PLANNING STUDY FOR RESIDENTIAL CARE IN MINNESOTA

Prepared for:
MINNESOTA COMPREHENSIVE HEALTH PLANNING AGENCY ST. PAUL, MINNESOTA

STANFORD RESEARCH INSTITUTE
MENLO PARK, CALIFORNIA
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I INTRODUCTION

Background

In October 1967, Governor Harold Le Vander established the Minnesota Comprehensive Health Planning Agency under the provision and mandates of PL 89-749 and stated that health and welfare planning should be a long range response to the needs of Minnesota's people and that it should grow with direction in integrated, creative, and flexible ways. Among the specific responsibilities delineated for that agency's attention was that there be: "a thorough review of the utilization of the state institutions and the planning for needs of those persons who are provided residential care in those institutions."

Of particular interest were the mentally ill, the mentally retarded, the elderly, the alcoholic and drug dependent, and handicapped children. The Governor stressed that in this review, new trends, new concepts, and new approaches in care and the state's emphasis on decentralized care be considered. Specific recommendations and a set of comprehensive health, welfare, and rehabilitation policies are to be presented to Governor Le Vander in the fall of 1968 for presentation to the Minnesota State Legislature for action in its next session.

Planning for persons with these problems was deemed necessary at this time as it was recognized that:

1. Minnesota's facilities are becoming obsolete and need renovation or replacement.

2. Funding sources for programs and planning have changed.

3. There are unmet needs, and traditional programs and methods of care are not effective.

4. There are new modalities of care for these problems that would affect the institutionalization of these persons.

5. Under present public and private programs, duplication as well as fragmentation exists.
6. Distribution and opportunity for care is not even throughout the state; and there is lack of coordination and continuity of services.

7. Increasing costs make a cost-benefit analysis of various treatment methods imperative.

8. Trends in decentralization of provision of health services are being developed within regional planning areas.

In April 1968, Minnesota's Comprehensive Health Planning Agency under the Direction of Ellen Z. Fifer, M.D., contracted with the Health Planning Research program of SRI for its staff to assist that agency in planning for residential care systems for Minnesota.

Objectives

The objectives of this four-month study have been to collect data and material and to present study findings with alternatives of care for choice for an integrated care program for those persons with the problems noted earlier. Existing data were collected, analyzed, and presented for the use of the Minnesota Health Planning Agency. It is to be used to develop and to support long range planning directions and policy decisions. The study was funded through federal Comprehensive Health Planning Grant No. 60122-68.

Scope and Method of Approach

The study was limited to the problems of residential care for persons in Minnesota who are mentally ill, mentally retarded, alcohol and drug dependent, multiply handicapped children, and elderly. However, these problems impinge on the areas of education, correction, public assistance, poverty, and special medical care. Evaluation would not be valid unless there was recognition of these interrelationships, which were reviewed only as they affected a problem area. The study excluded plans for and evaluation of individual facilities. The focus of facility and organization visits in the fieldwork was to gain insight into the general operational structure of Minnesota's institutions and to determine the level of care of the persons in those institutions. The fieldwork permitted the research team to gain knowledge of trends and movements in the problem areas and the expressed needs and opinions of those administrators and medical directors most closely involved with direct care of these persons. Fieldwork at the institutions under scrutiny was necessarily limited to visits to one or two of each type of institution.
Modalities of care and the philosophy of approach were discussed with persons active in public and private agencies and facilities. Opinion, operational facts and statistics, evaluation of programs, and assessment of needs were obtained from these people by letter, telephone conversation, or on-site visits in Minnesota. They gave freely of their time, shared material, data, and were most open in response. Their inputs are essential to the study report, and many of these persons' contributions are quoted in the study content.

Additional nationwide fieldwork in visits to centers, facilities, and with persons of national repute elicited other current insights and trends in these problem areas.

A short questionnaire was mailed to each of Minnesota's county welfare boards and to administrators of acute care hospitals and of other facilities and agencies in Minnesota in an attempt to ascertain the number of persons in the state who share these same problems, but who are not at present a resident in one of the state's institutions. The response rate was high, but not complete. (See Appendixes B, C, and D.)

Pertinent laws, policies, and programs of institutions and agencies were studied. Vital statistics and socio-economic and demographic background and predicted trends were reviewed.

Statistics collected by state programs and departments; operating reports of agencies, both public and private; and special research and surveys were given to the HPR staff and were used in the analysis.

This large and complex study was severely affected by the time limitation imposed on it. The HPR analysis was, for the most part, dependent on material and data supplied to the research team, although considerable study time was spent in necessary fact-finding and data collection. Information or material that was not supplied through Minnesota's Comprehensive Health Planning staff or through other Minnesota resource persons had to be considered unavailable. The study report shows where gaps in data may exist that the research staff recognizes and knows to be essential and significant in long range planning.

Problem evaluation and presentation of analysis were made difficult by this lack of information. Recommendations will pinpoint areas in which more research, data gathering, and demonstration programs are essential to undertake effective long range planning for Minnesota's persons with these problems.
Acknowledgments

The Health Planning Research staff for this project, under the direction of James G. Roney, Jr., M.D., Ph.D., included Mrs. Jeanne LeBrun, Project Leader; Mrs. Maria Gilsdorf, who was responsible for the problem areas of the mentally ill and the elderly; and Mr. Robert Harding, who was responsible for problem areas of mental retardation, alcoholism, and drug dependency. B. Otis Cobb, M.D., acted as staff consultant and undertook tasks in the area of handicapped children. Mrs. Susanne Friedlaender was responsible for the literature search and material collection. Mr. Ward Gerow, Mrs. Elizabeth Lyon, and Mrs. Helen Rickerts aided with data compilation. Mrs. Carol Aso and Mr. Steven Mosow of the Minnesota Comprehensive Health Agency worked closely with the Health Planning Research staff.

The contributions and suggestions offered by the members of the Advisory Council and Task Force of the Minnesota Planning Agency and by the many persons in Minnesota's public agencies and private organizations were of inestimable value to the Health Planning Research staff. A list of those resource persons is appended.
Centralization of Planning

Historically, Minnesota's citizens, health and welfare officials, and legislative body have been committed to the responsibility of care for persons who have been unable, for whatever reason, to affect an independent life plan, either permanently or temporarily.

The direction of this commitment may not have been toward determining the cause of physical or mental impairment or determining effects of underlying social, cultural, or economic forces, but rather toward immediate action. Although methods used may not have cured, they did usually alleviate the immediate pressure situations and they have been methods current with the concepts of the time. Minnesota has been quite ready to undertake and incorporate newer advances of care utilizing local, state, and federal resources.

Planning has not necessarily been short range, but there have been difficulties in bringing together divergent goals and methods of the many persons, agencies, organizations, programs, and resources concerned with health care to attain more comprehensive objectives. There is general awareness that the results of this type of planning are fragmentary, duplicated, non-coordinated, and overlapping. The impetus supplied by federal legislation in PL 89-749 for this type of long range planning has readily been accepted by those responsible for planning and care of the disadvantaged or handicapped persons of the state.

It must be remembered that far-reaching and possibly deleterious effects are produced by interventions on a care system. These interventions occur with or without planning. Many agencies and groups in Minnesota plan for parts of people's lives, and a holistic result is not obtained. The parts do not operate as a unit, which is the fundamental shortcoming of present and earlier planning. Decisions must be made, not by one group for their interest area alone, but by all representatives of all relevant groups in concert to work toward the idea that there can be change in present modes of a care system. A viable social system is held together by agreement and flexibility. Consensus may not be gained, but compromises and trade-offs can be made to aid the general movement toward predetermined objectives.
Centralization of health planning is established in Minnesota's Health Planning Agency, which has set in motion the machinery to direct change by its choice of priorities and problems to which it has addressed its attention. Its Advisory Council and Task Force must aid in delineating the positive goals and it must promote policy decisions that are congruent with these goals.

The operational structure for implementing decisions consists of the Minnesota Departments of Health and Welfare. Their interrelated and overlapping problems and services seems to make the joining of these two bodies feasible and desirable. This agency could be the instrument for overall direction for joint planning and action. Minnesota already has the skilled people, resources, and dedication to affect the "whole-person" concept in providing care. However, it must have an agency to direct and coordinate this action. The persons who are directly responsible for life planning for the deprived or handicapped individual are at the local level. These persons are usually the public health nurse, the social worker, the private nursing home operator, the clergyman, the interested layman, and the hospital administrator. They do the actual life planning for individuals and make choices and decisions for these persons within the structure of programs and sometimes within institutions; they are seldom involved in planning at policy- and program-making levels. These persons must be involved in program planning, since they are the action group at the community level. Communication and participation must work both ways—including inputs from both the private and public sectors and feedback from these sectors for evaluation of effectiveness and for reformulation of planning. The Welfare Department would be the key organizer and coordinator. It must offer guidance, counseling, and direction on the bases of joint planning and on individual needs. Centralization of program coordination will not diminish local initiative; it will give it strength. The nucleus of such an effort has begun in the Regional Comprehensive Mental Health-Mental Retardation programs. It would be logical to expand these programs to include all health and social behavioral problems.

Costs of Care

Minnesota spends millions of dollars annually on its programs for persons receiving residential care, but there has been little evaluation or analysis of what this money is buying. Cost-benefit analysis must be incorporated in program planning after program objectives and flexible goals have been established. What Minnesota wishes to buy must be clearly stated.
If cost and benefits are not determined by analysis of the present system, little can be learned about the effectiveness of dollars spent in terms of the goals that Minnesota has delineated.

Alternative strategies within a program area for achieving a particular outcome can be developed by comparing expected costs with expected benefits of each strategy. Then programs and their costs, in relation to each other, can be compared to determine the most effective use of total resources. In this manner, specific single activities are not evaluated for effectiveness but are analyzed as to how costs of specific benefits or outcomes relate to another.* The research team was unable to obtain accurate and comparable costs for evaluation of budgets or outcomes.

A new basis for budgeting funds (PPBS) and evaluating costs on the basis of what these funds have purchased must be initiated. It may be found, in this area of residential care that on a dollar basis alone, maintaining people in institutions is more costly than other community care methods. A demonstration project using an alternative method of care in a specific problem area conceived so as to collect and control cost figures carefully, could be compared with a similar segment of institutional care. The effectiveness of funds spent could then be determined by the benefits achieved.

Information Needs for Long Range Planning

Residential care needs are measured by the degree of efficiency in community planning and implementation. To determine the needs, there must be:

1. A thorough evaluation of residential and non-residential services that are either state or privately sponsored. This means that a count of all persons served by all programs must be made, whether resident or nonresident.

2. Integration and analysis of this count with population and sociodemographic information to better determine projected population needs. This assessment of geographical sociodemographic incidence and prevalence of problems is essential for regional planning.

Henrik Blum, M.D. Notes on Comprehensive Health Planning, American Public Health Association, Western Regional Office, October 1967, pp. 16.05.
3. Establishment of a central data bank for the state of Minnesota. There have been many committees at work, research projects developed and completed, and masses of statistics and data compiled in all of the problem areas and allied fields. There must be some central place where these data can be collected and retrieved through an integrated system. Data collected is not in itself enough. The research team attempted to pull together all these parts to look at the whole. There are glaring gaps. Information may exist which did not come to light during the study.

4. Thorough evaluation of effectiveness of programs by establishing objective criteria for measurement, which seems to be a critical lack.

5. A study to determine patterns of utilization of all facilities adequately and accurately. This information would also be an expression of demand and is needed for planning placement of services and facilities.

6. Determination of the impact of existing non-residential care programs on institutional care, how it has reduced, altered, or controlled utilization of state facilities and in-patient hospitalization.

The Mentally Ill

The resident population of the mentally ill in Minnesota's seven state institutions has decreased about 50 percent since 1950. In the past five years, this decrease has accelerated to reach a 40 percent decrease. Specific age groups show different rates of decrease. The over 65-year-old group shows the highest annual rate at 11 percent. However, an increase in admission rates has been experienced for the younger age groups with those under 44 years of age accounting for one-half of the admissions. The over 45-year-old age groups had the highest resident population at the end of the current year with 75 percent of the total residents. Fifty-one percent of admissions and 54 percent of discharges were of patients who were over 45 years of age. Patterns of utilization of institutional care vary by diagnosis, as well as by age, with 75 percent of all residents presenting schizophrenic reactions.

The length of stay has also decreased, with 81 percent of the patients released having a length of stay of two years or less. Forty-eight percent had a hospital stay of less than three months. These patterns illustrate the current trend in utilization of public mental hospitals in Minnesota.
as facilities for short term, acute care conditions. The reasons for this
decrease also reflect the changing modalities of care for the mentally ill
person. Current chemotherapy and more intensive personal therapy directed
toward acute episode treatment and greater public acceptance of care will
continue to affect utilization of the state's facilities."

Projecting this decreasing population trend to 1970 gives an expected resident population
of about 3,700 in state mental hospitals at that time. Private mental
hospitals have exhibited a similar pattern of patient movement ratio with an
increasing number of admissions and patients under treatment, but these
facilities have shown a declining patient movement ratio. This trend
defines a change in the role of the mental and general acute hospitals.

Some of the factors contributing to this change are:

1. Community mental clinics have increased in number and distribu-
tion. Forty-four of 87 counties are now served by such clinics.
These clinics show an increase in patient care episodes of
419 percent in the last five-year period.

2. Increase in number of psychiatric units in general hospitals
providing greater accessibility to patients.

3. Changes in treatment and management of mentally ill.

4. Increased insurance coverage for outpatient psychiatric care.

The Department of Welfare has the responsibility for administering
two main programs in this problem area. They are:

1. Residential or institutional care programs, which include the
state institutions.

2. Non-residential or extramural programs at local and area levels,
administered through the local county welfare boards and through
the community mental health boards. The objective of the joint
effort is to develop a comprehensive community-based program.
This program has been divided into seven health regions for
planning and direct service. Each unit is responsive to the
needs of the local area and is at present quite free to develop
along these lines. In some areas, these comprehensive health
units use the same physical plant as the area mental hospitals.
The advisability of this integration is under some question since
the mental hospital may not be located in trading or other medical
care centers of the region. A certain autonomy has developed, and
although the beginning program structure is carefully planned, the
effectuation of the program may not be realized as to the overall goals described. The purpose of this allowance for independent and autonomous direction may be to see how these units get under way. After initial response determining utilization of the unit area needs, a re-evaluation as to the coordinated direction for program objectives may be necessary. This program has been funded under NIH auspices, and detailed research was done to show the needs of areas before funding was obtained. The Health Planning Research group believes that this structure and beginning programs are the nucleus of strength in meeting the local needs within an overall framework.

Minnesota's ratio of psychiatric care beds is 2.3 per 1,000 population, which compares favorably with the national ratio of 2.5 per 1,000. If the general hospital facilities for acute care teaching center clinics and comprehensive mental health centers continue to operate in present patterns and if the decrease in residual institutional population continues in the same trend, Minnesota should continue to have an excess of mental illness beds and excess institutional space allocated for that purpose.

It is evident from data presented that state mental institutions are moving toward short term care. Assuming that this trend will continue, alternatives to long term residential care are as follows:

1. Since state mental hospitals serve regional catchment areas, they should be used as multipurpose behavioral centers for the treatment of the whole spectrum of social disorders, e.g., mental illness, mental retardation, special handicaps, alcoholism and drug addiction, and social-behavioral disorders. As such they should continue to provide in-patient care, but also promote a wider range of services such as:

   a. Day hospital care
   b. Evening and night domiciliary care where a patient who is adjusting to society may return from day activities or employment for group therapy and shelters
   c. Educational programs for all age levels for continuing education of children and adults
   d. Vocational training for occupational directions
   e. Consultation services to the community
2. State hospitals may be the hub or major component in evolving community mental health programs.

In considering alternatives to residential care for Minnesota's mentally ill program, there should be emphasis on design and implementation of non-residential programs that include prevention treatment and aftercare programs. In addition, there should be:

1. Enhancement of the structure of community mental health programs.
2. More sheltered workshops.
3. Half-way houses or residential group living.
4. Partial hospitalization programs.
5. Outpatient clinics.
6. Guidance and counseling services.
7. Encouragement of voluntary groups
   a. For 1 to 1 patient interaction
   b. Special liaison function involving community with services.

Needs Affecting Planning for the Mentally Ill

These expressed needs are:

1. There are no programs for emotionally disturbed children under 12 years of age. There has been a recommendation for an intensive neurology center for children, which probably should be incorporated within a research or medical or teaching center. A separate child psychiatric hospital was also cited as a need.

2. There is a need for providing residential living arrangements for emotionally disturbed school-age children who are not in need of hospitalization but are too disturbed to be cared for adequately in their own homes.

3. There is a need for a domiciliary facility for the young adult or adolescent criminal offenders who may need intensive therapy to avert penal institutionalization. A similar type of facility is needed as a holding station for this age group before they are sent to prison.
4. Communication links are lacking between the mental hospital community, mental health unit, other facilities, and the social worker of local county welfare departments. This precludes coordinated continuum of care.

For example, Mr. John Groos, Director of Special Education Service, State Department of Education, believes that the lack of discharge or care information for children who are given special psychiatric or medical care in the University Hospital or general hospitals or community mental health units leaves the teacher who handles these children without direction and with voids in essential knowledge about the child.

5. Vocational rehabilitation programs for mental patients need to be incorporated into present programs.

6. There is a need to strengthen and increase the number of units that will give diagnostic and evaluative services to children, especially those who are emotionally disturbed, mentally retarded, and have multiple handicaps.

7. The state should pursue and integrate programs that have been initiated in the private sector for short-term residential care for mentally disturbed children or adolescents.

8. The state should initiate programs for sexual offenders and other antisocial individuals, particularly in local mental health centers and especially in rural areas where at present there are no such services.

9. With increased emphasis on community-centered care, there will be a change in the role of the physician who practices away from the more populous areas. The general practitioner will be required to give care and evaluation at levels he has not previously experienced. Continuing education for practicing physicians and psychiatric training should be incorporated at greater depth in medical school curriculum. This is especially important since it will be these physicians who will be responsible for early detection of problems in their patient group. The general physician's responsibility in the rural area will be increased as communities concern themselves with more local planning.
10. State institutions must be part of the training resources for the mental health disciplines if special and clinical services in those institutions are to be upgraded and if professional growth is not to be stunted.

11. The University of Minnesota must develop an adequate psychiatric evaluation and treatment center for children and must, in an integrated manner, use all of the other Services available there, such as the Child Development Clinic and Social Services.

12. "The University program for psychological and psychiatric training must also be integrated into the state systems of residential and other forms of health care."*

The Mentally Retarded

On the basis of national statistics, the prevalence of mental retardation in Minnesota is estimated at 1 to 1.5 percent of the population. This means that between 36,000 and 50,000 individuals fall into this category. Among these persons, 0.1 percent are profoundly or severely retarded, 0.3 percent are moderately retarded, and 2.6 percent are mild or borderline retardates. The number of retardates known to state and private agencies is considerably smaller than the 1 to 1.5 percent mentioned above. In April of 1968, there were 5,172 persons in the six state mental retardation institutions. An estimated additional 7,000 individuals were reported as residing in their own or foster or nursing homes, and about 600 more in 14 other private institutions for the retarded.

The Minnesota Department of Education reported that there were about 8,600 of these children in special education and training classes. Of the 6,000 retardates in state institutions, one-third are preschool and school age and two-thirds are adults. About 85 percent of the patients in institutions are rated as being in the moderate to profoundly retarded groups.

Since 1962, the year that showed the highest institutional population, there has been a steady downward trend from 6,500 to 5,917. Discharges from institutions have remained stable at 300 per year and deaths at fewer than 100 per year. Fewer admissions have resulted in a net decrease of 648 patients in the past six years. There have been more severely retarded persons admitted than those in other categories, and most of the

* John E. Haavik, M.D., Director of Mental Hygiene Clinic, Inc., private correspondence to Jeanne LeBrun, July 3, 1968.
patients who have been discharged are mildly or moderately retarded. Five years ago, one in every eight patients was under 10 years of age, but patients under that age are now seldom admitted. Many patients over 65 years old have been placed in nursing homes, thus helping to decrease the total in that age group. This age group, as would be expected, has the highest death rate. The reduction in admission rates is due to:

1. Non availability of beds in overcrowded facilities

2. Development of local community facilities, e.g., special education and training classes, sheltered workshops, and activity centers.

The state has assumed the responsibility for provision of mental retardation facilities and programs. Legislation for changing financial responsibility from a county burden to equitable sharing by the parent, state, and county is imperatively needed for development of other smaller residential and non-residential facilities. The present $10 per month that each county pays for each resident in state facilities as opposed to payment of actual costs in other facilities has become the principal criterion for placement selection rather than that of appropriate care for each individual. This has produced overcrowding in state hospitals and rigidity in choice of planning at the time that concerned groups wish to discourage use of state facilities and to encourage development of other outpatient units, smaller residential care units, and community based services.

Lack of passage of such legislation in the last legislative session prevented development of these other care facilities and with the current severe overcrowding in state facilities, a plan to transfer about 600 patients to available space in state mental illness hospitals has begun. This is a temporary measure at best, and not one that is in keeping with current individualized care concepts. It is strongly believed that with a change in funding participation (this issue will again be presented to the 1969 legislature), the state's responsibility will be for program development and coordination and for licensing and care standards. Care for the most severely affected persons with multiple handicaps and additional emotional problems and those that the private sector does not wish to provide with care is seen to be the extent of care that the state facilities would provide. Shared care costs or subsidization of other private community accommodations for a major portion of care of retardates is the objective of concerned individuals and the state's program leaders.

In 1967, Minnesota spent more than $19.3 million on its programs for the mentally retarded. Cost-per-patient figures are not available.
Needs Affecting Planning for Mental Retardation

Other than the pressing need to change cost of care responsibility, these needs have been cited:

1. Immediate and periodic re-evaluation and re-testing of all persons now in state institutions. This has not been done for about 60 percent of these persons since they were first admitted. Identification of individuals who would profit more from other care plans is imperative.

2. Private nonprofit groups should be encouraged to construct and staff facilities, relieving the state of capital investment and maintenance.

3. "State laws that pertain to certain categories of persons should be re-codified to a consistent pattern based on definition of public responsibility for residential care with administrative discretion as to how best to spend state and other funds to provide individual quality care. This discretion should be exercised within the comprehensive state plan, which should effect necessary controls."*

4. Adequate standards and enforcement of better care in private facilities is needed.

5. Small, homelike residential facilities, especially for children, distributed over the state should be developed by the private sector, both proprietary and nonprofit.

6. Development of more foster homes for the mildly retarded adults or children is needed.

7. Local social workers and others in the community should be kept apprised of the range of care resources that are available locally and statewide for consideration in making differential placement according to individual needs.

8. Investigation is needed of possible social security benefits or changes in other care programs such as Medicare and Head Start that might provide payment for high quality services or community-oriented services.

* John Broady, (former) Director, Minnesota Mental Retardation Council in private correspondence with Jeanne LeBrun, July 1968.
9. Continuum of care facilities need to be provided and extended in the community and developed on a regional basis, including child development and evaluation centers, day activity centers, special education, and sheltered workshops.

10. Integration of services that are now dispersed within the Department of Welfare, such as Crippled Children Services, and Child Welfare, is needed. New alignment for coordinated administrative services, with direct responsibility for private and public residential facilities, case and consultative services, daytime activity; other community centers, and facilities construction program and development of a separate mental retardation division within the Department of Welfare for this purpose are also needed.

11. Creation of a university-affiliated training and research program that would help with manpower development is needed.

12. Development of community involvement of volunteers, lay workers, and semi professionals is another need.

13. An in-depth study to index necessity of residential care for institutionalized and non-institutionalized retardates must be done. This must be preceded with a re-evaluation of all persons in state facilities and those known to county welfare boards and private groups.

14. There must be more stringent enforcement of laws for development of special education and training classes. Districts with upcoming consolidation may wish to pool or share responsibility for such special classes.

The Elderly

There has been a significant change in the percentage of persons over 65 years of age in Minnesota. The percentage is expected to increase from the 1940 figure of 7.6 percent to 10.8 percent in 1970. This is a higher percentage than predicted nationally for 1970 which is 9.4 percent. In 1967, the total number of persons over 65 years old in Minnesota was about 397,000.
As elsewhere in the country, the income level for this age group is low; 54 percent have a monthly income of less than $125, and 72 percent have a yearly income of less than $2,000. This indicates that the majority of Minnesota's elderly cannot adequately provide for basic necessities. Even the common illnesses and the debility of old age pose problems. However, it is estimated that 74 to 88 percent of persons over 65 are ambulatory. Medicare and Minnesota's Medical Assistance program under Title XIX have provided payment methods for medical costs. Minnesota has 25,778 general hospital and nursing home beds that provide long term institutional care, or 65.9 beds per 1,000 persons for Minnesota's over 65-year old group.

Bed needs in specific areas have been determined on the basis of population trends, and the Minnesota Department of Health has established construction and remodeling priorities. As a result, in December 1966, there were 63 convalescent and nursing units with 3,088 beds. There are an additional 7,536 boarding home beds, with two-thirds of these provided by public or nonprofit groups.

This growth in the number of beds has paralleled the growth of the over-65 population, reflecting awareness of the problem of providing long term care for these persons. From 1960-67, the increase of 117 percent in nursing home beds and 73 percent in boarding home beds kept pace with demands caused by the 12 percent increase in the aging population. Thirty-four percent of nursing home facilities and 27.5 percent of total nursing beds have been certified as extended care facilities. There will be 976 people admitted annually, and 1,161 people will be released yearly from these types of facilities.

In Minnesota there are about 31,760 aged, chronically ill persons now residing in nursing homes or hospitals plus 43,670 chronically ill aged living under private auspices. Medicare will be responsible for a 10 to 20 percent increase in admissions to hospitals. In 1967, 27 percent of general hospital admissions were of patients 65 years of age or over. There were 24,702 admissions of patients over 65 to long term care facilities in 1967-68. Occupancy of these long term facilities is about 85 percent. Other long term care includes psychiatric, tuberculosis, and rehabilitation services. At the present time, 22 percent of mental hospital admissions are of patients over 65 years of age. This group constitutes 30 percent of the total number of mental hospital residents. Twenty percent of total releases are in this age group also. By 1970, there will be 1,142 elderly persons in mental institutions. Home health services are also available to Minnesotans, but the use of this service is low.
Costs of nursing home care have risen and they vary as to level of care provided the patient. Care ranges from custodial to skilled nursing care. This level of care basis has produced a range of payment allowances that have been established for payment by the Department of Public Welfare under its MAA program. These allowances range from $105 to $440. Sixty-seven percent of all nursing home admissions in Minnesota are provided care under the MAA payment program.

Current problems in Minnesota in the care of its elderly are not primarily in provision of care services but in the payment schedules for such care. Reimbursement formulas are alleged to be non-realistic and do not allow payment for actual costs of care.

Needs Affecting Planning for the Elderly

Planning needs in connection with the elderly are described below.

1. Non-institutional or extramural services must be made more available and accessible. These would include home health programs, home maker services, geriatric day hospitals, outpatient services, meals-on-wheels, and community day centers. Since a high proportion of aged are ambulatory, new emphasis should be given non-residential programs, with:

   a. encouragement of voluntary community groups at the local level to participate in planning, organization, and coordination of services for the elderly.

   b. development of more programs under auspices of community agencies that are aided by the Office of Economic Opportunity is needed.

   c. better utilization of skills and capabilities of older persons in the community. Older persons in Minnesota have indicated that their skills were not being used.

   d. there must be reassessment of long term bed needs. Since adequate nursing and boarding home beds meet the needs, then careful scrutiny must be given building programs which would result in additional beds.
Handicapped Children

Handicapping conditions affect 7 to 10 percent of the Minnesota population under 21 years of age. The incidence of conditions is difficult to determine to any precise degree because of incomplete data tabulation and because many services are provided by persons who are not required to keep records for this purpose.

There have been changes of methods of funding care for these persons, and redirection of care has resulted. Minnesota's Medical Assistance program (Title XIX) has made combined state and federal funds available for any person under 21 needing medical care. It provides for a spectrum of care.

Services and facilities for handicapped children are provided through the Department of Welfare, and they center in three divisions within that department—Crippled Children Services, Gillette State Hospital, and the Division of Rehabilitative Services. Other services provided by the Department of Welfare and the Division of Public Assistance are home maker services, child placing services, and foster and boarding homes.

The purpose of Crippled Children Services program is to develop, extend, and improve services for locating crippled children and for providing medical, surgical, corrective and other services for care and facilities for diagnosis, hospitalization, and after care for children who are crippled or suffering from conditions leading to crippling. This program provides regional clinics with a traveling professional team that works with local individuals for case finding and evaluation. These regional clinics provide a minimum of care but refer patients to local professionals if there are any and to others in neighboring areas if there are not. If the problem is one that cannot be ameliorated locally, the child is referred to the closest hospital or medical center for treatment. Special cases are sometimes referred to the Mayo Clinic and to the University of Minnesota Hospital. The program then pays for these special therapies out of CCS funds. Treatment is confined to orthopedic conditions, plastic conditions, heart lesions amenable to surgery, severe dental handicapping conditions, hearing defects, cystic fibrosis, physical handicaps of mentally retarded children, and other special conditions that can be treated medically or surgically.

Federal allocation of funds to the Department of Welfare for CCS programs constitutes the total funds for these services. For 1966-67, federal support for CCS (no state funds) services totaled $794,270. An additional $225,000 in federal funds were appropriated for the Regional Heart Program under CCS for use for out-of-state children who were treated in Minnesota. A total of $252 per case was spent for CCS care in 1967.
Financial limitations place distinct restrictions on the amount of treatment and the extent to which field clinics can operate. Because of demand and because of these funding limitations, the program is usually without funds before the end of the year. This in turn curtails needed services to known cases. Programs for certain categories of conditions are given priority. These include those of congenital heart defects, cleft lip and palate, and hearing.

Gillette Hospital provides care primarily for orthopedic conditions for relatively long term and therapeutic procedures. Care is reported to be provided in a "whole child" care approach. The average length of stay is about 36 days with this figure dropping at the rate of 1 day per year. In 1967-68, there were 2,458 "active" patients given care at Gillette Hospital, and 1,061 were hospitalized.

The state allocation to Gillette Hospital represents the state's total contribution for crippled children activities. For fiscal year 1966-67, $1,764,562 was appropriated for that facility. Some $844 were spent for each case cared for at Gillette Hospital in 1967.

Twenty-two percent of the patients treated at Gillette Hospital are cared for under the Minnesota Medical Assistance Program. Forty-eight percent pay for most of their care, 8 percent of the patients assume the total cost of care, and 22 percent require direct state aid through to pay for care. Utilization cost rates are unavailable.

The Minnesota School for the Deaf at Faribault is the principal facility for the deaf and those with severe hearing loss who need residential care. The school admits persons who have hearing loss sufficient to prevent satisfactory school progress and for which local special classes are not available. The present capacity enrollment of about 300 has remained quite constant since 1940. This constancy does not indicate that the prevalence of hearing loss remained constant but might indicate development of classes for the deaf in local school districts. It is expected that there will be a gradual increase in children with hearing losses.

Since 1961, the Crippled Children Services program for hearing conservation has cooperated with the state Department of Health and the local Departments of Special Education in providing diagnostic hearing clinics with referrals to appropriate resources. This program has often been in operational difficulties because of lack of CCS funds. In 1966-67, CCS evaluated potential hearing loss or otological problems in 857 children. Of these, 351 needed additional treatment and used $46,250 of CCS treatment funds.
There were an estimated additional 500 deaf children in Minnesota reported by county welfare boards as living at home or in foster homes. These children may be known to CCS under some of their programs.

The CCS hearing program includes consultation and case findings for children in the state institutions. Care for these children, unless there are other overlaying handicapping problems, is usually of a therapeutic short term nature.

At Faribault Mentally Retarded Hospital, there is a teacher for each six to eight deaf retarded patients. Programs for the deaf have been incorporated in the school systems of Minneapolis, St. Paul, Rochester, and Duluth. The Michael Bowling School in Minneapolis and the Lindsay School in St. Paul are private schools for the deaf.

