CHANGING CHARACTERISTICS OF PATIENTS AND SERVICES AT CARO STATE HOSPITAL

By

John E. Miller

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Approved: Rachel T. Smith
Chairman, Research Committee

Gordon J. Aldridge
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Dedication:

To,
my wife Peggy, my daughter Shelley,
and son Timothy whose love,
understanding and sacrifice made this
project and obtaining a degree possible.

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Acknowledgements

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The writer also wishes to acknowledge his indebtedness to the staff and personnel of the Caro State Hospital for Epileptics for their cooperation while collecting data at the hospital. Special gratitude is extended to Dr. Willard W. Dickerson, medical superintendent for sharing his knowledge of epilepsy and the hospital, and for the special interest shown to the writer. Sincere appreciation is given to Mr. Floyd Echols, Director of Social Service Department, Caro State Hospital, whose interest and encouragement prompted the writer to return to school; and to Mr. Lutifali Ansari, Psychiatric Social Worker at the hospital for his suggestions and the valuable service he rendered in typing this project.

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Chapter 1

INTRODUCTION

After being employed at the Caro State Hospital for Epileptics for six years as an institution social worker, the writer became impressed with the apparent change in the types of patients being admitted. These impressions were gained from admitting numerous new patients and reviewing the case records of patients admitted during previous years. It appeared that the patients being admitted now were more physically and psychologically handicapped than those admitted fifteen to twenty years ago. These impressions were discussed with other staff members, especially with the medical superintendent who has been at the hospital over twenty-five years, and it was discovered that these people had the same impression, but that no formal study had ever been done to determine just how extreme these changes have been. It was the consensus of the staff that these changes were brought about by improved diagnostic techniques and the use of new medication for seizure control. Because of these improvements the majority of epileptics could be successfully treated in their home community and only those patients that the community could not treat were admitted. These impressions posed two interesting questions: Had the characteristics of patients

admitted changed significantly reflecting a change in community need; if so, had the hospital changed or modified its services to meet these changing needs. This research project was designed to answer these two questions.

To answer the first question, the case records of two groups of patients were reviewed and compared according to age, sex, physical and psychological condition at the time of admission to the hospital. The two groups chosen for comparison were those patients admitted during the fiscal year 1961 (July 1, 1960-June 30, 1961) and the fiscal year 1941 (July 1, 1940 - June 30, 1941).* These two year periods were selected for several reasons. The 1941 group did not have the advantage of many of the new drugs, dilantin and phenobarbital being the most effective ones and dilantin was not introduced until June 1938. The hospital did however have facilities for the care and treatment of the same types of patients that it had in 1961. The twenty year span was chosen because it was felt twenty years were sufficient for the importance of any change to be reflected in the characteristics of patients. A preliminary survey also revealed that there were a sufficient number of patients admitted during these periods (360 in 1941 and 175 in 1961) for statistical treatment.

The answer for the second question was found in reviewing budget requests, administrative decision, policy changes from the Department of Mental Health, changes in personnel and staff

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* All future references to the groups will be made as the 1941 group or the 1961 group

ratios and building programs for 1941 and 1961. It was felt that these documents would reflect what services were being offered or proposed.

Setting:

The Caro State Hospital for Epileptics was established in 1913 by an act of legislature of the State of Michigan for the "Humane, curative, scientific, and economic treatment of epileptic persons".[1]

The medical superintendent of the hospital is appointed by the Director of the Mental Health Department with the approval of the Mental Health Commission. He is responsible for the employment of all the assistants and employees necessary to operate the hospital. The Caro State Hospital is organized on a cottage basis with eighteen cottages or residence halls which range in capacity from 42 to 145. In addition to the cottages, there are two infirmaries and a one-hundred bed hospital. There is also a complement of other buildings i.e. laundry, power plant and kitchen to house the necessary facilities for the operation of the hospital.

In order to carry out the purpose for its establishment, various departments have been set up within the hospital. Those departments that had a direct bearing on this research project include the medical department, the dental department, the psychology department, the social service department, the nursing

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1. State of Michigan, Act 148, Public Acts of 1952 section I

department, the academic school department, and the adjunctive therapy department.

The medical department is responsible for the over all medical care of all patients. Included in the department are, the medical superintendent, a neurologist, a resident neurologist, and four staff physicians. The medical superintendent is responsible for the over all operation of the hospital, the neurologist does the out-patient examinations and many of the neurological examinations on admitted patients. The resident neurologist performs neurological examinations on selected admitted patients under the direction and supervision of the neurologist. The four staff physicians are assigned individual cottages and are responsible for the physical well-being of the patients living in these cottages. The staff physicians also do all the admission physical examinations on new patients on a rotating basis. They are responsible for prescribing of anti-convulsive drugs which is a very important aspect of the hospital treatment program.

The dental department is staffed by one dentist and his assistant, and during summer two dental students. The dental department offers the same services as those offered by a family dentist plus treating special problems presented by the epileptic patient, i.e. hypertrophical gums caused by dilantin, broken teeth and jaws caused by the patient falling in a seizure and the inability of many of the patients taking proper care of their mouths.

The psychology department is staffed by a chief psychologist and a clinical psychologist and is concerned with the over all mental health of the patient. The psychologist uses all the standard intelligence and projective tests in determining the intellectual and emotional capacity of the patients. At the time of admission or shortly there after every new patient is given a battery of psychological tests. The results of these tests are used for diagnostic and treatment planning. The psychologist also sees patients on an individual basis for therapy.

The nursing department, under the direction of a director of nursing is responsible for all patients care. Included in the nursing department are all the registered and attendant nurses employed at the hospital. All in-service training programs for nursing personnel come under the jurisdiction of the department.

.The in-service training program for attendant nurses consists of one required 20 hour course and a voluntary 60 hour course. These two courses have been very instrumental in improving the patient care standards throughtout the hospital.

During the past few years the registered nurses have been given the opportunity to attend lectures and seminars on psychiatric nursing techniques to better equip them to perform their duties.

The social service department is concerned with offering

psychiatric social work services to patients, prospective patients, and their families. "Psychiatric social work concerns itself with helping people to maintain, develop, or restore their social functioning to the best of their capacity".[2] The social service department is composed of one director, four caseworkers, and during the school year, graduate social work students. The social workers work directly with the patients, their families, relatives, and other social agencies while carrying out their functions. The department cooperates closely with all other departments in planning for patient vacations, convalescent status, family care, and discharge.

One of the primary duties of the social workers is to interview all prospective patients, new admissions and their families to help them understand hospital policy and procedure, and in the case of prospective patients, help them decide the question of commit--ment.

It was through the writer's association with this department that he became interested in this project.

The academic school department is under the direction of four full time special education teachers and is responsible for offering academic training to all patients of school age who are capable of benefitting from it. The students are not divided into classes but are grouped according to their abilities and their rate of learning. The subjects range from pre-primary

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2. Gregory Meese, Information Booklet, Caro State Hospital for Epileptics, Caro Parents Association, Inc. 1959, p.5

through junior high school and are comparable to those subjects taught in public schools. The student's I.Q.s range from the mid sixties to average or above. Academic school assignments are made as part of treatment planning.

The adjunctive therapy program, which consists of occupation, recreational, and industrial therapy, conducts programs and activities to help in the recovery from disease or injury. This department is under the direction of a registered occupational therapist and all patients are assigned to the program by the medical staff as a part of their treatment program.(See appedix I- Organizational Chart)

Patients are admitted to the Caro State Hospital by one of two methods. The first and most widely used method is the legal commitment. A parent, relative or some other person deemed suitable by the probate judge petitions the probate court of the county of legal reisdence for admission to the hospital. The court then fixes a date for hearing the petition and appoints two reputable disinterested physicians to examine the person. The results of these examinations are then filed with the court before the hearing date. The court will then investigate all the relevant facts concerning the case and render its decision. The hearing may be held before a jury if it is desired.

If the court determines that the person should be admitted, an admission order is issued and a copy of the order is sent to the hospital. This order is good for a period of one year. Should the person not be admitted during this period a renewal order has to be issued by the probate court which is

good for another year. When a suitable vacancy occurs the hospital will then notify the responsible person that the person can be brought to the hospital for admission, providing that the admission takes place within twenty days from the date the hospital notified the court.[3] If there is not a suitable vacancy at the time the admission order is received the person's name is placed on a waiting list and is then ordered in when a suitable vacancy is available. The other method used for admission is the voluntary admission, restricted at Caro for the admission of minors only. The only procedure necessary for a voluntary admission is for the legaly responsible relative to request voluntary admission by signing a voluntary admission form. This form is in turn approved by the probate judge and medical superintendent. The ordering in and the actual admission is the same as for the regular admission orders.[4]

Since the hospital opened in 1914 over 6400 patients have been admitted. Both sexes and all ages are eligible for admission as long as the person is a legal resident of the State of Michigan. Admissions are accepted from the entire state.

