

1956

# The role of the medical social worker in the public health setting with a group of patients with poliomyelitis

---

<https://hdl.handle.net/2144/23912>

*"Downloaded from OpenBU. Boston University's institutional repository."*

Thesis  
Gardiner  
1956

BOSTON UNIVERSITY  
SCHOOL OF SOCIAL WORK

THE ROLE OF THE MEDICAL SOCIAL WORKER IN  
THE PUBLIC HEALTH SETTING WITH A GROUP OF  
PATIENTS WITH POLIOMYELITIS

A thesis

Submitted by

Emily Agnes Gardiner

(A.B., Northeastern University, 1952)

In Partial Fulfillment of Requirements for  
the Degree of Master of Science in Social Service

1956

BOSTON UNIVERSITY  
SCHOOL OF SOCIAL WORK  
LIBRARY

## TABLE OF CONTENTS

CHAPTER	Page
I. INTRODUCTION.....	1
Purpose of the Study.....	1
Method and Scope of the Study.....	2
Limitations of the Study.....	5
II. POLIOMYELITIS.....	7
Medical Aspects.....	7
The Acute Phase of Poliomyelitis.....	13
The Convalescent Phase of Poliomyelitis....	17
The Chronic Phase of Poliomyelitis.....	20
III. HISTORICAL DEVELOPMENTS OF PUBLIC HEALTH SERVICES IN MASSACHUSETTS.....	24
Social Work Section.....	24
Program for Crippled Children.....	29
Worcester Crippled Children's Clinic.....	34
IV.. DESCRIPTION OF THE PATIENT GROUP.....	41
Tables.....	41
Personality Patterns of the Patient Group..	56
Family Relationships.....	61
V. THE ROLE OF THE MEDICAL SOCIAL WORKER IN A PUBLIC HEALTH SETTING.....	69
VI. SUMMARY AND CONCLUSIONS.....	84
APPENDIX	
Schedule.....	90
BIBLIOGRAPHY.....	92

## LIST OF TABLES

Table	Page
1. Religious Affiliation of the Patients.....	42
2. Ethnic Background of Patients.....	43
3. Time Interval Between the Date of Onset and the Date of the First Visit to the Clinic...	44
4. Age and Sex Distribution.....	45
5. Age Distribution According to Present Degree of Physical Impairment.....	48
6. Occupation or School Status of Patient Group..	49
7. Distance of Home from Clinic.....	50
8. Size of the Family Units.....	51
9. Health of the Family.....	52
10. Economic Condition of the Family.....	53
11. Parents Present in the Home.....	54
12. Casework Services Offered at the Time of Referral; Casework Services Offered at the Present Time.....	55
13. Personality Patterns of the Patient Group.....	57
14. The Nature of Family Relationships.....	62

CHAPTER I  
INTRODUCTION

1. Purpose of the Study

It is felt by many workers in the field of public health, as well as by workers interested in what the public health team is doing, that the practical problems of distance, time, area coverage, size of population within the district, and weather conditions make special demands on the public health team, and hence on the way teamwork with people in rural communities must be practiced. This study will attempt to point out what implications these practical problems have on the role of the medical social worker in a public health setting.

Wilma Smyth <sup>1/</sup> tells us that:

"Unfortunately the graduate schools of social work tend to place their students in urban field work centers, and thus to prepare the worker for practice in an urban setting. The bulk of casework literature deals with experience in urban areas, and gives the rural worker limited help in applying the new developments in the field to the particular setting in which he works."

The purpose of this study is to examine the medical social worker's role in a public health setting in dealing with the social problems of a group of patients with poliomyelitis who are being seen in a clinic of the

1/Wilma Smyth, "The Rural Child Welfare Worker in Action," Social Casework (November, 1955), 36:406.

Massachusetts Department of Public Health through the services of the Crippled Children's Program. An attempt will also be made to examine her role in dealing with the social problems apparent at the time the child was referred to the Worcester Crippled Children's Clinic, and as they seem to exist today. The study will be based on the following questions:

1. What were the problems seen by the social worker at the time of referral of the patient with poliomyelitis to the Crippled Children's Clinic? What are they today?
2. What services were seen as needed by the social worker?
3. What was the role of the medical social worker in meeting these needs in the Crippled Children's Clinic at the time of referral? Today?
4. What were the social services offered?

## 2. Method and Scope of the Study

This study will be based on the case records of twenty-nine patients with poliomyelitis who are currently being seen at the Worcester Crippled Children's Clinic, and who represent the entire active caseload of patients with this diagnosis referred to the clinic between 1938 and 1954. None of the patients had had previous contact with the clinic before being referred for treatment of poliomyelitis. The patient group all live in Worcester County. They presented specific problems at the time of referral, and have been followed by the clinic team,

including the medical social worker, continuously. In the writer's opinion, study of these patients affords the opportunity to illustrate the role of the medical social worker a number of years ago, compared with her role at the present time, as well as to give insight into the factors which may have influenced her role. The cases were studied on the basis of a schedule for abstracting material. Four cases are presented in some detail, while the remainder are included in group summaries.

An attempt is made to study the problems - medical, social, environmental, and emotional - seen at referral of the patient to the clinic, and during the ongoing situation. This study will focus on the medical social worker's role, as part of a team, in helping to meet these problems.

Chapter II is devoted to medical data concerning poliomyelitis, and its three phases - the acute, the convalescent, and the chronic - in terms of what kind of services are needed during these three stages. Continuity of patient care from one stage of the disease to the next is the goal; casework treatment aimed at achieving this goal depends upon, and may affect, many factors including the medical picture, the social and emotional picture, the possibilities for obtaining necessary care, etc.

Fay S. Copellman <sup>1/</sup> presents the following theory about children with the disease, which cannot be proved or disproved at this time. She feels:

"There are certain to be effects on a child who has had a serious, greatly feared disease like poliomyelitis, involving isolation in a hospital, separation from parents, strange treatment, and a long period of convalescence with the possibility of a chronic paralysis as a result."

This writer agrees that there are certain traumatic effects from poliomyelitis, and in the course of this study, an attempt will be made to evaluate the role of the medical social worker at different stages of the disease in view of what the problems are, what the patient's needs are, and the particular setting in which treatment is being offered. Chapter III deals with a general discussion of three important aspects of the historical developments of public health services in order to clarify for the reader the composition of the public health team, and the milieu in which it operates. The first phase describes the development of the Social Work Section of the Massachusetts Department of Public Health, the second describes the development of the Massachusetts Program for Services for Crippled Children, and the third is a description of the Worcester Crippled Children's Clinic. Chapter IV is a description of the

<sup>1/</sup>Fay S. Copellman, "Follow-up of One Hundred Children with Poliomyelitis," The Family (December, 1944), 25:292.

patient group with which this study is concerned, and Chapter V is devoted to the services given by the medical social worker in dealing with these patients, supplemented by case presentations for purposes of clarity. Chapter VI examines the preceding chapters, and is devoted to summary and conclusions.

It is hoped this study will provide an opportunity for social workers to look at what available facilities exist in a public health setting, and to point out the realistic problems which influence the social worker's activities, hopefully to help with future operations in the field of public health.

### 3. Limitations of the Study

The chief limitation is the use of records, which are incomplete in that unit records are used, and are, by necessity, highly summarized. The records are also incomplete in that the patient group studied are still undergoing treatment.

Although fairly representative of Worcester, the size of the sample is not large enough to be a representative sample of the commonwealth, or of the country at large.

This study is intended to examine and evaluate the factors involved which have influenced the role of the medical social worker in a public health setting in

working with a group of twenty-nine patients with poliomyelitis being seen at the present time in the Worcester Crippled Children's Clinic.

CHAPTER II  
POLIOMYELITIS

1. Medical Aspects

Poliomyelitis, known also as Infantile Paralysis, is a disease which has been known to this country since 1841. It was not recognized as a communicable disease, however, until the virus characteristic of poliomyelitis was discovered forty seven years ago.<sup>1/</sup> It is known that poliomyelitis is a disease which occurs more frequently in childhood, although it may occur at any age from infancy through maturity.

But what is poliomyelitis, and why is it feared? Poliomyelitis is feared largely because although the cause is known to be a specific virus, the method of transmission is not fully understood, and the disease cannot be prevented by applied measures. Poliomyelitis attacks quickly with the possibility of leaving paralyzing effects upon its victims. Being a communicable disease, it spreads rapidly, striking fear into the whole community. Even though great advances have been made in terms of the recent development of protection by the use of vaccine, a great deal still remains to be done. It is hoped

1/United States Children's Bureau, Infantile Paralysis; The Disease and Its Treatment, Pamphlet, 1946, Washington, D.C., p.2

immunization may eliminate this fear in the future, but at the time of this study, no such protection was provided.

Even though the general public has some vague idea that poliomyelitis cripples or kills the person it attacks, the disease is seldom fatal, and paralytic poliomyelitis is rare in comparison with non-paralytic poliomyelitis. Anyone of us may have had it and never known it. Statistics show that forty to sixty percent, more than half of all patients recover without any paralysis. Twenty-five to thirty percent will be left with only a mild degree of paralysis, and will be able to carry on normal activities. Only fifteen to twenty-five percent will be left with permanent paralysis.<sup>1/</sup> Even this last group can now be helped to live a fairly independent life through special services offered in the community.

It is now known that poliomyelitis is an acute, communicable disease involving the spinal cord and the central nervous system. It is caused by a parasitic virus, and is characterized principally by paralysis of various groups of muscles. The virus was discovered in 1909 by Landsteiner and Popper while they were engaged with animal experimentations. They obtained the spinal cord of a boy who died twenty-four hours after the onset of acute poliomyelitis, and inoculated various animals - among which

1/Alton L. Blakeslee, Polio Can be Conquered, Public Affairs Pamphlet Number 150, 1955, Public Affairs Press, New York City, New York, pp. 2-3.

were two monkeys - with an emulsion of this cord. The monkeys alone, of all the animals injected, became paralyzed and after death showed the same changes in the spinal cord as are met with in the human being. Later animal experimentations proved it possible to transmit the disease through an indefinite series of monkeys. These experimentations showed that in whatever way the virus was introduced, by various routes of inoculation, the disease repeatedly became established in the brain and spinal cord. <sup>1/</sup>

How this virus spreads from one person to another is not known, but there is evidence that it is spread by close, intimate contact. It is known, however, that epidemics of the disease have a definite seasonal occurrence - being more prevalent in summer months than in frosty weather - but this feature has not yet been explained satisfactorily either.

The onset of poliomyelitis is similar to some of the other acute illnesses, with symptoms of headache, sore throat, fever, constipation, nausea, and listlessness. A common history is for a child to seem ill and feverish, to be put to bed, and the next morning to be found to have lost muscle power. In other cases, the febrile

1/Frederick E. Batten, "Poliomyelitis in Relation to the Spread of Infection by Schools," Medical Officers of Schools Association (London, 1911), p.2.

disturbance lasts for several days before the onset of paralysis.<sup>1/</sup>

Poliomyelitis is usually divided into three phases: the acute, the convalescent, and the chronic. About ten days after infection, the first symptoms of the acute phase appear. Fever remains with the patient for about six or seven days, and then paralysis appears, if it is going to. The convalescent phase begins when the patient's temperature has dropped to normal, and remains stationary. The most rapid improvement occurs in the first six months. After this time recovery is slow, but may continue for as long as two years. After two years, the chronic phase begins, and it is during this phase that the patient often needs to be re-educated to a new way of life, and in the process may pose difficult social problems.<sup>2/</sup> The most serious type of poliomyelitis is the bulbar form, which comprises at least four groups of patients. The most notable of these are those patients having symptoms and signs indicating involvement of the autonomic centers of the medulla, particularly the respiratory center. Respiratory failure may occur with great rapidity, and the

<sup>1/</sup>Sir W. R. Gowers, A Manual of Diseases of the Nervous System, P. Blakiston's Sons and Company, Philadelphia, 1900, Vol. I, p. 399.

<sup>2/</sup>P. C. Jeans, W. Rand, and F. G. Blake, Essentials of Pediatrics, J. B. Lippincott Company, Philadelphia, 1939, pp. 421-422.

patient's life depends on mechanical aids.<sup>1/</sup>

The amount of paralysis, or muscle weakness, depends upon how many nerve cells the virus destroys, and how far it travels. The paralysis is permanent if death of the motor nerve cells serving those muscles occurs. Often, however, enough nerve cells remain alive to give some movement of the muscles. This movement can be increased by exercises and other treatment.