The Braille and Sight Saving School at Faribault is available without cost to Minnesota school age children, and there are approximately 100 enrolled. The enrollment is dropping slightly, and there is no waiting list. This school also admits adults.

No figures as to actual or estimated numbers of other children who might be blind and who may or may not require residential care, are available. There are 14,000 blind persons currently on the Minnesota registry for the blind. It is known that there are 770 children (under 21) in this registry. This figure includes the children in the Braille School. About 275 were estimated by welfare boards to be cared for in their own or foster homes. Evidently those persons in institutions with vision loss have correction taken care of by the medical staff of the facility. Mr. John Buzzell, Assistant Director of the Division of Regional Services, reported that for children who have other handicaps with blindness, the Braille School two years ago opened a unit for 10 children 5 to 11 years of age. This group has a staff of 8. These children had not done well in the regular classroom—they were very dependent on others for living and self-care needs, but within six months they had developed self-sufficiency enough to be returned to regular classrooms.

Of the number of children in the Braille School, 7 to 10 are enrolled in regular public school programs.

The state Department of Education operates a statewide residential school for 51 selected handicapped children at Worthington. This school provides education and training for children 4 to 21 years of age with neuro-orthopedic problems. Some of these children are blind as well as having other conditions.
Planning needs related to handicapped children are described below.

1. Many problems exist regarding coordination of operational activities of the two departments providing related services. Concern has been expressed for lack of funds for CCS, with all of Minnesota's "crippled children activities" funds tied up in Gillette Hospital operations. A decision on what is to be done with the Gillette facility may be an opportunity to re-evaluate funding needs and patterns. If the administrative structure and services of these two programs were combined, the focus of patient care may be toward a better distribution of funds and services to handicapping conditions that now are not adequately covered.

2. A new centralized, highly specialized orthopedic facility with University Medical School participation could be maintained as part of a large facility or group of facilities where many special services for handicapping conditions would be provided. This would develop a more coordinated and integrated program consistent with the total child care orientation.

3. At present in Minnesota, there are no facilities for group living for severely handicapped adolescents and young adults. There is a need for such a special facility where the individual could maintain a private room in a homelike atmosphere and where living and self-care aids would be available. The only resource available to such young people are nursing homes where the orientation is mostly to geriatric care.

4. There is no convalescent nursing home for children and adolescents. This facility could provide retraining and rehabilitation and physiotherapy for life planning following special therapeutic procedures or re-evaluation of handicapping conditions.

5. Community development of rehabilitation centers and workshops is also a need.

6. Because specialized treatment centers are located in the Twin Cities area, 60 to 80 children from rural areas of the state are referred there for treatment and care every year. These children need a substitute for home care and supervision while they are receiving care and rehabilitation. This should not be like a nursing home, but should offer more care than is available in a foster home.
7. There are no facilities for the blind and deaf in Minnesota who are also non-ambulatory.

8. Coordination with community services is needed for continuum care of handicapped children.

9. Re-evaluation of hearing, vision, and other handicapping conditions should be done more frequently at specific intervals. It is believed that too many children go too long between such evaluations.

10. Each year, one or two Minnesota adolescents who are blind and deaf are sent to the Perkins School at Watertown, Massachusetts, for training and schooling. Minnesota should develop such a unit within the Braille School or School for the Deaf since the Perkins School will no longer be able to accept out of state persons.

11. In the teaching and training of the deaf, there have been no new techniques developed for many years. The single most important addition has been the use of overhead projectors for teaching. Research is needed for developing new teaching techniques.

The Alcoholic and Drug Dependent

It has been estimated that there are 60,000 alcoholics in Minnesota, but only 2 percent of this total are in need of long term care. Fortunately, about 80 percent of all alcoholics are capable of being restored to responsible living. In 1967, 6,221 inebriates received residential treatment in Minnesota facilities. There are no waiting lists at Willmar or Moose Lake facilities, which are the largest units for this kind of care. There are about five men to one woman treated in these facilities.

Success in treatment is dependent on the acceptance of need of treatment. Divergent and personalized differences of care needs make therapy difficult to provide. Minnesota has assumed responsibility to provide such care for those who cannot afford private care. Lack of good geographic distribution of state facilities—they are away from larger metropolitan areas where most inebriates reside—makes provision of care difficult.

There are two non-state residential facilities in the Twin Cities area that have well-developed services. These are at the St. Paul Ramsey County Hospital and the Minneapolis Veterans Hospital. The average lengths
of stay are 9 days in St. Paul Ramsey and 31 days in the Veterans Hospital. In Willmar State Hospital the average stay is 40 days. Other private facilities report about a 21-day length of stay.

There are programs for the alcoholics in two of the mental hospitals, and although there is no program for identifying an inebriate within adult correctional institutions, each one of seven facilities reported an active Alcoholic Anonymous chapter. Eleven of the 23 mental health centers stated that they had a program that, if they did not treat these persons, at least identified the problem. Some 177 alcoholics were reported to have visited these centers in 1967.

The Minnesota Commission on Alcohol Problems was established in March 1968; it consists of two staff members with volunteer help. The Hancock Report on the Problem of Alcoholism of Minnesota is currently being released. This report identifies problems and suggests methods for solutions.

**Needs Affecting Planning for Alcoholics**

Planning needs related to alcoholics are described below.

1. Residential facilities for the inebriate are vital in treatment programs, and it seems imperative that the state programs should provide leadership in analyzing and advising for development of such care centers. It is important that new outpatient centers and bed facilities be developed throughout the state.

2. In planning efforts, it is necessary to look to the total spectrum of significant services to assist the inebriate and his family. The most important and currently missing area of care is the involvement of local persons in aftercare when the individual returns to his home community.

   It is hoped that lay persons, as well as professionals, can become interested in filling this gap. Again, state direction of such a program is imperative. Coordination of care with prescreening and post care carry through is essential for complete and permanent rehabilitation. The Comprehensive Mental Health centers could be the regional focal point for such coordinated service.

3. Detoxification units are needed in more general hospitals to provide immediate medical attention.
4. Halfway houses are aftercare units in the progressive process of returning the individual to independent living. More of these should be provided.

5. A special alcoholic and drug abuse treatment center for women near the Twin Cities is needed. This facility should be open to women from all over the state both on a commitment and a voluntary basis. Treatment areas for women have been lacking.

6. A sheltered work farm or an industrial complex with vocational training is needed in treatment of these persons who require long term care. Productive work opportunities must be provided in all state programs as part of treatment therapy.

7. Earlier detection and treatment of alcoholism is seen to be essential to reduce and prevent inebriacy. A massive campaign of public education should be mounted.

Drug dependency is a problem of apparently small magnitude in Minnesota. Most programs set up to treat alcoholics include treatment for chemical dependencies. The admission rate to the Willmar Hospital unit is minimal. Incidence of drug dependency appears more often in women than in men.

Contacts with the state Department of Health, the University of Minnesota Student Health Services, and the state Department of Corrections were unfruitful in determining the number of persons in Minnesota who were drug users.

It would appear that Minnesota can incorporate residential treatment of alcoholism and drug addiction into its mental health-mental retardation regional plan. Other community non-residential services providing the same range of supportive treatment direction would also be appropriate for the person who is addicted to drugs.
III  FINDINGS OF THE STUDY

Residential Care

One of Minnesota's first planning priorities under the new structure of its Planning Commission is to consider the problems of institutionalization or residential care of the mentally ill, mentally retarded, elderly, handicapped children, and alcohol and drug dependent persons. A review of appropriate trends, utilization of facilities, the role of state and private resources, and funding and care structure has been undertaken. Planning alternatives for care to promote realization of fuller human potential of these persons are being considered.

The goal of the Executive Committee of the Governor's Council is "To improve the quality of residential care in the State of Minnesota." The sub goals are listed below.

Entry:

1. Residential care should be available to every person in the state who is in need of care in a residential environment, regardless of ability to pay.

2. Residential care should be accessible to every person in the state who is in need of care in a residential environment at a site as close to his community of residence as is practicable.

3. A climate of ready acceptance for residential care services must be encouraged in the state.

4. Admission to care should follow a complete evaluation procedure.

Care: Facility, Program

1. Care should be given in a safe, healthful, and humane environment which is conducive to treatment or containment.

2. Care should be comprehensive in approach, to render treatment and care to the whole person.
3. Care should be continuous in nature as an individual progresses through the system.

4. Care should be in keeping with the highest standards of practice: medical, psychiatric, social work, rehabilitation, and education.

5. Costs of residential care should be so allocated that the individual is admitted to that facility most appropriate for his individual problem.

6. Care should be coordinated with continuing and periodic re-evaluation of each patient.

Referral:

1. To insure that each individual can return to his community of residence when he is able.

2. To insure that continuity of care carries from the site of residential care to the community.

3. To insure re-entry into the residential care system if necessary.

The working definition of residential care developed by the staff of the Minnesota Health Planning Agency is care that is provided for a person in a facility outside his own home and which provides care on a 24-hour basis. This care includes acute and chronic or long-term care facilities and facilities in which there may or may not be a systematized program for treatment of the condition for which the individual seeks help. The principles that the Health Planning Agency staff adhere to as being congruent with present policies and philosophy in Minnesota are that this care:

1. Be geographically accessible to the patient's home community so that family estrangement be reduced as much as possible.

2. Should involve family and community as deemed therapeutic in each individual situation.

3. Include all needed services within the facility or in the community in which the facility is located, including educational, rehabilitative, and occupational therapies;
recreation; medical and health services, and specialized treatment or therapy programs that are specific for the patient's malady.

4. Include group living situations similar in size to that of the family units in a comfortable setting in which the patient may have a small private place of his own if he is so capable.

5. Continue care only as long as required to restore the patient to usual life participation or for maximal development of each person's potential.

6. Make this care, as a point in the continuum of care, a part of a coordinated program of prescreening and after care follow-through.

7. Share costs not underwritten by the patient's or his family's resources by the county and state to the extent that the most appropriate care facility can be utilized.

This working definition and philosophy are an adequate provision for residential care, but the concept must encompass the perceptions of the relationships of non-residential care that forestall, alter, or negate the need for residential care. Therefore, the totality of these problem areas (within the limits of time) must be considered to determine the impact of the varying and complex multi-facets in planning for persons with these problems. Residential care may be only a point in a continuum of life planning and can be either long or short-term care of these individuals. An approach to these sociobehavioral problems with therapy leading to maximum functioning of these individuals must be adhered to rather than a concept of shunting them away to custodial levels. This approach is costly and demands planning and determined and enlightened implementation.

Minnesota's State Institutions

Minnesota's arrangements for residential care of such persons follows the pattern of separate institutionalization. Most of these persons are housed in large buildings built in the late 1800s and early 1900s in rural areas of the state. For the most part, the buildings were designed to provide large group, custodial care for persons residing in local or adjoining areas. Because of lack of program provisions and overcrowding of some facilities, this distribution could not be adhered to. However,
this situation is being corrected as much as is feasible. With shifts in population in institutions, that is, decreasing numbers of persons housed in mental hospitals and the legislative decision that will gradually transfer 600 mentally retarded persons from the crowded mental retardation facilities, there are renewed attempts to place both the mentally ill and mentally retarded back in their own communities' catchment area hospitals—Figure 1 shows the distribution of Minnesota's state institutions. The resident population of these institutions as of May 31, 1968, was 10,873 persons. These population figures are shown in Table 1.

Although these Minnesota facilities are becoming antiquated and are not appropriate for some aspects of programs without large capital expenditures, there continue to be renovations and improvement to comply with standards of safety and care. Overcrowding and an unrealistic bed space per patient ratio, particularly in the mental retardation facilities, have led to some very substandard situations. Other facilities give the impression of a large campus. The new buildings that the research team visited seemed still to be constructed along old large group-living concepts. In the best of these, the bleakness of the enclosed surroundings and lack of private domain would have a dehumanizing effect on the most stable individual. The hospital aura of the patient care wards, especially in areas for care of retardates, may be essential for clean techniques and bed care, but it offers little hope that less than dulling of sensitivity will occur even in the most alert persons.

The research team became aware of two ongoing projects that are addressed to these issues. One is the analysis and rating of level-of-living situations in state institutions. The ratings are made on the basis of the personal effects and furnishings that each individual is allowed and on other homelike presentations of the institution. This project is under the direction of Mr. Joseph Lucero, Research Coordinator, Division of Medical Services, Department of Welfare. The other project is also under the direction of the Medical Services Division of the state Department of Welfare, with Mr. R. F. Hoffman, Administrator, Fergus Falls State Hospital, as committee chairman. The findings of Mr. Hoffman's committee are to be presented as a basis for policy decisions and action during the 1969 legislative session. Mr. Hoffman summarized his findings in general in a letter of August 13, 1968. His survey was not complete, but it shows that traditional methods of determining institutional bed-space needs are being superseded by the standards of living and rehabilitation space needs.
### Table 1
**Resident Population in Minnesota State Institutions**
May 31, 1968

<table>
<thead>
<tr>
<th>RESIDENT POPULATION</th>
<th>NUMBER OF RESIDENT PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL</td>
</tr>
<tr>
<td>Total, all institutions</td>
<td>10,873</td>
</tr>
<tr>
<td>Total, Mental Hospitals</td>
<td>4,363</td>
</tr>
<tr>
<td>Total, Mentally Ill</td>
<td>4,082</td>
</tr>
<tr>
<td>Anoka</td>
<td>610</td>
</tr>
<tr>
<td>Fergus Falls</td>
<td>719</td>
</tr>
<tr>
<td>Hastings</td>
<td>300</td>
</tr>
<tr>
<td>Moose Lake (Mentally Ill)</td>
<td>643</td>
</tr>
<tr>
<td>Rochester St. Peter</td>
<td>667</td>
</tr>
<tr>
<td>Minnesota Security Hospital</td>
<td>484</td>
</tr>
<tr>
<td>Willmar (Mentally Ill)</td>
<td>142</td>
</tr>
<tr>
<td>Total, Inebriate Section</td>
<td>281</td>
</tr>
<tr>
<td>Moose Lake Willmar</td>
<td>57</td>
</tr>
<tr>
<td>Total, Mentally Retarded</td>
<td>5,187</td>
</tr>
<tr>
<td>Brainerd</td>
<td>1,268</td>
</tr>
<tr>
<td>Cambridge</td>
<td>1,300</td>
</tr>
<tr>
<td>Lake Owasso (Cambridge Annex)</td>
<td>129</td>
</tr>
<tr>
<td>Faribault</td>
<td>2,278</td>
</tr>
<tr>
<td>Owatonna</td>
<td>183</td>
</tr>
<tr>
<td>Shakopee</td>
<td>29</td>
</tr>
<tr>
<td>Braille and Sight Saving School</td>
<td>101</td>
</tr>
<tr>
<td>School for the Deaf</td>
<td>284</td>
</tr>
<tr>
<td>Gillette State Hospital</td>
<td>90</td>
</tr>
<tr>
<td>Minnesota Residential Treatment Center</td>
<td>37</td>
</tr>
<tr>
<td>Glen Lake State Sanatorium</td>
<td>44</td>
</tr>
<tr>
<td>(Tb. Mental Patients)**</td>
<td>7</td>
</tr>
<tr>
<td>Ah-Gwah-Ching Nursing Home</td>
<td>480</td>
</tr>
<tr>
<td>Oak Terrace Nursing Home</td>
<td>294</td>
</tr>
</tbody>
</table>

* Excludes 53 patients who were temporarily absent, 31 male and 22 female.
** Seven tuberculosis mental patients in Glen Lake are included in total mental hospital and mentally ill figures above.

Source: Minnesota Department of Welfare, Division of Statistics.
Mr. Hoffman's letter says:

The charge of our committee was to assess the bed capacity of each of the hospitals under the direction of Medical Services Division taking into account necessary living space under today's desirable programming concept. Thus, we did not use the customary standards of square feet per bed but rather a judgmental concept taking into account such factors as ventilation; window exposure; type of heating and radiator location; providing space for each patient to have his piece of the world for such things as a dresser, wardrobe, writing desk and sitting space; and ancillary spaces for such things as personal laundry facilities, kitchenettes, offices and smaller living spaces where activities could be provided to promote smaller group interaction, and more individualized activities. We assumed division of large dormitories into smaller spaces of no larger than four beds and, in these instances, also providing individual privacy through the use of room dividers or wardrobes. It appears from a rather quick assessment of the survey we have conducted thus far that this would result in a space of something like 70 to 80 square feet for each patient in a multiple bedroom and something in the nature of 100 to 120 square feet for a single room, depending upon the layout of the room. For example, we found a number of rooms 15' x 8' that accommodated two patients. However, this resulted in a maze-like appearance and we assumed a maximum of one bed in such a room.

. . . The total beds available in the system, using the above criteria therefore indicate 10,059 with a present patient census of 9,334. Assuming an occupancy figure of 90% to account for patients in each hospital that are temporarily occupying two beds while in a hospital ward or security section of the hospital, this would indicate a requirement of 9,053 beds today. . . . As the number of patients under care continues to decline in subsequent years it will present opportunity to provide expanded facilities to the regions each hospital serves and, in addition, phase out old buildings that should no longer be utilized for patient care. The State of Minnesota has actually done an excellent job in up-dating facilities and we have thus far observed very few buildings that would fit the latter category.

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* Private communication from R. F. Hoffman, Administrator, Fergus Falls State Hospital, to Jeanne LeBrun, August 13, 1968.
Mr. Ardo Wrobel also speaks of the same issue. He writes:

One of the areas that I feel needs amplification in your report would be that of spelling out the need for the establishment of rehabilitation space standards in the institutions. As you know the Health Department establishes bed capacity based on hospital standards. Hospital standards are sufficient only for non-ambulatory patients but are inadequate for active ambulatory persons engaged in a variety of rehabilitative, educational, vocational and recreational activities. This traditionally has not been established in our institutions in terms of space estimates, and I believe in our current effort to utilize available space we have to consider that more space is needed per patient.

It is encouraging that these investigations are taking a hard look at the physical status of state institutions as it affects the human needs of their occupants.

System of Operations of State Institutions

The responsibility for state institutions is vested in the Minnesota Department of Welfare under the supervision of the Division of Medical Services. (See Organizational Chart of Department of Welfare, Appendix E.) This division interprets and implements the policy decisions and mandates of the state legislature, regarding these institutions and the persons residing in them. In turn, it is responsible for program development consistent with state statutes.

These institutions have a joint administrative direction in that there is an administrator and a medical director, each with specific areas of authority and responsibility clearly defined, but acting as a team for coordinated operation of the institution.

The institutions' administrators and medical directors maintain a certain autonomy within this organizational framework in that they assess the needs of their patients and attempt to fit those needs within programs and constraints of space, budget allocations, and professional and ancillary staff manpower.

* Private communication from Ardo M. Wrobel, Director, Mental Retardation Programs, Minnesota Department of Public Welfare, to Jeanne LeBrun, July 22, 1968.
The current space allocation and determination of bed needs has not adequately allowed for special programs such as educational, physical, and occupational therapy. The allocation has been determined by health, building, and fire codes that dictated a number of square feet per patient on a per patient per bed space ratio. Earlier discussion indicates that this may soon be changed.

Although the Department of Welfare is responsible for the institutional programs, the licensing and physical care standards are dictated by the Department of Health.

The biennial budget for each institution is based on bed status or census figures. Eighty percent of each budget is fixed. The balance of 20 percent is based on projection of population changes and expressed program needs. The actual budget is a line item budget and is prepared on the basis of historical and fixed allowances for specific admission rates, anticipated patient costs, staff salaries, and fixed operational budget. After appropriation, each institution must submit an annual spending plan. Most operating and expendable needs are purchased through a central purchasing department. The budget must be presented to the Administrative Services Division of the Department of Welfare, which reviews the budget and makes recommendations to the State Welfare Budget Department for budget actions.

Staff needs are determined on the basis of a patient-to-staff ratio, but patient-staff ratio is believed by administrators to affect optimum care adversely. Salary and position levels are fixed by the state Civil Service program. Some institutions' staffing problems are reported to be more urgent than others. In some communities, the institutions represent an economic and employment resource with resultant varying levels of dependency of the communities on the operation of the institution. At the same time, much of the ancillary staffing in institutions has traditionally been obtained in the local area. Such staffing varies with the size of the local community, other competing local opportunities, and distance of the institution from population centers. Lack of local staff persons has been somewhat relieved by a certain amount of paid patient employment, which is felt justified as an essential part of the therapy program.

All capital and maintenance improvement requests are presented to the state Building Commissioner for action. These in turn are acted on by the legislature.

The hospital administrators believe that there is a need to change the budget appropriation basis and that a sound planned program budget (PPBS) approach would be more realistic in meeting the needs of patients within
programs. One administrator said: "Our problem is establishing communication with legislative people about the unrealistic budget basis." Actual figures for either per patient or per unit costs in institutions were not available to the research team. However, Mr. Milton Fisher, administrator of Rochester State Hospital reported in June 1968 that 47.5 percent of that institution's total operating budget is spent on geriatric and medical/surgical programs. The balance of that institution's budget is for operating the psychiatric program.

An expressed opinion of the administrators and medical directors is that they and their professional staffs should have a voice in program planning for their institutions. They would also welcome the opportunity to function as planning committee members for overall programs especially designed for their types of patients. They believe that they are expected to implement programs without participating in their formation and they also believe that this interaction would be greatly effective in program development and coordination.

**Trends in Patient Population in State Institutions**

Over the past decade, there has been a gradual movement of long term patients out of the state institutions. This movement of the elderly and the mentally ill is discussed in more detail in later sections. The change in patient population has resulted in the necessity for planning. The overcrowding of the mental retardation hospitals has made the utilization of unused space in mental illness hospitals seem appropriate. The transfer of certain retarded patients into mental hospitals is discussed in the Mental Retardation section.

Besides these ongoing alterations in patient population, there has been a general overall declining trend in the number of residents in state institutions. Table 2 shows the changes since 1950.

**Pertinent Factors in Institutionalization**

Several underlying factors must be kept in mind regarding who has utilized institutions. These factors are listed below.

1. In general, institutionalized persons are those who present a threat to themselves or to society.

2. Institutionalized persons are those who have been essentially medically indigent. For the most part, patients in institutions had no family or personal resources that would
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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, all institutions</td>
<td>12,349</td>
<td>13,265</td>
<td>14,210</td>
<td>14,816</td>
<td>15,455</td>
<td>16,985</td>
<td>15,875</td>
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<td>Total, hospitals for the mentally ill</td>
<td>5,098</td>
<td>5,906</td>
<td>6,592</td>
<td>7,208</td>
<td>7,749</td>
<td>9,128</td>
<td>8,578</td>
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<td>Anoka State Hospital</td>
<td>580</td>
<td>730</td>
<td>790</td>
<td>821</td>
<td>957</td>
<td>1,055</td>
<td>1,010</td>
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<tr>
<td>(Tuberculosis Unit)</td>
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<tr>
<td>Fergus Falls State Hospital</td>
<td>826</td>
<td>1,082</td>
<td>1,259</td>
<td>1,343</td>
<td>1,421</td>
<td>1,844</td>
<td>1,994</td>
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<tr>
<td>Hastings State Hospital</td>
<td>404</td>
<td>524</td>
<td>619</td>
<td>661</td>
<td>767</td>
<td>937</td>
<td>1,009</td>
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<tr>
<td>(Children's Unit)</td>
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<td></td>
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<tr>
<td>Moose Lake State Hospital</td>
<td>803</td>
<td>874</td>
<td>851</td>
<td>890</td>
<td>925</td>
<td>1,104</td>
<td>1,115</td>
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<tr>
<td>(Section for Inebriates)</td>
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<tr>
<td>Rochester State Hospital</td>
<td>778</td>
<td>780</td>
<td>774</td>
<td>765</td>
<td>765</td>
<td>1,196</td>
<td>1,421</td>
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<td>St. Peter State Hospital</td>
<td>287</td>
<td>274</td>
<td>269</td>
<td>258</td>
<td>283</td>
<td>254</td>
<td>243</td>
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<tr>
<td>Minnesota Security Hospital</td>
<td>620</td>
<td>650</td>
<td>839</td>
<td>1,035</td>
<td>1,155</td>
<td>1,592</td>
<td>1,669</td>
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<td>State Sanatorium (Mentally Ill Patients)</td>
<td>932</td>
<td>1,124</td>
<td>1,301</td>
<td>1,503</td>
<td>1,650</td>
<td>2,124</td>
<td>2,117</td>
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<td>Willmar State Hospital</td>
<td>234</td>
<td>210</td>
<td>219</td>
<td>206</td>
<td>224</td>
<td>223</td>
<td>101</td>
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<td>(Section for Inebriates)</td>
<td></td>
<td></td>
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<tr>
<td>Total, mentally ill patients</td>
<td>4,811</td>
<td>5,632</td>
<td>6,323</td>
<td>6,950</td>
<td>7,466</td>
<td>10,029</td>
<td>10,477</td>
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<td>Total, inst. for mentally ret. and epil.</td>
<td>5,917</td>
<td>6,066</td>
<td>6,276</td>
<td>6,339</td>
<td>6,469</td>
<td>6,046</td>
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<td>Annex for Defective Delinquents, St. Cloud</td>
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<td>Brainerd State Hospital</td>
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<tr>
<td>Cambridge State Hospital</td>
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<td>Faribault State Hospital</td>
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<td>Lake Owasso Children's Home (Annex to Camb.)</td>
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<td>Owatonna State School</td>
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<td>Shakopee Children's Home</td>
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<tr>
<td>Braille and Sight-Saving School</td>
<td></td>
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<tr>
<td>School for the Deaf</td>
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<tr>
<td>Gillette State Hospital for Crippled Children</td>
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<tr>
<td>State Sanatorium (Tuberculosis Patients) Glen</td>
<td></td>
<td></td>
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<tr>
<td>Lake State Sanatorium State Public School</td>
<td></td>
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<td>Minnesota Residential Treatment Center</td>
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<tr>
<td>Ah-Gwah-Ching Nursing Home Oak Terrace</td>
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<td></td>
<td></td>
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<tr>
<td>Nursing Home</td>
<td></td>
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</table>
enable them to purchase care outside these institutions. These conditions, which are of a chronic nature and require long, and expensive medical intervention costs, have exhausted such resources. Therefore, until federal legislation for care payment was effected, these persons had little choice as to what care they would receive. This helped produce specialized and segregated care.

3. Other specialized resources, particularly in more rural areas, were not accessible or available as alternatives of choice, even if personal financial means may have given families a choice in care. Minnesota has been active in providing and developing facilities and care resources in the private sector and with these resources available, there may be choices other than institutionalization for appropriate care.

4. Institutionalization often has meant that the patient's care plan has exhausted local or immediate and available services or financial resources. Earlier concepts of institutionalization reflected this exhaustion and meant a prolonged and unending sojourn for persons placed in them. The process of re-socialization seemed to move further away with increasing length of stay in these institutions.

Changes in philosophy of care, new techniques and modalities of care, and funds to buy and develop means for appropriate care have altered older care limitations.

Philosophy and concepts of care are changing, and with them roles and responsibilities are changing. Institutional or residential care, being only a point in time and not an end in itself in the continuum of life planning, has evolved rapidly over the past decade. Institutions do have a legitimate role; their programs might include consultative services, short term evaluation services, and emergency and day care programs, all designed at maintaining the individual in his home community so that he never needs to achieve the status of an institutional patient.

Dr. David J. Vail, Director of State Institutions, said in a directive to the medical and administrative officers of the state mental institutions that in the institution "are included all those activities designated as supportive care, therapy, case work, group work, rehabilitation, re-motivation, education, etc., which are aimed at enhancing social
of special interest, social, church, and medical groups that have built facilities and that provide medical, outpatient, domiciliary and nursing home care, and social services. There have also been a large number of acute care facilities, with a concentration of large general hospitals in the Twin Cities. However, there are very few small towns in Minnesota that do not have a good small general hospital. This again is congruent with the concept of "caring for our own," and many facilities have been built for just that specific purpose.

There are many private institutions and organizations that provide services to these persons. In an attempt to determine the number of persons of these types for whom they are providing care or services or had on their books, the research team sent a letter to 33 of these agencies. The response rate did not allow us to estimate with any certainty the number of such persons. A copy of the letter and form for return and a list of agencies responding is in Appendix A.

The Mentally Ill

The evolution of mental health care in this country is characterized by three significant periods. The first one goes back to the birth of institutional psychiatry in the 19th century. The state mental hospital emerges as the main component of the system to provide asylum and care for people with mental disorders. These institutions—isolated from the community—became shelters of mentally ill patients, and gradually they were seen as almshouses for chronic patients with a life-long hospital stay anticipated. The second evolutionary stage was the result of dynamic psychiatry (mainly Freud's), which emphasizes individual psychotherapy. The center of treatment is the private practitioner's office, and thus accessibility of care is limited to those that can afford to pay. The trends in institutions of high in-patient census and limited professional personnel means that patients could not receive this type of individual treatment, and, therefore, hospital psychiatry depended on organic therapies such as electric and insulin shock and lobotomy. Young psychiatrists and clinical psychologists were attracted by private practice rather than institutional psychiatry, leaving mental institutions with poor patient-to-stay ratios and with individual care almost non-existent.
The third evolutionary period in the treatment and rehabilitation of the mentally ill is characterized by the introduction of chemotherapy. The patient is no longer viewed as "an isolated individual" within "an isolated state building," but rather as a community participant and family member with medical, emotional, and social needs. This new approach in care of the mentally ill has opened the era of the therapeutic community. The mental hospital now appears to be developing either as the center of the system of care with a number of satellite clinics and agencies in the periphery or as a center for research and acute episode therapeutic care.

These new modalities of care and organizational trends in the treatment of the mentally ill have brought a high turnover of patients in mental institutions and a decrease in the need for long term care. The resulting need is for decentralization of services in the system with emphasis on community oriented therapy.

Utilization Patterns of Psychiatric Facilities. New patterns in the utilization of psychiatric facilities have evolved as a result of developmental trends within the mental health field. A review of statistical data concerning the use of state mental hospitals throughout the United States reveals that the overall population of these hospitals has been decreasing at the rate of 1 percent per year for the past few years. The first drop of the resident population in public mental hospitals occurred between the years 1955 and 1956. This change and a comparison of trends for patients in state institutions is shown in Table 2. In the 1950s tranquilizers were introduced in these hospitals. By 1967, the resident population in public mental hospitals in the United States amounted to about 426,000, or a 24 percent decrease from 1955 when the resident population reached its peak of 558,922. State mental hospitals in Massachusetts and Iowa show a 50 percent decline in their in-patient censuses while California in the last five years (1963-67) reports a 40 percent decline. Statistics for Minnesota state mental hospitals follow the same trend with about a 50 percent decrease in the resident population from 1954 to 1966. This represents a change in patient census from 11,348 in 1954, when the number of mentally ill patients was at its highest, to 5,632 patients in 1966. It is significant to point out that the decrease has accelerated during the last five years. However, the rate of change in the resident
population does not follow a uniform pattern for every age group. The resident group under 25 years is increasing annually at an average rate of 4 percent. The population in age groups 25-44 and 45-64 have been decreasing at an approximate average annual rate of about 7 percent each. The elderly population, 65 years and over, shows the highest annual rate of decrease, 11 percent. These figures are summarized in Table 3.

Table 3

AVERAGE RATE OF CHANGE OF MENTALLY ILL RESIDENT POPULATION IN MINNESOTA STATE HOSPITALS 1961-66

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Yearly Percent</th>
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</thead>
<tbody>
<tr>
<td>Under 25</td>
<td>+4.22</td>
</tr>
<tr>
<td>25 - 44</td>
<td>-6.95</td>
</tr>
<tr>
<td>45-64</td>
<td>-6.28</td>
</tr>
<tr>
<td>65+</td>
<td>-10.94</td>
</tr>
</tbody>
</table>

Increase in Patient Care Episodes in General Hospitals and Outpatient Clinics. The extent of utilization of services in different types of psychiatric facilities in the United States reveals a dramatic change for the period 1955-66. The total patient care episodes in the United States in 1966 amount to about 2,687,400, of which 61 percent occurred in general hospitals with psychiatric services and outpatient clinics. Public and private mental hospitals account for only 39 percent of these acute episodes, with state and county hospitals responsible for 30 percent of this figure. In 1955, public and private mental hospitals represented the main center of total care, accounting for 61 percent of the yearly patient care episodes.
Additional statistics confirm the changing trend in the type of facilities used. The tabulation below shows the mentally ill in state hospitals per 10,000 population in Minnesota and in the nation.

