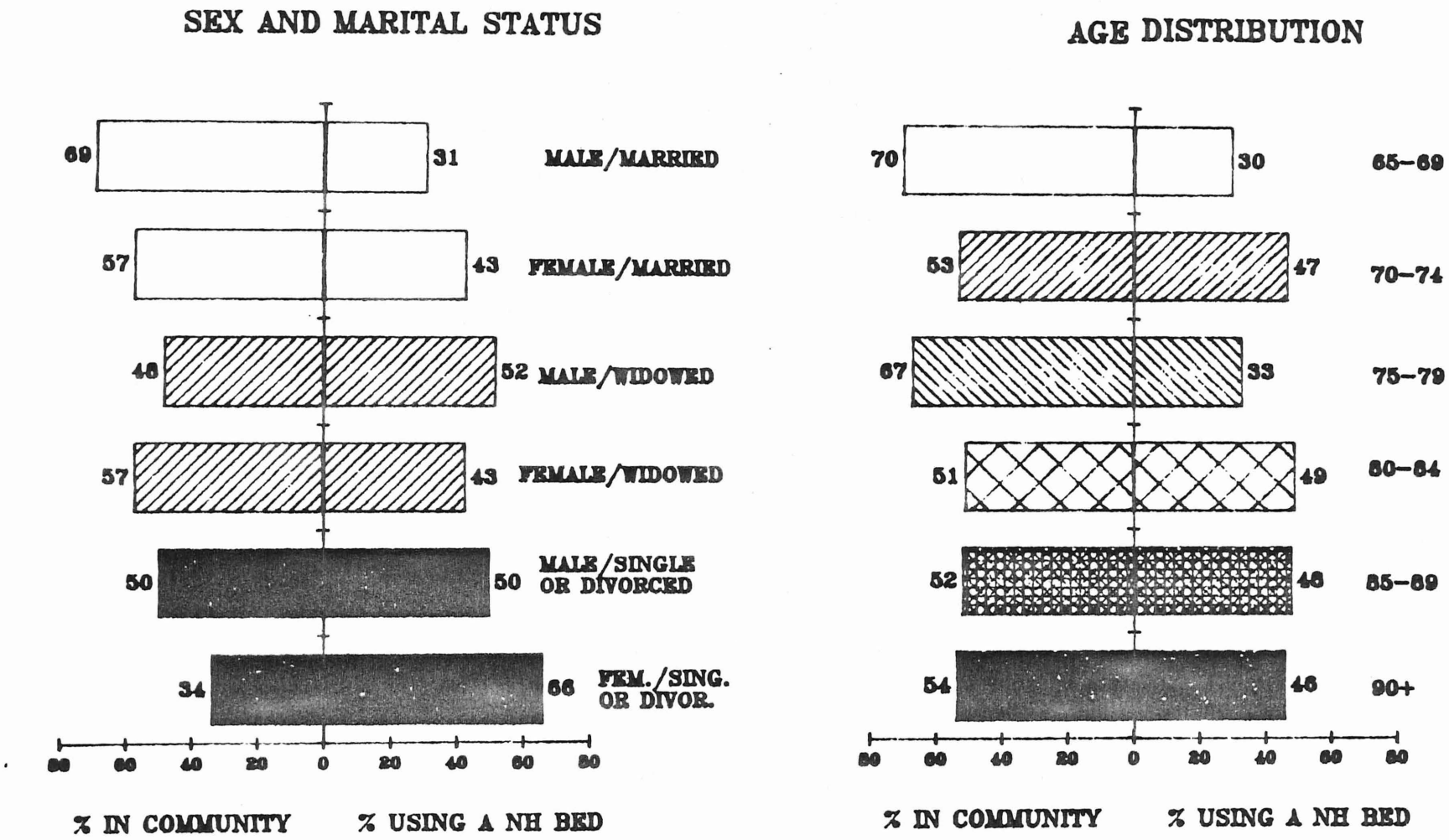


Figure 9: RELATIONSHIP OBSERVED BETWEEN THE REASONS GIVEN FOR NURSING HOME APPLICATION AND EVENTUAL NURSING HOME BED USAGE (Data source: U. of Minnesota Center for Health Research Preadmission Screening and Alternative Care Grant Longitudinal Study)

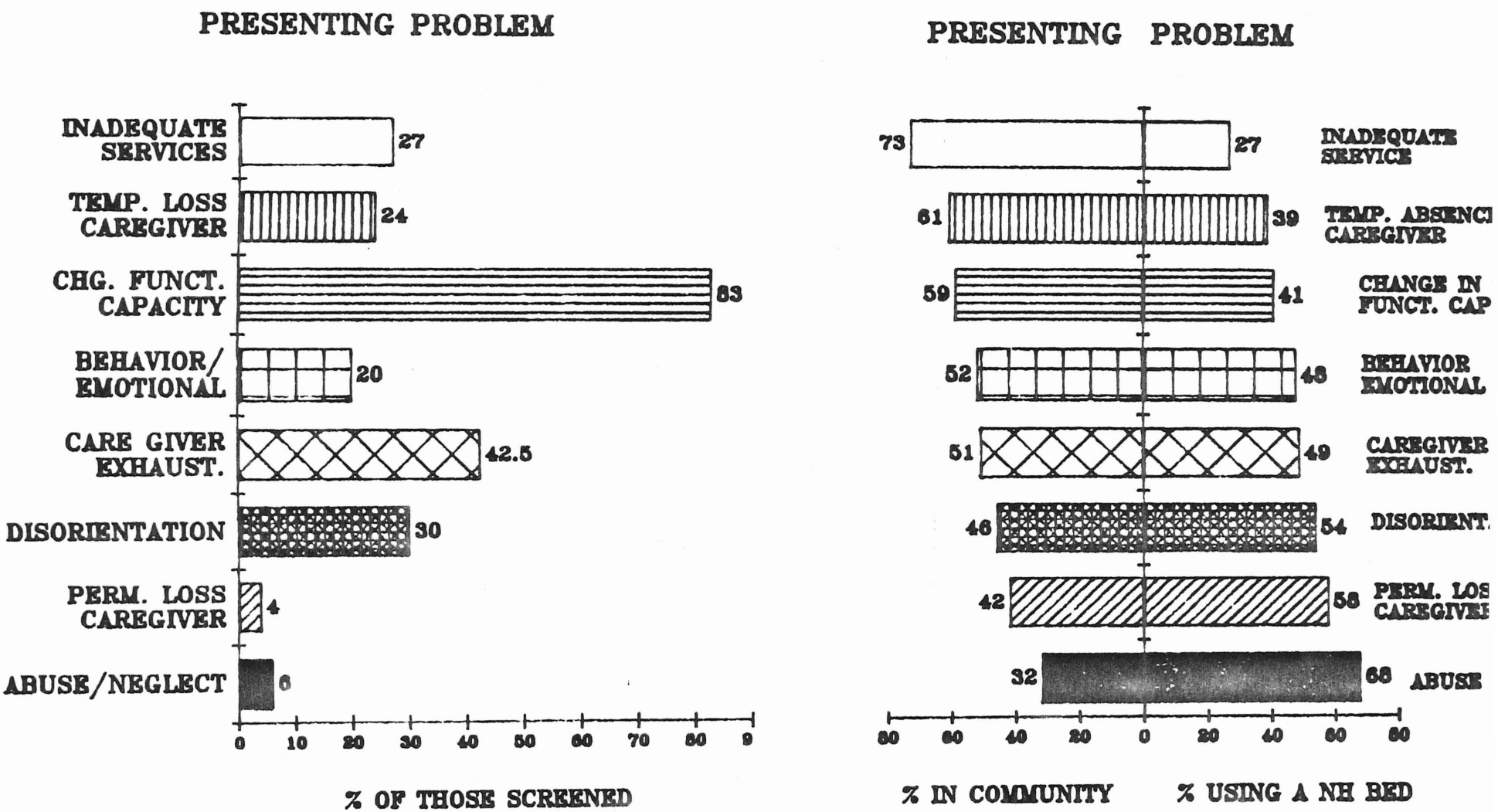
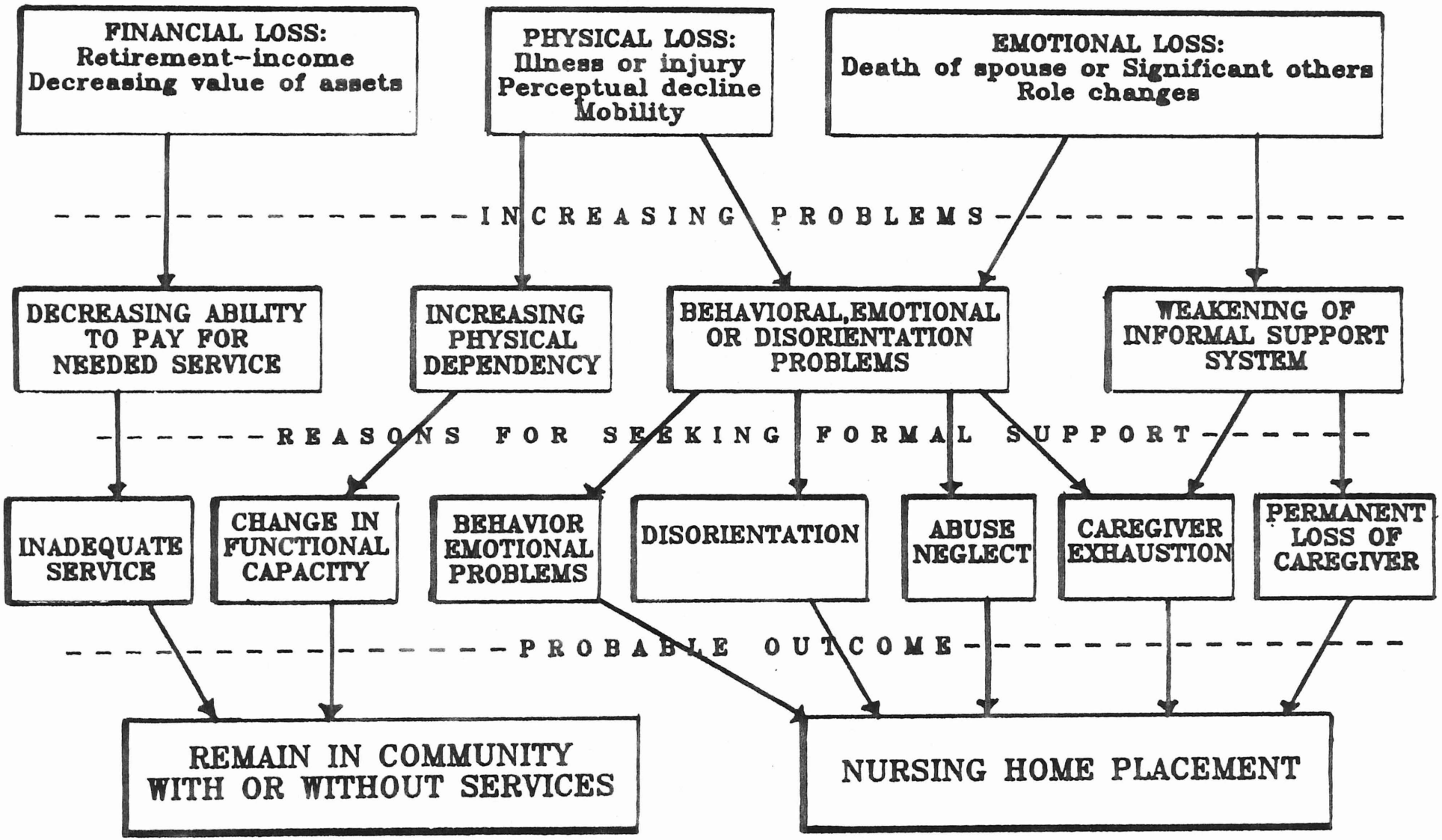