Epidemics of poliomyelitis are studied very closely by a group of professional people called epidemiologists. They seek answers to the mystery of how the virus spreads, but their findings, although helpful, have not been conclusive. They have found there are people who resist the virus, and people who have the virus within their systems but do not become ill. This seems to be true of both well-nourished and poorly nourished groups, so general good health of itself is not the answer. Again, their studies have shown that epidemics tend to recur in the same general areas of this country every four to six years. The cycle is by no means infallible, of course, and the same area can be struck twice in a row, or go for a much longer time than four to six years.<sup>2/</sup>

Dr. Alton Blakeslee<sup>3/</sup> also tells us that in our own

<sup>1/</sup>R.L. Cecil and R.F. Loeb, A Textbook of Medicine, W.B. Saunders Company, Philadelphia, 1951, p. 80.

<sup>2/</sup>Alton Blakeslee, op. cit., pp. 19-20.

<sup>3/</sup>Ibid., p. 21.

country, as well as in countries abroad, there is an increase in the number of adults contracting poliomyelitis. In China and Korea, for example, where the disease is rare, adult Americans rather than indigenous populations were affected. During the war, American and British troops stationed in the Philippines, the Middle East, and the Far East contracted it without there being an increase among the native population of these areas. Within recent years, epidemics have broken out in the Scandinavian countries, South America, Japan, and the Near East - all places which have never known poliomyelitis epidemics before. The reason for these happenings is not known, and only theories have been set forth to try to explain these epidemiological characteristic features of poliomyelitis. It may be that in certain of these countries, the disease, although present, was not recognized through prevailing diagnostic techniques. It is now known that there are three general types of virus, rather than one single virus, and that each type has various strains.<sup>1/</sup> It is believed there are different strains of the virus family in different parts of the world, which might account for the fact that Americans who are immune to one type of virus at home, are susceptible to a "cousin" virus in foreign countries.<sup>2/</sup>

<sup>1/</sup>Massachusetts Advisory Committee on Polio Vaccine, "A Report on the Salk Vaccine," Saturday Review, (March 24, 1956), p. 65.

<sup>2/</sup>Alton Blakeslee, op. cit., pp. 21-23.

Within our own country, scientists have found that the disease affects more adolescents and young adults in rural areas than in the cities, but in the cities, children are more likely to be affected. In this respect, scientists are attempting to discover if poliomyelitis is due to changes in the person's resistance rather than to changes in the virus strains. For example, the resistance of a person might be affected by changes in diet, in water, in soil, or in other areas of his way of life.<sup>1/</sup>

## 2. The Acute Phase of Poliomyelitis

The acute phase of poliomyelitis covers a period of about three weeks, during which time the patient is acutely ill, usually requiring hospital care under isolation conditions which may vary in length of time from one to three weeks. This paper does not intend to go into the medical aspects of acute poliomyelitis, but rather to examine the role of the medical social worker during the acute phase - the problems encountered, and the way in which these problems are met. Alice Grant made a study of the medical social worker's role during the acute phase of the 1943 epidemic in Southern Connecticut,<sup>2/</sup> which is the only piece of literature available on the social worker's role during the acute phase, and the writer has

1/Ibid., p. 23.

2/Alice A. Grant, "Medical Social Work in an Epidemic of Poliomyelitis," The Journal of Pediatrics (June, 1944), pp. 691-723.

leaned upon this source for descriptive purposes.

During the acute phase, one of the problems most frequently encountered is around the tense, anxious feelings of the families of patients with poliomyelitis. The pressure under which doctors are working during any acute epidemic prevents them from seeing individual families as frequently as might be necessary. The hospital social worker is in a strategic position, therefore, to alleviate tension by giving pertinent information about the patient, about hospital plans and procedures, and about the services of the National Foundation for Infantile Paralysis. Although this may seem like a simple service, there is more to it than just the giving of information to the patient's family. With the giving goes warmth and understanding of individual needs, based on her body of knowledge of the basic principles of human behavior, and the ways in which people react in times of crisis. She is frequently called upon to take on more of the doctor's role in interpreting the social effects of diagnosis and treatment, not only to the families, but to other professional personnel within the hospital, and outside of its walls.

Again, many families are without financial resources when the disaster strikes, and the financial situation for many families may become acute if long term care is needed.

The hospital social worker individualizes the needs of each family, interprets these needs to the doctors and other hospital team members, and draws upon community resources where needed. It is the administrator's job, usually, to determine what resources are needed, but it is the hospital social worker who works out the details of each family's use of these resources. She helps the child and his family with their confusion about referrals to new clinics, etc; she makes financial, transfer, and transportation arrangements for convalescent care in new centers, and participates in inter-agency planning.

Another problem encountered during the acute phase of poliomyelitis is around the necessary separation of the child from his family during hospitalization, especially when this involves isolation for some period of the time. The hospital social worker helps in this area by assisting families to see the necessity for this separation, and by helping them to bear with the fact of separation. This is not only true during the acute phase, but is also true during the convalescent period when the patient may need to be referred to a different center.

In order for the reader to understand the specific functions of the medical social worker during the three stages of poliomyelitis, it is necessary for him to understand the general functions which apply to all medical

social workers in hospitals, clinics, and sanatoria as defined by the American Association of Medical Social Workers.<sup>1/</sup> Her function, in general, is to give casework service to the patient around personal and environmental difficulties which predispose toward illness or interfere with obtaining maximum benefits from medical care. This social service depends upon individualized study of the patient, so that the impact of illness, and its inter-relationship with his personal needs and problems may be understood. Interviews with the patient and members of his family, and conferences in his behalf with professional persons are the principle methods used. The medical social worker is also responsible for consulting with the administration, the medical staff, and other professional departments around patient care in program planning and policy making, in the development of services and procedures within the medical institution, and in relation to the hospital's responsibility in the community. She is continually aware of the needs of patients, and the facilities and lack of facilities in the community to meet them. It is her responsibility to use this knowledge in community planning to contribute to the understanding of social problems which illness creates and aggravates, and

1/The American Association of Medical Social Workers, "A Statement of Standards to be Met by Social Service Departments in Hospitals, Clinics, and Sanatoria, Monograph, 1949, Washington, D. C.

to point out community services needed to facilitate rehabilitation and prevention of illness and disability. She participates in the teaching and training of professional personnel within the medical institution and in doing social research in relation to those problems which raise questions in her own practice.

Since the hospital social worker's function during the acute phase of poliomyelitis encompasses the same techniques and skills used by all medical social workers, it can be seen that her function differs only in the tempo of action. The acute phase brings with it urgency factors relating to time, emergency, and pressure - both for the worker and the patient group - which requires that the pace of activity be accelerated.

### 3. The Convalescent Phase of Poliomyelitis

The duration of the convalescent phase of poliomyelitis may be from three weeks to two years. Convalescent care may be given in a treatment center, or in the patient's own home. The medical treatment depends upon the child's condition, but continuous medical and ancillary supervision are of utmost importance during this stage. Convalescence, in general, brings with it certain emotional concomitants such as withdrawal, hostility, dependence, aggression, etc., and since the convalescent phase of this illness may be of long duration, it is

particularly important that patients receive special consideration during it. Knowledge of the social and emotional problems associated with normal growth and behavior development needs to be combined with an understanding of what the impact of illness, or of a crippling condition, is on the child with poliomyelitis, and on his family. The social worker uses her knowledge of normal growth and development of behavior as a yardstick to measure the degree of adjustment or maladjustment in any particular situation where there is an illness, and uses her specialized training in helping the patient and his family feel more comfortable with the illness.

Medical social workers are concerned, therefore, with helping patients with poliomyelitis and their families accept the disease during the convalescent stage, and with helping them reach the greatest possible degree of self-sufficiency. One of the problems encountered by the medical social worker is the patient's tendency to regress to a dependency level. When the patient is discharged from the hospital, he generally feels well for the first forty-eight to seventy-two hours, but after that time tends to regress physically and emotionally. If parents are not helped to meet the patient's needs during this time, so that he will eventually regain his independence, he could become a burden to himself and to

his family. The medical social worker helps by being understanding, sympathetic, and supportive - emphasizing a positive attitude toward the patient's recovery, and being encouraging about what he can do. For this reason, the social worker needs to know what illness, hospitalization, and convalescent care at home or in an institution mean to the child and his family.

Fay S. Copellman made a study of the medical social worker's role during the convalescent phase of poliomyelitis,<sup>1/</sup> and she tells us that follow-up is an important function of the social worker during this period. The practical aspects of the casework follow-up, to insure continuity of care, include making arrangements for further medical treatment, giving medical recommendations to the schools, seeking psychiatric help in cases of serious maladjustments, giving further interpretations of the disease to parents and teachers, interpreting complex social situations to doctors and to other professional disciplines treating the child. Also, parents and children are helped to make a satisfactory readjustment to normal activities, and parents and teachers are encouraged to give the children some protection from overactivity, without overprotecting them to the extent that they will want to remain invalid after they are well.

<sup>1/</sup>Fay S. Copellman, op. cit., p. 293.

The services offered by a medical social worker in a public health setting begins during the convalescent stage of recovery when the patients with poliomyelitis have been referred to a State Crippled Children's Clinic for continuing treatment after hospitalization. In addition to the clinical functions in her services to individual patients in a crippled children's program, the social worker in a public health setting also makes herself available to hospital social workers for consultation in regard to patient care. She acts as a consultant representative from the district health office to local committees interested in problems posed by poliomyelitis in the community, and in regard to existing social services that might be available to patients with poliomyelitis. She points up the need for new services as seem indicated. For example, the recent epidemic of poliomyelitis in Worcester and Worcester County have clarified the need for supplementing the existing home-maker services. The medical social worker in a public health setting also gives consultation services to local health and social agencies in regard to specific situations requiring discharge planning.

#### 4. The Chronic Phase of Poliomyelitis

The chronic phase of poliomyelitis refers to that period of time at which no further spontaneous recovery

of the muscles is anticipated - about two years after onset - and the focus of treatment is less on improving function and more on preserving gains which have been made, and promoting plans for rehabilitation designed to help the patient achieve optimum social, physical, emotional, and mental health. Teamwork - the harmonious pooling together of skills of many disciplines - is important during this period to help the patient make the best of his condition. The doctor, again, is the leader of the team, and all other disciplines base their services on his recommendations.

The medical social worker is the member of the health team whose special contribution is social casework services to, or consultation services on behalf of patients with poliomyelitis, with special emphasis on the social, emotional, and environmental needs of the patient around the illness. Her evaluation of these areas is important to team members in planning for comprehensive health care. Where there are environmental, social, and emotional problems which prevent the patient from using rehabilitation services to his fullest advantage, the medical social worker collaborates with other team members to help him improve the situation. If the patient's difficulties are so deep-seated that he cannot use case-work services, the medical social worker works with other

team members through interpretation of the patient's emotional needs in helping him to get psychiatric treatment.

From the point of view of prevention, since the chronic phase of poliomyelitis does require the services of many disciplines of a rehabilitation team, all members of the team may be helpful in preventing unnecessary suffering by being aware of early signs of physical, social, and emotional difficulties. Caroline Elledge<sup>1/</sup> develops this thought further by telling us that one way to prevent disabling attitudes of adults who have been permanently paralyzed by poliomyelitis in childhood is to maintain:

"Close ties between the child, his parents, and other members of the family group during his separation [when he leaves his own home to spend a long period of time in an institution], and when he is helped to make the transition from the institution back to his own home. The child's or parents' fears regarding medical treatment, resentment of the limitations imposed by the impairment, overprotection of the child on the basis of the physical impairment, resistance to certain aspects of the program such as speech therapy or physical therapy may come to the attention of other members of the medical team at various times during the course of treatment either in the institution or while attending clinic."

Thus we see that if these feelings are noticed by any member of the team, and referred to the appropriate worker, possible prevention of future difficulties may be obtained.

It can be seen, then, that the problems encountered during the three stages of poliomyelitis are continuous

<sup>1/</sup>Caroline H. Elledge, The Rehabilitation of the Patient: Social Casework in Medicine, J.B.Lippincott Company, Philadelphia, 1948, pp. 100-101.

from one stage to another; several processes, techniques, and skills are used successively, or concomitantly, by the medical social worker, and reflect the demands of the individual's changing situation.