<table>
<thead>
<tr>
<th>Year</th>
<th>Minnesota</th>
<th>United States</th>
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<tbody>
<tr>
<td>1948</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>1965</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>1966</td>
<td>15</td>
<td>24</td>
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</table>

Data in Table 4 show a decrease in the number of patient care episodes in Minnesota state hospitals for the period 1959-60 to 1965-66. Community mental health clinics in Minnesota report a 419 percent increase in patient care episodes for the same period. This pattern of utilization of psychiatric services in general hospitals and mental health clinics in Minnesota follows the national pattern. Contributing factors for this change in Minnesota include:

1. Availability of clinics to serve a wider segment of the population. During the period 1959-66, the number of mental health clinics increased from 13 to 22. The number of counties served increased from 44 to 80 with a corresponding increase in population served from 1.15 million to 3.20 million.

2. Trends in the treatment and management of the mentally ill.

3. Increased insurance coverage for outpatient psychiatric care.

Turnover of Patients. Since the early 1950s, several factors have contributed to the high turnover of patients in psychiatric facilities throughout the country. These factors include:

1. Early detection of cases—the increased emphasis on preventive and clinic services during the last 12 years and the lessening of the public stigma against seeking psychiatric help have contributed to early detection of cases. As a result, patients are diagnosed and treated earlier with a resulting shorter time required for treatment and rehabilitation, and the need of institutional care is reduced.
Table 4

PATIENT CARE EPISODES BY TYPE OF FACILITIES IN MINNESOTA

<table>
<thead>
<tr>
<th>Type of Facilities</th>
<th>1959-60</th>
<th>1965-66</th>
<th>1966-67</th>
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<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Mental hospitals</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>State</td>
<td>13,690</td>
<td>44%</td>
<td>10,187</td>
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<tr>
<td>Veterans Administration Hospitals</td>
<td>2,483</td>
<td>8</td>
<td>2,959</td>
</tr>
<tr>
<td>General hospitals with psychiatric units</td>
<td>11,089</td>
<td>35</td>
<td>13,430</td>
</tr>
<tr>
<td>Outpatient clinics, mental health centers, including other clinics receiving MHC funds*</td>
<td>4,038</td>
<td>13%</td>
<td>16,930</td>
</tr>
<tr>
<td>Total</td>
<td>31,300</td>
<td>100%</td>
<td>43,506</td>
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</table>

* Outpatient clinics (25) include 22 mental health centers and 3 other clinics receiving MHC funds; t Excluding Veterans Administration facilities; statistics not available for 1966-67.
2. Use of psychotropic agents—the introduction and use of tranquilizers has helped to provide prompt and adequate recovery. The use of these drugs has provided opportunities for developing other treatment and rehabilitation procedures for the mentally ill with benefits of:

   a. Returning many hospitalized patients to the community more quickly.

   b. Preventing hospitalization by the development and implementation of the community programs.

   c. Treating and rehabilitating patients in the community under partial hospitalization or complete outpatient care in place of requiring residential treatment.

3. Intensive and active therapy for the acute mentally ill—improved and better qualified staffing, new technological methods in patient care, a new humanistic approach to institutional care, and improved organizational structure for better handling or management of the patient in smaller hospital units have resulted in many patients being rehabilitated who formerly would have faced lifelong institutional care.

4. New modalities in the management and treatment of the mentally ill—including partial hospitalization, day and night care services, halfway houses, sheltered workshops, and outpatient clinics.

5. Group therapy—emphasizing community and family approach, which has contributed to rapid treatment and shorter institutional stays.

6. Participation of related professionals, lay individuals and groups, and other private agencies in the treatment and rehabilitation of the psychiatric patient—the behavioral model concept rather than the medical one in treating mental disorders requires the input of a complete patient care team, including the above mentioned groups. This type of treatment is another factor that affects patient movement.
7. Patient utilization of aftercare and rehabilitation services—more follow-up activities and programs have resulted in less patient regression, thus reducing the number of re-admissions to mental health facilities.

During the period 1960-66, ratios of patient movement in psychiatric facilities in the United States and the state of Minnesota present a remarkable contrast. Table 5 illustrates these ratios and the above mentioned trends. U.S. public and private mental hospitals and Minnesota state hospitals have followed a similar pattern with an increasing ratio of patient movement. The number of admissions and releases has increased in the state institutions with a shorter hospital stay and, consequently, a reduction in the resident population. During the same period general hospitals with psychiatric services and outpatient clinics have had an increasing number of admissions with a corresponding increase of residents or active patients under treatment and, therefore, a declining patient movement ratio. This points the way to a definitive change in the role of the mental and general hospital and also of the outpatient clinic in the treatment of the mentally ill.

Utilization Pattern by Age and Diagnosis. Variations in patterns of utilization of psychiatric facilities by age and diagnostic composition of the in-patient population provides the significant parameters by which needs and problems of specific segments of the general population can be detected. These patterns also constitute a good source of information in planning community mental health programs for such groups.

Almost half of the patients admitted to and released from state mental hospitals are under age 44 with the elderly group 65 and over still representing 30 percent of the total resident population (see Table 6).

Seventy-five percent of the resident population in Minnesota state hospitals are schizophrenics, senile patients, or patients with brain syndromes other than senility. Schizophrenic reactions constitute the largest category. Admissions and releases for schizophrenic reactions, psychoneurotic disorders, psychotic disorders, and personality disorders follow a similar pattern, with admissions and releases being 73 and 77 percent respectively (see Table 7).
<table>
<thead>
<tr>
<th>Type of Facilities</th>
<th>1959-60</th>
<th>1965-66</th>
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<tbody>
<tr>
<td>Residents or Active Patients at</td>
<td>Total</td>
<td>Ratio</td>
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<tr>
<td>Beginning of Year</td>
<td>Admissions</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------</td>
<td>-----</td>
</tr>
<tr>
<td>State mental hospitals</td>
<td>10,450</td>
<td>3,240</td>
</tr>
<tr>
<td>Veterans Administration hospitals</td>
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<td></td>
</tr>
<tr>
<td>Minneapolis</td>
<td>99</td>
<td>642</td>
</tr>
<tr>
<td>St. Cloud</td>
<td>1,305</td>
<td>437</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1,404</td>
<td>1,079</td>
</tr>
<tr>
<td>General hospitals with psychiatric services</td>
<td>668‡</td>
<td>10,421</td>
</tr>
<tr>
<td>Outpatient clinics</td>
<td>999</td>
<td>3,039</td>
</tr>
<tr>
<td>Total</td>
<td>13,521</td>
<td>17,779</td>
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</table>

* Patient movement ratio is expressed as the number of admissions per 100 residents or patients active at the beginning of the year.
† Source is Minnesota Department of Public Welfare, Research and Statistics Division, Statistics Reports, Fiscal Years 1959-60; 1965-66.
‡ Average daily patient census used instead of residents at beginning of period.
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Resident Population at End of Year</th>
<th>Admissions</th>
<th>Releases</th>
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<tbody>
<tr>
<td>Total</td>
<td>5,632</td>
<td>3,864</td>
<td>4,848</td>
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<tr>
<td>Under 25</td>
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<td>25-44</td>
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<td></td>
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<tr>
<td>45-64</td>
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<td></td>
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<tr>
<td>65 and over</td>
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</table>

<table>
<thead>
<tr>
<th>Diagnostic Conditions</th>
<th>Percent Admitted</th>
<th>Percent Released</th>
<th>Percent in Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenic reactions</td>
<td>28%</td>
<td>37%</td>
<td>54%</td>
</tr>
<tr>
<td>Senility</td>
<td>12</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Other brain syndromes</td>
<td>8</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Other psychotic disorders</td>
<td>14</td>
<td>14</td>
<td>8</td>
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<tr>
<td>Psychoneurotic disorders</td>
<td>19</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Personality disorders</td>
<td>12</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Mental deficiencies</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>All other (including undiagnosed)</td>
<td>7</td>
<td>5</td>
<td>2</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Patients</th>
<th>Admitted</th>
<th>Released</th>
<th>In Residence at End of Year</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>3,864</td>
<td>4,848</td>
<td>5,632</td>
</tr>
</tbody>
</table>
During the period 1961-66, there has been a 40 percent decrease in the total state mental hospital population. Decreases for patients with specific diagnostic conditions are shown in the tabulation below.

<table>
<thead>
<tr>
<th>Diagnostic Condition</th>
<th>Percent Decrease of Resident Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenic reactions</td>
<td>35%</td>
</tr>
<tr>
<td>Senility</td>
<td>61</td>
</tr>
<tr>
<td>Other brain syndromes</td>
<td>38</td>
</tr>
<tr>
<td>Psychotic disorders</td>
<td>50</td>
</tr>
<tr>
<td>Mental retardation</td>
<td>43</td>
</tr>
</tbody>
</table>

The number of senile patients has decreased 61 percent following the 55 percent decrease in patients aged 65 or older during the five-year period. The 43 percent decrease of mental retardates is explained by transfers to institutions for the mentally retarded and some transfers over age 65 patients to nursing homes. In contrast, patients with psychoneurotic disorders show a slight increase.

Releases by Patient's Hospital Length of Stay. Eighty percent of the patients released from Minnesota state mental hospitals have a length of stay of less than two years. Forty-eight percent of the patients have a hospital stay of less than three months (see Tables 8, 9, and 10).

Table 8

PATIENTS RELEASED BY LENGTH OF STAY IN MINNESOTA STATE MENTAL HOSPITALS FY 1965-66*

<table>
<thead>
<tr>
<th>Number of Patients Released</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3 months</td>
<td>2,341</td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>1,561</td>
</tr>
<tr>
<td>Two to 4 years</td>
<td>353</td>
</tr>
<tr>
<td>Five years or more</td>
<td>593</td>
</tr>
<tr>
<td>Total</td>
<td>4,848</td>
</tr>
</tbody>
</table>

Minnesota Department of Public Welfare, Minnesota State Hospital for the Mentally Ill Statistical Report, 1965-66.
Table 9

PATIENTS RELEASED WITH A HOSPITAL STAY OF UNDER 2 YEARS
COMPAORED TO TOTAL RELEASES BY MINNESOTA STATE MENTAL HOSPITALS
1960 and 1966

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of patients released</td>
<td>3,320</td>
<td>4,848</td>
</tr>
<tr>
<td>Releases under 2 years of hospital stay</td>
<td>2,678</td>
<td>3,902</td>
</tr>
<tr>
<td>Percent of patients released under 2 years of hospital stay</td>
<td>80.6%</td>
<td>80.5%</td>
</tr>
</tbody>
</table>

Table 10

PATIENTS RELEASED FOR FOUR MAIN DIAGNOSTIC CONDITIONS
WITH A HOSPITAL STAY OF UNDER 2 YEARS IN MINNESOTA STATE MENTAL HOSPITALS
1960 and 1966

<table>
<thead>
<tr>
<th>Diagnostic Conditions</th>
<th>1960</th>
<th>1966</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Patients Released</td>
<td>Releases with Hospital Stay of Under 2 Years</td>
</tr>
<tr>
<td>Schizophrenic reactions</td>
<td>1,322</td>
<td>979</td>
</tr>
<tr>
<td>Psychoneurotic disorders</td>
<td>351</td>
<td>337</td>
</tr>
<tr>
<td>Psychotic disorders</td>
<td>629</td>
<td>509</td>
</tr>
<tr>
<td>Personality disorders</td>
<td>311</td>
<td>286</td>
</tr>
</tbody>
</table>
Figures in Tables 8, 9, and 10 illustrate the current trend in the utilization of public mental hospitals in Minnesota as facilities mainly for the treatment of short term care for mentally ill conditions. It is interesting to note, however, that 63 percent of the total releases are patients released with a hospital stay of less than 2 years for the four major diagnostic conditions:

1. Schizophrenic reactions
2. Psychoneurotic disorders
3. Psychotic disorders
4. Personality disorders

Projected Resident Population

The resident population in state mental hospitals was projected by significant age groups for the year 1970. These results are summarized in Table 12.

The period of 1961-66 was used as the base period to establish the rate of change in residents population. Assuming that the same rate of change will prevail in the period 1965-70, the resident population in 1970 will be 3,681 as contrasted to 5,637 in 1965. It is interesting to note that on June 30, 1967, the resident population had already decreased to 4,816 residents.

The number of resident patients in Minnesota state mental hospitals is diminishing for reasons previously cited and as verified by the trends. This factor must be considered in planning for necessary facilities and other components of the mental health program.
## Table 11

PROJECTED RESIDENT POPULATION IN MINNESOTA STATE MENTAL HOSPITALS
1970

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Estimated Population*</th>
<th>Residents</th>
<th>Rate of Residents to Total Population</th>
<th>Estimated Population*</th>
<th>Projected Residents</th>
<th>Rate of Residents to Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 24</td>
<td>1,702,991</td>
<td>361</td>
<td>1:4,717</td>
<td>1,793,998</td>
<td>460</td>
<td>1:3,895</td>
</tr>
<tr>
<td>25 - 44</td>
<td>773,560</td>
<td>1,050</td>
<td>1:737</td>
<td>788,507</td>
<td>79</td>
<td>1:993</td>
</tr>
<tr>
<td>45 - 64</td>
<td>695,715</td>
<td>2,546</td>
<td>1:273</td>
<td>718,297</td>
<td>2,000</td>
<td>1:359</td>
</tr>
<tr>
<td>65 and over</td>
<td>382,734</td>
<td>1,675</td>
<td>1:228</td>
<td>403,198</td>
<td>1,142</td>
<td>1:353</td>
</tr>
<tr>
<td>Total</td>
<td>3,555,000</td>
<td>5,632</td>
<td>16 per 10,000 pop.</td>
<td>3,704,000</td>
<td>3,681</td>
<td>9.9 per 10,000 pop.</td>
</tr>
</tbody>
</table>

* Population figures as reported by Minnesota Department of Health, Section of Vital Statistics; actual 1965 population by age groups not available.
State and Local Responsibility

Programs of Care for the Mentally Ill

The state government in Minnesota through the Department of Welfare has the responsibility of administering and supporting two main programs in the overall system of care in the field of mental health:

1. Residential or institutional care programs that include state hospitals for people with mental disabilities.

2. Non-residential or extramural programs at the local and regional levels under the responsibility of county welfare boards and community mental health boards. According to the 1967-68 Minnesota Plan for Mental Health Services, the immediate goal of the state and local mental health program is to develop-in joint effort with other agencies—a comprehensive community-based program and to administer specific mental health services as one of the components of the comprehensive program. However, the ultimate goal of the program is to reduce the incidence and prevalence of mental disabilities by:

   a. Directly modifying individual functioning or behavior.

   b. Modifying social institutions, or the ways that communities deal with problems, which may mean changing attitudes and values, changing certain practices, and expanding services.

To achieve the stated goal, the State Plan indicates the need for defining and clarifying the responsibilities and coordination of the three main programs:

1. Residential care programs—mental hospitals at the state level.

2. Non-residential care programs—mental health programs at the county level.

3. Non-residential care programs—community mental health programs at the regional level.

State Level Responsibility

The Medical Services Division is the division that is responsible for developing and coordinating a comprehensive mental health-mental health program.
Community Mental Health Centers

As a result of Public Law 88-164, Mental Retardation Facilities and Community Mental Health Centers Construction Act of 1963, federal funds have been allocated to different communities throughout the nation for the construction of community mental health centers. In his message of February 1963, President John F. Kennedy emphasized the need of developing a new type of health facility that will return mental health care to the mainstream of American medicine. In October 1963, approximately $150 million were authorized by Congress for use by the states in the period 1965-67 for the establishment of these mental health centers.

This new type of facility, which may be a wing added to a general hospital or a clinic or to another mental health facility in the community, is one more element of the mental health program effort to provide comprehensive community care. The center is composed of a varied range of mental health services in the community housed in one or more facilities and under a coordinated system of care. This new approach to facility planning is aimed at providing the patient with:

1. Comprehensiveness of care
2. Availability and accessibility of service
3. Continuity of treatment and rehabilitation

To qualify for federal funds, a center must provide at least five essential services. They are:

1. In-patient, or 24-hour, care.
2. Outpatient care.
3. Partial hospitalization; i.e., day care for patients able to return overnight and night care for patients able to go to work.
4. Emergency care on a 24-hour basis.
5. Consultation and education for community agencies and professional people.

To be fully comprehensive, five additional services should be included:

a. Diagnostic.
b. Rehabilitative, both social and vocational.
c. Pre care and aftercare.
d. Training of personnel.
e. Research into mental illness and evaluation of treatment.
According to Dr. Bertram S. Brown of the Community Mental Health Facilities Branch of the National Institute of Mental Health, the mental health center concept is the direct result of a series of developmental trends that have occurred within the mental health field in this country and abroad. These trends include:

1. The increase in community-based and -oriented outpatient clinics.
2. Development of psychiatric units in general hospitals.
3. Growth of a variety of services that require less than 24 hours of institutional care.

**Outpatient Psychiatric Clinics**

Statistical data of the Minnesota Department of Welfare show the following existing outpatient psychiatric clinics in Minnesota:

<table>
<thead>
<tr>
<th>Total outpatient psychiatric clinics</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health centers</td>
<td>22</td>
</tr>
<tr>
<td>Private foundation clinics receiving federal funds (under Community Mental Health Service Act)</td>
<td>3</td>
</tr>
<tr>
<td>University of Minnesota clinics</td>
<td></td>
</tr>
<tr>
<td>Student Health Service</td>
<td>3</td>
</tr>
<tr>
<td>Outpatient Service</td>
<td></td>
</tr>
<tr>
<td>Child Psychiatry</td>
<td></td>
</tr>
<tr>
<td>Veterans Administration Mental Hygiene Clinic, Minneapolis</td>
<td>1</td>
</tr>
<tr>
<td>Privately operated clinic (Minneapolis Clinic of Neurology and Psychiatry, Golden Valley)</td>
<td>1</td>
</tr>
</tbody>
</table>

In 1959-60, there were 13 mental health centers in operation in Minnesota serving 44 counties and a population of 1,154,000. Less than one patient (0.9) per 1,000 persons in the state was provided service by a center. By 1965-66, the number of centers in operation increased to 22. They served 92 percent of the counties and 90 percent of the state population of 3,555,000. In the same year, almost three patients were accepted in community mental health centers for every 1,000 persons in the statewide population.
Utilization of Mental Health Centers by Age Group and Sex

More than two-thirds of the patients accepted by mental health centers during 1965-66 were under age 35, while the group aged 65 years and over represents a little over 2 percent. In all age groups under age 18, more boys than girls were served; however, among adult patients served women outnumbered men in all age groups.

Proportionately, many more of the patients served in mental health centers are school age children (mainly boys 5 to 17 years old) and young adults, particularly females aged 20 to 44). Table 12 presents the above information in tabular form.

Table 12

PATIENTS ACCEPTED IN MENTAL HEALTH CENTERS
BY AGE GROUP AND SEX 1965-66

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percent of All Patients</th>
<th>Percent Male</th>
<th>Percent Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>0-4</td>
<td>1.6</td>
<td>52</td>
<td>48</td>
</tr>
<tr>
<td>5-9</td>
<td>11.0</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>10-14</td>
<td>13.1</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>15-17</td>
<td>8.7</td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>18-19</td>
<td>4.7</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>20-24</td>
<td>10.2</td>
<td>42</td>
<td>58</td>
</tr>
<tr>
<td>25-34</td>
<td>18.5</td>
<td>38</td>
<td>62</td>
</tr>
<tr>
<td>35-44</td>
<td>14.9</td>
<td>39</td>
<td>61</td>
</tr>
<tr>
<td>45-54</td>
<td>9.5</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>55-64</td>
<td>5.4</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>65 and over</td>
<td>2.4</td>
<td>41</td>
<td>59</td>
</tr>
</tbody>
</table>

The proportionately higher number of school age children and young adults referred to mental health centers requires a special effort to evaluate existing mental health programs in the community for these age groups.
Determination of Residential Care Needs

The needs for residential care for the mentally ill are measured by the degree of efficiency in community planning and implementation efforts that have been channeled in structuring the different components or blocks of the community mental health program. These components or blocks include:

1. Existing in-patient or intramural care services known as residential care programs.

2. Existing outpatient or extramural care services known as non-residential care programs. Under this category the following modalities of treatment are included: (a) day and night care hospital services, (b) halfway houses, (c) sheltered workshops, (d) foster home care, (e) outpatient clinics, (f) diagnostic and evaluation services, (g) consultation and guidance services, and (h) community organization and educational programs.

The determination and measurement of residential care needs require:

1. A thorough evaluation of residential and non-residential care programs in the system of mental health care. This entails an evaluation of the resident population as well as a complete evaluation of community non-residential care-type programs.

2. An analysis of historical trends in the treatment and rehabilitation of the mentally ill.

3. An assessment of the sociodemographic and economic level and their relationship to incidence and prevalence of mental illnesses.

4. A determination of existing patterns in the utilization of facilities providing psychiatric services.

Although major efforts have been devoted in Minnesota to research and planning a statewide, area wide, and county wide public mental health program, there is still a need for additional data with which to assess the needs of residential care and to develop long range planning policies. Several examples of existing projects include:
1. The two-year mental health planning study supported under federal funds (1963-65).

2. The 1965 Anoka County Study, designed with the objective to obtain data useful in planning an effective community mental health program.

3. Efforts of various planning committees representing the public and private sector at different jurisdictional levels (Minnesota Mental Health Planning Council and its committees, Regional Mental Health Coordinating Committees, State Hospital Committees on Utilization of Facilities and Program Development, and so forth.)

4. The research work by Vail, Lucero, and Boen in demonstrating that half of the variance in state hospital load is associated with socio-economic variables, thus providing an excellent input for the planning of mental health facilities.

5. Assessment of area needs and resources. During the study, field visits were made to mental health facilities and agencies in several states (New York, Colorado, and California). On the basis of interviews with appropriate personnel, observations, and data gathered during these visits, it is the research team's opinion that Minnesota is far ahead of other states in the planning and implementation of the mental health program, including institutional and extramural care services.

Limitations in Assessment of Residential Care Needs

One of the limitations in assessing the needs of residential care for people with mental disabilities in Minnesota is the lack of information concerning the impact of existing non-residential care programs and their impact on institutional care.

In trying to measure the effectiveness of non-residential care programs, consideration should be given to the:

1. Extent that non-residential services are available and accessible to the community.

2. Receptiveness of the community.

3. Degree of comprehensiveness of care including preventive, treatment, and rehabilitation services.
4. Adequacy of staff training and availability.
5. Receptiveness of the staff in new approaches of care.

There is a need to determine the extent that non-residential care programs can avoid, reduce, and control hospitalization. A good example has been reported by the Rochester State Hospital Subcommittee on Program Development headed by Dr. Harold R. Martin, a psychiatrist from Mayo Clinic. During the last eight years, Rochester State Hospital has been implementing a very dynamic program of treatment and rehabilitation. The hospital now operates a comprehensive mental health center and has closely integrated its program with other community facility programs. According to Dr. Martin, Rochester State Hospital has the largest day care hospital service in the state, treating about 40 to 50 patients daily. All of these patients have been referred to the hospital for hospitalization. However, most of them are treated in the day treatment facility, thus avoiding the necessity of full-time in-patient care. Another example described by the subcommittee refers to the services of the Community Mental Health Clinic, which is located on the state hospital grounds. Out of a total of about 789 patients treated yearly, 33 percent are psychotic and approximately 65 percent are treated without ever having been hospitalized. According to Dr. Martin, most of these psychotic patients can only be treated on an outpatient basis if adequate clinic services are provided with a very close association with the hospital. The hospital school at Rochester State Hospital provides service to school age in-patients of the state hospital as well as to patients of the community mental health clinic and other agencies. This service permits these children and adolescents to continue to function in as normal a manner as their disability permits. This often prevents regression that could otherwise tremendously handicap treatment and rehabilitation. As a result, the need for hospitalization or long term institutionalization can be controlled and avoided.

Because of the significance of preventive and extramural care programs, including ambulatory treatment and rehabilitation in determining institutional care needs, it is the research team's opinion that this should represent a major area of concern before defining long range planning policies for the institutional care of the mentally ill.

Other limitations in attempting to develop policies in planning for the residential treatment of the mentally ill are:

1. Need for evaluating the resident population of state institutions.
2. Assessment of regional needs and resources.
Alternatives of Care for the Mentally Ill

Based on the data presented in the study, it is evident that the trend of state mental institutions for the treatment of the mentally ill in Minnesota is predominately toward short term care rather than treatment of long term patients.

Alternatives of care proposed include:

1. State mental hospitals should be used as multipurpose behavioral centers for the treatment of the whole spectrum of social disorders, mentally ill, mentally retarded, inebriates, spastics, and so forth.

This trend in the role of state hospitals as multipurpose behavioral centers or comprehensive community mental health centers is evident among Minnesota state hospitals. Discussions with directors and administrators of Minnesota state hospitals (at Rochester, Willmar, Fergus Falls, and St. Peter) as well as with mental health staff at the state level suggest the transitional stage of the state mental hospital to a multifunctional institution for the treatment of all social and mental disorders.

The future role of state institutions has been of general concern among mental health planners and workers in the nation. The research team's visits in the states of Colorado, New York, and California indicated that considerable thought has been given to this problem. One of the approaches to the adaptation of the state hospital to the "new era" is that of serving as a comprehensive community mental health center. Rochester State Hospital, serving a population of 500,000 and 13 counties, presents an excellent example of this type of facility. In Colorado, Fort Logan Mental Health Center, a state-funded psychiatric facility providing service to almost half the population of that state, is another typical example of a comprehensive community mental health center. Fort Logan was established by the state and assigned the task of serving as the long term treatment facility for Denver and the four counties in the metropolitan Denver area. Its goal was to serve as the backup facility for the already existing and newly created facilities in the area. It would receive patients who needed long term psychiatric treatment in a state hospital setting. However, since its beginning in July 1961, this facility has been utilizing the idea of therapeutic community and it has been selected as one.
of the 11 models of comprehensive mental health centers in the United States. This hospital pattern represents a one-echelon system in which the patient has assurance of absolute continuity of care with no transfer to another mental health facility. The staff members working in this type of arrangement concern themselves both with providing intensive care for the acutely ill and with the development of specific techniques for the care of the chemically ill.

A similar pattern exists in Minnesota where there is a large evenly distributed state hospital system. Each one of the seven mental hospitals, with its corresponding catchment area, shares with other community agencies the responsibility for developing a truly comprehensive regional mental health program.

Through this care alternative, the state hospital can become a component in the evolving community mental health program.

2. Utilization of state hospitals as long term care institutions, primarily for the treatment of chronic mental conditions. This could be achieved through the development of more psychiatric units in general hospitals and outpatient facilities such as community mental health clinics. This alternative establishes a dichotomy of acute treatment facilities and custodial centers. Such an arrangement of services makes for an accumulation of chronic or slowly improving patients in state hospitals. An implication of this alternative is the worsening of the manpower situation in state hospitals because mental health professionals do not prefer this type of setting.

3. Emphasis in the design and implementation of non-residential care programs (Community Mental Health Programs), which would include prevention, treatment, and aftercare programs as measures to control and avoid hospitalization.

Preventive programs at the community level should be encouraged through the participation of local health and public welfare agencies, the school system, law enforcement officers, courts, clergymen, local hospitals, and community voluntary groups and agencies.

Although progress achieved in the treatment of the mentally ill has been recognized nationally and abroad, there is still concern about the need to emphasize and strengthen preventive treatment
methods in an effort to control the development of clinical stages. This concern has been expressed by Dr. Howard P. Rome,* senior consultant in psychiatry at Mayo Clinic: "It is evident that however plentiful clinical resources become and despite their therapeutic efficacy, there is an inherent inability of procedures designed for treatment to prevent the development of clinical states." As previously stated in this report and following Dr. Rome's presentation, comprehensive community efforts to identify and control the causes of mental disorders must be extended into many channels and social institutions ordinarily considered far removed from clinical medicine.

In California, under the Short-Doyle Act passed by the legislature ten years ago, there are 42 approved local mental health programs servicing 17.5 million of California's population. Efforts to measure the effect of Short-Doyle services on state hospital admissions have been difficult because of the many factors that influence such admissions. However, over a 10-year period, it has been found that a reduction in state hospital admission rates has occurred in counties that include in-patient care as part of their program of service. It has been roughly estimated that there is a 10 percent reduction in the hospital admission rate of state institutions in these areas.

A good example to be mentioned in the area of prevention and treatment services is a day care center for emotionally disturbed children in Colorado. This center, representing the joint effort of community voluntary groups ** and public agencies, has been described by Schapiro in Colorado:

In one Colorado county about three years ago, the citizens became concerned about the lack of facilities for emotionally disturbed children. Without the slightest help from the state department, they decided to start a day care program for such youngsters in cooperation with the local community clinic and the local school

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** Shapiro, Hans M., M.D., Impact of Community Mental Health Services—Facts and Premises (paper presented at the 30th Anniversary Meeting of the Michigan Society for Mental Health), Detroit, Michigan, October 19, 1967.
district. They acquired an old school house, an army of citizens literally converged on it with paint and buckets, and succeeded in a few days to renovate the premises. Two motherly school teachers were assigned to the program by the school district, and the clinic contributed their own professional staff on a part time basis. The program is now completely supported by funds available through the Elementary and Secondary Education Act. This day care center serves a population of about 70,000 people. It has resulted in almost complete elimination of admissions of children from that area to the state hospital. Significantly, at the same time admission rates for the adult population have continued their upward trend.

The Health Planning Research staff has not been able to make a satisfactory estimate of the number of emotionally disturbed children in Minnesota. The state Department of Education has roughly estimated a total of 20,000 emotionally disturbed children in the statewide school districts on the basis of a national ratio of emotionally disturbed children to total enrollment. A letter survey* sent to the 87 Public Welfare counties in Minnesota reveals that there are roughly about 430 emotionally disturbed and 233 mentally ill children cared for either in their own homes or in foster or nursing homes. The proportionately higher number of school age children and young adult referrals to mental health centers indicates the need to evaluate existing mental health programs in the community for these age groups.

Some psychiatrists in the state have expressed their beliefs to the Health Planning Research staff that Minnesota has excellent facilities for the treatment of emotionally and mentally ill children and adolescents. Others have expressed the need for providing programs for emotionally disturbed children under 12 years of age. However, there is a strong feeling among this group that the state needs to provide better diagnostic and follow-up services for emotionally and mentally ill children at the community level. At Rochester State Hospital, for example, the Program Development Committee has proposed the development of new programs at the hospital, emphasizing the prophylaxis of mental disorders in children using such techniques as intensive

*Letter survey sent to 87 Minnesota County Welfare Boards by Health Planning Research at Stanford Research Institute, August 1968, see Appendix C.
study, diagnosis, and short term treatment of neuropsychiatric problems. These patients would include the multiply handicapped with a combination of psychiatric and neurological problems and difficult diagnostic problems such as differentiation between mental retardation and specific learning disabilities.

Community organization and educational programs should be designed and developed by which consultation and guidance can be provided to families with special mental health problems. Anticipating that there will not be enough professional mental health specialists available to meet the mental health problems of the people, training of community lay groups will be required. This approach is especially appropriate in rural areas that are some distance from urban centers and that lack psychiatric resources in terms of facilities and skilled manpower. The mental health center should demonstrate initiative and leadership in attaining this goal. A good example of this type of effort by which the community is trained to assume a preventive and therapeutic role is presented by the Range Mental Health Center at Virginia, Minnesota. The main emphasis of this health center is toward consultation and in-service training activities rather than direct therapy. Sixty-five percent of the Center staff is devoted to developing community lay groups (school teachers, law-enforcement officers, clergymen, and so forth) in handling mental health problems. The Range Mental Health Center is a typical facility serving a rural area of 14 small mining towns located in northern Minnesota and with a total population of 100,000.