Upon arrival at the hospital for admission the patient is assigned a doctor and admitted to the receiving hospital for initial treatment and observation. At the time of admission a social worker meets with the persons concerned to gather any

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3. Ibid. p. 5

4. Actual commitment procedure is given in detail by Act 151 public acts of 1923, of the State of Michigan as amended.

additional information that is necessary and to answer any questions the persons may have concerning the hospital.

During the new patient's stay in the receiving hospital he is given a series of examinations and tests. When these tests and examinations are completed the person is then presented to the general staff for diagnosis and treatment planning. Representatives of the various departments attend these general staff meetings to aid in the diagnosis and programming. After the patient has been staffed he is re-assigned to a suitable cottage for implementation of the staff recommendations.

This study is directly related to the operation of the hospital in that the writer attempted to determine just what types of patients have been using the facilities and how well they meet the needs of these patients and the community. Because of the medical advances made in the treatment of epilepsy, the community needs for a state hospital for epileptics have changed. It was assumed that these changes would be reflected in the types of patients admitted. It was then hypothesized that the patients admitted during the year 1941 were less physically and psychologically handicapped when compared with patients admitted during the year 1961. It was further hypothesized that the hospital services have shifted to meet these needs.

Chapter II

HISTORICAL BACKGROUND AND CURRENT OPINION

"Epilepsy is a fairly common disease and it affects persons in all walks of life. As many people suffer from it as from diabetes or active tuberculosis - about 1 in 200 in the United States, or about a million...

"Measured in heartaches and wrecked lives, the toll is sorrowfully high. But much of the economic drain and most of the heartaches can be prevented. For doctors now know that, given adequate medical and social care, 80 out of every 100 persons with seizures can lead relatively normal lives."[5]

Epilepsy is probably one of the oldest known diseases. It was mentioned in the code of Hammurabi(2080 B.C.) and in the earliest sanitary rules of the Hebrews.[6] The definition of epilepsy is derived from the greek word epilepsia which means seizure or a "taking hold".[7] Through the ages the opinion regarding this "seizing" or "taking hold" has varied from being taken hold of by demons or evil spirits to being taken hold of by a divine being. Excellent description of seizures is found in the Bible, especially

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5. Herbert Yahraes: Now - A Brighter Future for the Epileptic, (Pamphlet)

6. Wilder Penfield, M.D., Epilepsy and the Functional Anatomy of the Human Brain. Little, Brown and Co., Boston 1954 p. 4

7. National Health Education Commission, Facts on the Major Killing and Crippling Diseases in the United States Today. New York: National Health 1959

in Mark and Luke. While many people wrote and speculated on the origin or cause of epilepsy, it was not until Hughling Jackson wrote a series of papers on the subject between 1861 and 1870 that the first idea was put forth that epilepsy was caused by neurmal discharges in the brain. His theories were not completely accepted, however, until it was experimentally demonstrated in the late 1800s that the cerebral cortex could be electrically excited. Since then his ideas have become the guide to present day thinking on the subject.[8]

Medical science has classified epilepsy by seizure types into four major groups. The type probably best recognized by the public is the grand mal seizure, characterized by gross convulsive movements and loss of consciousness.[9] In about 50% of the cases the person suffering from grand mal epilepsy has an aura prior to the onset of the attack. These auras, or warnings, usually consist of smells, flashes of light, burning or discomfort in the abdomen, and so forth. Petit mal siezures are minor non-convulsive attacks characterized by sudden loss of muscle tone or a momentary lapse of fixation of the gaze. The petit mal attack usually lasts less than a minute and then the person resumes his activity.[10]

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8. Katherine Whitney. Epilepsy p. 1

9. A Psychiatric Glossary, American Psychiatric Association Washington D. C. 1961. p. 31

10. Irwing N. Berbin, M.D., "A review of Some Eliments of Neurology: Part II", Social Casework, XXXVII, No. 10 Dec. 1956 p. 498

Jacksonian epilepsy consists of recurrent episodes of localized convulsive movements or spasms limited to a part or region of the body without loss of consciousness.[11] The psychomotor seizure, or epileptic equivalent, is usually characterized by strange, usually antisocial behavior such as undressing in public, hostile rages, assaults, regressive infantile behavior, transient loss of memory and amnesia. After an attack the person does not remember what took place.

A person may have one or all the types of epileptic seizures. For some people the attacks occur at fairly regular intervals, such as around the time of menses for some women or only nocturnally for others.[12] But a large proportion have no indication when they are going to have an attack.

There is no known cure for epilepsy, but with a proper medication and treatment seizures can be controlled or eliminated in the majority of cases.

Before 1860 there were no medications known for control of convulsions or seizures. That year the bromides were introduced and remained the only medicine until 1918 when phenobarbital was introduced.[13] The first major advancement in medicine after phenobarbital was dilantin, introduced in 1938. Since 1938 there has been a rapid increase in the number and

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11. Op. Cit. A Psychiatric Glossary

12. Berbin, p. 498

13. D. Bernard Foster, M.D., "Mistaken Ideas about Epilepsy", Menninger Quarterly, Summer Issue, 1953 p. 10

types of drugs available for the treatment of epilepsy. The list includes Mesantoin, Mysoline, Diamox, Celántin, Elipten, Tridione, Milontin, Mebaral, Peganone and many others, some being so new they are known only by numbers.

Advances made in the diagnosis of epilepsy have also played an important part in improving the treatment of the disease. The Electroencephalograph(E.E.G.) first used by Dr. Hans Berger in 1932 to record the electro-physiological phenomena of the brain has done much to aid in the initial diagnosis of epilepsy. Dr. Monez's method of visualizing the blood vessels of the brain introduced in 1934 was another important step forward as was the use of radioactive isotopes, began in 1948 to diagnose brain tumors.[14]

While the advances made in diagnostic techniques were very important in the treatment of epilepsy, it was not until after the extensive use of dilantin that the change in hospital admissions began.

Dr. Foster writing on the mistaken idea about epilepsy, states that there has been a decline in the number of state epilepsy colonies (hospitals) because of these advances made in the medical treatment of epilepsy and a "result is that today the epileptic colonies are empty of all the individuals of average intelligence who are subject to seizures."[15] However, Dr. Foster's statement was too strong because the results of this

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14. Ibid. p. 9

15. Ibid. p. 9

study showed that there were people of normal intelligence being admitted to hospitals as late as 1961. Dr. Willard W. Dickerson, medical superintendent of the Caro State Hospital for Epileptics, who has been associated with the field of epilepsy and other neurological disorders for over twenty-five years, concurs with Dr. Foster's statement that the number of colonies is decreasing. Dr. Dickerson personally knows of at least six colonies that have been closed in the last decade.

Another indication that epilepsy no longer presents the special problems that it did in the past was the closing of the White Special school a few years ago. The school was first established by the City of Detroit Board of Education in 1935 to offer specialized educational facilities for the epileptic school child. In 1942 the school had an average enrollment of one hundred pupils.[16] However, after the introduction of the new drugs the enrollment dwindled until it was no longer feasible to continue to operate the school.

The writer was unable to locate any studies that dealt directly with the subject of changing characteristics of persons admitted to epileptic hospitals but there have been several studies done regarding this subject in the related field of mental retardation.

A study done by Herbert Goldstein published in 1959,

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16. Lois Berge, et. al. White Special School Hand Book, 1942 p. 5

in which he reviewed the data contained in U.S. Census Bureau reports for 1904, 1910, 1923, and 1926 through 1952, regarding the mentally deficients in public institutions, revealed that the proportion of children under five years of age at the time of first admission began to increase following World War II while the proportion of admissions over ten years of age began to decrease. The study also revealed that through the depression and World War II morons accounted for the largest proportion at first admission, but following World War II the proportion of morons in first admission decreased sharply while the proportion of embaciles and idiots increased, and that the median age of all types have decreased in some degree over the years. Mr. Goldstein felt these changes were the result of three factors: (1) increasing community provisions for the mentally deficient, (2) increments in medical knowledge, and (3) the activities of pressure groups.[17]

Robert Patton and Abbott Weinstein studied the changing characteristics of the population in six New York State schools for mental deficients. They found that the largest increase in the number of resident and vacation patients in the age groups five to fourteen and 35 and over. They felt the number in the age group under five would have increased markedly had there been facilities for this age group at the schools. They found

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17. Herbert Goldstein, Ed. D., "Population Trends in U.S. Public Institutions for the Mentally Deficients", American Journal of Mental Deficiency, Vol. 63 No. 4 Jan. 1959 p. 599

as did Goldstein that the greatest increases were in the mental status groups of idiots and imbeciles. These two groups had a percentage increase between the years 1950 and 1958 of 34.0 and 25.7 respectively while the moron group increased only 6.0 percent.[18] While neither of these studies included information regarding the physical characteristics of the admitted patients their results tended to agree with the hypothesis of this study regarding the psychological characteristics of admitted patients.