Figure 10: SIMPLIFIED DIAGRAM OF PROCESS BY WHICH PEOPLE BECOME AT RISK OF NURSING HOME PLACEMENT AS OBSERVED IN LONGITUDINAL ANALYSIS OF PERSONS UNDERGOING PREADMISSION SCREENING IN FOUR MINNESOTA COUNTIES (Data source: U. of Minnesota Center for Health Research Preadmission Screening/Alternative Care Grant Longitudinal Study)



APPENDIX 1

## NON-INSTITUTIONAL HEALTH SERVICES FOR THE ELDERLY

Public Services:

Six government programs comprise the majority of public funding for home services for the elderly. They are:

1) The Alternative Care Grant (ACG) Program

This was specifically established by the Legislature funds services to individuals to allow them to be maintained at home rather than enter a nursing home. Services include: adult day care, homemaker, home health aide, adult foster care, respite care, case management, and personal care. (Not included are skilled home nursing, home delivered meals and transportation). This program has been selected as the focus of alternative services for analysis in this report. Other public funding sources, not as focused are briefly described as follows.

2) Medicaid - Title XIX of the Social Security Act

It offers coverage for recipients of Aid to families with Dependent Children (AFDC), and Supplemental Security Income SSI (an income security program for low-income aged, blind and disabled). Minnesota's program includes provision for the "medically needy", also limited to those families and individuals who would be "demographically" or categorically eligible for AFDC of SSI (single parents with dependent children, aged, blind and disabled). Providers include county public health nursing or community health services agencies and private home health agencies.

3) Title III of the Older Americans Act

Provides funding for social services to individuals over age 60 such as congregate meals and home-delivered meals. The area agencies on aging provide funds to local service providers.

4) Title XX of the Social Security Act/Community Social Services Act

These programs are the primary funding sources for social services, available for the entire population, but often targeted to special groups such as the elderly. Many types of social services are provided through these programs--such as mental health services, chemical dependency counseling and legal assistance. Home care is one of the services available. Considerable variation of services among counties as they establish their own programs.

5) Community Health Services Program (CHS)

Provide a range of public health services to the entire population with some services targeted specifically to the elderly. The counties have a great deal of discretion with this program. The total budget for the State CHS program in fiscal year 1983 was approximately $76,000,000 with about $19,000,000 or 25 percent spent for home care.

6) Medicare - Title XVIII of the Social Security Act

Part B provides physician and other outpatient services for a monthly premium. Provides very limited coverage for long-term care services. Both nursing home care and home health care services are limited to short-term rehabilitation after a hospitalization.

Private System:

Little information exists on the extent of the private home care system which has increased dramatically in recent years. It is not possible to estimate the amount of care that is being provided in this way. Experts in the industry indicate that there will be considerably more private payment for home care in the future.*

Informal Support System:

There has been increasing evidence in the past decade that family caregiving (or informal support) is a crucial ingredient of long-term care. The informal support network of family, friends and neighbors is a major source of a broad range of long-term care services and assistance to older persons and is a critical factor in maintaining the functionally impaired person in a community-based, non-institutional setting.

When older people need help, they turn first to their families. It is estimated that 50% of all in-home services are provided by the family. Among the most severely disabled, the General Accounting Office found that 80 percent of all supportive care is provided by the family, primarily by spouses and adult children. Evidence from Minnesota show similar findings. Within the pre-admission screening program, almost 80 percent of the clients reported having a family member as the major informal caregiver. A Metropolitan Council study found that family members and other informal sources were a source of assistance for at least 79 percent of the elderly. More importantly, the amount and intensity of informal support provided by families increases with the level of impairment of the elderly person.* Stresses of caregiving may eventually result in "caregiver burnout" at which time the elderly person

may be admitted to a nursing home. Services to support caregivers such as respite care are important to prevent or delay this occuring. A number of social and demographic changes may serve to limit informal support in the future. These changes include population shifts, increased rate of divorce, and increased female labor force participation since 70-80% of the caregivers are female.*

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* Center for Health Services Research, U of M, "Home Care in Minnesota: Issues and Future Directions." January, 1985.

PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

| AGASSIZ HSA #1 COUNTY | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME RESPITE IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Beltrami | 2 | | | 1 | 1 | 2 | | | 3 |
| Clearwater | 1 | | | 1 | | 1 | | | 2 |
| Hubbard | 1 | | 1 | | 2 | | | | 2 |
| Kittson | 1 | | | 1 | 1 | | | | 2 |
| Lk the Woods | 1 | | | 1 | 1 | 1 | | | 1 |
| Mahnomen | 1 | | | 1 | 1 | | | 1 | 1 |
| Marshall | 2 | | | 1 | 1 | | | 1 | 2 |
| Norman | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 3 |
| Pennington | 1 | | 1 | 1 | 1 | 1 | | | 3 |
| Polk | 1 | | 1 | | 2 | | 1 | 1 | 3 |
| Red Lake | 1 | | | 1 | 1 | | | | 1 |
| Roseau | 2 | 1 | | 1 | 2 | | | 2 | 3 |

* Includes County Social Services, Public Health Nursing Agencies and private vendors.

Source: Department of Human Services, Waivered Services, March 1985

## PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

HSA OF WESTERN LAKE SUPERIOR
#2

| COUNTY | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME RESPITE IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Aitkin | 1 | 1 | | 1 | 1 | 1 | | | 2 |
| Carlton | 2 | | | 1 | 1 | 2 | | | 3 |
| Cook | 1 | | | 1 | 1 | 1 | | 1 | 3 |
| Itasca | 1 | | 3 | 1 | 1 | | | 1 | 4 |
| Koochiching | 1 | | | 1 | 1 | | | 1 | 2 |
| Lake | 1 | 1 | 1 | 1 | 1 | | 1 | | 3 |
| St. Louis | 1 | | 5 | 4 | 5 | 1 | 1 | | 11 |

* Includes County Social Services, Public Health Nursing Agencies and private vendors.