CHAPTER III  
HISTORICAL DEVELOPMENTS OF PUBLIC HEALTH  
SERVICES IN MASSACHUSETTS

1. Social Work Section

About thirty-eight years ago, in 1918, the Social Work Section of the Massachusetts Department of Public Health took root under the leadership of Dr. Eugene Kelly, Commissioner, who felt a place should be found for medical social workers in the Department as a "preventive" measure. Thus, in the early part of the twentieth century, Dr. Eugene Kelly, Dr. Richard C. Cabot, Miss Ida M. Cannon, and others, were keenly aware of the social problems which have their effect upon the health and welfare of people.<sup>1/</sup>

Their idea grew, and in 1919, the first medical social worker was appointed to the sub-division of Venereal Disease in the Department of Public Health. Massachusetts now had one social worker for the entire State. Her duties were those of an investigator, and as such she was given the title "Special Investigator". She was concerned mainly with following up delinquent cases, with investigating venereal sources of infection, and with helping lay groups and social agencies in developing educational

<sup>1/</sup>Helen Almy and Catherine Casey, "Public Health Social Work," Commonwealth (December, 1953), 1:2-3.

programs.<sup>1/</sup> Today we see these functions as belonging more appropriately to the nursing and medical professions, with the social worker paying attention to the social problems affecting health. These social services are today given through the social service staff of the local hospital where the state-aided Venereal Disease Clinic is located.<sup>2/</sup>

In 1926, the beginning of what is today known as the Division of Cancer and Other Chronic Diseases, the Cancer Section of the Department opened its doors to a social worker who operated from the Pondville Hospital and through the state-aided clinic program. Her function, again, was mainly one of follow-up service. However, when the services expanded to include three social workers at Pondville Hospital, and two social workers at Westfield, social casework services became an added primary function of the Public Health Social Worker, with follow-up still playing a major role in services offered.<sup>3/</sup>

It was also realized, in the first part of the twentieth century, that some kind of action was needed to prevent recurrences of tuberculosis in patients discharged from State Sanatoria to poor home conditions. Too many were needing re-admissions, and were being added to

1/Massachusetts Department of Public Health, History of Medical Social Service, Unpublished, Boston, Massachusetts, December, 1944, pp. 1-2.

2/Helen Almy and Catherine Casey, op. cit., p. 4.

3/Ibid., pp. 4-6.

waiting lists which were already too long. This need added two social workers to the Department's Division of Tuberculosis in 1929. Services at first were confined to children who were under the supervision of the Lakeville, North Reading, and Westfield Sanatoria. No discharge plans from these hospitals were put into operation until the social worker presented a social study of the child's background - based on a home visit - to the hospital superintendents. This social information, along with wise utilization of community resources, helped put into effect better discharge plans, and better after-care supervision. The social worker had proved how badly her services were needed, and between the years 1933 and 1948, social workers were placed in all of the hospitals.<sup>1/</sup>

In 1936, according to the terms of the Social Security Act, funds were made available on a matching Federal-State basis to expand services to mothers and children, and to crippled children. Helen Almy and Catherine Casey<sup>2/</sup> explain this in more detail:

"When the Department submitted its plan to the Children's Bureau for participation in the Federal-State program for crippled children and maternal and child health services two other areas for social service were added. The plan for crippled children included positions for four crippled children's social workers. These workers were at first attached to the Division of Administration since that was the Division in which the program was originally placed."

<sup>1/</sup>Massachusetts Department of Public Health, op. cit., p.3  
<sup>2/</sup>Helen Almy and Catherine Casey, op. cit., p. 6.

In 1940, the Social Work Section of the Department was strengthened by having another worker appointed to the Division of Child Hygiene. This Division is now known as the Division of Maternal and Child Health.<sup>1/</sup>

In retrospect, it can be seen that until 1940, the Department of Public Health was concerned with the treatment of specific diseases, such as venereal disease, cancer, and tuberculosis. These diseases were of concern to the community because of their high morbidity and mortality rates, and because of the communicability of tuberculosis and venereal disease. To administer services for the prevention and treatment of these diseases, special divisions within the Department were set up. Later it was felt that a more generalized service for the prevention and treatment of disease was needed on a broader geographical basis. It was evident there should be somebody in the community whose business it was to safeguard the health of the public. In 1940, the District Health Plan was instituted for this purpose. Under this plan, eight District Health Offices were set up throughout the State, and each Health Office was under the direction of a District Health Officer. The team members in each Health Office consisted of the Public Health Nursing Supervisor, Nutritionist, Physical Therapist, Dental Hygienist,

1/Ibid., p.6.

Hospital Inspector, Sanitary Engineer, and clerks. The Public Health Social Work Supervisors were not added to the District Health Offices until 1943, and at that time became an important part of the public health team in giving health services. This system is still in operation today, with the result that the Public Health Social Work Supervisor has been brought closer to social and health agencies in local communities. This move has broadened her general responsibility for representing medical social work on the district health team, and at the same time has made her specific contribution to the medical care program more clearly defined. Today the social worker in a district health office, as part of the district health team, has specific areas of responsibility. Her functions are listed by the Department <sup>1/</sup> as:

Program Planning and Policy Formulation Within the Department: The public health social worker places special emphasis on the social aspects of health in program planning so that individuals and groups may receive the most benefit from the Department's medical service.

Community Organization: She helps in developing and strengthening community resources where needed.

Services to Individuals: Includes social casework services to patients and their families, and consultation services to other professional and lay workers.

Education: She is an educator through field work

1/Massachusetts Department of Public Health, Section of Social Work, Unpublished, Boston, Massachusetts, 1952, p.3.

practice, lectures at schools of social work, consultation with other disciplines, and certain community programs where social work interpretation is involved.

Research: Her focus in research is on the social aspects of services and programs.

In summary, then, it can be seen that the Social Work Section of the Massachusetts Department of Public Health has developed within a space of thirty-eight years from a Section providing services focused on protecting the community from "undesirable" diseases, to a Section providing services toward promoting health, and preventing ill health with special emphasis on acceptance and recognition of the worth of each individual, and the part he plays within the community setting.

## 2. Program for Crippled Children

The year 1936 was a milestone in the care of crippled children in the United States. In that year, the Social Security Act was passed providing medical care to crippled children (Title V, part 2), and to mothers and children (Title V, part 1) involving Federal grants to the States.<sup>1/</sup> According to the terms of the Social Security Act, the States must submit a plan for services for crippled children to the United States Children's Bureau annually.

<sup>1/</sup>United States Department of Health, Education, and Welfare, The Maternal and Child Health, and Crippled Children's Programs, Children's Bureau Publication, Number 343, Washington, D. C., pp. 1-2.

If the plan is accepted, Federal funds will match State funds to provide services to crippled children<sup>1/</sup> with the State agencies being responsible for:

- "1. Locating children in need of care, and maintaining a State register of crippled children.
2. Arranging for the diagnosis and treatment of crippled children at permanent clinic centers, or at itinerant clinics.
3. Arranging for surgical and medical care by orthopedic surgeons and physicians at selected hospitals.
4. Arranging for treatment and care for children living at home, who do not need operative care or treatment in a hospital.
5. Placing children, when necessary, in convalescent homes or foster homes.
6. Providing or arranging for physical therapy treatments when indicated, after the child has returned home.
7. Providing public-health-nursing and medical-social service to the family for the purpose of continuing the care of the child, and helping him to make a social adjustment in the family, at school, and in the neighborhood.
8. Referring the child for training to the State vocational-rehabilitation service."

Point seven in the above list of agency responsibilities has the most import for the medical social worker in a public health setting. This is a vast job for her because she is part of a comprehensive program, and as such is involved in a broad sweep of functions and programs in providing generalized services to large population groups. By the use of consultation, she is able to give service to

1/United States Department of Labor and United States Children's Bureau, Services for Crippled Children under the Social Security Act, Publication number 258, 1941, Washington, D. C., p.27.

individual case situations by working through other people and often does not need to come in direct contact with the individual family at any time.

In Massachusetts, free diagnostic care is available in Crippled Children's Clinics to all children having a crippling condition, regardless of the socio-economic condition of the family seeking medical care. After the initial diagnostic care is given, however, the team is responsible for determining the individual's eligibility for continued treatment in full or in part. The process for determining eligibility involves a medical-social evaluation on the part of all team members in relation to the family's need for continued treatment. There are criteria for eligibility - in terms of the correlation between the medical, social, and economic factors - but they are flexible, and based upon the individual situation, rather than upon any standard set of rules.

The crippled child in Massachusetts is defined by the State Plan <sup>1/</sup> as:

"Any child under 21 years of age who is suffering from residual paralysis due to poliomyelitis, cerebral palsy, bone and joint tuberculosis, rheumatic fever, rheumatic and congenital heart disease, arthritis, congenital defects, conditions requiring plastic surgery, or such other conditions as may lead to or have produced crippling and which may be treated advantageously. Not included are children who are victims of acute disease or accident, or who require custodial care."

<sup>1/</sup>Massachusetts Department of Public Health, State Plan For Services for Crippled Children, Unpublished, 1954.

The Crippled Children's program in Massachusetts operates on a decentralized basis within the districts. Services are offered within district offices, and are centered around a system of twelve orthopedic clinics, two plastic surgery clinics, and two rheumatic fever clinics which include services for children with congenital heart defects. In each orthopedic clinic there is a recognized orthopedic surgeon in full professional charge of all clinics held in his district during a year. The physician in charge of the clinic is the only member of the team who is not a part of the district health office. He is a recognized and competent specialist in his field, and assumes responsibility for the medical direction in the clinic. Clinics are held monthly on a regularly scheduled day in a well-equipped hospital in the central city of the district. No matter where a crippled child lives, one of these monthly clinics is easily accessible to him. The State Supervisor of Clinics is in charge of administrative details, leaving professional matters to the orthopedist. The orthopedic surgeon examines and prescribes for each patient seen at the clinic. A physical therapist, a public health nurse, a medical social worker, and the services of a nutritionist are also available at the clinics, with the opportunity for consultation by other experts upon request.

The after-care of the clinic patient group is important. If physical therapy is prescribed, the physical therapist either visits the patient at his home, or has several patients gather in some central place for treatment, whichever is most convenient for all concerned. She gives the treatment prescribed at whatever interval is designated by the clinic orthopedist - semiweekly, weekly, or biweekly. Part of the physical therapist's focus is teaching parents to carry out physical therapy. Thus, she has an educational function which is given to families along with direct service to insure a continuity of care to every child. If there is a social problem, the medical social worker either visits the home or holds regular interviews in a central meeting place for the purpose of analyzing the problem and carrying out psycho-social planning with the family in the light of his social diagnosis. She also participates in helping patients and their families meet and deal with problems occurring when hospitalization is recommended by the physician. When the patient requires hospitalization, he is usually admitted to the hospital where the clinic consultant is on the staff, and can provide continuity of treatment during hospitalization. Once a patient is eligible for services for Crippled Children, he is given continuous service as long as he is carried on the list of active patients;

that is, until he is cured, leaves the State, reaches the age of twenty-one, or refuses to accept what is offered.<sup>1/</sup> When a child reaches the age of twenty-one, and is no longer eligible for services for crippled children, he is assisted to obtain service by the medical social worker, who helps the patient and his family with referrals to another treatment center for continued medical care, in line with the clinic doctor's recommendations.

### 3. Worcester Crippled Children's Clinic

The Worcester Crippled Children's Clinic is held the third Friday of every month in the Out-Patient Department of the Worcester City Hospital. It is under the leadership of an orthopedic consultant who examines each patient seen at clinic, and prescribes treatment. The examinations given by the orthopedist are so thorough that no more than thirty patients or so can be taken care of during a clinic session, and of that number, not more than two to five are new patients being seen for the first time. The other members of the Worcester Clinic team include the Public Health Nursing Supervisor, the Physical Therapist, the Public Health Social Work Supervisor, the Nutritionist, and the clerk who transcribes the doctor's notes into the record.

<sup>1/</sup>United States Department of Labor and United States Children's Bureau, op. cit., pp.66-67.

The Public Health Nursing Supervisor has the responsibility of the administration of the clinic while it is in session, and can and often does, delegate authority to other team members. She procures volunteers - two usually - to greet patients on arrival, and to do routine jobs such as checking patients' names off clinic lists, etc. The Public Health Nursing Supervisor often interviews parents to see if there is a special health problem that needs attention. The task of introducing the new patient and parent to the orthopedist is done by the nursing supervisor, or by the physical therapist, as a general rule, although other members of the team may do this if the occasion seems appropriate. Finally, the Public Health Nursing Supervisor interviews all patients to see if recommendations are clear.

The Physical Therapist also plays an important role during the clinic session. She, along with the Public Health Nursing Supervisor, puts the clinic room in order, and assists in the orthopedic examinations. If a patient presents a special nursing, nutritional, or social work problem, the Physical Therapist calls the worker concerned to be present at orthopedic examinations. She also records the special recommendations of the orthopedist on the appropriate form at the time of examination.