Goldstein thought the changing characteristics of resident patients would lead to certain changes taking place within the institutions:

"(1) The institutions would become less a training center for the return of a higher mental status patients to the community and more a custodial center.

"(2) The decrease in turn-over of patients would reduce the number of beds... as a result, the institutions will become less able to serve the community.

"(3) The per capita cost will continue to increase...

"(4) The increase in custodial cases will necessitate an increase in professional personnel...nurses doctors, etc.

"(5) The institution school... change from a program designed for the educable mentally deficient to one for the trainable mentally deficient.

"(6) Psychological and social service staff will have to be reduced in size and scope along with the

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18. Robert E. Patton and Abbott A. Weinstein, "Changing Characteristics of the population in the New York State Schools of Mental Defects", American Journal of Mental Deficiency, Vol. 64 No. 4, January 1960 pp. 626-627

[illegible]

[illegible] would become less a training center for the return of a higher mental status [illegible] to the community and more a custodial center.

The decrease in turnover of patients would reduce the [illegible] of [illegible]... as a result, the institution will [illegible] less able to serve the community.

[illegible] would continue to increase...

The increase in [illegible] cases will necessitate an increase in [illegible] personnel...nurses, [illegible], etc.

The institution which... change from a program [illegible] for the educable mentally deficient to one for the trainable mentally deficient.

[illegible] social service staff will have to be reduced [illegible] along with the

decrease in parolable patients".[19]

The results of this study showed that many of Goldsteins' projected changes have taken place at the Caro State Hospital for Epileptics.

Dr. Dickerson is of the opinion that the Caro State Hospital is probably serving other functions than what it was originally established for. He believes the hospital is now serving the same functions as the state hospitals for severely retarded or the chronically mentally ill.

The results of a study by Buick Navidzadeh[20] substantiate Dr. Dickerson's opinions. In studying the characteristics of patients admitted to the Caro State Hospital during a ten year period 1947 to 1958 Mr. Navidzadeh found that 86.8% of the patients admitted during this period were retarded, with the largest groups, 19% having an I.Q. of under 19. He also found that 29.5% were mentally ill at the time of admission. These findings would indicate that in only a small percentage of cases was epilepsy the only problem.

The writer did not intend to give a scientific explanation of epilepsy. The purpose was only to give reader a brief description and historical background of the disease to aid in understanding the problem to which this research project was addressed. In the following chapter a detailed description of

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19. Op. Cit. Goldstein, p. 604

20. Buick Navidzadeh, Patients Admitted To Caro State Hospital 1947-1958, Unpublished Master's Thesis, School of Social Work, University of Michigan, 1960. p. 40

the methods and procedures used in collecting the data for this study will be given.

Chapter III

METHODS AND PROCEDURES EMPLOYED IN THE STUDY

In collecting the data for this study the writer reviewed the case records of all patients admitted to the hospital during the years 1941 and 1961. Only those records that contained the necessary information were used. The records of patients transfered to other state hospitals or institutions were not used because the complete case records were sent to the other facility. In the 1941 group there were 55 case records that were not included and in the 1961 group fifteen. Fifty of the fifty-five patients in the 1941 group and ten of the fifteen in the 1961 group were transfered to the state homes for mentally retarded. The absence of this data in the study did not affect the intellectually normal or above group in either year because all the patients transferred to the State Homes were mentally retarded. The patients transferred in the 1941 group were all physically intact and capable of caring for their own personal needs because the homes to which they were transferred had limited facilities to care for the physically and severely psychologically handicapped and had requested the transfer of trainable patients only. The presence of the data regarding

this group in the study would have weighted the results in favor of the hypothesis that the 1941 group were less physically and psychologically handicapped. The writer personally knew the physical and psychological condition of the patients in the 1961 group that were transferred because they were admitted during the time he was employed at the Caro State Hospital. The patients in this group were transferred to one of the other state facilities for the mentally retarded. One accepted only completely helpless crib cases and the other ambulatory trainable patients. The absence of data regarding the completely helpless again weighted the results in favor of the 1941 group and the number included in the ambulatory group was so small that the writer did not feel the exclusion of this data would materially effect the results of the study. After omitting the transferred cases from the study there remained 160 cases in the 1961 group and 310 in the 1941 group. Five or 1.5% more of the 1941 group had to be omitted because the case records did not include all the necessary information. Because this group was so small an unknown group was not included in the study.

The data taken from the case records included the sex of the admitted patients, the age at the time of admission, and the physical and psychological condition of the patient at the time of admission. The physical condition of the patient was classified into three groups: the physically intact, the partially

disabled, and the completely disabled. On admission each patient was given a physical examination and the examining physician's statements were used to classify the patient according to the following definitions:

(1) Physically intact: All patients whose physical development was such that they could care for their personal needs and had no physical impairments that restricted their movements.

(2) Partially disabled: All patients who did not fall either in the above catagory or the following.

(3) Completely disabled: All patients whose physical development was such that they could not walk, feed themselves, had no self mobility and needed complete nursing care.

It was recognized that these groups or classifications were gross but it was felt they were adequate for the purpose of this study.

The psychological condition was determined on the basis of intelligence tests given at the time of admission. The patients were classified according to the classification system of the American Psychiatric Association. There were four groups: "Severe" - I.Q. under 50; "Moderate" - I.Q. from 50-69; "Mild" - I.Q. from 70-85; and "Normal" or above - I.Q. above 86.[21] A separate group for the intellectually above normal patients was not included because the scope of this study was to determine the

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21. Mental Disorders, Committee on Nomenclature and Statistics. The American Psychiatric Association, Washnigton D.C. 1952

degree of psychological handicaps.

The hospital services included all activities and programs that were available to the patients to help them recover from their illness. The data for the hospital services were collected from the budget requests, proposed building programs, personnel records, administrative decisions, and policy statements from the Department of Mental Health. Only the data that applied to the two years under study were used. The budget requests were studied to determine only purposed or increases in programs or staff. The new building programs were studied to determine what types of new buildings were ptojected and how these buildings would affect the population characteristics. The personnel records were studied to pick up any staff changes that were not included in the budget requests and to determine the actual patient to employee ratio. The medical superintendent was interviewed to determine any administrative decision that affected programs and services for the year 1961 and since he was on the staff and closely associated with the medical superintendent in 1941, his knowledge of the situation at that time was relied on to determine if there were any administrative decisions made then that affected programs and services. Where available the actual policy statements from the Department of Mental Health were used. Where not available the medical superintendent's knowledge of such decisions was used.

The Chi-square method was applied to the two groups to test for significance differences using a confidence level of .05. It was felt that the method employed to collect the information regarding the patients' physical and psychological conditions at the time of admission gave a valid indication of their condition and the statistical procedure used in interpreting and comparing the data collected was adequate for the purpose of this study. While it was true that the data regarding the sixty patients that were not included would have altered the results in several of the catagories it was felt, as previously explained, that this data would have weighted the results more in favor of the 1941 group and the statistical differences would have been even greater, especially for the physically intact group.

The methods and procedures used to determine changes in services could not be subjected to the same statistical analysis as were the physical and psychological conditions of the patients. But, the results did tend to prove that there were several very significant changes made in the services and programs offered by the Caro State Hospital.