Source: Department of Human Services, Waivered Services, March 1985

PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

| MIN-DAK HSA #3 COUNTY | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME RESPITE IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Becker | 1 | | | 1 | 1 | 1 | | 1 | 1 |
| Clay | 1 | 1 | | 1 | 1 | | | 1 | 2 |
| Douglas | 2 | | | 1 | 2 | 1 | | 1 | 2 |
| Grant | 1 | | | 1 | 1 | 1 | | 1 | 2 |
| Ottertail | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 4 |
| Pope | 1 | 1 | 3 | 1 | 1 | | 2 | | 6 |
| Stevens | 1 | | | | | | | | 1 |
| Traverse | 1 | | | | | | | | 1 |
| Wilkin | 1 | | 1 | 1 | 1 | | | | 2 |

* Includes County Social Services, Public Health Nursing Agencies and private vendors.

Source: Department of Human Services, Waivered Services, March 1985

## PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

| CENTRAL MN HSA #4 COUNTY | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME RESPITE IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Benton | 1 | | 2 | 2 | 2 | | 3 | | 6 |
| Cass | 1 | | | 1 | 1 | | | 1 | 1 |
| Chisago | 2 | | 1 | 1 | 1 | | 2 | | 4 |
| Crow Wing | 1 | 1 | 3 | 1 | | 1 | | 1 | 4 |
| Isanti | 2 | 1 | | 1 | 1 | | | | 2 |
| Kanabec | 1 | 1 | | 1 | 1 | | | 1 | 1 |
| Mille Lacs | 2 | 1 | 3 | 1 | 1 | | 3 | 1 | 5 |
| Morrison | 2 | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 5 |
| Pine | 1 | | | 1 | 1 | 1 | 1 | | 2 |
| Sherburne | 1 | | 1 | 1 | 2 | | | 1 | 5 |
| Stearns | 1 | 1 | 3 | 1 | 2 | | | 1 | 4 |
| Todd | 1 | | | 1 | 1 | 1 | | | 1 |
| Wadena | 2 | | | 1 | 1 | 1 | | 1 | 2 |
| Wright | 1 | | 1 | 2 | 2 | | 1 | | 2 |

* Includes County Social Services, Public Health Nursing Agencies and private vendors.

Source: Department of Human Services, Waivered Services, March 1985

PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

| METRO HEALTH PLANNING BOARD #5 | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME RESPITE IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Anoka | 2 | | 1 | 6 | 4 | 5 | 2 | | 12 |
| Carver | 2 | | 1 | 1 | 1 | | 4 | | 7 |
| Dakota | 1 | | | 1 | 1 | 1 | | | 1 |
| Hennepin | 2 | | 9 | 3 | 3 | 3 | | | 13 |
| Ramsey | 2 | | 2 | 23<br>13 (live-in) | 10 | | 2 | | 24 |
| Scott | 2 | | | 1 | 1 | | | | 2 |
| Washington | 2 | | 1 | 2 | 2 | | 2 | | 6 |

* Includes County Social Services, Public Health Nursing Agencies and private vendors.

Source: Department of Human Services, Waivered Services, March 1985

PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

| MN HSA SIX #6 COUNTY | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME RESPITE IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Big Stone | 1 | 1 | | | | | | | 2 |
| Blue Earth | 1 | | | 1 | 2 | 2 | | 2 | 2 |
| Brown | 2 | 1 | | | 1 | 1 | | | 2 |
| Chippewa | 2 | | | 1 | 2 | | | | 2 |
| Cottonwood | 2 | | | 1 | 1 | | | | 2 |
| Faribault | 1 | | 1 | 1 | 1 | 1 | | 1 | 3 |
| Jackson | 1 | 1 | 1 | 1 | 1 | 1 | | | 3 |
| Kandiyohi | 2 | | 1 | 1 | 1 | 1 | | 1 | 3 |
| Lac qui Parle | 1 | 1 | | 1 | 1 | | | | 1 |
| LeSeur | 1 | | | 1 | 1 | | | | 1 |
| Lincoln | 1 | 1 | | | 1 | | | | 1 |
| Lyon | 1 | 1 | | | 1 | | | | 1 |
| Martin | 1 | | 1 | 1 | 1 | 1 | | 1 | 4 |
| McLeod | 1 | 1 | 2 | 1 | 1 | | 1 | 1 | 1 |
| Meeker | 1 | | | 1 | 1 | | | | 1 |
| Murray | 1 | 1 | | | 1 | | | | 3 |
| Nicollet | 1 | | 1 | 1 | 1 | | | | 2 |
| Nobles | 1 | 1 | | 1 | 1 | 1 | 2 | 1 | 1 |

## PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

| MN HSA SIX #6 | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME RESPITE IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Pipestone | 2 | | | 1 | 1 | | | | 2 |
| Redwood | 1 | | 1 | 2 | 2 | 1 | 1 | | 3 |
| Renville | 1 | | 1 | 1 | 1 | | 1 | | 4 |
| Rock | 2 | 1 | | 1 | 1 | 1 | | 1 | 2 |
| Sibley | 1 | 1 | 1 | 1 | 1 | | 3 | | 6 |
| Swift | | | | | | | | | 1 |
| Waseca | 1 | | | 1 | | | | 1 | 2 |
| Watonwan | 1 | | 1 | 1 | 1 | 1 | | 1 | 2 |
| Yellow Medicine | 2 | | 1 | 3 | 4 | | 1 | | 5 |

* Includes County Social Services, Public Health Nursing Agencies and private vendors.

Source: Department of Human Services, Waivered Services, March 1985

PROVIDERS OF ALTERNATIVE CARE GRANT SERVICES *
March, 1985

| SOUTHEASTERN MN #7 | CASE MANAGEMENT | ADULT FOSTER CARE | ADULT DAY CARE | HOME HEALTH CARE/AIDE | HOMEMAKER/ CHORE | HOME IN | RESPITE OUT | PERSONAL CARE | TOTAL NUMBER OF PROVIDERS |
|---|---|---|---|---|---|---|---|---|---|
| Dodge | 2 | | | 2 | 1 | | 2 | 5 | 7 |
| Fillmore | 1 | | | 1 | 1 | 1 | 2 | | 4 |
| Freeborn | 1 | | 1 | 1 | 1 | 1 | | | 2 |
| Goodhue | 1 | | 1 | 2 | 2 | 1 | | 1 | 3 |
| Houston | 1 | | 1 | 1 | 2 | 2 | 1 | | 5 |
| Mower | 1 | | 1 | 1 | 1 | 1 | | | 2 |
| Olmstead | 1 | 1 | | 1 | 2 | 1 | | 1 | 2 |
| Rice | 1 | | 2 | 2 | 1 | 1 | 7 | 1 | 8 |
| Steele | 2 | | | 1 | 1 | 1 | | | 2 |
| Wabasha | 1 | | | 1 | 1 | 1 | | 1 | 1 |
| Winona | 1 | | 1 | 1 | 2 | 1 | 3 | | 7 |

* Includes County Social Services, Public Health Nursing Agencies and private vendors.

Source: Department of Human Services, Waivered Services, March 1985

AGASSIZ
HSA #1

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Beltrami | 8.41 | 1.63 | 3.25 | 11.93 | 3.80 | 0.00 | 20.1 |
| Clearwater | 12.29 | 0.00 | 0.00 | 12.94 | 0.65 | 0.00 | 18.1 |
| Hubbard | 3.99 | 0.80 | 0.40 | 2.40 | 0.00 | 0.00 | 4.0 |
| Kittson | 0.00 | 0.00 | 0.00 | 6.38 | 0.00 | 0.00 | 4.8 |
| Lke Woods | 0.00 | 0.00 | 0.00 | 12.42 | 0.00 | 0.00 | 9.3 |
| Mahnomen | 1.12 | 0.00 | 0.00 | 3.36 | 1.12 | 0.00 | 2.2 |
| Marshall | 6.87 | 0.49 | 0.00 | 7.36 | 0.00 | 0.00 | 11.3 |
| Norman | 4.87 | 0.00 | 1.62 | 5.41 | 0.54 | 0.00 | 9.2 |
| Pennington | 3.99 | 0.00 | 0.44 | 0.44 | 0.00 | 0.00 | 3.5 |
| Polk | 3.42 | 0.72 | 1.26 | 4.14 | 0.72 | 0.00 | 5.8 |
| Red Lake | 0.00 | 0.00 | 0.00 | 5.79 | 0.00 | 0.00 | 6.9 |
| Roseau | 3.57 | 0.51 | 0.00 | 4.08 | 2.04 | 0.00 | 6.6 |
| HSA - TOTAL | 4.7/1000 | 0.5/1000 | 0.9/1000 | 6.0/1000 | 1.0/1000 | 0 | 8.9/1000 |

