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AN ANALYSIS OF MINNESOTA'S EFFORT TO REINTEGRATE ITS MENTALLY RETARDED CITIZENS INTO THE COMMUNITY

A Study of Community Residential Facilities for the Mentally Retarded in Minnesota

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CHAPTER I

INTRODUCTION

Minnesota, as the majority of other states in the nation, has committed itself to a contemporary social process termed "deinstitutionalization." In the context of providing residential services to its mentally retarded citizens, deinstitutionalization represents an attempt to reintegrate mentally retarded persons into the community (Minnesota Department of Public Welfare, 1974). This process involves moving persons out of the state hospitals (institutions) into smaller residential facilities located within communities.

Minnesota has also identified a related need to improve current practices of providing residential and program services within an institutional setting under the topic of "Community Alternatives and Institutional Reform" (Minnesota State Planning Agency, 1975). This procedure involves "reforming" the current practices and programs conducted in the state hospitals to better facilitate the reintegration of mentally retarded persons into the community.

These two processes affecting mentally retarded persons represent a major shift from the traditional approach of institutionalizing persons in large, public operated, residential institutions. The fact that this trend has developed recently was

pointed out by O'Connor and Justice (1973) who found that over 75 percent of 300 community residential facilities (CRF's) sampled had opened in the last five years.

Locally, the Center for Urban and Regional Affairs (CURA) at the University of Minnesota has identified 247 community-based residential treatment facilities in the Twin Cities area alone which serve several disability groups. It reported that a majority had been developed in the last three years (Citizens League, 1976).

Several factors have contributed to this major shift in the philosophy and practices of treatment of mentally retarded persons. White and Wolfensberger (1969) have traced the changing philosophies back to the early 17th century and attribute current practices to a broader understanding and acceptance of the mentally retarded by society. Tizard (1970) offered empirical evidence of the programmatic and humane advantages of group homes located in the community over institutional residence as an approach to the care and training of the mentally retarded.

The courts have also played a major role in causing a shift to community programs. Several class action suits brought against institution personnel and their governmental counterparts have directed institutional reforms and placements out of institutions into community alternatives (PARC vs Pennsylvania, 1971; Welsch vs Likins, 1974; Wyatt vs Stickney, 1971).

The national trend toward reintegration of mentally retarded persons into the community is clearly evident. Despite this fact, little has been written about the organization and

management of a community-based service delivery system. While the extent of the movement is well documented and a number of manuals and rules for the process are available, there is little which reflects a management process based upon empirical matching of resources to individual needs. Both the empirical match and the management process are rare in the movement, but the management process appears to be most crucial in its absent effect. This study represents an effort to analyze one state's experience with the deinstitutionalization movement and to develop a process for the needed empirical match.

Background

The Minnesota Department of Public Welfare, under M.S. 245.70, has been designated the authority "to administer a state-wide plan for the construction, equipment, maintenance and operation of any facilities for the care, treatment, diagnosis, or rehabilitation of the mentally retarded." Additionally, "the commissioner of public welfare is authorized and directed to receive, administer and expend any funds that may be available under any federal law or from any other source, public or private, for such purposes. . . ."

These two authorities combine to create a unique responsibility for the department to direct and control fiscal incentives and prescribe policies as they affect:

1. Transferring mentally retarded persons from the state hospitals;

2. Developing new community based residential facilities;

3. Assuring congruence between developing program characteristics and identified needs of clients; and

4. Communicating system status data to the Minnesota Legislature.

These four functions can only be accomplished with comprehensive and updated information on both the clients to be affected and the service system which provides for them.

In the absence of an information base upon which could be built an adequate management system, the Minnesota Department of Public Welfare is faced with a serious administrative problem in meeting its statutory responsibility.

Purpose of the Study

The purpose of this study was to develop an information base and recommend policies for administering the process which moves mentally retarded residents from Minnesota state institutions to community facilities. Key variables considered in this study were the present numbers of residents and placement needs, determination of the functional behavioral criteria for entry into and exit from various types and levels of residential placements, the rate of client movements and facility development, and determination of differences among facilities based on size. An adaptive behavior scale was used as the common instrument for individual client status and progress and for description of program criteria and purpose. Recommendations were to be offered for public policies, to be

expressed in law, policy and procedures, to administer more adequately the deinstitutionalization process in Minnesota.

Statement of the Problem

This study was designed to answer the following eight research questions:

1. What are the characteristics of existing community residential facilities (CRF's) in Minnesota with regard to location, size, extent of usage, population characteristics and rate of growth?

2. What criteria are used for admission and discharge decisions by CRF's in Minnesota and do these criteria vary with size of the facility?

3. Do the services being provided by the CRF's match the program needs of Minnesota's institutionalized mentally retarded population?

4. What are the specific training programs needed in the state hospitals to prepare residents for transfer into community residential programs?

5. From where are residents in CRF's admitted and to what level of care are they discharged and at what rate?

6. Do CRF's experience problems with residents admitted from state hospitals different from those admitted from other sources?

7. How many residents currently residing in state hospitals meet the existing criteria for community placement?

8. What behavioral deficits most contribute to ineligibility for community placement?

In addition to using descriptive data in answering the above questions, the following two null hypotheses were to be tested:

1. There are no significant differences in admission criteria of CRF's in Minnesota based on size of facility as measured on the 18 domains in the Behavioral Scales of the Minnesota Developmental Programming System.

2. There are no significant differences in discharge criteria of CRF's in Minnesota based on size of facility as measured on the 18 domains in the Behavioral Scales of the Minnesota Developmental Programming System.

Since it was known that more smaller facilities were under development than larger ones, these two hypotheses were tested to determine if size of facility contributed to program emphasis and level of disability served.

Definitions of Terms

Apartment Training Program. Serves adults attending community vocational training programs, sheltered employment, supervised or independent employment.

Community Residential Facility (CRF). A non-public program providing residential services for more than four mentally retarded persons and located within a community setting.

Continuum of Residential Programs. See Appendix D for a complete listing of the "Continuum of Residential Programs" as offered in the CAIR (1975) Report, pages 51-54.

Deinstitutionalization. "Deinstitutionalization encompasses three inter-related processes: (a) Prevention of admission by finding and developing alternative community methods of care and training, (b) Return to the community of all residents who

have been prepared through programs for habilitation and training to function adequately in appropriate local settings, and

(c) Establishment and maintenance of a responsive residential environment which protects human and civil rights and which contributes to the expeditious return of the individual to normal community living, whenever possible [Scheerenberger, 1974]."

Foster Homes. Serves individuals having a wide range of developmental handicaps, exclusive of severe or chronic medical problems.

Independent Living. Unsupervised residence in the community without structured program services provided by the residence owner.

Institution. A public operated (state funded), residential, 24-hour care facility providing a total array of health and program support services to its mentally retarded residents.

Intermediate Care Facility - General (ICF/G). A residential program serving persons requiring a level of care above board and lodging but lower than skilled nursing care.

Intermediate Care Facility - Mentally Retarded (ICF/MR). A residential program serving persons who are mentally retarded or who have a related disability who require an active treatment and habilitative plan but who do not require skilled nursing care. These programs in Minnesota are funded under Title XIX of the 1974 amendments of the Social Security Act.

Mental Retardation. ". . . refers to significantly subaverage general intellectual functioning existing concurrently

with deficits in adaptive behavior and manifested during the developmental period [Grossman, 1973]."

Natural Home. Residence at which a mentally retarded person lives with his biological or legally adoptive parents or blood relatives.

Resident. A mentally retarded person residing in a community residential facility or institution.

Skilled Nursing Facility (SNF). A residential program that provides for those persons requiring 24-hour per day skilled nursing care and treatment. This category represents the highest level of residential care in Minnesota.

State Hospital. A Minnesota state hospital operated with public funds and operated by the Residential Services Bureau of the Minnesota Department of Public Welfare (same as institution).

Importance of the Study

Several serious consequences could result if appropriate controls are not designed to manage the rate of program development in the community. Additionally, unless consideration is given to the specific program needs of the clients served in terms more meaningful than classification by age and level of general intelligence, serious gaps in the service continuum are likely to develop. Both the Minnesota House of Representatives and the Senate have assigned staff to evaluate Minnesota's efforts, specifically those of the Department of Public Welfare, with

deinstitutionalization. Without the information base developed in this study, DPW will not be in a position to formulate informed estimates and projections for the Legislature. The audience interested in the results of this study is large, and the action policies expected to result are of considerable importance.

Limitations of the Study

The following limitations apply to this study:

1. Four persons collected the data for this study. Despite the common data collection format, instructions, and training, some differences in interpretations of information collected at the interviews are likely.
2. The record-keeping practices of CRF's in Minnesota ranged from complete to non-existent. The data used in this study were for some community residential facilities far more detailed than had ever before been requested.
3. The service system under study is cyclical and, as a result, is constantly changing. The data for this study were collected over a two-month time span. During that time period changes may have occurred.
4. Providers in CRF's had never been asked for admission and discharge criteria in such detail before, nor was it possible to compare their detailed responses to their actual practices.

5. No statistical estimates were possible on the validity or reliability of the questionnaire and interview.
6. No inferences as to the representativeness of Minnesota to the nation is made. This study reports on the conditions of one state, Minnesota, only.

CHAPTER II

REVIEW OF LITERATURE

National Overview

An overview of the literature revealed that, in spite of nationwide acceptance of the deinstitutionalization process (Kennedy, 1963), little information existed that delineated specific management strategies to control that process.

Over the past two decades a movement to deinstitutionalize citizens in facilities of the mentally retarded has arisen in this country (Joint Commission on Mental Illness and Health, 1961). Recognition of the value of family living for those who are mentally retarded has led to a broad shift from custodial care in state institutions to placement in the community, under the premise that the community residential facilities (CRF's) permit the maintenance or development of behaviors that are as culturally normative as possible (Brown, Windle and Stewart, 1959; Wolfensberger, 1972).

Between 1960 and 1969 the United States of America experienced a population shift of 30,000 retarded persons from institutions to CRF's (Office of Mental Retardation Coordination, 1972).

The value of providing a normalized environment was described by Nirje (1969) who stated that, "As I see it, the

normalization principle means making available to the mentally retarded patterns and conditions of everyday life which are as close as possible to norms and patterns of the mainstream of society [p. 181]."

When describing the deinstitutionalization trend, Budde (1972) reported that institutions have been expected to adopt programs based on the normalization principle. However, he stated that this task, expecting that institutionalized persons will function normally in society, seems to attack the very premise of institutional tradition.

In 1974 Sheerenberger defined the concept of deinstitutionalization as encompassing three interrelated processes. They include:

> a) Prevention of admission by finding and developing alternative methods of care and training, b) Return to the community of all residents who have been prepared through programs for habilitation and training to function adequately in appropriate local settings, and c) Establishment and maintenance of a responsive residential environment which protects human and civil rights and which contributes to the expeditious return of the individual to a normal community living whenever possible [p. 3].

At a conference in Maine, comprised of professionals in the field of mental retardation, the definition of the deinstitutionalization concept was expanded. Definitional statements were written that included:

1. the dynamic process of assisting individuals to live in the least restrictive environment possible, promoting optimal growth and development.

2. the development of a comprehensive community-based continuum of services founded on individual needs. The focus should be upon preventing society's dependency on the institution as the only provider of services.

3. the dynamic process of development of the individual (adult and child) and the community resources and attitudes to the point where the individual can develop to his or her optimum potential.

4. the development of options in the provision of services to a developmentally disabled person in an environment that recognizes his individual needs so that he may achieve his fullest potential.

5. a strategic process involving:

   a) determination of individuals who are appropriately and inappropriately placed in the institution,

   b) determination of what is needed by those inappropriately placed,

   c) assistance of community resources in providing for those who have been inappropriately placed,

   d) improvement of programming for clients who are appropriately placed,

   e) development of in-home and community services that would enable parents and other caretakers to maintain the client in non-institutional settings, and

   f) establishment of rigorous screening mechanisms to assure that inappropriate institutional placements are avoided.

It may be noted that this conference, while attempting to define the process of deinstitutionalization, offered no management model to operationalize the process.

Additionally, it was found that within the definition of deinstitutionalization, assessment and accountability were implied if not directly stated. Perhaps as an indication of the amount of

energy required to implement the theory of deinstitutionalization, the word "dynamic" is often used to describe the process (Bureau of Mental Retardation, State of Maine, 1974).

Although those authors stated that deinstitutionalization is a desirable goal for persons who are mentally retarded, Scheerenberger (1974) has definitively stated that in order to achieve deinstitutionalization "much remains to be accomplished [p. 7]."

The literature reveals that many states are experiencing difficulty developing and implementing a process to operationalize deinstitutionalization (Barten, 1975; Chu and Trotter, 1974; Jacobson, 1973; Schumach, 1974; Sills, 1975). Program excursions into rapid, massive discharges as in California, New York and Massachusetts, have met with less than unqualified approval (Barten, 1975; Sills, 1975).

In attempting to deinstitutionalize its hospitalized population, California experienced a "storm of protest" over the closure and threatened closure of state hospitals. It was charged that little foresight was shown in determining the impact which changes would have on staff, the residents, the community and local administration. That state has also witnessed introduction of legislation aimed at preventing the closure of additional state hospitals (Barten, 1975).

Massachusetts has experienced organizational difficulties in initiating a process for deinstitutionalization. Although their program was viewed as a phase-down of the state hospitals with a

concomitant build-up of community residential facilities, planning was not detailed beyond that point. Severe problems continue to be felt in the areas of staff deployment and cost effectiveness (Sills, 1975). On reporting the status of the deinstitutionalization process in Massachusetts Sills wrote, "The need for evaluation is apparent immediately [p. 579]."

In the past several years there has been evidence of a growing demand for formal evaluation of human service programs (Briar, 1973). Budde (1976) reported that there must be a major shift to evaluate the service delivery system in terms of both products and process. This evaluation can be used to measure the degree to which objectives and targets of deinstitutionalization are fulfilled and the quality of the results obtained. It measures how much output or cost effectiveness is achieved. It is evaluation that makes possible the reallocation of priorities and of resources on the basis of changing needs (World Health Organization, 1967).

The Stanford Research Institute (1974) conducted a conference on the closing of state hospitals and determined that, if the state hospital became a part of an integrated human services delivery system rather than an exclusive provider of services to the retarded, a systematic approach is required toward evaluation of community care and the development of cost data. The growing need and expectation for accountability through evaluation in community residential facilities has also been projected by Sitkei (1976). He wrote that as the numbers of community residential

facilities for developmentally disabled persons increase in the next few years, several things will occur to those community residential facilities. The expectations that he listed included: 1) the private community residential facility will be increasingly dependent upon public funds, even though that may be an indirect dependency, 2) to gain public support, government expectations for accountability will have to be met, and 3) accountability will require some standard reporting procedures, but will depend on outcome evaluation to determine effectiveness (Sitkei, 1976). In other words, the expectation for evaluation research is to provide a basis for both the monitoring and accountability of human services programs (Rutman, 1973). Meile (1974) hypothesized that the next step in the development of monitoring and evaluation is the perception of the community of local services as being either "good" or "poor" as deinstitutionalization occurs.

In discussing new approaches to decision making in human services, Wolfensberger (1969) proposed the advent of a cost-benefit policy as a part of the management process. This policy implied that the approach is to attain, within certain limits of criteria, a goal of the least cost--the most favorable cost-benefit ratio. Such an approach would distinguish between effectiveness and efficiency, realizing that not all efficient approaches are effective. This methodology for management would necessitate that evaluation become an integral part of the human services delivery system. To date research has been a luxury with services rarely

being created on an empirical base, and rarely evaluated empirically (Wolfensberger, 1969).

It is apparent that decision-making procedures need to be altered from a "seat-of-the-pants" orientation to one where every alternative is carefully considered and final selection of a plan is based on clear and objective evidence (Sitkei, 1976). Sarason (1971) presumed that one of the most frequent characteristics of the process of deinstitutionalization and developing community residential facilities is the failure or inability to list and examine alternatives that are available. If alternatives are not considered, there are two related consequences. Such failure reinforces the weight of tradition, and it increases the level of anxiety and conflict which stems from considering and implementing a departure from tradition. He further stated that in order to avoid this situation, data must be available for administrative decision making. Lozanoff (1976) also echoed the concern that management and planning have been circumscribed with an historically based and traditionally maintained political system which has developed with minimal cognizance of the needs of clients and instead has had maximal concern for perpetuating the established system.

This concern was further emphasized by Bolton (1973) who believed that often evaluation efforts assess performance by relying on "process indicators" such as caseloads and staff qualifications. He felt that an attempt should be made to define and

measure human services outcomes directly. Subsequently, when known outcomes can be associated with specific process indicators, appropriate conclusions may then be drawn concerning how desirable results are to be achieved. According to McGee (1975) measurement or evaluation of these outcomes to bring about social change must deal with the marriage of both technology and humanization.

Rutman (1973) explained that evaluation research which is used in human services can meet two major goals: 1) To identify the manner in which programs are carried out, particularly to determine whether they were actually implemented in the manner intended, and 2) To assess the importance of these programs on the consumers of human services. Additionally, the demand for evaluation will be necessary in areas of funding, accountability of the program effectiveness, testing and improving practices within these programs, as well as to aid in program development and policy making. Budde (1976) very simply stated that the principle of formative management means that an organization has behavior and this behavior can be identified, modified and shaped through evaluation.

Attempts have been made to create a management system for the process for deinstitutionalization (Datel, 1975; Kugel and Wolfensberger, 1969; Sitkei, 1976). While precise and comparable techniques for program evaluation are not yet in general use, a number of states have indicated that they are developing some of the essential elements, such as a client-tracking system,

formulated standards, cost-benefit accounting and quality assurance methodology. Rutman (1973) believed that the specification and measurement of the impact of a program's components were particularly important since experts in the field of evaluation research generally agree that evaluation of entire programs is often beyond the capabilities of existing methodology.

Datel (1975) reported on the experiences of Virginia in attempting a management system for deinstitutionalization. He indicated that the Commonwealth of Virginia recognized that a policy without an implementing procedure is like "faith without works." In concept, he said, the procedure is applicable to any institutionalized citizen in any state. The model consists of five main structural components, each performing a service-integrating function. A key activity is the individual case management information or program evaluation system. In discussing specific approaches to developing a management model, the Stanford Research Institute (1974) also stressed the need for a client-tracking system from point of entry through the point of exit from the human services delivery system. They stressed that some means of evaluation must be the future for all mental health services.

Soforenko and Stevens (1968) explained the "diffusion" process of retarded people returning to the community as being a five-step process including: 1) the awareness stage, 2) the interest stage, 3) the evaluation stage, 4) the trial stage, and 5) the adoption stage.

The monitoring and evaluation procedures require a great deal of data that must not be allowed to endanger confidentiality or overburden service providers with collection tasks (Horizon House Institute for Research and Development, 1975).

Tizard (1970) reported that, in order to plan effectively for different kinds or types of community residential facilities for the mentally retarded, data must be available on the numbers of clients needing services and their functional level in order to define appropriate program types. These programs must then be subjected to a variety of empirical evaluation models.

Michigan developed the Program Development-Program Management System (PD-PMS) that, as a system, provided for a comprehensive structure for program development and evaluation with data collected with the "most efficient and effective methods" available. This system requires that: 1) program objectives be clearly defined, 2) appropriate evaluation measures be specified, and 3) a well defined plan be developed for implementation, with the added warning that many management tools, particularly those for industry and agriculture settings, are quite rigid and uncompromising when applied to human services (Sitkei, 1976).

Another warning was given by the Horizon House Institute for Research and Development (1975) in stating that, in the case of continuity of care, establishing adequate procedures for the monitoring and evaluation of programs can be made more difficult by a decentralization system which relies upon the provision of services through a network of local providers.

This difficulty was also reported by Meile (1974) who took the position that central control of programs serving the retarded increases the likelihood of clear standards of evaluation.

Sitkei (1976) and Scheerenberger (1974) also delineated models for deinstitutionalization, but starkly missing were evaluation or management mechanisms as model components.

Copenhagen, Denmark, has developed and implemented a data management system for the population of the mentally retarded in that country. Client tracking is achieved with information on birthdate, address, the form of the services rendered and family information. All admissions, changes in service measures, movement and discharges are registered and entered into computer storage at regional and central locations. All mentally retarded persons receiving some kind of help are registered and given an identification number as are all citizens of Denmark. By means of electronic processing, the information provides on-going, up-to-date information on all clients while collecting material for statistics and research activities in the area of treatment, planning, administration and client training. Bank-Mikkelson (1969) indicated belief that the data would be of great value for comparative studies on an international level.