Chapter IV

PRESENTATION AND ANALYSIS OF DATA

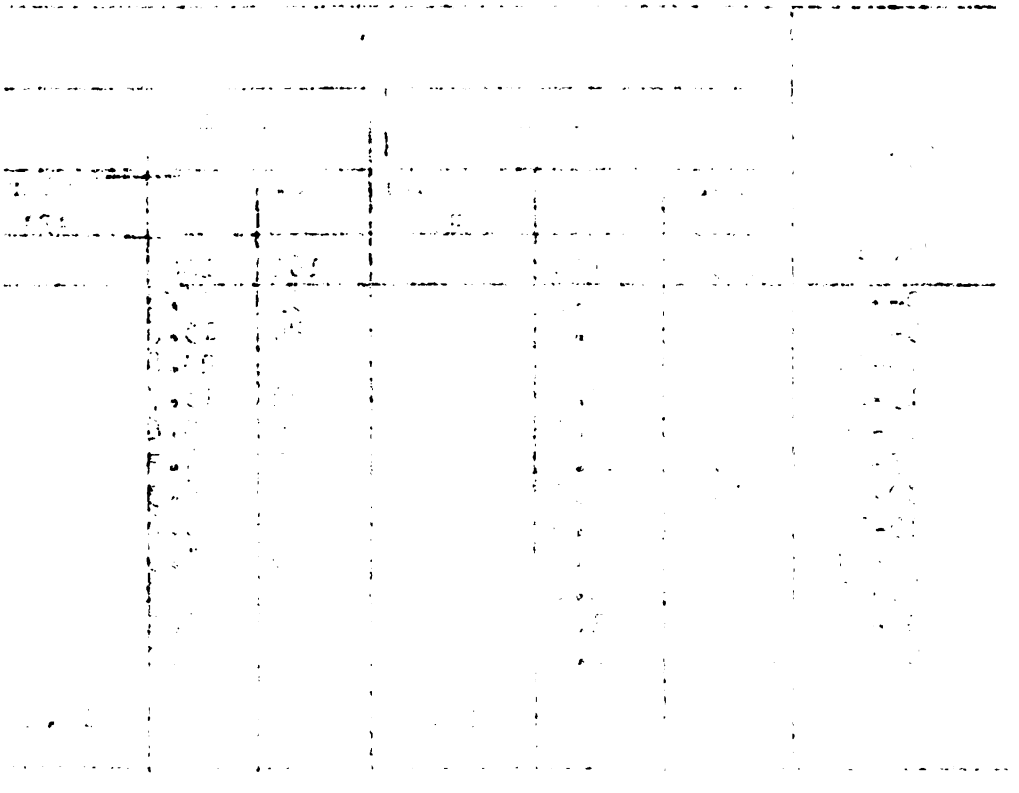
This chapter deals with the physical and psychological conditions of the admitted patients. The discussion of changes in services will be continued in the following chapter.

The physical and psychological data were broken down into five major groups: age, sex, physical condition, psychological condition, and a combination of the last two.

A. Age:

Table 1. AGE DISTRIBUTION OF PATIENTS ADMITTED IN YEARS 1941 AND 1961

Age	Year 1941			1961		
	No.	%	Median age	No.	%	Median age
Totals	305	100		160	100	
0-4	7	2.5		33	20.6	
5-9	28	8.5		24	15.6	
10-14	80	26.5		38	23.8	
15-19	72	23.6		22	13.7	
20-24	29	9.5		9	5.6	
25-29	33	10.5		7	4.3	
30-34	16	5.5		10	6.3	
35-39	14	4.4		6	3.8	
40-44	10	3.4		3	1.9	
45-49	8	2.6		2	1.2	
50-54	4	1.5		3	1.9	
55 and over	4	1.5		3	1.9	
			14.8			10.2



A short discussion of the age distribution table will be given here and will also be discussed in conjunction with the changing hospital services.

As seen in the preceding table, the greatest number of patients admitted for both years were in the age group 10-14. Eighty patients or 26.5% of the total number admitted in 1941 and 38 or 23.8% of the total admitted in 1961 fell into this group. The greatest difference in number of admissions was in the 0-4 year group. In 1941 only 7 or 2.5% of the patients were 4 years old or younger but in the 1961 group 33 or 20.6% fell in this group.

An age difference was also seen when the number of patients under age 20 were compared. In the 1941 group 187 patients or 65.1% were under age twenty where as 117 patients or 73.7% in the 1961 group were under that age.

The trend toward the admission of younger patients was also evident in the difference in the median ages of the two groups. The median age for the 1941 group was 14.8 years, for the 1961 group 10.2 years, a difference of 4.6 years. This median age difference can be explained by differences in number of patients admitted under age 30.

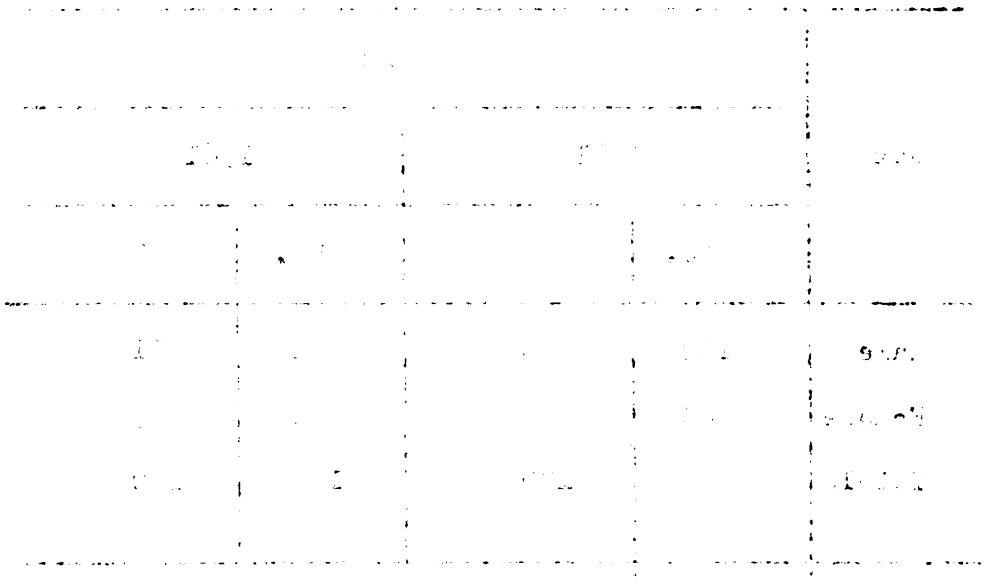
While no statistical procedure was applied to this data a trend toward the admission of younger patients seemed to be evident.

B. Sex:

Table 2. SEX DISTRIBUTION OF PATIENTS ADMITTED IN YEARS 1941 AND 1961

Sex	Years			
	1941		1961	
	No.	%	No.	%
Male	122	40	82	51
Female	183	60	78	49
Totals	305	100	160	100

The sex distribution of admitted patients was not a critical factor in this project but was included only to help show the general division between the number of male and female patients admitted during the two years under consideration. In certain age groups there were some striking differences between the number of males and females admitted, especially in the 1941 group. These differences are due to the admission of 50 female patients from the State Home and Training School in that year. The reasons for these differences were not considered within the scope of this project.



C. Physical Characteristics:

Table 3. PHYSICAL CHARACTERISTICS OF PATIENTS ADMITTED DURING YEARS 1941 AND 1961

Characteristics	Years			
	1941		1961	
	No.	%	No.	%
Physically Intact	177	58.0	69	43.0
Partially Disabled	104	34.0	65	41.0
Completely Disabled	24	8.0	26	16.0
Totals	305	100	160	100

A study of table 3 reveals that there has been a change in physical characteristics of the patients admitted to the Caro State Hospital. In 1941 One-Hundred-Seventy-Seven or 58% of the patients admitted were physically intact, that is they had no limiting physical impairments, whereas in 1961 only 69 or 43% were physically intact.

Moving from the physically intact group to those partially disabled it was found that the numbers and percentage decrease greatly in the 1941 group but remained fairly constant for the 1961 group. The difference between the two groups in this catagory did not show as a great variation, as did the physically

[illegible]

Table [illegible]. [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

intact group. There was a difference of 15% in the intact group but only a seven percent difference in the partially disabled group. The significance of this difference was in that the percentages shifted from favoring the 1941 group to favoring the 1961 group. This difference was also carried down to the last catagory the completely disabled. In this catagory it was found that 24 patients or 8% in the 1941 group were completely helpless whereas 26 patients or 16% in 1961 group were. In combining the two disabled catagories in both groups it was found that in 1941 forty-two percent of the patients were disabled to some degree but in the 1961 group 57% were disabled.

Statistically the difference between the two groups was significant at the .05 level(actually the difference was significant at the .01 level but the .05 level was chosen for this project).

It can therefore be accepted with little question that there was a significant difference in the physical condition of the two groups studied.

