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Author of Study Martha Russell Rider Date July 12, 1961
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(signature of major professor)

Note: The student should consult with his major professor and follow his advice concerning the general format of the abstract. Additional pages, if required, should be 8½ x 11 inches and of quality equivalent to that required in the case of the thesis.

Seven weeks were spent in Public Health Nutrition field training with the Minnesota Department of Health under the direction of the Supervisor of the Nutrition Unit.

The field training was planned for the purpose of helping the student obtain a practical understanding of the functions of an official health agency, and particularly of the role of the public health nutritionist within the agency.

Six weeks of the field training included orientation in selected divisions of the Minnesota Department of Health. It also included observation of the nutrition program within the department and with other official and voluntary agencies and professional groups.

Observation of the nutrition program and the types of services rendered by the public health nutritionist has increased the student's understanding of the nutritionist's responsibilities and functions. The study of the philosophy, objectives, needs, and educational techniques of the Nutrition Unit of the Minnesota Department of Health enhanced the student's educational background, and should serve to increase her knowledge and awareness of her responsibility in the promotion of good nutrition.

July 12, 1961

To the Graduate Council:

I am submitting herewith a thesis written by Martha Russell Rider entitled "A Report of Field Training With the Nutrition Unit of the Minnesota Department of Health." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Nutrition.

Beth Duncan
Major Professor

We have read this thesis
and recommend its acceptance:

Frederic MacLeod

Harold H. Walker

Accepted for the Council:

Dean of the Graduate School

A REPORT OF FIELD TRAINING WITH THE NUTRITION UNIT
OF THE MINNESOTA DEPARTMENT OF HEALTH

A Thesis
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Martha Russell Rider
August 1961

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The student acknowledges with gratitude the guidance of Miss Beth Duncan of the Nutrition Department of the University of Tennessee. She extends her thanks to the following people for their assistance in writing this report: Miss Ruth Stief of the Minnesota Department of Health; Dr. Florence L. MacLeod and Dr. H. H. Walker of the Departments of Nutrition and Public Health Education, University of Tennessee.

M.R.R.

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INTRODUCTION

As a part of the requirements for graduate study in the program of Public Health Nutrition at the University of Tennessee, 7 weeks were spent in field training with the Nutrition Unit of the Minnesota Department of Health. Six weeks were spent in the State Department of Health in Minneapolis, and one week in the Rochester-Olmsted County Health Unit in Rochester.

Minnesota was chosen for field work because of its relative similarity of geographical, climatic, and demographical conditions to those existing in the student's home province of Ontario, Canada. It was felt that the influence of these conditions might predispose to comparable health problems and situations which the student may encounter in the future. Other factors in the choice of location stemmed from the student's background, present course of study, and future plans. It was felt that the Minnesota Department of Health could provide opportunities and experiences which would supplement a background in dietetics and university teaching of foods and nutrition in a school of home economics. By increasing her knowledge of the functions and the responsibilities taken by different organizations in promoting a better standard of nutritional health, the student would be better prepared to return to her field of home economics education.

To supplement the academic training previously received, one objective of the student was to develop a practical understanding of the organization, administration, and function of an official health agency.

Another objective was to develop an understanding of the role and function of the public health nutritionist within the organizational structure. A third objective was to learn how nutrition services are coordinated with the services of other disciplines in the total health program of the agency.

The student was also interested in observing and learning how the health department functions with professional groups and other official and voluntary agencies. With particular emphasis on the role of the nutritionist, the student wished to learn some of the channels which might be used in a combined effort to improve the health of the people.

A final objective was to observe the methods by which the many disciplines of the official health agency disseminate their health teaching to the public through training and educational institutions.

The schedule of field work planned to help meet these objectives included conferences with staff members of various organizations and groups; attending meetings; participating on the evaluation committee of an annual convention; observing a workshop and conference; visiting agencies, schools, and selected departments in the University of Minnesota; and doing selected reading.

Throughout the experience, the student recorded the information gained, and a summary was made at the end of each day. The summarized material is presented under 4 headings in this report. Immediately following is a discussion of the state of Minnesota, followed by discussions of the Minnesota Department of Health, the state nutrition program, and the local nutrition program. The report is concluded with a summary and evaluation of the field experiences.

THE STATE OF MINNESOTA

A brief study of the history, geography, industry, population, and health characteristics of the state is basic to the orientation of a student to an unfamiliar state and to a public health program. Although it was not possible in 7 weeks of field experience to discern the implications of these facts on the nutrition program, the influence is undoubtedly present and manifest in the operation of the program.

Before the coming of the Europeans, Minnesota was occupied by two powerful Indian tribes, the Ojibways (or Chippewas) in the north and along the Mississippi, and the Sioux (or Dakotas) in the south and west. The region was first explored by the French near the end of the 17th century. The portion of Minnesota which lies east of the Mississippi River belonged to the Northwest Territory, and was acquired by the United States in 1783. The section west of the Mississippi was a part of the Louisiana Purchase of 1803. In 1838, the Chippewa Indians surrendered the land east of the Mississippi and immigration began. Minnesota became a territory in 1849, and a state in 1858. (Hammond-Dell '61). It is the twelfth largest state in area in the United States.

Known as the "North Star State" and as the "Land of 10,000 Lakes," the state of Minnesota was named by the Sioux Indians. Translated from their language, the name means "Land of the Sky-Blue Waters," indicating the presence of many rivers and lakes. There are rolling hills in the southern part of the state and forests in the north. Much of the

northern forest has been preserved as national forests, and in the same area are located several Indian reservations.

At one time, lumbering was the leading industry in Minnesota. Later the state was considered more important for her agriculture. Now, more money is earned in manufacturing than in farming. In 1958, approximately 65 per cent of the iron used in the nation came from this state's iron ranges (Hansen '61). Other mineral resources include nickel, copper, limestone, manganese, and cobalt. In 1959, Minnesota ranked first among all the states in the production of creamery butter and turkeys; second in oats, flax, and sweet corn (Hansen '61). Other major products are milk, cheese, eggs, soybeans, barley, sugar beets, honey, and beeswax. In monetary value of production, crops rank in this order: corn, hay, wheat, soybeans, oats, and potatoes. Manufactured products include flour, canned goods, plastics, potteries, paper, wearing apparel, skis, farm equipment, electrical control apparatus, and heavy industrial machinery. Industrial plants are located in the smaller communities as well as in the large cities.

The population of the state is approximately three and one-half million. Many of the people are of European descent, primarily Scandinavian, German, and Irish. One-third of the population of the 87 counties in Minnesota is concentrated in the counties of Hennepin and Ramsey. This is the area of the Twin Cities of Minneapolis and St. Paul. The only other large city in the state is Duluth, in St. Louis County.

Favorable trends prevail in Minnesota's health. A new high record in birth registration of 88,294 live births was established in 1959, and

the death rate remained at the relatively low level of 9.2 per 1,000 estimated population. The infant and maternal death rates have declined to 21.1 and 0.1 per 1,000 live births respectively, reaching an all-time low for Minnesota. The tuberculosis death rate increased slightly during that year, with 50 per cent of the tuberculosis deaths occurring in persons 65 years of age or older (Minnesota Department of Health '60).

During the decade 1950-1959, the 7 leading causes of death in Minnesota were, in order of rank: heart disease, cancer, intracranial lesions, accidental deaths, pneumonia and influenza, general arteriosclerosis, and diabetes. Only once in that decade was there a change in rank, when in 1951 the pneumonia-influenza death rate fell below the rate for general arteriosclerosis. The death rates for these 7 causes have remained at a fairly constant level, with the pneumonia-influenza rate being the most erratic and reaching epidemic proportion several times during the past 10 years. The death rates for immaturity, congenital malformations, and diseases of the liver and gall bladder have shown no specific trend except for immaturity which has declined consistently over the period. (Minnesota Department of Health '60).

The control of communicable diseases and the resulting lengthening of the average life expectancy is associated with an increase in the incidence of chronic diseases of the middle and older ages. As the number of births increase, there will be a proportionate increase in the incidence of prematurity and congenital malformations. As stated in Minnesota's Health ('58), the problem existing is:

. . . essentially that of the prevention of human wastage related to developmental handicaps in infants and the

chronic diseases of the aged. The provision of adequate medical facilities and services will prevent the occurrence of many of the conditions where means of prevention exist; reduce the mortality rate where this is possible; and where crippling disabilities occur, will hasten the patient's recovery and rehabilitation.

Early diagnosis, health evaluation, and guidance will arrest the course of many of the chronic diseases. Better and earlier intervention will decrease the social cost of both late rehabilitation or the even greater cost of institutional care of persons who have lost their capacity for satisfying useful lives.

Good preconceptive and prenatal care should result in the reduction of prematurity and congenital malformations associated with such conditions as German measles during the first trimester of pregnancy, malnutrition, or congenital syphilis. If advances made in care techniques are applied to all premature babies, many can be saved to grow up as normal healthy children. Above all, research in perinatal casualties, both mortality and morbidity, is necessary to the solution of problems associated with prematurity and congenital malformations.

These are the challenges presented to public health and their solution requires continued effort and cooperation of those concerned with the health of Minnesotans, as well as the support and active participation of the people of the state.