4. Emphasis on diagnostic and evaluation services at the community level for early detection of cases.

5. Development of residential treatment centers for the emotionally disturbed children and adolescents in major cities where staffing does not present a problem such as in the Twin City areas, Duluth, Rochester, and others. These centers could tie in under the initiative of the private sector.

6. Encouragement in the planning and implementation of programs for special disabilities in state mental institutions.

7. Development of a system by which professional communication between the state hospitals and the university staff (Department of Psychiatry) could be maintained.
A current approach to considering mental retardation is that it is essentially a behavioral syndrome or disability rather than an illness and, whenever possible, the level of individual functioning is used as a principal criterion. By approaching Minnesota's problem on this basis, the task is to look at the totality of the problem rather than just as it affects the need for institutionalization of these persons.

Throughout the United States, it is estimated that there are about six million persons who are mentally retarded to some degree. Fortunately, however, close to 90 percent of that number are classified as minimally or mildly retarded. An additional 6 percent are considered moderate, 3.5 percent severe, and 1.5 percent profoundly retarded.

The incidence and prevalence in Minnesota can only be estimated at the present time. Supported to some degree by public and private agency reports collected, the prevalence of mental retardation in Minnesota would appear to be between 1 and 1.5 percent of the population. It might be pointed out at the same time that this figure is really not as important as the figures and percentages known to be under the supervision of state and private agencies as an indicator of future needs within the state. At the same time, Minnesota must have a better idea of those who might benefit from special training and special education classes and other non-residential programs if it is to maintain or improve the living environment of these individuals within the state.

On the basis of the 1967 population estimate of 3,610,000 persons residing in Minnesota and using a figure of 1 to 1.5 percent for the prevalence of those who will require specialized attention, between 36,000 and 50,000 individuals result. On the basis of an average of 86,000 births per year from 1960-65, 860 to 1,290 persons will eventually have need for some level of care. Among these births, it can be forecast that about 0.1 percent will be either profoundly or severely retarded, 0.3 percent moderately retarded, and about 2.6 percent either mild or borderline retardates.

The time of identification of retardation also varies with each of the three major age groupings—preschool, school, and post school. At any given time, approximately 0.3 percent of the preschool, 3 percent of the school, and 1 percent of the post school age population are mentally retarded. These differences appear to be primarily due to the stringency of the various rating or diagnostic techniques and to types of competition encountered at different ages. Second, they appear to be due to the tendency for the individual to vary over time (e.g., slow learners).
third factor may be that there is a higher death rate earlier in life for the mentally retarded than for others.

As might be expected, the population of mentally retarded individuals known to state and private agencies is considerably smaller than the low 1 percent figure. In April 1968, the combined total of patients in the six state residential institutions for the mentally retarded—Brainerd, Cambridge, Lake Owasso, Faribault, Owatonna, and Shakopee—was 5,172.

In August 1968, the research team conducted a letter survey of Minnesota's county welfare departments and estimated on the basis of a 54 percent return that about another 7,000 individuals were either in their own homes or in foster and nursing homes. January 1965 figures show that 487 mentally retarded individuals were in private institutions for the mentally retarded, although more recent data indicate this figure to have risen to about 600 at the present time.

In November 1967, the Minnesota Department of Education published figures for those mentally retarded enrolled in special education and special training classes. According to these data, there were only 8,664 enrolled. This would indicate that the figures from the county welfare departments are much too low and probably reflect only about one-half to one-third of the actual total of those in need of these services. This may suggest that 1 percent is a useful figure in working with Minnesota's population, which is further supported by the fact that the state Department of Education knows that it reaches only a small percentage of the population in need of special education and special training classes.

Minnesota's state hospitals for mental retardates have had a resident population of about 6,000, approximately one-third being preschool and school age and two-thirds adults. Of the six facilities that the state operates to provide residential care and treatment for the mentally retarded or epileptic, all of them admit patients of both sexes at all mental levels except Shakopee, which cares only for females between the ages of 5 to 14 years. Owatonna had no patients older than 24 years. Among an aggregate total "on institution books" on June 30, 1967, there were 5,917 patients either in residence, on short leave, or on trial placement. Further analysis reveals the following:

---

<table>
<thead>
<tr>
<th>Level of Retardation</th>
<th>Number of Patients</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe or profound</td>
<td>2,198</td>
<td>37.15%</td>
</tr>
<tr>
<td>Moderate</td>
<td>2,193</td>
<td>37.06%</td>
</tr>
<tr>
<td>Mild</td>
<td>866</td>
<td>14.64%</td>
</tr>
<tr>
<td>Borderline</td>
<td>105</td>
<td>1.77%</td>
</tr>
<tr>
<td>Not retarded</td>
<td>45</td>
<td>0.76%</td>
</tr>
<tr>
<td>Unclassified</td>
<td>510</td>
<td>8.62%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,917</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

In addition, there are 14 voluntary private residential facilities that have a present combined residential capacity for about 600 patients. In the aggregate, nearly 85 percent of these patients are rated on a severity scale as in the moderate to profound level. The state hospitals have shown a consistently downward population trend as follows:*

<table>
<thead>
<tr>
<th>Year</th>
<th>Patients on Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 30</td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>6,565</td>
</tr>
<tr>
<td>1963</td>
<td>6,469</td>
</tr>
<tr>
<td>1964</td>
<td>6,302</td>
</tr>
<tr>
<td>1965</td>
<td>6,265</td>
</tr>
<tr>
<td>1966</td>
<td>6,065</td>
</tr>
<tr>
<td>1967</td>
<td>5,917</td>
</tr>
</tbody>
</table>

The year 1962 represents the highest institutional population in Minnesota's history. (In the years before 1962, it had increased each year as additional space and staffing became available.) However, over the recent six-year period, there has been a total decrease of only 648 patients (6,565 minus 5,917). Discharges remained at about 300 per year, and deaths in the institutions accounted for approximately 92 each year. Admissions during the last two years, 1966 and 1967, were lower than those in the three preceding years. The same report indicates that admissions of the profoundly and severely retarded have exceeded the number of discharges and deaths among such patients in recent years. On the other hand, most patients discharged have been mildly or moderately retarded. Patients under 10 years of age are now seldom admitted. Five years ago, one in every 8 patients was under the age of 10 years. On June 30, 1967, only

* Ibid.
one in 22 was in this age category. Patients aged 65 years and older have decreased, due to successful placement in nursing homes in recent years.

Thus, it would appear that Minnesota is finding a limited degree of alternatives to state residential care, particularly among its less severely retarded young children and elderly. The reduced admission rate since year 1965 can probably be attributed essentially to two factors:

1. Unavailability of beds in overcrowded facilities.

2. The development of local alternatives, e.g., special education and special training classes in local school districts, sheltered workshops, daytime activity centers, and other community-based services.

On March 19, 1968, Thyrza Tyrrell, statistician with the Department of Public Welfare, prepared projections of populations of Minnesota's institutions for the mentally retarded through fiscal year 1970-71. Based on the rate of decreases from 1965-66 to 1967-68, the following is reported:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Daily Resident Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual 1965-66</td>
<td>5,805</td>
</tr>
<tr>
<td>Actual 1966-67</td>
<td>5,619</td>
</tr>
<tr>
<td>Actual and Estimated 1967-68</td>
<td>5,289</td>
</tr>
<tr>
<td>Estimated 1968-69</td>
<td>5,060</td>
</tr>
<tr>
<td>Estimated 1969-70</td>
<td>4,846</td>
</tr>
<tr>
<td>Estimated 1970-71</td>
<td>4,673</td>
</tr>
</tbody>
</table>

However, since there are a number of unknowns that now and in the future will affect these prognostications, they are reported only to indicate what can occur if the decreasing institutional population rate remains unchanged. The transfer of patients to mental illness hospitals, passage of cost of care legislation, alternative methods of care, and other factors can, of course, affect such projections markedly.

The state-operated hospitals are under the direction of the Department of Welfare's Director of Institutions, David Vail, M.D. State appropriated tax revenues have been almost exclusively allocated to the operation of its institutions. The state has not as yet asked the private sector to participate in carrying out its public responsibility of providing residential accommodations to its retarded. However, it has long
been the goal of the Minnesota Association for Retarded Children and the Mental Retardation Planning Council (Minnesota) to seek the passage of legislation that would have the effect of greatly encouraging the development of voluntary residential facilities. Since placement is a county responsibility and the county must pay the full cost of care in a voluntary facility (not borne by parents or guardians), strong pressure has been applied to make the placement in a state facility, where the county's financial responsibility is only $10 per month. Thus, it is felt that costs (or cost savings) have become the principal criteria for placement selection, whereas the more appropriate index should be facility selection based on an institution's ability to meet the specific needs of the individual—whether it be a private group facility, foster home, or public institution.

Therefore, the pressures put on state institutions are in direct contrast to a community based concept that develops and utilizes local community resources. Pressures had been applied to expand the crowded state hospitals for the mentally retarded at the very time when emphasis was being directed toward discouraging their growth. Reduction in patient load of these large institutions appears, at the present time, to be approached by the strategy of transferring patients from crowded state mental retardation hospitals to state mental hospitals, rather than to private local community facilities. This is necessitated by the fact that:

1. State mental hospitals have beds available.

2. The cost of care bill that would have permitted the eventual retention of patients in and transfer to local private facilities on a county-state shared basis did not pass the last session of the state legislature.

3. Currently existing local private residential facilities are operating at near capacity.

The lack of passage of cost of care legislation during the last biennial session of the legislature, however, had the effect of preventing the continued expansion of state mental retardation facilities and as a matter of expediency, legislative mandate, and economy, transfer of patients appeared to be the only course of action that could relieve a problem begging for instant resolution. Although this practice has been carried out in other states (including California, Oregon, and Iowa), the reactions expressed have not been strongly in favor of such action as a permanent solution by expert leaders in mental retardation. Certain states (Washington, Texas, and Connecticut), after considerable deliberation, declined to use this approach as a possible solution.
Although the incidence of psychiatric problems among the retarded is considerable, some experts believe that the majority of mentally retarded do not suffer acute psychiatric overlay problems and would be inappropriately accommodated in state mental hospitals. However, the pilot study in Minnesota (Cambridge-Moose Lake) of 28 carefully selected cases transferred from a mental retardation to a mental illness institution has had a better than anticipated result without apparent deleterious effects on either the mentally retarded or the mentally ill patients, even though they were mixed in the same wards. The state Department of Welfare has developed a transfer plan whereby between 500 and 600 patients are currently being transferred from the state's overcrowded mental retardation hospitals to available beds in its mental hospitals. It is believed that, rather than follow the integrated program piloted at Moose Lake State Hospital, these patients should be housed on an isolated basis, at least initially.

Throughout the state of Minnesota, there have been many opposing viewpoints expressed regarding the role of the state in making provisions for its mentally retarded. In visits throughout other areas of the country, the research team has seen sufficient demonstrations of successes representing opposing viewpoints. What may have appeared to be a simple problem has often become complex because of a realization that more attention needs to be focused on the total problem rather than only certain facets of it. The lack of skilled manpower is a common problem found in all the states studied. This problem becomes aggravated almost alarmingly as one leaves large metropolitan centers and enters the smaller communities and rural settings.

The effect of migration of population to urban centers aggravates the problem of bringing comprehensive mental retardation services to areas of low density population areas. Throughout the literature and interviews with leaders in the field, it appears that unless there is a catchment area of at least 100,000 population, full scale services to include both residential and non-residential care, is neither feasible nor practical. This argument centers on the point that, even with large scale manpower training in the multi-disciplinary skills required, local areas do not attract the expertise (even if it were potentially available) to provide services in isolated areas effectively. Many of the present 23 mental health centers, broadly spread throughout Minnesota, have had openings for skilled professional and para professional staff that have remained unfilled.

Efforts to interest the professional experts representing all disciplines needed in definitive diagnosis, evaluation, counseling, special education, and so forth, would appear to have greater potential when
comprehensive services are close to university teaching centers, the largest of which is in the Twin Cities area. In the areas of diagnosis and evaluation alone, there is a need for physicians, nurses, and rehabilitation counselors. However, many other professional specialty skills are often required such as consultative assistance of psychologists, neurologists, dentists, surgeons, psychiatrists, ophthalmologists, urologists, orthopedists, cardiologists, plastic surgeons, and special educators. Small communities do not have this array of specialists.

It is appropriate to question what facilities the state should provide and for whom. The popularly held concept is that the state should invest its resources in caring for those persons whose care is beyond personal or family resources to provide. Since state government is the essential recipient of funds from county, city, state, and federal fund sources, state government becomes the center of receiving, disbursing, and regulating these funds. It appears that with adequate cost of care legislation, it is the state's desire to reduce its already heavy involvement in running state institutions for the retarded, but it has not met with legislative support in this regard. Its facilities have aged, buildings are excessively overcrowded, and some have been condemned for residential use due to extreme obsolescence or fire hazard. Since 1966, total residential accommodation demands have increased such that they now exceed those for the mentally ill. It is believed that the state's involvement in the future should be to subsidize grants in the private sector while retaining its responsibility for program standards, planning, and licensing. Perhaps quality care can be provided by the purchase of residential service from the private sector for specific levels or groups of retardates, and the state would provide the residential care for the most difficult care problems. This suggests that, whenever feasible, the state should purchase the service rather than provide it. Thus, those persons easiest to care for would find care in private facilities, and those most difficult to care for would receive care provided directly by the state. There may be a segment of severe retardates who have too difficult multiple psychiatric and physical impairments to anticipate concerted interest on the part of the voluntary sector to assume—based on almost any cost formula. As previously suggested, one would question the voluntary sector's ability to procure the specialized professional skills and to cope with the antisocial or criminally inclined retardate.

In Minnesota, even though there has been some development of outpatient facilities, non-residential treatment centers, and diagnostic centers, the realization of the potential values inherent in the broad development of such facilities as an alternative for residential care has not
been shown. In England, a number of studies are being conducted to determine needs for residential care for retardates. One report* has shown that when facilities outside hospitals are fully developed, continued hospital care will be necessary only for patients who require special or continuous nursing and for those who, because of unstable behavior, need the kind of supervision and control provided by the hospital. The summary of its findings are reported:

Investigation of the medical, nursing, and social needs of all Birmingham patients (1,652) in hospitals for the subnormal showed that only about half needed the kind of care—mainly basic nursing and psychiatric supervision—which made it necessary for them to be in hospital. The other half of the patients required training and occupation—both inadequately provided in hospital—in a sheltered environment with, in some cases, simple personal attention described as checking and counseling.

In accord with the recommendations of HM(65)104, it is suggested that hospital responsibility should be restricted to patients needing medical and nursing care and that the remainder should be transferred to local health, welfare, and education authorities. The reduction in the number of mentally subnormal patients in hospital would make it possible to care for them with all other patients at a common centre. Only in this way will it is possible to focus research interest on the problems of the subnormal and to raise the standard of their care to an acceptable level.

The research team visited the Spastic Children's' Foundation and the Dubnoff School for Educational Therapy, both in Los Angeles. Additionally, a visit was made to discuss regional concepts of diagnosis evaluation, counseling, and service with Richard Koch, M.D., Director of the Regional Center at Children's Hospital of Los Angeles, who spoke to interested groups in Minnesota last November. During the past fiscal year (1966-67), the Center served 429 clients, 265 of whom were on the waiting list for admission to a state hospital. Most of the latter were severely retarded persons. Out of this group, residential service was purchased in private settings for 76 individuals. Twenty-six others were eventually admitted to a state hospital. Alternatives to residential care were found for 163 persons who otherwise might have been admitted to California state institutions if Regional Center Services had not intervened. This amounts to close to 62 percent. It is apparent that such a program is economic in

terms of state dollars expended per person per year for community centered care. A total of $839 annually was expended for purchased services, on the average, per client served. Administrative costs averaged $441 annually per client for a total of $1,280 per year per client served by the Center. Considering that Los Angeles has one of the highest cost of living indexes in the country, Minnesota should be able to demonstrate an appreciably less per client expense per year. In California, the state legislature has been deeply impressed, not only by the cost economy, but also by the social benefits for the children and their parents since separation has the effect of isolating the retardates from cherished and needed community ties. The institutions, largely due to size, tend to provide a depersonalized type of care in which mental and physical deterioration can be demonstrated. However, because large institutions are usually unnecessarily protective when the disability is not sufficiently severe to require full institutional care, costs are unnecessarily excessive and services are not designed to increase independence of the semi dependent patient. At the last session of the legislature, California appropriated sufficient funds to add four more such centers to the existing two. These centers were provided for under Assembly Bill 691 (1965) and called for two Regional Centers to serve the mentally retarded. Responsibility for administering the two Regional Centers was assigned to the Department of Health with legislative direction to contract these services to local community resources. The purpose of the establishment of the regional centers for the retarded was to prevent state hospitalization whenever possible. The sum of $750,000 was budgeted for each center, $150,000 for administration, and $600,000 for the local purchase of needed services.

The functional responsibilities of the centers were to provide:

1. A fixed point of referral ("one door") diagnosis, evaluation, counseling, financial assistance for the purchase of services as needed, and case management and coordination of required services at each successive stage in the life of the retarded individual.

2. Lifetime supervision (guardianship).

3. Case follow-up.

4. Case registry.

The law intended that there be maximum utilization of voluntary and private resources underwritten by state purchase of these services. This is one example of an alternative course of action for Minnesota.
In summary, certain tentative conclusions can be drawn that have a bearing on the future development of Minnesota's state services for the mentally retarded. It has been shown in other states that:

1. Responsibility for the care of the mentally retarded can be mutually shared between state and local public and private agencies working closely with the parents of the retarded. These programs have demonstrated that it is the desire of most parents to participate in a meaningful manner in the ongoing care of their retardates.

2. There are a significant number of retardates qualifying for state residential accommodation that can be adequately and successfully served by community services. High quality care can be provided in large communities without provision of residential care.

3. Regional centers can be more flexible than large state facilities in meeting the unique needs of each region and of each retardate.

4. More regional centers developed throughout the state as an alternative to still further expansion of state institutions is more effective and less costly when it actively seeks alternatives to residential accommodation.

5. Effectiveness of regional center services requires coordinated and harmonious relationships among the Center, state hospitals, and local community resources serving the state.

6. When the severely retarded are seen in Regional Centers, numerous health problems are exhibited, suggesting that strong medical resources should be readily available (or a part of) Regional Center programs.

At the private, nonprofit Dubnoff School for Educational Therapy in Los Angeles, there were no residential provisions, but the Director indicated that "many" of the 125 children attending special day classes there would be in residential facilities if it were not for this school. Although it does not restrict its admissions to the mentally retarded, it prefers to see one facet of its program as compensatory for poverty children with atypical development—in this, the school is subsidized by Head Start and other poverty programs.
Patients at the school range all the way from those with defects of their central nervous systems to those with highly aggravated psychoses— with learning disabilities lying somewhere between the two extremes. A majority of these children do not qualify for special education or special training classes within the public school system. Voluntary scholarship funds have been set up, and 53 percent of the student enrollment are served by them. The State Department of Social Service refers patients there, and the institution bills the state at full cost. California Assembly Bill 1331 (Unruh Bill) provides payment from three-quarters federal funds and one-quarter state funds for services for nursery level groups. In large population centers, this is one more type of development that Minnesota could encourage as an alternative to state residential provisions for young retarded children.

A visit to the Spastic Children's Foundation in Los Angeles demonstrated that many programs can exist under one facility. This organization does not limit its admissions to those with cerebral palsy, nor does it concentrate on one age group. There is a five-day resident training program for children of ages 3 to 18 whose parents take them home for weekends and for a two-week summer recess. Since children referred to the foundation have already been well diagnosed medically, medical services are not provided except by parent arrangement. However, social, psychological and medical evaluations are undertaken at least every six months. Considerable help is given to parents to help them plan realistically for the future of their child, since by age 18, services can no longer be provided within that program.

The foundation has 54 residents and 15 day students. In addition, there is an adult residential program designed for 52 long term handicapped persons who are 18 years of age or older. They cannot be severely retarded or eligible for admission to a state hospital. Many are not truly retarded, but are victims of social deprivation or functional retardation. This program is funded by the Aid to the Totally Disabled Program and by state's Medi-Cal program. Additionally, there is a Development Center sponsored by the Los Angeles City School District for children who do not qualify for special education or special training classes, ambulatory and non-ambulatory. Funding for this center is separate from that for the foundation. Although this funding provides no construction funds, it does (through the Department of Education) pay for the services offered. There are a total of 20 children in this program at the foundation. About 360 children are served throughout the state in 17 other programs of this nature. There seems to be universal agreement that without this service, most of these children would be in state hospitals. California has the lowest rate of institutionalized
mentally retarded in the country, largely due to the development of multi-
faceted, non-residential programs. The Spastic Children’s Foundation thus represents one more alternative for Minnesota in that the voluntary sector has been able to serve the state's needs by the provision of services on a localized basis, which, in itself, minimizes the demand for residential accommodation.

Although the research team was not able to gather data in Minnesota relative to the number of state hospital residents who remained there because of the unavailability of local accommodations of this sort, opinions were expressed at the hospitals that "quite a few" (perhaps up to 40 percent) of the patients could be returned to their home communities if these communities were able to provide such needs as special training classes, special education classes, nursing homes that would provide pediatric accommodations, supervised boarding homes, sheltered workshops, daytime activities centers, and halfway houses.

Since it is unrealistic to envision instantaneous development of these residential and non-residential facilities, Minnesota can more realistically measure its needs for residential provision by undertaking a study (preferably by a team of "outside experts" comprising a retardation educator, a physician, a vocational therapist, and a psychologist). Every currently institutionalized patient would be evaluated to determine whether continued residential care was necessary. Although there are retarded persons who will need lifelong care, the National Association for Retarded Children estimates that 85 percent of the retarded population can be self-supporting members of the community. Thus, residential care should be therapeutic in nature, aimed at returning the individual to his home community. Adults who have been in residence at state hospitals for many years tend to lose their community roots and family ties and therefore transfer of others would be given priority. However, at the present time, Minnesota has not developed data that could demonstrate where such facilities would most appropriately be located and what effect these facilities would have on lowering present censuses in its state hospitals for the retarded. The state should be interested in knowing why there are almost 866 mildly retarded patients in its mental retardation hospitals. Are they in these hospitals so they can benefit from special care or special training classes? Since school districts are required to provide special education classes but can elect to provide special training classes, information of this sort would prove valuable in passing legislation making it mandatory for the districts to develop special training classes as well. Such legislation has been mandatory for both in California for some years. (Permissive legislation for training classes was passed in 1961, and mandatory law was passed in 1965.) Additional incentive was recently given in California by the passage on July 11, 1968, of AB 136 (Greene Bill), which
requires school districts to pay tuition for handicapped children to a school outside the district when services are not available in the district. The bill is to be effective on July 1, 1970, and it is predicted that, because of this bill, there will be few school districts not offering services within their separate jurisdictions by 1970. (In the five year period, 1961-66, the number of children in special training classes in public schools in California jumped from about 3,000 to almost 7,000.) Similar legislative action in Minnesota should have the effect of releasing some resident children to their home community public school special classes.

Despite concerted efforts on the part of the research team, it was unable to gather data on total costs per patient per day for state operated mental retardation programs. A system of standardized accounting such as that offered by the American Hospital Association makes it possible to compare state residential facilities with voluntary residential facilities. At present, however, although some program costs are available, they are too general to be of comparative analytical value. Favoring the development of local or regional facilities is the argument that, not being isolated, they are capable of using many community services not available to the large, relatively isolated state hospitals. Volunteer help is also available, resulting in at least some labor cost economies. Dr. Richard Koch's program in Los Angeles has demonstrated that many services that may need to be offered full time in large state hospitals can be purchased on an "as needed" basis, effecting not only cost economies but a wider diversity of services.

The programs currently operating for the mentally retarded, in the opinion of well-informed Minnesotans, are too heavily directed toward residential care, and since most of this is handled in the overly large state hospitals, the programs are conducted by too few people for too many patients, and their effectiveness is thus diluted. Continued understaffing of the facilities often results in severe program curtailment. Those program directors whom the team was able to interview felt that much more could be done with more staff, better facilities, and fewer patients. This is not a problem only in Minnesota; in other areas of the country, the same belief is expressed. Strong criticism is voiced that the retarded are handled more as sick persons needing medical supervision than as disabled persons needing training by specially trained educators.

Minnesota's facilities were at one time called schools, but their names have recently been changed to hospitals. It is alleged that physicians are oriented toward working with disabilities, whereas the educator's milieu is to work with abilities, and that therefore the latter
discipline might be more appropriate to direct the facilities, using medical expertise as a necessary discipline in diagnosis, evaluation, and correction of physical defects and typical illnesses related to the retarded, such as epilepsy. Dr. Koch concurs only to the extent that this is probably true for the mild retardate who is without other physical problems and possibly true for the moderately retarded, but rarely true among the severe and profoundly retarded who must generally be under constant medical supervision. This may suggest that since the limited supply of physician expertise resides essentially in state residential mental retardation facilities, the future role of the state's hospitals should concentrate more heavily on these levels than on the mild and moderate groups.

County welfare boards complain that there has been and continues to be a wide communication gap between them and the state Department of Welfare. They do not feel that their problems are heard and heeded adequately. If this is a reflection on programs and services provided to the local staffs, steps should be taken to rectify it at the central offices.

In looking at the total provision of programs for mental retardation in Minnesota, the research team carefully studied the work done by the Minnesota Mental Retardation Planning Council. This group's activities serve as a dramatic example of the level of effort that voluntary groups are capable of accomplishing if given the opportunity. Their final effort resulted in the publication of "Progress and Promise ... A Report to the Governor on Minnesota's Effort to Combat Mental Retardation and What Remains To Be Accomplished," published in December 1967.

Since the council's final recommendations have been succinctly stated in the Epilogue (pg. 33), they are enumerated below:

(1) The need to develop a viable system of diagnostic and evaluation services as related to the child development center concept;

(2) The need to establish a pattern of small, community-based residential facilities as related to the cost of care legislation;

(3) The need to assure development of good programs through the mechanism of an effective standards and licensing process;

(4) The need to develop an improved administrative structure at the state level to guide and direct an ever-broadening spectrum of mental retardation programs;
(5) The need to accelerate training and research activities, as related to the establishment of a university-affiliated training and research center;

(6) The need to devise methods to recruit sufficient trained manpower to provide needed services;

(7) The need to study and recodify state laws concerning the mentally retarded.

Program planning has been assigned to Mr. Ardo Wrobel, Director of Mental Retardation Programs. When considering the present policy of transferring large numbers of retarded into the state's mental hospitals, necessitating the prior development of new programs with their staff, facility, and acceptance problems added, it would appear that there will also need to be expansion of staff in the central offices.

Many feel that mental retardation will not receive the status and visibility that it merits until there is a separate Division of Mental Retardation established within the Department of Welfare.

In addition to the Department of Welfare's Division of Medical Services, there are other official agencies responsible for the retarded. These are the divisions of Child Welfare, Public Assistance, Rehabilitation, and Field Services.

A possible solution to this problem is the creation of a mental retardation board comprising members representing all official and voluntary agencies that have an interest in retardation, including mental health, public health, social welfare, vocational rehabilitation, corrections, education, the attorney general, and probation representatives. Functionally, it might be vested with not only advisory functions but also with certain prescribed areas of decision authority. Certainly, if the proposed cost of care legislative bill passes the next biennial session, a great deal of work is foreseen in the single area of licensing and standards development.

The current role of private residential institutions, under present operation, is generally limited to private paying patients and to those patients eligible for state institutional admission who are awaiting admission to state institutions. As such, their effectiveness in terms of numbers of patients cared for represents only about 10 percent of the patient load cared for in state facilities. Further appreciable development, however, can only come after the successful passage of adequate cost of care legislation in which the private sector would be invited
to share in the state's present burden in caring for its retarded. If the state were to match private funds for the construction of private residential accommodations, the state could realize $2 million in new local facility accommodation for every $1 million it contributed. Assuming that program and staffing would be improved (or at least equal to that offered in present state facilities), there is considerable merit in the argument. Further, the private sector's patient load awaiting state placement would be of a more permanent nature and should encourage the development of stronger program content. There is no question but that this concept approaches much more closely the viewpoint that the patient remain in or close to his home community; however, even with passage of cost of care legislation, the concept does not suggest the immediate dissolution of all state facilities. Despite many assurances to the contrary, it is not known to what extent the voluntary sector would build enough of the right kind of residential facilities in the communities with greatest need and with the necessary manpower.

In considering 13 currently operating private residential centers, age and other restrictions for admission or care for each are shown in the chart on the following page.

Thus, with one exception (Mount Olivet Rolling Acres), most of the facilities are designed for a young age group, usually not over 12 years of age, and generally restrict admissions either to ambulatory or non-ambulatory categories. Most of them limit admissions to only certain degrees of retardation and mobility (e.g., Lake View Home—ambulatory only; Richard Paul Foundation—trainable and lower educable). It would therefore appear from the chart that a child over 12 years of age whose parents or guardian had the economic means to support the child privately might have considerable difficulty in finding such accommodation anywhere in the state, much less within his own community.

If forthcoming cost of care legislation is passed, existing and proposed voluntary residential centers could be encouraged to offer a broader spectrum of services within the communities—without such restrictive age limitations, degrees of ambulation, and categories of retardation as "lower educable," "non-ambulatory," "from infancy to six years of age," and so forth.

The state hospitals have been soundly criticized by many because they were too large and impersonal, grossly understaffed, poorly located, and offered essentially only custodial care. However, they have not imposed such restrictions as are enumerated above. Present planning, which will result in the reduction of patients in mental retardation hospitals by transferring perhaps 600 to mental illness institutions, will in part
<table>
<thead>
<tr>
<th>Age Group Accepted</th>
<th>Patient Must Be</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>Cedar Child Care Center</td>
</tr>
<tr>
<td>2</td>
<td>Champion Children's Home</td>
</tr>
<tr>
<td>4</td>
<td>Dorothe Lane Children's Home</td>
</tr>
<tr>
<td>6</td>
<td>Julie Billiart Home</td>
</tr>
<tr>
<td>8</td>
<td>Lake Park-Wild Rice</td>
</tr>
<tr>
<td>10</td>
<td>Lake View Home</td>
</tr>
<tr>
<td>12</td>
<td>Pettit Children's Home</td>
</tr>
<tr>
<td>14</td>
<td>Richard Paul Foundation</td>
</tr>
<tr>
<td>16</td>
<td>Mount Olivet Rolling Acres</td>
</tr>
<tr>
<td>Older</td>
<td>Roseau Children's Home</td>
</tr>
<tr>
<td></td>
<td>The Angels</td>
</tr>
<tr>
<td></td>
<td>Vasa Lutheran Home for Children</td>
</tr>
<tr>
<td></td>
<td>Welcome Homes, Inc.</td>
</tr>
<tr>
<td></td>
<td>Amputatory</td>
</tr>
<tr>
<td></td>
<td>Not stated</td>
</tr>
<tr>
<td></td>
<td>Ambulatory</td>
</tr>
<tr>
<td></td>
<td>Nonambulatory</td>
</tr>
<tr>
<td></td>
<td>Ambulatory and educable</td>
</tr>
<tr>
<td></td>
<td>Ambulatory</td>
</tr>
<tr>
<td></td>
<td>Ambulatory and trainable</td>
</tr>
<tr>
<td></td>
<td>Trainable and lower educable</td>
</tr>
<tr>
<td></td>
<td>Not stated</td>
</tr>
<tr>
<td></td>
<td>Nonambulatory</td>
</tr>
<tr>
<td></td>
<td>Nonambulatory</td>
</tr>
<tr>
<td></td>
<td>Both ambulatory and nonambulatory</td>
</tr>
<tr>
<td></td>
<td>Not stated</td>
</tr>
</tbody>
</table>
rectify some of the criticisms voiced. This is based on the assumption, of course, that excellent programming to meet their needs is developed and that staffing to meet program criteria is done before the transfers. Mr. Ardo Wrobel is convinced that this is being accomplished.

With the development of local private residential facilities, it would be possible to draw from local communities considerably more manpower, including parents, volunteers, part-time workers, older workers ("foster grandparents"), and semi professional personnel. Until there is an increased supply of the diminishing pool of professional workers, Minnesota is faced with a need to use such assistance. The development of excellent in-service training programs has repeatedly demonstrated the superior capabilities of such people after training, particularly in mental retardation work in Minnesota's institutions.