The Public Health Social Work Supervisor interviews

all new patients and their parents usually before they are examined by the doctor. In the Manual of Clinic Procedures, the medical social worker's interview is scheduled after the orthopedic examination. The ideal procedure would be for the social worker to see the patient and his family before and after the doctor sees them in order to correlate the medical data and the social situation; but because there is usually a waiting period before the child is examined by the doctor, the social worker uses this time to obtain social data. Frequently the social evaluation is an important determinant in the doctor's medical recommendations, and this information is given to him before the examination to help him with his recommendations for future care. Later, the social worker correlates the social and medical data in planning for the patient in terms of her understanding of the impact poliomyelitis has for the individual and his family. She uses a work sheet as a guide during the intake interview to help her in making a medical-social evaluation of the situation. As the identifying material is given by the parents, the social worker is able to determine what the family attitudes are toward the child, the illness, and the clinic service. She uses her diagnostic skill to evaluate the family's social situation including relationships and attitudes, the severity of the health problem, and the

family's financial position in determining the patient's eligibility for continued treatment in the clinic. The medical-social evaluation is later presented to team members in a post-clinic conference, and is given consideration in the team decision in future management of the patient. The Social Service Exchange may be called to discover what other agencies are currently giving service to the family. When the family is known to other social or health agencies, data which seem relevant to the health problems may be requested. The Public Health Social Work Supervisor helps parents with their feelings about the illness, and to meet special problems around hospitalization. She also helps with the purchase of appliances if families are unable to provide them.

The Nutritionist is available at the clinic for nutrition interviews if necessary. Attendance of the Nutritionist at the clinic is not always necessary as cases can be seen by the Nutritionist outside the clinic if referred by the orthopedist.

These, then, are the working team members of the Worcester Crippled Children's Clinic, along with the pediatrician who assists the orthopedic surgeon if he is present, and other specialists when needed to supplement the team. Because the staff is small, patients are known to the staff over a long period of time, and because the

clinic attendance is relatively small in comparison to many hospital clinics, families are well known by the staff, and the staff is well known by families. This makes for good working relationships, and lends an informal atmosphere to clinic sessions. In the course of carrying out medical recommendations, and social planning for the patients, the physical therapist and the medical social worker often make home visits which serve to strengthen the feeling of individualizing the patient during clinic sessions.

Post-Clinic Conferences are held at the close of the clinic sessions with the orthopedist acting as the conference leader. This is one of the methods used by the public health team in joint planning for the patient. New patients, old patients, delinquent patients, and patients to be discharged from service are all discussed at the post-clinic conferences. Each member of the team must have an understanding of the role of the other members of the team. This makes for better management of the patient, and avoids duplication of service. Because of the uniqueness of role, each member has a contribution to make; if he does not contribute, he is not doing his job, and the total effort of the post-clinic conference will suffer. The aim of each patient's treatment is summarized, with the specific place of treatment being recommended,

whether it is in a treatment center or in the home, and the management of the patient is discussed in terms of who is the appropriate member of the team to give service. Often it is found that one team member has established a good working relationship with the family, and on this basis could perform a service which would ordinarily be considered the function of another team member. Often the management of the patient's problem depends upon the accessibility and the relationship of the worker to the family. For purposes of clarification, an hypothetical example is given: The physical therapist had been making monthly visits to a home for two years giving post poliomyelitis physical therapy, and had established a good relationship with the family. Apparently there were no social problems during these two years. During one clinic session, however, the mother told the physical therapist that her oldest daughter was pregnant and unmarried. The mother was distressed and did not know what to do about it. During the post-clinic conference the physical therapist discussed this problem with the team members, and it was decided that although this would ordinarily be a matter for the team social worker, it was the physical therapist who knew the family. The team social worker was not known to the family, and on the basis of the physical therapist's relationship to the family, it was decided she would be

the one to suggest to the mother that she contact the social worker for help, and help the mother and her daughter to accept casework services.

A very important feature of the success of the clinic program is the complete support and co-operation of the team members in consulting with each other concerning every phase of the patient's health care.

CHAPTER IV  
DESCRIPTION OF THE PATIENT GROUP

1. Tables

The Children's Bureau is very lenient in its demands on the States in terms of the kinds of information obtained by the States for their own purposes. However, the Federal Government does require that the racial affiliation of each person be recorded on the face sheet. This is to prevent discrimination from being practiced in any State clinic, and to insure health services to all regardless of race.

Of the twenty-nine cases studied, racially all twenty-nine were white. This does not seem surprising, however, when we find that the 1950 Census <sup>1/</sup> lists the total population of Worcester County as 546,401, with the non-white population as less than one percent of that number. The group designated as "non-white" consists of negroes, Indians, Japanese, Chinese, and other non-white races. In general, it may be stated that there is little relationship between the white population and poliomyelitis since the non-white populations in Worcester tend to live in clusters for the most part, perhaps concentrated in an area which escaped the disease.

<sup>1/</sup>United States Bureau of the Census, Seventeenth Census of the United States, 1950, "Population", Part 21, Washington, D.C., 1954.

The sex distribution of the patient group studied revealed that sixteen of the twenty-nine were male, and thirteen were female. This would seem to be fairly representative of sex distribution among patients with poliomyelitis for the Worcester area, although no such claim can be made for the country as a whole. At the time of this study, no figures were available for the sex distribution of patients with poliomyelitis for the country as a whole.

Table 1. Religious Affiliation of the Patients

Religious Affiliation	Number of Patients
(1)	(2)
Roman Catholic	14
Protestant	7
Mixed	2
Not recorded	6
Total	29

Fourteen, or forty-eight percent of the patient group studied were from families with Catholic affiliations. Seven, or twenty-four percent were from families with Protestant affiliations, and two, or seven percent were from families of mixed religious affiliations. Both of these last two were from mixed Catholic-Protestant marriages, with the children taking their mother's religion. One was affiliated with the Catholic religion, and the

other with the Federated Church - a Protestant group. In six cases, or twenty-one percent of the group studied, the religious affiliation was not recorded.

Almost one-half of the cases studied, then, were affiliated with the Catholic religion, with less than one-fourth being affiliated with the Protestant religion. This again does not seem surprising in view of the fact that Worcester's early cultural history reveals that practically all of the population was Protestant until immigration introduced a large Roman Catholic element into the cultural pattern of Worcester.

Knowing the religious affiliation of the patient group often helps team members decide what community resources are available to them.

Table 2. Ethnic Background of Patients

Ethnic Derivation	Number of Females	Number of Males	Total Number
(1)	(2)	(3)	(4)
Italian	1	0	1
English	1	1	2
English-Italian	0	1	1
English-Irish	1	0	1
English-French	1	1	2
French	2	3	5
German-Canadian	0	1	1
Canadian-American	1	0	1
French-Polish	0	1	1
German	0	1	1
American	1	3	4
Scotch	1	0	1
Irish-American	0	1	1
Not given	4	3	7
Totals	13	16	29

1/Harold F. Creveling, The Pattern of Cultural Groups in Worcester, Unpublished Ph.D. Dissertation, Clark University, 1951.

An important feature in Worcester's cultural pattern is its large foreign, or foreign born, element. It is apparent, from the above table, that a large part of the Worcester County population is still strongly influenced by diverse cultural backgrounds.

Where there is only one nationality recorded in Table 2., the writer found mention of only one in the record, and assumed it to mean it was the nationality of both parents. Where the table indicates two ethnic derivations such as "English-Italian", the first indicates the father's nationality, and the second indicates the mother's. The term "American" was used here because the record indicated the nationality of both parents as American. The term has little meaning in determining the ethnic background of patients because all persons born in this country are justified in calling themselves American.

Table 3. Time Interval Between the Date of Onset and the Date of the First Visit to the Clinic

Time Range	Number of Patients
(1)	(2)
1 - 3 months	12
4 - 6 months	3
7 - 9 months	3
10 - 12 months	1
2 years	2
3 years	2
7 years	1
11 years	1
12 years	1
Date of onset not indicated	3
Total	<u>29</u>

The above table indicates that the majority of patients with poliomyelitis come to the Worcester Crippled Children's Clinic between one and three months after onset. The table indicates that seven patients did not come to the clinic until two to twelve years after onset of the illness. This patient group includes those who were receiving the necessary medical supervision for their poliomyelitis either privately, or in a hospital school, and were not referred for State care until it was felt by the doctor that because of the need for comprehensive care, services would be more readily available through the Crippled Children's Clinic.

Table 4. Age and Sex Distribution

Years	Time of Referral			Present Time		
	Female	Male	Total	Female	Male	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0 - 2	2	1	3	0	1	1
3 - 5	4	3	7	1	0	1
6 - 8	3	4	7	3	3	6
9 - 11	1	3	4	1	2	3
12 - 14	1	2	3	1	2	3
15 - 17	1	1	2	3	2	5
18 - 20	1	2	3	4	3	7
To 20 yrs. 11 mos.	0	0	0	0	3	3
Totals	13	16	29	13	16	29

The twenty-nine cases studied ranged in age from four months to nineteen years at the time of referral, with more than one-half, or fifty-nine percent, of the patients falling into the group between the ages of one to eight years, with a

fairly even distribution between the sexes. Twelve, or forty-one percent, were between nine and twenty years of age, with the males representing twice as many patients with poliomyelitis as the females in this age group.

In contrast, of the same twenty-nine cases studied and currently being seen at the Worcester Crippled Children's Clinic, the ages range from sixteen months to twenty years eleven months, with only eight, or twenty-eight percent, of the patients falling into the group between the ages of one to eight years. There is an even distribution among the sexes of this age group. Eighteen, or sixty-two percent, of the group were between the ages of nine and twenty years, with, again, an even distribution between the sexes. Three, or ten percent, of the patients are twenty years, eleven months old, with the males representing this age group.

Thus we see that at the time of referral, the majority of patients with poliomyelitis were children who were very young, with evidence of patients fifteen years or older being attacked with increasing frequency. This would seem to indicate that poliomyelitis is basically a childhood disease, although it is reaching out to attack older patient groups.

Poliomyelitis in a child presents a unique problem in that the age of the patient, and hence the growth of the body, has a great deal to do with the pull of good muscles against weak or dead muscles, which leads to deformity.

Because the social worker is trained to know what to expect from children at different age levels in terms of normal growth and development, she is in a strategic position to know the impact of illness and a crippling condition on the child at different age levels. It is she who serves as a link between the medical services and the family, and is interested in the age and degree of physical impairment to help her with her planning for the patient and his family.

The writer has graded the physical impairments of each patient on a scale from the physical findings found in the case records, and then checked her findings with the physical therapist in the clinic in order to determine if the writer's judgment of the degree of impairment is as valid as possible under the circumstances. Evaluation was made on the basis of the current physical picture rather than on the physical picture seen at the time of referral because the current picture of impairment is a truer finding in terms of eventual outcome of paralysis.

The writer has used "mild degree of impairment" to include children who showed no residual paralysis of any muscles, but where there may be slight involvement of muscle weakness. "Moderate degree of impairment" has been used to include children who showed some residual paralysis of muscles, with the possibility of further spontaneous recovery of muscle tissue. These children also showed some involvement of muscle

weakness, but it was anticipated by the medical profession there would be further spontaneous strengthening of muscles. "Marked degree of impairment" has been used to include children with complete muscle paralysis. The muscles are dead, and no further spontaneous recovery of muscle tissue is anticipated.

It was found that in sixteen cases, the writer's indication of the patient's physical impairment was the same as the physical therapist's indication. In four cases, the writer was unable to draw a satisfactory conclusion of the physical impairment from the medical data given in the record, and her indication was one degree higher in one case, one degree lower in two cases, and two degrees lower in one case. In nine cases, there was a deviation of one degree higher or

Table 5. Age Distribution According to Present Degree of Physical Impairment

Age Range	Degree of Impairment			Total
	Mild	Moderate	Marked	
(1)	(2)	(3)	(4)	(5)
0 - 2	0	1	0	1
3 - 5	0	1	0	1
6 - 8	4	1	1	6
9 - 11	1	2	0	3
12 - 14	1	2	0	3
15 - 17	3	2	0	5
18 - 20	0	4	3	7
To 20 yrs. 11 mos.	1	0	2	3
Totals	10	13	6	29

lower between the two measurements, and the writer has, in these cases, maintained the physical therapist's indications because judging the patient's degree of paralysis and muscle weakness is a highly specialized function of hers, which serves to increase, rather than to decrease, the accuracy of the ratings.

Of the twenty-nine cases studied, we find that the majority of the cases are classified as having moderate impairment, although the majority of cases with poliomyelitis between the ages of six and eight are classified as mild. This has little significance in and of itself, except to point out that the age of the child, and hence his body growth has a lot to do with the eventual paralysis.