D. Psycholological Characteristics:

As will be seen in the next table, the greatest difference between the two groups in regard to intellectual abilities was found in the normal group. In the 1941 group, 46 patients or 15.1% had normal or above normal intellectual abilities whereas only 13 patients or 8.1% in the 1961 group had similar abilities. A

Table 4. PSYCHOLOGICAL CLASSIFICATION OF PATIENTS ADMITTED IN YEARS 1941 AND 1961

Classification	Year			
	1941		1961	
	No.	%	No.	%
Normal or above	46	15.1	13	8.1
Mild	48	15.8	29	18.1
Moderate	58	19.0	36	22.5
Severe	153	50.1	82	51.3
Total	305	100	160	100

review of the other three classifications reveals that the two groups were fairly even with no more than 3.5% points separating them. More than half of the patients admitted during both years were severely retarded.

The difference between the two groups was not statistically significant(a X^2 of 3.84 was needed, 3.59 was obtained) but there was a strong indication that the psychological condition of the patients admitted had changed. A factor that influenced the results of this phase of the study was the admission of aproximately 50 patients from a State Home and Training School in 1941. All of these patients suffered from some degree of mental retardation and therefore increased the number in the retarded catagories disproportionately.

E. Combined Physical and Psychological Characteristics:

Table 5. PHYSICAL AND PSYCHOLOGICAL CHARACTERISTICS OF PATIENTS ADMITTED DURING THE YEARS 1941 AND 1961

Characteristics	Years			
	1941		1961	
	No.	%	No.	%
a. Physical intact, Normal or above I.Q.	39	12.8	12	7.5
Physical intact, Mild retardation	41	13.5	16	10.4
Physical intact, Moderate retardation	35	11.5	21	13.1
Physical intact, Severely retarded	69	22.6	18	11.4
b. Partially disabled, Normal intelligence	7	2.1	1	0.8
Partially disabled, Mild retardation	7	2.1	10	6.0
Partially disabled, Moderate retardation	23	7.7	17	11.0
Partially disabled, Severe retardation	61	20.0	37	23.0
c. Completely disabled, Normal intelligence	0	0	0	0
Completely disabled, Mild retardation	0	0	1	0.8
Completely disabled, Moderate retardation	0	0	0	0
Completely disabled, severe retardation	23	7.7.	25	15.0
Total	305	100	160	100

Table five shows the grouping of the patients when the physical and psychological characteristics were combined. A study of the table reveals that there were three catagories where noticeable differences existed between the two groups. These were: (1) Physically intact, normal or above intelligence; (2) Physically intact, severely retarded; and (3) Completely disabled, severely retarded. These results corresponded closely with the results of the individual characteristics (tables 3 and 4).

In the first two catagories, physically intact, normal or above intelligence; and physically intact, severely retarded, the 1941 group had a higher percentage of the admitted patients but in the last catagory the 1961 group had the highest percentage.

There was a significant statistical difference between the two groups at the .01 level. These results offered further evidence that there were significant changes in the characteristics of patients admitted to the Caro State Hospital.

Chapter 7

PROGRAMS AND SERVICES OFFERED AT CARO STATE HOSPITAL

The analysis of the programs and services was divided into staff changes, new programs and services and building programs.

A. Staff Changes:

Table 6. STAFF MEMBERS, CARO STATE HOSPITAL REQUESTED IN 1941 AND 1961 BUDGET

Staff Members	1941	1961	change
Doctors, not including medical superintendent	2	7	+5
Graduate Nurses	4	21	+17
Social Workers	1	7	+6
Psychologists	0	2	+2
Teachers	10	5	-5
Adjunctive therapy OT, RT, and PT	2	8	+6
Attendent Nurses	51	460	+409
Total hospital personnel	119	804	+685
Total budget request	$[illegible]1,920	$3,742,254	
Patient to employee ratio	4.40 to 1	2.68 to 1	-.82

The budget requests were used instead of actual budgets because the requests more accurately portray what types of services and programs were proposed. The legislature and availability of money greatly influence what was actually received but did not affect as greatly what the administrator of the hospital felt was needed.

As the table shows there were increases in all areas of services requested except teachers where the number decreased by five. This decrease can be explained by the reduction in the number of educable patients admitted. In 1941, 32 patients were admitted at age 14 or younger that had an I.Q. over 70. In 1961 only 12 with these characteristics were admitted.

The request for medical doctors increased by five which cannot be explained solely on the basis of increased population because the population increased only by 2% while the number of doctors requested more than tripled. The most logical explanation of this increase was that the type of patients being admitted needed considerably more medical attention. The same explanation would hold for the increase in the number of registered nurses requested, from 4 in 1941 to 21 in 1961.

The social service department requested seven social workers in 1961, an increase of six from the number requested in 1941. This increase will be more fully explained under the section dealing with changes in program services.

No psychologist was requested in 1941 because at that time

the social worker was doing the testing. The two requested in 1961 would therefore indicate an increase in need for psychological services.

The adjunctive therapy department, occupational therapy, recreational therapy, and industrial therapy requested 8 staff members in 1961 compared to two in 1941, an increase of six. As the number of educable patients decreased the number of patients needing the allied services, especially occupational therapy, increased.

The number of attendent nurses requested in 1961 showed a tremendous increase over 1941(31 for 1941 and 40 for 1961). This increase can best be understood when the number of employees needed in a building for trainable patients is compared to the number needed in a building housing severely retarded, completely disabled patients. In one building housing 110 trainable patients 12 employees are needed. In a building housing 132 disabled patients 76 employees are needed. A complete explanation of the building program will be included in the section under that heading.

Another indication of the changing staff patterns was found when the employees to patient ratios were compared. In 1941 the ratio was one employee to 4.40 patients, in 1961 the ratio decreased to one employee to 2.68 patients. This ratio is computed under the light of change in working hours since 1942, from two twelve-hour shifts to three 8 hours shifts.

Table 7. ACTUAL STAFF POSITIONS AUTHORIZED IN 1941 AND 1961 BUDGET

Staff Members	1941	1961	change
Doctors, not including medical superintendent	2	6	+4
Graduate nurses	4	19	+15
Social workers	1	6	+5
Psychologists	0	2	+2
Teachers	10	4	-6
Adjunctive therapists OT, PT, and RT	2	3	+1
Attendent nurses	51	416	+365

Table 7 shows the actual number of positions alloted for the two fiscal years under consideration. In 1941 the alloted positions and requested positions were the same. This fact would indicate that the programs in operation in 1941 were considered necessary and the necessary funds were available. In 1961 the actual allotments approximated the positions requested. And the positions where the most noticeable reductions were made were the adjunctive therapy and attendent nurses. This would indicate that the most of the new programs could be put into operation.

B. Program and Services:

Decisions to make program and service changes originate from several sources. The Department of Mental Health, the main administrative body for all state mental health facilities, the Mental Health Commission, the medical superintendent of the Caro State Hospital and the hospital department heads, with the approval of the medical superintendent, all make changes in program and services.

One of the program changes made at the state level that reflected an over all change in the treatment of the mentally ill, mentally retarded, and epileptics and therefore had a direct bearing on the projected program and services of this hospital was the Community Psychiatric Social Work program.

The Department of Mental Health requested that the individual state hospitals request in their 1961 budget additional social work positions to provide social work services in selected communities to patients on convalescent status. These social workers would also perform other functions in the community such as pre-admission, pre-committment interviews, referrals to other agencies and to help with an educational program regarding mental health.

No funds were provided by the legislature, but the Caro State Hospital did request in its budget two additional social workers for this purpose. The request was repeated in the 1962 budget.

If the money had been appropriated the hospital was going to open a community office in northern Wayne or southern Oakland county. Also in keeping with changing program emphasis at the state level, the Caro State Hospital doubled its request for family care beds in 1961 from 25 to 50. This increase was programmed with an emphasis on the therapeutic placement to aid the rehabilitative services of the hospital. To offer the necessary professional services to these additional family care patients the hospital requested another social worker, besides the two requested for the community service program, in the budget.

In 1958-59 a new staffing program for patients was initiated at the hospital under the direction of the medical superintendent. One of the results of this program was the uncovering of many patients who no longer had need for the hospital services. Some of these patients could be returned to their own homes, but for others the community would have to be involved. Dr. Dickerson, the medical superintendent, requested that the social service department see what could be done about removing these patients from the hospital rolls. It did not receive the full impetus until 1960 when more than 60 patients were discharged or placed on convalescent status. The aim of this program was to remove those patients from the hospital rolls that could no longer benifit from its services and to interest the communities in providing services to people they were legally responsible for.