Only two articles were found which delineated attempts to record data on existing community residential facilities to show current status and trends. Scheerenberger (1976) concluded that communities are experiencing difficulty in providing the required

integrated network of services and programs. He did not offer a solution to the problem.

O'Connor and Sitkei (1975) attempted a nationwide survey of community residential facilities to delineate problems experienced by the administrators of programs for the retarded. Studying a total number of 611 community residential facilities, they were able to identify such issues of primary concern as funding, training staff and individualized program planning. Again, however, they did not offer solutions to the problems they identified.

Ultimately, the problems experienced by both state and local administrators must have available soundly conducted evaluation research that will contribute toward the more effective and efficient development of human service programs (Rutman, 1973). To reiterate, some means of evaluation, goal setting and performance standards must be part of the future for all human services (Stanford Research Institute, 1974).

Minnesota Policy on Deinstitutionalization

Minnesota has made a commitment to the process of deinstitutionalization (Anderson, 1975). This State's goals and procedures for realizing them were delineated in the Department of Public Welfare Comprehensive Plan (1974) which listed the Mental Retardation Program Division as the designated authority responsible to assure that these goals were met. Several direct efforts by that office were made.

In 1974 the Mental Retardation Program Division applied for a federal grant through the Social and Rehabilitative Services Office of the Department of Health, Education and Welfare to initiate a Technical Assistance Project whose objective was to provide consultation and technical assistance to facility operators, program directors, and administrators in public and private facilities for the purpose of assisting them in meeting state and federal regulations.

A major outcome of this project was the creation of the Handbook for Developing Community Alternatives (Reagan, et al., 1975). It represented an attempt by the Mental Retardation Program Division to make the process of creating a CRF an easier task for developers in the community. Over 1,200 requests for copies of the Handbook by state, national, and international agencies and persons were received in a 12-month period suggesting a high level of interest in the development of community residential programs.

In recognizing the growth of CRF's in Minnesota, the Mental Retardation Program Division initiated the drafting and ultimate enaction into law of DPW Rule 34 in 1972. This rule is comprised of programmatic standards that state the rights of and the care standards for retarded persons served in public or community-based residential facilities. The primary standard underscored is the requirement that each client have an individualized program plan of treatment and habilitation. The rule states:

> Facility staff shall participate with an interdisciplinary team in the formulation of an individualized program and

> treatment plan for each resident. Facility staff shall be responsible for implementation of the plan [p. 19].

Additionally, it was recognized by the Mental Retardation Program Division that a sound funding base was requisite to the development and maintenance of CRF's. It was decided that Minnesota would use funding under Title XIX of the Social Security Act. Although no other states were using Title XIX funding for programs for mentally retarded persons other than for state hospitals, the process was begun. Minnesota initially funded approximately 30 facilities using these funds. To date 121 facilities are using Title XIX dollars.

Realizing this State's commitment to deinstitutionalization and concurrent community growth of residential programs, in January of 1975 a final report was released by the Minnesota State Planning Agency. The report, Community Alternatives and Institutional Reform (CAIR), delineated a process model for achieving deinstitutionalization. The model addressed areas of concern ranging from determining the needs of developmentally disabled individuals to research, development and demonstration projects that affect the mentally retarded population.

The initial recommendation of the CAIR Report was to formulate a system for the determination of needs of the retarded population; this was acted on by the Mental Retardation Program Division. Policy Bulletin #5 was distributed to all Mental Health/ Mental Retardation Area Boards, those agencies within the community

responsible for mental retardation, mental health and chemical dependency programs in January, 1975. This policy stated that a legal responsibility of the local MH/MR area board is to conduct a comprehensive needs assessment of all mentally retarded persons in each specific geographic location. Results of that assessment were to be reported to the Mental Retardation Program Division with a corresponding plan delineating the steps necessary to meet the identified needs.

During the time period the area boards were completing the needs assessment and area plans, the Department of Public Welfare drafted Rule 185. This rule delegates the responsibility and authority to the MH/MR Boards to plan, coordinate, and assure the availability of services to all mentally retarded persons.

Results of the initial data effort of the area boards were summarized in a report by the Mental Retardation Program Division. The Division recommended that an electronic data management system be instituted that would record program characteristics of all CRF's and behavioral characteristics of all mentally retarded clients. It was further recommended that these data be accessible to decision makers at all levels of service management.

The CAIR Report also included a recommendation about the necessity for establishing a system for evaluating client services and client progress. This system must ensure confidentiality of the data that is necessary to develop a regional and state-wide information storage and client referral system

through which client needs can be identified and then matched with specific programs selected to meet those needs. CAIR stated that these data should be computerized to insure rapid access by decision makers.

In the absence of a state management information model for planning the deinstitutionalization process, a study was commissioned to develop a report to the 1976 Minnesota Legislature outlining a method for the closing of the Hastings State Hospital. The report included several options for managing the deinstitutionalization of this state hospital population. In conclusion, it stated, "There is agreement that state facilities should not be phased-down unless there has been adequate individual case planning . . . as well as adequate patient transfer plans [p. 6]." Additionally, it was recommended that the State develop a system for evaluation of the residents transferred and the CRF's serving them. The Legislature failed to act on that closure.

The Occupational Training Center (1976), a nonprofit corporation, conducted a study of the effects of deinstitutionalization in Minnesota. The Center staff concluded that the major difficulty with the "deinstitutionalization movement is that the sudden and dramatic influx of persons with special residential needs to urban areas of our state has been met by unplanned, non-responsive service [p. 69]."

To reiterate the concerns addressed throughout in this section, there is clearly a need for a comprehensive system to

monitor and to evaluate the process of deinstitutionalization as it occurs in Minnesota.

CHAPTER III

METHODOLOGY AND PROCEDURES

Research Design

The primary instrument used to collect data for this study was a structured questionnaire which was used in an interview with each community residential facility (CRF) owner/operator. In February of 1976 a questionnaire was constructed that sought data on CRF's that were necessary to address each of the research questions listed in Chapter I. This questionnaire was pilot tested with six CRF's around the state by members of the Technical Assistance Project (TAP) staff of the Minnesota Department of Public Welfare, Mental Retardation Program Division. The results of that administration were analyzed and subsequent revisions were made in the questionnaire. A copy of the final form may be found in Appendix A.

In early March of 1976 each of the four TAP staff mailed a memorandum (Appendix B) to each CRF in that person's catchment area in Minnesota. This memo was followed up with a telephone call scheduling an on-site visit to collect the data. In one case, the metro area, the questionnaire was mailed to the CRF prior to the site visit.

Site visits to collect data on the questionnaire were conducted on 121 CRF's during the months of March and April of 1976.

May 1, 1976, was the cutoff date picked so that all data reported in this document were current on that date. Once all data had been assembled, several "face edits" were completed with follow-up telephone conferences or revisits to the facility to verify the information recorded on the questionnaires.

All data were key punched and entered into the UCC CDC Cyber 74 Computer and analyzed. The University's Statistical Package for the Social Services (SPSS) (Nie, et al., 1975) was employed to produce the results reported in Chapter IV.

Data Collection - Community

The data items sought from the CRF's in Minnesota are detailed in the questionnaire in Appendix A. The general categories of information requested included:

1. Identifying and historical information on the CRF and number of residents served and a categorization of each of the facilities according to the Continuum of Residential Programs (CAIR, 1975) as defined in Appendix D of this report;

2. Admission and discharge rates year by year since 1972;

3. Physical characteristics of the population served according to the descriptive categories listed in the CAIR report (CAIR, 1975);

4. Admission and discharge criteria of the CRF according to the Behavioral Scales of the Minnesota Developmental Programming System (MDPS) (Bock, et al., 1975).

Additionally, two general questions asked facility staff 1) to note any significant differences between residents admitted from state hospitals and other sources, and 2) to list the kinds

of assistance they perceived would be helpful in improving their facility's efforts to meet their residents' needs.

Data Collection - State Hospitals

The Office of Research and Statistics of the Minnesota Department of Public Welfare was consulted for the number of admissions and discharges from the state hospital system for the years 1970 through November, 1976.

MDPS Behavioral Scales performance data on 2,414 residents in Minnesota state hospitals collected between January 1, 1975, and May 1, 1976, were obtained from the computer files of the Outreach Training Program of the University of Minnesota.

Instruments, Instructions, Correspondence

The Questionnaire

The questionnaire used in this study was constructed, pilot tested, and revised as described in the Research Design section of this chapter. The instrument comprises Appendix A of this report.

CAIR Report

The Community Alternatives and Institutional Reform (CAIR) Report represents the outcome of an 18-month project of the Office of Developmental Disabilities, Minnesota State Planning Agency. Those sections of that report used in this study were reproduced and incorporated into the questionnaire in Appendix A and in Appendix D.

MDPS Behavioral Scales

The Behavioral Scales of the Minnesota Developmental Programming System represent a behavioral assessment instrument which has undergone extensive research and testing. The MDPS Technical Manual, published by the Outreach Training Program, University of Minnesota, describes this instrument and reports its reliability and validity coefficients.

The MDPS Behavioral Scales consist of 20 behavior statements in each of 18 behavior domains. The items are descriptive statements of behaviors such as "Listens to a story for 3 minutes" (representing the domain of receptive language) and "Arises and leaves from residence so as to reach work or activity on time" (representing the vocational domain). The items are scored in terms of whether the individual can or cannot perform the behavior described in each item.

The 18 behavior domains are categorized functionally, with each domain representing a broad class of activity as indicated by the domain scale titles given below.

Scale 1: Gross Motor Development. This domain comprises activities that have to do with gross bodily movement and mobility. The range is from "holds head erect when in sitting or standing position (body may be supported by person or prop)" to "rides a bicycle (without training wheels) for 30 seconds." The range is from simple movement to coordinated movement.

Scale 2: Fine Motor Development. This domain is concerned with more precise and manual manipulation. The range is from "Closes hand around an object placed in hand" to "Threads a medium-sized sewing needle within two tries."

Scale 3: Eating. The eating behavioral domain is concerned with independence and proficiency in the manipulation and ingestion of food and drink and with the social appropriateness of eating behavior. The range is from "Swallows soft foods that do not require chewing" to "Orders and eats in a public dining facility."

Scale 4: Dressing. This domain is concerned with the individual's dependency and independence in putting (or having put) on clothing and in the selection and acquisition of dress. The behavioral range is from "Offers little or no resistance while being dressed and undressed" to "Selects correct sizes and styles in a store."

Scale 5: Grooming. This domain is comprised of behaviors relating to maintaining bodily cleanliness and appearance. The observed behaviors range from "Offers little or no resistance while being washed (representing service consumption through dependency)" through "Turns head and extends hands while being washed" to the complex behavior of "Cleans and clips finger nails with a nail clipper."

Scale 6: Toileting. The domain of toileting includes behaviors of bowel and bladder control, appropriate elimination of body wastes and use of related sanitary and social facilities.

The range is from "Stay dry for two hours" to "Chooses the correct restrooms in a public place."

Scale 7: Receptive Language. The behaviors comprising this domain are those of receiving, attending to, and indicating the decoding of verbal messages of increasing complexity. A certain amount of expressive language is incorporated into the evidence of decoding in the more complex types of message. The range is from "Turns head toward the source of a sound" to "Summarizes a TV program in own words."

Scale 8: Expressive Language. This domain is concerned with the production and vocalizations ranging from the simple indiscriminate sounds to utterances that are increasingly complex and abstract. The higher order of expressive behaviors are contingent upon a degree of competency in receptive language. The behaviors range from "Makes voice sounds" to the abstract and modulated verbal behavior of "Tells jokes."

Scale 9: Social Interaction. This domain contains behaviors of response and reciprocal action with other persons, individually and in group. The behaviors include simple, nearly unilateral actions, and molar actions that are modified by societal constraints and mores. The behaviors range from "Responds when touched by reaching toward or moving away" to "Receives and makes local phone calls without assistance."

Scale 10: Readiness and Reading. This domain includes behaviors that are prerequisite to reading as well as those which

indicate the acquisition of both concrete and abstract information from written and printed material. Approximately the first half of this scale is devoted to activities that are considered "prereading." The behaviors in this domain range from "Sits quietly at a table for two minutes" to "Reads a simple story silently and states its main idea."

Scale 11: Writing. The writing behavioral domain includes a number of behaviors that are precursor or foundational to the completed behavior of writing and printing. It includes basic motor activities and the production of basic meaningful symbols as well as the writing of words. The behaviors range from "Grasps chalk, pencil or crayon" to "Prints or writes letters for mailing using legible handwriting in an informal letter style."

Scale 12: Numbers. Numeration, quantification, and serial relations are the subjects of behaviors in this domain. The items range from "Separates one object from a group upon the request, 'Give me one block,' etc." to "Multiplies and divides single and double-digit numbers up to 20."

Scale 13: Time. The behaviors in this domain indicate discrimination of the passage of time, placement in time, and the uses of clocks, as well as the integration of person activities with the passage of time. The behaviors range from "Associates the time of the day with activities such as meals or bed time" to "Arrives on time for an appointment made one week in advance."

Scale 14: Money. The domain dealing with money includes behaviors of coin identification, the counting up and counting out of monetary sums, making change, making purchases, and the use of financial instruments. The behaviors range from "Sorts coins from other small metal objects" to "Uses a checking account."

Scale 15: Domestic Behavior. This domain is comprised predominantly of housekeeping behaviors, but meal preparation and laundry behaviors are included. The items range from "Picks up household trash or litter and places it in a waste basket upon request" to "Prepares and serves a meal including one hot dish."

Scale 16: Community Orientation. This domain is concerned with mobility, safety and the avoidance of social/legal difficulty in the open community. The behavioral items range in complexity from "Finds way from place to place within a familiar building" to "Holds a valid driver's license."

Scale 17: Recreation, Leisure Time Activities. This domain is concerned with independence in activities that are usually considered to be satisfying and self-fulfilling. As to content, some of the behaviors show overlap with Social and Vocational domains. The behaviors range from "Engages in a leisure time activity for five minutes when materials are set up" to "Plays a musical instrument."

Scale 18: Vocational. Behaviors in this domain are those that relate to productive activity at various levels of proficiency, independence, and complexity. The behaviors range from "Assumes a

body position at task or at play such that both hands are available for use" to "Operates power hand tools such as drill or food mixer without a supervisor present."

It will have been noted that most of the domains deal with natural activities each in some area of daily life. Evident exceptions to this are Scale 1, Gross Motor Development and Scale 2, Fine Motor Development. The less difficult items on those two scales are elemental and undifferentiated as to activity arena. The more complex behaviors in these two scales are necessarily exemplified by complex and purposeful activities that might well overlap one or more of the other behavior domains.

The 20 behavior items in each domain are intended to exemplify behaviors falling within that domain. They represent the very large and perhaps infinite number of behaviors that could be classified into the domain.

The Scales were employed in this study to ascertain admission and discharge criteria of the CRF's for the reasons given above. Each facility owner/operator/manager was asked to indicate the lowest behavior (item) on each sub-scale she/he would expect performance on by a potential client being referred. Second, that same individual was then asked to check the highest behavior on each sub-scale which she/he felt would constitute an acceptable performance level in that domain in consideration for placement of the client out of that particular CRF into a "higher level" program or setting. The Behavioral Scales are reproduced in Appendix E.

Instructions

Subsequent to the pilot testing of the questionnaire and prior to the actual on-site data collection, a standard set of instructions was developed for the four TAP staff who completed the data collection.

These instructions were presented in a four-hour training session conducted by the investigator. All questions arising from the staff's pilot experience and the document itself were addressed and clarified at this session. Consensus was sought until uniform interpretations of all items and procedures of the data collection process were achieved. These instructions comprise Appendix C.

Correspondence

Written correspondence was limited to the one mailing by each of the TAP staff. Numerous telephone calls were made to schedule on-site visits and conduct follow-up clarification of data.

Pilot Testing

A description of the pilot testing of the questionnaire was described above. Extensive pilot testing of the MDPS Behavioral Scales is reported in the MDPS Technical Manual. Validity and reliability checks were conducted on a random sample of the CRF's.

In several instances the TAP staff followed up on the on-site visit with telephone calls to seek clarification of responses. In a few cases, either the investigator or a TAP staff person other than the original one would contact the facility for a re-check of responses on the questionnaire. No statistical estimates of the reliability or validity of the instrument were possible since all participation in this effort of the CRF's was voluntary.

Data Analysis

Several analyses were performed to produce the results in Chapter IV. All descriptive data were treated by the SPSS program which produced frequencies and percentages reported in Tables 4.1 through 4.22. The client projections on community facilities and state hospital residents reported in Tables 4.23 and 4.24 were obtained by three separate equations which are described in detail on pages 66, 67 and 70.

To test the null hypotheses, admission and discharge criteria of CRF's were grouped by size of facility. Means were computed and compared with the F test for analysis of variance (Young and Veldman, 1972). The resultant F values yielded significance of differences for the three sizes of facilities on each of the 18 domains in the MDPS Behavioral Scales.

A final analysis attempted to compare actual client scores of the state hospital population to the admission and discharge criteria of CRF's. The first step of this analysis consisted of

developing a file of records that were representative of the state hospital population. The tape obtained from the Outreach Training Program at the University of Minnesota contained 4,647 records. Since these records included both state hospital and community-based population records, the tape was scanned to delete all those records that did not come from Minnesota's state hospital units. Certain records did not contain the age or sex of the individual and these were also deleted. This scan resulted in 2,414 usable records which were considered to be representative of the population under study.

MDPS data on hospital residents were collected in one of two ways at the state hospitals. A state hospital either decided to administer the Scales to the entire population over a short period of time or it elected to administer the Scales on the date of each resident's annual program review. In those instances where only partial data were available for a given hospital's population, the investigator ascertained that the group of residents represented in the data file was selected for administration by some arbitrary criteria, such as birthday, that would not bias the representativeness of that sample of the total population. In no instance was there found a decision to select out a particular group for administration that was based upon resident characteristics.

The Office of Research and Statistics of the Minnesota Department of Public Welfare was consulted to obtain the actual in-residence population at the time of the analysis. These figures

were then matched to the records contained on the corrected file on the MDPS tape. Table 3.1 shows how these two sets of figures looked.

Table 3.1

MDPS Behavioral Scale Performance Data on State Hospital Populations

State Hospital Number	"Target" Number	Number on MDPS Tape
012	291	63
014	144	129
016	0	1
018	183	39
021	41	90
022	617	234
023	1,004	1,004
025	265	126
026	164	155
027	57	0
028	529	573
	3,295	2,414

This file of 2,414 records was then processed by a program which either duplicated or deleted records randomly until the "target" number was produced for each facility, a total adding up to 3,295.

Each record obtained indicated the person's sex, age and score on each of the 18 MDPS Scales. The score on each scale was computed by counting the number of consecutive "can do" indications on each of the 20 items starting with item one at the bottom of each scale. For example, if it were indicated on Scale 1 that a subject could perform the first four items, could not perform item five, could perform item six, but could not perform any higher

items, the person was then given a score of four on that scale. This permitted a comparison to be made with the admission and discharge criteria reported by the CRF's.

A second file was produced containing a record for each of the 121 CRF's which indicated the number of beds for males, females and total beds, the lowest age eligible for admission, the highest age eligible for admission, and admission and discharge scores on each of the 18 Scales. The admission scores were interpreted as being the lowest behavior required before a person could be admitted to the facility. For example, the criterion of four on a given scale meant that a person must be able to perform Items 1 through 4 before he could be considered for admission.

The discharge criterion was interpreted as being the total score at which a person would be eligible for dismissal or graduation on a particular scale. The total capacity for each CRF, regardless of the male-female mixture indicated, was defined as the lesser of two values: one, the actual reported capacity, or two, the number of admissions during 1976. The number of admissions during 1976 was obtained by extracting the number reported for the first four months and multiplying it by three. This was done to arrive at a capacity figure that might be representative of what the CRF could accept during a given year. The total capacity could not be used since it would have been unrealistic for a CRF to exhibit a 100 percent turnover during a year.