Table 6. Occupation or School Status of Patient Group

Status	Number of Patients
(1)	(2)
Pre-school	2
In expected grade (based on age six for first grade)	13
Retarded in school one year	2
Retarded in school two years	1
Retarded in school three years	1
Trade School	2
College	2
Working in community	3
Married	1
Not given	<u>2</u>
Total	29

Of the twenty-one in school, four were retarded to some extent. Of the four, two lost one year of school

through hospitalization, and one lost two years of school because of poliomyelitis. This last case received no home teaching during that time, and apparently is doing well now. Of the two in trade school, one was graduated from high school at the expected age, and the other left during the second year of high at the expected age. Both had applied to the Division of Vocational Rehabilitation for help with training and possible placement. Of the three working in the community, two were graduated from high school at the expected age, with one of these two completing one year at Worcester Art Museum School. The third left school in the eighth grade at eighteen years of age.

It is believed by the writer that the limitations of geographical distance has some effect on the way in which the medical social worker in a public health setting must function in terms of widely spaced and irregular interviewing, in

Table 7. Distance of Home from Clinic

Distance from Clinic (1)	Number of Families (2)
In Worcester City	4
5 - 9 miles away	2
10 - 14 miles away	3
15 - 19 miles away	11
20 - 24 miles away	7
25 - 29 miles away	2
Total	29

planning for patient group transportation to and from the clinic, and in terms of available or unavailable facilities within commuting distance of a community. Table 7 gives some indication of the distance these families live from the clinic setting in terms of mileage.

Of the twenty-nine cases studied, it was found that twenty cases, or sixty-eight percent of the group, lived a distance of between fifteen and twenty-nine miles away from the clinic. Four came from the City of Worcester, and five, or seventeen percent, lived a distance of between five and fourteen miles away.

Table 8. Size of the Family Units

Number of Children (1)	Number of Families (2)
One	3
Two	8
Three	7
Four	3
Five	4
Six	2
Eight	1
Eleven	1
Total	29

Fifteen, or one-half of the cases studied, were of families in which there were two or three children. In ten cases, the patient was the oldest child in the family. Further study revealed that ten of the twenty-nine fell somewhere in the middle, and six of the twenty-nine were the

youngest members of their families. Three were only children, with one of the three being an adopted child.

Table 9. Health of the Family

Health Problem	One or Both Parents	Other Children
(1)	(2)	(3)
Good health	10	23
Stomach ulcer	1	0
Heavy drinker	3	0
Chronically ill	7	2
Back injury	1	0
Thyroid condition	1	0
Asthma	1	0
Eye or ear trouble	3	1
Migrain headaches	1	0
Jaundice	0	1
Dental trouble	0	1
Totals	28*	28*

\* In one of the twenty-nine cases studied, both parents were killed in an automobile accident, and the boy is old enough to be on his own, so this case was not included in this table.

Of the twenty-eight cases in this table, only ten or about thirty-five percent of the parents are well, and without any health problems. Eighteen of the parents, or about sixty-five percent, had some kind of a health problem.

Of the children in these families (excluding the patient group) twenty-three families, or about seventy-eight percent, had children who were in good health. Six families, or twenty-two percent, had children who presented health problems in the home.

Table 10. Economic Condition of the Family

Occupation	Average Weekly Income	Number of Families
(1)	(2)	(3)
Unskilled labor	\$ 53.92	13
Skilled labor	58.71	7
Public Assistance	30.00	2
Self-employed	40.00	1
White collar work	62.50	2
Professional	105.00	2
Retired	35.00	1
Not given		1
Total		29

About fifty-five percent of the twenty-nine cases studied have incomes under \$55.00 a week, with one-half of the cases studied being employed as unskilled laborers, or receiving public assistance. The highest weekly income for a family of four was \$120.00; and the lowest weekly income was \$20.00 for a family of eight. This last was supplemented by public funds, however. This table has little meaning in and of itself, except to point up the general trend of the economic status of the families. The average weekly income is not a true picture. The financial data were taken at the time the patient was initially seen in the clinic, and in many cases this area had not been reviewed with the family. In order to have real meaning, the average weekly income would have to be correlated with the size of the family, and the outstanding expenses of the family, but this cannot be done. For the purposes of this study the trend is toward lower

class and lower middle class status.

Table 11. Parents Present in the Home

Parents in the Home	Number of Families
(1)	(2)
Both natural parents	25
One natural parent and one step- parent	1
One natural parent (mother)	1
Adoptive parents	1
Both parents deceased	1
Total	29

Of the twenty-five cases in which both parents were in the home, there were five in which both parents worked, with in several cases one parent working part-time. Two cases of the twenty-five were unemployed at the time of the study. These two cases showed a history of unemployment - one being a bricklayer, and the other a self-employed painter. One of the twenty-five cases showed the father to be retired. In the case where there was only one natural parent in the home, parents were separated, and the children were receiving Aid to Dependent Children.

Table 12 attempts to point out what the role of the medical social worker in a public health setting was at the time the patient group was seen in clinic for the first time, and how her role has changed with the individual demands of a changing situation.

Table 12. Casework Services Offered at the Time of Referral

Services Offered (1)	Female (2)	Male (3)	Total (4)
Problems re: patient's adjustment to illness	3	3	6
Use of other agencies	1	1	2
Help with financial planning	1	6	7
School and/or employment services	1	1	2
Consultation to other professions	5	4	9
Environmental	1	1	2
Not indicated	1	0	1
Totals	13	16	29

## Casework Services Offered at the Present Time

Services Offered (1)	Female (2)	Male (3)	Total (4)
Problem re: patient's adjustment to illness	7	7	14
Use of other agencies	1	0	1
Help with financial planning	1	4	5
School and/or employment services	1	3	4
Consultation to other professions	2	1	3
Environmental	0	1	1
Not indicated	1	0	1
Totals	13	16	29

Of the twenty-nine cases studied, it was found that at the time of referral, casework services were centered around problems involving consultation service to other professions, and problems relating to the patient's adjustment to illness. In studying the same group of patients being seen at the present time, it was found that almost one-half of the casework services were centered around problems related to the

patient's adjustment to his illness. In all of the cases, however, the problems were seen to be on a continuing basis from one stage of the illness to the next, and as such there was over-lapping of services offered. Only the predominant services were categorized, therefore.

## 2. Personality Patterns of the Patient Group

The writer has studied the case records carefully in order to understand if poliomyelitis per se had any effect upon the patient's personality pattern, and hence upon the way casework would need to be practiced. A series of three classifications have been used to include the major characteristics of personality patterns. These classifications were set-up for descriptive purposes, and are limited in that they are the results of one reader's impression of the material recorded. The results are not entirely impressionistic, however, as specific indication of personality patterns were recorded. The writer has used the classification of "Good Personality Pattern" to include children who showed indication of being cheerful, responsible, self-sufficient, attractive, sociable, likeable, and co-operative. The classification of "Poor Personality Pattern" is used to include children who showed indication of being fretful, excitable, nervous, sullen, unhappy, unsociable, fearful, defiant and/or unco-operative. The classification of "Fair Personality Pattern" is used to include children who showed

indication of some co-operation and sociability, but on the whole were defiant, nervous, or fretful.

Table 13. Personality Patterns of the Patient Group

Personality Pattern	Time of Referral			Present Time		
	Female	Male	Total	Female	Male	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Good	3	7	10	2	8	10
Fair	5	8	13	8	8	16
Poor	4	1	5	2	0	2
No indication	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>
Totals	13	16	29	13	16	29

Of the twenty-nine cases studied, ten revealed good personality patterns at the time of referral, and have continued to show good personality patterns to the time of this study. There were variations between the number of male and female cases showing this pattern. It would seem that this number has adjusted fairly well to poliomyelitis, but it may be that those children included under this classification were difficult to reach in interviews, so that what was described in the records was not so much their underlying characteristics as their predominant external defenses.

Thirteen of the twenty-nine were considered to have fair personality patterns at the time of referral, with sixteen of the same twenty-nine cases studied showing fair personality patterns at the current time. With an increase of three cases showing fair personality patterns at the time of referral, it would seem that there are positive factors in

operation which are helping these children to adjust to poliomyelitis although there are still areas in which these children are having difficulty.

Five of the twenty-nine cases studied, showed poor personality patterns at the time of referral, with only two revealing poor personality patterns at the present time. This classification includes children who were regarded as having displayed extremely negativistic behavior patterns, and who had difficulty in accepting their illness and in forming relationships. The one case record which gave no indication of the type of personality pattern is that of a seven year old girl referred to us from the Maine Crippled Children's Services, with poliomyelitis, unrecognized until just recently.

In order to give the reader a clearer picture of the above three classifications of personality patterns, a few typical examples of each classification will be given. The writer will not attempt to discuss the role of the social worker in bringing about personality changes, if any. This information is not recorded in the records, and it would be difficult to determine the factors responsible for any personality changes. Such things as the patient's accessibility and receptivity to services offered, his constitutional make-up, and his internal and external environment all have a bearing on the individual personality pattern, and no single factor can be designated as the cause in and of itself.

The following are examples of good personality patterns at the time of referral, remaining good to the present time.

Case of A.D.

A twelve year old girl, who was six years old at the time of referral. When seen in the clinic for the first time, she was the oldest of two children of young parents, and home conditions were good. She was an alert youngster, who played well with other children and presented no behavior problems. She had not started school, and did not seem to be aware of her disability, which was considered to be a moderate impairment. She wore a right leg brace and needed help with getting over the stairs.

At the present time, patient is in the sixth grade, having lost one year because of needed hospitalization. She is the oldest of three children, goes to school by bus, is cheerful and popular with the other children. She has no trouble getting around, and does not complain of fatigue. She is not wearing a brace at the present time, and is not limited in any way. Her gait is not good, however.

Case of H.P.

A twenty year old boy, who was seven years old at the time of referral. He was the second child in a family of five children. At the time of referral he was alert, bright, inquisitive, and sociable. He played football, and presented a "shiner" at clinic. His physical impairment was considered to be mild.

At the present time, he is extremely active in college, being active in all sports, plays in the band, etc. He is an excellent student, doing above average work the first semester. There is no paralysis, and no physical indication that he has ever had poliomyelitis.

The following are examples of poor personality patterns seen at the time of referral, and which continue to be poor to the present time.

Case of F.M.

An eight year old girl, who was three and one-half years at the time of referral. When seen for the first time,

she was apprehensive, fussy, fearful, shy, and clung to her mother. She was the youngest of two children, both illegitimate. Her parents eventually married each other, and the patient lived in fear of physical abuse from her father who drank heavily. She was diagnosed as having very mild poliomyelitis.

At the present time, she appears to be tired and irritable, wanting to lie down all of the time. She is nervous and fretful. The parents are irresponsible, and the father has a history of deserting and returning to the family. Patient does have some weakness in her right foot but there is no obvious physical limitation at the present time.

#### Case of S.H.

A twenty year old girl, who was two and one-half years old at the time of referral. When seen for the first time, the patient was the sixth of seven children. She was fretful, difficult to manage, and showed temper tantrums. She was diagnosed as having a marked degree of impairment, and wore long caliper braces on both legs.

At the present time she is head-strong, ill-tempered, stubborn, undisciplined and easily angered. She is now the sixth child in a family of eleven children. She has had a long history of enuresis and foster home placements. She is working in a factory, at the present time, but has had difficulty in the past in keeping a job because of her handicap. She has been employed as a power stitching operator, and the loss of muscle function in her left hand made this work difficult for her.

The following are examples of fair personality patterns seen at the time of referral, and which continue to be fair to the present time.

#### Case of A.C.

A ten year old girl, who was fourteen months at the time of referral. When first seen, she cried pretty constantly, was frightened, unco-operative, and irritable. She was the youngest child of young parents, in a family of two children. Home conditions were considered to be good. She is considered to have a moderate degree of impairment and wears a brace on the left leg.

At the present time, she is the second child of three. She mixes well with children her own age, is active, and tap dances. She does not sleep well, however, is high-strung, shy and nervous. She continues to wear a brace and an elevated shoe, but does not allow her impairment to keep her inactive.

#### Case of D.L.

A twenty year old girl, who was eleven years old at the time of referral. When first seen, she was an attractive girl with many friends. She appeared depressed, nervous, and spoiled, however, and was the youngest of five children. She was considered to have a moderate physical impairment, and walked with the aid of crutches and wore braces on both legs.

At the present time she is still very popular, taking part in all sorts of activities. She was married a year ago, and is controlling, demanding, and has a tendency to dominate people around her.

From these examples of good, fair, and poor personality patterns in patients with poliomyelitis, we can see that there is a correlation between the degree of impairment, and the kind of person we see.

### 3. Family Relationships

In studying the family relationships at the time of referral, as compared to the family relationships at the present time, the classifications used are "Good", "Fair", and "Poor" relationships. A good relationship refers to one in which there is warmth and understanding, with the necessary extra consideration being given to the patient's needs. A fair relationship refers to one in which there is some warmth, but little understanding, and/or no extra consideration being given to the patient when it is needed.