Several other new services were initiated in the last few

years that the hospital felt provided more adequate services to its clients. Included in these new services were pre-admission and pre-committment interviews with patients, the use of the voluntary admission order, waiting list surveys and a wider use of other agencies in the community.

None of the discussed changes in services or programs were in operation in 1941.

Changes in building programs:

The changes that took place in the building program probably portray most clearly the changes in the physical and psychological characteristics of the patients and the corresponding changes in services and programs.

A study of table 7 on the following page reveals that in 1941 there were four pre-school and school buildings in operation with a total capacity of 300. The children living in these buildings were between the age of five and seventeen, had an I.Q. above 60 and were physically capable of caring for their own personal needs. It was projected that the hospital would need four more school buildings with space for 200 more children. These buildings were never erected.

In 1951 there were still only four buildings in operation for pre-school and school children. The only change that took place was one building that housed school girls was converted to house school boys. There were no projected plans to build additional school children's buildings in 1951.

Type of patients	1941 Building in operation		1941 Projected building		1961 Building in operation		1961 Projected building	
	No. of Build.	Total Capacity	No. of Build.	Total Capacity	No. of Build.	Total Capacity	No. of Build.	Total Capacity
Pre-school and school boys	2	100	2	100	3	150	0	0
Pre-school and school girls	2	100	2	100	1	50	0	0
Trainable Males	5	417	2	220	4	367	0	0
Trainable Female	3	343	2	220	3	343	0	0
Custodial Male	3	225	0	0	3	265	1	110
Custodial Female	2	240	0	0	3	265	1	110
Nursary(both Sex)	0	0	0	0	1	62	1	250
Infirmaries Both Sexes	0	0	0	0	2	274	0	0
Total	17	1434	8	640	20	1776	3	470

Table 8. Buildings in Operation and Projected Building Program for Caro State Hospital in 1941 and 1961

Those male patients above age seventeen who were physically and psychologically capable of caring for their personal needs were classified as trainable males. In 1941 the hospital had five buildings in operation with a total capacity of 417 beds to house the trainable males. There were also projected plans to build two additional buildings with a capacity of 220 for this type of patients.

In 1961 there were four buildings in operation with a capacity of 367 to house trainable males with no projected plan for additional buildings. Including the projected capacity there was a reduction of 270 beds for trainable males between 1941 and 1961.

Using the same definition for trainable females as was used for trainable males there were three buildings in operation in 1941 housing 343 trainable females. There were also projected plans to erect two more buildings with a capacity of 220. The number of buildings and a total capacity for buildings in operation remained the same in 1961. However there were no plans to build any additional buildings. The only difference in the bed capacity was the 220 beds included in the projected plans.

None of the buildings projected in 1941 for trainable males and females were ever erected.

The custodial males and females included those patients who are physically and/or psychologically unable to care for their personal needs, but the majority were ambulatory. The youngest

patient in this group was approximately five years old.

In 1941 there were three custodial male and two custodial female buildings in operation with a capacity of 225 and 249 patients respectively. There were no custodial building plans projected in 1941. The same classification in 1961 revealed three buildings in each catagory in operation with a capacity of 265 males and 265 females. The projected building plans for 1961 called for two new buildings to be erected, one for males and one for females, each housing 110 patients. Including the projected buildings the capacity for custodial patients in 1961 increased 276 over 1941.

In 1941 there was no nursary in operation. In 1961 there was one in operation housing 62 male and female patients with projected plans for another 250 bed nursary. The nursary building houses patients of both sexes between the ages of few months to four or five years of age. The patient's physical or psychological condition does not play an important part in determining the placement of patients in the nursary.

No infirmaries were operating in 1941. In 1961 there were two with a capacity of 274 beds. The infirmaries house both male and female patients of all ages. The vast majority of these patients are non-ambulatory with very limited physical or psychological abilities.

Because of Michigan's recent financial condition none of the buildings projected in 1961 were erected but funds for the construction of these buildings were requested in the 1962-63 budget.

Since none of the projected buildings in 1941 were constructed it could be concluded that the need for buildings to house school children and trainable adults no longer existed. Further, supporting evidence of a changing need was that the three buildings erected since 1941 were used for severely physically and psychologically retarded patients, and all the buildings projected in 1961 were for the same type of patients (see appendix ii for the schematic map of Caro State Hospital).

A study of tables 9 and 10 that follow, will help clarify the need for additional beds for handicapped patients.

These tables revealed that over half, 56.87% of the patients admitted in 1961 were physically disabled to some degree, whereas in 1941 only 42.0% were disabled. The ages of the admitted patients was also an important consideration in planning new buildings. The median age decreased 4.6 years, from 14.8 years in 1941 to 10.2 years in 1961. This factor was again evident when the number of physically disabled patients under the age of 14 was compared. Fifty-one patients or 17.0% were under age 14 and physically disabled in 1941. In 1961 fifty-nine or 37% were in this catagory. This explained the need for a new nursary and partially explained why two new custodial buildings were planned. When this information was considered in conjunction with table 10 the need for the new building became ever clearer.

As can be seen in the following table, 63 or 40.0% of the patients admitted in 1961 were of age 14 or younger and severely mentally retarded, whereas only 66 patients or 22.0% in 1941 were

under age 14 and were severely mentally retarded.

When the age and I.Q. information was considered along with the tendency for the physically and psychologically disabled patient to remain hospitalized for longer periods of time, the need for additional bed space for this type of patient becomes evident.

Table 9. Age and physical condition of patients admitted in 1941 and 1961

1941				1961			
Age	Physical condition			Age	Physical condition		
	I*	P.D.*	C.D.*		I	P.D.	C.D.
0 - 4	0	1	6	0 - 4	6	9	18
5 - 9	15	8	5	5-9	9	10	5
10-14	49	24	7	10-14	22	14	2
15-19	44	25	4	15-19	9	13	0
20-24	15	12	1	20-24	7	2	0
25-29	21	12	0	25-29	4	3	0
30-34	11	4	1	30-34	5	5	0
35-39	7	6	0	35-39	2	3	1
40-44	7	4	0	40-44	2	1	0
45-49	3	5	0	45-49	0	2	0
50-54	2	2	0	50-54	2	1	0
Over 55	3	1	0	Over 55	1	2	0
Totals	177	104	24		69	65	26
%	58.0	34.1	7.9		43.13	40.62	16.25

* I = Intact; P.D. = Partially Defective; C.D. = Complete Defect.

Table 10. Age and I.Q. distribution of patients admitted in 1941 and 1961

	1941				1961				
	I.Q.					I.Q.			
Age	N*	M*	Mod.*	Sev.	Age	N	M	Mod.	Sev.
0 - 4	0	0	0	7	0- 4	0	0	1	32
5 - 9	1	4	4	19	5- 9	0	1	6	16
10-14	10	17	13	40	10-14	5	6	13	15
15-19	10	11	18	34	15-19	4	3	9	6
20-24	4	6	7	13	20-24	2	3	0	4
25-29	3	5	9	16	25-29	0	4	2	1
30-34	3	1	6	6	30-34	1	3	3	3
35-39	6	2	0	6	35-39	0	3	0	3
40-44	3	0	1	5	40-44	0	1	1	1
45-49	2	2	0	6	45-49	0	2	0	0
50-54	2	0	0	2	50-54	1	0	1	1
Over 55	2	0	0	2	Over55	0	3	0	0
Sub-Total	46	48	58	153		13	29	36	82
Grand Total	305				160				
%	15.05	15.74	19.02	50.16		8.12	18.12	22.5	51.25

* N = Normal; M = Mild; Mod. = Moderate; Sev. = Severe

Chapter VI

GENERALIZATIONS AND CONCLUSIONS

The original hypothesis for this study stated that because of the medical advances made in the treatment of epilepsy, the community needs for a state hospital for epileptics have changed. It was assumed that these changes would be reflected in the types of patients admitted. It was then hypothesized that the patients admitted during the year 1941 were less physically and psychologically handicapped when compared with patients admitted during the year 1961. It was further hypothesized that the hospital services have shifted to meet these needs.

The results of this study definitely supported that section of the hypothesis that stated that the patients admitted in 1941 were less physically and psychologically handicapped than those admitted in 1961.

There was a significant difference between the physical characteristics of the two groups with the 1961 group being more handicapped than the 1941 group. There was also a significant difference between the two groups when the physical and psychological characteristics were combined with the 1961 group again being more handicapped. The psychological characteristics of the two groups did not show a significant difference. But, the trend to admit more severely retarded patients was established.