After these two files were randomized by the computer, the program then proceeded to take each of the 3,295 state hospital clients and "place" them in a CRF. Each client, before he could be placed in a CRF, had to have no Scale scores lower than the CRF admission criterion, and, could have no more than 17 scores above the CRF discharge criterion. In other words, each client had to be within the CRF's indicated "treatment" range on at least one of the 18 Scales. In addition, each person also had to satisfy the age range, the limitations on total capacity (as collated above) and each CRF's distribution of residents by sex. Three computer runs were made. For the final run, the 3,295 records were split into two groups: those leaving the state hospital (412) and those remaining in (2,883). These two groups were then subjected to a statistical analysis which indicated the differences between those who were eligible to leave and those who were to remain inside the state hospitals. The results of that analysis are reported in Chapter IV.

CHAPTER IV

RESULTS OF DATA ANALYSIS

This chapter reports in narrative and tabular form the results of this study. In every case, the data reported are based on an N of 121 CRF's open and operating as of May 1, 1976. Many of the results are reported on an annual basis. Since the data for 1976 cover only the first four months of that year, annual totals are projections obtained by multiplying the actual figures by a value of three.

Unique situations affecting data analysis results are described in the interpretative narrative.

The results are reported under the following headings: 1) identifying and historical information on CRF's and residents, 2) admission and discharge rates by source category, 3) admission and discharge criteria of CRF's, 4) differences in admissions from state hospitals and other sources, 5) problem behavior constraints, 6) assistance needs of CRF's, and 7) hospital population and community program comparisons.

Identifying and Historical Information on CRF's and Residents

Table 4.1 shows the distribution of CRF's by the Life Safety Code (LSC). Eighty CRF's, or 66.1 percent of all CRF's in Minnesota, meet the residential category of LSC and subsequently serve 15 or fewer clients each.

Table 4.1

Life Safety Code Distribution

Code	Number	Percent
Institutional ($\geq$ 16)	38	31.4
Residential ($\leq$ 15)	80	66.1
Apartment Training	3	2.5
Totals	121	100.0

By contrast, an analysis of the number of facilities by size and actual capacity indicate that only 28.5 percent of total bed space is provided by CRF's of 15 residents or less. Table 4.2 depicts the number of facilities by three categories of size and reports licensed capacity and percent of state-wide capacity by CRF size. The largest facilities of 33 beds or more serve 57.0 percent of the mental retardation population in Minnesota's community residential facilities.

Table 4.2

Licensed Capacity by Size of CRF

Size	Number	Percent	Licensed Capacity	Percent
0-15	80	66.1	818	28.5
16-32	17	14.0	416	14.5
33+	24	19.8	1,639	57.0
Totals	121	99.9	2,873	100.0

The CAIR Report (CAIR, 1975) offered eight descriptions of residential facilities that were considered by the CAIR Task Force to represent an optimal Continuum of Residential Programs. In

order to determine the extent to which the 121 CRF's in Minnesota constituted a continuum, each CRF was asked to pick one descriptor that most closely described that facility. Table 4.3 indicates that five of the eight categories were selected with 88.5 percent of all CRF's falling into two of the categories, Family Living and Social Vocational, despite the fact that both call for ten or fewer residents per facility. It was reported that several facilities overlapped in the descriptors, which suggests either the inadequacy of that particular model to describe CRF's in Minnesota or that Minnesota does not have a true Continuum of Residential Programs. The complete descriptors are included in Appendix D.

Table 4.3

CRF Type by CAIR Descriptors

Facility Type	Number	Percent
Developmental/Medical	5	4.1
Family Living Developmental	73	60.4
Five Day Board and Lodging	0	0.0
Developmental Foster	0	0.0
Social Vocational Training	34	28.1
Supervised Apartment Training	6	5.0
Apartment Training	3	2.5
Behavior Training Developmental	0	0.0
Totals	121	100.0

An attempt was made to determine the extent to which maximum utilization was being made of CRF's by seeking information on both occupancy rates and the existence of waiting lists at each

facility. Table 4.4 shows summary statistics of the responses to the question on number of vacancies per month for the previous calendar year.

Table 4.4

Rate of Occupancy - All Facilities

Range	=	60 to 100 percent
Mean	=	95.6 percent
Standard Deviation	=	7.7 percent
Median	=	99.6 percent
Mode	=	100.0 percent

Percent of occupancy was computed by dividing the average number of residents by the licensed capacity. The mean rate of occupancy was 95.6 percent; however, the median and mode suggest that most CRF's in Minnesota are being used to capacity, with substantial numbers of vacancies in only a few facilities.

Table 4.5 indicates that 50 of the 121 CRF's had no waiting list.

Table 4.5

Status of Waiting Lists of CRF's

	Number	Percent
No list	50	41.3
List Increasing	45	37.2
List Decreasing	0	0.0
List Stable	26	21.5
Totals	121	100.0

Forty-five CRF's reported an increasing waiting list with 26 indicating that their waiting list was stable over the past three years. No CRF's reported a decreasing waiting list. In each case these data were collected by direct interview with the CRF manager.

The questionnaire also asked for the average number of clients on each waiting list per month. Table 4.6 shows the size of waiting lists by number of facilities.

Table 4.6

Size of Waiting List by Number of CRF's

Number of Clients	Number	Percent
0	50	41.3
1- 4	31	25.7
5- 9	19	15.8
10-19	17	14.0
20+	4	3.3
Totals	121	100.0

In order to determine if certain types of facilities were experiencing larger demands for services and the relationship between waiting lists and vacancies, cross tabulations were run by CAIR descriptors. Table 4.7 shows the number and percent distribution by CAIR category. The two categories of Family Living and Social Vocational reported the largest number of persons on waiting lists and the largest number of vacancies. These data are not considered inordinate due to the fact that normal mobility in and out of facilities would probably account for the reported number of vacancies. Most noteworthy is the discrepancy between

those on waiting lists and the number of vacancies, 601 to 106, a difference of 495 potential clients as of May 1, 1976.

Table 4.7

Number of Clients on Waiting List and Number of Vacancies by CRF Type

Facility Type	Number on Waiting List	Percent	Vacancies	Percent
Developmental/Medical	59	9.8	10	9.4
Family Living	359	59.7	58	54.7
Social Vocational	138	23.0	21	19.8
Supervised Apartment Living	22	3.7	10	9.4
Apartment Training	23	3.8	7	6.6
Totals	601	100.0	106	99.9

To determine the relative stability of CRF's in Minnesota, each surveyor was asked to estimate the probability that each CRF would meet the March 1, 1977, ICF/MR federal regulations as specified under the Title XIX program. Table 4.8 shows that three CRF's will probably close, and one has only a 25 percent chance of meeting the March 1, 1977, compliance deadline.

Table 4.8

Probability of CRF's Meeting March 1, 1977 ICF/MR Regulations

Probability (%)	Number of Facilities	Percent
0	3	2.5
25	1	.8
100	117	96.7
Totals	121	100.0

One hundred and seventeen, or 96.7 percent, were estimated as having a 100 percent chance of remaining open.

Two data elements in the survey dealt with geographic factors. The first sought to determine the density of CRF's by county. Table 4.9 shows facility density as of May 1, 1977. Noteworthy is the fact that 49 counties, or 56.3 percent of all counties, did not have a CRF. Conversely, 18.2 percent of all CRF's are located in one county, and three counties account for 42.2 percent of all CRF's in Minnesota. Those three counties with the highest number of CRF's respectively include Hennepin, Ramsey and St. Louis, the three most populous counties in Minnesota. From these data, one can infer that there does appear to be program distribution proportional to state population density.

Table 4.9

Distribution of CRF's by County

	Facilities		Counties	
	Number	Percent	Number	Percent
	0	0.0	49	56.3
	1	17.4	21	24.1
	2	6.6	4	4.6
	3	12.4	5	5.7
	4	6.6	2	2.3
	5	4.1	1	1.2
	6	5.0	1	1.2
	7	5.8	1	1.2
	14	11.6	1	1.2
	15	12.4	1	1.2
	22	18.2	1	1.2
Totals	121	100.1	87	100.2

The second question that dealt with geographic variables sought to determine the extent to which CRF's served clients from their own receiving area. Areas were interpreted to mean that mental health/mental retardation area board receiving district, of which Minnesota has 25. Table 4.10 shows the distribution of facilities whose percentage of population came from their primary receiving area.

Table 4.10

Percentage of Clients from Primary Receiving Area of CRF

Percentage of Clients	Facilities	
	Number	Percent
0-25	9	7.4
26-50	40	33.1
51-75	21	17.4
76-100	51	42.1
Totals	121	100.0

Of critical importance to the investigation was the determination of the rate at which CRF's have been developing since 1972. Table 4.11 demonstrates a clear trend in facility development since 1972. The trend is upward and clearly favors those CRF's of 15 or less.

Of the 121 CRF's open and operating on May 1, 1976, 79 or 65.3 percent had opened in the preceding $4\frac{1}{4}$ years, and 61 of that number were for 15 residents or less. It seems apparent that the philosophy of small home-like CRF's is being implemented in Minnesota.

Table 4.11

Number of CRF's Developed by Size by Year

Year	Facility Size 5-6	7-15	16-32	33+	Total	Percent
Prior 1972	0	19	8	15	42	34.7
1972	0	5	3	3	11	9.1
1973	2	7	4	3	16	13.2
1974	3	13	0	2	18	14.9
1975	6	15	2	1	24	19.8
1976[a]	4	6	0	0	10	8.3
Totals	15	65	17	24	121	100.0
Percent	12.4	53.7	14.1	19.8	100.0	

[a]As of May 1, 1976

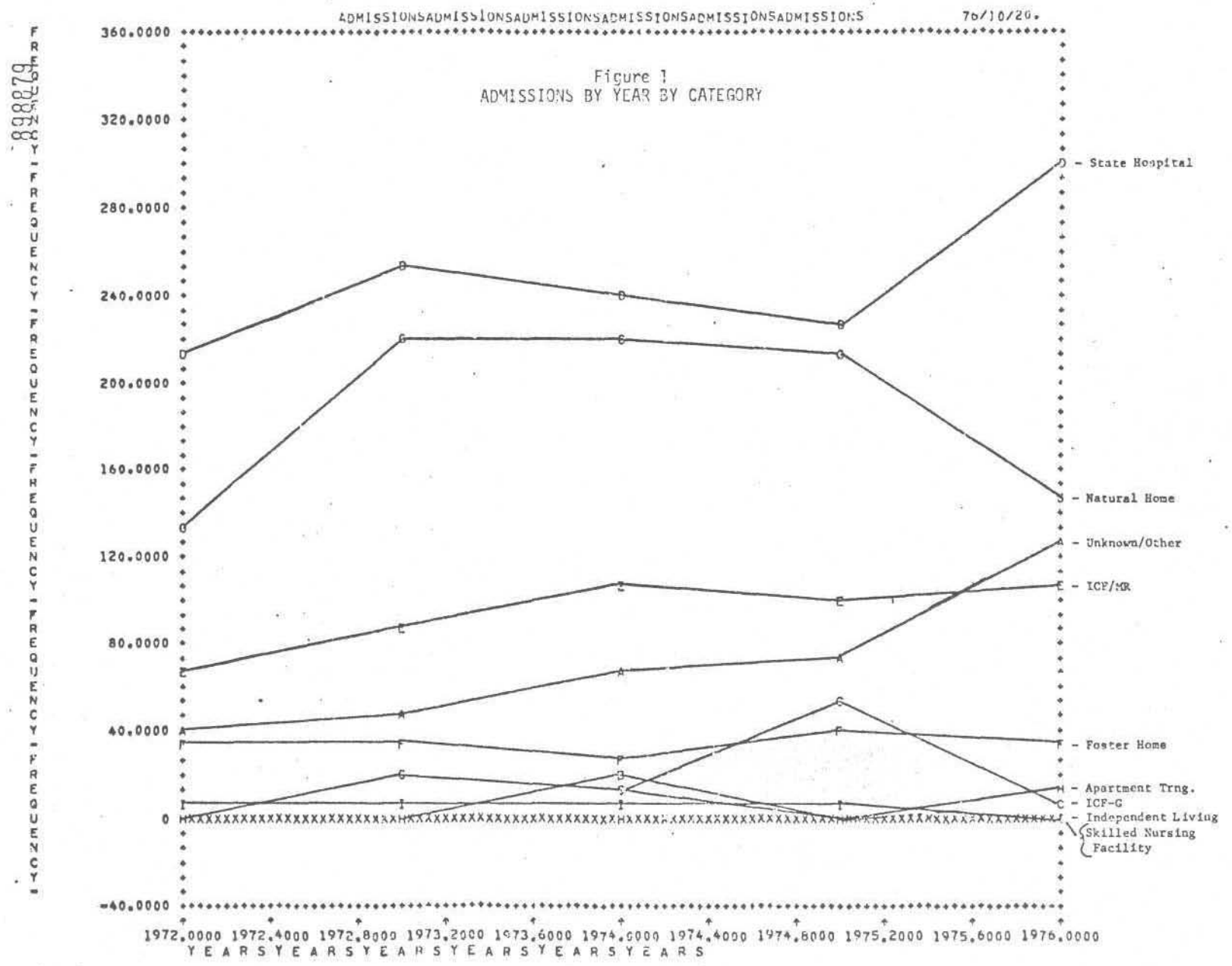
Admission and Discharge Rates by Source Category

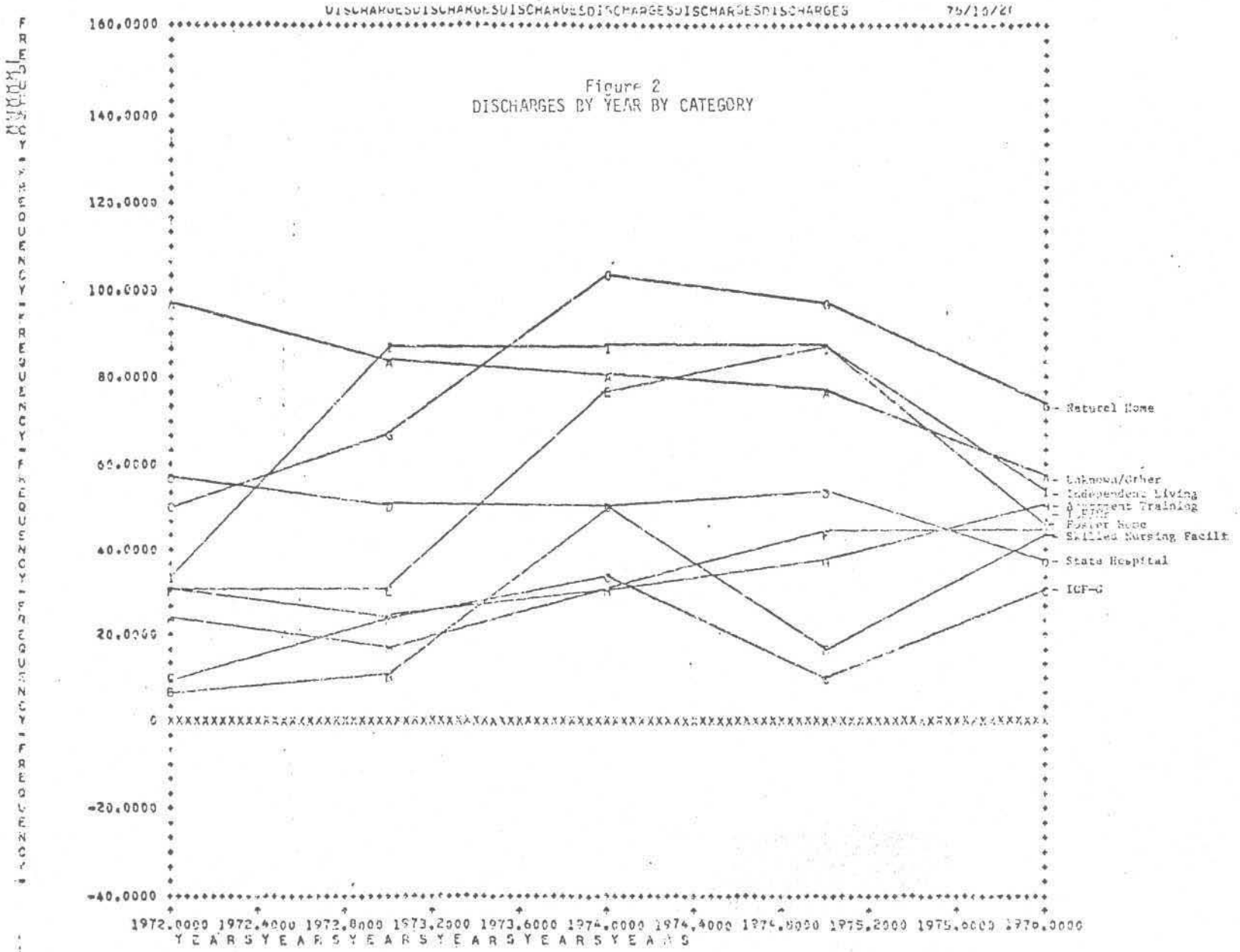
The next major section of the survey dealt with population mobility into and out of CRF's in Minnesota. Each CRF was asked to report the actual numbers of admissions and discharges of the facility by year by source category. The source categories were defined in Chapter I. The data should be considered with some caution since some of the facilities did not keep complete records. Additionally, a total of 16 CRF's closed between 1974 and May 1, 1976. These facilities accounted for a net loss of 160 spaces. The records on these facilities were not available for analysis. The data reported below are from the 121 CRF's open and operating as of May 1, 1976. It is believed that the trends the data suggest are representative of the actual situation.

Figure 1 depicts the change in admissions year by year since 1972 by source category. The 1976 data are projections based upon the first four months of that year. Actual data for those four months were multiplied by a factor of three which yielded the listed products reported in Figures 1, 2, and 3. It was not known if seasonal factors influenced actual admission and discharge rates which may qualify the projected results.

Among the categories were state hospitals, natural home, "unknown/other," and ICF/MR facilities. Most noteworthy is the fact that in 1975 the 121 CRF's under study received nearly equal numbers of admissions from state hospitals and natural homes. If the first four months of 1976 are seen as indicative of the balance of the year, it could be inferred that a major trend reversal occurred that year. The trend line further suggests that one reasonable inference that can be drawn about the "unknown/other" category is that the record keeping procedures in CRF's does not appear to be improving but may in fact be getting worse. The ICF/MR category suggests a rather constant rate of inter-facility client mobility which, when contrasted to the increased number of beds per year, may suggest a proportionately lower rate of mobility.

Figure 2 illustrates the frequency of discharges from CRF's to the nine categories of placement. As in the case with admissions, the 1976 data are projections based on actual figures from the first four months of that year. Category "unknown/other"


ADMISSIONSADMISSIONSADMISSIONSADMISSIONSADMISSIONSADMISSIONS
76/10/20.
Figure 1
ADMISSIONS BY YEAR BY CATEGORY
FREQUENCY-FREQUENCY-FREQUENCY-FREQUENCY-FREQUENCY-FREQUENCY-
360.0000
320.0000
280.0000
240.0000
200.0000
160.0000
120.0000
80.0000
40.0000
0
-40.0000
D - State Hospital
S - Natural Home
A - Unknown/Other
E - ICF/MR
F - Foster Home
H - Apartment Trng.
C - ICF-G
I - Independent Living
Skilled Nursing Facility
1972.0000 1972.4000 1972.8000 1973.2000 1973.6000 1974.0000 1974.4000 1974.8000 1975.2000 1975.6000 1976.0000
YEARSYEARSYEARSYEARSYEARSYEARS


DISCHARGESDISCHARGESDISCHARGESDISCHARGESDISCHARGESDISCHARGES 75/10/20
Figure 2
DISCHARGES BY YEAR BY CATEGORY
FREQUENCY
160.0000
140.0000
120.0000
100.0000
80.0000
60.0000
40.0000
20.0000
0
-20.0000
-40.0000
1972.0000 1972.4000 1972.8000 1973.2000 1973.6000 1974.0000 1974.4000 1974.8000 1975.2000 1975.6000 1976.0000
YEARSYEARSYEARSYEARSYEARSYEARS
0 - Natural Home
A - Unknown/Other
I - Independent Living
T - Foster Home
S - State Hospital
C - ICF-G

shows a decrease of 31 percent suggesting somewhat improved record keeping on discharged location. From 1972 to 1975, CRF's reported a 61 percent increase in the number of clients discharged into independent living. Data reported for the first quarter of 1976, however, show a decline of 32 percent from 1975 to 1976. The data also show a decline in the number of discharges to natural homes beginning in 1974. Discharges to ICF/MR facilities, which steadily increased from 1972 to 1975, dropped drastically (48 percent) during the first quarter of 1976. These data support the inference drawn from Figure 1 that inter-CRF mobility may be decreasing.