A poor relationship refers to one in which there is no warmth or understanding, with intolerance for the patient's shortcomings.

Table 14. The Nature of Family Relationships

Relationship	Time of Referral	Present Time
	Number of Families	Number of Families
(1)	(2)	(3)
Good	9	12
Fair	13	13
Poor	6	3
No indication	<u>1</u>	<u>1</u>
Totals	29	29

Twelve of the twenty-nine cases studied are from families in which there is good relationship as compared to nine cases at the time of referral where the relationships were good. The table shows that at the time of referral, as well as at the current time, thirteen are from families where the nature of the relationships are fair. Six are from families where the relationships were poor at the time of referral, whereas only three are from families where the relationship is poor at the present time. The one case which showed no record of family relationships is a child who was transferred from the Maine Crippled Children's Services, with no accompanying data.

It seems important to point out that all of these relationships have not remained completely static throughout the time the patient has been seen in the clinic, and where one patient may have been from a family where the relationships

were poor at the time of referral, certain elements may have been present in the patient's life situation to make for change in relationships. In order to give the reader a clearer picture of the type of descriptive material found in the records from which the writer has drawn her conclusions, examples of three typical cases depicting relationships will be given. Again, the role of the medical social worker in the relationship process will not be studied in detail here because of the intricate factors involved in a relationship process as was explained on page 58. Her role in the process of a working relationship is explained in more detail in Chapter V.

An example of a good relationship which has remained good.

#### Case of E.R.

An eleven and one-half year old boy, who was ten years old at the time of referral, and is the only adopted son of intelligent, co-operative parents. The patient was adopted at the age of eight years. At that time, the adoptive parents owned a summer cottage out of State, and conceived the idea of giving a summer vacation to underprivileged children. They approached a crippled children's school, and found that summer plans had been made for all of the children except the patient, who was rejected by his relatives. They took him to their summer cottage, and eventually arranged to adopt him. He had a weight problem and tended to be very heavy. He wore braces on both legs, but there were no demonstrable limitations of activity.

For the first year he was a serious problem. In testing his adoptive parent's affection and willingness to keep him, he was noisy, disobedient, and prone to setting fires. Apparently the adoptive parents were able to give him real assurance and security, which he was finally able to accept.

When seen at the time of referral, this boy had developed into a gentle, affectionate boy. At the present time, his home conditions continue to be unusually happy, and patient remains at ease, and without behavior problems.

An example of a poor family relationship at the time of referral, to a good family relationship at the present time.

#### Case of C.J.

An eighteen year old girl, who was three years old at the time of referral. When first seen, the patient was the fifth of six children. This was her mother's second marriage, after her first husband committed suicide, leaving her with three children. There were three children by the second marriage, of which patient was the oldest. Patient's father was alcoholic and irritable, as well as unreliable. Although he did not abuse the children physically, he frightened them when drinking. Family relationships were strained, and the father was in the habit of deserting and returning to the home at will. The mother divorced the father when patient was seven years old, and remarried when patient was ten years old. The children received Aid to Dependent Children until the mother's remarriage.

Since then, and at the present time, patient's step-father, who is apparently a responsible man, has assumed financial responsibility for the children. The home is a happy home, and patient - from having been a very anxious child - is growing into a young woman of poise and charm. Her handicap is mild with no physical evidence of disability. At the present time she is working as a telephone operator. She likes her work, and has no difficulty with it.

An example of a fair family relationship at the time of referral, which has remained fair to the present time.

#### Case of B.D.

A fifteen and one-half year old boy, who was nine years old at the time of referral. When first seen, he was the older of two children. His father, a self-employed painter, worked irregularly, earned a marginal income,

and was not in good health. His mother was hospitalized, and medical expenses in the home were a heavy drain on the family purse. His parents were interested, and responsible, but were not able to give him the personal attention he needed. He wore a right leg brace, but was a very active child.

At the present time, the home remains adequate, but his parents have been living under considerable strain due to the father's illness and unemployment, and the maternal grandmother's illness (diabetes) which requires much of the mother's time and attention. The patient is left pretty much to himself, lacking the warmth and personal interest of his parents. The patient no longer wears a brace, and cannot do as much without it as he could with it.

In summary, of the cases studied, all twenty-nine were white. Sixteen of the twenty-nine were male, and thirteen were female. Almost one-half of the cases studied were affiliated with the Catholic religion, which seems reasonable since Roman Catholicism is the predominant religious element in Worcester County. The patients studied came from diverse cultural backgrounds, with the largest number, or about seventeen per cent of the patient group, coming from a French cultural background.

At the time of referral, the majority of patients with poliomyelitis were children between the ages of one to eight years. Of the same group of children being currently seen at the Worcester Crippled Children's Clinic, the majority of cases are children between the ages of nine to twenty years. This seems to indicate that poliomyelitis still has a tendency to strike the younger age group, with indications that it is reaching out to older age groups. The majority

of the cases studied were found to have a moderate physical impairment with the age distribution between nine and twenty years. This seems to indicate that the body is still growing for these age groups, and hence will have some effect on the extent of anticipated paralysis. The medical social worker is interested in the age of the patient with poliomyelitis because the disease is likely to introduce different psychosocial problems at different age levels. By understanding psychosocial problems children encounter during the normal process of growth and development, she is in a better position to evaluate the emotional impact of illness on the child and on his family.

Of the twenty-nine cases studied, twenty-one were in school, with only one being retarded because of deficient mental capacity. Three were retarded in their school grades because of poliomyelitis. This seems to suggest that the basic intellectual capacity of a child with poliomyelitis is not affected by the disease, and with the proper help he can maintain grade expectations, and succeed with occupational achievements.

In studying the personality patterns of children with poliomyelitis, there was no indication that the disease per se contributed to behavior problems, or to negative or positive personality patterns. It seems rather, that the elements causing good, fair, or poor personality patterns were already present before the onset of poliomyelitis.

In studying the family units, it was found that sixty-eight per cent of the group lives from fifteen to twenty-nine miles away from the clinic. This indicates that distance is a reality factor which, by necessity, will affect casework practice.

The average size of the family unit is one in which there are two or three children. In ten cases, the patient was the oldest child in the family. In ten cases, the patient fell somewhere in the middle, and in six cases, the patient was the youngest member of the family. The study revealed three cases in which the patient was the only child in the family.

About sixty-five per cent of the families had some kind of a health problem in the home in addition to the patient group studied. Of this percentage, seven, or thirty-nine per cent of the families were found to have health problems centered around a chronic disease. This would seem to suggest that illness in the home would have a definite effect upon the home atmosphere, the economic significance to the family, and on the amount of attention the parent is able to give, or not give, to a child with poliomyelitis.

More than one-half of the families studied have incomes under \$55.00 per week, with one-half of the families studied having one or more members employed as unskilled laborers and/or receiving public assistance. It is not possible in this study to evaluate the exact effects these factors have on the children concerned, but these factors would seem to indicate

a pattern of lower class and lower middle class economic status.

In twenty-five of the twenty-nine families studied, both parents were present in the home. In several instances both parents were working; two were unemployed, and one was retired. This would suggest that these factors could contribute toward increasing the instability of the home situation, although, again, it is difficult to evaluate the effect this has on the children.

In studying the family relationships at the time of referral, as compared to the nature of the family relationships of the families being seen at the current time, it was found that the nature of family relationships were much improved over and above what they were at the time of referral.

CHAPTER V  
THE ROLE OF THE MEDICAL SOCIAL WORKER IN A  
PUBLIC HEALTH SETTING

The role of the medical social worker in meeting the needs, and in helping with problems which arise during the three phases of poliomyelitis has already been described in Chapter II. In that chapter, the writer has also stated that the medical social worker in a public health setting is not usually called upon to give services to patients with poliomyelitis during the acute phase of the illness. Table III confirms the original statement, although the reader must bear in mind that illness is an ongoing situation, and comprehensive treatment and care of the ill patient is an ongoing process.

Public health programs are carefully structured to give health services to as many people as possible by emphasizing the preventive approach to illness, and stressing the improvement of the total health of the community. The scope of any public health program, then, has breadth and depth. The medical social worker's role in a public health setting is influenced by the fact that she is part of a broad program, and is involved in a broad sweep of functions and programs providing services to the community. This is one of the major ways in which medical social work in public health differs from medical social work practice in hospitals. The latter's major function is that of giving direct casework services; this is influenced by the fact that she is part of a medical

team within a hospital setting where the focus of clinical care is on the individual patient and his family. Direct casework service has an important place in public health, of course, but the medical social worker recognizes that the essential nature of direct casework limits the number of individuals to whom she can give qualitative service. In order to help many more people than she could reach directly and personally, the medical social worker makes use of consultation services. This service enables her to work on individual case situations indirectly by working through other professional and lay persons. Even when she is working on an individual case, the medical social worker in a public setting cannot lose sight of its relationship to the needs and problems of the whole community. For example, in 1955 there was a major epidemic of poliomyelitis in the town of Milford. Milford is part of Worcester County and is twenty-three miles outside the limits of Worcester City. Patients who had been hospitalized in a Milford hospital during the acute phase of the illness were referred to Worcester Crippled Children's Clinic by the hospital physician for post-poliomyelitis physical therapy. One of these patients had trouble getting to the clinic, and brought her request for transportation to the team members of the district health office. It was learned later that all of the patients in that hospital were being asked to come to our clinic. Because there was a sizeable group affected, it was possible to find out if a

private physical therapist might be available from that town to give the needed service in a central meeting place. The problem was discussed with the physician in charge of the patients, and clarified as to the existing need for a physical therapist in the town. The problem was put into the physician's hands, and a private physical therapist located by him established an office in the town hall for the purpose of giving post-poliomyelitis physical therapy. This was actually a private arrangement between a physician and a private physical therapist, yet it served to meet the needs of the whole community.

The medical social worker in a public health setting uses the preventive approach in working for better and more comprehensive services for all people through a broad phase of program planning, and policy formulation. In order to clarify this rather ambiguous statement, the writer will present an hypothetical case: A patient with poliomyelitis ready for discharge to his home from a small local hospital lacking a medical social worker needs a respirator. Since this problem was the first of its kind in this town, professional persons in the hospital and in the community were not familiar with the program of the National Foundation for Infantile Paralysis. The medical social worker in public health discussed the problem with the District Health Officer and the team members. The professional people from the local hospital, and professional community members interested in this case were

invited to a meeting in which the program of the National Foundation for Infantile Paralysis was explained by one of its own members at the request of the social worker and the nurse. After a decision was made to help this individual patient obtain a chest respirator, a consideration was given to the problem of how the National Foundation for Infantile Paralysis could help meet the needs of the community as a whole, and the meeting ended with the local hospital and the National Foundation for Infantile Paralysis in agreement concerning future policy and procedure with similar cases.

Educational activities and research play an important part of the medical social worker's role in public health. The Department works with schools of social work to provide practical experience for social work students in carrying out educational programs. Informal educational activities go on day by day as the medical social worker demonstrates what she is doing, by what she has been able to accomplish when working through other people. She is continually teaching the social aspects of the illness to individuals and groups within the community, and contributes toward educating the community when she points up the lack of community resources.

To clearly demonstrate the role of the medical social worker in a public health setting, excerpts from four cases will be used to show the ways in which she operates to improve services to clients.

#### Case of R.B.

R.B. is an eight year old girl, who was  $3\frac{1}{2}$  at the time she was referred to the Worcester Crippled Children's Clinic. Before being referred to the clinic, she had spent three weeks in a general hospital during the acute phase of poliomyelitis, and one month at home where she was kept in bed. She was diagnosed as having very mild poliomyelitis.

The physical therapist had been seeing the patient at home, and was concerned with the poor home situation. Parents were having marital difficulties and the mother was too emotionally involved to carry out the necessary daily exercises routinely, or to appear at clinic regularly.

The social worker found that the father, a veteran of World War II, had been quite irresponsible in the past, going on periodic drunken sprees. He drank heavily and was abusive. He spent all of his earnings and was forced to leave one job after another because of his drinking. The father had been married previously, and his divorce from his first wife had only recently become final. His marriage to his present wife, patient's mother, took place one month before referral. Patient and her brother were illegitimate children, but parents married as soon as father was free to do so. Father deserted the family shortly after the marriage ceremony, and has had a history of deserting and returning to the family ever since. Parents and children have never had a home of their own, and shared one large room in the home of maternal grandparents.

The social worker interpreted to team members the instability of home conditions, and discussed with them the possibility of sending R.B. to a convalescent hospital to insure the proper care which she felt this mother could not give at this time. Under the circumstances, the orthopedist felt referral to a convalescent hospital was advisable. Patient was admitted two weeks later, and remained for eight months. During that time, father became increasingly abusive, deserting and returning to mother and the remaining child at his discretion. Mother lived with maternal grandparents during the time father was away, but returned to him each time he came back. In exploring the problem, the social worker discussed with mother referral of father to an alcoholic clinic, but she felt he would not accept this.