THE MINNESOTA DEPARTMENT OF HEALTH

Historical Background

Throughout the years of development of the Minnesota Department of Health, there has been close cooperation and support of the medical profession. The Minnesota Medical Society, forerunner of the present Minnesota State Medical Association, was organized in 1853 by pioneer doctors who realized the importance of close association between private medicine and public health. Through the continued effort of the State Medical Association, with the support of the American Medical Association, the State Board of Health Act was passed by the legislature on March 4, 1872 (Minnesota Department of Health '58). Minnesota was the third state to establish a state board of health, preceded by Massachusetts (1869) and California (1871). The law provided for a State Board of Health consisting of 7 men, appointed by the Governor, "learned in sanitary science." This qualification limited membership to physicians at that time (Minnesota Department of Health '56). The board was created as the official governing agency responsible for the protection, preservation, and promotion of public health in Minnesota. The Minnesota Department of Health is the operating agency for the Minnesota State Board of Health.

The board of health's first problems were concerned with epidemic and infectious diseases, and the promotion of sanitary conditions and safe water supplies. The history of the state-wide fight against tuberculosis, smallpox, diphtheria, typhoid, and poliomyelitis exhibits

the partnership that continues to exist between preventive medicine and clinical practice. A great deal of credit for what has been done in the control of communicable diseases goes to the physicians, particularly those in general practice. The health department has always kept diagnosis and treatment in the hands of the private physicians to the greatest possible extent, and has made preventive medical services available to all physicians. The epidemiologists have served to locate the source of disease; the laboratories identified the cause of illness and made biologics available for prevention; and the department itself enforced health regulations to check the spread of disease.

The first State Board of Health was interested in establishing a course of study of public health principles and practice. Following a series of lectures on public health, given at the University of Minnesota by the Board's Executive Officer, the University gave assurance that immediate attention would be given to the organizing of a department of public health. In 1874, the same Executive Officer of the State Board of Health was appointed Professor of Public Health at the University. A course of Public Health Nursing was established in 1918, and in 1922 a separate department of preventive medicine and public health was founded. The element of close cooperation between the University of Minnesota and the State Department of Health continues, encouraged and facilitated by the physical proximity of the two.

In 1918, an attempt was made to set up a program of maternal and child health within the Department of Health. It was discontinued because of lack of legislative authorization. In 1921, the State

Legislature authorized and directed the State Board of Health to cooperate with the Children's Bureau in Washington, D. C. in carrying out provisions of any act of Congress providing for state and federal cooperation in the public health protection of pregnant women and children. During the first year of operation, following legislative authorization, the maternal and child health program was financed by the Minnesota Tuberculosis and Health Association, and a matching amount in federal aid. This permitted the development of a maternal and child health program earlier than otherwise would have been possible (Minnesota Department of Health '55).

Organization and Function

As previously stated, the Minnesota State Board of Health was originally constituted as a governing board of 7 physicians. Since 1894, it has been a body of 9 members appointed by the Governor for three-year overlapping terms (Minnesota Department of Health '59). Each year in January, the board elects a secretary "to serve during its pleasure." The Secretary is also the Executive Officer of the board (Minnesota Department of Health '59). The present Executive Officer, appointed in 1955, is Minnesota's fifth since the State Board of Health was founded (Minnesota Department of Health '55). The Executive Officer serves as the administrative head of the Department of Health, directs its activities, and enforces the state health laws. The Minnesota Statutes state that his responsibility is to "see that all lawful rules and orders of the board, and all duties laid upon it by law are enforced

and performed, and that every law enacted in the interests of human health be obeyed" (Minnesota Department of Health '59).

The general powers and duties of the board stated in the Minnesota Statutes (Stief '54) are as follows:

The state board of health shall exercise general supervision over all health officers and boards, take cognizance of the interests of health and life among the people, investigate sanitary conditions, learn the cause and source of diseases and epidemics, observe the effect upon human health of localities and employments, and gather and diffuse proper information upon all subjects to which its duties relate. It shall gather, collate, and publish medical and vital statistics of general value and advise all state officials and boards in hygiene and medical matters, especially those involved in the proper location, construction, sewerage, and administration of prisons, hospitals, asylums, and other public institutions. It shall report its doings and discoveries to the legislature at each regular session thereof, with such information and recommendations as it shall deem useful.

Since this statute was written, enabling legislation has greatly increased the powers and duties of the board, as the need has arisen.

As stated the duties and responsibilities of the State Board of Health are carried out by the Minnesota Department of Health under the direction of the Executive Officer. The primary function of the health department is to prevent disease, disability, and death through the application of preventive medicine and elimination of health hazards in the environment. The organization chart of the Minnesota Department of Health (fig. 1) shows the functional organization of 7 divisions. These are the divisions of administrative services, environmental sanitation, medical laboratories, disease prevention and control, local health administration, special services, and hospital services.

MINNESOTA DEPARTMENT OF HEALTH

March 15, 1961

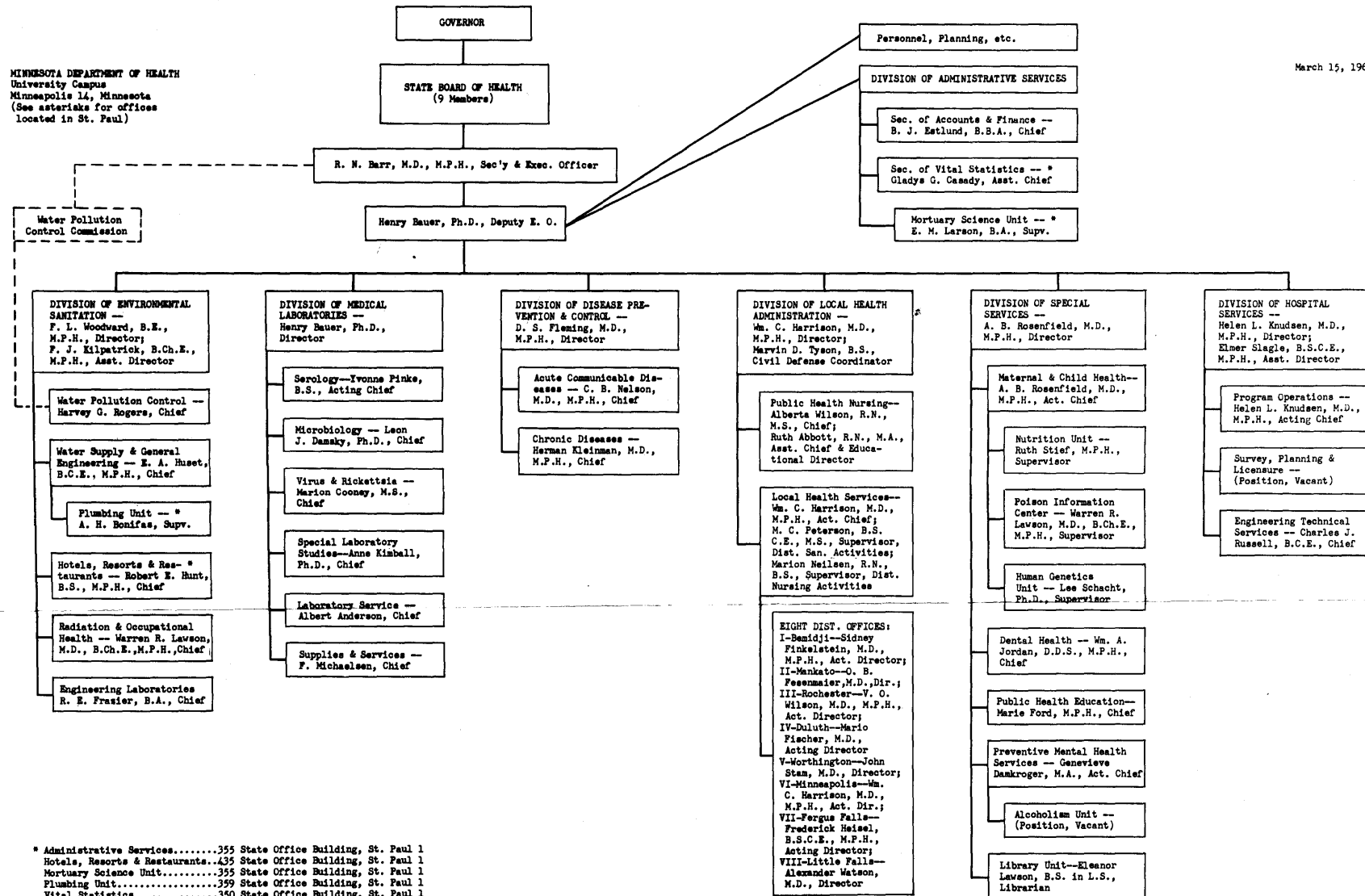


Fig. 1 Organization Chart of the Minnesota Department of Health

District Offices

District offices, administratively located in the Section of Local Health Services of the Division of Local Health Administration of the Minnesota Department of Health (fig. 1), are regional agencies of the department. They are extensions of the central office which bring services and activities closer to the people, and which assist the local boards of health and health officers. There are from 6 to 14 counties in each of the 8 health districts. The district offices are located in Bemidji (District I); Mankato (District II); Rochester (District III); Duluth (District IV); Worthington (District V); Minneapolis (District VI); Fergus Falls (District VII); and Little Falls (District VIII). The health districts and offices of the Minnesota Department of Health can be seen in figure 2. Olmsted and St. Louis Counties and the cities of Minneapolis, St. Paul, Duluth, and Rochester are excluded from district operations as local health departments have been established in these areas.