Discharges to apartment training programs, considered to be a less restrictive alternative than other categories except independent living, appear to have increased steadily since 1972. Additionally, discharges to ICF/G facilities in 1976 are projected to resume their upward trend which was reversed in 1975. The number of discharges to state hospitals, relatively constant from 1972 through 1975, is projected to decline in 1976. A constant number of discharges from an ever-increasing total number in CRF's would indicate a lowering rate of discharges to state hospitals from CRF's. The 1976 data suggest an accelerated lowering of this rate. Several inferences can be drawn from these data. State hospital admission criteria are tightening, or CRF's are more reluctant to discharge their "failures" to state hospitals, or CRF's are doing a better job at habilitating their clients.

Despite the fact the 1976 projections on discharges appear to be dropping as depicted in Figure 2, a net gain of 312 residents was projected over 1975. Net gains and losses are reported in Figure 3 which shows the relationship between numbers of admissions to discharges year-by-year since 1972. Most significant of these data is the net gain of CRF's of admissions from state hospitals over discharges to state hospitals (a net gain of 264 residents to CRF's was projected for 1976). Admissions from natural homes over discharges show a slight decrease for 1976. However, a net gain of 78 makes it the second highest source category of admissions to CRF's. ICF/G facilities, skilled nursing facilities, apartment training and independent living, all receive more residents from CRF's than they discharge. The category "unknown/other" remains a sizeable source category of residents. The projections for 1976 suggest a sharp increase over 1975 when there was an equal number of admissions and discharges of the category "unknown/other."

Table 4.12 lists actual admissions and discharge figures reported by the 121 CRF's under study in the category "unknown/other." This category is seen as disproportionately high. Since CRF's record keeping procedures precluded totally complete data, this category was used to correct for obvious discrepancies. For example, if a facility opened in 1973, had a total of 20 admissions from various sources for all years and a total number of 10 discharges with a balance population of 15 residents, five was added to "unknown/other" to balance the equation. This category

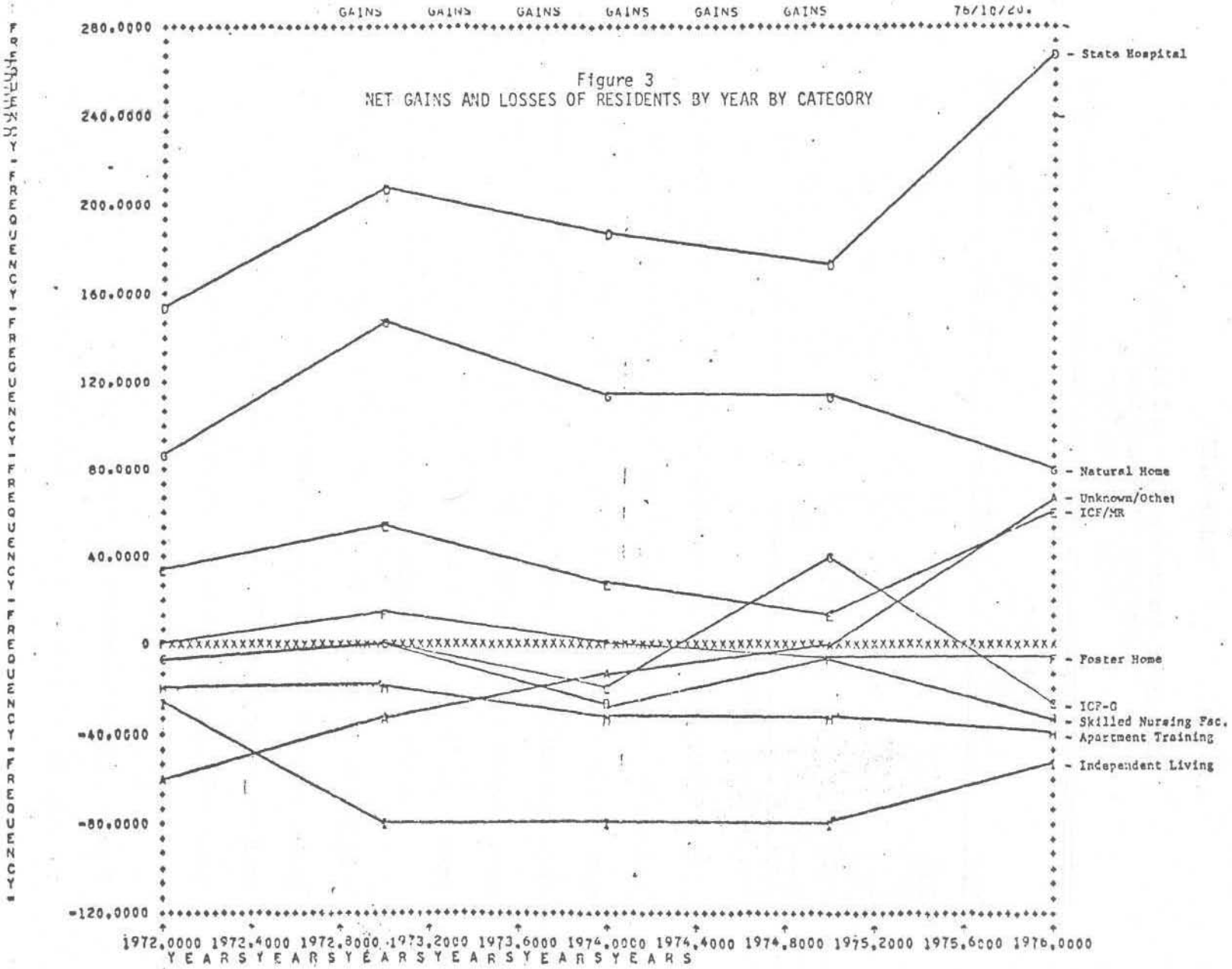

GAINS GAINS GAINS GAINS GAINS GAINS 76/10/20.
Figure 3
NET GAINS AND LOSSES OF RESIDENTS BY YEAR BY CATEGORY
280.0000
240.0000
200.0000
160.0000
120.0000
80.0000
40.0000
0
-40.0000
-80.0000
-120.0000
FREQUENCY - FREQUENCY - FREQUENCY - FREQUENCY - FREQUENCY - FREQUENCY
D - State Hospital
G - Natural Home
A - Unknown/Other
E - ICF/MR
F - Foster Home
C - ICF-O
H - Skilled Nursing Fac.
I - Apartment Training
J - Independent Living
1972.0000 1972.4000 1972.8000 1973.2000 1973.6000 1974.0000 1974.4000 1974.8000 1975.2000 1975.6000 1976.0000
YEARS YEARS YEARS YEARS YEARS YEARS

Table 4.12

Number of Admissions from and Discharges to
Category "Unknown/Other"
by CRF Size by Year

Year	Admissions Size of CRF 5-15	16-32	33+	Total	Discharges Size of CRF 5-15	16-32	33+	Total
1972	8	7	23	38	1	5	91	97
1973	5	30	15	50	0	16	68	84
1974	14	8	45	67	7	7	67	81
1975	53	10	12	75	11	20	46	77
1976[a]	2	4	36	42	4	5	10	19
Totals	82	59	131	272	23	53	282	358

[a]As of May 1, 1976

also included deaths, runaways who did not return, and a small number who transferred into private hospitals or out of state. In most of these instances, the CRF's simply could not account for a small portion of their residents. The figures show proportional distribution across facility size indicating record keeping problems regardless of the size of the CRF.

Table 4.13 indicates a movement of residents from CRF's to a higher level of care, skilled nursing facilities (SNF). Fewer people were admitted from SNF's than were discharged to SNF's for each reporting year. In four of the five reporting periods, the ratio was one admitted to two or more discharged.

Table 4.14 indicates movement in and out of Intermediate Care Facilities - General for the past five years. Since 1972, the date of the inception of DPW Rule 34, it has been illegal for ICF/G's to house more than four mentally retarded residents.

Table 4.13

Number of Admissions from and Discharges to
Skilled Nursing Facilities (SNF)
by CRF Size by Year

Year	Admissions Size of CRF 5-15	16-32	33+	Total	Discharges Size of CRF 5-15	16-32	33+	Total
1972	1	1	2	4	0	0	8	8
1973	0	3	6	9	1	0	10	11
1974	8	2	12	22	4	2	43	49
1975	1	4	4	9	6	1	11	18
1976[a]	1	2	0	3	1	1	12	14
Totals	11	12	24	47	12	4	84	100

[a]As of May 1, 1976

Table 4.14

Number of Admissions from and Discharges to
Intermediate Care Facilities General (ICF/G)
by CRF Size by Year

Year	Admissions Size of CRF 5-15	16-32	33+	Total	Discharges Size of CRF 5-15	16-32	33+	Total
1972	1	1	4	6	0	0	11	11
1973	4	3	16	23	0	2	22	24
1974	5	8	0	13	2	2	28	32
1975	9	5	40	54	5	0	6	11
1976[a]	1	0	0	1	1	2	7	10
Totals	20	17	60	97	8	6	74	88

[a]As of May 1, 1976

Nevertheless, 88 persons were transferred into such facilities with 10 occurring in the first four months of 1976. The large number of admissions from ICF/G's in 1975 coincided with a mailing from the Licensing Division of the Department of Public Welfare to all ICF/G's pointing out the illegality of housing more than four mentally retarded residents.

A central concern of this study was the proportionate number of residents in CRF's from state hospitals. Table 4.15 shows actual numbers reported by CRF's since 1972.

Table 4.15

Number of Admissions from and Discharges to State Hospitals by CRF Size by Year

	Admissions Size of CRF				Discharges Size of CRF			
Year	5-15	16-32	33+	Total	5-15	16-32	33+	Total
1972	46	32	133	211	10	15	32	57
1973	65	39	156	260	9	16	24	49
1974	133	21	87	241	17	12	22	51
1975	120	27	81	228	20	15	20	55
1976[a]	75	16	9	100	5	2	5	12
Totals	439	135	466	1040	61	60	103	214

[a]As of May 1, 1976

CRF's of 15 or less have received the majority of all state hospital discharges since 1974. Data from the first four months of 1976 suggest that the smaller CRF's not only continue to accept discharges from state hospitals but their proportionate share is increasing. Discharges to state hospitals from the smallest and the largest CRF's are nearly equal despite the fact that the

larger CRF's account for approximately twice the population than the under 16 size do.

Table 4.16, which reports admissions and discharges from and to Intermediate Care Facilities for Mentally Retarded (ICF/MR) and which comprise all the CRF's under study, yields confusing data.

Table 4.16

Number of Admissions from and Discharges to Intermediate Care Facilities for Mentally Retarded (ICF/MR) by CRF Size by Year

	Admissions Size of CRF				Discharges Size of CRF			
Year	5-15	16-32	33+	Total	5-15	16-32	33+	Total
1972	6	46	12	64	1	14	18	33
1973	15	42	32	89	9	9	13	31
1974	28	33	43	104	18	6	53	77
1975	54	20	28	102	30	20	37	87
1976[a]	25	4	7	36	5	3	7	15
Totals	128	145	122	395	63	51	128	243

[a]As of May 1, 1976

The number of admissions exceeds the number of discharges when, in fact, the opposite should be the case. One possible explanation for this discrepancy would be to count the 160 beds lost when the 16 CRF's closed. A substantial portion of that population very likely was admitted to other ICF/MR CRF's. Another explanation might help account for the large number discharged to the "unknown/other" category since those residents discharged would probably have gone into some kind of facility. It seems unlikely that the majority would have gone into independent living situations.

In viewing the data presented in Table 4.17, it can be seen that movement from and to foster homes was about equal. Approximately the same number of clients were discharged to foster homes as were admitted from them.

Table 4.17

Number of Admissions from and Discharges to Foster Homes by CRF Size by Year

	Admissions Size of CRF				Discharges Size of CRF			
Year	5-15	16-32	33+	Total	5-15	16-32	33+	Total
1972	7	5	22	34	6	4	21	31
1973	7	16	14	37	8	3	14	25
1974	14	7	8	29	10	6	15	31
1975	24	4	11	39	13	14	17	44
1976[a]	5	2	4	11	3	5	6	14
Totals	57	34	59	150	40	32	73	145

[a]As of May 1, 1976

Table 4.18 reports the numbers of admissions and discharges from and to natural homes. The extent to which the "woodwork phenomenon" was occurring in community programs has been long pondered in Minnesota. That is, as CRF's have become available to mentally retarded persons, what proportion of previously unidentified retarded people were coming "out of the woodwork" from natural homes as compared to state hospitals. The data in Table 4.18 show that a rather substantial number of persons in CRF's did come from their natural homes. However, 342 persons were placed in natural homes from CRF's for all years studied. This figure compares favorably with other kinds of placement since the natural home is

Table 4.18

Number of Admissions from and Discharges to
Natural Homes
by CRF Size by Year

Year	Admissions Size of CRF 5-15	16-32	33+	Total	Discharges Size of CRF 5-15	16-32	33+	Total
1972	30	19	98	137	10	5	34	49
1973	52	68	109	229	14	13	40	67
1974	82	31	105	218	34	17	53	104
1975	87	29	95	211	31	20	47	98
1976[a]	26	6	18	50	6	3	15	24
Totals	277	153	415	845	95	58	189	342

[a]As of May 1, 1976

considered an alternative of less restriction. With regard to admissions, the smaller facilities again appear to be a recent leader as compared to the medium and larger size facilities.

Table 4.19 displays the relative success CRF's have had in "graduating" residents into apartment training programs.

Table 4.19

Number of Admissions from and Discharges to
Apartment Training Programs Category
by CRF Size by Year

Year	Admissions Size of CRF 5-15	16-32	33+	Total	Discharges Size of CRF 5-15	16-32	33+	Total
1972	0	0	1	1	1	2	21	24
1973	0	0	0	0	3	0	14	17
1974	0	0	0	0	4	4	22	30
1975	1	0	2	3	9	2	26	37
1976[a]	1	1	2	4	6	3	8	17
Totals	2	1	5	8	23	11	91	125

[a]As of May 1, 1976

Size of facility does not appear to be a contributing variable with regard to proportionate number of placements. The 1976 data suggest an increase in numbers placed. However, this is probably a function of availability of such programs since more have developed recently.

In an attempt to determine if success in placement in apartment training programs was a function of geographic location, a cross tabulation was run for all CRF's for all years. Table 4.20 shows that only seven counties have CRF's who discharged residents to apartment training programs with three accounting for 120 placements or 96 percent of all discharges from CRF's to apartment training programs.

Table 4.20

Number of Discharges to Apartment Training by County

County Code	County	Number	Percent
936	Ramsey	52	41.6
901	Hennepin	42	33.6
943	St. Louis	26	20.8
881	Blue Earth	2	1.6
905	Itasca	1	.8
940	Rice	1	.8
948	Steele	1	.8
	N = 7	125	100.0

Table 4.21 reports the number of admissions and discharges from and to independent living, the highest category of placement. Again, size of facility was examined as a possible function and in this case, the 16-32 size CRF appeared to have a disproportionately

Table 4.21

Number of Admissions from and Discharges to Independent Living by CRF Size by Year

Year	Admissions Size of CRF 5-15	16-32	33+	Total	Discharges Size of CRF 5-15	16-32	33+	Total
1972	1	1	5	7	8	4	22	34
1973	6	1	2	9	15	33	39	87
1974	3	0	1	4	16	33	37	86
1975	3	1	0	4	25	34	27	86
1976[a]	0	0	0	0	6	8	4	18
Totals	13	3	8	24	70	112	129	311

[a]As of May 1, 1976

higher "success rate" than the other two. Very few admissions from independent living are reported; however, it may be that a proportion of the "Unknown/Other" category could be represented here.

As in the case of apartment training programs, a cross tabulation was run to identify those counties which had CRF's that placed residents into independent living. Table 4.22 shows by county the 311 discharges for all years by all CRF's. Again, the overwhelming majority of placements appear to have occurred in two counties with only 14 having reported any placements.

Admissions from and discharges to some categories open and operating as of May 1, 1976, were then tabulated for the calendar years 1972 through 1976. Actual data for the first four months of 1976 were multiplied by three to estimate the total admissions and discharges for the entire year.

Table 4.22

Number of Discharges to Independent Living by County

County Code	County	Number	Percent
901	Hennepin	130	41.8
943	St. Louis	88	28.3
924	Mower	28	9.0
936	Ramsey	22	7.1
908	Kandiyohi	16	5.1
931	Pennington	10	3.2
905	Itasca	6	1.9
961	Yellow Medicine	3	1.0
878	Beltrami	2	.6
948	Steele	2	.6
887	Chisago	1	.3
895	Douglas	1	.3
916	Lyon	1	.3
927	Nobles	1	.3
	N = 14	311	99.8

Admissions/discharges were tabulated by source/recipient under categories "unknown," "state hospital," "natural home," and "other." This resulted in eight separate variables and five time points. For each variable, three equations were calculated to fit the five time points.

These were:

1. Linear (straight line) $Y = a_o + bX$
2. Exponential (curve) $Y = ae^{bx}$
3. Quadratic (curve) $Y = a_o + a_1X + a_2X^2$

where Y = frequency for a variable,
X = year (coded 1972 through 1976),
e = base for Naperian logarithm system.

For each of the eight variables, the equation producing the "best fit" as determined by the largest r^2 was selected. This equation was then used to calculate predicted values for the time points 1972 through 1981. Time points 1971 through 1976 can be compared with actual frequencies to determine how well the equation matches the actual values for each year. The r^2 summarizes the "match" or "fit" over all five time points. The time points 1977 through 1981 are projections of admissions and discharges based on the selected equation. These projections are reported in Table 4.23 and are valid under two assumptions:

1. The equation selected represents the actual relationship, and
2. The relationship will continue as the same into the future.

Finally, the eight separate projections were summed to yield the total admissions and discharges, from which net gains (admissions/discharges) were projected for years 1977 through 1981. It must be noted that the equations used 1) ignore potential changes in size, nature and current conditions of each source category and 2) assume that interaction between client demand and source requirements will continue as in the past.

One obvious impact of policy intervention would be a drastic reduction in frequencies in the category, "unknown."

Table 4.23

Five Year Projections on Admissions and Discharges by Source Category

Admissions			1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Unknown	Expon	Actual	38	50	66	75	126					
		Predicted	37	49	65	86	114	151	200	265	351	464
State Hospital	Quad	Actual	211	253	240	228	300					
		Predicted	225	227	238	257	286	323	369	423	486	558
Natural Home	Expon	Actual	135	217	217	211	190					
		Predicted	176	179	182	186	189	193	196	200	203	207
Other	Expon	Actual	116	162	170	211	165					
		Predicted	133	147	162	178	197	217	239	263	290	319
Total		Actual	500	682	693	725	741					
		Predicted	571	602	647	707	786	884	1004	1151	1330	1548
Discharges												
Unknown	Linear	Actual	97	84	81	77	97					
		Predicted	96	87	79	70	61	53	44	35	27	18
State Hospital	Expon	Actual	57	49	50	55	36					
		Predicted	57	53	49	45	42	38	35	33	30	28
Natural Home	Expon	Actual	49	67	103	98	72					
		Predicted	60	67	75	84	94	106	119	133	150	168
Other	Expon	Actual	141	195	303	283	264					
		Predicted	165	194	228	269	316	372	438	515	606	713
Total		Actual	344	395	537	513	429					
		Predicted	378	401	431	468	513	569	636	716	813	927
Net Gain/Year		Actual	156	287	156	212	312					
		Predicted	193	201	216	239	273	315	368	435	517	621

Record keeping policies that structure the categories of data on admissions and discharges into and out of facilities should reduce this category to nil, thereby distributing those clients throughout the other categories.

The values reported in Table 4.23 should not be construed as actual client figures, but the variances between categories and the trends they suggest do represent probable conditions. State hospitals will continue to be the largest supplier of clients to CRF's with the natural home category remaining relatively constant. Conversely, discharges to state hospitals will reduce dramatically with discharges occurring more frequently to "other," which includes the apartment training and independent living categories. Some increase in discharges to natural homes can be expected. Net gains in CRF population will be realized at a rate of increase from approximately 14 percent in 1976 to 18 percent in 1981. These projections assume, however, that current conditions remain the same. Policy interventions can drastically alter, or even reverse, these projections.