When patient was ready for discharge from the convalescent hospital, the father was not in the home, having left mother again. The mother was afraid father would follow through with his threat of taking patient out of the hospital. She appealed to the social worker to prevent this, but because no legal action had been taken against father, he had a legal right to take patient, and nothing could be done about it at that point. The father did not carry out his threat, however.

At the time of discharge, the home conditions had not improved, and father, once more in the home, became in-

creasingly abusive. While the patient was in the home, mother went through a cycle of activities. Public welfare helped her financially when the father was away. Public welfare had put mother on Aid to Dependent Children during one of these periods when father was away, but it was soon learned that everytime the father came back, mother took him in, so general relief was given hereafter during the times father deserted the family. As father became increasingly abusive when at home, the social worker conferred with the Society for the Prevention of Cruelty to Children to protect the children from father's abusive behavior, but the father deserted the family before anything could be done.

Because it was felt this mother needed help and guidance with future plans, the social worker discussed referral to a family service agency, and the mother agreed to go. The social worker made the necessary arrangements, and the mother carried through with the plans. Family Service tried to help mother free herself from father. The attempt was unsuccessful, however, because mother lacked the capacity to take a stand against the father.

In 1955, the medical social worker attempted to give the patient a camp experience through the National Foundation for Infantile Paralysis. Her mother refused to let her go, however. The camp was located in the town where the father was living at that time, and the mother had some fears that he would take the patient away from the camp.

Throughout the history there is a pattern of mother's being beaten up and deserted by her husband. She cannot bring herself to leave him. Even when she had filed for a divorce, and the case had gone to court, she changed her mind at the last minute and took him back. At the present time, this pattern continues to repeat itself.

The role of the medical social worker in dealing with the problems of this child with poliomyelitis and her family began with a consultation interview with the physical therapist. After a home visit, the social worker made use of her diagnostic skill to evaluate and perceive the need of this child and her family. As a result of her evaluation, the social worker consulted with team members in terms of the inter-relationship of the medical and social factors, and the

importance that the impact of illness would have on this child whose family situation was so unstable. In discussing with team members the immediate problems of this child, the social worker recognized that the patient would eventually require post follow-up after leaving the convalescent hospital so that the good work accomplished in the hospital would not be undone by lack of instruction; or by neglect, abuse, or worry on the part of the mother. The record indicates the social worker's goal during the time the patient was in the hospital, was to improve the home conditions. The record does not indicate, however, what was done toward accomplishing this goal, and it would seem that the social worker's attempts were unsuccessful since the record indicates that the home conditions were never improved. The medical social worker, by using her diagnostic skill in setting up treatment goals, made use of community resources in terms of exploring the possibility of the Society for the Prevention of Cruelty to Children intervening for the prevention of the children, and the convalescent hospital for getting the patient the care she needed. Family Service was also used for helping the mother free herself from father, but this attempt to help this mother also failed.

This case represents an unsuccessful attempt on the part of the social worker to help this family improve any phase of their lives. The services offered to this family were completely unsatisfactory because of the constitutional make-up of this family, and their inability to perceive their needs, or to

take any action to correct the situation. The mother was unable to take any legal steps to protect herself and the children against father's abusive behavior, and was completely unable to use casework services offered to her.

#### Case of C.P.

C.P. is a twenty year old boy, who was eighteen years old at the time he was referred to the clinic. He had contracted poliomyelitis at the age of seventeen, and had spent one week in a general hospital during the acute phase of the illness, and nine months in a convalescent hospital before being referred to Worcester Crippled Children's Clinic. He was considered to have marked physical impairment at the time of referral. He wore a corset, Canadian crutches, and a long caliper brace on the right leg.

The patient is the second of three children in a family with many emotional stresses, where the home conditions were good, but finances strained. The father was unemployed, and had been for eight months. He sustained a back injury while at work, and received no income during the time his case was pending. Patient's mother earned a very meagre income as supervisor of the school cafeteria. The oldest son contributed \$15.00 weekly to the family income, and the family was sustaining itself on these two incomes. The father served in the capacity of homemaker while the mother and the older son worked.

At the time of the initial examination in the clinic, the patient had returned to high school for only three hours a day, getting there by a private car because he could not get in or out of a bus. It was felt by the doctor that the patient could return to school full time, and do the school work assigned.

C.P. had been overprotective of himself, and overprotected by his family. The clinic team felt he could do a lot more for himself than he had been doing. He was in the habit of asking three or four boys for help in going up and down stairs, and between class rooms. The social worker conferred with the high school guidance teacher, interpreting to him what it was felt the patient could do for himself, and the needs of this boy to rely upon others for help. Through interviews, the social worker discussed this problem with the family, helping them to see what the patient could be expected to do for himself, and helping them with their tremendous guilt feelings in order

to reduce their need to overprotect him. Meanwhile, the physical therapist was helping with the practical problem of teaching him how to ambulate more effectively.

Two months later, the physical therapist reported that C.P. no longer needed help at school, and was able to travel back and forth on the school bus without aid. It seemed that the guidance teacher and the patient's family were receptive to the needs of this boy and were able to help him become more independent, on the basis of the social worker's clarification of the situation. C.P., a bright boy, was able to use help from others in gaining more independence for himself. He was able to get about by himself, and was doing some free hand painting, although he was considered color-blind. When he expressed interest in training, the social worker conferred with the Division of Vocational Rehabilitation for a general vocational survey for the patient. Through the Division of Vocational Rehabilitation, he entered trade school, and at the present time, although still severely impaired, is studying drafting and is very enthusiastic about it. He plays several instruments and is planning on getting together a group of friends to start a jazz orchestra.

This case reveals a completely satisfactory adjustment to a very severe physical impairment on the patient's part within a relatively short period of time. It is difficult to determine what factors were responsible for this movement, but it would seem that the patient himself was ready to receive help and therefore, receptive to it. The role of the medical social worker in this case was to give service by means of a consultative relationship with other professional and lay persons. She was able to establish and maintain a good working relationship with the high school guidance teacher, and with the Division of Vocational Rehabilitation in relation to the needs and interests of the patient, indirectly working through others to bring about a desired adjustment on the patient's part to his illness. The social worker also participated directly by

helping the patient's family understand and accept the illness, with the goal of reducing their need to overprotect him.

#### Case of B.P.

B.P. is a twenty year old girl, who was two years old at the time of referral to the clinic, and two months old at the time of onset of the disease. Before being referred to the clinic she had spent three weeks in a general hospital during the acute phase of poliomyelitis, and nine months at the convalescent hospital. She was diagnosed as having a marked degree of physical impairment, and wore long caliper braces on both legs.

The patient was the sixth of seven children when she was initially seen at clinic, and the mother was pregnant with her eighth child. The family was having serious economic problems. They were living in a rural four-room shack, and were receiving public welfare aid. The parents were warm people, friendly and casual about the children, but very limited in intelligence. On the whole, it was a cheerful, noisy, untidy family, living fifteen miles from the District Health Office.

An interview between the school nurse and the social worker in public health was held to discuss what the nurse could provide to this family in terms of direct service, and the nurse was helped to see the many factors in the social and environmental problems of this family. The nurse was helped to co-ordinate the activities of the Visiting Nurses Association in getting the mother proper prenatal care, and clothing for the new baby.

When the patient was old enough to go to school, the school nurse had a better understanding of this family's problems, and helped by making arrangements for the patient to be brought into clinic.

Because the patient could not walk any distance, the social worker conferred with the superintendent of schools about re-arranging the bus schedule. Arrangements were made whereby the school bus stopped in front of patient's house. The people in the community complained about this re-routing, but accepted it after the social worker explained the reasons for it.

When the patient was seven years old, the parents were anxious for her to be placed in an institution because they were overwhelmed with the care she presented. The social worker, feeling an institution would not be the best place for patient, discussed the possibility of placement with

a foster family. On the basis of the patient's physical impairment and crowded home situation, the parents were helped to see that foster home placement was justified. Patient was placed in a foster home for the summer. Her improvement under foster home care was good, and the doctors recommended continued placement. The parents wanted her home, however, and she returned to her own home when she was nine years old.

This pattern of foster home placement when the problems of the patient's care became too great for her parents to handle alone, and her eventual return to the home, continued throughout the patient's school years. She is retarded intellectually and left school at eighteen years in the eighth grade. At this time, the social worker conferred with the Division of Vocational Rehabilitation about the possibility of patient's attending trade school. This was worked out, and she took up power stitching. She was able to hold a job for a short while, but poliomyelitis had affected her thumb and hand muscles, and she had trouble holding the material she sewed under the machine needle. She lost this job for that reason, and the doctor recommended a return to the hospital for an evaluation of her thumb area. However, before this could be done, the patient found another job along power stitching lines, and seems to be doing well for herself. She is happy at this work, and is making new friends. She is now able to walk without her leg braces, and gets around well.

The service offered by the medical social worker in this case seems to show a moderate amount of success in terms of there being an over-all progress in patient's adjustment to her illness, but not much progress was made along the lines of helping this family improve the home situation. The role of the medical social worker with this child and her family was a changing one, going along with the demands of a changing situation. At first, her role was to give direct casework to the child's family when they were initially seen at clinic, and at different intervals throughout the changing situation. An important casework service was given to the patient and her

family in making it possible for her to get adequate care outside the home (e.g., in foster homes) when crises in the family situation made it impossible for her to get this care from her own family. The social worker's diagnostic skill was brought into play, enabling her to see the impact that the family's basic economic insecurity had on heightening the stress situation, and intensifying the relationship problems between the child, her illness, and her family. The social worker moved next into a consultation service with the local school nurse, who was helped to give positive service through a better understanding of the medical-social needs of the family. Then working indirectly through others, the social worker co-ordinated the services of other lay and professional persons and agencies within the community, in getting prenatal care for the mother, and in getting the needed transportation for the patient to school and to the clinic. In this vein, the social worker also was engaged in education, in terms of educating the community as to this child's problem, and the need for a re-routing of the bus schedule.

#### Case of K.M.

K.M. is an eighteen year old boy, who was fifteen years old at the time of referral to the Worcester Crippled Children's Clinic. He had spent three months at a convalescent hospital before being referred to the clinic and was considered to have marked involvement of both upper arms and shoulders.

The social worker interviewed the mother at the initial clinic examination, and found the patient to be the oldest of three children, of parents whose income was moderate, but adequate. The home situation was full of conflict, and the patient was having difficulty in picking up his

school work after a long hospitalization period, although he had done well in the hospital school. He felt lost in high school, and was indifferent to continuing school.

The social worker, feeling the home situation was perhaps partly responsible for patient's lack of interest in school, conferred with the school guidance teacher. The patient's mother is chronically ill, and his father had been threatening and abusive, grudging him his food, and urging him to get out and to look out for himself. The father had eventually left the home, and the mother and her three sons, of whom patient was the oldest, were living precariously. The school guidance teacher, however, was unable to help the patient, who subsequently left school.

The social worker, in considering what might be done to help this boy with his training and job placement, discussed the possibility of trade school with patient which he was able to accept.

The home situation, however, showed little improvement, and the patient did not speak enthusiastically of trade school. He desired to become a truck driver, although he could not manage a job like this because of his handicap. He eventually left trade school, and refused work in a local grocery store because the pay was too small. His parents separated, and the patient, drawn to both parents is confused about future plans. He has held various odd jobs, but does not stay on one job for any length of time.

The social worker has conferred with the Division of Vocational Rehabilitation, but the patient does not feel he is physically handicapped and failed to keep appointments with this center. The family tensions are undoubtedly a factor in his problem, and the social worker felt that the patient could not make any progress without psychiatric assistance. She conferred with team members about this possibility, and it was agreed it should be suggested to the patient. The patient, however, cannot accept psychiatric help at this time.

This case describes a boy whose needs were so deep-seated he was unable to use the services offered by the medical social worker. Direct casework was used by the medical social worker, here, to help this child and his family with their feelings around their fundamental problems. The social worker then

extended her services to include consultation with the school guidance teacher, helping him see the inter-relationship of medical and social factors in the patient's situation, which might have some influence on the patient's inability to keep up with his school subjects. The patient's problems, however, were so deep-seated, he was unable to accept help from this source. The social worker's role changed again, when the patient left school and was confused about his future plans. Emphasis of service at this time was again by means of a working relationship with the Division of Vocational Rehabilitation. Once again it was noted the patient's problems were too deep for him to accept help from this agency. The social worker's final role was to confer with team members in her own setting towards getting psychiatric treatment for this boy. Her approach was preventive in that her interpretation of the patient's social situation, and what illness means to this patient, was helpful to the team members in deciding a course of action. A team decision for psychiatric help was reached, but patient could not accept this offer. The team respected the right of the patient to refuse this help, and in so doing, a good feeling was established with the patient.