The study did not attempt to demonstrate that these changes were due to advanced medical knowledge. However, Dr. D. B. Foster of Menninger Clinic and Dr. Willard W. Dickerson, Medical Superintendent of Care State Hospital did believe that improved diagnostic techniques and new anticonvulsant medication were the two most important factors involved. Other factors that could have been involved were increased community understanding and acceptance of the disease and improved community facilities for the education and training of handicapped persons. This study did not attempt to ascertain just how much these factors were involved.

The changes in services and programs were also evident from the results of the study. There was an increase in the number of adjunctive therapies personnel and a decrease in the number of academic teachers. This indicated a reduction in the number of educable patients admitted and an increase in the number needing occupational, recreational, and/or industrial therapy.

There was a change in emphasis regarding the social service department's program with the services being offered to the parents, relatives and the community instead of direct services to the patients.

The changes that took place in the building program also indicated a change in the type of services needed by the community. It could be concluded that the community was able to care for the person whose only problem was epilepsy but needed facilities that offered care and treatment for the physically and

psychologically handicapped epileptics.

The increase in the number of doctors and nursing personnel needed to operate the hospital was also attributed to the increase in the number of persons admitted who needed complete nursing care.

The results of this study corresponded closely with the results of Goldstein's[22] and Patton and Weinstein's[23] studies of the mentally retarded in that the greatest increase in admissions fell within the severely reatrded group. The results also agreed with those found by Mr. Navidzadeh[24] in his study of the characteristics of persons admitted to the Caro State Hospital from 1947 to 1958. He found that 86.8% of the patients admitted were mentally retarded to some degree. This study showed that 91.9% of the patients admitted in 1961 were retarded. When these results were compared to the 1941 group in which 84.9% were retarded the trend becomes obvious.

Implications:

The implications of this study are:

1. Most epileptics are being diagnosed and treated successfully in their home community, with the majority that are admitted to State hospitals having accompanying physical and psychological defects that are more handicapping than the epilepsy.

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22. Op. Cit. Goldstein p. 604

23. Op. Cit. Patton p. 627

24. Op. Cit. Navidzadeh p. 49

2. The greatest need for social services to the epileptic is located in the community and not at a state hospital.

3. It is questionable whether a large specialized state facility for the epileptic person is still needed. The majority of patients now being admitted could be treated at the state facilities for the mentally retarded. A smaller, more highly specialized facility could be established to treat those persons who are not physically and psychologically handicapped but whose seizures have not responded to treatment from their family physician.

Recommendations:

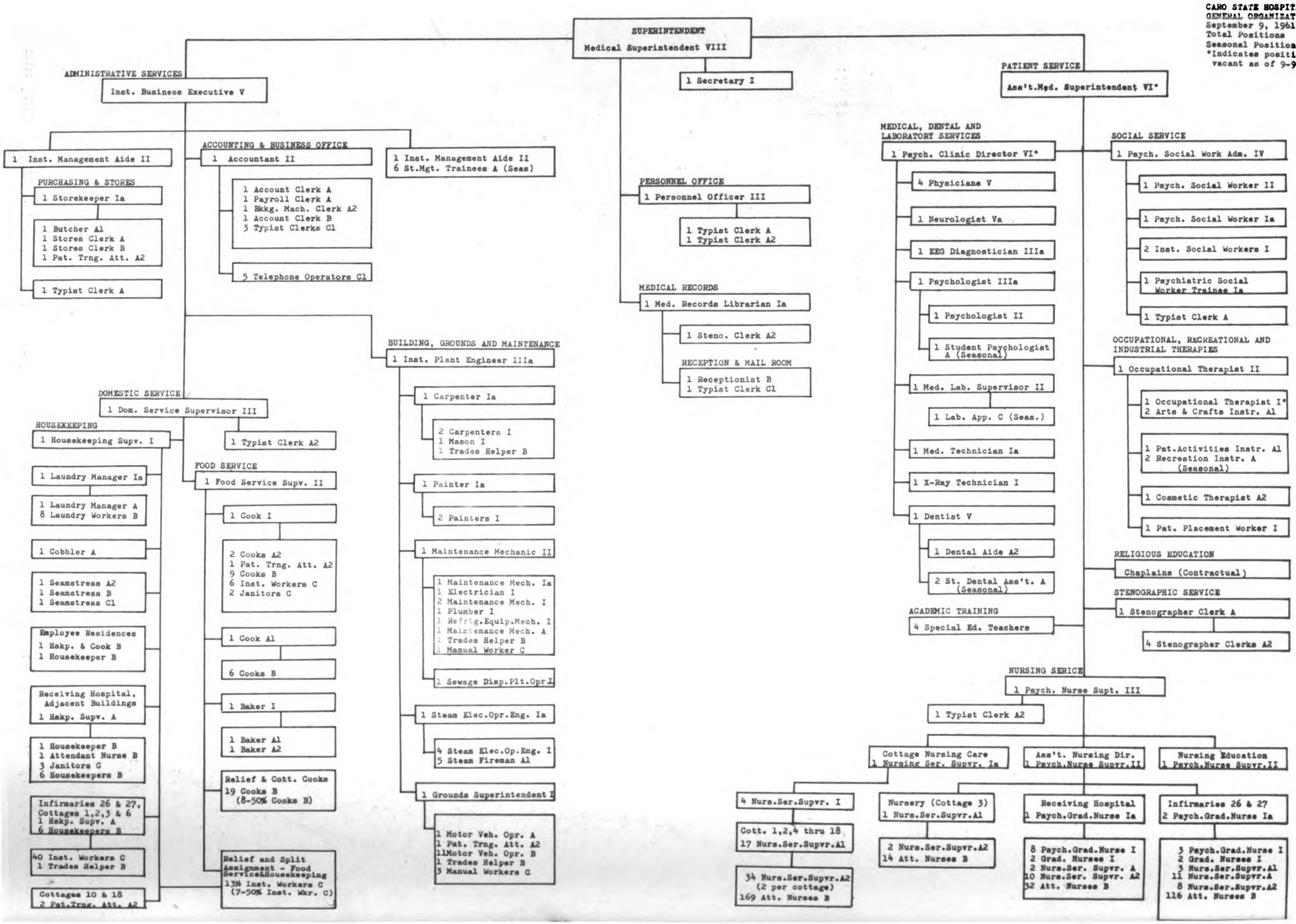
The writer found a definite lack of information regarding epilepsy in the literature, especially social services programs in present day epileptic hospital where the majority of patients are unable to use direct services. A question that could be answered by a study in this area is, are the social service departments in state hospitals for epileptics performing a worthwhile service or could these services be offered more advantageously in the local communities.

Another study that would give reliable information would be determining why epileptics with normal intelligence and no accompanying physical disabilities are still being admitted to state hospitals, and what happens to them after they have been hospitalized and discharged.

It would also be helpful to know the current attitude of social agencies in regard to offering casework services to epileptics. It has been the writer's experience that agencies are

not anxious to offer them services. One reason given is that many epileptics are brain damaged and it is almost impossible to effect any meaningful change in these persons' adjustment. The writer suspects that the number of epileptics on agency case loads would be disproportionately low.