The non availability of skilled and semiskilled manpower remains a chronic and urgent problem. Every effort should be made to interest college-bound students to prepare themselves for work related to the mentally retarded. A leading spokesman in this field* convincingly argues that most of the retarded need teachers far more than they need doctors. He states: "... more (Federal) funds should be spent to train people who will, in turn, help train the majority of the retarded." He strongly suggests that instead of the vast federal funds that are being spent in bio medical research, at least a good portion of them should be spent on the development of centers designed for research on special education methods and rehabilitation and that other centers should be designed primarily for research in the social and behavioral science approaches to help the retarded. Albee further states: "To provide adequate help to the 110,000 children born each year with mild but handicapping retardation, and to provide care and rehabilitation for the other 5,500,000 mildly retarded people in our society, we need teachers, teachers, and more teachers—and then taxes to support a massive educational effort." There appears to be little doubt that teachers and teacher aides, especially trained to work with the disabled, is not only a problem in Minnesota, but also a universal one.

Since the present record indicates the very limited development of private residential facilities to share an appreciable segment of the state's population needs, the research team much conclude that until appropriate legislation is passed, the state's decision to transfer patients to mental illness institutions was a decision based largely

on legislative mandate; expediency; and the presence of obsolescent facil-
ities, overcrowding, and waiting lists in its mental retardation hos-
pitals. If, by legislative action, the private sector should be enjoined to
share the state's responsibility, decentralizing of residential services may
slowly evolve.

The private sector's future role might better be devoted to the further
development of local and regional facilities, which, by their nature, will
prevent the institutionalization of the state's mildly and moderately
retarded through voluntary effort and certain state subsidies, as earlier
described for the Los Angeles area.

Considering the areas where the bulk of Minnesota's population resides
and at areas where growth is expected, it follows that mental retardation
residential facilities (Brainerd, Cambridge, and Faribault) are too far
removed from the center of the population, which is the Twin Cities.
Cambridge is the closest, but it is still too far away to use effectively
the multi-disciplines and services which are offered and are more available
in Minneapolis St. Paul.

Rather than suggest another state mental retardation hospital in these
cities, an alternative approach that may be appropriate for this area was
found on a visit made to Houston, Texas. The new Harris County Center for
the Retarded is unusual. It is, first of all, the country's only center for
the mentally retarded that was built and operated through community funds.
The local United Crusade supplied two-thirds of the cost and the Hill-Harris
program the remainder. Second, it appears to be the country's most
comprehensive facility for the retarded. It has all facilities except
residential, including preschool and high school classes, recreation and
therapy, a sheltered workshop, psychological testing, evaluation,
diagnosis, medical and dental programs, and research. It has a capacity
for about 500 patients—both children and adults—and all levels of
ambulatory or wheelchair clientele. The center fully utilizes community
services, and the services operate without full-time medical supervision.
The Executive Director, Mr. Frank Borreca, calls on medical assistance as
it is needed for diagnosis, evaluation, and health planning. There is a
rather large and effective auxiliary of more than 100 women who work in a
service rather than in a fund-raising capacity. The city sold the property
to the Center for $1, and the buildings were constructed at a total cost of
only $16.50 per square foot. With only slight modification in planning, a
facility of this sort could be expanded to incorporate the child
development center concept so urgently endorsed by the Mental Retardation
Planning Council in Minnesota. Also, since the Twin Cities area is
completely lacking pediatric nursing home facilities, a cluster of
residential buildings could be developed for the ill as well as physically
well but handicapped child attending the Center but too far removed
from his home to make daily transportation practical or feasible. The University of Minnesota and other nearby schools of higher education could affiliate in a program of special teacher training with internships, practice teaching, observation, and so forth. Its medical school and paramedical teaching programs would have excellent clinical material. Appropriately directed, such symbiosis would benefit not only the schools and the institution, but also and more importantly the patient.

It is strongly recommended that the Houston Center be visited by a delegation from Minnesota to study its application, particularly to the Twin Cities area. This is the kind of newer development that prevents the need for costlier and often less effective residential care. A visit to the 30,000 square foot sheltered workshop in itself demonstrates that salvage of what would otherwise be institutionalized patients is not only quite possible but also acts as a sufficiently motivating experience to return these children and adults to productive, sometimes independent, living as taxpayers rather than tax users. By special agreement with the Labor Commissioner, these retarded workers begin at hourly wages of 75 cents per hour, and by the time they reach about $1.25 per hour, they "graduate" to outside employment in the competitive market.

Minnesota should strongly consider an in-depth study to determine the necessity for its present population of about 6,000 mentally retarded to be in residential accommodations. Once this has been established, regional plans can be developed on the basis of known data. There are a total of seven state mental hospitals and three state mental retardation hospitals. On the basis of adequacy of regional distribution, the future roles of the seven state mental hospitals and three state mental retardation hospitals may broaden their base into a concept of multipurpose diagnostic and treatment behavioral illness centers. Longitudinally, this concept could be spread as far as the regional demand for such services could be demonstrated. Diagnostic and treatment services for the mentally ill, mentally retarded, inebriates, and the elderly can then be programmed on the basis of regional needs. It is not at all inconceivable to incorporate the child development center concept into such a program. Since there are 23 mental health centers operating throughout the state, they could operate as sub regional or local "first contact" agencies. A means should be found whereby they see their local role as one not only focusing on mental illness and mental health, but also on discovery and treatment (non-residential) of the whole spectrum of behavioral disabilities described. Ideally, facilities would be in closer geographic proximity to patients, lessening the need to make residential provisions. As population density resulted in sufficient numbers to justify local residential accommodation, this could be possible if tax monies were allocated under legislative enactment or incentive financing under state and federal funding.
However, considering the many possibilities inherent in non-residential facilities, it would appear that there is a potentially greater return when the state invests more of its available funds in facilities and services that avoid state institutionalization. California, with a population of 20 million, has only 12,000 mentally retarded in state residential facilities. By contrast, Minnesota's population of only 3.5 million has 6,000 mentally retarded in its institutions. It would appear that Minnesota should not build more state residential accommodations for the retarded but should give every assistance to non-residential programs that seek to prevent isolated, institutional life.

The state of Connecticut has developed another possible variation—the regional residential center.* Investigation and study indicate that it is a very effective program highly praised by legislators, public administrators, parents of the mentally retarded, and community leaders. There are five such centers, small in concept but close to the families of their retarded residents. Having a completely open-door relationship with the communities in which they are situated, the center's residents use the special education classes of the local schools and all other services available in the communities. In turn, the centers provide the manifold special services of its professional staff to the community of retarded children living close by at home.

Although Connecticut is geographically the second smallest state in the union, it has a population of about 2.5 million. The application of its regional concept, although not applicable throughout the extensive rural portions of Minnesota, might have excellent conceptual value for the Minneapolis St. Paul area.

Conclusions Regarding Alternatives of Care for the Mentally Retarded

Minnesota is faced with a number of alternatives for providing care needs to its mentally retarded. Some of these are based on the successful passage of cost of care legislation that is realistic and acceptable to both the state and to the private sector. Certainly, if the state will enact such legislation, the possibilities of retaining newly diagnosed retardates in their home communities and of returning currently residential retardates to community services would be accelerated. With appropriate legislation, the need for further expansion of present state residential accommodations would appear to be unnecessary. Private and public

interests can be enjoined to develop local non-residential and residential facilities, along a child development center concept with a geographic priority given to the largest population centers. Such facilities could assist regional areas as referral sources for those difficult diagnostic, evaluation, and counseling problems from regional centers insufficiently staffed with the necessary disciplines. After solution of such problems, the patient could be transferred back to community facilities available in his local area if they meet his needs.

The further development of non-residential, community-based services would be anticipated progressively to relieve the state of demands for the admission of patients not requiring institutional care and would facilitate moving the patient back to the community, thus reducing the institutional load.

The establishment of a pattern of small, community centered residential facilities provided by the private sector could tend to promote closer liaison between county welfare boards and those local entities who could provide a continuum of services, frequently without the need for long term residential provisions.

The role of the state's mental retardation and mental illness hospitals could be to function as highly developed regional multipurpose diagnostic behavioral illness treatment centers.

The state's obsolete and hazardous facilities can be replaced by cottage-type units in currently operated state facilities, if the cost of care legislation fails to pass. In either case, however, greater efforts might be exerted to seek alternatives to residential care.

A separate division for mental retardation could be set up within the state's Department of Welfare which would give greater emphasis to the unique needs of the retarded. The mental illness-mental retardation, seven region concept should perhaps be more actively pursued.

Since it is mandatory that school districts develop special education classes, this law could be more stringently enforced. Also, there could be passage of enforceable legislation requiring school districts to set up special training classes. Both education and training classes could be established on a single or shared district basis.

Each of the state's seven mental illness hospitals could be developed to admit all retardates needing residential care from its region. Every conceivable effort to provide public or private alternatives to residential care might be pursued so that the borderline, mildly, and moderately retarded person could remain in his local area as these communities progressively develop resources to meet his needs.
The Elderly

Characteristics of the Elderly

Present and Projected Elderly Population. Although the total population of Minnesota increases each decade, there have been significant changes in the age distribution of the population. Of interest is the change in the percentage of persons 65 years and older compared with the total population in the state. This comparison for the years 1940, 1950, and 1960 is shown in the tabulation below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (Millions)</th>
<th>Percent of Population 65 Years and Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>2.8</td>
<td>7.6%</td>
</tr>
<tr>
<td>1950</td>
<td>2.9</td>
<td>9.0</td>
</tr>
<tr>
<td>1960</td>
<td>3.4</td>
<td>10.4</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>131.7</td>
<td>6.8</td>
</tr>
<tr>
<td>1950</td>
<td>150.2</td>
<td>8.1</td>
</tr>
<tr>
<td>1960</td>
<td>177.5</td>
<td>9.2</td>
</tr>
</tbody>
</table>

On the basis of projected population and age survivals, the elderly will constitute 10.8 percent of the total population of Minnesota in 1970. In terms of numbers this group will consist of 403,198 persons. For the same year, there will be more than 19.5 million Americans over 65 years of age or 9.4 percent of the nation's population.

Another dramatic change taking place is reflected in the growth of the Minneapolis St. Paul metropolitan area, which every year accounts for a larger percent of the state's total population. The same statement can be applied to the concentration of elderly in this area.

For the decade 1960 to 1970, it is estimated that the population of the Twin Cities metropolitan area will be almost half of the entire state population. In 1970, it is anticipated that 45.5 percent of the total elderly population will be in this metropolitan area. However, during this same decade, the movement to the suburbs in the area will bring a reduction in the total population of the central cities of Minneapolis.
and St. Paul. This will increase the number of people 65 years of age and
over in the cities to 15 percent of the total city population, or 2.2 percent
more than the corresponding figure in 1960. As will be discussed later, this
high concentration of the aging in the core of the Twin Cities, as well as in
other areas throughout the state, has been considered by the Minnesota
Department of Health in planning facilities and services for the aged and
chronically ill.

Participation in Labor Force. The elderly population constitutes a
regular component of the Minnesota labor force. In 1960, the percentage of
the total labor force that consisted of people 65 years of age and over was
5.5 percent. In 1970, it is estimated that this percentage will be 5.1
percent of the total labor market. Within the elderly group, approximately
one of every five persons was working in the 1960 labor force, and this trend
is expected to continue in 1970.

Income of the Elderly. Another characteristic of the elderly is their
low yearly income. Studies throughout the nation have always shown a rela-
tionship of the health status of the elderly to income levels. In Minnesota,
this relationship is illustrated in the findings of Carlton County household
survey conducted by the Carlton County Study on Aging in January 1967. The
objective of this study was to determine the needs, main interests, and con-
cerns of the old age group in an attempt to meet their needs and use their
experience in the design and planning of future services and programs. As a
result of the joint collaboration of public and private efforts in Carlton
County, it is known that 72 percent of the families in the elderly group in
the county have an annual income of less than $2,000, with 54 percent receiv-
ing a monthly income of less than $125. As a point of reference, the above-
mentioned elderly income of $2,000 compares with a Minnesota median family.
income of $7,267 in the year 1965. This study also reveals that the great
majority of the elderly individuals in poor health are in the below $2,000
per year income group.

An analysis of the major source of income of the older group in Carlton
County explains more clearly why money represents their major concern.
Findings of the Carlton study indicate that Old Age and Survivors Insurance
(Social Security) and other pensions provide the great bulk of income for 70
percent of the county elderly group. Of the total families surveyed, 7.3
percent reported Old Age Assistance as their source of income, which is
equivalent to an average monthly income per family of 84. It is significant
to mention, however, that the number of Old Age Assistance recipients is
higher in many other counties in Minnesota.
Prevalence of Illnesses. An assessment of the needs of the elderly requires consideration of the degree of chronicity, frequency, and duration of disabling illnesses among the old age group. Previous studies* in the nation have shown a higher frequency of disabling illnesses, including both acute and chronic conditions, in the group 65 years of age and over than in the population as a whole. Other findings show that:

1. The rate of chronic illnesses to all illnesses is much higher in the old age group than in the total population.

2. The duration of illness, measured by total days of disability per person per year, is over three times greater in the group over 65 years old than in the general population.

3. Chronic disease is the cause for hospitalization; the old age group shows three times more hospitalization than the population as a whole.

In summary, the characteristics of the elderly include:

1. An increased aging population.
2. A low yearly income among the old age group.
3. A health status that is related to the level of income.
4. A high rate of chronicity.
5. A significant frequency and duration of disabling illnesses.

All of these characteristics must be considered in determining residential care needs of the aged and in developing community facilities and services.

Trends in Residential Care of the Elderly

Several developments have had an impact in the patterns of residential care for the elderly.

Increase in Aging Population. Improved technology, better medical care, and availability of health services have contributed to increased life expectancy. Paralleling longevity is the increase in chronic illness and disabilities with involvement of multiple organ systems. Three or four simultaneously occurring diseases with significant disability are common occurrences in the aged. The findings of a study of a nursing

* Studies conducted by National Health Survey
home patient's needs in New York indicate that more than 80 percent of the total nursing home population presents arterial disease of the brain associated with senility or stroke. The author states: "The major medical and nursing management problems of the nursing home population are associated predominantly with the physical and behavioral manifestations of arterial disease of the brain and heart, either selectively or in combination."

**Health Insurance Programs.** Health insurance programs for the aged under Medicare-Title XVIII as part of the Social Security Amendments of 1965 (Public Law 89-97) provided payment methods for medical care costs to the aged. The Medical Assistance Program Title XIX provided public funds for medical care to the medically indigent population.

**Changing Socio-economic Patterns.** Changing socio-economic patterns prevent the family from caring for aged parents. Changes in family living that appear to have reduced the ability of younger relatives to provide care for older people are:

1. Migrations that separate families
2. More married women are working and cannot provide nursing care for aged parents at home.
3. The tendency to avoid inevitable conflicts between grandparents and children who live in the same household.

**Transfer of Elderly Patients from Mental Institutions.** The transfer of elderly patients from mental institutions to nursing home facilities is another development. New concepts in the treatment of the mentally ill including the introduction of drugs and milieu therapy have reduced the aged mentally ill residents in Minnesota state hospitals to 30 percent of the total. Of this age group (65 and over), admissions of 22 percent to state mental hospitals almost balance releases, which total 20 percent.

**Voluntary and Commercial Insurance.** It was not until after 1961 that chronic or long term care coverage underwritten by private or group insuring agencies began to be incorporated in health insurance packages. Many carriers have incorporated, as part of their programs, provisions for long term care, either as a supplement to hospital care or as a substitute for part of hospital coverage. It appears that the trend will be toward improved benefits for long term care.
Agreements Between General Hospitals and Long Term Care Facilities. In June 1960, the Division of Chronic Diseases, U.S. Public Health Service, initiated studies with the objective of exploring means of achieving affiliations between general hospitals and long term care facilities that would lead toward the improvement of care. This multi-facility affiliation or agreement has been recognized nationally as a system that can better achieve:

2. Adequate utilization of acute and long term care beds.
3. Efficient and economical use of skilled manpower.
4. Upgrading of services in long term care facilities.

This type of affiliation attempts to end the isolation of long term care facilities and at the same time provide a bridge for a two-way flow of care for acute and long term care patients.

As a result of the above factors, different types of institutional settings with varied levels of care have emerged in an attempt to meet the medical, emotional, and social needs of the elderly. Consequently there has been an increase in the number of long term care beds in nursing homes and general hospitals, ranging from the custodial care type to the one providing comprehensive medical and nursing care services.

Facilities for Care of the Elderly

Minnesota has 25,778 beds in general hospitals and nursing home facilities that provide long term institutional care.* In 1965, this gave the ratio of 65.9 chronic and nursing home beds per 1,000 Minnesota aged population. In addition, the state Department of Health reports that 1,456 long term care beds will be added and 4,721 of the existing beds will be replaced or modernized. Although the total number of existing long term care beds is slightly higher than the total planned for the state (25,687), about one-fifth of the existing long term care beds have been classified by the Health Department as "non-conforming beds" and should be either replaced or modernized.

* State Health Plan 1967-68; excluding mental and tuberculosis beds.
The Minnesota Department of Health has done an excellent job of determining area variations throughout the state as to need of long term care beds for the elderly and has also established priorities for the construction and remodeling of long term care facilities. Area bed needs have been determined on the basis of population trends (projected age-adjusted population for people 65 years and over) and by utilization rates of long term care beds measured by patient days.

Among the long term care facilities, nursing home units of hospitals licensed as "Convalescent and Nursing Care Units" have the highest priority in the State Health Plan for the Construction of Hospitals and Related Facilities. According to the State Plan, approximately one-third of the total nursing home beds should be constructed as units of acute general hospitals to better utilize these facilities and their manpower and to improve continuity of care.

As of December 1, 1966 there were 63 convalescent and nursing care units with 3,088 beds licensed or under construction in Minnesota. Eight of these units with a capacity of 734 beds or 24 percent of the total were located in the Twin Cities area. Considering that this area is expected to have approximately half of the total population of the state by 1970, highest priority will be given to nursing home units of large general hospitals in this area. At least one unit will be considered each year for the remainder of the state. Priority will be given to hospitals with an active and adequately staffed rehabilitation program.

In Minnesota, nearly two-thirds of the boarding home beds are under public or nonprofit ownership. More than one-half of these beds are in facilities that do not meet federal construction standards in terms of plant evaluation. The total number of boarding home beds total 7,536, out of which 6,162, or 82 percent, are in facilities that comply with the state safety standards for fire protection. About three-fourths of the beds that are acceptable in terms of fire protection are provided by public and nonprofit ownership.

The remaining 1,374 boarding home beds are in non-fire resistant, non sprinklerized buildings that for the most part are proprietary units.

Table 13 summarizes the above statements:
### Table 13
LONG TERM CARE FACILITIES, BOARDING HOMES IN MINNESOTA

<table>
<thead>
<tr>
<th>Long Term Care Facilities*</th>
<th>Estimated to be</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Beds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Existing Facilities</td>
<td>Existing</td>
</tr>
<tr>
<td>Chronic disease units of general hospitals</td>
<td>9</td>
<td>478</td>
</tr>
<tr>
<td>Convalescent and nursing care units</td>
<td>63</td>
<td>2,882</td>
</tr>
<tr>
<td>Nursing homes, free standing</td>
<td>351</td>
<td>22,418</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>423</td>
<td>25,778</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boarding Care Homes†</th>
<th>Number of Beds</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td>Number of Homes</td>
<td>Percent</td>
</tr>
<tr>
<td>Nonprofit and public</td>
<td>95</td>
<td>37.7%</td>
</tr>
<tr>
<td>Proprietary</td>
<td>157</td>
<td>62.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>252</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

* Source is Minnesota State Plan for Hospitals and Related Facilities, 1967-68, Long term care facilities, excluding mental and tuberculosis beds.
† Source is 1967 Directory of Licensed Hospitals and Related Institutions, Minnesota Department of Health.
Growth of Nursing and Boarding Home Beds in Minnesota. Of the 59,115 beds licensed by the state Department of Health (as of March 15, 1967) in Minnesota, the greatest increase in the past seven years has been for nursing and boarding home beds. The remarkable growth of long term institutional care facilities in Minnesota parallels the growth of the aging population and reflects the awareness of public and private groups of the need to provide long term care.

In 1960, the Department of Health licensed 346 nursing homes and 103 boarding care home facilities. For the period 1960-1967, the increase in the number of nursing home beds was 117 percent and in boarding home beds 73 percent. During the same period the population 65 years and over showed an increase of 12 percent.

The tabulation below illustrates the above figures.

<table>
<thead>
<tr>
<th>Licensed Facilities in Minnesota</th>
<th>1960-67</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1, 1960</td>
<td>March 15, 1967</td>
</tr>
<tr>
<td><strong>Type of Facility</strong></td>
<td><strong>No. of Facilities</strong></td>
</tr>
<tr>
<td>General hospitals</td>
<td>185</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>346</td>
</tr>
<tr>
<td>Boarding care homes</td>
<td>103</td>
</tr>
<tr>
<td>Other</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>691</td>
</tr>
</tbody>
</table>

As previously mentioned in this report, the number of elderly in Minnesota has been increasing gradually. People are living longer—the median age at death is now 72.9 in the state.* Although this constitutes one factor that has stimulated the demand for long term facilities, the greatest impact on the nursing home field probably has come from the Medical Assistance for the Aged Program and Health Insurance for the Aged (Medicare) program.

* Minnesota Department of Health, Section of Vital Statistics; median age at death refers to the year 1966.
Other Long Term Care Facilities. Other licensed long term institutional care beds providing service for the elderly in Minnesota are in psychiatric, tuberculosis, and rehabilitation facilities. Improved methods and treatment through chemotherapy and non-institutional care have brought a reduction of the resident population in tuberculosis hospitals in Minnesota. In Minnesota, the five existing sanatoria report a population of 236 for the year 1965 in contrast to 216 in 1966.

There are now four sanatoria with a capacity of 308 beds and an average daily census of 210 patients. Three of these sanatoria are county operated, and one is state operated. Patient statistics concerning the age group 65 years and over in these institutions, including number of patient days provided and admissions, are not available.

Mental Hospitals. Another special facility providing long term institutional care for the elderly is the mental hospital. New modalities in the treatment of the mentally ill since 1956, especially the introduction and use of tranquillizers, have resulted in the movement of a large number of residents 65 years and over from mental hospitals to nursing homes. This trend in the treatment of the mentally ill has reduced the resident aging population in Minnesota state mental hospitals. At present, this population constitutes 30 percent of the total residents. In addition, the elderly constitute 22 percent of the total releases—Assuming that the above ratios follow the same pattern, projections for 1970* would indicate that (1) 1,142 elderly people will be residents in state mental institutions, (2) 976 will be admitted on an annual basis, and (3) 1,161 will be released yearly.

Construction and Licensing of Facilities. Since the beginning of the Hill-Burton Program in 1948 and up to January 1, 1967, federal assistance was provided to Minnesota in the amount of nearly $54 million for the construction of hospitals and related medical facilities. This represents less than 10 percent of the total estimated cost of construction completed and under way in Minnesota since 1948. Hill-Burton funds have assisted in construction of approximately one-third of the hospitals and related facilities built in the state during this period. Under this program, the following facilities have been provided since 1948 to January 1, 1967:

* Projections for elderly admissions and releases were based on a compounding average annual percent increase of total admissions and releases for the period 1962-66.
5,393 general hospital beds*
577 mental hospital beds
551 chronic hospital beds
60 tuberculosis hospital beds
2,152 nursing home beds

Major efforts have been made by the Department of Health in upgrading hospitals and other in-patient medical facilities. Licensing of these facilities, including long term care institutions, is under the Department. However, there are 2 state and 22 county operated nursing homes that are licensed by the Department of Welfare. Plans to transfer the licensing responsibility of the latter institutions under the Department of Health are under way. Facilities not meeting the minimum state standards of operation and maintenance are given the opportunity to comply with them or otherwise are re-classified as a lesser care facility or closure. Successful results have been achieved in most of the cases. During the period from 1958 to 1966, 74 nursing homes with 1,127 beds have been re-classified to boarding care homes and 128 nursing homes and boarding care homes with 1,843 beds have been closed.

Facilities Utilization Patterns. The chronically ill and aged patients in nursing homes and hospitals in the nation constitute approximately 1.5 million persons of the 18 million national population 65 years and over. An additional 2 million chronically ill aged live under private auspices—in houses, apartments, foster homes, transient hotels, and resident hotels—constituting 19 percent of the total elderly population.** Assuming that Minnesota follows the national pattern in terms of prevalence of chronic illness among the aged group, there are estimated to be about 31,760 chronically ill and aged patients in nursing homes and hospitals, plus 43,670 non-institutionalized, chronically ill and aged living under private auspices—out of Minnesota's total estimated 397,000 persons 65 years and over in 1967.

It has been estimated that the demand for hospital care by the elderly will increase from 10 to 20 percent*** as the result of Medicare program for the aged. This would mean an overall increase of about 5 percent in total hospital utilization.

---

For the fiscal year 1966-67, the total admissions to general hospitals in Minnesota were 588,110, out of which 156,000 were people 65 and over and were enrolled in Medicare.* This represents 27 percent of the total admissions to general hospitals in the state.

Assuming that 95 percent** of the admissions to and patient days in nursing homes and boarding care homes are accounted for by the elderly, statistics for the facilities are summarized in the tabulation*** below for fiscal year 1966-67.

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Facilities</th>
<th>Beds</th>
<th>Elderly Admissions (65 years and over)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(65 years and over)</td>
</tr>
<tr>
<td>Extended care facilities</td>
<td>143</td>
<td>6,977</td>
<td>8,928§</td>
</tr>
<tr>
<td>Nursing homes</td>
<td>271</td>
<td>18,323</td>
<td>12,229</td>
</tr>
<tr>
<td>Subtotal, nursing homes</td>
<td>414</td>
<td>25,300</td>
<td>21,157</td>
</tr>
<tr>
<td>and extended care</td>
<td></td>
<td></td>
<td>7,189,399</td>
</tr>
<tr>
<td>facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boarding care homes</td>
<td>256</td>
<td>7,536</td>
<td>3,545</td>
</tr>
<tr>
<td>Total</td>
<td>670</td>
<td>32,836</td>
<td>24,702</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9,504,915</td>
</tr>
</tbody>
</table>

Thirty-four and one-half percent of the total nursing home facilities and 27.5 percent of the total nursing beds have been certified as extended care facilities by Medicare in Minnesota.

---

* Social Security Administration, Washington, D.C. Figures refer to fiscal year 1966-67.
** State of California Department of Public Health, Study of Nursing and Convalescent Homes in California, Berkeley, Calif., January 30, 1965.*** Sources are State Health Plan of Hospitals and Related Facilities, Minnesota Health Department, 1967-68, and the Social Security Administration, Washington, D.C.
Table 14 illustrates the utilization of long term care facilities by the elderly population in Minnesota.

Table 14  

UTILIZATION OF LONG TERM CARE FACILITIES IN MINNESOTA BY PERSONS 65 YEARS AND OVER 1967-68

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Number of Facilities</th>
<th>Number of Beds</th>
<th>Admissions of Persons 65 and Over</th>
<th>Percent of Total</th>
<th>Patient Days of Persons 65 and Over</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing homes, free standing</td>
<td>351</td>
<td>22,418</td>
<td>17,193</td>
<td></td>
<td>6,369,819</td>
<td></td>
</tr>
<tr>
<td>Convalescent and nursing care units</td>
<td>63</td>
<td>2,882</td>
<td>3,964</td>
<td></td>
<td>819,580</td>
<td></td>
</tr>
<tr>
<td>Total nursing homes</td>
<td>414</td>
<td>25,300</td>
<td>21,157</td>
<td>75%</td>
<td>7,189,399</td>
<td>75%</td>
</tr>
<tr>
<td>Boarding care homes</td>
<td>256</td>
<td>7,536</td>
<td>3,545</td>
<td>12</td>
<td>2,315,516</td>
<td>24</td>
</tr>
<tr>
<td>Subtotal</td>
<td>670</td>
<td>32,836</td>
<td>24,702</td>
<td></td>
<td>9,504,915</td>
<td></td>
</tr>
<tr>
<td>Chronic disease units of general hospitals</td>
<td>9</td>
<td>478</td>
<td>3,484</td>
<td></td>
<td>72,326</td>
<td></td>
</tr>
<tr>
<td>Other special hospitals (Kenny Rehabilitation Institute)</td>
<td>1</td>
<td>80</td>
<td>144</td>
<td>13</td>
<td>4,077</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>680</td>
<td>33,394</td>
<td>28,330</td>
<td>100%</td>
<td>9,581,318</td>
<td>100%</td>
</tr>
</tbody>
</table>
The utilization rate of facilities and services by the aged appears to be higher in Minnesota than in the nation. However, efforts to meet institutional care needs of the aging population in the state have been achieved satisfactorily by the public and private sectors. Tables 15 and 16 show the ratios of long term care beds to aged population and the utilization rates of facilities and services by people 65 years and over in Minnesota compared with the United States.

Table 15

<table>
<thead>
<tr>
<th>Total existing beds per 1,000 aged population</th>
<th>Minnesota Ratio</th>
<th>U.S. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>54.99</td>
<td>34.83</td>
</tr>
</tbody>
</table>

Acceptable beds per 1,000 aged population

<table>
<thead>
<tr>
<th>Acceptable beds per 1,000 aged population</th>
<th>Minnesota Ratio</th>
<th>U.S. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.02</td>
<td>22.53</td>
<td></td>
</tr>
</tbody>
</table>

For the year 1967-68, Minnesota had the following ratio of long term care beds per 1,000 aged population:

| Nursing home beds including extended care facilities per 1,000 aged population | 64          |
| (Extended care facilities only)                                              | (18)       |
| Chronic disease beds per 1,000 aged population                               | 1          |
| Boarding care home beds per 1,000 aged population                            | 19         |
| Total, excluding tuberculosis and mental beds                                | 84         |

* Includes skilled nursing homes and chronic disease beds.
** For the year 1966-67 the total population (65 years and over) in Minnesota was 397,000 (as estimated by the Social Security Administration).
Table 16 shows a higher rate of elderly admissions to short and long term care facilities in Minnesota than in the nation. Home health care services in Minnesota show a lower admission rate than in the nation.

Table 16

ADMISSIONS AND UTILIZATION RATES OF FACILITIES AND SERVICES
BY PERSONS 65 AND OVER ENROLLED IN MEDICARE IN MINNESOTA
1966-67*

<table>
<thead>
<tr>
<th></th>
<th>Minnesota</th>
<th>Rate Per 1,000 Enrollees</th>
<th>United States</th>
<th>Rate Per 1,000 Enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled in Medicare (As of January 1, 1967)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admissions to general hospitals</td>
<td>396,000</td>
<td>--</td>
<td>18,898,600</td>
<td>--</td>
</tr>
<tr>
<td>Admissions to extended care facilities**</td>
<td>156,100</td>
<td>394.0</td>
<td>4,967,000</td>
<td>263.0</td>
</tr>
<tr>
<td>Admissions (start of care) home health care services</td>
<td>8,930</td>
<td>23.2</td>
<td>403,000</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>4,300</td>
<td>10.9</td>
<td>228,000</td>
<td>12.5</td>
</tr>
</tbody>
</table>

* Source is Social Security Administration, Washington, D.C.
** Estimated for the year 1967, on the basis of a six-month period, January 1, to June 30, 1967.

Costs of Institutional Care in Nursing Homes

The costs of institutional care in nursing homes have been rising and vary according to the levels of care provided to the patient. These variations in cost follow the different classifications, which have been suggested for the term nursing home throughout the country. The American Nursing Home Association has described or classified four categories of nursing home facilities: (1) those providing custodial care only, (2) those providing personal assistance or help to the patient in terms of daily needs, such as help in bathing and dressing; (3) those able to give a
moderate amount of medical and nursing care; and (4) those able to render intensive medical and nursing care. The determinant for costs and rate allowances has been the level of care provided. The quantity and quality of care ranges from the custodial care level to the most sophisticated or skilled nursing care level. It may also include rehabilitation services. In Minnesota this basis has produced a range of allowances, which have been established by Department of Welfare.