In summary, then, the role of the medical social worker in a public health setting is influenced by the fact that public health programs are geared toward serving as many people as possible, and the social worker, as part of a broad program,

is involved with giving services to large population groups, through a broad sweep of functions and programs. Knowledge and use of the generic casework techniques and skills are essential for the social worker in this setting. Although the essential nature of direct casework is an important part of her work, the social worker in a public health setting realizes direct casework limits the number of individuals to whom she can give qualitative service. Consultation service, therefore, is used a great deal by her. By using consultation services, she can work on individual situations indirectly through other people. She also uses her knowledge of, and working relationships with, community groups to improve services to clients by means of policy making, program planning, education and research.

CHAPTER VI  
SUMMARY AND CONCLUSIONS

The purpose of this study is to examine the medical social worker's role in a public health setting in dealing with problems of patients with poliomyelitis as they were seen at the time of referral to the clinic, and as they have continued to develop during an ongoing situation. A total of twenty-nine patients with poliomyelitis were studied for the problems they presented, and for the social services offered as a continuing process in the patients' care.

The method and scope of the study, the limitations of the study, and the selection of the study sample have been covered in the introductory chapter. The medical aspects of poliomyelitis are defined, and the role of the medical social worker is examined during the three stages of poliomyelitis - the acute, convalescent and chronic - in terms of the problems encountered, and the activity of the social worker in meeting them. It was found that the problems encountered during the three stages varied in their intensity and duration, but that there was a continuity from one stage of the disease to another. The casework skills remain the same when working with patients with the disease regardless of the particular stage in which they happen to be. Casework skills are used continuously by the medical social worker, subject to change with the demands of the individual's changing situation. The medical social

worker's method of casework as defined by the American Association of Medical Social Workers was described in Chapter II, and this study reveals it is only the public health setting which distinguishes the medical social worker's focus and scope from that of medical social work practice in a hospital setting.

In studying the factors which might influence the role of the medical social worker in a public health setting, the patient group was studied for background material. Racially, all cases studied were white. Sixteen of the cases studied were male, and thirteen were female, with the majority of cases coming from homes with Catholic affiliations. A strong feature in the group studied was the diverse cultural backgrounds from which they came, with the largest single group coming from a French cultural group. The majority of the cases had a moderate physical impairment with the age concentration between one and eight years at the time of referral and nine and twenty years at the present time. Only one case was retarded in school because of deficient mental capacity. Three were retarded in their school grades because of illness. In studying the personality patterns of children with the disease, there was no indication that poliomyelitis per se contributed to behavior problems, but rather that the contributing elements were already present before the onset of the illness. Sixty-eight per cent of the group studied lives from fifteen to twenty-nine miles away from the clinic. The average size of the family unit is one in which there were two

or three children. About sixty-five per cent of the families had some kind of a health problem in the home in addition to that of the patient group studied. More than one-half of the families had incomes under \$55.00 per week, were employed as unskilled laborers, and indicated a pattern of lower class and lower middle class economic status.

The writer has stated in the introductory chapter that she feels there are many factors which influence the role of the social worker. Tables in Chapter IV encompassing the environmental, social, economic, medical, and emotional factors were presented in an attempt to evaluate the relationship of these factors to the kinds of help needed by the patient group. It was found that of the twenty-nine cases studied, all of the group presented problems in the four areas listed above, in addition to the medical problem. In working with the problems present, the social worker in the public health setting used several different approaches. The case of B.P. revealed the different roles assumed by the medical social worker in a public health setting, going along with the demands of a changing situation. At first her role was to give direct casework to the child's family, which continues at different intervals throughout the changing situation. This family presented problems around environmental factors in that the large family lived in a rural part of town, in an inadequate housing situation. There were transportation problems around getting patient to school. There were economic and

emotional problems, in addition to the medical problem of poliomyelitis. The social worker's diagnostic skill was brought into play, which enabled her to see the impact that economic insecurity had on heightening an already existing stress situation in terms of relationship problems between the child, the illness, and the family. The social worker moved also into a consultation service, working indirectly through others in getting prenatal care needed for the mother, in getting transportation for patient to school and to the clinic. The social worker also was an educator to the community in a broad sense, in co-ordinating the community's understanding of the problems, and moving to meet them.

The study reveals that the role of the medical social worker in a public health setting is influenced by the fact that she is part of a comprehensive program structured to give health services to large population groups. She is involved in a broad sweep of functions and programs providing services to the community at large. The study shows that the casework methods used by the social worker in a public health setting are the same as those used by all medical social workers, and that she evaluates, perceives the need by diagnostic thinking, and on the basis of need, plus her knowledge of resources and how to use them, arranges for appropriate and more readily available services. She uses her diagnostic skill and her therapeutic skill in setting up treatment goals, and in assisting the patient group through the referral process to

use other services. The medical social worker in a public health setting realizes, however, that direct casework methods limit the number of individuals to whom she can give qualitative service, and in order to give service to as many people as possible, she makes use of consultation services. Consultation is the method of casework used by the social worker to work on individual case situations through other people. She attempts to prevent as many problems from occurring in individual families as is possible by working for better and more comprehensive service for all people, through a broad phase of program planning, developing sound policies, setting high standards of operation and procedure, participating in education and research, and in being aware of gaps in community resources. Her objective, then, is to give service to individuals, but her emphasis is on program building to serve large population groups.

In conclusion, the study was based around four questions in an attempt to study the problems - medical, social, environmental, and emotional - seen at the time of referral of the patient with poliomyelitis to the clinic, and during the ongoing situation. The study was also an attempt to define the medical social worker's role in a public health setting, as part of a team, in helping to meet these problems. The four questions asked were:

1. What were the problems seen by the social worker at the time of referral of the patient with poliomyelitis

to the Crippled Children's Clinic? What are they today?

2. What services were seen as needed by the social worker?
3. What was the role of the medical social worker in meeting these needs in the Crippled Children's Clinic at the time of referral? Today?
4. What were the social services offered?

It was found that the problems encountered during the three stages of poliomyelitis varied in their intensity and duration, but that there was a logical continuity from one stage of the disease with its concomitant problems, to another. The casework skills remain the same when working with patients with the disease, regardless of the particular stage in which they happen to be. Casework services are subject to change with the demands of the individual's changing situation. The medical social worker's method of casework was defined by the American Association of Medical Social Workers, and this study concludes that the medical social worker's methods and skills used in a public health setting are essentially the same as those used by medical social workers in hospital practice; the focus and scope of the medical social worker in public health, however, are more comprehensive because of her particular setting.

*Ruth Cowie*  
Research Advisor - 5/24/56  
KS

**APPENDIX**

## SCHEDULE

NAME:                      SEX:                      RELIGION:                      RACE:

DATE OF REFERRAL:              AGE AT REFERRAL:              AGE AT PRESENT:

DEGREE OF HANDICAP:              CULTURAL BACKGROUND:              OCCUPATION  
Mild \_\_\_\_\_                      OR  
Moderate \_\_\_\_\_                      SCHOOL STATUS:  
Marked \_\_\_\_\_

FAMILY SET-UP AT REFERRAL:                      FAMILY SET-UP AT PRESENT:

Father:                      Father:  
Age:              Occupation:                      Age:              Occupation:  
Income:              Education:                      Income:              Education:  
Health:              Previous marriages:                      Health:              Previous  
At Home:                      At Home:              marriages:

Mother:                      Mother:  
Age:              Occupation:                      Age:              Occupation:  
Income:              Education:                      Income:              Education:  
Health:              Previous marriages:                      Health:              Previous  
At Home:                      At Home:              marriages:

Children:                      Children:  
Sex:              Age:              Health:                      Sex:              Age:              Health:  
Relationship to Patient:                      Relationship to Patient:  
Education:              Occupation:                      Education:              Occupation:  
Income:              At Home:                      Income:              At Home:

FAMILY RELATIONSHIP AT REFERRAL:                      AT PRESENT:

Mother-Patient                      Mother-Patient  
Mother-Siblings                      Mother-Siblings  
Father-Patient                      Father-Patient  
Father-Siblings                      Father-Siblings  
Mother-Father                      Mother-Father  
Siblings-Patient                      Siblings-Patient  
(Poor, Fair, Good)                      (Poor, Fair, Good)

PERSONALITY PATTERN OF PATIENT                      AT PRESENT:

AT REFERRAL:                      Good  
Good                      Fair  
Fair                      Poor  
Poor                      Poor

## SCHEDULE (Continued)

PROBLEM AREAS SEEN BY SOCIAL  
WORKER AT THE TIME OF REFERRAL:

Medical \_\_\_\_\_  
 Social \_\_\_\_\_  
 Emotional \_\_\_\_\_  
 Environmental \_\_\_\_\_  
 Intellectual \_\_\_\_\_  
 Financial \_\_\_\_\_

## AT PRESENT:

Medical \_\_\_\_\_  
 Social \_\_\_\_\_  
 Emotional \_\_\_\_\_  
 Environmental \_\_\_\_\_  
 Intellectual \_\_\_\_\_  
 Financial \_\_\_\_\_

CASEWORK SERVICES OFFERED AT  
THE TIME OF REFERRAL:

Problems re: patient's adjustment  
 to his illness  
 Use of other agencies in casework  
 Help in financial planning  
 School and/or employment services  
 Consultant services to team members  
 Other

## AT PRESENT:

Problems re: patient's  
 adjustment to his  
 illness  
 Use of other agencies  
 in casework  
 Help in financial  
 planning  
 School and/or employ-  
 ment services  
 Consultant services  
 to team members  
 Other

## BIBLIOGRAPHY

## BIBLIOGRAPHY

1. Almy, Helen, and Catherine Casey, "Public Health Social Work," Commonhealth (December, 1953), 1:2-7.
2. American Association of Medical Social Workers, A Statement of Standards to be Met by Social Service Departments in Hospitals, Clinics, and Sanatoria, 1949, Washington, D. C.
3. Batten, Frederick, E., "Poliomyelitis in Relation to the Spread of Infection by Schools," Medical Officers of Schools Association (London, 1911), pp.1-4.
4. Blakeslee, Alton L., Polio Can be Conquered, Public Affairs Pamphlet Number 150, 1955, Public Affairs Press, New York City, New York, pp.1-28.
5. Cecil, R. L., and R. F. Loeb, A Textbook of Medicine, W. B. Saunders Company, Philadelphia, 1951.
6. Copellman, Fay S., "Follow-up of One Hundred Children with Poliomyelitis," The Family (December, 1944), 25:289-293.
7. Creveling, Harold F., The Pattern of Cultural Groups in Worcester, Unpublished Ph.D. Dissertation, Clark University, 1951.
8. Elledge, Caroline H., The Rehabilitation of the Patient: Social Casework in Medicine, J. B. Lippincott Company, Philadelphia, 1948.
9. Gowers, Sir W. R., A Manual of Diseases of the Nervous System, Volume 1, P. Blakiston's Sons and Company, Philadelphia, 1900.
10. Grant, Alice A., "Medical Social Work in an Epidemic of Poliomyelitis," The Journal of Pediatrics (June, 1944), pp. 691-723.
11. Jeans, P. C., W. Rand, and F. G. Blake, Essentials of Pediatrics, J. B. Lippincott Company, Philadelphia, 1939.

12. Massachusetts Advisory Committee on Polio Vaccine, "A Report on the Salk Vaccine," Saturday Review (March 24, 1956), pp. 64-66.
13. Massachusetts Department of Public Health, History of Medical Social Service, Unpublished, Boston, Massachusetts, December, 1944.
14. Massachusetts Department of Public Health, Section of Social Work, Unpublished, Boston, Massachusetts, 1952.
15. Massachusetts Department of Public Health, State Plan For Services for Crippled Children, Unpublished, 1954.
16. Smyth, Wilma, "The Rural Child Welfare Worker in Action," Social Casework (November, 1955), 36:406-412.
17. United States Bureau of the Census, "Population", Seventeenth Census of the United States, 1950, Volume 2, Part 21, Washington, D. C.
18. United States Children's Bureau, Infantile Paralysis; The Disease and Its Treatment, Pamphlet, 1946, Washington, D. C.
19. United States Department of Health, Education, and Welfare, The Maternal and Child Health, and Crippled Children's Programs, Children's Bureau Publication Number 343, Washington, D. C.
20. United States Department of Labor, and United States Children's Bureau, Services for Crippled Children under the Social Security Act, Publication number 258, 1941, Washington, D. C.