Source: Based on data from the Department of Human Services Pre-Admission Screening/Alternative Care Grant Program

HSA OF WESTERN LAKE SUPERIOR
HSA #2

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Aitkin | 10.23 | 1.76 | 0.71 | 4.58 | 0.35 | 0.35 | 11.6 |
| Carlton | 19.01 | 7.46 | 0.00 | 9.87 | 1.44 | 0.00 | 14.9 |
| Cook | 2.96 | 0.00 | 0.00 | 8.89 | 17.78 | 1.48 | 11.9 |
| Itasca | 2.92 | 0.81 | 2.27 | 1.62 | 0.32 | 0.00 | 5.3 |
| Koochiching | 3.98 | 0.00 | 0.00 | 7.08 | 0.44 | 0.00 | 9.7 |
| Lake | 4.92 | 4.31 | 0.00 | 8.62 | 0.00 | 0.00 | 12.3 |
| St. Louis | 7.51 | 0.22 | 1.25 | 1.84 | 0.03 | 0.00 | 7.0 |
| HSA TOTAL | 7.9/1000 | 1.1/1000 | 1.1/1000 | 3.3/1000 | 0.4/1000 | 0.04/1000 | 8.35/1000 |

Source: Based on data from the Department of Human Services Pre-Admission Screening/Alternative Care Grant Program

MIN-DAK
HSA #3

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Becker | 0.86 | 3.65 | 0.00 | 6.02 | 0.86 | 0.00 | 5.8 |
| Clay | 0.00 | 0.00 | 0.19 | 0.37 | 1.30 | 0.00 | 1.3 |
| Douglas | 5.04 | 0.84 | 0.42 | 5.67 | 0.63 | 0.00 | 9.0 |
| Grant | 0.00 | 0.00 | 0.00 | 3.22 | 0.64 | 0.00 | 3.9 |
| Ottertail | 2.91 | 1.31 | 0.20 | 2.31 | 4.52 | 0.20 | 5.1 |
| Pope | 1.73 | 0.00 | 0.00 | 2.16 | 1.73 | 0.00 | 1.7 |
| Stevens | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| Traverse | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| Wilkin | 3.85 | 0.00 | 3.08 | 2.31 | 0.00 | 0.00 | 9.2 |
| HSA TOTAL | 2.0/1000 | 1.0/1000 | 0.2/1000 | 2.8/1000 | 1.9/1000 | 0.06/1000 | 4.6/1000 |

Source: Based on data from the Department of Human Services Pre-Admission Screening/Alternative Care Grant Program

CENTRAL MN HAS
HSA #4

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Benton | 0.00 | 0.69 | 1.04 | 7.61 | 0.00 | 0.00 | 10.0 |
| Cass | 0.23 | 0.00 | 0.00 | 6.30 | 0.90 | 0.00 | 7.2 |
| Chisago | 2.06 | 1.76 | 2.94 | 6.76 | 0.59 | 0.00 | 8.8 |
| Crow Wing | 3.60 | 1.33 | 0.00 | 4.53 | 4.00 | 0.00 | 7.5 |
| Isanti | 2.97 | 0.37 | 0.37 | 1.86 | 2.60 | 0.00 | 5.2 |
| Kanabec | 4.19 | 0.00 | 0.00 | 3.66 | 0.52 | 0.00 | 4.2 |
| Mille Lacs | 6.30 | 0.32 | 3.15 | 6.62 | 2.84 | 0.00 | 9.5 |
| Morrison | 2.26 | 0.00 | 0.45 | 2.71 | 0.90 | 0.00 | 3.8 |
| Pine | 4.75 | 2.85 | 0.00 | 5.38 | 0.00 | 0.00 | 7.6 |
| Sherburne | 2.27 | 0.38 | 0.76 | 0.38 | 0.76 | 0.00 | 3.8 |
| Stearns | 10.80 | 0.86 | 0.86 | 4.58 | 0.43 | 0.17 | 12.8 |
| Todd | 6.78 | 0.73 | 0.00 | 6.54 | 3.39 | 0.00 | 11.6 |
| Wadena | 7.74 | 2.85 | 0.00 | 6.11 | 0.00 | 0.00 | 12.2 |
| Wright | 2.97 | 0.15 | 0.00 | 4.60 | 0.00 | 0.00 | 7.1 |
| HSA - TOTAL | 4.8/1000 | 0.8/1000 | 0.6/1000 | 4.8/1000 | 1.2/1000 | 0.03/1000 | 8.5/1000 |

Source: Based on the data from the Department of Human Services Pre-Admission Screening/Alternative Care Grant Program

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER

METRO HEALTH
PLANNING BOARD
HSA #5

STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Anoka | 1.83 | 2.80 | 1.35 | 2.03 | 0.00 | 0.00 | 5.6 |
| Carver | 3.12 | 1.13 | 4.82 | 6.81 | 0.00 | 0.00 | 11.9 |
| Dakota | 1.43 | 0.21 | 0.36 | 2.86 | 0.00 | 0.00 | 3.7 |
| Hennepin | 0.86 | 0.58 | 1.59 | 5.71 | 0.01 | 0.00 | 6.5 |
| Ramsey | 10.68 | 0.68 | 2.30 | 10.43 | 0.09 | 0.00 | 20.5 |
| Scott | 1.68 | 0.00 | 0.00 | 2.79 | 0.00 | 0.00 | 3.4 |
| Washington | 2.74 | 0.26 | 0.91 | 1.31 | 3.53 | 0.00 | 7.3 |
| HSA TOTAL | 3.8/1000 | 0.7/1000 | 1.7/1000 | 6.4/1000 | 0.1/1000 | 0 | 10.0/1000 |

Source: Based on data from the Department of Human Services Pre-Admission Screening/Alternative Care Grant Program

MN HSA SIX
HSA #6

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Big Stone | 0.64 | 0.00 | 0.00 | 1.91 | 1.27 | 0.64 | 1.9 |
| Blue Earth | 6.43 | 2.35 | 0.00 | 0.78 | 2.51 | 0.00 | 9.7 |
| Brown | 2.14 | 1.92 | 0.00 | 3.85 | 1.07 | 0.00 | 4.1 |
| Chippewa | 3.00 | 0.37 | 0.00 | 2.62 | 0.37 | 0.00 | 3.7 |
| Cottonwood | 2.14 | 0.00 | 0.00 | 0.71 | 0.00 | 0.00 | 2.5 |
| Faribault | 0.54 | 0.00 | 0.00 | 0.80 | 0.80 | 0.00 | 1.3 |
| Jackson | 1.31 | 0.87 | 0.00 | 0.44 | 0.87 | 0.00 | 2.2 |
| Kandiyohi | 3.81 | 2.36 | 2.72 | 4.54 | 1.63 | 0.00 | 8.7 |
| Lc q Parle | 0.00 | 0.00 | 0.00 | 0.98 | 0.00 | 0.00 | 1.5 |
| LeSeur | 2.25 | 0.00 | 0.56 | 5.61 | 0.56 | 0.00 | 6.7 |
| Lincoln | 4.28 | 0.00 | 0.00 | 1.22 | 0.00 | 0.00 | 3.7 |
| Lyon | 7.28 | 0.28 | 0.00 | 0.84 | 0.84 | 0.00 | 8.1 |
| Martin | 0.69 | 0.00 | 0.23 | 0.00 | 0.46 | 0.00 | 0.5 |
| McLeod | 1.36 | 2.95 | 4.09 | 13.63 | 2.04 | 2.73 | 32.0 |
| Meeker | 4.57 | 0.00 | 0.00 | 5.15 | 0.86 | 0.00 | 8.0 |
| Murray | 6.80 | 0.00 | 0.00 | 4.18 | 1.57 | 0.00 | 7.3 |
| Nicollet | 3.79 | 0.69 | 0.69 | 0.00 | 0.00 | 0.00 | 3.8 |
| Nobles | 8.77 | 1.13 | 1.70 | 7.36 | 0.00 | 0.00 | 12.2 |