One major impact the development of CRF's in Minnesota will have on the service delivery system is the reduction of the state hospital population. Typically, estimates of this population are projected on historical in-residence figures which do not account for external variables such as the rate of CRF development or source of clients entering CRF's. The data reported here have suggested major trend shifts which could have significant impact on the rate of hospital population reductions.

To contrast two methods of estimation, a regression analysis was performed on the hospital population in-residence from 1970 through November 1, 1976. As with the previous analysis reported on the CRF's admissions and discharges, three equations were used in an attempt to arrive at the "best fit."

Table 4.24 reports the results of the three tests with the resultant r^2 for each test. The quadratic equation yielded the highest r^2 of the three and subsequently can be considered the "best projection" based upon fit.

The data suggest a much slower reduction of that population than one might infer from the estimations on CRF growth. Quite obviously, these latter projections will have to be adjusted if the trends suggested by the CRF analysis continue.

The point is made that a study of one segment of the service delivery system in Minnesota should be conducted with at least informed cognizance of those other segments and variables that bear on the outcomes.

One objective of this study was to determine the extent of physical disabilities of the populations in CRF's in Minnesota. Since no standard classification system was in current use, it was determined that the "Model for Functional Description of Physical Limitation," offered in the CAIR (1975) Report, represented the "best available." Each CRF was asked to select that category among the four offered (see Appendix A) into which the majority of their residents would fall. Each surveyor for this study reported back

Table 4.24

Five Year Projections on Minnesota State Hospital Population

		1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Actual	In-Residence Population	4127	3950	3735	3546	3364	3211	3151	--	--	--	--	--
Projected by:													
	Linear $r^2 = .9842$	4095	3924	3754	3583	3413	3242	3071	2901	2730	2560	2389	2218
	Exponential $r^2 = .9896$	4113	3922	3740	3567	3402	3244	3094	2951	2814	2683	2550	2441
	Quadratic $r^2 = .9962$	4149	3925	3722	3540	3380	3242	3126	3031	2958	2906	2876	2868

Linear: $Y = a + bX$

Exponential: $Y = ae^{bx}$

Quadratic: $Y = a_o + a_1X + a_2X^2$

Where: Y = Frequency for a variable
X = Year (coded 1970 through 1976)
e = Base for Naperian logarithm system

that most CRF managers could not select one or even two categories that best described their population. It was found, instead, that the CRF's had such heterogeneous groups that virtually all categories included descriptors that fit the population. It was concluded that the taxonomy of physical limitations listed in the CAIR Report did not constitute a viable model and subsequently, this section of the study was abandoned.

Admission and Discharge Criteria of CRF's

This section reports the results of that portion of the study which sought admission and discharge criteria on the MDPS Behavioral Scales (Bock, et al., 1975) from each of the 121 CRF's in Minnesota. The purpose of this section was three-fold: 1) to collect data on admission and discharge criteria by discrete behavioral descriptors, 2) to determine if there existed any differences in these criteria based upon CRF size, and 3) to provide a behavioral framework with which the hospital population could be compared.

The procedures employed to complete the analysis were described in Chapter III. The analysis produced means, medians, standard deviations, modes and ranges on both admission and discharge criteria of the 121 CRF's in Minnesota.

Tables F.1 through F.18 (see Appendix F) report the summary statistics listed above for each of the 18 domains of the MDPS Behavioral Scales. Additionally, the F values and degree of

significance of differences between CRF's of different sizes are reported. Appendix E consists of each of the behavioral items by domain.

Tests of Null Hypotheses

To test the null hypotheses, means were compared on the reported admission and discharge criteria by each size group of CRF's. The size groups were 5-15 residents, 16-32 residents and 33 residents or more. The analysis was done on each of the 18 domains of the MDPS Behavioral Scales using a one-way analysis of variance statistical treatment.

> Hypothesis No. 1: There are no significant differences in admission criteria of CRF's in Minnesota based on size of facility as measured on the 18 domains in the Behavioral Scales of the Minnesota Developmental Programming System.

Table 4.25 reports the means, F scores and statistically significant differences in admission criteria on each domain by CRF size. As may be seen in this table, there are significant differences (.05 level) in 10 of the 18 domains based upon size of the CRF's. Without exception, the differences are all in the same direction--the smaller the facility, the higher the admission criteria. Those domains which were perceived as more important to the smaller CRF's generally deal with "self help" skills. "Community orientation" and "vocational" domains emerged as significantly different. However, the means of the smaller CRF's did not exceed item 3 on these two 20-item scales. It can be concluded

Table 4.25

Means and F Scores of Reported Admission Criteria by Domain by CRF Size

MDPS	Domain	Mean of CRF 5-15	Mean of CRF 16-32	Mean of CRF 33+	F Score
1.	Gross Motor Development	11.65	9.47	9.38	4.88*
2.	Fine Motor Development	7.61	6.12	4.17	7.71*
3.	Eating	7.36	6.12	5.04	4.06*
4.	Dressing	8.80	7.24	4.42	7.60*
5.	Grooming	8.40	5.47	3.75	10.29*
6.	Toileting	10.89	8.82	7.88	3.54*
7.	Receptive Language	7.76	6.47	4.71	3.33*
8.	Expressive Language	5.64	5.18	3.29	2.12
9.	Social Interaction	6.70	4.35	3.88	7.60*
10.	Readiness and Reading	2.88	3.41	2.17	.70
11.	Writing	3.06	2.53	1.17	2.47
12.	Numbers	1.90	1.88	1.83	.005
13.	Time	2.94	2.12	1.83	2.06
14.	Money	1.43	1.18	.63	2.06
15.	Domestic Behavior	2.20	2.18	.67	2.47
16.	Community Orientation	2.78	2.35	1.13	5.09*
17.	Recreation, Leisure Time Activities	2.60	1.59	1.46	2.06
18.	Vocational	2.95	3.06	1.08	4.27*

* Significant at the .05 level.

that Domains 1 through 7 and Domain 9 represent high priority behavioral domains for training in the state hospitals if the goal is placement into small group homes.

The first hypothesis was rejected for the 10 domains marked with asterisks in Table 4.25 but was retained for the other eight.

> Hypothesis No. 2: There are no significant differences in discharge criteria of CRF's in Minnesota based on size of facility as measured on the 18 domains in the Behavioral Scales of the Minnesota Developmental Programming System.

The owner/operators of the 121 CRF's in Minnesota have different criteria for discharges from their facilities in 11 of the 18 domains on the MDPS Behavioral Scales. Table 4.26 reports those differences by size of CRF by domains. As in the case of admission criteria, differences in discharge criteria are all in the same direction--the smaller the CRF, the higher the discharge criteria. The domains in which differences exist, however, are somewhat different from those for admission. In the first three domains of the Scales, "Gross and Fine Motor" and "Eating," there were no differences in expectations of all CRF's based on size. "Social Interaction," a skill arena long considered to be most fostered by small, home-like CRF's, showed significant differences in both admission and discharge criteria. Scales 13 through 18, which deal primarily with social-domestic-vocational skills, all had higher expectations listed by the smaller CRF's than those facilities serving more than 15 residents. It can be inferred from these results that the smaller CRF's perceive their primary role

Table 4.26

Means and F Scores of Reported Discharge Criteria by Domain by CRF Size

MDPS	Domain	Mean of CRF 5-15	Mean of CRF 16-32	Mean of CRF 33+	F Score
1.	Gross Motor Development	15.50	14.24	14.08	1.17
2.	Fine Motor Development	16.44	14.0	15.33	2.14
3.	Eating	18.06	15.82	16.83	2.26
4.	Dressing	18.75	15.65	16.75	5.69*
5.	Grooming	18.90	14.77	17.08	8.63*
6.	Toileting	19.35	15.24	17.67	8.95*
7.	Receptive Language	17.53	14.29	15.33	5.96*
8.	Expressive Language	15.04	13.24	14.50	.77
9.	Social Interaction	17.93	15.65	15.46	4.66*
10.	Readiness and Reading	10.75	10.18	10.08	.15
11.	Writing	10.58	8.94	9.96	.56
12.	Numbers	10.54	11.12	11.96	.46
13.	Time	15.70	13.07	12.79	2.98*
14.	Money	15.19	13.24	11.63	3.08*
15.	Domestic Behavior	18.31	13.94	13.08	11.98*
16.	Community Orientation	15.96	13.12	13.58	3.34*
17.	Recreation, Leisure Time Activities	14.26	10.82	11.29	4.79*
18.	Vocational	15.96	12.41	12.58	5.47*

* Significant at the .05 level.

as preparing residents for independent or semi-independent living and that the larger facilities see their role as more in the area of self-help skill development.

The second null hypothesis was rejected in the eleven domains marked with an asterisk.

Appendix E contains the 18 Behavioral Scales of the Minnesota Developmental Programming System.

Differences in Admissions from State Hospitals and Other Sources

To determine if CRF's were experiencing problems with state hospital "graduates" that differed from residents received from other sources, the question was asked:

> What significant differences (problems, characteristics, etc.) have you noted between residents coming from state hospitals as opposed to other sources? List in order of importance/significance.

The responses to this question were analyzed and clustered into ten "categories." The order in which each difference was listed was weighted as follows:

First listing = 4
Second listing = 3
Third listing = 2
Fourth or fifth listing = 1

Weighted values for each difference listed were then multiplied by the frequency with which it occurred to produce its "importance" value. The results of this analysis are reported in Table 4.27.

Table 4.27

Categories of Differences between Residents Coming from State Hospitals and Other Sources as Perceived by CRF Owner/Operators

Differences	Frequency	"Importance Value"
Negative:		
1. Troublesome behavior, hoarding, violence, inappropriate social behaviors, self-stimulation	41	121
2. Poor self-help skills, eating, dressing, toileting	30	89
3. Emotional problems, fearful, over dependent, no compassion/affection, low frustration tolerance	36	88
4. Lack of community orientation and socialization skills	23	65
5. Motivational problems, rigid needs structure, less cooperative, "set in ways"	20	52
6. Poorer physical condition, over medicated, less healthy	11	33
7. Poorer academic/vocational skills	11	26
8. Less active families	6	13
Totals	178	487
Positive:		
9. Regimented behavior and structure orientation	22	70
"Other" positive differences	36	102
Totals	58	172
No Difference:		
10. No differences	5	20
Totals	5	20

The frequency of responses and their weighted values represent the subjective judgments of CRF owner/operators in Minnesota. Those differences that were reported appeared with sufficient frequency and consistency, however, that it can be concluded that differences do exist between clients coming from state hospitals and other sources. Generally those differences suggest the state hospital client to be more difficult and possessing more "problems."

Problem Behavior Constraints

Mentally retarded persons often possess maladaptive or "problem" behaviors which interfere with skill development and social adjustment in the community. To determine whether there existed specific types of behaviors that might prevent placement in a CRF, each owner/operator was asked to indicate what problems/behaviors might preclude admission of an individual who otherwise met all admission criteria of their facility. Table 4.28 summarizes the answers to that question. Again, these results represent subjective judgments but do provide a cause and effect list of the kinds of problem behaviors that prevent clients from entering the community system.

Assistance Needs of CRF's

A final open-ended question asked each respondent to indicate the kinds of assistance that would be of most value to

Table 4.28

Problem Behavior Constraints

Problem	Frequency
Physical Abuse (self or others)	50
Physical Problems (e.g., non-ambulatory, seizures, medical needs)	30
Setting Fires	24
Emotionally Disturbed	13
Unable/Unwilling Participation	11
Sexual Problems	10
Toilet Training	7
Psychiatric Problems	5
Property Destruction	5
Low Skill Level	4
Run Away	3
Theft	3
Smoking	1
Minnesota Learning Center Residents	1

the improvement of their programs. Table 4.29 summarizes those six categories of responses and the frequency with which they occurred.

Table 4.29

Assistance Needs of CRF's

Area of Need	Frequency
Involvement from Community and Support Agencies	52
Staff Training	34
Financial Management	26
Administration	14
Community Education regarding the Mentally Retarded	7
Parent Counseling	6

The results suggest the greatest need of CRF's in Minnesota could be met with better integration of their programs into the community and more coordination with other human service agencies. This outcome was not considered surprising in view of the fact that the development of community programs is a relatively recent one. Acceptance of mentally retarded citizens and programs for them by the public should help alleviate this problem.

Hospital Population and Community Program Comparisons

A major effort of this study was to match empirically the in-residence population of Minnesota's state hospitals to the community residential facilities with a uniform set of measures. The purpose of this match was: 1) to determine the number of institutionalized persons who currently meet the community's criteria for admission, 2) to identify the behavioral gaps between the hospital population's performance level and the CRF's behavioral admission criteria, and 3) to identify those behavioral domains that contributed the greatest to community placement ineligibility.

The rationale for this investigation was the need for program recommendations to both the state hospital system and the community-based system. The procedures employed to complete this match are described in Chapter III. The findings reported below are the results of those procedures.

Four computer runs that matched 3,295 institutionalized persons with the 121 CRF's in Minnesota suggested that approximately

420 persons of that group met the admission criteria of the community facilities as measured by the MDPS Behavioral Scales. In the first computer run, which attempted a "complete fit," i.e., the client exceeded the admission criteria but not the discharge criteria, 87 clients were placed. The criteria for placement were then changed to allow for a client to exceed the discharge level in 17 scales. Three successive runs resulted in the placement of 422 clients, 423 clients, and 412 clients into CRF's. Since all three runs processed all 3,295 records on the state hospital files, it can be stated that the limitations on placement were due to the reported criteria of the 121 CRF's. Because CRF capacity was also considered, it is possible that more than 420 could have been "placed."

To determine if there existed specific factors that most contributed to the limitation on placement, the total group of 3,295 records was split into "Ins," those remaining in the state hospitals, and "Outs," those meeting CRF criteria for community placement. Each group was then compared to CRF admission and discharge criteria.

Table 4.30 lists the mean performance scores on the MDPS of both groups and contrasts them to mean admission and discharge criteria of the CRF's. Several noteworthy findings emerge.

On 7 of 18 Scales the means of the 2,883 hospitalized population or "Ins" fell below the means of the CRF admission criteria. The greatest difference was in Scale 6, Toileting, and

Table 4.30

Comparison of Means and Standard Deviations of 2883 Hospitalized "Ins" and 412 Hospitalized "Outs" to Mean CRF Admission and Discharge Criteria by MDPS Behavioral Scale Domain

MDPS Scale	2883 "Ins"		CRF Admissions		412 "Outs"		CRF Discharges	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1. Gross Motor Development	10.4	6.7	10.9	3.8	16.9	3.9	15.0	4.6
2. Fine Motor Development	7.2	5.6	6.7	4.4	15.3	5.2	15.9	4.7
3. Eating	7.7	5.3	6.7	3.7	15.5	5.0	17.5	4.4
4. Dressing	7.6	6.3	7.7	5.1	15.9	4.7	17.9	4.1
5. Grooming	6.1	5.9	7.1	5.0	14.6	5.3	18.0	4.1
6. Toileting	8.5	6.8	10.0	5.4	16.9	4.6	18.4	4.0
7. Receptive Language	6.6	5.9	7.0	5.3	15.5	5.2	16.6	4.2
8. Expressive Language	5.6	5.8	5.1	4.9	14.3	6.0	14.7	5.5
9. Social Interaction	6.1	5.2	5.8	3.7	13.3	5.1	17.1	4.2
10. Readiness and Reading	3.7	4.3	2.8	3.4	10.8	6.0	10.5	6.0
11. Writing	3.8	4.8	2.6	3.7	11.9	6.1	10.2	5.9
12. Numbers	2.1	4.3	1.9	2.4	9.7	7.1	10.9	6.4
13. Time	2.0	3.8	2.6	2.6	8.5	6.7	14.8	6.1
14. Money	1.4	3.2	1.2	1.7	6.9	6.2	14.2	6.5
15. Domestic Behavior	2.4	4.1	1.9	3.1	9.3	6.7	16.7	5.7
16. Community Orientation	2.3	3.2	2.4	2.3	7.8	5.7	15.1	5.3
17. Recreation, Leisure Time Activities	2.6	3.5	2.2	2.8	8.0	5.4	13.2	5.5
18. Vocational	3.0	4.3	2.6	2.9	10.2	6.2	14.8	5.6

that difference was 1.5 points or items. The two items on that Scale which accounted for the discrepancy read, "Replaces clothing before leaving bathroom" and "Has bowel and bladder control." The other six domains in order of degree of discrepancy were: Dressing, Grooming, Time, Gross Motor Development and Community Orientation. The last, Community Orientation, only differed by a tenth of a point. The means of the hospitalized population exceeded the means of CRF admission criteria in all other domains.

The mean performance of the 420 "Outs" greatly exceeded mean admission criteria in all 18 domains. In fact, the mean performance of those 412 state hospital residents exceeded the mean discharge criteria in three of the 18 domains. These findings suggest that a substantial number of persons currently residing in Minnesota's state hospitals currently meet or nearly meet the mean admission criteria of the CRF's in Minnesota as measured by the MDPS Behavioral Scales. It must be remembered that these data reflect means, and, as a result, do not account for individual residents failing to meet all criteria. For example, if a state hospital resident met the admission criteria in 17 scales but failed in one, that person remained as an "In."

In an effort to determine whether certain Scales, each representing a behavioral domain, contributed substantially more to ineligibility, performance data on the 2,883 were compared to the mean admission criteria of the 121 CRF's by individual scale. The results of that comparison are reported in Table 4.31 which

Table 4.31

Percentage of 2883 Hospitalized "Ins"
Falling Below CRF Mean Admission Criteria and
Percentage of Residents Scoring Above Mean CRF Discharge Criteria

MDPS Scale	Mean Admission	Percent Below	Mean Discharge	Percent Above
1. Gross Motor Development	10.9	53.1	15.0	32.8
2. Fine Motor Development	6.7	55.4	15.9	9.2
3. Eating	6.7	46.6	17.5	6.2
4. Dressing	7.7	54.7	17.9	7.5
5. Grooming	7.1	65.3	18.0	3.6
6. Toileting	10.0	57.3	18.4	8.2
7. Receptive Language	7.0	67.8	16.6	5.7
8. Expressive Language	5.1	69.4	14.7	11.1
9. Social Interaction	5.8	59.6	17.1	2.9
10. Readiness and Reading	2.8	59.1	10.5	5.3
11. Writing	2.6	64.5	10.2	10.1
12. Numbers	1.9	72.9	10.9	6.2
13. Time	2.6	72.7	14.8	2.9
14. Money	1.2	76.4	14.2	1.3
15. Domestic Behavior	1.9	61.8	16.7	2.0
16. Community Orientation	2.4	65.2	15.1	1.1
17. Recreation, Leisure Time Activities	2.2	62.7	13.2	1.0
18. Vocational	2.6	61.4	14.8	3.1

lists the percentages of the 2,883 "Ins" who scored below the mean admission criteria on each scale. The percentages range from 46.6 percent on Scale 3 to 76.4 percent on Scale 14. While these data may at first appear confusing since the "Ins" mean performance exceeded the mean admission criteria, an analysis of the frequency data showed a bimodal distribution when the group was split on the admission criteria of 1.9. It can be inferred that those Scales with very low criteria do not discriminate well with a low functioning population such as the one under study. The percentage figures for the majority of the Scales are generally what one might expect. Major discrepancies did not appear which suggest single domains as primary contributors to ineligibility.

Since "non-placement" in the computer run could also have occurred if a resident exceeded the discharge criteria of the CRF's on all 18 Scales, residents who exceeded those criteria by Scale were examined. Table 4.31 shows that 32.8 percent of the 2,883 state hospital residents exceeded the discharge criteria on Scale 1, Gross Motor Development. The range of percentages for the remaining 17 Scales was from 11.1 percent to 1.0 percent, suggesting that few "ineligibles" occurred due to residents exceeding discharge criteria of the 121 CRF's.

In summary, the analyses show that, on the average, the community residential facilities do not have admission criteria substantially above the average performance of the hospitalized mentally retarded population residing in Minnesota's state

hospitals. Current CRF capacity may well represent the major contributor to limitations on community placement. Finally, if a given state hospital unit decided to "improve" its programs to better facilitate the reintegration of its residents into the community, a comparison of the mean performance of its residents to the mean admission criteria of CRF's should yield data which would enable them to make the necessary program changes to prepare their residents for community placement.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary of the study, the conclusions drawn from the findings and recommendations to the Minnesota Department of Public Welfare.