The existing nursing home care monthly rates authorized in Minnesota by the Department of Welfare for minimal care range from $105 to $225. For exceptional or skilled nursing home care, the rates vary from $220 to $440.

There are at present two dilemmas in the provision of nursing home care in Minnesota. They are:

1. The Department of Welfare, which is the paying agency for medically indigent and those receiving payment for care under Title XIX, the Minnesota Medical Assistance Program, has experienced a rapidly increasing payment burden. The provision of care for a limited period in extended care facilities must be made on the basis of reasonable costs. These costs have been excessive. The payment for care under Title XIX in Minnesota as well as in other states is regulated by specific rates. It must be noted that in Minnesota 67 percent of all nursing home admissions are welfare recipients.

2. The Nursing Home Association alleges that the reimbursements are unrealistic and do not cover actual costs of providing care to these persons.

The Nursing Home Association has expressed to the research team its concern about the existing problem of the nursing home proprietors in attempting to upgrade the quality of care by complying with the Department of Health standards and at the same time receiving reimbursement that the Association considers to be inadequate for the required standard or level of care.

This statement expresses the views of the Nursing Home Association concerning the above situation:* "We have tried to provide an adequate service for a charge to the State of less than $10.00 per patient per day so far. Of course this figure is less than one-third the cost of hospital care for room and board."

* Letter from Phillip C. Newberg, President, Minnesota Nursing Home Association, to Maria Gilsdorf, August 20, 1968.
At the present time, the Association has contracted the services of an accounting firm in an attempt to help develop a "reasonable" reimbursement formula.

Continuing efforts are being made between the Nursing Home Association and the Departments of Public Welfare and Health to ensure that the reimbursement formula for the care of the welfare recipients in nursing home facilities reflects the required levels and standards of care.

The desire of this private group to join efforts with the Departments of Welfare and Health in an attempt to solve this problem has been expressed to the research team as follows:

We will continue to have periodic meetings with the Department of Health to establish realistic and continual improvement in the standard of care for the nursing homes in the State of Minnesota. Realistic and fair standards, accompanied with a realistic and fair negotiated rate structure, will go far to maintain Minnesota's position as the number one state in the nation for health care. To this end the association is dedicated, to this end the Board of Directors and its membership are working, and to this end the elderly in Minnesota will be the benefactor for a richer and fuller life.

Another concern of the private nursing home group is the number of vacant beds occurring throughout the state in nursing home facilities. It has been brought to the research team's attention by this group that in Hennepin County there was a daily average of 400 vacant beds during the first half of August 1968. The 1967-1968 State Health Plan for Hospitals and Related Facilities reports that 414 nursing home facilities in Minnesota with 25,300 beds operated at 82 percent occupancy. This would indicate that approximately 4,500 beds were vacant for the same length of time. Nursing home facilities in Hennepin County showed an 87.1 percent occupancy for the year 1965-1966, indicating that approximately 755 beds were vacant in that county (see Tables 17 and 18).

* Ibid.
Table 17
PERCENT OCCUPANCY OF LONG TERM CARE FACILITIES IN MINNESOTA
1967-68

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Facilities</th>
<th>Beds</th>
<th>Patient Days (Millions)</th>
<th>Percent Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free standing nursing homes</td>
<td>351</td>
<td>22,418</td>
<td>6.7</td>
<td>81.9%</td>
</tr>
<tr>
<td>Convalescent and nursing care units (long term units of hospitals)</td>
<td>63</td>
<td>2,882</td>
<td>0.9</td>
<td>81.9%</td>
</tr>
<tr>
<td>Boarding care facilities*</td>
<td>256</td>
<td>7,536</td>
<td>2.4</td>
<td>88.5%</td>
</tr>
<tr>
<td>Chronic disease units of general hospitals</td>
<td>9</td>
<td>478</td>
<td>0.1</td>
<td>63.8%</td>
</tr>
<tr>
<td>Total</td>
<td>679</td>
<td>33,314</td>
<td>10.1</td>
<td>83.3%</td>
</tr>
</tbody>
</table>

* Patient days and percent occupancy estimated on the basis of a sample of 90 facilities covering all regions of Minnesota.
Source: Minnesota State Plan for Hospitals and Related Medical Facilities, State Health Department 1967-68.

Table 18
PERCENT OCCUPANCY IN LONG TERM CARE FACILITIES IN HENNEPIN COUNTY, MINNESOTA 1967-68

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Facilities</th>
<th>Beds</th>
<th>Patient Days (Millions)</th>
<th>Percent Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing homes (free standing and convalescent and nursing care units)</td>
<td>75</td>
<td>5,759</td>
<td>1.8</td>
<td>87.1%</td>
</tr>
<tr>
<td>Boarding care facilities*</td>
<td>49</td>
<td>2,619</td>
<td>0.9</td>
<td>91.5%</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>8,378</td>
<td>2.7</td>
<td>88.5%</td>
</tr>
</tbody>
</table>

* Patient days and percent occupancy estimated on the basis of the 31 facilities on which patient day data were available.
Alternatives of Care for the Elderly

As previously stated in this report, the needs of long term institutional care depend on a variety of factors including:

1. The growing number of elderly persons

2. The prevalence of chronic illness and disabilities

3. Changes in the pattern of illness resulting from advances in medical technology.


The availability of non-institutional or extramural services such as home health programs, home maker services, geriatric day hospitals, outpatient clinics, meals on wheels, and community day centers has an impact on the needs of residential or institutional care for the elderly.

Considering the high proportion of elderly people that are ambulatory or bedfast and housebound, careful consideration should be given to non-residential care programs. A previous survey* of the health status of the old age group in the country has shown that (differing with time):

1. Twice as many old people are bedfast and housebound as live in institutions of all kinds—estimated to be 8 to 16 percent of the elderly population.

2. About 4 to 8 percent of all persons over 65 in the United States live in institutions.

3. About 74 to 88 percent of all old people in the United States are ambulatory.

In Minnesota, long term institutional care needs for the elderly have been satisfactorily achieved through the efforts of community voluntary groups in the public and private sector. Recognition should be given to the State Department of Health, the Minnesota Nursing Home Association, and the Minnesota Hospital Association for their planning efforts and their upgrading of the standards of care in long term care institutions.

* Ethel Shanas, Health Care and Health Services for the Aged, in The Gerontologist.
The following alternatives to residential care of the elderly should be considered:

1. Encouragement and support should be given to the development of extramural or non-residential care programs such as home nursing services, home maker services, and other home health services. The Carlton County Study on Aging in 1967 confirms the need for home health services. In this study:
   a. 58.5 percent of the elderly expressed the need for home maker services.
   b. 68.7 percent of the old-age group reported that they would use more home nursing if available in the community.

2. More outpatient clinics, including rehabilitation services, should be established.

3. Voluntary community groups at a local level to continue the program developed by the Governor's Citizens Council on Aging should be encouraged so that better planning, organization and coordination of services for the elderly can be achieved.

4. Geriatric day hospitals should be developed for:
   a. Previous in-patients who need further medical supervision or physiotherapy and occupational therapy.
   b. Treatment of patients following domiciliary visits or outpatient assessment.

Good examples of day hospitals for the aged in England have been described (e.g., Day Hospital at St. David's, Cardiff, England).

The establishment of geriatric day hospitals and day centers as a means to limit institutional or residential care of old age people has been described by Dr. Pathy: "If the almost insatiable demand for hospital beds for the elderly is to be kept within reasonable limits, an extension of day hospital and day center services must be envisaged."*

5. Continue support and encouragement by community voluntary groups of the day centers program and golden age clubs. At the present time, Minnesota has a total of 150 day centers throughout the state. These centers and clubs are primarily for elderly people whose problems are essentially social and not medical.

6. Development of more programs under the auspices of community agencies and groups similar to the ones aided by the Office of Economic Opportunity that increase the financial ability of older people to take care of themselves outside of institutions. Typical examples are VISTA, the Foster Grandparent Program, and the Minnesota Green-thumb Project.

7. Better use of the capabilities and skills of senior citizens in the community. Eighty-eight and one-half percent of the respondents to the 1967 Carlton County Study on Aging indicated that their skills and interests were not being used by the community. This age group includes a large number of skilled artisans, craftsmen, and professionals whose potential contribution and work experience are not being utilized and who still may be used on a program on a part-time or consulting basis.

8. Reassessment of long term care bed needs. It appears that the state has provided adequate nursing home and boarding care home beds to meet the needs of the elderly population. Based on this observation, careful scrutiny should be given to building programs aimed at providing additional long term care beds in these types of facilities. However, there is a concern in the private sector that there is a considerable vacancy of existing nursing home beds throughout the state and in specific areas. Figures from the Department of Health for the year 1967-68 reveal that 82 percent of the existing nursing home beds in the state were occupied. Factors that might have affected this vacancy include:

   a. Seasonal variations
   b. Location of the facility and bed capacity
   c. Acceptance of the facility by the community
   d. Financial reasons; differences in payment for welfare and private admissions

Resolution of these differences would provide additional insight into the adequacy of long term care beds for the elderly. Special factors to be considered in the future planning of institutional care needs for the elderly should include:
a. Priorities for non-institutional care programs and services that could control or reduce the need for residential or institutional care

b. Adequate financial planning for the levels and standards of care prescribed.

9. Assuming that non-residential care programs are strengthened and increased, this could result in additional availability of nursing home beds in the state that could be used for other purposes. If Minnesota follows the national trend, about 8 percent of the aged population are institutionalized and 16 percent are bedfast and housebound. This leaves about three-quarters of the old age people ambulatory. Therefore, consideration should be given to extramural care programs as a means of reducing institutionalized care.

A cost-benefit study would help to decide which of two courses of action the state should take—emphasizing (1) institutional care or (2) non-residential care programs.

As Shanas indicates in analyzing health services for the aged in the United States:

We need more home care programs, more visiting nurses, more homemaker services, and a chiropody service to meet the needs of the infirm aged or those restricted in activity who live at home. The choice before us seems straightforward: either we expand community health services to meet the needs of these old people in the community—the bedfast, the housebound and those ambulatory with restrictions—or we need to begin a grant program of institution building to meet the needs of these older Americans.*

* Ethel Shanas, "Health Care and Health Services for the Aged, in The Gerontologist.
Residential care of children and young people with physical handicaps includes several aspects of care, not only for those who are actually inside hospitals or institutions but also for those who are "potential" recipients of such care. All handicapped children are in need of remediation and supportive therapy or some forms of custodial care and are potential candidates for residential care. Many of these can—under ideal conditions—have a large measure or even all of their requirements provided outside of formal institutions. Other settings may be more appropriate for their total medical, social, and emotional needs. In cases where the need for hospitalization is obvious, the length of stay can, under such ideal conditions, often be shortened. In cases where prolonged institutionalization is required, all necessary resources should be available to allow the greatest individual benefits to result. For many years, Minnesota has responded to this need and provided support with a variety of resources, both public and private, for care of handicapped children and youth. Besides providing large sums of money for facilities and activities, Minnesota has been fortunate in that there has been a supply of professionals in the health, social, and educational fields, as well as many others devoted to service in this area. Many of these people recognize the need for redirection of patterns of care for these persons.

Prevalence of Children with Handicaps*

During the past ten years, the child population under 18 years old has increased in the United States from 54 million to 70 million. In 1954, 33 percent of the total population was under 18; in 1964, 36 percent was under 18 years. It is estimated that there will be 75 million children under 18 years of age by 1970.

According to the U.S. Bureau of Census projections, the ratio of children to adults will increase from 673 children under 15 years of age per 1,000 adults (25 to 64 years) in 1960 to 737 per 1,000 in 1985.

As major effort is launched to improve health care for the young, the President reminded us on March 4, 1968, of the work yet to be done in the United States: (1) 436,000 children are victims of cerebral palsy, (2) 424,000 have epilepsy, (3) 12.3 million have eye defects, (4) 2.5 million have hearing impairments, (5) 3.2 million have speech defects,

2.3 million have orthopedic defects, and 4.8 million are emotionally disturbed.

Handicapping conditions have been estimated to affect 7 to 10 percent of the population under 21 years. Approximately 2 percent of births are of children with congenital anomalies. While the birth certificate constitutes an important element in detecting changes in the incidence of gross defects, many congenital conditions such as muscular dystrophy and diabetes mellitus are manifest at some later time.

Historically, crippled children's agencies have been concerned primarily with diagnosis and care of children with orthopedic impairments. The Crippled Children's Program of the Children's Bureau reports an increase in number of children served from 1950 to 1960. It also reports that the percentage of children with orthopedic defects decreased during the same period. This tendency to accept a greater variety of conditions for service has been greatly accelerated by the notable achievements in recent years in diagnostic techniques and in many areas of treatment, surgery, and rehabilitation. The result is that the majority of children serviced present conditions other than those of the musculo-skeletal system.

Physical Handicapping Conditions that Require Residential Care

There are several reasons why needed data are not available for a precise enumeration of the actual numbers of patients (by their handicaps) who require separation from their homes for short or long term hospitalization or other institutional residential care. These reasons include:

1. Multiple handicaps—it is difficult to separate in hospital reports those patients with only single physical handicaps from those with more than one handicap. It is also difficult to locate and tabulate physical handicaps among patients institutionalized with mental retardation or emotional handicaps.

2. Care for some handicaps is not currently tabulated in a retrievable method. Some institutions serving those who are mentally retarded or emotionally disturbed also provide minor surgical services for those who are in residence. Provision and reporting of such service is not uniform.
3. Not all conditions are brought to medical attention and so are not enumerated at all. Large numbers of handicapping conditions are such that care, although often urgently needed, is not an immediate life or death matter, and care is delayed or not sought. Also many may be unaware of need or services. In such circumstances, perceived needs and provision of facilities for care are obviously related to the numbers of patients who actively seek care and find their way to these facilities or those who are somehow otherwise discovered and directed to some source of care. Exact numbers and locations of those needing but not seeking care are very difficult to ascertain.

Children who need care and whose parents have not already sought care are often directed toward services through efforts of private medical, dental, and allied health personnel and schools and public health department staffs. Also, many other informational activities, such as regional clinics and health education efforts, including use of news media, are conducted for parents or young people by various public and voluntary health and welfare agencies. Care may then be given outside of agencies that would keep count of such persons.

4. The effectiveness of finding and enumerating cases varies widely. The effectiveness of the actual case finding, as well as specific diagnosis and care, varies with the degree of parent understanding, community awareness, interest and participation, public or private financial support, professional training, adequacy of the necessary physical facilities, and the amount of attention paid to the scope or comprehensiveness of care. Therefore, two types of reporting are urgently needed. They are accurate tabulation of incidence and prevalence of conditions and unduplicated counts of persons with specific conditions.

Residential Care for Physically Handicapped Children in Minnesota

Existing facilities for residential care provide several levels of care: (1) coordinated "whole child care" with all needed services; (2) care related only (or mainly) to the child's specific condition, with minimal amounts of ancillary resources or follow-up care; (3) case finding or diagnostic services only; and (4) custodial care for children who have (or develop) a concomitant physical handicap. Such care is provided through many resources. Some are supported by public funds, some through fees for service for private care, and some a combination of both.
The principal public facilities for health care and services for handicapped children are provided through the Department of Welfare and center primarily in three divisions of that department. Within the department, the Division of Rehabilitative Services is directly involved with services for the blind, deaf, and tubercular, as well as with the CCS (Crippled Children's Service) and the Gillette State Hospital. It is also the Department of Welfare that has primary responsibility for the administrative aspects of foster home care. In addition, there are programs providing care for the emotionally disturbed and the mentally deficient. Direct welfare assistance for some aspects of health care is provided in some instances through the local county welfare departments under supervision of the state Department of Welfare. The present organization of the Department of Welfare, the Division of Rehabilitative Services, and the Crippled Children's Service are shown in Appendix E. The locations of the principal facilities are shown in Figure 1.

Crippled Children's Service and Gillette State Hospital. The Crippled Children's Service and Gillette State Hospital are two separate organizations, each with a separate administrator who is responsible to the Director of the Division of Rehabilitative Services. There are currently problems associated with this division of responsibility for the same types of patients between two departments, in spite of their position within the same administrative division. As could be anticipated, even within a single division under one administrative jurisdiction, there is evidence of some differences in philosophy and methods of program implementation, which seems to hamper effective communications. The ratio of funds available for Gillette Hospital and for CCS within a total crippled children's effort appears unrealistic. It is possible that some of the more obvious conditions may be receiving a disproportionate amount of funds potentially available for distribution among other handicapping conditions. The financing of these two programs is discussed later.

The CCS is administered by a full-time medical director in the central agency, and no administrative authority has been delegated to district or local officers. There are no funds allocated to local units of government. This service is the responsibility of the Department of Welfare. The purpose of the CCS program is to develop, extend, and improve services for locating crippled children, for providing medical, surgical, corrective, and other services; and for providing care and facilities for diagnosis, hospitalization, and aftercare, of children who are crippled or who are suffering from conditions that lead to crippling.
The underlying concept of the CCS program has been expressed by the director.*

It is evident that development of activities or programs to carry out the aims of case finding, diagnosis, and treatment will depend not only upon the finances available but also upon the technological advances permitting effective handling of the handicapping condition....Moreover, the incidence of certain conditions has decreased (tuberculosis of the bone, poliomyelitis, and retrolental fibroplasia), while the incidence of other conditions may increase (cerebral palsy and diabetes mellitus). Finally, new methods of diagnosis and treatment are always arising. Therefore, any activity or program must remain flexible so that it may be adjusted to changing needs. No program for handicapped children should ever be a mere salvage effort. Major emphasis should be given the prevention of these handicaps and their sequellae by health promotion, genetics research, early detection of disease, and stressing the importance of prompt and effective treatment. Rarely is it possible to treat a handicapping condition without considering the whole child.... The understanding and cooperation of the child with a handicapping condition and his family has an important bearing on the child's adjustment to his handicap.

Another basic requirement in meeting the needs of these children is to have competent professional personnel and hospitals provide these services. These professional people should not only be competent in their respective fields but interested in the welfare of children. As experience has increased in treating children with a handicapping condition, it has been found that these handicapping conditions are frequently multiple...

For the well-being of society, it is necessary to prevent and alleviate handicapping conditions which interfere with normal growth and development, with social integration, with education, and eventually with employment. It is an important function of our society to make sure that all physically handicapped children have the opportunity to obtain necessary treatment, whether under public or private auspices.

* Mildred Norval, M.D., Director of Crippled Children's Service, Minnesota Department of Welfare.
Two elements of the Minnesota CCS program are important. There are a series of Regional Clinics for case finding and referral and, to some extent, treatment when practicable. These clinics attempt to bring multi-disciplinary comprehensiveness as close to the patient's home as is feasible. Teams of professionals make such a service possible.

A child is considered to be handicapped if he cannot within limits play, learn, work or do the things other children of his age can do and if he is hindered in achieving his full physical, mental, and social potentialities. The initial disability may be very mild and hardly noticeable, but potentially handicapping; or it may seriously involve several functions with the probability of lifelong impairment.

All children (under 21 years of age) who reside in Minnesota and are physically handicapped are eligible for services. Diagnostic services are available to all, but treatment services are restricted. There is no discrimination on the ground of race, color, or national origin. Treatment is confined to the following physical conditions: (1) orthopedic conditions, (2) plastic conditions, (3) heart lesions amenable to surgery, (4) severe dental handicapping conditions, (5) hearing defects, (6) cystic fibrosis, (7) mental retardation accompanied by a physical handicap, and (8) other handicapping conditions amenable to medical or surgical treatment.

Financial limitations on physical and human resources place distinct restrictions on the provision of services. Regional case finding (and also treatment to the extent possible in field clinics) is financial through CCS funds. Payments for physicians and other specialists, and in some cases site rentals, are included. Regional Clinic nursing services, case finding, and follow-up are provided by the Department of Health, in whose jurisdiction the Regional Clinics are conducted. Coordination of professional services and nursing services has been difficult in some instances. There is a shortage of nurses for the Clinics and patient needs. It is difficult to resolve this deficiency because the staffing responsibility is divided between CCS and the local health departments, and resolution is difficult due to administrative jurisdiction. There are only consulting nursing services available through the CCS staff for local health department coordination. Professional (physician and other) consultation is provided in the state institutions concerning correction of conditions associated with mental retardation, emotional illness, blindness, and deafness.
Cases seen by CCS that require hospitalization for surgery and rehabilitation of those conditions covered by CCS, but lacking the orthopedic indications necessary for referral to Gillette Hospital, are hospitalized (financed by CCS, MAA, or insurance) in a variety of private hospitals as near the patients' homes as practicable. Because of limitations in CCS funds and the administrative problems related to two services that are separately budgeted but serving primarily the same patients (and without possibility of transfer of needed funds), some services are curtailed near the end of the fiscal year. Thus, even all known cases do not necessarily obtain care as early as would be desirable.

Certain categories of conditions are given special priority through specific clinic activities. These include the congenital heart program, the cystic fibrosis program, the cleft lip and palate program, and the hearing program.

Initially conceived as a hospital resource for indigent, crippled, and deformed children (under 21 years) or those suffering a disease through which they are likely to become crippled or deformed, Gillette State Hospital provides care and treatment for residents (for over one year) of the state of Minnesota.

Today, however, eligibility has been extended to include children whose parents can pay for care, those whose care is paid for by hospital insurance policies, and those who are recipients of Medical Assistance (MAA) from Title XIX funds. Fees can be charged for surgical and medical care provided by the volunteer attending physicians; these fees are held in the hospital Medical Research and Education Funds. Income received for other services is returned to the state general fund.

The philosophy of Gillette Hospital as stated in its reports indicates a concern for and a provision for the "total child." This means "whole child care" for principally orthopedically handicapped children, including all needed services for a comprehensive and coordinated approach to care. Some patients who have had corrective surgery performed where minimal coordinated follow-up care is available are transferred to Gillette for long term residential hospitalization care.

This joint analysis of Crippled Children's Service and Gillette Hospital is necessary since there are instances in which totals for patients and patient conditions are combined, as in annual reports of conditions or patients treated where joint totals represent the Minnesota crippled children resource. Another reason for considering them together is that their budgets represent a combined mixture of "crippled children" expenditures, insofar as the federal matching funds are concerned.
The state allocation to Gillette Hospital represents the state's total allocation to the category "crippled children activities. The federal allocation to the state Department of Welfare represents the total amount available for that portion of Welfare Department program designated as the CCS program.

For the fiscal year 1966-67, the total amount appropriated for support of the Gillette Hospital amounted to $1.76 million. Some of these funds are apparently made available from the state Department of Education, and some directly from state appropriations. The total appropriation from the federal government in 1966-67 for the support of the Crippled Children's service was $794,270 (federal funds only; no additional state appropriation). During this same year, $225,000 in federal funds were also appropriated for the Regional Heart Program of the CCS for use for patients treated in Minnesota but living outside the state. Table 19 gives expenditures for Gillette Hospital and CCS.

The number of Minnesota patients under 21 years of age seen per 1,000 population in 1965 and 1967 is shown in Table 20.

In comparison, the total cases and the total expenditures in the CCS program of California shows approximately 65,210 cases served in 1966 from a population of 7.5 million under 21 years of age and a budget of approximately $17.5 million. In California's program: (1) the percent of population under 21 is approximately 40 percent; (2) the ratio of cases served per 1,000 population under 21 is 7.5 per 1,000, almost twice as many cases as in Minnesota; and (3) the cost is $235 per child under 21, less than one-half of the cost for each case in Minnesota.

Minnesota is expected to gain 389,000 persons between 1965 and 1975. The number of children under 21 will depend greatly on the birth rate, which is dropping. However, actual numbers of children under 21 will be influenced upward by any decrease in infant mortality and other changes in medical care. If the ratio of over and under 21 remains approximately the same, there will be an estimated population of 1.5 million under 21 years of age by 1968 and 1.9 million by 1985.

With advances in medical and surgical care, more handicapped children are probably living now than formerly. As a consequence, the rates of handicapping conditions per surviving live births would be expected to decline. A comparison of the rate of Minnesota CCS patients served with the national rate is shown in Table 21.

Table 22 shows the number of cases treated by the CCS program in the past seven years.
# Table 19

**NUMBER OF MINNESOTA CHILDREN SERVED BY CCS AND GILLETTE HOSPITAL, BY CALENDAR YEAR AND PLACE OF SERVICE**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Expenditure</th>
<th>Total Number of Patients</th>
<th>Gillette Hospital</th>
<th>Crippled Children's Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td></td>
<td>Number of Patients</td>
<td>Expenditures</td>
</tr>
<tr>
<td></td>
<td>$</td>
<td></td>
<td>Expenditures</td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>$</td>
<td>5,167</td>
<td>2,781+(68)</td>
<td>2,328+(68)</td>
</tr>
<tr>
<td>1961</td>
<td>5,049+(68)*</td>
<td></td>
<td>2,808+(101)</td>
<td>2,589+(101)</td>
</tr>
<tr>
<td>1962</td>
<td>5,296+(101)</td>
<td></td>
<td>2,792+(105)</td>
<td>2,981+(105)</td>
</tr>
<tr>
<td>1963</td>
<td>5,668+(105)</td>
<td></td>
<td>2,675+(105)</td>
<td>3,124+(105)</td>
</tr>
<tr>
<td>1964</td>
<td>5,694+(105)</td>
<td></td>
<td>1,620,011</td>
<td>3,794+(74)</td>
</tr>
<tr>
<td>1965</td>
<td>2,478,657</td>
<td>5,182+(74)</td>
<td>3,794+(74) 858,646</td>
<td>794,270</td>
</tr>
<tr>
<td>1966</td>
<td>2,493,123</td>
<td>5,850</td>
<td>1,698,853</td>
<td>794,270</td>
</tr>
<tr>
<td>1967</td>
<td>2,897,816</td>
<td>5,717†</td>
<td>2,043,066</td>
<td>854,750</td>
</tr>
<tr>
<td>1968</td>
<td></td>
<td>2,193,066‡</td>
<td></td>
<td>1,081,406</td>
</tr>
</tbody>
</table>

* Numbers in parentheses are the number served both by Gillette and Crippled Children's Service.
† Of these 5,717 patients, 2,283 received services for the first time in this year and 1,135 received hospital care.
‡ Requested.

Source: Crippled Children's Service Department of Public Welfare, St. Paul, Minnesota, April 1968.
### Table 20

**TOTAL CRIPPLED CHILDREN PROGRAM IN MINNESOTA**

<table>
<thead>
<tr>
<th></th>
<th>1965</th>
<th>1967</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cases</td>
<td>6,256</td>
<td>5,717*</td>
</tr>
<tr>
<td>CCS and Gillette</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate per 1,000 population</td>
<td>4.1</td>
<td>3.7</td>
</tr>
<tr>
<td>CCS rate per 1,000 population</td>
<td>2.5</td>
<td>2.2</td>
</tr>
<tr>
<td>CCS costs per case</td>
<td>$222</td>
<td>$252</td>
</tr>
<tr>
<td>Gillette rate per 1,000 population</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Gillette costs per case</td>
<td>$639</td>
<td>$844</td>
</tr>
</tbody>
</table>

* $507 per case.

### Table 21

**RATES OF CRIPPLED CHILDREN SERVED IN MINNESOTA AND THE UNITED STATES PER 100,000 CHILDREN UNDER 21**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>United States</th>
<th>Minnesota</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1950</td>
<td>1960</td>
</tr>
<tr>
<td>Circulatory malformations</td>
<td>4.1</td>
<td>23.3</td>
</tr>
<tr>
<td>Cleft lip and palate</td>
<td>14.5</td>
<td>23.9</td>
</tr>
<tr>
<td>Curvature of spine</td>
<td>9.8</td>
<td>9.2</td>
</tr>
<tr>
<td>Cerebral palsy</td>
<td>35.7</td>
<td>40.8</td>
</tr>
<tr>
<td>Effects of accidents</td>
<td>20.4</td>
<td>22.2</td>
</tr>
<tr>
<td>Injury at birth</td>
<td>4.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Arthritis</td>
<td>4.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Osteomyelitis</td>
<td>7.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Poliomyelitis</td>
<td>57.5</td>
<td>34.6</td>
</tr>
<tr>
<td>Nonrespiratory tuberculosis</td>
<td>5.4</td>
<td>2.2</td>
</tr>
</tbody>
</table>
Table 22

NUMBER OF CASES TREATED BY CCS BY FISCAL YEAR AND PROGRAM

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing</td>
<td>24</td>
<td>37</td>
<td>33</td>
<td>95</td>
<td>211</td>
<td>351</td>
<td></td>
</tr>
<tr>
<td>Regional heart*</td>
<td>417</td>
<td>482</td>
<td>459</td>
<td>384</td>
<td>524</td>
<td>564</td>
<td>508</td>
</tr>
<tr>
<td>Minnesota heart</td>
<td>200</td>
<td>314</td>
<td>368</td>
<td>378</td>
<td>515</td>
<td>517</td>
<td>477</td>
</tr>
<tr>
<td>Neuromuscular and other</td>
<td>776</td>
<td>832</td>
<td>543</td>
<td>582</td>
<td>689</td>
<td>973</td>
<td>1,076</td>
</tr>
<tr>
<td>Cystic fibrosis</td>
<td>17</td>
<td>23</td>
<td>31</td>
<td>37</td>
<td>50</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Cleft lip and palate</td>
<td></td>
<td></td>
<td>418</td>
<td>364</td>
<td>421</td>
<td>540</td>
<td>529</td>
</tr>
<tr>
<td>Total</td>
<td>1,393</td>
<td>1,669</td>
<td>1,848</td>
<td>1,772</td>
<td>2,281</td>
<td>2,855</td>
<td>2,999</td>
</tr>
<tr>
<td>Minnesota residents</td>
<td>976</td>
<td>1,187</td>
<td>1,389</td>
<td>1,388</td>
<td>1,757</td>
<td>2,291</td>
<td>2,491</td>
</tr>
</tbody>
</table>

* Regional cardiac cases.

Source: Crippled Children's Service Department of Public Welfare, St. Paul, Minnesota, April 1968
The estimated distribution of cases currently under care at Gillette Hospital reveals that about 48 percent have congenital deformities.* Selecting the major diagnoses from the total census, the percentage distribution would be as follows:

- 27% general orthopedic diagnoses
- 8 residual poliomyelitis
- 10 club feet
- 16 scoliosis
- 24 cerebral palsy
- 8 congenital dislocated hips
- 3 myelomeningocele
- 3 Legg-Perthes disease
- 1 various deformities requiring plastic surgery

Eighteen years ago acute and residual deformities of osteomyelitis accounted for 35 percent of admissions. Today it is 8 percent, and most of these patients are over 15 years of age. Osteomyelitis and skeletal tuberculosis accounted for 15 percent of the new patients admitted; today these are rarely seen.

At present, cases come to Gillette from direct referral, CCS referral, other agency referral, private physician referral, or by transfer from other hospitals. Many cases are referred because of a need for long term hospitalization.

Trends in utilization of Gillette Hospital are shown in Table 23. The actual number of patients treated in a specific year is not available. There were 2,458 "active" patients in 1967-68. Of these, 1,061 were hospitalized. These active patients include those who have been seen for the first time this year plus all patients who still have active records, whether or not they actually were seen during the fiscal year being studied. The average length of hospital stay was 36 days. The cost of the program per patient (some had several visits; some had multiple handicaps) was $844.

The cost per patient day cannot be calculated accurately without a separation of the expenses for outpatient visits and those related only to in-patients, which are not available. A very rough approximate cost of $40 to $50 per day is achieved by estimating some of the in-patient expenditures. It is of interest that the hospital stay is becoming gradually shorter.