The staff in the district offices is employed by the State Board of Health. In general, the staff includes health directors, public health nurses, public health engineers, and clerk-stenographers. These positions in the district offices are not always filled because of a shortage of staff. It has been necessary in several districts to employ acting or part-time physician-directors. There are no nutritionists in the district offices.

The district health units assume none of the functions or duties of the local health authorities. The presence of district offices does

MINNESOTA DEPT. OF HEALTH

Health Districts and Offices

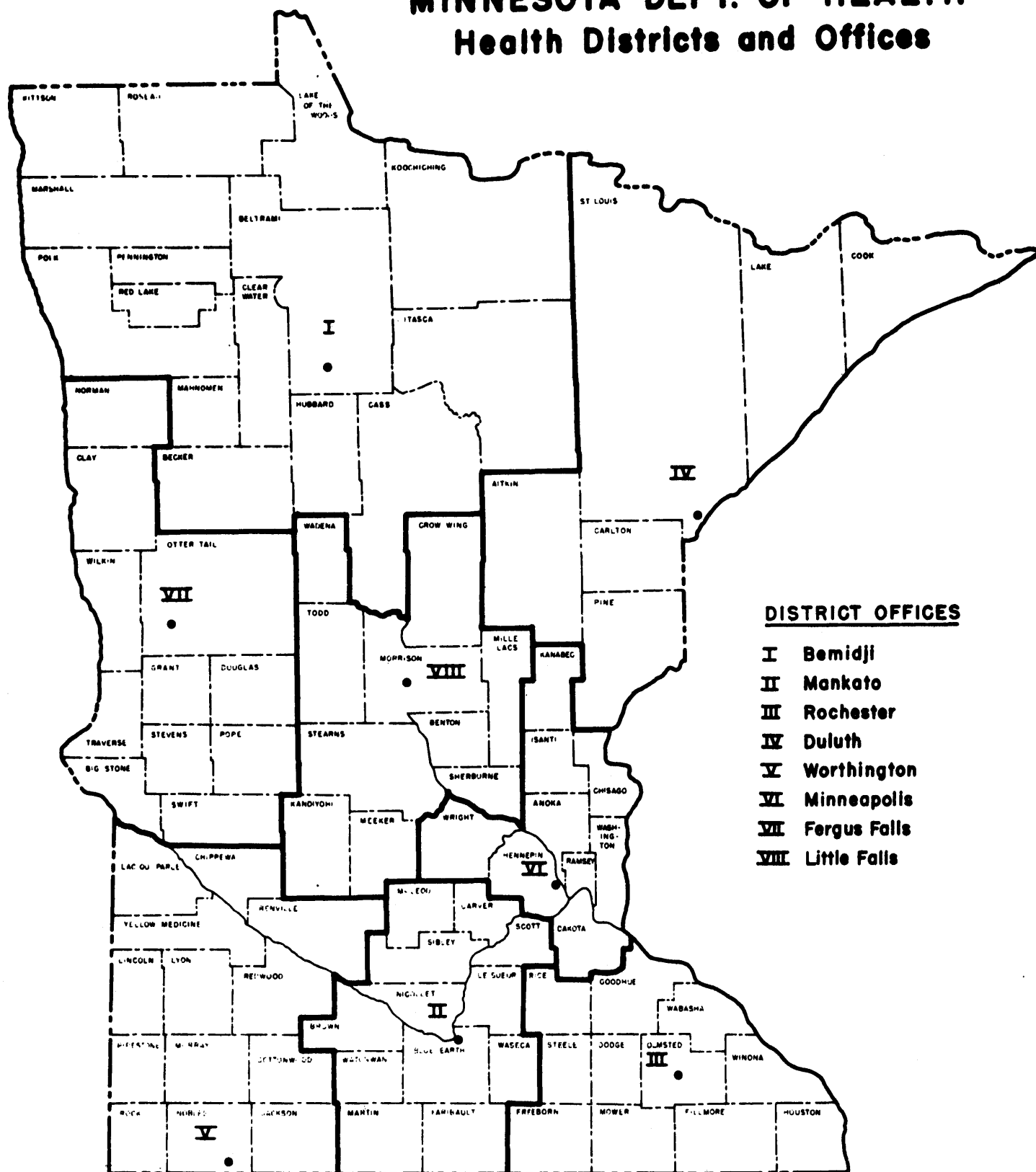


Fig. 2 Health Districts and Offices of the Minnesota Department of Health

not alter the working relationship between the local and state boards of health.

The district units, with the exception of the nursing service, do not function in program development, but as a liaison agency between the State Department of Health and the local health departments. The nursing service has been developed on the local level. Nursing services are now organized in 73 counties.

Local Health Departments

The Minnesota Statutes make provision for local boards of health and for health officers in towns, villages, cities, and counties. Provision is also made for the joint exercise of powers by counties, cities, towns, villages, boroughs, or school districts (Stief '54).

All local boards are under the general supervision of the State Board of Health, and function in enforcing the health laws and regulations of the state board. Local health authorities are assisted with public health problems by administrative and technical staff made available by the state board.

Town boards of supervisors are the boards of health for the township and for those villages within their jurisdiction that have no separate boards of health. If there are no physicians on the town boards of supervisors, one must be appointed to serve for a fixed term of one year as health officer for the town.

Villages may provide by ordinance for the establishment of a board of health although they are not required to do so. If a board of health is established, it must have three or more members, one of

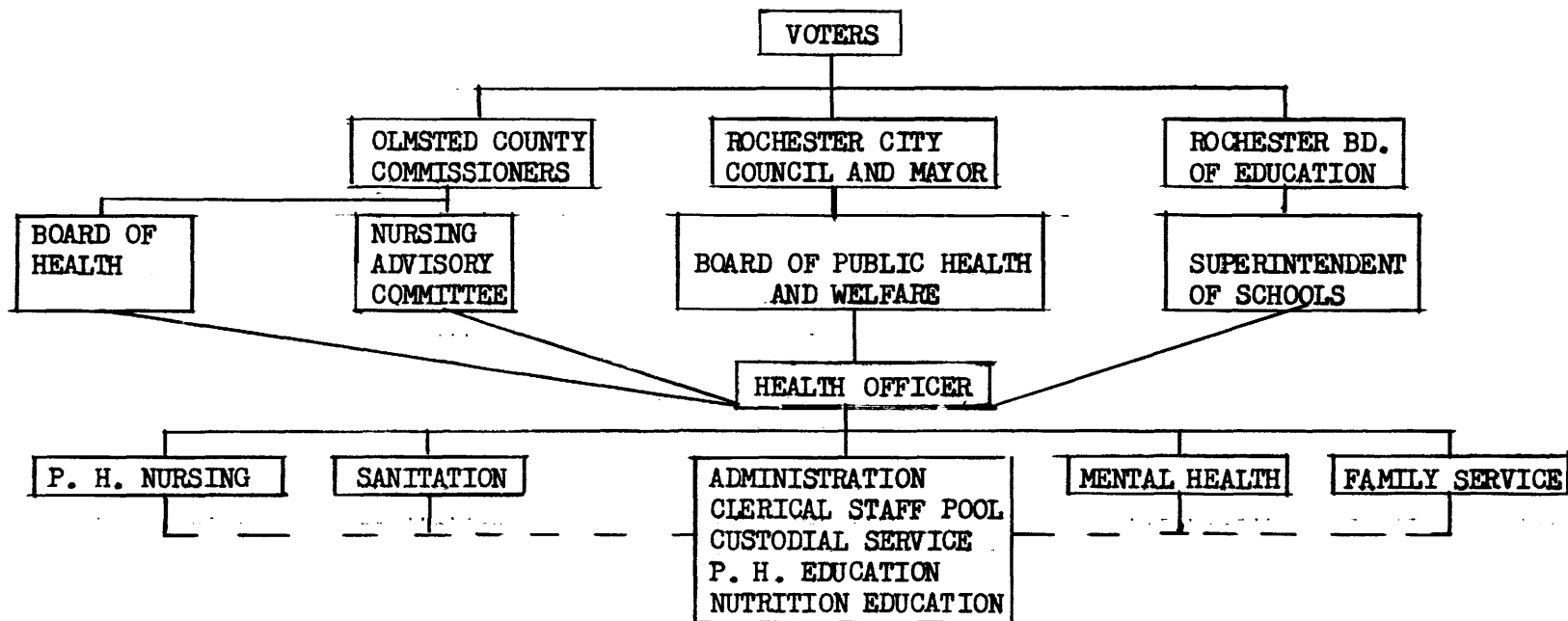
whom must be a physician to act as health officer and executive of the board (Stief '54).

City health departments have been established in Duluth, Minneapolis, and St. Paul; a county health department in St. Louis County; and a city-county health department in the city of Rochester.

The Rochester-Olmsted County Health Unit is organized on a joint city-county basis as permitted in the Minnesota Statutes. This is the only city-county unit organized in the state. The organization chart of the Rochester-Olmsted County Health Unit (fig. 3) shows the 5 divisions within the unit, the lines of responsibility, and the agencies cooperating in the community-wide program.