Summary

Deinstitutionalization, the process of moving mentally retarded persons out of institutions and returning them to communities, has grown into a national trend. Detailed information about the process has been scarce; and as a result little has been written that details procedures for managing the process. The purpose of this study was to investigate the community residential facilities (CRF) in Minnesota in an attempt to develop an information base which might aid policy makers in designing a management system for that state. Several key variables were investigated. Among these were: 1) size, location, rate of growth and usage characteristics of CRF's, 2) admission and discharge criteria of CRF's, 3) degree of program congruence with Minnesota's institutionalized population, 4) degree of differences in admission and discharge criteria of CRF's based on size of facility, and 5) historical data on admissions and discharges from and to different source categories.

A structured interview, conducted on-site with the owner/operators of each of the 121 CRF's in Minnesota, was the primary data collection technique used. Data obtained from an adaptive behavior scale, the Minnesota Developmental Programming System Behavior Scales, were used to compare Minnesota's institutionalized population to the admission criteria of the CRF's. This comparison was accomplished by developing computer programs that "placed" hospital residents into CRF's based on resident behavioral performance and CRF admission and capacity criteria.

The results of the data analysis were presented in narrative and tabular form. Briefly, those results are as follows:

1. As of May 1, 1976, CRF's in Minnesota had a total capacity of 2,873 beds. Fifty-seven percent of that capacity were facilities housing 33 or more residents; 28.5 percent of that number were CRF's of 15 beds or less; and the remaining 14.5 percent were facilities serving 16 to 32 residents.

2. The average occupancy rate of CRF's in Minnesota is 95.6 percent. At the time of the study a majority of the 121 CRF's reported their waiting lists had been increasing over the last three years.

3. Geographical distribution of CRF's coincides with population as 42.2 percent of all CRF's in Minnesota are located in three counties: Hennepin, Ramsey and St. Louis, the three most populous counties in the state. Forty-nine counties, or 57.3 percent did not have a CRF.

4. Seventy-two of the 121 CRF's reported that over half of their residents were from their mental health/mental retardation receiving area. Fifty-one facilities indicated that over 75 percent of their residents were from the area in which the CRF's were located.

5. Of the 121 CRF's open and operating on May 1, 1976, 65.3 percent had opened in the preceding $4\frac{1}{2}$ years. In the first four months of 1976, ten CRF's had opened and all were for 15 or fewer residents each.

6. In the years from 1973 through 1975, nearly equal numbers of persons were admitted to CRF's from state hospitals and natural homes; however, the first four months of 1976 showed a change with the state hospitals accounting for twice as many admissions to CRF's as natural homes.

7. Discharges from CRF's to apartment training programs have steadily increased since 1972 while discharges to state hospitals have steadily decreased. The 1976 data show even fewer residents of CRF's in Minnesota will be returning to state hospitals. Three counties accounted for 96 percent of all placements into apartment training programs.

8. CRF's serving 15 or fewer clients have significantly higher admission criteria in "self-help" skills than those facilities serving more than 15 residents. Conversely, they also have significantly higher "graduation" criteria in selected behavioral domains than the larger facilities.

9. CRF owner/operators perceive their residents who come from state hospitals as presenting more social, emotional and behavioral problems than admissions from other sources. Physical abuse of self or others is the problem behavior which most contributes to ineligibility for placement in Minnesota's CRF's. Physical problems such as being non-ambulatory, over-medicated or in need of medical attention, and fire setting represent two other categories of problem behavior which would disqualify a person from admission to approximately one-third of the CRF's in Minnesota.

10. The CRF owner/operators perceive their greatest assistance need in the area of community involvement and agency support of their programs. Staff training and assistance in financial management are also areas in which CRF's need assistance.

11. Approximately 420 persons currently residing in Minnesota's state hospitals meet MDPS admission criteria of the 121 CRF's in Minnesota, and were "placed" by computer simulation which also considered CRF capacities.

12. Toileting skills represent the behavioral domain in which the largest differences exist between the hospital population's performance level and the CRF admission criteria. In general, however, mean performance by the hospitalized population does not differ substantially from the mean admission criteria of the CRF's in adaptive behavior as measured on the MDPS Behavioral Scales.

Conclusions

Based on the findings of this investigation of the process of deinstitutionalization in Minnesota, the following conclusions have been drawn:

1. The informed judgments of the four surveyors indicate that nearly 97 percent of the 121 CRF's studied will meet the March 1, 1977, deadline for meeting the Federal ICF/MR regulations of the Title XIX program of the Social Security Act.

2. Standard record keeping procedures and adequate data collection methods do not exist for the community-based residential program in Minnesota. Given the exponential growth of this segment of the human service system, confusion and uncertainty about the status of and need for CRF's in Minnesota will likely increase.

3. The "woodwork phenomenon" accounted for a substantial number of residents in CRF's in Minnesota. The 1976 data suggest a trend reversal, however, with fewer clients coming from natural homes and substantially more being admitted from state hospitals. In fact, state hospitals are projected to be the largest sources of residents of CRF's, and are projected to increase their proportionate share over the next five years.

4. A substantial number of clients could not be accounted for in this study. It is not known if these clients were "lost" in the system or if their placements were appropriate to their needs.

5. If CRF growth follows the same trend it has since 1972, net gains in population will increase at the rate of approximately 14 percent in 1976 to 18 percent in 1981. These projections are based on the assumption that current conditions remain the same. Policy interventions would drastically alter, or even reverse, these projections.

6. Smaller CRF's, especially those serving 15 or fewer clients perceive their primary role as preparing residents for independent or semi-independent living, whereas, the larger facilities see their role more in the area of self-help skill development. In this sense, a degree of "continuum of care" probably exists based on size of facility; however, Minnesota does not have an adequate continuum of residential programs as described in the CAIR (1975) Report. Of the 121 CRF's studied, 88.5 percent were described as falling into two of the eight categories listed in that report. Additionally, these two categories accounted for 82.7 percent of the total state capacity.

7. The philosophy of the small, home-like CRF is being implemented in Minnesota in that growth of CRF's serving 15 or fewer clients is by far the greatest. All facilities developed in the first four months of 1976 were for 15 or fewer residents.

8. The fact that only three counties account for 96 percent of all placements into apartment training programs, there is likely a broad-based need for this type of residential program in Minnesota.

9. A comparison of the state hospitals' populations' mean performance on the MDPS Behavioral Scales with the mean admission criteria of the CRF's suggest that approximately 420 residents are either inappropriately placed or, they remain in the hospitals for reasons other than their adaptive behavior level.

10. Given the small differences between the mean performance of the total state hospital population and the mean admission criteria of CRF's, it is concluded that continued institutionalization of that population will be due primarily to CRF capacity limitations.

Recommendations

Based on the findings of this study, the following single recommendation is made to the Minnesota Department of Public Welfare:

> THE MINNESOTA DEPARTMENT OF PUBLIC WELFARE SHOULD IMMEDIATELY ADOPT OR DEVELOP A COMPREHENSIVE MANAGEMENT INFORMATION SYSTEM THAT INCORPORATES ANNUALLY UPDATED BEHAVIORAL DATA ON EACH CLIENT SERVED IN THE STATE. THESE DATA SHOULD BE COLLECTED WITH A UNIFORM SET OF MEASURES AND PROCEDURES BY ALL SEGMENTS OF THE SERVICE DELIVERY SYSTEM.

This recommendation is supported by the following rationale which was derived from both the results and conclusions of the study.

1. If programs planned for disabled persons are to be responsive to the needs of those served, accurate and updated information on those clients is necessary. Programs are being designed

and developed in Minnesota in the absence of complete information on state-wide needs. It is likely that program gaps will continue to occur in the continuum of care unless uniform data on clients and their needs are available.

2. If the Department wants assurance that no clients are "lost" or inappropriately placed in the service delivery system, it must have a client tracking capability that permits follow-along monitoring of individuals and the programs in which they are placed. An additional benefit of this capability would be accurate, updated data on performance and movement of the entire target population in the state. The outcomes of such program utilization would permit the kinds of trend analysis that is presently not possible.

3. The adoption of a uniform set of measures by all segments of the service delivery system will permit the kinds of evaluation research necessary for program improvement. This assertion is grounded in the belief that valid program evaluation must use the actual recipient of service as the primary unit of analysis. Like populations could be compared in alternative programs for the purposes of determining cost/impact benefit.

4. The empirical matching of client needs with planned program services will help assure congruence of planning with the program needs of the target population. Such matching will also provide the information base necessary for program reform in both the state hospitals and the community sectors.

5. A single uniform system of data reporting should eliminate the current duplication of efforts by various sectors of the present service delivery system. Data could be grouped by counties, areas, regions or any other configuration of program or governmental organization, thereby meeting the growing information needs of policy makers at all levels of government.

6. Finally, the management information system recommended here will enable the Department to communicate system status and need data to the Legislature in a consistent and accurate manner.

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APPENDIX A

Questionnaire

DATA COLLECTION FORMAT

Date Collected _____ TAP _____

I. Facility Description:

A. Name _____

B. Address _____

C. Opening Date _____

D. Probability of Continued Operation After March 1, 1977 _____

E. Licensed Capacity _____ No. Female _____ No. Male _____

Both _____

F. Age Range _____ to _____ LSC: I _____ R _____

G. Vacancy Rate (Monthly)* _____

H. Average Number on Waiting List per Month _____ (Consider last 12 calendar months)

Is this list Increasing _____ Decreasing _____ Stable _____? (Consider last three years)

I. Percentage of clients from Primary Receiving Area _____%

* Average number of vacancies per month for last 12 months.

II. Admission/Discharge History: List the number of residents admitted or discharged to each alternative each year (1972 - 1976).

ADMISSIONS							DISCHARGES				
Prior '72	76	75	74	73	72		72	73	74	75	76**
						SNF					
						ICF/GEN					
						State Hospital					
						ICF/MR					
						Foster Home					
						Natural Home					
						Apt. Training					
						Indep. Living					
						Unknown/Other					
						TOTALS					

** As of May 1, 1976

III. Physical Characteristics of Served Population: Indicate with a check (X) the level (s) of functioning accepted in the facility. Match them with the attached CAIR Descriptors.

A. No Significant Disability _____
B. Level 1 _____
C. Level 2 _____
D. Level 3 _____
E. Level 4 _____

LEVEL 1 -- Functional Description

Seizures occur infrequently.
Does not drive any vehicle.
Does not work in high places or close to heavy moving machinery that may be injurious to self or others.
Does not swim without supervision.
Uses public transportation independently.
Can be educated or trained for any type of job provided above restrictions are observed.
Can be self-supporting.
Can live independently.
Can take and self-dispense medication without supervision.
May need counseling and/or social services.

LEVEL 2 -- Functional Description

Limited control of seizures achieved through medication.
Seizures interfere with activities.
Does not drive any vehicle.
Does not work in high places, near open fires or close to heavy machinery that may be injurious to self or others.
Uses public transportation independently.
Can be trained for low-risk jobs.
Can benefit from occupational training center programs and rehabilitation programs.
May need individualized attention in school.
Can be partially self-supporting.
Can participate in gym, shop, swimming, etc., with supervision.
May not be capable of taking medication independently.

LEVEL 3 -- Functional Description

Poor control of seizures with medications.
Requires specialized health care.
Activities greatly curtailed, e.g., stair climbing, bike riding.
Does not drive any vehicle.
Does not work in high places, close to heavy machinery, near fires or heated objects.
May need supervision in other potentially dangerous conditions, e.g., bathtubs, sharp objects.
Does not use public transportation independently.
Cannot attend school regularly.

Cannot be competitively employed (probably).
May be able to contribute to self-support.
Cannot live independently.
Is unable to take medications independently.
Is restricted from household chores such as cooking over open fire, ironing, burning trash.

LEVEL 4 -- Functional Description

Uncontrollable seizures.
Seizures of great severity and frequency.
Activities greatly restricted.
Requires supervision in potentially dangerous conditions, e.g., bathtubs, sharp objects.
Dependent for support and care.
Cannot transport self independently.
Requires protected environment.
Cannot take own medications.
Requires frequent hospitalization or nursing care.
Unable to perform most household chores.

IV. Continuum of Residential Programs: Indicate with a check (X) the one category that most closely describes the facility. Use the space below for exceptions and comments. (See Descriptors Attached)

A. _____ Developmental/Medical Program

B. _____ Family-Living Developmental Program

C. _____ Five-Day Board and Lodging Program

D. _____ Developmental Foster Program

E. _____ Social - Vocational Training Program

F. _____ Supervised Apartment Training Program

G. _____ Minimally Supervised Apartment Program

H. _____ Behavior Training Developmental Program

EXCEPTIONS - COMMENTS: _____

_____

_____

_____

_____

V. General:

A. What significant differences (problems, characteristics, etc.) have you noted between residents coming from state hospitals as opposed to other sources? List in order of importance/significance.

B. What kinds of assistance would be most helpful in improving your facility's efforts at meeting your residents needs?

VI. Behavioral Level Necessary for Admittance -- Behavioral Level Necessary for Graduation:

USE ATTACHED MDPS BEHAVIORAL PROFILE

VII. Problem Behaviors (See Instructions):

APPENDIX B

Memo to CRF's

STATE OF MINNESOTA

DEPARTMENT of Public Welfare

Office Memorandum

TO : All Rule 34 Facility Operators

DATE: March 2, 1976

FROM : Technical Assistance Project

PHONE:

SUBJECT: Need for Information

I would like to ask your assistance in providing me with information about your facility that will aid both the Department of Public Welfare and your local area board in planning community-based facilities for the mentally retarded in your area.

I will make an appointment with you to collect the necessary information. Basically, that will include:

A. General facility characteristics.

B. Admissions and discharge information (when, how many, where from and to since 1972.)

C. Physical characteristics of your residents.

I foresee that the information will be readily available and will take very little time to compile. I will contact you within the next two weeks to make an appointment. Thank you for your cooperation.

FW/beg

APPENDIX C

Instructions

INSTRUCTION SHEET
for
DATA COLLECTION

TO: TAP Consultants DATE: March 10, 1976

FROM: Warren H. Bock

SUBJECT: Instructions for Completing Data Collection on Rule 34 Facility Research

Please follow the instructions listed below as closely as possible in the conduct of your interviews.

I. Facility Description:

Enter the date on which you completed the interview and your name in spaces provided at the top of the page.

A. Enter the licensed name of the facility and the TAP ID code number.

B. Enter street, city address and county.

C. Record the date the facility officially opened its doors. If it has expanded to serve more than its original capacity, record that date and the number of additional clients served, or, if the facility has reduced its licensed capacity, record date and number reduction.

D. Based upon Rule 34 provisions, ICF/MR (77) deficiencies, or any other variables that may affect the facility, make a probability determination on that facility's continued operation after March 1, 1977. Try to arrive at a "weatherman's prediction", e.g., 30% chance, 90% chance, etc.

E. Licensed capacity should be recorded from their current Rule 34 license. If gender distinction is made, record that. If application to increase/decrease that number within the next 12 months is planned, record those plans.

F. Enter the age range served (Rule 34 license) and check (X) whether the facility is certified as institutional or residential under Life Safety Code.

G. Determine vacancy rate either from Rule 52 records or by questioning them on average number of empty beds per month over the past 18 months.

H. If a waiting list exists, determine the average number per month over the last 12 months. Also determine if this list has been increasing, decreasing or staying the same over the last three years.

I. Under receiving area, consider the MH/MR Area Board boundaries as primary, and, outside those boundaries as secondary. Enter percentage of current residents served in primary receiving area. If they expect these percentages to change, (e.g., if they expect their clients to be coming in differently than was the case in the past) indicate change anticipated.

II. Admission/Discharge History:

Enter all actual admissions and discharges for each of the years listed on the form by category. If any current residents were admitted prior to 1972, list the actual numbers in the far left hand column.

III. Directions on form are self-explanatory. If a facility will accept more than one level, indicate the preferred (primary) level and the others which are permissible (secondary).

IV. Continuum of Residential Programs:

Check that facility category that most resembles this facility. If there is some unique exception, describe in Comments-Exceptions section.

V. General:

A. This question seeks to determine if the facility operator has discerned significant differences in the characteristics or problems of the two groups of clients, i.e., from state hospitals and other sources. Try and list the differences in order of importance/significance.

B. This question is broad and the interviewee should be given wide latitude in responding. Again, list in order of importance.

VI. Behavioral Profile:

This activity is most important! We are trying to determine what behavioral (by MDPS) criteria constitutes prerequisite behaviors for both admission and discharge. The result should be two profiles on one sheet. It is important that the specific behaviors are viewed as indicators of a developmental level versus

viewing actual behaviors for their own merit. It may be helpful to begin with high validity domains, e.g., eating, toileting, etc., to generate the appropriate view for subsequent domains. The resultant "band" of behaviors, those falling between admission and discharge levels, should constitute that facility's "specialty" when considering program emphasis.

VII. Problem Behavior:

After all of the above has been completed, determine through questioning if there are any specific problems or maladaptive behaviors that would prevent a potential client's admission despite their meeting all other criteria. Please try to be specific in recording their problems.

Use margins, back of pages, etc., in recording any and all unique circumstances encountered. It is better to over record than under record. What we are looking for is the most comprehensive picture of the facility possible.

APPENDIX D

Continuum of Residential Programs

Continuum of Residential Programs

DEVELOPMENTAL/MEDICAL PROGRAM

Definition: Program for individuals having severe, chronic health problems requiring a life support program in conjunction with training in adaptive behaviors.

Location: In larger communities having comprehensive hospitals and medical personnel.

Population Characteristics: Nonambulatory individuals having severe chronic health problems in conjunction with severe developmental handicaps; individuals who require medical care more than any other specific service.

Program Characteristics:
- Life support services
- Convalescent care
- Equipment training for ambulation and mobility
- Self-care skills
- Physical development
- Ambulation
- Communication skills
- Social-interaction skills

Size: Less than 25

Duration: Intermediate to long term

Staff:

Primary	Consultant
Pediatric Nurse (Age 0-16)	Dentist
Registered Nurse (Age 16 +)	Dietician
Paraprofessional staff	Occupational therapist
	Physical therapist
	Physician (immediate availability)
	Public health nurse
	Social worker
	Special education/child development specialist
	Speech pathologist

Licensing Standards: DPW: Rules 80 and/or 34; MDH: Nursing Home or Hospital

Certification: Federal—Skilled Nursing Home or Hospital

Educational Support Services:

0 - 21	16 +
Infant stimulation programs	Adult day activity centers
Preschool programs	Work activity centers
Special school programs	
Special class programs	

Community Support Services:
- Medical — Public or private hospital facilities
- Transportation — Private system
- Recreation — Individual-centered recreational program

FAMILY-LIVING DEVELOPMENTAL PROGRAM

Definition: Serves individuals without severe, chronic medical problems but generally with more severe developmental handicaps than individuals in developmental foster programs. While the primary sources of education and training would exist outside the residence, a formal training program to accelerate development of adaptive behaviors would be provided.

Location: Near schools in communities of varying sizes having the required support services.