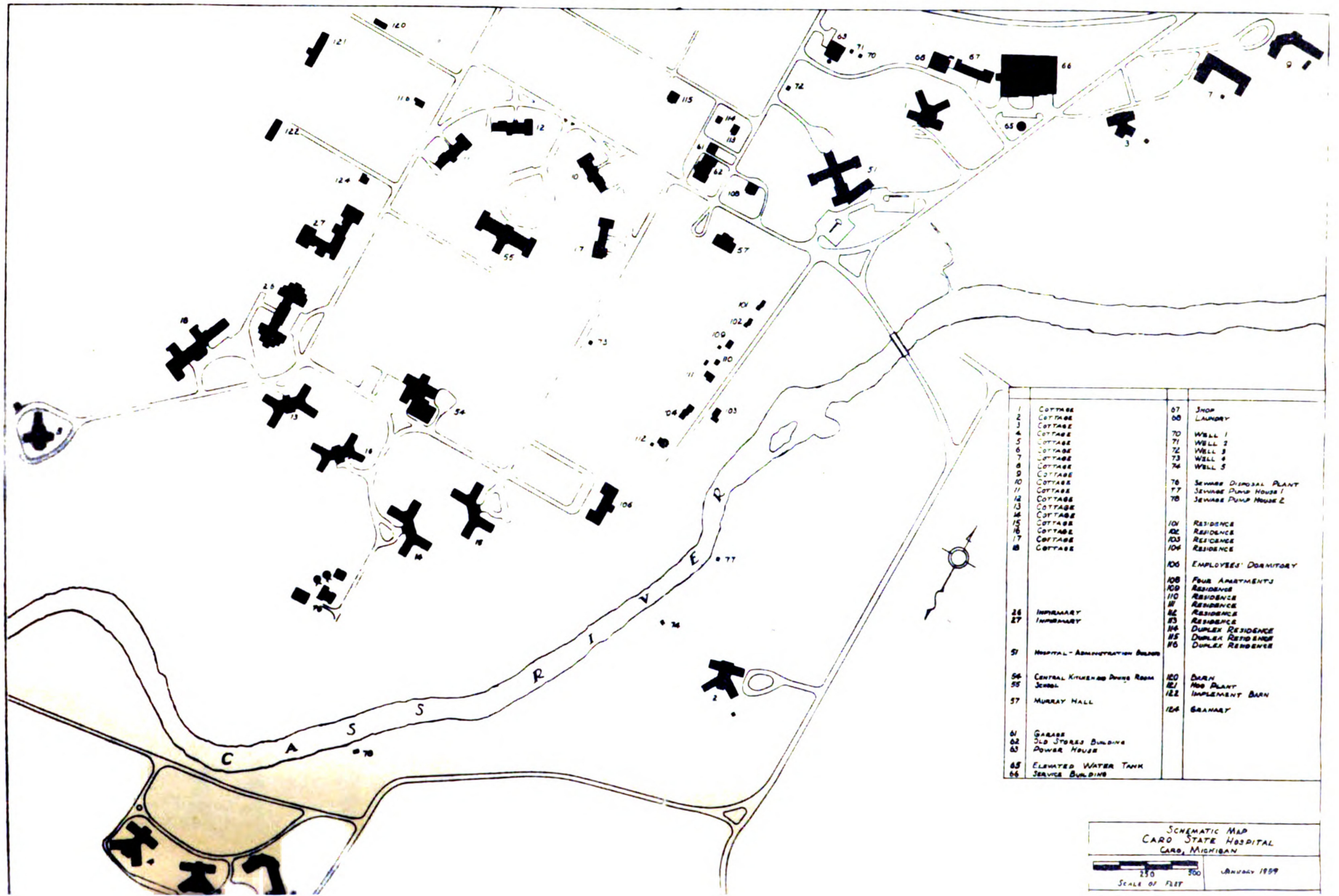
Appendix I


CARO STATE HOSPITAL
GENERAL ORGANIZATION CHART
September 9, 1961
Total Positions 696.5
Seasonal Positions 12
*Indicates positions vacant as of 9-9-61
SUPERINTENDENT
Medical Superintendent VIII
1 Secretary I
ADMINISTRATIVE SERVICES
Inst. Business Executive V
1 Inst. Management Aide II
PURCHASING & STORES
1 Storekeeper Ia
1 Butcher A1
1 Stores Clerk A
1 Stores Clerk B
1 Pat. Trng. Att. A2
1 Typist Clerk A
ACCOUNTING & BUSINESS OFFICE
1 Accountant II
1 Account Clerk A
1 Payroll Clerk A
1 Bkkg. Mach. Clerk A2
1 Account Clerk B
3 Typist Clerks C1
5 Telephone Operators C1
1 Inst. Management Aide II
6 St.Mgt. Trainees A (Seas)
BUILDING, GROUNDS AND MAINTENANCE
1 Inst. Plant Engineer IIIa
1 Carpenter Ia
2 Carpenters I
1 Mason I
1 Trades Helper B
1 Painter Ia
2 Painters I
1 Maintenance Mechanic II
1 Maintenance Mech. Ia
1 Electrician I
2 Maintenance Mech. I
1 Plumber I
1 Refrig.Equip.Mech. I
1 Maintenance Mech. A
1 Trades Helper B
1 Manual Worker C
1 Sewage Disp.Plt.Opr.I
1 Steam Elec.Opr.Eng. Ia
4 Steam Elec.Op.Eng. I
5 Steam Fireman A1
1 Grounds Superintendent I
1 Motor Veh. Opr. A
1 Pat. Trng. Att. A2
11Motor Veh. Opr. B
1 Trades Helper B
3 Manual Workers C
DOMESTIC SERVICE
1 Dom. Service Supervisor III
1 Typist Clerk A2
HOUSEKEEPING
1 Housekeeping Supv. I
1 Laundry Manager Ia
1 Laundry Manager A
8 Laundry Workers B
1 Cobbler A
1 Seamstress A2
1 Seamstress B
1 Seamstress C1
Employee Residences
1 Hskp. & Cook B
1 Housekeeper B
Receiving Hospital, Adjacent Buildings
1 Hskp. Supv. A
1 Housekeeper B
1 Attendant Nurse B
3 Janitors C
6 Housekeepers B
Infirmaries 26 & 27, Cottages 1,2,3 & 6
1 Hskp. Supv. A
6 Housekeepers B
40 Inst. Workers C
1 Trades Helper B
Cottages 10 & 18
2 Pat.Trng. Att. A2
FOOD SERVICE
1 Food Service Supv. II
1 Cook I
2 Cooks A2
1 Pat. Trng. Att. A2
9 Cooks B
6 Inst. Workers C
2 Janitors C
1 Cook A1
6 Cooks B
1 Baker I
1 Baker A1
1 Baker A2
Relief & Cott. Cooks
19 Cooks B
(8-50% Cooks B)
Relief and Split Assignment - Food Service&Housekeeping
13½ Inst. Workers C
(7-50% Inst. Wkr. C)
PERSONNEL OFFICE
1 Personnel Officer III
1 Typist Clerk A
1 Typist Clerk A2
MEDICAL RECORDS
1 Med. Records Librarian Ia
1 Steno. Clerk A2
RECEPTION & MAIL ROOM
1 Receptionist B
1 Typist Clerk C1
PATIENT SERVICE
Ass't.Med. Superintendent VI*
MEDICAL, DENTAL AND LABORATORY SERVICES
1 Psych. Clinic Director VI*
4 Physicians V
1 Neurologist Va
1 EEG Diagnostician IIIa
1 Psychologist IIIa
1 Psychologist II
1 Student Psychologist A (Seasonal)
1 Med. Lab. Supervisor II
1 Lab. App. C (Seas.)
1 Med. Technician Ia
1 X-Ray Technician I
1 Dentist V
1 Dental Aide A2
2 St. Dental Ass't. A (Seasonal)
ACADEMIC TRAINING
4 Special Ed. Teachers
SOCIAL SERVICE
1 Psych. Social Work Adm. IV
1 Psych. Social Worker II
1 Psych. Social Worker Ia
2 Inst. Social Workers I
1 Psychiatric Social Worker Trainee Ia
1 Typist Clerk A
OCCUPATIONAL, RECREATIONAL AND INDUSTRIAL THERAPIES
1 Occupational Therapist II
1 Occupational Therapist I*
2 Arts & Crafts Instr. A1
1 Pat.Activities Instr. A1
2 Recreation Instr. A (Seasonal)
1 Cosmetic Therapist A2
1 Pat. Placement Worker I
RELIGIOUS EDUCATION
Chaplains (Contractual)
STENOGRAPHIC SERVICE
1 Stenographer Clerk A
4 Stenographer Clerks A2
NURSING SERICE
1 Psych. Nurse Supt. III
1 Typist Clerk A2
Cottage Nursing Care
1 Nursing Ser. Supvr. Ia
4 Nurs.Ser.Supvr. I
Cott. 1,2,4 thru 18
17 Nurs.Ser.Supvr.A1
34 Nurs.Ser.Supvr.A2 (2 per cottage)
169 Att. Nurses B
Nursery (Cottage 3)
1 Nurs.Ser.Supvr.A1
2 Nurs.Ser.Supvr.A2
14 Att. Nurses B
Ass't. Nursing Dir.
1 Psych.Nurse Supvr.II
Receiving Hospital
1 Psych.Grad.Nurse Ia
8 Psych.Grad.Nurse I
2 Grad. Nurses I
2 Nurs.Ser. Supvr. A
10 Nurs.Ser. Supvr. A2
32 Att. Nurses B
Nursing Education
1 Psych.Nurse Supvr.II
Infirmaries 26 & 27
2 Psych.Grad.Nurse Ia
3 Psych.Grad.Nurse I
2 Grad. Nurses I
3 Nurs.Ser.Supvr.A1
11 Nurs.Ser.Supvr.A
8 Nurs.Ser.Supvr.A2
116 Att. Nurses B

Appendix II

Schematic Map

CARO STATE HOSPITAL



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