The Health Officer and Director of the Rochester-Olmsted County Health Unit is a pediatrician. The Division of Public Health Nursing is staffed with a director, an assistant director, 8 nurses in the city, 4 nurses in the county, one school nurse in the city schools, and one in the parochial schools. The Director of the Division of Sanitation is a sanitary engineer who is assisted by a milk sanitarian and his laboratory assistant, a county sanitarian, and a general sanitarian for the city of Rochester. The Director of the Division of Mental Health is a psychiatrist whose staff consists of a psychologist and a psychiatric social worker. The Head of the Division of Family Service is a social worker. The nutritionist in this unit is the only one in Minnesota employed by a local health department.

This health unit serves a population of approximately 59,000. The support of the Rochester-Olmsted County Health Unit, and the



LOCAL CONTRIBUTING AGENCIES
 PHYSICIANS AND DENTISTS
 MINERAL SPRINGS SANATORIUM
 OLMSTED COMMUNITY HOSPITAL
 ST. MARY'S HOSPITAL
 COUNTY CHRISTMAS SEAL ORGANIZATION
 THE HEALTH ASSOCIATIONS
 CIVIC LEAGUE - COMMUNITY CHEST
 PRESS, RADIO AND T. V.
 OLMSTED SCHOOL HEALTH COUNCIL
 COMMUNITY MENTAL HEALTH BOARD
 OTHER LOCAL GOV. DEPARTMENTS

OTHER CONTRIBUTING AGENCIES
 MINNESOTA DEPT. OF HEALTH
 U. OF M.-SCHOOL OF PUBLIC HEALTH
 MINNESOTA DEPT. OF WELFARE
 MINNESOTA DEPT. OF AGRICULTURE
 MINN. LIVESTOCK SANITARY BOARD

Fig. 3 Organization Chart of the Rochester-Olmsted County Health Unit

agencies contributing funds, personnel, or services are charted in figure 4, according to the basic health functions supported.

Division of Special Services

The organization chart of the Minnesota Department of Health (fig. 1) shows the 4 sections and 5 units within the Division of Special Services. These are the Sections of Maternal and Child Health, which includes a Nutrition Unit, a Poison Information Center, and a Human Genetics Unit; Dental Health; Public Health Education; Preventive Mental Health Services, which contains an Alcoholism Unit; and a Library Unit.

Section of Dental Health

The Section of Dental Health provides educational programs in the prevention and control of dental disease, and the promotion of good dental health practices. Activities of this section include topical fluoride treatment demonstrations, consultation to communities interested in fluoridation, research studies, and field training for dental hygiene students. Educational programs are conducted for lay and professional groups through workshops, conferences, meetings, talks, and formal teaching. The school dental health program consists of dental health consultation, and a dental health card reporting system which is carried out in all schools.

Section of Public Health Education

The chief function of the Section of Public Health Education is to administer the educational program of the department. Services are

	Birth and Death Registration	Communicable Disease Control	Sanitation	Public Health Nursing	Health Education	Maternal & Child Health incl. School	Mental Health	Nutrition	Family Service
Local	1. City	1. City 2. County 3. City Schools 4. Mineral Springs Sanatorium	1. City 2. County	1. City 2. County 3. City Schools	1. City 2. County	1. City 2. City Schools 3. County	1. City 2. County	1. City 2. County	1. City
State		1. St. H.D. Laboratory	1. St. H.D. Labora- tory	1. State Aid 2. Univ. of Minnesota			1. State Aid 2. Local Hospitals		
Federal				1. Federal Aid					
Private		1. Christmas Seal Or- ganization 2. Hosp. & Med. Laboratories 3. Physicians				1. Physicians 2. Dentists 3. Local Hospitals 4. Mayo Clinic			1. Commu- nity 2. Civic League
Fees	1. Birth & Death Regis- tration and Certified Copy Fees 2. Transporta- tion Permit Fees		1. Restau- rant & Milk Fees	1. Student Fees	1. Student Fees		1. Student Fees		

Fig. 4 Support of the Rochester-Olmsted County Health Unit and Agencies
Contributing Funds, Personnel, or Services

available to all divisions, sections, and units within the department, and to other agencies in the area of public education. Health literature is distributed and the section maintains and operates a film-lending library. Three periodicals are published by this section: one on general health, "Minnesota's Health"; one on mental health, "Mental Health Progress"; and one on school health, "School Health News."

Section of Preventive Mental Health Services

The objectives of the Section of Preventive Mental Health Services and of the Alcoholism Unit are the prevention of mental illness and alcoholism through educational programs directed toward the public, schools, and professional groups. Some of the services provided in the program for mental health have been a series of discussions on marriage and family life for high school students, and for parents and adults; educational talks to the general public; and consultation to many individuals and groups.

Library Unit

The Library Unit is a source of public health literature. Books and scientific periodicals are made available for the health department staff. These are available on loan to all qualified public health personnel throughout the state.

Section of Maternal and Child Health

As stated by the acting-chief of this section, maternal and child health is concerned with the physical, mental, and emotional health of pregnant women, mothers, and children. The purpose of the maternal and

child health program is to minimize the risk of childbirth, to give each baby born the best chance of survival, and to help each child grow to maturity as free as possible from all physical, mental, and emotional defects. (Rosenfield '61).

The program is one of prevention and education with the purpose of protecting and improving the health of mothers and children. It is directed toward the general public as well as physicians, dentists, nurses, school personnel, and other allied professional groups. The program also provides medical and nursing consultation, technical advice, and assistance in developing, extending, and coordinating programs at the local level.

Statistics show that during 1957-58, 99 per cent of the pregnant women had some prenatal care; that in 1958, 99.4 per cent of all deliveries occurred in hospitals, and 99.9 per cent were attended by physicians (Rosenfield '61). Because adequate prenatal care is available through private physicians, no statewide prenatal clinics are conducted by the health department. The few that do exist are in the cities of Minneapolis, St. Paul, Duluth, and Rochester, and are administered through the local health departments, voluntary agencies, or hospitals. Therefore, the state program for prenatal care is directed toward well-trained physicians; well-equipped and staffed hospitals; adequate public health nursing supervision; and education of the public to the importance of good prenatal care, and where it may be obtained.

In 1960, the maternal death rate had declined to 1.5 per 10,000 live births. Although great improvements have been made in the safety

of pregnancy and childbirth, maternal mortality surveys have estimated that 20 to 30 per cent of the maternal deaths in Minnesota are still preventable. The conditions causing the greatest number of maternal deaths are toxemia, sepsis, and hemorrhage. Deaths from anesthesia and heart disease are less frequent but significant causes. (Rosenfield '61).

A 70 per cent reduction in infant mortality rates was achieved from 1915 to 1959. There was a slight increase in the rate in 1957 and 1958 with a decrease in 1959 and 1960. (Rosenfield '61). The neonatal death rates have also decreased, but the per cent of decrease has been less than the reduction in infant mortality. Three-quarters of the deaths occurring during the first year of life actually occur during the first month. Of the neonatal deaths, 60 per cent occur within the first 24 hours after birth, the most critical period of life. Although immaturity constitutes only 6 per cent of the total births in Minnesota, it is responsible for one-fourth of the infant deaths and approximately one-half of the neonatal deaths. Other causes of infant mortality include congenital malformations, birth injuries, and diseases of early infancy. (Rosenfield '61). The need is apparent for reduction in perinatal mortality, that is, fetal deaths over 20 weeks gestation and deaths under 28 days of age. Research studies on perinatal casualties are being carried out in Hennepin and Ramsey Counties, and in the city of Duluth.

The present program is influenced by other needs concerning child health. More extensive and continuing supervision of the well child is needed. Emphasis is placed on the preventive aspects relating to growth

and development; prevention of disease through immunizations, especially booster doses; and nutrition. Greater emphasis is needed on school health programs. Joint participation of schools, professional personnel, local civic groups, and official and voluntary health agencies in a community is needed for effective improvement of child health. To help meet these needs, a state school health council was established in 1960 with 35 official, non-official, and voluntary agencies and organizations. Other child health programs will be discussed in the section on the nutrition program.

Poison Information Center. Accidents are responsible for approximately one-third of all childhood deaths in Minnesota. Poisoning is a serious accident problem in preschool children. A Poison Information Center was established in the Section of Maternal and Child Health in 1958. This center functions as a central agency operating through 25 regional centers throughout the state. Information concerning the toxicity of drugs and chemicals, and the treatment of accidental poisoning is provided for physicians and hospitals. An educational program is conducted for the prevention of poisoning accidents. The Minneapolis Junior League has recently underwritten a public education project aimed at the prevention of accidental poisoning in children.

Human Genetics Unit. This unit was established in 1959 by an act of legislature. The unit is administratively located in the Section of Maternal and Child Health as it is concerned with the family and primarily with the child. The unit provides counseling on inherited physical and mental abnormalities to physicians, dentists, and patients.

Counseling is also available to institutions and agencies concerned with welfare, adoption, and the physically and mentally handicapped child. It provides an educational program in familial and inherited diseases and traits. Consideration is being given to a registry of genetic and congenital diseases which occur most frequently in the state. This registry could be used in cooperation with current research studies concerned with congenital malformations, and retarded children.