Report from Gillette Hospital Administrator, Miss Jean Conklin, and Chief of Medical Staff, John Moe, M.D., July 1968.
Table 23

UTILIZATION OF GILLETTE STATE HOSPITAL
FY 1960-61 - 1967-68

<table>
<thead>
<tr>
<th>Year</th>
<th>Patients Admitted to the Hospital</th>
<th>Total Patients Cared for in the Hospital</th>
<th>Total Surgical Procedures Performed</th>
<th>Average Length of Hospital Stay in Days</th>
<th>Total Outpatient Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-61</td>
<td>824</td>
<td>940</td>
<td>772</td>
<td>57</td>
<td>18,570</td>
</tr>
<tr>
<td>1961-62</td>
<td>881</td>
<td>1,018</td>
<td>825</td>
<td>51</td>
<td>20,820</td>
</tr>
<tr>
<td>1962-63</td>
<td>896</td>
<td>1,018</td>
<td>946</td>
<td>58</td>
<td>22,817</td>
</tr>
<tr>
<td>1963-64</td>
<td>913</td>
<td>1,040</td>
<td>916</td>
<td>44</td>
<td>24,140</td>
</tr>
<tr>
<td>1964-65</td>
<td>959</td>
<td>1,070</td>
<td>1,019</td>
<td>40</td>
<td>22,980</td>
</tr>
<tr>
<td>1965-66</td>
<td>947</td>
<td>1,075</td>
<td>836</td>
<td>41</td>
<td>22,342</td>
</tr>
<tr>
<td>1966-67</td>
<td>984</td>
<td>1,097</td>
<td>786</td>
<td>38</td>
<td>21,965</td>
</tr>
<tr>
<td>1967-68</td>
<td>954</td>
<td>1,061</td>
<td>1,599</td>
<td>36</td>
<td>20,047</td>
</tr>
</tbody>
</table>
Before 1959, all financial support for Gillette Hospital came from the state. At that time, legislation permitted some costs to be recovered from hospital insurance. As of July 1967, additional legislative action allowed Gillette to collect from the Medical Assistance program and also to care for private patients who are billed for care.

At present, approximately 22 percent of patients qualify under the Medical Assistance program. Forty-eight percent pay for a large part of their care with health insurance coverage; 8 percent assume the total cost of their care; and 22 percent still require and qualify for direct state aid to avail themselves of care. In 1967, approximately $550,000 was recovered from patients for hospital services. This was returned to the state general fund. In July of 1968, $100,000 was recovered; in August of 1968, $93,000. Funds collected for surgical fees are placed in a special Research and Education fund maintained by the medical staff.

The 1967-68 budget was a little over $2 million. A portion of this amount is apparently allocated through the budget of the Department of Education and some from the general fund. The allocation for administration was about $646,000 with the $1.4 million remaining available for patient care. Within the last two years, a cost accounting system has been instituted to help with analysis of expenditures. The present system does not reflect the actual number of separate patients seen during each year or allow the separation of in-patient costs from outpatient costs.

At the present time, approximately 14 percent of patients seen by CCS (not including Gillette patients) are eligible for the Medical Assistance program. Private insurance is also used in many cases. With some handicapping conditions, children are included if their parents are above the financial eligibility level set by the Department of Welfare; in these cases, parents are asked to pay for part of the costs. During intervals when CCS funds are exhausted, parents who are unable to afford needed child care are referred to county welfare departments for general relief assistance.

In the total state crippled children program (combined CCS and Gillette) during 1965-66 the following distribution of conditions was estimated:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopedic</td>
<td>44%</td>
</tr>
<tr>
<td>Cardiac</td>
<td>11%</td>
</tr>
<tr>
<td>Dental-facial</td>
<td>9.6%</td>
</tr>
<tr>
<td>Hearing</td>
<td>6.9%</td>
</tr>
<tr>
<td>Mental retardation</td>
<td>5.5%</td>
</tr>
<tr>
<td>Cystic fibrosis</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other conditions</td>
<td>22.1%</td>
</tr>
</tbody>
</table>
It would appear that many problems regarding coordinated operational activities of CCS and Gillette Hospital arise from the fiscal and administrative areas related to these two services. It is possible that these problems could be resolved in great measure if the services could be combined administratively and financially. If this were done, the same administrative structure and patterns of care could apply to all children with similar handicaps. The actual interim operation of any centralized, highly specialized orthopedic facility (hospital or hospital wing) could be maintained by orthopedically oriented specialists; however, such a facility could well be one facet of a total integrated, coordinated program within one division. This division might best be administered by a pediatrician with knowledge of all relevant aspects.

It seems appropriate here to include a brief statement concerning the future of Gillette Hospital. There is, at present, considerable discussion among the many who are concerned (either directly or indirectly) with the future of Gillette. The buildings are apparently inadequate, and answers to questions concerning rebuilding, relocating, or reorganizing or some combination of these must be answered in the near future. The present hospital staff advocates rebuilding at a new location with autonomous administrative jurisdiction and with a qualified orthopedic surgeon with interests in medical and paramedical education as the full-time medical director. There is considerable doubt expressed by many as to whether it is appropriate that "another Gillette" should be built in the face of changing trends of medical and surgical care.

It is hardly possible that an orthopedically oriented separate facility for treatment or care of physically handicapping conditions could be an answer to all present or future needs. There are several reasons why the perpetuation of some elements of the Gillette Hospital tradition would be of value. These two aspects of the Gillette situation could be resolved through providing a "Gillette Unit" as a separate floor or wing of some comprehensive care facility that provides multi-disciplinary care for a wide variety of handicapping conditions.

Such a resource as the proposed Children's Hospital and Health Center seems ideally conceived for such a purpose. The many values of Gillette could be retained without perpetuating some of the problems that inevitably arise when decisions regarding total care of children and young people are under the administrative aegis of someone not thoroughly aware of the inherent problems and the possibilities for resolving them.
Other Resources

The Minnesota School for the Deaf at Faribault is the principal resource for the deaf and those with severe hearing loss who need residential care. The school is available without cost to those whose hearing loss is sufficient to prevent satisfactory school progress and who do not have access to local facilities.

The enrollment of approximately 300 has remained relatively constant since 1940. This constant number of those requiring residential care does not mean that there has not been some increase in the actual number of children with severe hearing loss. The possible explanation for this constancy could be found in the greater number of local school districts that provide educational day school opportunities for children who would otherwise require opportunities away from home. Another reason could be that earlier diagnosis—before associated problems develop—makes it easier to plan appropriate activities and to fit pupils into local programs. Another reason may be that there has been an increase in the numbers for whom parent education has made home school plans possible. Still another reason may be that there are more foster home placements for this group of children. The answer is probably some combination of these reasons and possibly other contributing factors. It has been estimated (by means of the questionnaire survey of local county welfare agencies conducted for this study) that approximately 500 deaf children are known to local welfare agencies and are being taken care of either at home or in foster homes. Some of these undoubtedly duplicate counts in CCS reports.

The Crippled Children's Service program for Hearing Conservation has significant influence on the need for residential care. Since 1961, CCS, in cooperation with the state Department of Health and the state and local Departments of Special Education, has been actively promoting and providing diagnostic hearing clinics with referrals to appropriate resources. There have been some serious problems in keeping this program operating because of lack of CCS funds, and at one point it had to be discontinued. In 1966-67, CCS evaluated potential hearing or other otological problems of 857 children. Of these, 351 cases required some treatment and used $46,250 of CCS treatment funds. The CCS hearing program includes consultation and case finding for children who are receiving custodial or institutional care in any of the state institutions. Unless there are associated problems of mental illness, mental retardation, or other handicaps, the deaf or hard of hearing require residential care primarily for relatively short periods for therapeutic procedures.
No specific information is available concerning case finding or early therapeutic activity for the hearing problems of the very young. Present program activities are described in terms of school age children. Congenital hereditary deafness has been said to be present in 1 in 3,000 births. This incidence, associated with congenital deafness caused by maternal measles in pregnancy (where up to 30 percent of children have been found to have some degree of deafness when tested at 4 years of age), should certainly suggest a need for the earliest possible diagnosis and treatment.

Residential care and a school program at the Braille and Sight Saving School is available without cost to the blind and severely visually handicapped. There are currently approximately 100 persons enrolled, and this figure has remained fairly constant since 1940. The reasons for this are probably similar to those discussed for the hard of hearing. This school also admits adults.

No information is available on either the estimated or actual numbers of children who need residential care for reasons of "uncomplicated" blindness, which might not require institutional care. It has been shown elsewhere that where a suitable program is available, it is used by patients with blindness and associated multiple handicaps that prevent them from attending schools for the normally blind. It has been estimated by the Hope School for Blind Multiple-Handicapped, Springfield, Illinois, that there are as many as 15,000 such children in the United States.

In addition to the Rehabilitative Division and the Medical Services Division, the Department of Welfare is responsible for other services with implications for those with handicaps. The Child Welfare Division and Division of Public Assistance have some elements that are administered by each of the 87 separate local county boards of welfare and are under the supervision of the state office. Home maker services, child placing agencies, foster boarding homes, standards for institutions, and medical assistance and aid to dependent children are a few of these.

It is possible for a family without funds for private care to have contact with several of these services at any one time, which can result in confusion and overlap of services.

Minnesota's Department of Education is concerned with the education program for school age children in institutions. In addition, it is specifically concerned with one state residential school for some selected handicapped children. The Worthington Crippled Children's School provides such services for children from 4 to 21 years of age with neuro-orthopedic problems who do not have facilities in their local school setting. There are 51 pupils currently enrolled.
There are many private institutions in Minnesota where some degree of residential care is provided either short or long term—for handicapped children. Many of these institutions are caring for some patients who utilize either CCS or Medical Assistance funds for payment.

As physical facilities improve, more qualified physicians become available, and community follow-up services are improved, the use of these resources will increase, and the children will be cared for closer to their homes. Several such resources are now available outside the Twin Cities area. It is becoming apparent that only the more complicated cases will require specialized care in a specialized facility.

Private hospitals and qualified orthopedic surgeons are available in Moorehead, Duluth, Red Wing, LaCrosse, Grand Forks, Crookston, Mankato, St. Cloud, and Sioux Falls. There are also excellent resources in the Rochester area.

Numerous private resources in the Twin Cities region provide specialized care. These include Shriners Hospital, Fairview Hospital, American Rehabilitation Center, Children's Rehabilitation Hospital, and others.

The use of all these resources is increasing as Medical Assistance funds and other financial resources make them available. The numbers and types of patients, length of stay, costs, and possible waiting lists are not currently available for reasons already mentioned. These resources must be explored in detail before conclusions can be reached regarding their place in the total pattern of care. One obvious effect of these resources is a decreasing need for perpetuating a large central state resource for any but the most complex cases.

From the data available, it is impossible to even estimate the costs of utilization of these other resources. Reports are not comparable as to age or handicapping conditions. Some institutionalization is obviously based not on medical need but on lack of local day-care facilities. Enumeration of surgical procedures required for those receiving care because of basic mental illness or mental retardation is not available at present.

In the private resources sphere, there are increasing numbers of general hospitals where the quality of regular and special services and the specialized talents of the private physician make it possible to care for large numbers of patients who once needed the physical and professional resources of a centralized specialty center. Payments in the form of Medical Assistance, CCS, insurance reimbursement, or private fees for services have not been related to separate conditions.
Statistical tabulation has not kept pace with the treatment skills of facilities. Before recommendations could be made or plans formed for future action, certain data not now available would be essential in addition to those so far assembled. The necessary material would include comparable statistical information from each facility for the same time periods.

There is obviously a lack of adequate resources in Minnesota to meet the needs of physically handicapped children and youth. Whether these needs can be met by building, equipping, and staffing additional institutions is highly questionable.

The public and private resources present similar problems. The resource utilization information from the Department of Welfare suggests lack of clearly stated administrative decisions concerning priorities in the face of insufficient funds for all needs. Cost comparison among programs can be very misleading due to many differences within the systems being compared—some obvious and some not so obvious. With the lack of comparable information from the non-public segment of care and with the lack of uniformity of data, it is impossible to even estimate the magnitude of the cost of needs.

The numbers of children needing but not receiving care, the numbers for whom another resource might be the one of choice, and the numbers and types of resources needed cannot be answered without the development of more information as discussed in the recommendations.

There are a number of interrelated factors influencing the pattern of residential care for children and youth with handicapping conditions. Among them are such elements as:

- Increase in the population
- Leveling off of the birth rate
- Higher general standard of living and of education
- Increasing effectiveness of preventive as well as therapeutic agents
- Changing methods of mass communication
- Decreasing incidence of some handicapping conditions
- Earlier recognition of deviations from normal
• Increasing awareness and interest regarding the more subtle or less apparent abnormalities

• Increasing social awareness that something can, and should, be done regarding some conditions formerly ignored

• Increased sophistication concerning comprehensive care through new and continuing education for all members of the healing, social, and educational professions

• Increasing numbers of well-trained specialists in medicine, dentistry, and allied health professions, with more emphasis being directed to the needs of the total child, and coordination of many specialists toward comprehensive care

• Increasing need for conservation of health and other professional manpower

• Increasing costs of personnel as well as equipment and building

• Changing patterns of financial assistance for medical care (Medical Assistance)

• Increasing numbers of people with health insurance coverage

• Perpetuation of outmoded practices concerning professional jurisdiction, administrative jurisdictions, and fiscal policies. Many of these perpetuated practices were initially based on unsound premises. These unsound concepts are beginning to be more and more apparent as demands for increased fiscal efficiency increase and as conditions requiring changes become more pressing.

• Increased utilization of private resources formerly unavailable to many

• Increased use of foster homes for out-of-home care

• Emerging impact of the value of the numerous voluntary health organizations
There is a very large and diverse group of highly motivated, dedicated individuals who are anxious and willing to help bring about improvement of residential care facilities for children and youths with handicapping conditions. Many of them are at present working in some aspects of providing such care.

The effectiveness of the existing services or the redirection of existing services or the development of more or different services is being stifled by several operational problems:

- Lack of concrete objectives with an agreed on set of priorities related to an action program
- Frozen categories of:
  - Diagnosis (even in the face of multiple handicaps)
  - Use of funds
  - Administrative jurisdiction
  - Professional jurisdiction
  - Voluntary health association jurisdiction
- Personal fears inherent in any change
- Duplication of efforts
- Overlapping of efforts or even of services
- Lack of accurate basic information concerning the problem

To move forward in an effective fashion, it is recommended that steps beyond the present study be taken to develop basic information regarding children with handicapping conditions and the many facilities serving them. A series of regional meetings is proposed, where responsible spokesmen, one from each of the many groups of resources, would gather to bring comparable information, exchange ideas, and share problems. Extensive planning would be necessary, and a carefully developed questionnaire should be sent to each participant. Each participant would then collect the required information, bring it to the meeting, and discuss the potential implications for progress that could come about following the accumulation and compilation of such data throughout the state. The Value of such a series of meetings would be twofold: Information gathering and as a means of involving all concerned. Both aspects would be necessary components to any successful outcome.
Such a project would actually be a research and demonstration effort. This report could serve as a basis for identification of the gaps in data and a resource for development of this next step. Four meetings—one in each of four regions of the state—should keep the attendance within a practicable size. Without such an effort, it would appear that a truly adequate baseline would be impossible.

Following such a series of meetings and subsequent analysis of the collected data, intelligent decisions could be made regarding the scope of the problem, location of patients, current care, needed changes in care, and development of resources with various echelons of care, including development of regional diagnostic centers. In addition, important decisions could be made regarding redirection of jurisdiction, administration, and funding.

If a diagnostic center or regional diagnostic centers are to be developed, it might be possible in a planned, integrated way (related to each child's needs) to use many currently available resources in some coordinated way to perform the actual assessment (or testing) of many elements contributing to a given child's problem. The results of these several assessments could then be synthesized into a comprehensive diagnosis and treatment plan by a panel of specialists who would evaluate the total problem and the total need in relation to the separate assessments and the resources available.
Alcoholism has been variously defined by many authorities, but one definition that seems to be most popularly held is stated: "Alcoholism is a chronic behavioral disorder manifested by undue preoccupation with alcohol to the detriment of physical and mental health; by a loss of control when drinking has begun although it may not be carried to the point of intoxication; and by a self-destructive attitude in dealing with relationships and life situations."

Minnesota has an alcoholic problem of some magnitude but addiction to other chemicals appears to be negligible, although there is some evidence that the incidence of drug use in Minnesota is rising. Because the non-medical use of addictive drugs is illegal, it is extremely difficult to measure prevalence, distribution, and so forth. However, the two state residential facilities that have programs to treat alcoholism also include drug addiction patients.

Prevalence of Alcoholism in Minnesota

Donald Peterson, M.D., Director of the Alcohol and Drug Addiction Unit at Willmar State Hospital, estimates that there are 60,000 alcoholics in Minnesota. The "hard-core" alcoholics who are in need of long term custodial care make up only about 2 percent or 1,200 of this total and are commonly referred to as "chronic alcoholic offenders."

Alcoholism is thought by many to be an incurable illness. Although most physicians, including psychiatrists, have recognized it as a disease, many admit that they have been unsuccessful in treating it medically. Fortunately, however, recognized authorities have stated that as many as 80 percent of alcoholics are capable of restoration to mature and responsible living. Again, Dr. Peterson has pointed out that primary alcoholic dependency in the rehabilitative patients generally arises out of neurotic predispositions in persons who can successfully point to periods of productiveness in life and who certainly cannot be termed "chronic alcoholic offenders."

Current Treatment Resources in Minnesota

Late in this study, the research team was able to secure an unedited copy of the "Report to State of Minnesota Commission on Alcohol Problems - 1968 Survey Program Study," dated June 14, 1968, prepared by David C. Hancock. According to data in the report, a total of only 5,221 inebriates received residential treatment during 1967 as follows:

<table>
<thead>
<tr>
<th>Number Treated</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800</td>
<td>Willmar State Hospital</td>
</tr>
<tr>
<td>585</td>
<td>Moose Lake State Hospital</td>
</tr>
<tr>
<td>62</td>
<td>Rochester State Hospital</td>
</tr>
<tr>
<td>20</td>
<td>St. Peter Security Hospital</td>
</tr>
<tr>
<td>360</td>
<td>Minneapolis VA Hospital</td>
</tr>
<tr>
<td>600</td>
<td>St. Paul Ramsey Hospital</td>
</tr>
<tr>
<td>143</td>
<td>Miller, Mounds Park, and St. Josephs hospitals</td>
</tr>
<tr>
<td>1,239</td>
<td>Hazelden Foundation</td>
</tr>
<tr>
<td>412</td>
<td>Pioneer House</td>
</tr>
</tbody>
</table>

The report states that although private physicians and other various agencies were agreed to have treated alcoholics, "the hospitals and treatment centers cited represent, so far as we know, the only specific alcoholism treatment in Minnesota." Using an incidence rate of 60,000, this would indicate that less than 9 percent received residential care in the year 1967.

Although this demonstrates a lack of residential accommodations, certain basic questions arise. Is residential care the preferred course of treatment for all inebriates? Is the lack of good geographic distribution of residential services a contributing factor working against a higher number of voluntary admissions? The directors at both the Willmar and Moose Lake units report that they have no waiting lists.

To plan for the residential care needs of Minnesota's population, it is necessary to review all services, both residential and non-residential. Extensive interviews with many of the state's health leaders as well as a review of the literature bears out the underlying principle that inadequacy of non-residential provisions effects an unnecessarily higher demand for residential accommodations at a higher cost, often working to the detriment of the patient and his family. Further, if community facilities for prescreening and aftercare are inadequate or lacking, efforts undertaken by the acute residential programs are less effective and a
"revolving-door" phenomenon develops. As communities develop local post-treatment services for referral of treated patients, the demands placed on state residential provisions tend to lessen. To be most effective, a continuum of care is necessary.

Case Finding

Success in treatment of addictive conditions including alcoholism depends largely on early detection and acceptance by the patient that treatment is necessary if the condition is to be arrested. Since moderate use of alcohol is widely practiced within U.S. society, the differentiation between social drinking and problem drinking becomes narrow, thus, complicating case finding. Inebriates often do not ask for help, not only because they may be unaware of the true nature of their problem, but also because they are aware of the social stigma associated with their condition. Further, the provision of treatment to problem inebriates is complicated because they differ from one another in so many ways. Their patterns of use of alcohol with or without drugs vary as greatly as do their individual states of physical health, psychological condition, and their place in the socio-economic strata. The skid-row derelict actually makes up a very small minority of the total inebriate population.

Criticisms of State Programs

The state of Minnesota has assumed the responsibility of caring for those inebriates who are unable to afford private institutional care. There are, however, highly unfavorable attitudes expressed regarding the so-called complacency, disinterest, and apathy on the part of the Department of Welfare. Mr. Richard Lynch, Director of the Minnesota Commission on Alcohol Problems, alleges that patients treated for alcoholism can leave the Willmar unit with problems other than alcoholism. It is further alleged that patients are dismissed from Willmar with no means provided them to return to their local communities. It has been pointed out that unless a patient is committed by the court, there is no provision for transportation to get him to the unit. Mr. Jack Sherill, Administrative Director of the Minnesota Council on Alcohol Problems, has stated "our office knows of a group of interested citizens who are willing to test at least one present state alcoholic rehabilitation program in the courts to prove its ineffectiveness and its irresponsibility." He points to two real signs of hope: the program at Moose Lake State Hospital and the new program for men that was to open on September 1, 1968 at Hastings State Hospital. Mrs. Margaret Rudolph, Director of Granville House, a halfway house for treated alcohol and drug dependent women in St. Paul, points to the number of women who voluntarily leave the alcoholism unit.
at Willmar because of the impersonal treatment they receive and because they believe that they have been "dumped" there. Mrs. Rudolph states that it is not uncommon for her to have a patient driven more than 100 miles by car to the unit, visited while there, and picked up on discharge. Since the research team's visit to this unit was made before gaining these critical viewpoints, their validity cannot be assessed. The unit is much larger than that at Moose Lake, and perhaps size and staffing may account for certain deficiencies if they do exist.

**Geographic Distribution of Services**

The lack of good geographic distribution of the state's inebriacy treatment programs strongly suggests that, if the regional concept of utilizing the state's mental illness and mental retardation hospitals as behavioral centers is adopted, alcohol and drug addiction residential programs should be set up wherever there is sufficient prevalence among the region's population to support such programs. Repeatedly, it is reported that alcoholism and drug dependency is considerably higher among the mentally disturbed than among the mentally well.* Rochester State Hospital, although lacking a formal program, treats alcoholism.

A visit to St. Peter State Hospital brought out the fact that although the hospital has no program for such service, it does in fact receive such patients and carry out a therapeutic regimen. It was pointed out that the local sheriff's office preferred to drive the few miles to St. Peter Hospital with persons picked up in that county rather than to drive more than 100 miles to Willmar. The administrator, Mr. William Lightburn and Dr. Burton Grimes, the medical director, both indicated that they would welcome the opportunity to develop a formalized residential program of about 60 beds at St. Peter State Hospital.

In the immediate Twin Cities area, there are two non-state residential programs at St. Paul Ramsey Hospital and Minneapolis VA Hospital that have well-developed services for inebriates. The average stay at St. Paul Ramsey is only 9 days, whereas it averages 31 days at the VA Hospital. Both of them point to shortages of staff as a factor limiting their success. Lack of follow-up and inadequate rehabilitation services are further deterrents. Pioneer House in Minneapolis is operated by the Division of Public Relief of the Minneapolis Board of Public Welfare.

It has residential accommodations for 27 men and serves relief recipients of the city. Minneapolis welfare recipients are given first priority on admission, and other residents of the city pay for treatment according to their financial resources. Non-city residents are charged $178.50 for a 21-day stay. Pioneer House cannot begin to satisfy the demands for its services. Sunnyrest Rehabilitation Center in Crookston, Minnesota, will soon open and will operate similarly to Pioneer House.

The Hazelden Foundation in Center City is a private nonprofit corporation situated about 40 miles northeast of St. Paul. Toxic patients are admitted to an intensive care unit, and the therapeutic treatment program following detoxification usually takes 21 days or longer, depending on the patient's recovery rate. Since its inception in 1949, the foundation has experienced continued growth and its patients originate from all parts of the United States, Canada, South America, and Puerto Rico. Charges for services approximate $500 for 21 days.

**Shortage of Post treatment Services**

Halfway houses represent a vital link in the chain of recovery of alcoholics who may be incapable of unstructured independent living. Also, to some degree, they may represent an adequate alternative to a full-scale residential program for the less seriously afflicted inebriate. According to the Hancock report, there are a total of only two such facilities for women with a combined capacity of 31, and five halfway houses for men with a total combined capacity of 128. A total of 378 residents (88 women and 290 men) were reported to have lived in such facilities during 1967.

**Programs in Correctional Institutions**

Correctional institutions for non-adults have no specific programs, due to a reported lack of need for them. Of seven such institutions for adults within the state, none of them had programs for identifying and treating alcoholism as a disease entity or as a special problem. However, all of them did have active Alcoholics Anonymous groups among their inmates. Sandstone Federal Corrections Institution at Sandstone, in addition to having four AA meetings a week, had one weekly meeting of a narcotics group. The Minnesota State Prison at Stillwater estimated that 54 percent of its 525 inmates have a drinking problem, 4 percent have a drug problem, and 3 percent have both problems.
Mental Health Centers

Out of a total of 23 mental health centers, only 11 stated that they had a program that at least identified alcoholics or drug dependent persons. Their aggregate total of cases identified amounted to only 177 such persons in 1967. Among the 11 centers, 60 persons (or about one-third of the total) were seen at the Alcoholic Information Center of the Zumbro Valley Mental Health Center, and 31 were seen at Dakota County Mental Health Center. The Hancock report states: "It is difficult for this observer to believe that there were only 177 alcoholics among all the people who visited Minnesota's twenty-three mental health centers in 1967."

The Alcohol Commission and Its Report

The Minnesota Commission on Alcohol Problems is a new arm of assistance to the Governor's Office. Its Director, Mr. Richard M. Lynch, reports that his appointment was finally ratified March 15, 1968. He and his secretary make up the entire staff. All other help is voluntary as he is able to find it. Certainly if he is judged to be a capable spokesman, consultant, and leader in helping to investigate and resolve these problems in Minnesota, it would appear that he should be permitted a more realistic budget and staff than now allocated to him.

Because the Hancock report has not yet been released and distributed, portions of the Summary and Recommendations are taken directly from an unedited copy as follows:

1. One of the most urgent needs in our state is the provision of emergency treatment facilities for the sick alcoholic who needs immediate help and who cannot get into a private hospital either because he has no funds, or because he has no private physician who can have him admitted. We need facilities where the sick alcoholic can go voluntarily for immediate admission and receive medical treatment if needed.

Experience in other municipalities has shown that when alcoholics know that they will be welcomed at a detoxification center, rather than jailed for exhibiting the symptoms of their illness, they are more likely to seek help and to begin their fight for recovery.

It is this writer's feeling that we need in Minnesota a number of strategically located alcoholism detoxification and treatment centers where patients can get treatment
without having to wait for a week to gain admission to a regular state hospital alcoholism treatment program, as is now often the case. The present facilities for alcoholism treatment in Minnesota are not adequate to accommodate all those needing treatment. Such facilities should be established in the metropolitan areas, from which the great majority of alcoholics come, so that a patient does not have to travel one or two hundred miles to seek treatment. Such treatment facilities in Minneapolis, in St. Paul, in Duluth, in Rochester, in Fergus Falls, and perhaps in Crookston, would be a good start toward covering the state with this type of needed facility. These would be local enough, in most cases, to involve the family of the alcoholic in the treatment program for the family's understanding and education are a vital part of the alcoholic's recovery.

These local treatment centers could also provide outpatient programs, both day-care and night-care for working alcoholics who do not need hospitalization. They would come to the center for morning, afternoon, and evening lectures, discussions, and group therapy sessions.

The program in these centers could be more intensive than is now carried on in the state hospitals. There would be less emphasis on daily maintenance-type of work-therapy assignments and more emphasis upon education and reorientation, and helping the alcoholic to gain an adequate understanding of himself and his illness.

2. A second type of urgently needed facility is more Halfway Houses located strategically throughout the state. One of the most serious problems facing the alcoholic upon release from formal treatment is having no place to live where he can receive help and moral support as he tries to fight his way back to sobriety and to a responsible place in society. As of now, all Halfway Houses in Minnesota are operated by private or non-profit organizations. Halfway Houses in some states, because they are recognized as a part of the total treatment program, are financed by public funds. The possibility of providing public funds for Halfway Houses warrants investigation.
3. It is recommended also that a special alcoholism and drug abuse treatment facility for women be established closer to the metropolitan Twin Cities area, for example, at Anoka. The incidence of dual addiction, that is alcoholism with drug abuse, is rising among women especially, and a separate facility for women with alcohol and drug abuse problems, located near the Twin Cities but open to all women from all over the state, both on a voluntary and an involuntary or commitment basis, would add greatly to our treatment resources.

4. Another facility greatly needed is some type of sheltered work farm or industrial complex for the long-term residential care of the small minority of deteriorated alcoholics who are considered to be "not amenable to treatment" in present state hospitals. This type of residential facility could provide opportunity for productive work and longer-term treatment and supervision than is now feasible in the present state hospital alcoholism programs. It would provide care for the deteriorated alcoholics who are unable to live responsibly in the outside world for the time being. Adequate provisions would have to be made to safe-guard the civil rights of these alcoholics. However, it may be possible that they could be committed to long-term treatment in such a facility, just as they are now committed to long-term treatment for mental illness.

5. If we are ever to reduce and prevent alcoholism, it is absolutely essential that we find cases earlier and get the alcoholic to treatment before his illness progresses to the crucial and chronic stages. To this end a massive campaign of public education should be mounted. It would publicize widely the symptoms of alcoholism and how to recognize the danger signals and warning signs. It would also seek to remove the stigma from the disease of alcoholism, and seek acceptance of alcoholism as a public health problem to be treated, rather than a sin to be punished and hidden in shame, a treatable disease which if not treated is fatal.

6. Further to facilitate early case-finding, it is recommended that at least one staff person in each county welfare department be given specialized training in the understanding of alcoholism.
Finances

The funds appropriated by the state for alcohol programs fiscal year 1968-69 amount to only $2.88 million whereas funds actually expended during the fiscal year 1967-68 amounted to $2.94 million. Considering the newly developed program at Hastings State Hospital, it would appear that an upward adjustment in funds will be needed, since program expansion can rarely be accomplished in the face of budgetary curtailment. The research team found no existing data establishing costs per treatment unit or per case, either current or historical. Such information should be made available if Minnesota is realistically to attempt to improve programs for its alcoholic and drug dependent citizens.

Alternatives of Care for the Alcohol and Drug Dependent

Residential facilities for inebriates are vital in the treatment programs developed by both the state and voluntary resources, and it would appear to be the state's role to analyze, advise, and provide leadership in developing a total program that has essential balance. Although additional beds need to be provided, it is important that they be appropriately located throughout the state. Staffing has generally been accomplished by utilization of recovered alcoholics who are vitally interested in helping others regain their independence.

In planning efforts, it is necessary to look at the total spectrum of significant services that are designed to assist the inebriate and his family. The services described below are related to both residential and non-residential accommodations.

Alcohol and Drug Information and Referral Centers. Such facilities would appear to be most appropriately designed and located in mental health centers. A visit was made to the Alcoholism Information Center at Zumbro Valley Mental Health Center, which is located at Rochester State Hospital. This is the only example noted in Minnesota of a center that approaches the ideal concept of a comprehensive mental health center. The Alcoholic Referral Center at Fergus Falls, on the other hand, is a freestanding unit and not state supported. A Mr. and Mrs. Berg conduct this well-operated and effective service in their own home. However these are organized, the most important factor is that the services be available and accessible throughout the state. In rural areas, principal trading center towns can be selected. Services should include guidance to inebriates; consultation for family, friends, and employers of inebriates; cooperation with other agencies that encounter alcoholics; data on resources, with current and complete listings of statewide treatment...
facilities and assistance in scheduling admissions; pamphlets and literature; educational materials for students, schools and socially-minded groups; a speakers' bureau for service clubs, churches, and so forth; and seminar development addressed to social workers, law enforcement officers, clergymen, and so forth. These areas make up the program under Mr. Vernon Kuluvar's direction at Rochester, and they have proved to be effective and deserving as a pilot model to use in the development of other centers.

Detoxification and Short Term Treatment Centers. The severely toxic inebriate's life is often in a state of extreme jeopardy, frequently calling on immediate medical efforts to save his life. This service should be required in all hospitals licensed in Minnesota and provided through their emergency departments. After the return of vital signs and consciousness, hospitals having psychiatric services should admit such persons to their facilities for a period of at least 72 hours. (Dr. Donald Peterson has stated that "if alcoholism is an illness, jails are no place for treatment.") Subsequently, a determination can be made regarding continued care, at that hospital or elsewhere.