MN HSA SIX
HSA #6

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Pipestone | 14.31 | 0.92 | 0.00 | 12.00 | 0.00 | 0.00 | 25.4 |
| Redwood | 1.69 | 0.28 | 0.00 | 0.56 | 0.28 | 0.00 | 2.8 |
| Rock | 2.83 | 1.13 | 0.00 | 1.70 | 0.00 | 0.00 | 2.8 |
| Renville | 4.35 | 1.36 | 0.81 | 5.98 | 2.72 | 0.27 | 13.0 |
| Sibley | 0.00 | 1.87 | 0.00 | 4.48 | 0.00 | 0.00 | 7.8 |
| Swift | 6.77 | 4.66 | 0.00 | 9.73 | 0.00 | 0.00 | 11.0 |
| Waseca | 0.00 | 0.00 | 0.00 | 0.00 | 4.19 | 0.00 | 4.2 |
| Watonwan | 8.61 | 1.36 | 0.00 | 3.17 | 4.08 | 0.00 | 7.7 |
| Yl Medicine | 5.11 | 1.18 | 0.79 | 4.33 | 0.39 | 0.00 | 6.7 |
| HSA TOTAL | 3.5/1000 | 1.0/1000 | 0.5/1000 | 3.6/1000 | 1.0/1000 | 1.0/1000 | 7.6/1000 |

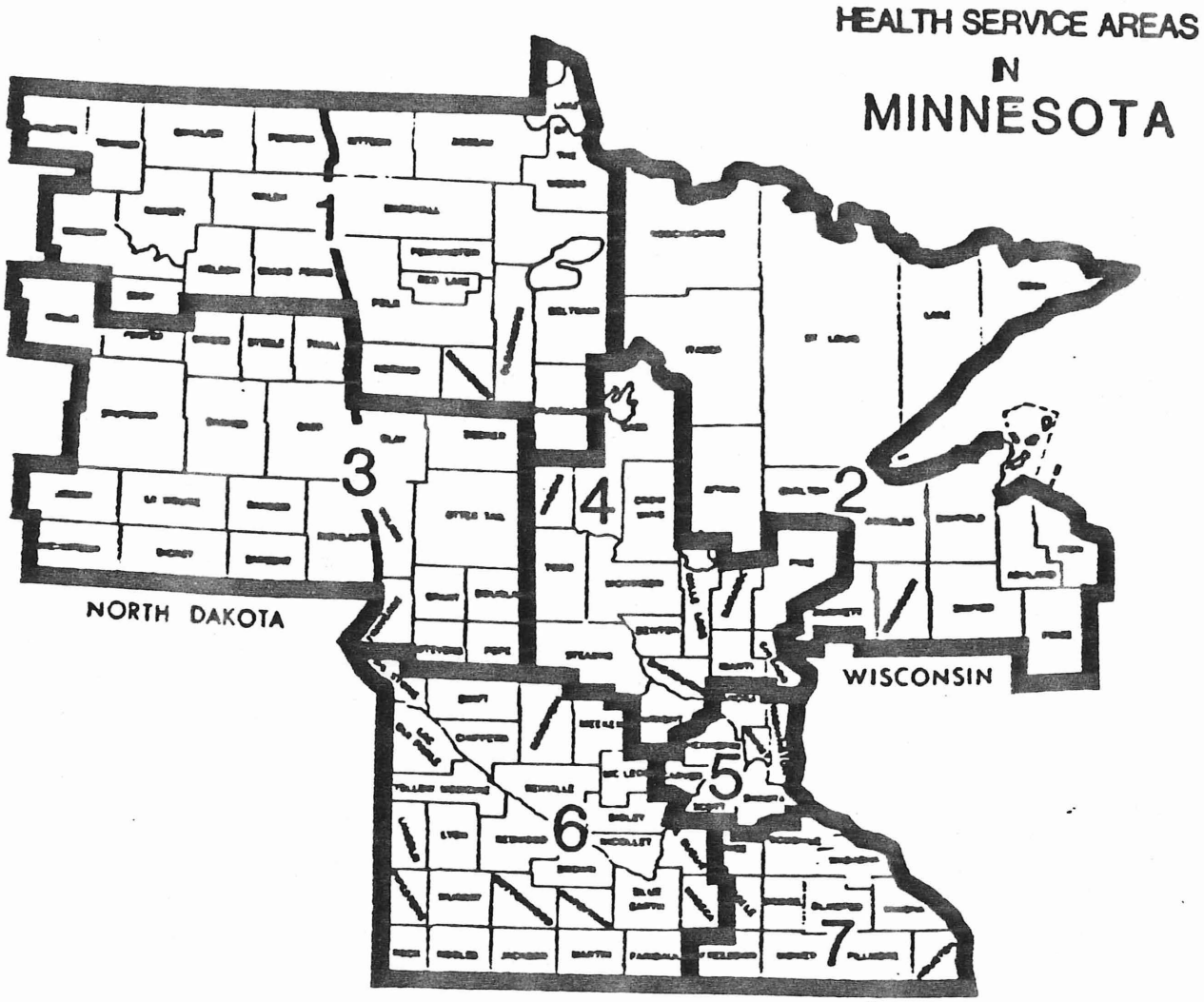
Source: Based on data from the Department of Human Services Pre-Admission Screening/Alternative Care Grant Program

SOUTHEASTERN MN
HSA #7

RATIO OF RECIPIENTS OF ALTERNATIVE SERVICES BY COUNTY/1000 POPULATION 65+ OVER STATE FISCAL YEAR 1985
(July 1, 1984 - June 30, 1985)

| COUNTY | HOMEMAKER SERVICES | RESPITE CARE | ADULT DAY CARE | HOME HEALTH AIDE SERVICES | PERSONNAL CARE | ADULT FOSTER CARE | TOTAL SERVICES PER/1000 POPULATION 65+ |
|---|---|---|---|---|---|---|---|
| Dodge | 0.52 | 2.59 | 0.52 | 6.73 | 5.18 | 0.00 | 8.3 |
| Fillmore | 1.72 | 0.74 | 0.00 | 7.61 | 5.64 | 0.00 | 12.5 |
| Freeborn | 8.94 | 0.00 | 0.86 | 7.22 | 0.00 | 0.00 | 10.1 |
| Goodhue | 5.63 | 5.47 | 0.64 | 7.56 | 0.16 | 0.00 | 13.2 |
| Houston | 3.19 | 2.48 | 1.42 | 3.90 | 2.13 | 0.00 | 4.3 |
| Mower | 1.44 | 0.72 | 4.76 | 9.95 | 5.33 | 0.00 | 12.4 |
| Olmstead | 4.95 | 2.75 | 1.32 | 5.39 | 1.98 | 0.33 | 11.8 |
| Rice | 5.96 | 1.62 | 0.00 | 7.94 | 0.54 | 0.00 | 10.5 |
| Steele | 10.06 | 0.00 | 0.00 | 6.62 | 0.49 | 0.00 | 11.3 |
| Wabasha | 7.02 | 3.34 | 0.00 | 2.68 | 0.00 | 0.00 | 11.7 |
| Winona | 7.81 | 2.03 | 0.00 | 9.06 | 7.03 | 0.00 | 11.2 |
| HSA - TOTAL | 5.4/1000 | 2.0/1000 | 1.0/1000 | 7.1/1000 | 2.6/1000 | 0 | 11.1/1000 |

Source: Based on data from the Department of Human Services Pre-Admission Screening/Alternative Care Grant Program




| AREA | HEALTH SYSTEMS AGENCY |
|---|---|
| 1 | Agassiz Health Systems Agency |
| 2 | Western Lake Superior Health Systems Agency |
| 3 | Min-Dak Health Systems Agency |
| 4 | Central Minnesota Health Systems Agency |
| 5 | Metro Health Board |
| 6 | Minnesota Health Systems Agency Six |
| 7 | Southeastern Minnesota Health Systems Agency |

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

AGASSIZ HSA
HSA #1

| COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Beltrami | 4 | 301 | 81.62 | 92.4 |
| Clearwater | 2 | 166 | 107.37 | 97.6 |
| Hubbard | 1 | 130 | 51.90 | 100.0 |
| Kittson | 2 | 166 | 132.38 | 98.8 |
| Lke Woods | 1 | 52 | 80.75 | 98.1 |
| Mahnomen | 1 | 48 | 53.81 | 100.0 |
| Marshall | 1 | 102 | 50.02 | 98.0 |
| Norman | 3 | 225 | 121.75 | 96.0 |
| Pennington | 2 | 165 | 73.20 | 98.8 |
| Polk | 8 | 606 | 111.73 | 96.4 |
| Red Lake | 1 | 74 | 85.65 | 95.9 |
| Roseau | 3 | 153 | 78.02 | 98.0 |
| HSA - TOTAL | 29 | 2,188 | 87.3 | 96.8% |

1 - Minnesota Department of Health, 1985 Licensure Data
2 - Minnesota Department of Health, Occupancy Data, September 30, 1984