At present, a screening program of infants for phenylketonuria is being carried on as part of an extensive study of mental retardation. This program is carried out in a special Maternal and Child Health project, called the Four-County Project for Retarded Children. The project was begun in 1957 under the joint sponsorship of the Minnesota Departments of Health and Public Welfare. This project is financially assisted by a grant from the Children's Bureau in Washington, D. C. to the State Department of Health.

Nutrition Unit. The Nutrition Unit was first established in the Section of Maternal and Child Health in 1936, when funds from the Children's Bureau in Washington, D. C. were made available. The first nutritionist was employed in 1937. Not until the present Nutrition Supervisor was hired in 1950 was there a change in staff. At that time, it was decided that two nutritionists were needed, and the staff of the unit was expanded to include a second nutritionist with the title of Nutrition Consultant. A description of the two nutrition positions is included in the Appendix (see pages 75-78). Efforts are being made at the present time to add two additional nutritionists to the staff.

There has been a dietitian available to assist in hospital dietetic problems. She is assigned to a special project in the Division of Hospital Services.

As there are only two nutritionists on the staff at the state level, and none in the district offices, there are no formal nutrition staff meetings. Daily and future plans are discussed informally. The Section of Maternal and Child Health holds regular weekly meetings for all staff members in the section to help them keep abreast of functions and developments within the section. The directors of all the divisions of the health department meet regularly, and information concerning activities of other divisions is returned through them to section members. The Nutrition Unit is represented at these meetings by the Director of the Division of Special Services.

The Nutrition Unit is responsible for a quarterly, and an annual narrative and statistical report to the State Board of Health. In addition, a biennial plan is written by the Nutrition Supervisor. It is included in the Minnesota State Plan which delineates the functions and operations of the Department of Health. The State Plan is sent to the Children's Bureau and the Public Health Service in Washington, D. C. for their information and approval.

Staff members are encouraged to become active in national and state organizations in order to keep informed on new trends in nutrition and related fields. Time is allowed for staff members to attend out-of-state professional meetings, and expenses may, on occasion, be paid if the meeting is considered beneficial to the health department. Travel

funds are made available to the department in a lump sum and are proportioned out to staff members in terms of benefit to the department as determined by the Executive Officer and his staff of District Directors.

Although the Nutrition Unit is administratively placed in the Section of Maternal and Child Health, its services were intended to and have taken on a broader aspect, and they cross over organizational lines. This is justified in the philosophy that maternal and child health should be interpreted in terms broader than direct services to pregnant women and children. Mothers and children are not isolated from the family or the community, and the health of the whole community will affect the health of mothers and children.

In keeping with this philosophy, the Nutrition Unit is a service to the department, rather than a function unto itself. Generalized consultation is provided to the whole department. Nutrition services are integrated with the health programs of the State Department of Health through consultation, and participation in staff meetings, inservice education, conferences, workshops, institutes, and surveys. Nutrition materials are prepared and distributed in cooperation with other sections and divisions of the department.

The Nutrition Unit cooperates in teaching programs and in nutrition education activities with other official and voluntary agencies, training and educational institutions, local health departments, and professional organizations. The nutritionists actively participate in the work of other organizations to extend nutrition education, to coordinate the nutrition activities of other professional organizations

with those of the health department, and to help keep them aware of opportunities to assist in public health nutrition programs. This is accomplished in part through active membership in organizations such as the Minnesota Dietetic Association, the Minnesota Home Economics Association, the Minnesota School Food Service Association, the Minnesota State Nutrition Council, and the Minnesota State School Health Council. The nutritionists are also active members of the Minnesota and the American Public Health Associations.

THE STATE NUTRITION PROGRAM

Overall Program

The long-term objectives of the nutrition program are to develop and conduct nutrition education activities directed toward securing good nutritional status for all people, with special emphasis on the needs of mothers and children; and to coordinate nutrition activities of the department with those of state and local agencies concerned with health, welfare, and education (Minnesota Department of Health '59).

The program is extended by individual or group consultation, and technical advice and assistance given to public health workers, other professional personnel, and community groups. These workers and groups can use, extend, and disseminate nutrition information in direct or indirect health services. The program has been developed as an educational endeavor to improve the dietary habits of expectant and nursing mothers, infants, growing children, adolescents, and adults. Nutrition services are given through in-service education and refresher courses to persons concerned with maternal, infant, preschool, and family nutrition. Since nutrition instruction is included in the total health program of the schools, nutrition workshops are held for school administrators, teachers, and faculties of teacher-training institutions. Consultation is given to individual schools on developing the curriculum, and on evaluating and improving current nutrition programs. Public health nurses receive consultation on nutrition of school-age children through regular staff meetings, in-service education classes, and individual conferences on

request. Emphasis is placed on basic nutrition programs in colleges and institutions which train nurses, teachers, and public health workers. The greater part of the nutrition program involves centralized group activities in areas of state-wide concern.

This brief summary of the nutrition program does not cover all aspects of the work, but merely illustrates the wide scope of the program. The nutrition program of the Department of Health ultimately reaches the people in Minnesota. This is illustrated (fig. 5) by a summary of selected nutrition activities and services as received by counties in 1960.

Nutrition Services

Consultation Services

Department of Health. As previously stated, the Nutrition Unit provides consultation services to all divisions of the Department of Health. The student had an opportunity to discuss a project being conducted by the Division of Hospital Services with the dietitian consultant and the nutritionist. The following discussion will attempt to illustrate one example of this service within the Department of Health.

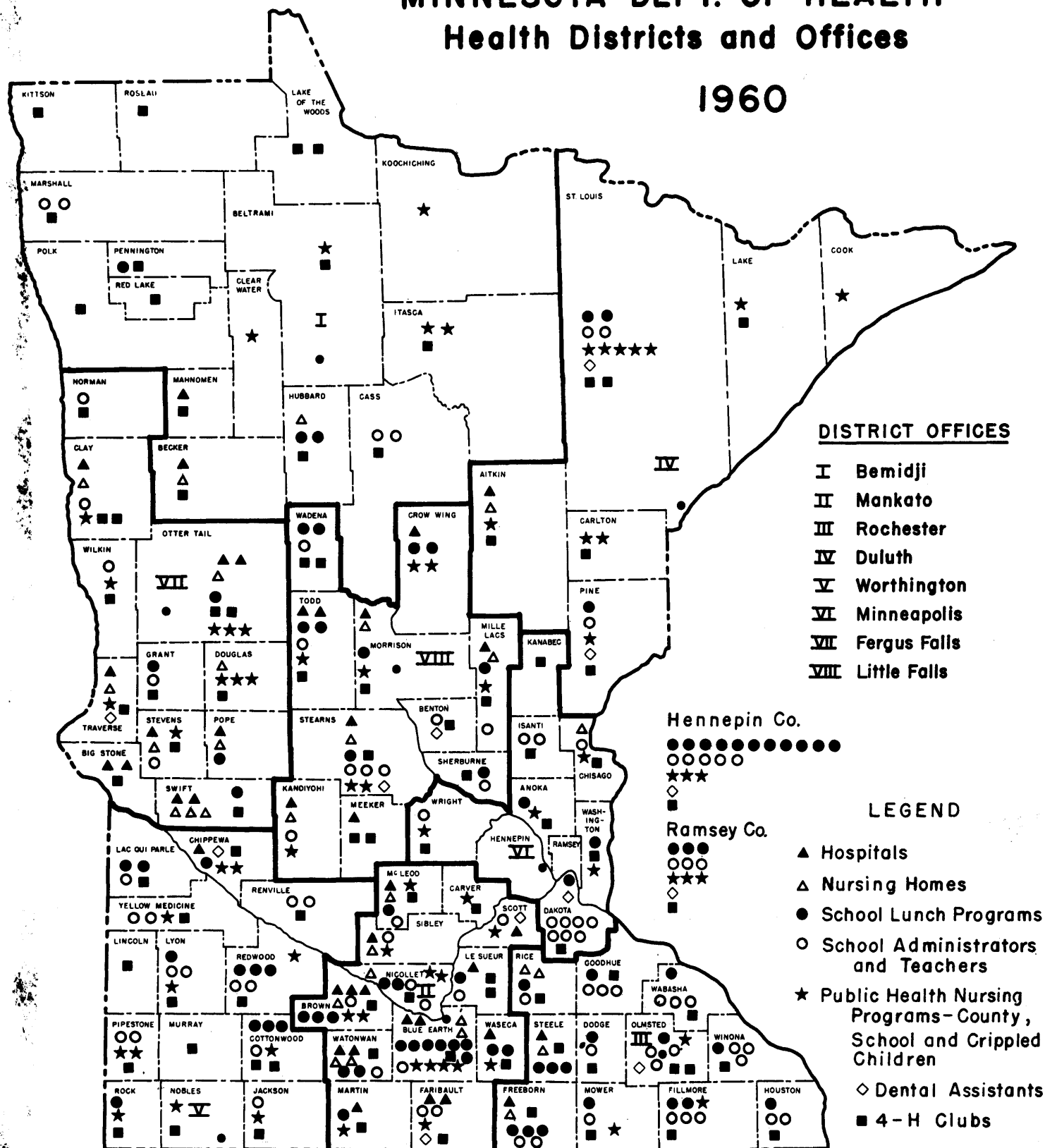
In 1956, the Public Health Service in Washington, D. C. approved a grant-in-aid for a research project entitled "Demonstration and Study for Improving Patient Care Services" which was submitted by the Minnesota Department of Health. As stated in the project plan (Minnesota Department of Health '57), the specific aim of the project is as follows:

. . . to determine how to best improve patient care services in Minnesota effectively, economically, and continuously by

SELECTED NUTRITION ACTIVITIES Locations by Counties

MINNESOTA DEPT. OF HEALTH Health Districts and Offices

1960



Minnesota Department of Health - 1959

Fig. 5 A Summary of Selected Nutrition Activities and Services
Received by Counties, 1960

development or expansion, and evaluation of refresher training courses for paramedical personnel, in-service training of aids for different categories, and extension courses in specific post-graduate fields.