Long Term Treatment Centers. Units at Willmar, Moose Lake, Pioneer House, and the privately operated Hazelden Foundation are examples of complete treatment units that although distributed poorly throughout the state, make up the bulk of residential treatment programs.

Halfway Houses. If the inebriate is to be returned to his community after treatment under conditions of supervised living, there needs to be considerable development of this type of facility at the local level. These serve as extensions of the acute treatment center, and patients can be referred to aftercare units that serve in the progressive process of returning the individual to his community with sufficient support so that he is able to re-assume progressively the responsibilities of independent living. Continued accommodation of the individual might span a period of from 3 to 15 months, depending on his progress. Since these facilities are related to a continuum of care for the recoverable inebriate, the advisability of placing the chronic alcoholic offender who has been under repeated therapeutic programs without apparent success must be carefully weighed as to benefits to the individual and to the possible deleterious effects on other persons within the house. Custodial care units may be more appropriate for chronic alcoholic offenders.
Custodial Care Units. Custodial Care units are residential in nature and designed especially for inebriates who must have long term care (for some, a period of years), in an environment that is essentially alcohol- and drug-free. These are persons who have reached that degree of social and personality deterioration such that treatment in the conventional sense is no longer effective or appropriate. Mission Farms in Hennepin County is a unit of about 100 beds serving that county. Typically, transfers are made from detoxification and treatment centers. A treatment program is supplemented with custodial care, and work, which is thought to be therapeutic, is provided to prevent further dereliction. Such a system has the benefit of making more beds available in existing treatment centers for those who have a sincere desire to conquer their illness and recover.

Prevalence of Drug Dependency in Minnesota

Dependence on drugs other than alcohol is a problem of apparently small magnitude in Minnesota. Programs set up to treat alcoholism, both public and private, also include other chemical dependencies in their treatment regimen. State residential facilities are specifically designed to treat withdrawal from all dependencies including alcohol. However, even at Minnesota's largest hospital (Willmar State Hospital), the admission rate for drug dependents is minimal. In contrast to alcoholism, in which the incidence appears to be much higher among men, treatment for drug dependency is more often given to women.

Throughout an intensive search to collect drug addiction data, the research team was advised that there is no problem. Considering the magnitude of the problem among older adolescents in the San Francisco, Chicago, New York and Los Angeles areas, the team contacted Donald Cowan, M.D., Director of the University Health Service at the University of Minnesota in Minneapolis. He said that during the past academic year, his service began a longitudinal study of the problem of non-medical uses of drugs among University of Minnesota students. The first phase of this study was an inquiry into the use of and attitudes toward these drugs on the part of entering University students. However, the results of the first inquiry will not be published until release of the October issue of the Journal of the American College Health Association. He was not aware of any study into this problem on any other college campuses in the state.

The research team believed it might find data within the files of the State Department of Corrections. By referral to records of the Bureau of Criminal Apprehension, limited information pertaining to the numbers of persons apprehended annually and referred to the district
court for drug violation produced rather crude data, the value of which is essentially to illustrate that the trend is upward, even if still moderately so, as shown in the tabulation below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Persons Apprehended</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>12</td>
</tr>
<tr>
<td>1961</td>
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It was not possible to establish whether those apprehended were users, "pushers," or illegal manufacturers.

Dr. Charles Cooper, Director of the Alcohol and Drug Addiction Unit at Moose Lake State Hospital, reported that drug addiction among males is rarely seen there. However, on August 1, 1968, this unit was opened for the first time to admit women. On August 6, the unit had three women patients, all of whom were victims of multiple drug dependency.

Mrs. Margaret Rudolph, Director of Granville House (St. Paul), a halfway post treatment residence for women addicted to any chemicals including alcohol (except narcotics) stated that "pill addiction is high among women. Almost all of the women here had used drugs, many had used both drugs and alcohol."

Since the therapeutic regimen for treatment of alcoholism and drug dependency is essentially the same and since drug addiction is a problem of considerably less magnitude than alcoholism in Minnesota, it would appear that the state and voluntary residential services now offered should remain combined as at present.

The recent decision to open an alcoholism and drug addiction unit at Hastings State Hospital on September 1, 1968, to serve Ramsey, Washington, and Dakota counties appears to be a good step toward meeting the problem,

* Fifty-five of these were apprehended in the Twin Cities area.
and this unit is near the area of largest prevalence. If the unit were to serve Hennepin County as well, it would bring residential care closer to the entire Twin City area. However, since this is being done on a pilot basis, such action might have proved too overwhelming for a newly organized service.

**Summary**

It would appear that Minnesota can incorporate plans for the residential treatment of alcoholism and drug addiction into its seven area mental health-mental retardation regional plan by using some of the available mental illness beds whenever regional needs are demonstrated and programs and staff are available. However, other non-residential services for inebriates that can be offered on a local community basis appear to need concurrent development. There is a great potential for the community mental health centers to provide local services to inebriates by seeking assistance under Public Law 89-749, sections 314D and 314E, in which funds are available for community mental health centers to add alcoholism services to their programs. Given leadership, direction and some degree of initial financial support, if necessary, the voluntary sector has demonstrated, in Minnesota and elsewhere, its capability to offer excellent direct and adjunctive services effectively and economically.
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Private communication regarding future facilities for rehabilitation of children with crippling diseases, from Warren J. Warwick, Associate Professor, Department of Pediatrics, Minneapolis, Medical School, to Senator William Kirchner, Chairman, Senate Public Welfare Committee, Richfield, Minn., March 22, 1968
Appendix A

RESOURCE PERSONS

Gerald Anderson
Assistant Director, Special Education Services
Vocational Rehabilitation and Special Education Division
Minnesota Department of Education
St. Paul, Minnesota

John Anderson, M.D.
Chairman, Department of Pediatrics
University of Minnesota Medical School

Nancy Anderson, Ph.D.
Research Sociologist
American Rehabilitation Foundation
Minneapolis, Minnesota

Carl Ave Lallemand
Administrator
St. John's Hospital
St. Paul, Minnesota

Jeanette L. Baker, M.D.
Acting Medical Director
Fergus Falls State Hospital
Minnesota

Robert N. Barr, M.D. Secretary
and Executive Officer Department of Public Health Minnesota

Al Beck
Program Director
Cambridge State Hospital
Cambridge, Minnesota

Gerald Bloedow
Special Assistant on Aging
Governor's Citizen Council on Aging
Minnesota
Henrik L. Blum, M.D., M.P.H.
Director of Planning School of
Public Health University of
California Berkeley,
California

Ethel Bonn, M.D.
Hospital Director
Fort Logan Mental Health Center
Denver, Colorado

Frank Borreca
Executive Director
Harris County Center for the Retarded
Houston, Texas

Kenneth M. Boyum
Administrator
The Kenny Rehabilitation Institute
Minneapolis, Minnesota

Paul W. Bransford, M.D.
Chairman, Committee on Child Psychiatry
Minnesota Psychiatric Society of A.P.A.
Minneapolis Clinic of Neurology and Psychiatry
Minneapolis, Minnesota

Charles Branthaver, M.D.
Pediatric Department
University of Minnesota

Thomas Broadie, M.D.
Deputy Superintendent St.
Paul-Ramsey Hospital St.
Paul, Minnesota

John Broady
Former Director, Mental Retardation Planning Council
Minnesota

James H. Brockman
Assistant Executive Director and Geriatric Program Coordinator
Minnesota Hospital Association
Minneapolis, Minnesota
Donald Brown  
Regional Office  
California Department of Mental Hygiene  
San Francisco, California

John S. Buzzelle  
Assistant Director, Rehabilitative Services  
Department of Public Welfare  
Minnesota

C. G. Chapadro  
Director, Administrative Services Division  
State Department of Public Welfare  
Minnesota

Harold Chope, M. D.  
Director  
San Mateo County Department of Public Health and Welfare  
San Mateo, California

Martin Cornelia  
Consultant in Hospital Planning for Mental Retardation  
Bureau of Health Facilities Planning and Construction  
California Department of Public Health

Charles Cooper, M. D.  
Director, Alcohol and Drug Addiction Unit  
Moose Lake State Hospital  
Moose Lake, Minnesota

Donald Cowan, M. D. Director,  
University Health Service University  
of Minnesota Minneapolis, Minnesota

Richard Dethmers  
Mental Health Study Project, Metropolitan Planning Consultant  
Department of Public Welfare  
Minnesota

Lloyd Ditlevson  
Director  
Division of Rehabilitation Services  
Department of Public Welfare  
Minnesota
Mrs. Belle Dubnoff
Director
School for Educational Therapy
Los Angeles, California

Donald Dunn
Executive Director and Geriatric Program Coordinator
Minnesota Hospital Association
Minneapolis, Minnesota

Mrs. Carolyn Elliot
Consultant, Children with Emotional Problems
Special Education Section
Vocational Rehabilitation and Special Education Division
Minnesota Department of Education

Charles Fecht
Standards and Licensing Section Supervisor
Child Welfare Division
Department of Public Welfare
Minnesota

Milton Fisher
Administrator Rochester
State Hospital Rochester,
Minnesota

Arthur Funke, Ph.D.
Director of Mental Health Planning
Medical Services Division
Department of Public Welfare
Minnesota

Walter Friedman, M.D.
Head, Jacobi Service
Bronx State Hospital
Bronx, New York, New York

V. M. Gailitis, M.D.
Medical Director
Cambridge State Hospital
Cambridge, Minnesota

Harvey Glommen
Director
Minnesota Association for Retarded Children
Minnesota
Edwin Greenberg, M.D.
Deputy Director Bronx State
Hospital Bronx, New York,
New York

Burton P. Grimes, M.D.
Medical Director
St. Peter State Hospital
Minnesota

John Groos
Director of Special Education
Department of Education
Minnesota

John E. T. Haavik, M.D. Program
and Clinical Director Duluth
Mental Hygiene Clinic Duluth,
Minnesota

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Children's Rehabilitation Hospital
University of Minnesota

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Education for the Mentally Retarded
Special Services Section
Department of Education
Minnesota

Robert Hiller
Chief, Vital Statistics Division
Minnesota Department of Health
Minneapolis, Minnesota

Robert Hoffmann
Administrator
Fergus Falls State Hospital
Minnesota

Ralph Hornberger, M.D.
Chief, C. C. S.
California State Department of Health
Harry Jennison,  M.D.
Director
Children's Convalescent Hospital
Stanford Medical Center

Lester Johnson Administrative Officer
Willmar State Mental Hospital
Minnesota

Anthony B. Kist Supervisor,
Licensing Unit Hospital
Services Division State Health Department
Minnesota

Arthur J. Klippen
Hospital Director
Veteran's Administration Hospital
Minneapolis, Minnesota

Helen L. Knudsen, M.D.
Director, Hospital Services Division
Minnesota Department of Health

Richard Koch, M.D.
Director
Regional Diagnostic Counseling and Service Center
Children's Hospital of Los Angeles
California

Vernon Kuluvar,
Director
Alcoholism Information Center
Zumko Valley Mental Health Center
Rochester State Hospital
Rochester, Minnesota

Walter Larabee, M.D.
Medical Director
Willmar State Hospital
Minnesota
Nathaniel S. Lehrman, M.D.
Chief Geriatric Services Bronx
State Hospital Bronx, New York, New York

William C. Lightburn
Administrator
St. Peter State Hospital
Minnesota

S. B. Lindley, M.D.
Hospital Director
Veterans Administration Hospital
St. Cloud, Minnesota

Edward Litlin, M.D.
Head, Section of Psychiatry
Mayo Clinic
Rochester, Minnesota

Joseph Lucero Coordinator of
Research Medical Services
Division Department of Public Welfare Minnesota

Mrs. Sally Luther
Research Associate
American Rehabilitation Foundation
Minnesota

Richard Lynch
Executive Director
Minnesota Commission on Alcohol Problems
Minnesota

Harold R. Martin, M.D.
Chairman, Subcommittee on Programs Development
Rochester State Hospital
(Section of Psychiatry, Mayo Clinic)
Rochester, Minnesota

Einar Martinson, Ph.D.
State Mental Health Association
Minnesota
C. Mehler, M.D. Chief,
Lincoln Service Bronx
State Hospital Bronx, New York, New York

Mildred Norval, M.D.
Director, Crippled Children's Services
Department of Public Welfare
Minnesota

Mrs. Harold Nash
Member of Minnesota Health Planning Task Force

Phillip C. Newberg
President
Minnesota Nursing Home Association Inc.
Minneapolis, Minnesota

Jack J. Newberry, Ph.D.
Chief, Clinical Psychologist
Lakeland Mental Health Center
Fergus Falls, Minnesota

Lowell Palmquist
Administrator Fairview Hospital Minneapolis,
Minnesota

Donald Peterson, M.D.
Director
Alcoholic and Drug Addiction Unit
Willmar State Hospital
Minnesota

L. Irving Peterson
Supervisor, Public Assistance Medical Program
Department of Welfare
Minnesota

Ira Phillips
Administrative Services Division
Department of Corrections
St. Paul, Minnesota
John W. Poor
Director
Division of Public Assistance
State Department of Public Welfare
Minnesota

Robert Wm. Poyzer
Administrative Director, District 7
State Department of Public Health
Fergus Falls, Minnesota

Wesley Restad Director, Field
Services Department of Public Welfare
St. Paul, Minnesota

Dorothy Rice, M.D.
Chief, Health Insurance Research Branch
Social Security Administration
Washington D.C.

Milton Rosenbaum, M.D.
Professor and Chairman, Department of Psychiatry
Albert Einstein Medical Center
Bronx, New York, New York

Margaret Rudolph
Director Granville House
St. Paul, Minnesota

G. Lee Sandritter, M.D.
Medical Superintendent
Agnews State Hospital
California

James T. Sarazin
Assistant Director, Community Programs
Department of Public Welfare
Minnesota
Hans M. Schapiro, M.D.
Director, Mental Health Division
Colorado State Department of Institutions

Jack Sherrill
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Minnesota Council on Alcohol Problems
Minneapolis

Peter Shrum
Public Relations
Minnesota Association for Retarded Children
Minneapolis, Minnesota

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(Special Mental Health Centers)
Bureau of Health Facilities Planning and Construction
California Department of Public Health
Berkeley, California

Mrs. B. Jay Smith Demonstrative
Officer Fort Logan Mental Health Center
Denver, Colorado

John Stocking
Administrator Cambridge State Hospital
Cambridge, Massachusetts

Mary Thompson, Ph.D.
Director of Education
Harris County Center for the Retarded
Houston, Texas

Francis Tyce, M.D.
Medical Director
Rochester State Hospital
Rochester, Minnesota

Thyrza Tyrell
Research and Statistics Section
Administrative Services Division
Minnesota Department of Public Welfare
David J. Vail, M.D.
Medical Director of Institutions
Department of Public Welfare
Minnesota

Vilis Vikmanis
Senior Budget Representative
Budget Division
State Department of Administration
Minnesota

Mrs. Anne Wendt
Executive Director
Spastic Children's Foundation
Los Angeles, California

John Westerman
Director
University of Minnesota Hospitals
Minneapolis, Minnesota

Ardo Wrobel
Director, Program Planning for the Mentally Retarded
Department of Public Welfare
Minnesota

James Wolfe
Executive Director
Lake Region Sheltered Workshop, Inc.
Fergus Falls, Minnesota

Robert C. Zabel
Program Director
Zumbro Valley Mental Health Center
Rochester, Minnesota
Gentlemen:

The Health Planning Research Program of Stanford Research Institute is assisting Dr. Ellen Fifer and the staff of the Minnesota Comprehensive Health Planning Agency in planning for residential care for Minnesota's mentally ill, mentally retarded, elderly, inebriate, and handicapped children. Several issues in planning for these persons have priority. We have been gathering information to these ends so that Dr. Fifer might develop policy recommendations to present to Governor Le Vander and to the Minnesota legislature for action in this next session. We have found some difficulty in ascertaining the exact number of such persons in Minnesota. We have some figures of persons known to present programs and institutions through the Minnesota Department of Welfare. In an attempt to more closely identify the actual number of persons, we are writing to other agencies in Minnesota who are involved in provision of services for these types of persons. We would like you to help us by providing as much information as you can.

We hope to present to the Comprehensive Planning Agency alternatives to residential care in meeting needs for these persons. They wish to have input, for proper analysis, from the persons who are directly involved in planning and providing services for these people. Therefore, we would appreciate your comments as to your needs and recommendations for provision of services, your role in offsetting need for residential care, financial responsibility, continuity of care, and other pertinent information or remarks.

Since our report must be completed by the end of August, may we ask that you note your replies and comments on the enclosed form and return it to us by return mail in the enclosed self-addressed return envelope. Your remarks need not be long; a sentence or two evaluating the services your agency offers and the directions you feel planning for these persons should take in Minnesota. Whatever you have to contribute will be most appreciated.

Sincerely,

Jeanne D. LeBrun, M.P.H.
Research Medical Care Administrator
Health Planning Research

JDL:ejz

Enclosures
1. Type of services provided (be specific): ________________________________

2. For what type person are services provided?

3. How many persons of this type have been serviced by your agency in the past year?
Approximate number _______

<table>
<thead>
<tr>
<th>Mentally retarded</th>
<th>No. of Inpatients</th>
<th>No. of Persons in Foster Homes</th>
<th>No. of Out-patients or Agency Visitors</th>
<th>No. known to Agency &amp; to whom you give Service Elsewhere</th>
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<td>Handicapped children, adolescents, adults who are</td>
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<td>cystic fibrosis</td>
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<td>muscular dystrophy</td>
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<td>f) other incapacitating disability</td>
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<td>Alcoholics</td>
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<td>b) young people</td>
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Comments:
LIST OF COMMUNITY HEALTH AGENCY PROGRAMS

* American Rehabilitation Foundation
  1800 Chicago Avenue, Minneapolis,
  Minnesota  55406

* Christ Child School for Exceptional Children
  2078 Summit Avenue,
  St. Paul, Minnesota 55105

* Community Information & Referral Center
  Hennepin County,
  404 S. 8th Street,
  Minneapolis, Minnesota

* Crippled Children's School,
  P.O. Box 23,
  Worthington, Minnesota

* Lindsay School for the Physically Handicapped
  310 Pleasant Avenue,
  St. Paul, Minnesota  55102

* St. Paul Hearing Society, Inc.,
  496 Endicott-on-Robert Building,
  St. Paul, Minnesota  55101

* St. Paul Society for the Blind,
  208 W. 6th Street,
  St. Paul, Minnesota  55102

* United Cerebral Palsy of Greater Minneapolis, Inc.,
  360 Hoover Street, N.E.,
  Minneapolis, Minnesota  55413

* Rehabilitation Center-
  Fairview Hospital
  2312 S. 6th Street,
  Minneapolis, Minnesota  55406

* Goodwill Industries, Inc.,
  North Hiawatha, Pipestone,
  Minneapolis, Minnesota  56164

* Hamm Memorial Psychiatric Clinic,
  238 Hamm Building,
  St. Paul, Minnesota  55102

* Hammer School,
  1909 E. Wayzata Blvd.,
  Wayzata, Minnesota
* Hazelden Foundation  
   Hazelden, Business Office, Box 11,  
   Center City, Minnesota 55012

* Highland Chateau Nursing Home,  
   2319 West 7th Street,  
   St. Paul, Minnesota 55116

* Jewish Vocational Office,  
   404 S. 8th Street,  
   Citizens' Aid Building,  
   Minneapolis, Minnesota 55404

* Lutheran Children's Friends Society  
   3606 Edmund Blvd.,  
   Minneapolis, Minnesota

* Lutheran Social Service of Minnesota,  
   2414 Park Avenue,  
   Minneapolis, Minnesota 55404

   Minneapolis Rehabilitation Center,  
   1900 Chicago Avenue Minneapolis,  
   Minnesota 55404

   Minneapolis Society for the Blind  
   1936 Lyndale Avenue, South,  
   Minneapolis, Minnesota 55403

* Minnesota Academy of Seizure Rehabilitation,  
   4 30 1st Avenue, North,  
   Minneapolis, Minnesota 55401

   Minnesota Council on Alcohol Problems,  
   204 Franklin Ave., W., Minneapolis,  
   Minnesota

   Minnesota Epilepsy League  
   614 Portland Ave., St.  
   Paul, Minnesota

* Minnesota Homecrafters, Inc.,  
   4157 Minnehaha Avenue,  
   Minneapolis, Minnesota 55406

* Minnesota Society for Crippled Children and Adults  
   2004 Lyndale Avenue, South,  
   Minneapolis, Minnesota 55405

* Minnesota Chapter of the National Hemophilia Foundation  
   3208 Edmund Blvd.,  
   Minneapolis, Minnesota 55406
* National Multiple Sclerosis Society
  625 2nd Ave., S.,
  Minneapolis, Minnesota

* Opportunity Workshop
  512 West 78th Street,
  Minneapolis, Minnesota 55423

* Otolaryngology Clinic
  University of Minnesota
  Minneapolis, Minnesota

* Outreach, Inc.,
  1619 Portland Avenue, South,
  Minneapolis, Minnesota 55404

  Rehabilitation Center
  University of Minnesota
  Minneapolis, Minnesota

* School for Social Development
  1639 Hennepin Avenue
  Minneapolis, Minnesota 55403

* Muscular Dystrophy Association of America, Inc.,
  Griggs-Midway Building, 1821 University Avenue St.
  Paul, Minnesota 55104

Note: The starred agencies have responded to the questionnaires,
Mr. Garrett Benson, Director  
Hubbard County Welfare Department  
County Courthouse Park Rapids,  
Minnesota 56470  

Dear Mr. Benson:

The Health Planning Research Program of Stanford Research Institute is assisting Dr. Ellen Fifer and the staff of the Minnesota Comprehensive Health Planning Agency in planning for residential care for Minnesota's mentally ill, mentally retarded, elderly, inebriate, and handicapped children. Several issues in planning for these persons have priority. We have been gathering information to these ends so that Dr. Fifer might develop policy recommendations to present to Governor Le Vander and to the Minnesota legislature for action in this next session. We have found some difficulty in ascertaining the exact number of such persons in Minnesota. We have some figures of persons known to present programs and institutions through the Minnesota Department of Welfare. In an attempt to more closely identify the actual number of persons, we are writing to each county welfare board in Minnesota. We would like you to help us by providing as much of the following information as you can.

1. What would you estimate the number to be of these persons being currently cared for in foster or nursing homes in your county?

2. How many such persons are known to you who are cared for in their own or relatives' homes?

3. How many are cared for in your county in facilities or institutions owned or operated by private individuals or groups, church sponsored, or voluntary organizations?

Please use the enclosed form for your replies to these three questions.

We are aware that planning for care and financial responsibility, when necessary, rest with each county's welfare department. The wishes and needs of the welfare boards and the social work and health staffs should be incorporated in state-level planning for coordination of services and program direction.
We hope to present to the Comprehensive Planning Agency alternatives to residential care in meeting needs for these persons. They wish to have input, for proper analysis, from the persons who are directly involved in planning for these people. Therefore, we would appreciate your comments as to your needs and recommendations for provision of services, financial responsibility, continuity of care and other pertinent information or remarks.

Since our report must be completed by the end of August, may we ask that you note your replies and comments on the enclosed form and return it to us by return mail in the enclosed self-addressed return envelope. Your remarks need not be long; a sentence or two evaluating the needs of your county will be most appreciated.

Sincerely,

Jeanne LeBrun, M.P.H.
Research Medical Care Administrator
Health Planning Research

JL:ejz

Enclosures 2
1. Mentally Retarded:
   a. Adult
   b. Children
2. Mentally Ill:
   a. Adult
   b. Children
3. Handicapped Children & Adolescents who are:
   a. Blind
   Deaf
   c. Emotionally Disturbed
   d. Orthopedically Handicapped
   e. Other; e.g., Cerebral Palsy, Cystic Fibrosis
   f. Other incapacitating disabilities

<table>
<thead>
<tr>
<th>Estimated Number Cared for In:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own Home</td>
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</table>

COMMENTS:
Aitkin
*Anoka
*Becker
*Beltrami
Benton
Big Stone
*Blue Earth
Brown
*Carlton
Carver
*Cass
*Chippewa
Chisago
*Clay
*Clearwater
*Cook
Cottonwood
*Crow Wing
*Dakota
*Dodge
*Douglas
Faribault
Fillmore
*Freeborn
*Goodhue
*Grant
Hennepin
*Houston
*Hubbard
*Isanti
*Itasca
Jackson
*Kanabec
Kandiyohi
*Kittson
*Koochiching
*Lac Qui Parle
*Lake
Lake of the Woods
*LeSueur
Lincoln
*Lyon
*McLeod
Mahnomen
*Marshall
*Martin
*Meeker
Mille Lacs
*Morrison
Mower
Murray
Nicollet
*Nobles
Norman
Olmsted
*Otter Tail
Pennington
Pipe
Pipestone
*Polk
*Pope
Ramsey
*Red Lake
Redwood
Renville
Rice
Rock
Roseau
*St. Louis
Scott
*Sherburne
Sibley
Stearns
Steele
*Stevens
*Swift
*Todd
Traverse
*Wabasha
*Wadena
*Wascoa
*Washington
Watonwan
*Wilkin
*Winona
*Wright
*Yellow Medicine

Note: Counties marked with an asterisk responded to the questionnaire.
Dear Stanford Research Institute, in collaboration with Dr. Ellen Fifer of the Minnesota Comprehensive Health Planning Agency, is presently conducting a research project concerning the needs and problems of residential care for the mentally ill in Minnesota.

Assistance in providing us with your comments and the statistical data requested for the last fiscal year 1967–68 or calendar year 1967 will be very helpful in our analysis for the study. Since the report is due at the end of August would you place your answers on the attached form in the enclosed envelope and send to us by return mail? Your remarks need not be long; a sentence or two will be most appreciated.

Thank you.

Sincerely,

Maria C. Gilsdorf
Research Hospital Administrator
Health Planning Research

Enclosure
D. (1) What changes do you envision in the role of the general hospital concerning the provision of acute psychiatric care?

(2) How do you feel this change of role will affect long-term care facilities in the treatment of the mentally ill? (state mental hospitals, private psychiatric hospitals.)
Mr. Harold W. Peterson  
Administrator Brainerd  
State Hospital E. Oak  
Street Brainerd, Minn.  
56401

* Mr. John H. Stocking  
Administrator  
Cambridge State Hospital  
Cambridge, Minn. 55008

* Mr. Richard K. Fox  
Administrator  
St. Luke's Hospital  
915 E. 1st Street  
Duluth, Minn. 55805

* Sr. Marybelle, Administrator  
St. Mary's Hospital  
407 E. 3rd Street  
Duluth, Minn. 55805

* Edward J. Engberg, M.D.  
Administrator  
Faribault State Hospital  
Faribault, Minn. 55021

* Administrator  
Immanuel Hospital  
413 N. 4th Street  
Mankato, Minn. 56001

Sr. Mary Carola  
Administrator  
St. Joseph's Hospital  
Mankato, Minn. 56001

Mr. Robert C. Millar  
Administrator  
Abbott Hospital  
110 East 18th Street  
Minneapolis, Minn. 55403

Mr. Lowell Palmquist  
Administrator Fairview  
Hospital 2312 South Sixth  
Street Minneapolis, Minn. 55406

* Mr. Donald Schmaus  
Administrator  
Glenwood Hills Hospital  
3901 Golden Valley Road  
Minneapolis, Minn. 55422

* Mr. Paul J. Vogt  
Administrator  
Hennepin County General Hospital  
Fifth & Portland Minneapolis,  
Minn. 55415

* Mr. Stanley R. Nelson  
Administrator  
Northwestern Hospital  
810 E. 27th Street  
Minneapolis, Minn. 55407

* Mr. Frank S. Walter  
Administrator  
St. Barnabas Hospital  
714 Ninth Avenue South  
Minneapolis, Minn. 55415

* Mr. William E. Osborne  
Administrator  
St. Mary's Hospital 2414  
Seventh St. South  
Minneapolis, Minn. 55406

* Mr. L. G. Johnson  
Administrator  
The Swedish Hospital 914  
South 8th Street  
Minneapolis, Minn. 55404

* Mr. John H. Westerman  
Administrator  
University of Minnesota Hospital  
412 Union St., S.E. Minneapolis,  
Minn. 55455

* Sr. Mary Bernarda  
Administrator St.  
Ansgar Hospital  
715 N. 11th Street  
Moorhead, Minn. 56560

* Mr. Milton J. Fisher  
Administrator Rochester  
State Hospital 1216 Second  
St., S.W. Rochester, Minn.  
55910

* Mr. Gene S. Bakke, Administrator  
St. Cloud Hospital 1406 - 6th  
Ave. N. St. Cloud, Minn. 56301
Mr. William N. Wallace
Administrator
Charles T. Miller Hospital
125 W. College Ave.
St. Paul, Minn. 55102

Mr. W. A. D. Brudvig
Administrator Mounds Park Hospital 200 Earl Street St. Paul, Minn. 55106

Sr. St. Jerome
Administrator
St. Joseph's Hospital
69 West Exchange
St. Paul, Minn. 55102

Mr. Otto M. Janke
Administrator St. Paul-Ramsey Hospital 640 Jackson Street St. Paul, Minn. 55101

Mr. Walter Petry
Administrator
Pine County Memorial Hospital
317 Court Avenue
Sandstone, Minn. 55072

Mr. Hans A. Dahl, Administrator
Rice Memorial Hospital 402 W, 3rd Street Willmar, Minn. 56201

Mr. Earl W. Hagberg
Administrator
Community Memorial Hospital
855 Mankato Avenue
Winona, Minn. 55987
Edward Mandell, M.D., Administrator
Veterans Administration Hospital
48th Ave. & 54th St.
Minneapolis, Minn. 55417

Stanley B. Lindley, M.D.
Administrator
Veterans Administration Hospital
St. Cloud, Minn. 56301

Joseph P. Bender, M.D.
Administrator
Federal Correctional Inst. Hospital
Sandstone, Minn. 55072

Note: Facilities marked with an asterisk have responded.
Main Offices and Laboratories
333 Ravenswood Avenue
Menlo Park, California 94025
(415) 326-6200 Cable: STANRES,
Menlo Park TWX: 910-373-1246

Regional Offices and Laboratories

Southern California Laboratories 820
Mission Street South Pasadena,
California 91030 (213) 799-9501
682-3901 TWX: 910-588-3280

SRI-Washington
1611 North Kent Street, Rosslyn Plaza
Arlington, Virginia 22209
(703) 524-2053
Cable: STANRES, Washington, D.C.
TWX: 710-955-1137

SRI-New York
200 E. 42nd Street
New York, New York 10017
(212) 661-5313

SRI-Huntsville
Missile Defense Analysis Office
4810 Bradford Blvd., N.W.
Huntsville, Alabama 35805
(205) 837-3050 TWX: 810-726-2112

SRI-Chicago
10 South Riverside Plaza
Chicago, Illinois 60606
(312) 236-6750

SRI-Europe
Pelikanstrasse 37 8001
Zurich, Switzerland 27 73
27 or 27 81 21 Cable: STANRES, Zurich

SRI-Scandinavia
Skeppargatan 26
S-14 52 Stockholm, Sweden
60 02 26; 60 03 96; 60 04 75

SRI-Japan
Edobashi Building, 8th Floor
1-6, Nihonbashi Edobashi
Chuo-ku, Tokyo
Tokyo 271-7108
Cable: STANRESEARCH, Tokyo

SRI-Southeast Asia
Bangkok Bank Building
182 Sukhumvit Road
Bangkok, Thailand 55292
or 58673 Cable: STANRES, Bangkok

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94, Boulevard du Montparnasse
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633 37 30

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Lorenzo L. Franceschini
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20129 Milan, Italy 72 32
46

Philippines
Roberto V. Ongpin Sycip,
Gorres, Velayo & Co. P.O.
Box 589 Manila, Philippines
Telephone: 88 55 41 Cable: Certified

Portugal
J. Gasparinho Correia
Avenida Joao XXI, 22-3° Esq.
Lisbon, Portugal 72 64 87