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

HSA OF WESTERN LAKE SUPERIOR
HSA #2

| COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Aitkin | 2 | 154 | 54.30 | 77.3 |
| Carlton | 3 | 278 | 66.89 | 97.5 |
| Cook | 1 | 47 | 69.63 | 100.0 |
| Itasca | 4 | 309 | 50.05 | 96.7 |
| Koochiching | 3 | 198 | 87.61 | 94.4 |
| Lake | 2 | 105 | 64.62 | 100.0 |
| St. Louis | 20 | 2447 | 76.27 | 92.8 |
| HSA TOTAL | 35 | 3,538 | 71.03 | 93.2% |

1 - Minnesota Department of Health, 1985 Licensure Data
2 - Minnesota Department of Health, Occupancy Data, September 30, 1984

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

HSA OF MIN-DAK
HSA #3

| COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Becker | 4 | 409 | 87.86 | 99.3 |
| Clay | 4 | 426 | 79.18 | 99.8 |
| Douglas | 4 | 480 | 100.86 | 95.8 |
| Grant | 3 | 192 | 123.71 | 94.8 |
| Ottertail | 11 | 852 | 85.61 | 98.8 |
| Pope | 3 | 191 | 82.61 | 92.5 |
| Stevens | 1 | 144 | 87.11 | 99.3 |
| Traverse | 2 | 125 | 111.61 | 97.6 |
| Wilkin | 1 | 124 | 95.38 | 99.2 |
| HSA TOTAL | 33 | 2,943 | 90.0 | 98.0% |

1 - Minnesota Department of Health, 1985 Licensure Data
2 - Minnesota Department of Health, Occupancy Data, September 30, 1984

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

CENTRAL MN HSA
HSA #4

| COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Benton | 3 | 478 | 165.28 | 95.8 |
| Cass | 3 | 522 | 117.54 | 95.2 |
| Chisago | 4 | 317 | 99.59 | 96.8 |
| Crow Wing | 4 | 406 | 54.10 | 95.1 |
| Isanti | 2 | 272 | 100.93 | 79.4 |
| Kanabec | 1 | 87 | 45.53 | 100.0 |
| Mille Lacs | 3 | 339 | 106.81 | 98.5 |
| Morrison | 3 | 378 | 85.44 | 94.2 |
| Pine | 2 | 211 | 66.84 | 80.5 |
| Sherburne | 4 | 456 | 172.79 | 99.2 |
| Stearns | 7 | 516 | 44.58 | 96.2 |
| Todd | 2 | 201 | 48.68 | 100.0 |
| Wadena | 3 | 306 | 124.59 | 100.0 |
| Wright | 7 | 556 | 82.55 | 98.0 |
| HSA - TOTAL | 48 | 5,045 | 82.5 | 95.2% |

1 - Minnesota Department of Health, 1985 Licensure Data
2 - Minnesota Department of Health, Occupancy Data, September 30, 1984

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

METRO HEALTH
PLANNING BOARD
HSA #5

| COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Anoka | 7 | 695 | 67.02 | 94.7 |
| Carver | 3 | 192 | 54.45 | 99.5 |
| Dakota | 9 | 1113 | 79.64 | 98.0 |
| Hennepin | 80 | 10950 | 101.50 | 90.7 |
| Ramsey | 37 | 5057 | 90.02 | 95.8 |
| Scott | 4 | 466 | 130.09 | 95.7 |
| Washington | 5 | 665 | 86.84 | 99.8 |
| HSA TOTAL | 145 | 19,138 | 94.2 | 93.1% |

1 - Minnesota Department of Health, 1985 Licensure Data
2 - Minnesota Department of Health, Occupancy Data, September 30, 1984

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

| MN HSA SIX COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Big Stone | 3 | 162 | 103.12 | 98.8 |
| Blue Earth | 6 | 503 | 78.88 | 95.6 |
| Brown | 5 | 387 | 70.28 | 99.2 |
| Chippewa | 2 | 215 | 80.55 | 100.0 |
| Cottonwood | 3 | 222 | 79.34 | 98.2 |
| Faribault | 3 | 302 | 81.03 | 99.0 |
| Jackson | 4 | 211 | 92.02 | 98.6 |
| Kandiyohi | 5 | 439 | 79.64 | 97.9 |
| Lc q Parle | 2 | 210 | 103.35 | 98.6 |
| LeSueur | 3 | 251 | 70.45 | 97.2 |
| Lincoln | 3 | 150 | 91.69 | 96.0 |
| Lyon | 5 | 358 | 100.25 | 98.9 |
| Martin | 4 | 335 | 77.44 | 98.8 |
| McLeod | 3 | 339 | 76.99 | 96.0 |
| Meeker | 4 | 307 | 87.64 | 98.0 |
| Murray | 2 | 126 | 65.87 | 100.0 |
| Nicollet | 3 | 201 | 69.21 | 97.0 |
| Nobles | 5 | 258 | 72.98 | 98.8 |

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

MN HSA SIX
HSA #6

| COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Pipestone | 3 | 200 | 92.29 | 97.5 |
| Redwood | 6 | 393 | 110.61 | 99.7 |
| Rock | 2 | 118 | 66.70 | 98.1 |
| Renville | 5 | 359 | 97.50 | 98.3 |
| Sibley | 3 | 173 | 64.55 | 96.5 |
| Swift | 2 | 147 | 62.21 | 98.0 |
| Waseca | 3 | 199 | 75.87 | 98.5 |
| Watonwan | 2 | 168 | 76.16 | 98.2 |
| Yl Medicine | 3 | 219 | 90.87 | 99.1 |
| HSA TOTAL | 94 | 6,952 | 82.2 | 98.2% |

1 - Minnesota Department of Health, 1985 Licensure Data
2 - Minnesota Department of Health, Occupancy Data, September 30, 1984

# INSTITUTIONAL LONG TERM CARE SERVICES: INVENTORY SUMMARY

SOUTHEASTERN MN HSA
HSA #7

| COUNTY | NUMBER NURSING FACILITIES[1] | NUMBER BEDS[1] | BED/POPULATION RATIO 1985 | OCCUPANCY RATE[2] 1984 |
|---|---|---|---|---|
| Dodge | 2 | 156 | 80.79 | 100.0 |
| Fillmore | 7 | 494 | 121.23 | 93.1 |
| Freeborn | 4 | 468 | 80.48 | 99.1 |
| Goodhue | 8 | 815 | 131.16 | 98.7 |
| Houston | 4 | 298 | 105.79 | 96.6 |
| Mower | 6 | 526 | 75.81 | 97.7 |
| Olmstead | 8 | 772 | 84.98 | 95.9 |
| Rice | 7 | 580 | 104.67 | 96.7 |
| Steele | 3 | 300 | 73.58 | 99.0 |
| Wabasha | 4 | 247 | 82.61 | 94.5 |
| Winona | 6 | 574 | 89.65 | 95.7 |
| HSA - TOTAL | 59 | 5,230 | 93.6 | 96.8% |
| STATE TOTAL | 443 | 45,034 | 87.9 | 95.1% |

1 - Minnesota Department of Health, 1985 Licensure Data
2 - Minnesota Department of Health, Occupancy Data, September 30, 1984

APPENDIX 6

PROJECTED OCCUPANCY BY COUNTY, HSA, AND STATE, 1987.