The personnel of the research staff includes a coordinator, a nurse anesthetist consultant, a physical therapist consultant, a medical records librarian, a medical laboratory consultant, a dietitian consultant, and a clerk-stenographer. The research staff works closely with other members of the staff of the health department. The consultants in each of the 5 paramedical areas are conducting an individual study which is planned to help meet the stated objective. The dietary phase of the project consists of two segments, which will be discussed. The first segment was a survey, and the second an educational program.

The ultimate aim of the dietary phase of this project is to raise the level of patient care in hospitals by improving the operation of the dietary departments. The first segment of the dietary phase, a survey of the dietary departments in small hospitals in Minnesota, was conducted to determine existing conditions. This information can be used to identify areas in which dietary knowledge could be improved, and used as a gauge for measuring future progress. The objectives of this study were: 1) to determine the kind and number of existing personnel, procedures followed, and facilities available in hospital dietary departments; 2) to determine the attitudes of dietary personnel and administrators with regard to educational programs; 3) to determine the degree of shortage of dietitians in general

hospitals (Lofquist et al., '60). An extensive questionnaire relating to these objectives was developed by the dietitian consultant, the study coordinator, the nutritionist, and representatives of the Minnesota Dietetic Association. The details of the study and the findings have been published in the Journal of the American Dietetic Association (Lofquist et al., '60).

The second segment of the dietary phase of the project involves the organizing and offering of educational programs. It had been assumed in the planning of the project that many dietary departments could offer better services with existing personnel and facilities if suitable educational programs were provided. Using the results of the questionnaire of the first segment of the project, a training program was developed for small hospital food service personnel. A planning committee from the Minnesota Dietetic Association worked with the project personnel and the nutritionist on developing the training program. The training program, entitled "Conferences on Dietary Procedures," was sponsored by the Minnesota Hospital Association, and the Minnesota Department of Health. The program consisted of a series of 4 two-hour sessions given at several centers throughout the state. These centers were selected so that each would be within a 50-mile radius of every hospital in that area. The program was planned primarily for hospital food service personnel. Administrators, nursing supervisors, and interested personnel of all hospitals and nursing homes in the area were also urged to attend. A registration fee was charged per institution to help defray some of the expenses involved

in conducting the educational program. Resource people from the Department of Health, the University of Minnesota, and the Twin Cities Dietetic Association assisted in the program. The nutritionist served as one of the resource people from the health department. Local dietitians were asked to participate in the program in their area. In this way, the food service personnel become acquainted with the local dietitians who can give them assistance and guidance in the future.

Selected topics on dietary procedures were presented to help meet the needs of the food service personnel of small hospitals and nursing homes without the services of a qualified dietitian. The topics were normal nutrition, menu planning, modified diets, and food handling and sanitation.

The dietary department of each hospital was evaluated before and after the program. A comparison of findings of the pre-program evaluation, the post-program evaluation, and the original survey determined whether the program had effected changes which improved the service of the dietary department. The results of this comparative evaluation have not been completely summarized.

A second state-wide program is being conducted with the same general plan. It is hoped that local dietitians and administrators will be stimulated to conduct the program in the future.

The consultation services of the Nutrition Supervisor were requested throughout the dietary phase of the project. She assisted in the planning of the hospital survey questionnaire and the training program. She was also a resource person and took an active part in the program.

The project, "Demonstration and Study for Improving Patient Care Services," is one way the health department functions to help improve hospital services. The dietitian consultant is concerned specifically with methods of improving the operation of the dietary departments. The contributions made by the nutritionist should ultimately aid in effecting an improvement in the nutritional health of many people through improved dietary service in these hospitals, and improved training programs for food service personnel.

Other Agencies and Groups. The consultation services of the Nutrition Unit are available to other agencies and groups on a request basis. Requests for particular programs or services may come from hospitals, nursing homes, local health departments, institutions, and voluntary agencies. Students studying nutrition and public health may seek assistance with projects and papers.

The student discussed one example of consultation service to other agencies with the Nutrition Supervisor. The Minnesota Department of Public Welfare requested the assistance of the Minnesota Departments of Health and Education, and the Agricultural Extension Service of the University of Minnesota with their program of surplus commodities. The nutritionist, as a consultant, assisted in evaluating and selecting educational material which could be sent into the districts. This material can be used by those receiving surplus commodities.

Direct Services

On occasion, the nutritionist is requested to give direct services to institutions, organizations, individuals, and groups. Although

this does not comprise a large part of the nutritionist's function, direct service is given whenever possible. Before accepting a request for direct service, the nutritionist considers whether the request is reasonable, a need exists, and action might be taken.

The student discussed an approved and accepted request with the Nutrition Supervisor, and further information was obtained through personal correspondence. The Generalized Public Health Nursing Consultant in District V (fig. 2) requested that the nutritionist be present at a meeting of the Worthington School Health Council. The Worthington school nurse was concerned about the local school lunch program, and she consulted with the district nurse. These nurses decided that the services of the nutritionist were needed. The nutritionist accepted the request because Worthington is considered a progressive community from a health viewpoint. Community studies of many health problems have been conducted, and the citizens strive to improve life in their community. The nutritionist and the Worthington school nurse worked together in planning the meeting. The nutritionist was informed about the problems which existed, and was given pertinent information concerning the School Health Council and the group with whom she would be meeting. For background information, she was given copies of two weeks' menus served in the school lunch program.

The Worthington School Health Council is composed of approximately 30 people. These people represent school administration, physicians, dentists, teachers, parents, pupils, and the school nurse. Council meetings are held three times a year to discuss health problems concerning

the child and the school. At the meeting with the nutritionist, the cooks from the various schools were invited because nutrition was the topic of discussion.

The nutritionist was asked to speak at the council meeting on nutrition instruction in the schools and on the school lunch program. Time was planned for discussion to follow her talk. Following the council meeting, the nutritionist was asked to hold a discussion-type meeting with the cooks.

Arrangements had been made for the nutritionist to visit the Crippled Children's School the next day to work with the cooks. This school operates under the Worthington School District as a special boarding school. Children come to this school from all over the state, and tuition is paid by the school district of residence. The physical therapist at the school was concerned because some of the children were gaining weight to the extent of impeding their progress. Several calorie restricted diets had been prescribed, but the cooks had little knowledge in planning reducing diets. While in the school, the nutritionist held a conference with the cooks, the principal, the social worker, and the school nurse. Modified low-calorie diets were discussed.

During all the meetings in Worthington, the nutritionist stressed the need for a professionally trained, experienced school lunch supervisor to relieve the Supervisor of the Buildings and Grounds of the extra responsibility of the school lunch program. She stressed the need for a trained supervisor with regard to the special and continuing needs of the Crippled Children's School. She pointed out the need for in-service

training for cooks of all the schools, and suggested that they attend summer workshops which are conducted by the University of Minnesota at the request of the Minnesota Department of Education. She recommended membership in the Minnesota School Food Service Association, and suggested that the cooks attend a meeting of a newly formed chapter in a nearby town. Suggestions were also made for the improvement of the school lunch program, and for better utilization of the school lunch as a teaching device or learning experience for the children.

The nutritionist will check evidence of the success of her visit by attendance at workshops, membership in the School Food Service Association, and particularly in the efforts of the school board to hire a trained school lunch supervisor. The school nurse and the Generalized Public Health Nursing Consultant will keep the nutritionist informed of developments, and will request additional help as it is needed. The nutritionist is guided to a great extent by the opinions of the public health personnel in the field concerning the advisability of giving direct service.

Coordination of Services With Other Agencies and Groups

School Health Workshops. One of the programs developed to improve the health of school children is the yearly School Health and Safety Workshop. The immediate purpose of the workshop is to help improve the level of school health instruction. The long range objective is to help the children become more interested in health as community-minded adults.

The workshop has undergone many changes during the years of development. By law, school health is the responsibility of the Minnesota Department of Education. The one consultant in the Department of Education also has responsibility for physical education, recreation, and safety. The personnel of the department were unable to conduct adequate programs in all these areas, and the Section of Maternal and Child Health of the State Department of Health offered to help with the health aspects of the program. A committee was formed consisting of two permanent members, one person from each of the departments. The Acting Chief of the Section of Maternal and Child Health represents the State Department of Health, and the Supervisor of Health, Physical Education, Recreation, and Safety represents the Department of Education. This committee is called the Joint Committee on School Health. When a need is presented, this committee invites other interested and concerned members of various official and voluntary agencies and organizations to participate. When the need has been met, the participating committee is dissolved.