Population Characteristics: Nonmobile to ambulatory; may not have self-care skills

Program Characteristics:
- Stimulation activities
- Ambulation or mobility skills
- Personal-hygiene skills
- Eating skills
- Dressing skills
- Communication skills
- Social-interaction skills
- Family-living skills

Size: 6 - 8 individuals

Duration: Short term to long term

Staff:

Primary	Consultant
Trained houseparents	Health personnel
	Occupational therapist
	Physical therapist
	Psychologist
	Public health nurse
	Social worker
	Special education/child development training specialist
	Speech pathologist

Licensing Standards: DPW: Rules 80 and/or 34; MDH: Boarding Care or SLF/B

Certification: Federal—ICF-SI or ICF-MR

Educational Support Services:

0 - 21	16 +
Infant stimulation programs	Adult day activity centers
Preschool programs	Work activity centers
Special school programs	Sheltered workshops
Special class programs	Comprehensive rehabilitation facilities
	Competitive work training programs

Community Support Services:
- Medical — Public or private hospital facilities
- Transportation — Private and public systems
- Recreation — Structured programs

FIVE-DAY BOARD AND LODGING PROGRAM

Definition: Serves individuals from sparsely populated areas attending community training programs and electing to return to a home base on weekends.
Location: In communities having the required education/training support services.
Population Characteristics: Ambulatory or mobile; over 3 years of age.
Program Characteristics: Stimulation activities
Ambulation or mobility skills
Personal-hygiene skills
Eating skills
Dressing skills
Communication skills
Social-interaction skills
Family-living skills
Size: 6 - 15
Duration: Short term to intermediate
Staff:

Primary	Consultant
Trained houseparents	Health personnel
	Occupational therapist
	Physical therapist
	Psychologist
	Public health nurse
	Social worker
	Special education/child development training specialist
	Speech pathologist

Licensing Standards: DFW: Rules 80 and/or 34; MDH: SLF/A
Certification: Federal—ICF/MR
Educational Support Services:

0 - 21	16 +
Special school programs	Work activity centers
Special class programs	Comprehensive rehabilitation facilities
	Competitive work
	Sheltered workshops
	Competitive work training programs

Community Support Services:
Medical — Public or private hospital facilities
Transportation — Private and public systems
Recreation — Structured programs

DEVELOPMENTAL FOSTER PROGRAM

Definition: Serves individuals having a wide range of developmental handicaps exclusive of severe or chronic medical problems.
Location: In communities of varying sizes.
Population Characteristics: Ambulatory or mobile; may not have self-care skills.
Program Characteristics: Stimulation activities
Ambulation or mobility skills
Personal-hygiene skills
Eating skills
Dressing skills
Communication skills
Social-interaction skills
Family-living skills
Size: 1 - 3 (Dependent on the number of natural children in the family.)
Duration: Short term to long term
Staff:

Primary	Consultant
Licensed, trained foster parents	Developmental psychologist
	Health personnel
	Occupational therapist
	Physical therapist
	Public health nurse
	Social worker
	Special education/child development training specialist
	Speech pathologist

Licensing Standard: Rule 1
Educational Support Services:

0 - 21	16 +
Infant stimulation programs	Adult day activity centers
Preschool programs	Work activity centers
Special school programs	Sheltered workshops
Special class programs	Comprehensive rehabilitation facilities
	Competitive work training programs

Community Support Services:
Medical — Public or private hospital facilities
Transportation — Private and public systems
Recreation — Structured programs

SOCIAL-VOCATIONAL TRAINING PROGRAM

Definition: Serves individuals who have acquired the basic self-care skills but require basic training in independent-living skills and vocational skills in a group environment.

Location: In community settings close to schools, shopping, transportation. Vocational opportunities should be present or arranged within the community.

Population Characteristics: Mobile or ambulatory; individuals who have acquired the basic self-care skills, but whose present skills preclude independent living; age 14 or over.

Program Characteristics: Directed toward 24-hour self-sufficiency in the areas of:

- Communication skills
- Social-interaction skills
- Basic independent-living skills
- Basic vocational skills

Size: 10

Duration: Short term to intermediate

Staff:

Primary	Consultant
Trained houseparents	Psychologist
	Social worker
	Special educator
	Vocational counselor

Licensing Standards: DPW: Rules 34 and/or 80; MDH: SLF/A

Certification: Federal ICF/MR

Educational Support Services:

0 - 21	16 +
Special school programs	Work activity centers
Special class programs	Sheltered workshops
	Comprehensive rehabilitation facilities
	Competitive work training programs
	Competitive work

Community Support Services:

Medical — Public or private hospital facilities

Transportation — Public and private systems

Recreation — Planned adolescent/adult recreational programs

SUPERVISED APARTMENT TRAINING PROGRAM

Definition: Serves adults attending community vocational training programs, sheltered employment, supervised or independent employment.

Location: In existing apartment complexes close to shopping, transportation, and vocational opportunities.

Population Characteristics: Ambulatory or mobile; over 18 years of age; having mastered self-care skills and those skills required for semi-independent living.

Size: Less than 10 units; maximum of 2 persons/unit

Duration: Short term to long term

Staff:

Primary	Consultant
Live-in counselor	Health educator
	Psychologist
	Social worker
	Special educator

Licensing Standards: Central supervisory agency licensing as contrasted to licensing of individual units. MDH — SLF/A

Certification: Federal — ICF/MR

Educational Support Services:

0 - 21	16 +
Special school programs	Work activity centers
Special class programs	Sheltered workshops
	Area vocational technical schools (large cities only)
	Comprehensive rehabilitation facilities
	Competitive work training programs
	Competitive work

Community Support Services:

Medical — Public or private hospital facilities

Transportation — Public and private systems

Recreation — Planned adolescent/adult recreational programs

MINIMALLY SUPERVISED APARTMENT PROGRAM

Definition: Serves persons who need little outside support to assume independent roles in community settings, i.e., the individual can independently deal with life situations with occasional visits by a counselor.

Location: In existing apartment complexes close to shopping, transportation, vocational opportunities, banking facilities.

Population Characteristics: Mobile or ambulatory; 18 years or older.

Program Characteristics: Situational counseling for maintenance of independent life.

Size: Individual or family (1 - 4)

Duration: Intermediate to long-term

Staff: Consultant
- Social worker
- Special educator
- Vocational counselor

Licensing Standards: Central supervisory agency licensing as contrasted to licensing of individual units.

Educational Support Services:

16 +
- Work activity centers
- Sheltered workshops
- Comprehensive rehabilitation facilities
- Competitive work training programs
- Competitive work

Community Support Services:
- Medical — Public or private hospital facilities
- Transportation — Public systems
- Recreation — Variety of adolescent/adult recreation available in the community

BEHAVIOR TRAINING DEVELOPMENTAL PROGRAM

Definition: Serves persons on a short-term basis to eliminate serious maladaptive behaviors and to improve adaptive behaviors to a level appropriate for placement in Developmental Foster Homes, Family Living Developmental Residences, or Five-day Boarding Homes.

Location: In small or large community centers on a regional basis.

Population Characteristics: Ambulatory/mobile. Persons whose behavior and/or social conduct require a highly structured, response-contingent, and restrictive environment, i.e., whose behavior cannot be changed in the present environment. Generally, the population would include individuals who are consistently destructive to themselves, other individuals, or property, or who, because of behavioral characteristics, are rejected by individuals in residential and program alternatives. The individual must be formally located in a specific, on-going residential program and then formally admitted with rights of review prior to placement in the program.

Program Characteristics: Intensive behavior modification program, basic social skills, communication skills, self-care skills.

Size: Less than 10

Duration: Short-term

Staff:

Primary	Consultant
Psychologist or Special Educator with specific training in behavior modification	Physician Social worker

Licensing Standards:

Educational Support Services:

0 - 21	16 +
Special school programs	Work activity centers
Special class programs	Sheltered workshops

Community Support Services:
- Medical — Public and private hospital facilities
- Transportation — Private and public systems
- Recreation — Structured and non-structured programs

APPENDIX E

MDPS Behavioral Scales

Warren Bock
Carolyn Hawkins
P. Jeyachandran
Harold Tapper
Richard Weatherman

MINNESOTA DEVELOPMENTAL PROGRAMMING SYSTEM

BEHAVIORAL SCALES

A cooperative project of
The Minnesota Department of Public Welfare and
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Outreach Training Program
301 Health Services Building
St. Paul, Minnesota 55108

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SCALE 1

GROSS MOTOR DEVELOPMENT

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A | B | C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A | B | C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

	SCALE 1 GROSS MOTOR
1. Holds head up for five seconds when lying on stomach	1
2. Rolls over on flat surface from back to stomach or stomach to back	2
3. Holds head erect when in sitting or standing position (body may be supported)	3
4. Sits	4
5. Changes from lying on stomach to a sitting position	5
6. Pulls self to standing position using something to hold onto	6
7. Crawls	7
8. Stands	8
9. Walks five feet (may use braces or crutches)	9
10. Moves about in a room containing furniture and other people	10
11. Walks upstairs and downstairs, putting both feet on each step	11
12. Walks a straight line for ten feet	12
13. Pushes or pulls a wagon-type object while walking ten feet	13
14. Jumps up, both feet off the floor at once	14
15. Runs	15
16. Walks upstairs and downstairs alternating feet	16
17. Climbs up and down a ladder one rung at a time	17
18. Squats	18
19. Stands on tiptoe for ten seconds	19
20. Swims, using arms and legs	20

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SCALE 2

FINE MOTOR DEVELOPMENT

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A B C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A B C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- If necessary simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 2 FINE MOTOR

1. Closes hand around an object placed in hand ____ 1
2. Reaches for and grasps objects ____ 2
3. Uses both hands at the same time when needed to handle an object ____ 3
4. Picks up small objects using thumb and fingers only ____ 4
5. Turns a doorknob and opens the door ____ 5
6. Carries a paper cup without crushing ____ 6
7. Uses a spoon to stir food or drink ____ 7
8. Makes a stack of three wooden blocks or cans ____ 8
9. Strings three one-inch beads or spools onto a string ____ 9
10. Unscrews a jar or bottle lid ____ 10
11. Pours liquid from a pitcher ____ 11
12. Places a key in a lock and opens the lock ____ 12
13. Cuts a straight line drawn on paper, using scissors ____ 13
14. Tears off a piece of Scotch tape in a dispenser ____ 14
15. Cuts out a circle ____ 15
16. Handles five playing cards at the same time while playing a game ____ 16
17. Folds a letter, puts it in an envelope, seals it, and puts on a stamp ____ 17
18. Uses a screwdriver ____ 18
19. Strikes a match ____ 19
20. Threads a needle ____ 20

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GOAL 3

EATING

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) [**B** C]

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) [A **B** C]

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS **B**

SCALE 3 EATING

1. Swallows soft foods that do not require chewing _____ 1
2. Drinks from a glass or cup with assistance _____ 2
3. Picks up food with fingers and puts food in mouth _____ 3
4. Chews solid food _____ 4
5. Picks up a glass and drinks from it _____ 5
6. Uses a spoon to pick up and eat food _____ 6
7. Eats a complete meal with little or no spilling (may use only fingers and spoon) _____ 7
8. Drinks from a drinking fountain with hand or foot control _____ 8
9. Uses a fork to pick up and eat food _____ 9
10. Waits in line and carries a tray in a dining facility _____ 10
11. Spreads butter with a table knife _____ 11
12. Eats a complete meal with little or no spilling, using all normal dishes and utensils _____ 12
13. Eats, supervised, in public without calling attention to eating behavior _____ 13
14. Serves self in a family-style setting _____ 14
15. Cuts food with a knife and a fork _____ 15
16. Takes proper portions when food is offered _____ 16
17. Displays table manners _____ 17
18. Selects and requests food such as a hamburger and a coke from a limited range of take-out foods _____ 18
19. Takes a proper and complete meal when variety is offered _____ 19
20. Orders and eats in a public dining facility _____ 20

MOPS 4/75

SCALE 4

DRESSING

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A ■ C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A ■ C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has
- Do not read between the lines.
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 4 DRESSING

1. Offers little or no resistance while being dressed and undressed ____ 1
2. Extends and withdraws arms and legs while being dressed and undressed ____ 2
3. Removes socks, underpants, unzipped outer pants and unbuttoned shirt or dress ____ 3
4. Removes slip-over shirt ____ 4
5. Undresses self completely (may need help with belt or bra) ____ 5
6. Puts on underpants, slip-over shirt or dress, outer pants, and socks ____ 6
7. Puts on coat or jacket (need not fasten) ____ 7
8. Unzips clothing ____ 8
9. Dresses self completely except for fastenings such as buttons, zippers, ties, or hooks ____ 9
10. Puts on and takes off outer clothing, including coat, hat, gloves and boots ____ 10
11. Puts shoes on correct feet ____ 11
12. Buttons clothing ____ 12
13. Starts and closes a front zipper, as on a jacket ____ 13
14. Puts on outer wear without reminder in response to cold or rain ____ 14
15. Laces shoes with a lace in each eyelet ____ 15
16. Ties a bow knot in shoelaces ____ 16
17. Puts on and takes off ties, scarves, belts, watches, or jewelry ____ 17
18. Changes dirty clothing without reminder ____ 18
19. Selects clothing for seasonal and weather conditions and different occasions ____ 19
20. Selects correct sizes and styles of clothing at a store ____ 20

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SCALE 5

GROOMING

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | **A** B C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A **B** C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS **B**

SCALE 5
GROOMING

1. Offers little or no resistance while being washed ____ 1
2. Turns head and extends hands while being washed ____ 2
3. Puts hands under running water for washing ____ 3
4. Dries hands with a towel ____ 4
5. Places a toothbrush in mouth and begins brushing motion ____ 5
6. Wipes face with a wet washcloth ____ 6
7. Soaps and rinses hands ____ 7
8. Wipes nose with an arm, hand or tissue when nose is running ____ 8
9. Soaps and rinses arms and upper body ____ 9
10. Blows nose in a tissue or handkerchief ____ 10
11. Runs a comb or brush through hair with several strokes ____ 11
12. Bathes in a tub or shower ____ 12
13. Applies toothpaste to a brush, brushes teeth, and rinses mouth and brush ____ 13
14. Dries entire body with a towel after bathing ____ 14
15. Applies deodorant ____ 15
16. Washes, rinses and dries hair ____ 16
17. Shaves (male) or applies lipstick (female) ____ 17
18. Performs all aspects of hair care, except cutting and giving a permanent ____ 18
19. Cleans and clips finger nails with a nail clipper ____ 19
20. Maintains self clean, odor-free and groomed ____ 20

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4/75

SCALE 6

TOILETING

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | ■ B C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A ■ C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 6
TOILETING

1. Stays dry for two hours _____ 1
2. Sits on the toilet for thirty seconds _____ 2
3. Eliminates when on the toilet (bowel or bladder) _____ 3
4. Removes clothing before sitting on the toilet _____ 4
5. Goes to the bathroom with a reminder _____ 5
6. Has bowel control at night _____ 6
7. Replaces clothing before leaving the bathroom _____ 7
8. Removes clothing, sits on the toilet and eliminates, and replaces clothing _____ 8
9. Has bowel control _____ 9
10. Indicates by a gesture or words when needing to use the toilet _____ 10
11. Uses the bathroom _____ 11
12. Has bowel and bladder control _____ 12
13. Flushes the toilet after use _____ 13
14. Uses *only* a urinal or toilet for urination _____ 14
15. Obtains help with any toileting problem _____ 15
16. Asks the location of the bathroom in new situations _____ 16
17. Uses toilet paper _____ 17
18. Requires normal privacy for toileting _____ 18
19. Washes and dries hands after toileting _____ 19
20. Chooses the correct restroom in a public place _____ 20

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SCALE 7

RECEPTIVE LANGUAGE

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | **A** | B | C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A | **B** | C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ▮

SCALE 7 RECEPTIVE LANGUAGE

1. Turns head toward the source of a sound ____ 1
2. Responds when name is called ____ 2
3. Responds to the instruction, "Look at me," with two seconds of eye contact ____ 3
4. Responds to a simple instruction such as, "Come here." ____ 4
5. Performs the appropriate action when the word "me" is used such as, "Give me the ball." ____ 5
6. Stops an activity upon request such as, "No," or "Stop." ____ 6
7. Points to fifteen common objects such as a ball, spoon, etc., upon request ____ 7
8. Points to three out of ten pictured objects in a book upon request ____ 8
9. Listens to a story for three minutes ____ 9
10. Follows instructions such as, "Put the ball *in* the box," or "Put the broom *behind* the door." ____ 10
11. Points to ten body parts such as nose, eyes, mouth, etc., upon request ____ 11
12. Responds to non-verbal communications from others such as frowning, crying, smiling, etc. ____ 12
13. Follows two-step directions in order such as, "Get the ball and close the door." ____ 13
14. Points to a large object and a small object upon request ____ 14
15. Identifies three colors out of a group of colors when asked, "Which color is blue? Red? (etc.)" ____ 15
16. Follows three-step directions in order such as, "Stand up and open the book and move the chair." ____ 16
17. Follows verbal directions to get from building to building in a familiar setting ____ 17
18. Listens to a one-page story and answers, "Yes," or "No," to specific questions about it ____ 18
19. Listens to a one-page story and answers questions about it such as, "What happened first to Tom?" ____ 19
20. Summarizes a TV program in own words ____ 20

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SCALE 8

EXPRESSIVE LANGUAGE

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A | B | C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A | B | C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines
- Do not give assistance unless so stated.
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS [A]

SCALE 8
EXPRESSIVE LANGUAGE

1. Makes voice sounds ____ 1
2. Uses voice sounds to get attention ____ 2
3. Changes the tone and rhythm of voice sounds ____ 3
4. Says or indicates, "Yes," or "No," in response to questions such as, "Do you want to go out?" ____ 4
5. Imitates five words heard ____ 5
6. Uses two-word phrases such as, "Hi, Buddy," "Go out," or "Eat cookie." ____ 6
7. Says twenty words ____ 7
8. Names ten common objects when asked, "What is this?" ____ 8
9. Says first and last name when asked ____ 9
10. Names ten body parts when asked, "What is this?" ____ 10
11. Uses sentences of four words ____ 11
12. Expresses feelings, desires or problems in complete sentences such as, "I am hungry." ____ 12
13. Asks simple questions such as, "What is this?", "Why can't I?" ____ 13
14. Uses pronouns such as "I, you, he, her, me, or mine," in a sentence ____ 14
15. Speaks in phrases or sentences clearly enough to be understood by someone not familiar with the person ____ 15
16. Uses two-part sentences such as, "I saw Jim, and I asked him to help me." ____ 16
17. Carries on a conversation for ten minutes ____ 17
18. Says address of residence clearly when asked ____ 18
19. Describes past events in logical order ____ 19
20. Tells jokes ____ 20

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SCALE 9

SOCIAL INTERACTION

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A ■ C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | ■ B C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines
- Do not give assistance unless so stated
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 9 SOCIAL INTERACTION

1. Responds when touched by reaching toward or moving away _____ 1
2. Looks toward or otherwise indicates a person in the immediate area _____ 2
3. Follows a person with eyes or otherwise responds to a person moving _____ 3
4. Imitates arm movement such as clapping hands or waving good-bye _____ 4
5. Spends time alone with toys or objects for two minutes _____ 5
6. Identifies friends and acquaintances from strangers _____ 6
7. Spends five minutes doing something with one or two other persons _____ 7
8. Spends ten minutes doing something with one or two other persons sitting at a table _____ 8
9. Waits for turn in a group _____ 9
10. Follows directions from others _____ 10
11. Waits for two minutes for an object wanted _____ 11
12. Greets others upon meeting _____ 12
13. Says, "Please," and "Thank you." _____ 13
14. Gets along with members of the opposite sex in any situation _____ 14
15. Participates actively in social events _____ 15
16. Shares possessions with others _____ 16
17. Uses things that belong to someone else *only* with their permission _____ 17
18. Responds with proper social courtesies such as greetings, apologies, or compliments _____ 18
19. Invites others to participate in an activity such as going for a walk or going to the movie _____ 19
20. Receives and makes local phone calls _____ 20

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SCALE 10

READING

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | **A** | B | C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A | **B** | C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS **B**

SCALE 10 READING

1. Sits quietly at a table for two minutes ____ 1
2. Looks at objects presented when seated at a table ____ 2
3. Turns the pages in a book one at a time ____ 3
4. Points to five common objects when objects are named ____ 4
5. Identifies different sounds, such as bell ringing, hands clapping, whispering, keys jingling ____ 5
6. Sorts three objects by shape ____ 6
7. Identifies three primary colors ____ 7
8. Sorts pictures of similar, familiar objects into the same category, such as dogs, people, cars ____ 8
9. Follows printed material left to right ____ 9
10. Selects one printed letter from three when it is different, such as "b,.a,.b" ____ 10
11. Sounds out common words with three letters ____ 11
12. When shown five pictures arranged to tell a story and then mixed up, arranges them again in sequence ____ 12
13. Reads aloud the alphabet from A to Z ____ 13
14. After seeing pairs of words such as "pat, pan" or "cat, cat," identifies which pairs are the same ____ 14
15. Recites the following words when shown on flash cards: "stop, men, women, danger, poison, exit" ____ 15
16. Reads a simple sentence and answers questions about it ____ 16
17. Reads aloud sentences with five common words ____ 17
18. Reads a story to others ____ 18
19. Reads a simple story and states its main idea ____ 19
20. Reads for information or entertainment ____ 20

MDPS 4/75

SCALE 11

WRITING

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | 1 2 3 |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | 2 1 3 |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has
- Do not read between the lines
- Do not give assistance unless so stated
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS 1