| County Name | HSA No. | 9/1984 Lic.Beds | 9/1984 Occup. | %Occup. 1984 | Proj. # Occ.Beds 1987 | Proj.Bed Decline 1987 | Proj. Occ.% 1987 |
|---|---|---|---|---|---|---|---|
| "AITKIN" | 2 | 154 | 119 | 77.3 | 79 | 40 | 51.3 |
| "ANOKA" | 5 | 695 | 658 | 94.7 | 630 | 28 | 90.6 |
| "BECKER" | 3 | 409 | 406 | 99.3 | 411 | -5 | 100.5 |
| "BELTRAMI" | 1 | 301 | 278 | 92.4 | 250 | 28 | 83.2 |
| "BENTON" | 4 | 478 | 458 | 95.8 | 453 | 5 | 94.8 |
| "BIG STONE" | 6 | 162 | 160 | 98.8 | 157 | 3 | 97.0 |
| "BLUE EARTH" | 6 | 503 | 481 | 95.6 | 440 | 41 | 87.5 |
| "BROWN" | 6 | 387 | 384 | 99.2 | 366 | 18 | 94.7 |
| "CARLTON" | 2 | 278 | 271 | 97.5 | 216 | 55 | 77.7 |
| "CARVER" | 5 | 192 | 191 | 99.5 | 156 | 35 | 81.0 |
| "CASS" | 4 | 502 | 478 | 95.2 | 469 | 9 | 93.3 |
| "CHIPPEWA" | 6 | 215 | 215 | 100.0 | 207 | 8 | 96.1 |
| "CHISAGO" | 4 | 317 | 307 | 96.8 | 287 | 20 | 90.4 |
| "CLAY" | 3 | 426 | 425 | 99.8 | 416 | 9 | 97.6 |
| "CLEARWATER" | 1 | 166 | 162 | 97.6 | 160 | 2 | 96.2 |
| "COOK" | 2 | 47 | 47 | 100.0 | 40 | 7 | 84.6 |
| "COTTONWOOD" | 6 | 222 | 218 | 98.2 | 209 | 9 | 94.2 |
| "CROW WING" | 4 | 406 | 386 | 95.1 | 224 | 162 | 55.2 |
| "DAKOTA" | 5 | 1113 | 1091 | 98.0 | 1197 | -106 | 107.6 |
| "DODGE" | 7 | 156 | 156 | 100.0 | 151 | 5 | 97.0 |
| "DOUGLAS" | 3 | 480 | 460 | 95.8 | 441 | 19 | 91.8 |
| "FARIBAULT" | 6 | 302 | 299 | 99.0 | 297 | 2 | 98.2 |
| "FILLMORE" | 7 | 494 | 460 | 93.1 | 442 | 18 | 89.5 |
| "FREEBORN" | 7 | 468 | 464 | 99.1 | 436 | 28 | 93.2 |
| "GOODHUE" | 7 | 794 | 784 | 98.7 | 721 | 63 | 90.8 |
| "GRANT" | 3 | 192 | 182 | 94.8 | 184 | -2 | 96.0 |
| "HENNEPIN" | 5 | 10556 | 9573 | 90.7 | 9406 | 167 | 89.1 |
| "HOUSTON" | 7 | 298 | 288 | 96.6 | 267 | 21 | 89.6 |
| "HUBBARD" | 1 | 130 | 130 | 100.0 | 127 | 3 | 97.5 |
| "ISANTI" | 4 | 272 | 216 | 79.4 | 211 | 5 | 77.6 |
| "ITASCA" | 2 | 269 | 260 | 96.7 | 166 | 94 | 61.7 |
| "JACKSON" | 6 | 211 | 208 | 98.6 | 206 | 2 | 97.5 |
| "KANABEC" | 4 | 87 | 87 | 100.0 | 86 | 1 | 99.2 |
| "KANDIYOHI" | 6 | 439 | 430 | 97.9 | 402 | 28 | 91.6 |
| "KITTSON" | 1 | 166 | 164 | 98.8 | 166 | -2 | 99.8 |
| "KOOCHICHING" | 2 | 198 | 187 | 94.4 | 178 | 9 | 89.9 |
| "LAC QUI PARLE" | 6 | 210 | 207 | 98.6 | 203 | 4 | 96.6 |
| "LAKE" | 2 | 105 | 105 | 100.0 | 84 | 21 | 80.2 |
| "LKE THE WOODS" | 1 | 52 | 51 | 98.1 | 47 | 4 | 90.8 |
| "LE SUEUR" | 6 | 251 | 244 | 97.2 | 234 | 10 | 93.4 |
| "LINCOLN" | 6 | 150 | 144 | 96.0 | 131 | 13 | 87.2 |
| "LYON" | 6 | 358 | 354 | 98.9 | 319 | 35 | 89.1 |
| "MCLEOD" | 6 | 339 | 316 | 93.2 | 269 | 47 | 79.4 |
| "MAHNOMEN" | 1 | 48 | 48 | 100.0 | 48 | 0 | 100.0 |
| "MARSHALL" | 1 | 102 | 100 | 98.0 | 94 | 6 | 92.2 |
| "MARTIN" | 6 | 335 | 331 | 98.8 | 313 | 18 | 93.6 |
| "MEEKER" | 6 | 306 | 300 | 98.0 | 273 | 27 | 89.2 |
| "MILLE LACS" | 4 | 339 | 334 | 98.5 | 314 | 20 | 92.7 |
| "MORRISON" | 4 | 378 | 356 | 94.2 | 350 | 6 | 92.6 |
| "MOWER" | 7 | 526 | 514 | 97.7 | 476 | 38 | 90.5 |
| "MURRAY" | 6 | 126 | 126 | 100.0 | 122 | 4 | 97.2 |

APPENDIX 6

PROJECTED OCCUPANCY BY COUNTY, HSA, AND STATE, 1987.

| County Name | HSA No. | 9/1984 Lic.Beds | 9/1984 Occup. | %Occup. 1984 | Proj. # Occ.Beds 1987 | Proj.Bed Decline 1987 | Proj. Occ.% 1987 |
|---|---|---|---|---|---|---|---|
| "NICOLLET" | 6 | 201 | 195 | 97.0 | 188 | 7 | 93.7 |
| "NOBLES" | 6 | 258 | 255 | 98.8 | 240 | 15 | 93.0 |
| "NORMAN" | 1 | 225 | 216 | 96.0 | 208 | 8 | 92.5 |
| "OLMSTED" | 7 | 738 | 708 | 95.9 | 656 | 52 | 88.9 |
| "OTTERTAIL" | 3 | 835 | 825 | 98.8 | 769 | 56 | 92.1 |
| "PENNINGTON" | 1 | 165 | 163 | 98.8 | 145 | 18 | 87.9 |
| "PINE" | 4 | 221 | 178 | 80.5 | 180 | -2 | 81.3 |
| "PIPESTONE" | 6 | 197 | 192 | 97.5 | 164 | 28 | 83.1 |
| "POLK" | 1 | 606 | 584 | 96.4 | 557 | 27 | 91.9 |
| "POPE" | 3 | 191 | 182 | 95.3 | 159 | 23 | 83.1 |
| "RAMSEY" | 5 | 4850 | 4645 | 95.8 | 4311 | 334 | 88.9 |
| "RED LAKE" | 1 | 74 | 71 | 95.9 | 67 | 4 | 90.0 |
| "REDWOOD" | 6 | 393 | 392 | 99.7 | 372 | 20 | 94.5 |
| "RENVILLE" | 6 | 359 | 353 | 98.3 | 330 | 23 | 92.0 |
| "RICE" | 7 | 580 | 561 | 96.7 | 505 | 56 | 87.1 |
| "ROCK" | 6 | 52 | 51 | 98.1 | 46 | 5 | 88.4 |
| "ROSEAU" | 1 | 153 | 150 | 98.0 | 147 | 3 | 96.3 |
| "ST. LOUIS" | 2 | 2447 | 2272 | 92.8 | 2113 | 159 | 86.4 |
| "SCOTT" | 5 | 466 | 446 | 95.7 | 437 | 9 | 93.8 |
| "SHERBURNE" | 4 | 456 | 448 | 98.2 | 449 | -1 | 98.5 |
| "SIBLEY" | 6 | 173 | 167 | 96.5 | 152 | 15 | 88.1 |
| "STEARNS" | 4 | 515 | 490 | 95.1 | 393 | 97 | 76.3 |
| "STEELE" | 7 | 300 | 297 | 99.0 | 260 | 37 | 86.6 |
| "STEVENS" | 3 | 144 | 143 | 99.3 | 143 | 0 | 99.0 |
| "SWIFT" | 6 | 147 | 144 | 98.0 | 123 | 21 | 83.4 |
| "TODD" | 4 | 201 | 201 | 100.0 | 177 | 24 | 88.2 |
| "TRAVERSE" | 3 | 125 | 122 | 97.6 | 122 | 0 | 97.4 |
| "WABASHA" | 7 | 247 | 228 | 92.3 | 218 | 10 | 88.1 |
| "WADENA" | 4 | 306 | 306 | 100.0 | 293 | 13 | 95.9 |
| "WASECA" | 6 | 199 | 196 | 98.5 | 193 | 3 | 96.9 |
| "WASHINGTON" | 5 | 593 | 592 | 99.8 | 581 | 11 | 98.0 |
| "WATONWAN" | 6 | 168 | 165 | 98.2 | 144 | 21 | 85.7 |
| "WILKIN" | 3 | 124 | 123 | 99.2 | 116 | 7 | 93.3 |
| "WINONA" | 7 | 516 | 494 | 95.7 | 503 | -9 | 97.5 |
| "WRIGHT" | 4 | 556 | 545 | 98.0 | 535 | 10 | 96.3 |
| "YELLOW MEDICINE" | 6 | 219 | 217 | 99.1 | 216 | 1 | 98.5 |
| "STATE TOTALS" | | 44110 | 41930 | 95.1 | 39617 | 2313 | 89.8 |
| Agassiz | 1 | 2188 | 2117 | 96.8 | 2016 | 101 | 92.2 |
| Western Lake Superior | 2 | 3498 | 3261 | 93.2 | 2876 | 385 | 82.2 |
| Min-Dak | 3 | 2926 | 2868 | 98.0 | 2759 | 109 | 94.3 |
| Central | 4 | 5034 | 4790 | 95.2 | 4422 | 368 | 87.8 |
| Metropolitan | 5 | 18465 | 17196 | 93.1 | 16718 | 478 | 90.5 |
| Six (Southwest) | 6 | 6882 | 6744 | 98.0 | 6316 | 428 | 91.8 |
| Southeastern | 7 | 5117 | 4954 | 96.8 | 4635 | 319 | 90.6 |

# APPENDIX 7

## METHODOLOGY

The projections of the anticipated demand for and supply of nursing home beds were calculated by using data from several different sources. The overall design of the study, the major assumptions, and the data sources are described sequentially in this section.