During the late 1940's, regular summer workshops for teachers were sponsored by the Department of Education. Topics at these early workshops included various aspects of health, health teaching, and physical education. Then for several years, the Departments of Health and Education co-sponsored workshops on different aspects of the school health program. School health directors, teachers of health and physical education, teachers of biology and science, elementary school teachers, school and public health nurses, and school administrators attended the one-week summer sessions.

In 1952, a third sponsoring agency was added to the workshop. The Minnesota Tuberculosis and Health Association had expanded their field of interest to include school health. The interest of this voluntary agency in working with schools stemmed from the fact that the problem of tuberculosis was waning. Although the programs of public health education and case finding were still needed, the opportunity to expand their services was indicated. Existing programs could be combined with new activities in the field of school health. The present programs would become more effective because of greater public awareness and support.

The Minnesota Tuberculosis and Health Association made significant contributions in the planning of the workshop, and by providing scholarships to interested personnel through the county associations. The association agreed to sponsor the board and room expenses for two teachers from each county in the state. Recent changes in the policies of the Tuberculosis and Health Association have removed the limit of two teachers from each county. If necessary, the health department can subsidize the attendance over and above the possible sponsorship of the Tuberculosis and Health Association. Financial support is given for all who wish to attend if the existing staff and facilities are adequate.

The 1952 and 1953 workshops, cooperatively sponsored by the three organizations, were designed to help meet the problems of school nurses, school administrators, and school health directors and teachers. The 1954, 1955, 1957, and 1959 workshops were for elementary school

principals and supervisors. The 1956, 1958, and 1960 workshops were held primarily for secondary school teachers, health instructors, and administrators. A limited number of school nurses were accepted as resource participants of these workshops. The 1961 workshop is again planned for personnel of elementary schools.

As the purpose of each workshop changed, the program content also changed. Generally, the topics of the school health program were health education, health services, and health environment. Topics relating to safety, nutrition, mental health, dental health, and civil defense were included. Some of the nutrition topics discussed were school lunch programs, nutrition teaching in the school curriculum, fad diets and weight control, breakfasts, nutrition and growth, and nutrition and dental health.

In 1959, the program plan changed. This workshop was directed toward the development of units or partial units in the areas of health services, healthful school environment, safety, and dental health and nutrition. Units of work for each grade level were developed with the assistance of a consultant who outlined the problem areas for each grade level, suggested activities, and recommended suitable visual aids. The purpose of this plan was to improve the school health program at the elementary school level by emphasizing coordination and progression of health instruction.

The 1960 workshop was planned to inform the participants of new information, materials, and teaching aids in dental health, nutrition, environmental health, and school health services. The primary emphasis was on mental health, and family life education.

The student attended a planning meeting for the 1961 School Health and Safety Workshop. The program is to include curriculum development for safety, nutrition, dental health, and disease prevention and control; review of new materials and films; and various aspects of school health services, and healthful school living.

These workshops are an example of cooperation, and coordination of services among official and voluntary agencies. The primary objective which is common to all is the improvement of the health of the school age child. In this instance, the Department of Education functions as coordinator of the workshop; the Department of Health provides the staff; and the Tuberculosis and Health Association provides the funds for the participants.

These workshops are also an illustration of coordination of services within the Department of Health. Several disciplines coordinate their services toward improving the health of the school child through the School Health and Safety Workshop. The Division of Special Services is represented by the following persons: the Acting Chief of the Section of Maternal and Child Health, the Supervisor and the Nutrition Consultant of the Nutrition Unit, the Chief of the Section of Dental Health, the School Health Consultant in the Section of Public Health Education, and the Acting Chief of the Preventive Mental Health Services. The Division of Local Health Administration is represented by the Supervisor of District Sanitation Activities in the Section of Local Health Services. With a bond of common purpose, these members of the Department of Health endeavor to help meet the health needs of the school child.

In the School Health and Safety Workshop, the approach to improving the health of the school child is through regular in-service education programs for teachers. A similar yearly workshop, the Conference on Schools and Physicians, is co-sponsored by the Minnesota Department of Health, the Minnesota Department of Education, the Minnesota Tuberculosis and Health Association, and the Minnesota Heart Association. This workshop is again an example of coordination of services within the health department, and with other official and voluntary agencies. The same members of the health department are represented at this workshop as at the School Health and Safety Workshop. The approach of the Conference on Schools and Physicians is through the administrators of school systems, physicians, dentists, and curriculum instructors and directors.

The school teacher works closely with the administrator and curriculum instructors and directors in the school. If the school personnel attend the appropriate workshops, they can help influence those who were unable to attend a workshop in planning and conducting a school health program.

A third workshop is being initiated in 1961, with the same 4 co-sponsors. Realizing the need for improved teacher training, the sponsors of the College Health Workshop have planned a workshop for college personnel who teach physical education and health. The content of the program will include discussions of the preparation necessary to train people to teach health in schools. It will also include discussions of suitable resource material. The personnel of the health department invited to participate by the Joint Committee on School

Health, include the Supervisor of the Nutrition Unit, the Chief of the Section of Dental Health, and the Chief of the Section of Chronic Diseases.

By offering these three regular workshops, the program of the Department of Health will theoretically reach many children. It is hoped that better health will result through improved health teaching. Also by participating in these workshops, the health department has developed a coordinated working relationship with other agencies and professional groups whose concern is for the health of school children. A better understanding of school health needs and problems will result from this coordination of services and interagency cooperation.

Minnesota School Food Service Association. This association is a professional organization for all school lunch personnel. It is affiliated with the American School Food Service Association. The purposes of this association are as follows:

- 1) To encourage the expansion and educational use of food services and related activities for the improvement of school, community, and national health.
- 2) To develop and maintain high standards for personnel and for food service in schools.
- 3) To provide for an exchange of ideas and a sharing of experiences; to promote cooperation and mutual help among the members.
- 4) To further the professional growth of members.
- 5) To serve as a medium for distribution of information to the members.

A national convention and a state convention are held each year for the benefit of the members. There are three local chapters in Minnesota. A fourth local chapter is presently being formed. The state association publishes the Minnesota School Food Service Association Newsletter twice a year, and the School Lunch Journal is published 10 times a year by the national association.

The School Lunch Section of the Minnesota Department of Education is responsible for the school lunch program. The nutritionists of the Minnesota Department of Health are not involved with this program except by special request. They participate in the school lunch program through active membership in the Minnesota School Food Service Association.

The Nutrition Supervisor served as Chairman of the Evaluation Committee for the 1961 Annual Convention of the Minnesota School Food Service Association. The committee was composed of the chairman, the student, and two members of the association. The committee was requested to devise a method of evaluation which would give an expression of opinion better than had been received by previous evaluations. Response to the evaluation questionnaire of the last annual convention was only 50 per cent, and not enough specific information had been given for proper planning of future conventions. It was considered essential to learn the opinions of as many of the group as possible because attendance at conventions is influenced to a great extent by a program which is of direct interest to the members. With this information, future programs can be planned to meet the interests and needs of the members.

The Evaluation Committee devised a method of evaluation using group discussion and an open-end questionnaire. The evaluation questionnaire is included in the Appendix (see pages 79-80). Discussion leaders were chosen from the advance luncheon registration. From an estimated 400 in attendance, 40 discussion leaders were selected. This proportion would enable each leader to obtain the opinions of approximately 10 other members. With time planned for discussion and the questionnaire provided, it was anticipated that no one person would have too great a responsibility and there would be a better return of evaluations.

The discussion leaders were selected in the following way. First, the President Elect of each of the three local school food service chapters were chosen. These three were chosen because each had been elected to hold office and would benefit by becoming acquainted with the purpose of the evaluation, and the convention. In this way, each would be encouraged to continue her active responsibility to the association. Secondly, all of the out-state registrants were elected. These members were picked with the purpose of developing in them a sense of responsibility and personal purpose in the convention. Thirdly, representation was selected from the St. Paul and Minneapolis areas. This group would represent each school system in the immediate area. Finally, others were taken at random to reach the required number of 40. A letter, included in the Appendix (see page 81), was sent to each discussion leader requesting her assistance, and informing her of the general plan of evaluation.

At the luncheon, the discussion leaders were seated in locations which would enable each to discuss the questionnaire with approximately 10 people. The estimated attendance at the luncheon proved unavoidably inaccurate, and more discussion leaders had to be recruited on short notice. With those recruited, and others to replace those previously contacted who failed to appear at the luncheon, the desired proportion of 1:10 was maintained.

By using this method of evaluation, certain problems developed. It was impossible to estimate accurately the attendance at the luncheon, and the recruited discussion leaders were inadequately prepared for the job. The method of evaluation was not adequately publicized in advance to give all members an understanding of the new procedure, and not enough time was allowed at the luncheon for a thorough discussion. Many people left the luncheon before the evaluation was scheduled. Consideration should be given to these problems in the interpretation of the evaluation questionnaire, and in future use of the technique.

From a total of 56 groups, 88 per cent of the questionnaires were returned. This showed an improvement over the 50 per cent returned the previous year. Information was obtained about the content, presentation, and mechanics of the meeting. Specific likes and dislikes were enumerated. Suggestions were made for future meetings regarding subject matter, program scheduling, and methods of presentation. It was felt that ample information was obtained from the questionnaire to guide future program planners, and that the information proved indicative of the desires of those attending the convention.