SCALE 11 WRITING

1. Grasps chalk, pencil or crayon _____ 1
2. Scribbles with chalk, pencil or crayon _____ 2
3. Imitates someone moving hand from left to right across a page _____ 3
4. Grasps chalk with thumb, index finger and middle finger _____ 4
5. Marks on a chalkboard or paper in circles and lines _____ 5
6. Traces with fingers along a three-inch straight line _____ 6
7. Traces with fingers around the outside of a six-inch circular object in a continuous motion _____ 7
8. Copies with a pencil a three-inch straight line _____ 8
9. Draws a circle with no example to look at _____ 9
10. Draws an X with an example to look at _____ 10
11. Draws a line connecting three dots on a piece of paper _____ 11
12. Writes or prints words with an example to look at _____ 12
13. Writes or prints first and last name with no example to look at _____ 13
14. Stays on the lines when printing or writing _____ 14
15. Writes or prints clearly _____ 15
16. Copies a printed sentence, including punctuation and capital letters _____ 16
17. Copies a paragraph onto an 8½ by 11 inch sheet of lined paper _____ 17
18. Writes or prints dictated words _____ 18
19. Writes or prints dictated sentences _____ 19
20. Writes or prints letters for mailing _____ 20

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SCALE 12

NUMBERS

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A ■ C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A ■ C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity

- Observe the behavior directly, or consult with someone who has
- Do not read between the lines.
- Do not give assistance unless so stated
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 12 NUMBERS

1. Separates one object from a group upon the request, "Give me one." ____ 1
2. Repeats two numbers in the order given ____ 2
3. Creates order out of a group of objects by lining up, stacking, or placing them in some other pattern ____ 3
4. Indicates the difference between a short and long line ____ 4
5. Counts to ten ____ 5
6. Chooses the correct number of objects up to five upon the request, "Give me one block, two blocks, etc." ____ 6
7. Indicates the difference between "more" and "less" when shown two different sized groups of objects ____ 7
8. Matches equal numbers, up to five, of different kinds of objects such as two cookies with two shoes ____ 8
9. Names the printed number symbols 1 through 10 ____ 9
10. Repeats five single-digit numbers in the order given ____ 10
11. Follows directions to fill a glass half full ____ 11
12. Places the printed number symbols 1 through 10 in order ____ 12
13. Prints the number symbols 1 through 10 ____ 13
14. Counts from ten to twenty ____ 14
15. Matches the printed number symbols 1 through 10 with the correct number of objects ____ 15
16. Prints the number symbols from 1 to 100 in order ____ 16
17. Adds numbers with sums up to ten such as 7 + 2, 2 + 1, or 8 + 0 ____ 17
18. Subtracts numbers up to ten ____ 18
19. Uses the concept of carrying in addition ____ 19
20. Multiplies and divides numbers up to twenty ____ 20

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SCALE 13

TIME

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) [A] [B] [C]

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) [A] [B] [C]

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines
- Do not give assistance unless so stated
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS [C]

SCALE 13 TIME

1. Associates the time of the day with activities such as meals or bedtime ____ 1
2. Indicates whether it is day or night ____ 2
3. Responds to "now," "later," "hurry," and "wait" ____ 3
4. Indicates whether it is morning or afternoon ____ 4
5. Indicates own age ____ 5
6. Indicates the difference between yesterday, today and tomorrow ____ 6
7. Names or identifies the seven days of the week ____ 7
8. Indicates what day of the week it is now ____ 8
9. Names or identifies the numbers on the clock ____ 9
10. Names or identifies the four seasons of the year ____ 10
11. Indicates what month and year it is now ____ 11
12. Names or identifies the twelve months of the year ____ 12
13. Tells or identifies birthdate, month, day and year ____ 13
14. Indicates the passage of five minutes on a clock ____ 14
15. Sets a clock to within one hour of the correct time, after hearing the correct time ____ 15
16. Indicates the passage of five minutes, give or take four minutes, without the use of a clock ____ 16
17. Tells time to the minute on a clock or watch ____ 17
18. Sets a clock or watch to within one minute of the correct time, after hearing the correct time ____ 18
19. Meets a particular scheduled bus ____ 19
20. Arrives on time for an appointment made one week in advance ____ 20

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SCALE 14

MONEY

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) [A] [B] [C]

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) [A] [B] [C]

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has
- Do not read between the lines
- Do not give assistance unless so stated
- If necessary, simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS [A]

SCALE 14
MONEY

1. Sorts coins from other small metal objects ____ 1
2. Uses money to buy things (might not use correct amount) ____ 2
3. Selects a dollar bill from other paper objects ____ 3
4. Sorts different coins by kind ____ 4
5. Selects a penny, nickel, dime and quarter from a group of coins ____ 5
6. Saves money ____ 6
7. Rank orders a penny, nickel, dime, quarter and half dollar in order of value ____ 7
8. Identifies one, five and ten dollar bills ____ 8
9. Exchanges five pennies for a nickel ____ 9
10. Exchanges ten pennies for a dime ____ 10
11. Exchanges four quarters for one dollar ____ 11
12. Exchanges five nickels for a quarter ____ 12
13. Exchanges the correct number of mixed coins for a quarter ____ 13
14. Exchanges the correct number of mixed coins for one dollar ____ 14
15. Counts the change from a purchase of one dollar or less ____ 15
16. Counts the change from a purchase of five dollars or less ____ 16
17. Gives an adequate amount of money for purchases over one dollar and counts the change ____ 17
18. Makes purchases at local stores ____ 18
19. Saves money in a bank account ____ 19
20. Uses a checking account ____ 20

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DOMESTIC BEHAVIOR

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) [A] [B] [C]

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) [A] [B] [C]

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS [A]

	SCALE 15 DOMESTIC BEHAVIOR
1. Picks up household trash or litter and places it in a wastebasket upon request	1
2. Puts away personal items in the proper location upon request	2
3. Puts dirty clothing in a hamper, clothes chute, or other appropriate place	3
4. Folds clothing and puts it away in a drawer	4
5. Straightens bed	5
6. Damp-wipes a kitchen or classroom table	6
7. Dusts furniture, leaving no dust on flat surfaces	7
8. Sweeps a floor with a broom, picks up sweepings in a dust pan and empties the pan	8
9. Dusts a floor with a dust mop	9
10. Sets a table with plates, cups, forks, spoons, and knives	10
11. Shovels snow or rakes leaves	11
12. Operates an electric toaster	12
13. Washes and dries dishes by hand	13
14. Wet mops a floor	14
15. Prepares a meal of a sandwich and cold beverage	15
16. Uses a vacuum cleaner	16
17. Maintains bedroom, including changing sheets, dusting and vacuuming	17
18. Loads and operates an automatic washer and drier	18
19. Does simple mending	19
20. Prepares and serves a meal including one hot dish	20

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SCALE 16

COMMUNITY ORIENTATION

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A ■ C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A ■ C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 16
COMMUNITY
ORIENTATION

1. Finds way from place to place within a familiar building _____ 1
2. Performs simple errands within a familiar room _____ 2
3. Finds way from one building to another in a familiar setting _____ 3
4. Goes to public places in a supervised group without calling unfavorable attention to behavior _____ 4
5. Chooses the correct restroom in a familiar public place _____ 5
6. Crosses residential street intersections, showing regard for traffic _____ 6
7. Identifies a policeman, a fireman and a bus driver _____ 7
8. Interacts appropriately with strangers in public _____ 8
9. Goes on foot or bicycle to a familiar place over one-half mile from residence _____ 9
10. Identifies a bus stop and indicates its purpose _____ 10
11. Obeys lights and "WALK"—"DON'T WALK" signals at a light-controlled intersection _____ 11
12. Conducts self in public in the company of a person of the opposite sex without calling attention to self _____ 12
13. Walks along a road without a sidewalk facing traffic and on the road shoulder _____ 13
14. Responds appropriately to social "kidding" in public _____ 14
15. Leaves an awkward public situation that is beyond control and seeks help _____ 15
16. Moves freely about in a familiar community _____ 16
17. Telephones residence for information or assistance when necessary _____ 17
18. Acts appropriately in any public situation _____ 18
19. Travels by public bus to and from any destination _____ 19
20. Holds a valid driver's license _____ 20

MDPS
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SCALE 17

RECREATION, LEISURE-TIME ACTIVITIES

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A ■ C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | A ■ C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale.

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 17
RECREATION

1. Engages in a leisure-time activity for five minutes ____ 1
2. Finger paints ____ 2
3. Bounces, throws or catches a ball ____ 3
4. Watches TV without disturbing others ____ 4
5. Brush paints ____ 5
6. Participates in group singing or dancing ____ 6
7. Attends activities in the community without disturbing others ____ 7
8. Watches TV or listens to the radio by selecting a channel, turning on and off, etc. ____ 8
9. Plays simple table games with others ____ 9
10. Puts together puzzles of ten pieces ____ 10
11. Participates in three seasonal, outdoor sports such as swimming, boating, camping, or gardening ____ 11
12. Participates in organizations such as Scouting or bowling clubs ____ 12
13. Does arts and crafts such as clay work, leather work, or bead work ____ 13
14. Has a hobby ____ 14
15. Participates in organized team sports such as baseball, basketball, or volleyball ____ 15
16. Uses a drop-in center such as a canteen, pool hall, library, etc. ____ 16
17. Rides a bicycle ____ 17
18. Selects books from library for personal reading ____ 18
19. Plays a musical instrument ____ 19
20. Uses community recreation facilities for recreation, leisure-time activities ____ 20

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SCALE 18

VOCATIONAL

FOLLOW THESE INSTRUCTIONS CAREFULLY

MARK LETTERSPACE (A) | A ■ C |

- If the person can perform the behavior.
- If no additional training is required to perform the behavior.
- If the behavior is too simple and consequently inappropriate.

MARK LETTERSPACE (B) | ■ B C |

- If the person cannot perform the behavior.
- If additional training is required to perform the behavior.
- If the person cannot perform the behavior due to physical handicap or absolutely no opportunity.

- Observe the behavior directly, or consult with someone who has.
- Do not read between the lines.
- Do not give assistance unless so stated.
- Do not simulate conditions on this scale

YOUR MARK SHOULD LOOK LIKE THIS ■

SCALE 18 VOCATIONAL

1. Assumes a body position at a task or at play such that both hands are available for use ____ 1
2. Attends to a single activity for ten minutes (may need to be protected from interruption) ____ 2
3. Attends to a single activity for ten minutes in a room with other people ____ 3
4. Assembles two-part objects that fit together in a simple but secure way ____ 4
5. Attends to an assigned task or activity for one-half hour (may need to be encouraged) ____ 5
6. Puts away own tools and materials at the end of a task (may need a reminder up to half of the time) ____ 6
7. Attempts to do an assigned task without resistance ____ 7
8. Tosses hand-sized objects into an open box or wastebasket at a distance of three feet ____ 8
9. Goes to an assigned area without reminder in a routine daily program ____ 9
10. Attends to work in a group without distracting others ____ 10
11. Changes activity without showing discomfort when assigned from one task to a different task ____ 11
12. Indicates if own performance meets the standards set for an activity (these standards may be very low) ____ 12
13. Undertakes and completes a task in order to receive money ____ 13
14. Uses a hammer to pound, pliers to grasp, *and* screwdriver to turn (need not be skillful) ____ 14
15. Stops a task when it is done ____ 15
16. Increases speed of work when told to do so ____ 16
17. Arises and leaves from residence so as to reach work or activity on time ____ 17
18. Assembles objects with five parts that must be put together in a particular order ____ 18
19. Uses public transportation on one local route such as from residence to work and back ____ 19
20. Operates power hand tools such as a drill or food mixer without a supervisor present ____ 20

APPENDIX F

Summary Statistics on Admission and Discharge Criteria by CRF Size

Table F.1

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 1 -- Gross Motor Development

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	11.65	10.91	2.98	11	14	15.50	16.33	4.13	11	14
16-32	17	9.47	10.58	5.39	11	19	14.24	15.75	5.19	19	20
33+	24	9.38	10.61	4.54	11	19	14.08	15.50	5.66	19	20
All CRF's	121	10.89	10.82	3.84	11	20	15.04	16.0	4.62	11	20
		F = 4.88		Sig. = .009			F = 1.17		Sig. = .313		

Table F.2

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 2 -- Fine Motor Development

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	7.61	7.39	3.70	11	20	16.44	18.73	4.31	20	20
16-32	17	6.12	5.13	5.38	5	18	14.0	16.0	5.82	12	20
33+	24	4.17	4.79	2.85	5	11	15.33	16.75	4.82	20	20
All CRF's	121	6.72	6.40	4.04	5	20	15.88	17.32	4.68	20	20
		F = 7.71		Sig. = .0007			F = 2.14		Sig. = .122		

Table F.3

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 3 -- Eating

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	7.36	6.80	3.50	7	19	18.06	19.57	3.22	20	13
16-32	17	6.12	6.33	4.15	6	12	15.82	19.25	6.70	20	20
33+	24	5.04	5.50	3.67	7	13	16.83	18.83	5.24	20	20
All CRF's	121	6.73	6.56	3.72	7	19	17.50	19.51	4.35	20	20
		F = 4.06		Sig. = .020			F = 2.26		Sig. = .109		

Table F.4

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 4 -- Dressing

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	8.80	9.08	4.71	9	19	18.75	19.46	2.16	20	11
16-32	17	7.24	6.0	6.07	0	17	15.65	19.33	7.16	20	20
33+	24	4.42	2.17	4.39	1	13	16.75	19.07	5.24	20	20
All CRF's	121	7.71	8.77	5.12	9	19	17.92	19.36	4.08	20	20
		F = 7.60		Sig. = .0010			F = 5.69		Sig. = .004		

Table F.5

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 5 -- Grooming

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	8.40	9.25	4.95	12	20	18.9	19.80	2.07	20	8
16-32	17	5.47	5.0	4.75	0	14	14.77	19.56	7.57	20	20
33+	24	3.75	3.0	3.49	1	14	17.08	19.70	4.85	20	20
All CRF's	121	7.07	6.35	5.02	12	20	17.96	19.75	4.14	20	20
		F = 10.29		Sig. = .0001			F = 8.63		Sig. = .0003		

Table F.6

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 6 -- Toileting

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	10.89	11.82	5.02	12	20	19.35	19.86	1.68	20	9
16-32	17	8.82	11.0	6.02	12	20	15.24	19.56	7.57	20	20
33+	24	7.88	9.0	5.44	12	18	17.67	19.79	4.86	20	20
All CRF's	121	10.0	11.62	5.36	12	20	18.44	19.81	4.02	20	20
		F = 3.54		Sig. = .032			F = 8.95		Sig. = .0002		

Table F.7

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 7 -- Receptive Language

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	7.76	6.7	4.86	6	18	17.53	17.68	2.93	17	20
16-32	17	6.47	5.67	6.09	0	17	14.29	16.89	6.53	17	20
33+	24	4.71	2.50	5.44	0	20	15.33	17.0	5.06	17	20
All CRF's	121	6.98	6.06	5.26	6	20	16.64	17.35	4.23	17	20
		F = 3.33		Sig. = .039			F = 5.98		Sig. = .003		

Table F.8

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 8 -- Expressive Language

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	5.64	4.17	4.83	4	15	15.04	15.67	4.89	15	20
16-32	17	5.18	3.75	5.15	0	15	13.24	15.25	6.99	18	20
33+	24	3.29	1.25	4.95	1	20	14.5	17.50	6.23	18	20
All CRF's	121	5.11	3.84	4.94	0	20	14.68	15.94	5.48	15	20
		F = 2.12		Sig. = .125			F = .77		Sig. = .465		

Table F.9

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 9 -- Social Interaction

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	6.70	6.31	3.24	6	19	17.93	19.50	2.89	20	10
16-32	17	4.35	4.88	3.18	5	11	15.65	19.56	6.48	20	20
33+	24	3.88	2.0	4.57	1	20	15.46	16.5	5.25	20	20
All CRF's	121	5.81	5.73	3.72	6	20	17.12	19.0	4.20	20	20
		F = 7.60		Sig. = .0008			F = 4.66		Sig. = .011		

Table F.10

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 10 -- Reading

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	2.88	1.77	3.15	0	16	10.75	14.54	6.08	15	20
16-32	17	3.41	2.75	3.32	0	9	10.18	12.0	6.19	15	20
33+	24	2.17	.83	4.25	0	20	10.08	8.0	5.85	7	20
All CRF's	121	2.81	1.54	3.41	0	20	10.54	11.88	6.01	15	20
		F = .704		Sig. = .497			F = .147		Sig. = .863		

Table F.11

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 11 -- Writing

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	3.06	1.26	4.04	1	14	10.58	12.76	5.71	13	20
16-32	17	2.53	1.33	3.36	0	10	8.94	12.58	6.40	13	20
33+	24	1.17	.42	2.28	0	10	9.96	11.50	6.46	13	20
All CRF's	121	2.61	1.09	3.71	0	14	10.22	12.69	5.93	13	20
		F = 2.47		Sig. = .089			F = .557		Sig. = .574		

Table F.12

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 12 -- Numbers

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	1.90	.89	2.62	0	12	10.54	12.64	6.27	15	20
16-32	17	1.88	.92	2.42	0	8	11.12	13.25	6.86	0	20
33+	24	1.83	.63	4.16	0	20	11.96	14.0	6.64	4	20
All CRF's	121	1.88	.84	2.43	0	20	10.90	12.89	6.40	15	20
		F = .005		Sig. = .995			F = .462		Sig. = .631		

Table F.13

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 13 -- Time

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	2.94	2.30	2.60	1	10	15.70	18.0	5.18	20	19
16-32	17	2.12	1.42	2.06	1	8	13.06	18.67	8.51	20	20
33+	24	1.83	1.0	2.78	1	13	12.79	13.50	6.40	20	20
All CRF's	121	2.60	1.69	2.59	1	13	14.75	17.25	6.08	20	20
		F = 2.06		Sig. = .132			F = 2.98		Sig. = .055		

Table F.14

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 14 -- Money

		Admissions					Discharge				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	1.43	.98	1.91	0	12	15.19	18.07	5.95	18	19
16-32	17	1.18	.94	1.19	1	4	13.24	17.63	7.55	19	19
33+	24	.63	.30	1.14	0	5	11.63	13.83	7.02	5	20
All CRF's	121	1.23	.82	1.71	0	12	14.21	17.80	6.51	19	20
		F = 2.06		Sig. = .132			F = 3.08		Sig. = .054		

Table F.15

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 15 -- Domestic Behavior

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	2.20	1.18	3.39	1	17	18.31	19.67	3.52	20	19
16-32	17	2.18	1.06	2.94	1	11	13.94	18.0	8.07	20	20
33+	24	.67	.36	1.17	0	5	13.08	17.17	7.18	18	20
All CRF's	121	1.89	.99	3.06	1	17	16.66	19.33	5.67	20	20
		F = 2.47		Sig. = .089			F = 11.98		Sig. = .000		

Table F.16

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 16 -- Community Orientation

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	2.78	2.61	2.38	1	9	15.96	17.36	4.25	19	18
16-32	17	2.35	1.42	2.47	1	8	13.12	16.0	7.60	19	19
33+	24	1.13	.83	1.30	0	5	13.58	15.83	6.09	19	20
All CRF's	121	2.39	1.46	2.30	1	9	15.09	16.89	5.31	19	20
		F = 5.09		Sig. = .008			F = 3.34		Sig. = .039		

Table F.17

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 17 -- Recreation, Leisure Time Activities

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	2.60	1.20	2.93	1	13	14.26	14.67	4.96	20	19
16-32	17	1.59	.94	2.09	1	8	10.82	9.25	6.52	20	20
33+	24	1.46	.70	2.77	0	13	11.29	11.50	5.71	7	20
All CRF's	121	2.23	1.06	2.83	1	13	13.19	13.97	5.51	20	20
		F = 2.06		Sig. = .133			F = 4.79		Sig. = .01		

Table F.18

Admission and Discharge Criteria by MDPS Behavioral Scales by CRF Size
Scale No. 18 -- Vocational

		Admissions					Discharges				
CRF Size	N	Mean	Med.	SD	Mode	Range	Mean	Med.	SD	Mode	Range
5-15	80	2.95	2.14	3.05	1	13	15.96	17.24	4.72	17	20
16-32	17	3.06	1.75	3.40	0	10	12.41	13.0	7.37	19	20
33+	24	1.08	.90	1.10	1	4	12.58	13.50	6.09	19	20
All CRF's	121	2.60	1.59	2.91	1	13	14.79	17.06	5.63	19	20
		F = 4.27		Sig. = .016			F = 5.47		Sig. = .005		