### 1. STUDY DESIGN.

The first step in the analysis was to establish the licensed capacity, average length of stay, and occupancy for the base period (October 1, 1983, through September 30, 1984--the latest period for which data were available). Because we needed all three types of data on each facility, we excluded facilities for which data were incomplete. These fell into three categories: (1) One facility for which the data were clearly inaccurate, (2) facilities that opened during the base period, and (3) facilities that began operation after the base period.

The second step in the analysis was to account for the effect of population growth between 1984 and 1987 on admissions in 1987, and the effect of population growth between 1984 and 1985 on discharges. Using the State Demographer's county population projections, we interpolated to obtain the desired projections. The ratio of the 1987 projection to that for 1984 was applied to the number of admissions in 1984 to project the number of admissions in 1987. The ratio of the 1985 projection to that for 1984 was applied to the number of discharges in 1984 to project the number of discharges in 1987. (A shorter period of time was used to adjust the number of discharges because the 1984 population figure already captures most of the population effect on discharges.)

The third step was to estimate the effect of preadmission screening and alternative care grants in 1987. We analyzed the number of screenings in each county during state fiscal year 1985, the only period of time for which the state has automated data. Using a single moving average methodology, we projected the number of screenings forward, so that the level projected for the end of 1985 was held constant through 1987. We subtracted from this number of screenings the number of persons who did not enter a nursing home in 1985, and we added the number of persons who had been screened earlier and entered a home in 1985. This enabled us to calculate a net proportion of nursing home admissions to screenings, and we multiplied the projected unadjusted admissions by this proportion to obtain the projected adjusted admissions in 1987.

The fourth step was to calculate the change in occupancy in 1987. We subtracted the projected adjusted admissions for 1987 from the projected discharges, and we annualized this number by dividing by the average length of stay.

## 2. MAJOR ASSUMPTIONS.

To the extent possible, we used assumptions that would result in conservative estimates in the decline in occupancy in 1987. Those assumptions are:

1. We used the occupancy of each facility as of September 30, 1984. The statewide census on this date was 0.2% higher than the average daily census during the report year.

2. We assumed no change in occupancy during 1985 and 1986. In effect, the assumption is that any increase in occupancy resulting from growth of the elderly population during these years is offset by the preadmission screening/alternative care grants programs and increases in the supply of beds (i.e., the facilities excluded from the analysis).

3. We assumed no change in the average length of stay between 1984 and 1987.

## 3. DATA SOURCES.

The projections of the number of elderly Minnesotans are interpolations between the 1980 census and the State Demographer's projections for 1985 and 1990, as contained in the Demographer's Minnesota Population Projections, 1980-2010. The projections are county-specific, and they use five-year age and sex groups.

The data on the current supply of licensed nursing home beds come from the Department of Health's Directory of Licensed and Certified Health Care Facilities for 1984, supplemented by information on all changes up through December, 1985.

Data on the occupancy rates, unoccupied beds, and the average length of stay were supplied by the Department of Health, which extracted the data from its Annual Statistical Report to the Commissioner of Health. The data cover federal fiscal year 1984 (October 1, 1983, to September 30, 1984), the last reporting period for which the Department of Health has complete data. The analysis used the facility census as of September 30, 1984, to establish occupancy rates. The average length of stay is for persons discharged from nursing homes during the reporting period.

Preadmission screening data for each county were taken from the Department of Human Services automated data base, covering state fiscal year 1985. The data base includes all persons screened during the fiscal year, persons screened in earlier years but still receiving alternative services, and persons screened earlier but whose service plan changed during the year.

Data on the use of alternative care services by county were provided by the Department of Human Services, covering state fiscal year 1985.

Longitudinal data on factors relating to placement in nursing homes were provided by the University of Minnesota Center For Health Services Research. Their data were collected longitudinally on all clients screened in Hennepin, Ramsey, Blue Earth, and Crow Wing counties during September through November of 1984.

The Research Department of the House of Representatives developed the UNICAST software that we used to project the screenings forward.

APPENDIX 8

EXCLUDED FACILITIES

The following facilities were excluded from the projections of occupancy rates and occupied beds for 1987 for the reasons indicated:

| Facility | County | # Excl. Beds | Reason for Exclusion |
|---|---|---|---|
| Pine River | Cass | 20 | C |
| Cannon Falls Manor | Goodhue | 107 | F |
| Abbott Northwestern | Hennepin | 18 | B |
| Ebenezer Caroline | Hennepin | 227 | A |
| Fairview & Deaconess H. | Hennepin | 15 | F |
| Marantha (Brooklyn Center) | Hennepin | 8 | C |
| Nile Healthcare | Hennepin | 125 | A |
| Teacher's Home Infrm. | Hennepin | 1 | F |
| Northern Itasca NH | Itasca | 40 | C |
| Dassel Lakeside Comm. H. | Meeker | 1 | F |
| Charter House | Olmsted | 34 | C |
| Broen Memorial Home | Otter Tail | 17 | F |
| Pipestone Cty. Med. Ctr. | Pipestone | 3 | F |
| Episcopal Church H. | Ramsey | 51 | D |
| Langden Place | Ramsey | 140 | D |
| United Hospital | Ramsey | 16 | B |
| Mary J. Brown Sam. (Luverne) | Rock | 66 | E |
| Paynesville Community Hosp. | Stearns | 1 | F |
| Woodbury Health Care Ctr. | Washington | 72 | F |
| Villa Nursing Home | Winona | 58 | A |
| Granite Manor | Yellow Med. | 6 | C |

A - These facilities opened during the period from October 1, 1983, and September 30, 1984. Including them would have distorted their counties' average length of stay and projected occupancy rates.

B - These facilities were licensed for C&NC beds throughout the year, but the beds were not in operation.

C - These facilities opened after September 30, 1984.

D - These facilities have not yet opened; they are exempt from the moratorium.

E - The length of stay data for this facility were clearly inaccurate. Including it would have distorted the projected occupancy for Rock County in 1987.

F - These facilities added beds after September 30, 1984. The added beds are not included in the projected occupancy rates.

APPENDIX 8

EXCLUDED FACILITIES

The following facilities were excluded from the projections of occupancy rates and occupied beds for 1987 for the reasons indicated:

| Facility | County | # Excl. Beds | Reason for Exclusion |
|---|---|---|---|
| Pine River | Cass | 20 | C |
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| Fairview & Deaconess H. | Hennepin | 15 | F |
| Marantha (Brooklyn Center) | Hennepin | 8 | C |
| Nile Healthcare | Hennepin | 125 | A |
| Teacher's Home Infrm. | Hennepin | 1 | F |
| Northern Itasca NH | Itasca | 40 | C |
| Dassel Lakeside Comm. H. | Meeker | 1 | F |
| Charter House | Olmstead | 34 | C |
| Broen Memorial Home | Otter Tail | 17 | F |
| Pipestone Cty. Med. Ctr. | Pipestone | 3 | F |
| Episcopal Church H. | Ramsey | 51 | D |
| Langden Place | Ramsey | 140 | D |
| United Hospital | Ramsey | 16 | B |
| Mary J. Brown Sam. (Luverne) | Rock | 66 | E |
| Paynesville Community Hosp. | Stearns | 1 | F |
| Woodbury Health Care Ctr. | Washington | 72 | F |
| Villa Nursing Home | Winona | 58 | A |
| Granite Manor | Yellow Med. | 6 | C |

A - These facilities opened during the period from October 1, 1983, and September 30, 1984. Including them would have distorted their counties' average length of stay and projected occupancy rates.

B - These facilities were licensed for C&NC beds throughout the year, but the beds were not in operation.

C - These facilities opened after September 30, 1984.

D - These facilities have not yet opened; they are exempt from the moratorium.

E - The length of stay data for this facility were clearly inaccurate. Including it would have distorted the projected occupancy for Rock County in 1987.

F - These facilities added beds after September 30, 1984. The added beds are not included in the projected occupancy rates.

Sioux Valley Hospital in New Ulm (Brown County) closed its 29 C&NC beds after September 30, 1984. The facility is included in the analysis because it was occupied during the year ending September 30, 1984.

Lakeside Medical Center in Pine City had 135 licensed nursing home beds in 1984 and all were included in the analysis. The inventory for 1985 includes only 125 licensed beds for this facility.