It is the opinion of the student that the interpretation of the results of an open-end questionnaire would require knowledge, skill, and experience in evaluation techniques. Overlapping of information, contradictions, and misconstrued questions and answers are some of the pitfalls of accurate analysis. In her report as Chairman of the Evaluation Committee, the Nutrition Supervisor identified some of the areas where results might not have been indicative of the meaning.

During the first 5 years of organization of the Minnesota School Food Service Association, the association had professional leadership. The 1961-62 President is a non-professional person. The guidance of professional persons will continue to be needed to further the educational activities of the association. Having served as Chairman of the Evaluation Committee for the 1961 Convention, the nutritionist will be a resource person for the planning committee of the next convention. In this way, it will be possible for the nutritionist to continue contributing her services toward meeting the nutrition needs of school children through the training of school food service personnel.

4-H Health Camp. The Agricultural Extension Service of the University of Minnesota has a well-structured 4-H Club program. The State Department of Health supplements the activities by assisting with the health aspects of the program. The services of these agencies are coordinated in bringing groups together for extension activities and projects for health, such as the 4-H Health Camp. The camp is held every year for the boys and girls who are County 4-H Health Achievement Winners. The opportunity is provided for the camp participants to become familiar

with the health department, and to become aware that the agency is concerned with meeting the health needs of boys and girls.

The 4-H Health Camp is planned and conducted jointly by the Agricultural Extension Service of the University of Minnesota, the Minnesota Tuberculosis and Health Association, and the Minnesota Department of Health. A Continuation Committee also assists with the planning and operation of the camp. This committee consists of 4 boys or girls elected at the end of each camp who made the greatest contribution to the camp. The "runner-up" for the State 4-H Health Achievement Winner automatically becomes a member of the Continuation Committee.

The State Club Agent in charge of the 4-H Club Program of the Agricultural Extension Service is responsible for the general administration of the camp. The nutritionist with the Extension Service is a consultant to the State Club Agent, and the County Extension Agents also take an active part. The Continuation Committee members are responsible for recreation and group activities.

The Minnesota Tuberculosis and Health Association participates in this camp as part of their health program. The Educational Consultant assists with the planning, and is on the staff of the camp.

The Minnesota Department of Health is responsible for the staff, and the content material of the program. Representing the health department are the Supervisor and the Nutrition Consultant of the Nutrition Unit, the Chief of the Section of Dental Health, and the Supervisor of District Sanitation Activities of the Section of Local Health Services. The Acting Chief of the Section of Preventive Mental Health Services

participates whenever possible. The health department takes little responsibility for the organizational details of the camp, but contributes to the planning meetings. The topics included in the program are always in the areas of dental health, mental health, sanitation, and nutrition. Other topics which might be included are safety, and disease prevention and control.

As a public service, the Folger Coffee Company of Kansas City, Missouri, makes a contribution by paying the expenses of the campers. The three agencies contribute to the expenses of their respective staff members.

The theme of the 4-H Health Camp for 1961 is nutrition. Workshop areas will include sanitation, personality, dental health, and posture and physical activities. The specific responsibilities of the health department nutritionists will be to initiate the workshop program with a discussion of dietary habits and general nutrition, to act as resource people for each workshop area, and to conclude the program by reviewing the facts discussed in the workshop sessions and relating them to nutrition in the total health program.

The Department of Health takes a long-range view in providing services to this group. As 4-H Health Achievement Winners, the participants indicate their interest in community health. As present leaders of 4-H Clubs, they are potential community leaders of the future. The Department of Health takes the opportunities provided by the 4-H Health Camp to develop positive attitudes towards health, and to increase the participants' knowledge concerning health and health

problems. By so doing, the Department of Health contributes in stimulating greater interest, and active responsibility for community health.

Heart of the Home. Concurrent with the development of a national interest in the field of rehabilitation, three agencies in Minnesota have combined personnel and resources in a program designed to help handicapped homemakers. The Heart of the Home Program in Minnesota developed from an informal discussion between members of the Minnesota Department of Health, and the Minnesota Heart Association concerning funds which would be available for a heart program. Neither agency could conduct the program as neither provided direct service in the field. The Agricultural Extension Service of the University of Minnesota became interested and the program developed cooperatively.

The Minnesota program follows the precedent established in other states to help meet the needs and problems of handicapped and low-energy capacity homemakers. The funds being used to conduct the program are for Heart Disease Control from the Public Health Service in Washington, D. C. At first, this limited participants to those with cardiac disabilities. The program now includes homemakers handicapped by arthritis, poliomyelitis, multiple sclerosis, stroke, and any other handicapping or energy-limiting condition.

The program consists of a series of classes conducted in the field by a specialist who is employed by the Extension Service. The present specialist is an Extension Home Economist, a graduate in home economics with a major in Home Economics Education. The classes consist of group instruction in the principles of time and labor saving

techniques which can be applied to existing equipment, time, and energy. An article describing the Minnesota program has been published in the Journal of the American Dietetic Association (Stief and Melrose '59).

In the establishment of the program, a committee representing the three agencies developed policies, procedures, and coordination of work. The Minnesota Department of Health was represented by the Director of the Division of Disease Prevention and Control; the Heart Disease Control Officer, who is a Public Health Service physician assigned to Minnesota; the Supervisor of the Nutrition Unit; and the Nursing Consultant in Chronic Disease and Rehabilitation in the Division of Hospital Services. The Community Program Director of the Minnesota Heart Association formed a sub-committee to obtain information pertinent to the organization and operation of the program from states and affiliated heart associations on similar established programs. Plans were presented to the Minnesota Heart Association Board of Directors, the Minnesota State Medical Association, and the Minnesota State Board of Health for approval.

Following approval, each participating agency was delegated specific duties for the organization and operation of the program by the committee. Several local organizations became involved in the areas where the classes were to be conducted. The local medical associations, the local heart councils, physicians, home demonstration agents, and district and county public health nurses were informed of the program. These groups were asked for either approval, advice, or assistance in arranging for and carrying out the program. The Heart Association was

responsible for directing the publicity, and for involving the local community for the necessary organizational work. The State Department of Health provides consultation service and the funds. The State Department of Health and the Extension Service are responsible for informing their field personnel of the program. The State Leader of the Home Economics Extension Service administers the program.

The customary method of agency operation is to designate the specialist as a consultant to local groups, or as a supervisor of local workers. In this case, a direct service is offered because the program is new. Although the program has met with approval and success, the direct service does not reach the estimated 55,000 handicapped homemakers in Minnesota. The future trend may include the training of local people to teach the classes. Greater and more efficient use of local people is indicated for future organization and operation of the program.

The subject of nutrition has not been included in the classes. This is one of the areas which might be developed in future classes. Instruction on menu-planning, modified diets, and weight control would be of value to handicapped homemakers. In this program, the nutritionist has functioned as a consultant in general home economics areas, rather than specifically as a nutritionist. If the program expands to the extent of including nutrition, she will be able to make further contributions.

Cooperation With Training and Educational Institutions

Schools of Nursing. The changing trends in teaching in schools of nursing have led to increased emphasis on planning and reorganizing

the content of the curriculum. In working with schools of nursing, the nutritionists of the Department of Health are concerned with nutrition content in the basic nursing curriculum. The student participated in discussions with the nutritionists and the maternal and child health nurse concerning their interests and objectives in working cooperatively with schools of nursing.

The trend in nursing education is toward emphasis on patient-centered nursing care. The trend is also toward placing schools of nursing in institutions of higher education, and providing more general education before specialized professional training. The curricula of collegiate schools of nursing are progressively changing to the integration of all pertinent subject matter into each phase of clinical nursing. Attempts are being made to combine the teaching of related areas, such as maternal nursing and child nursing. It would seem logical that nutrition could be incorporated and integrated with other units of education. Several organizations have met cooperatively to discuss and develop this integration.

In 1955, the Minnesota Department of Health, the Minnesota League for Nursing, and the Minnesota Dietetic Association sponsored a workshop entitled "Nutrition Education in the Basic Nursing Curriculum." This workshop was planned to help dietitians and nursing educators improve nutrition education in the curriculum. The changing emphasis of nursing education and nutrition teaching, course content, and the problems of integrating nutrition were determined and discussed. A second workshop was held two years later.

In 1961, a workshop dealing with significant developments in Maternal Child Nursing Education was presented by the University of Minnesota, and the Minnesota Department of Health. The workshop was planned for directors of nursing education and clinical instruction, public health nurses, and nursing service personnel in maternity and pediatric nursing. The purpose of the workshop was to stimulate interest in combining the areas of maternal and child nursing. Topics of the workshop were maternal child nursing, trends in maternal child nursing education, and the future for maternal child nursing education. Significant developments in the maternal and child health programs were presented by the Acting Chief of the Section of Maternal and Child Health. The Nutrition Consultant presented a talk using nutrition as an example of how subject content can be woven into an integrated curriculum.

The Nutrition Consultant took this opportunity to develop an awareness of the problems posed by the integration of nutrition for both teaching dietitians and nursing educators. The objective of identifying some of these mutual problems was to improve attitudes toward nutrition in schools of nursing. The nutritionist outlined possible ways of presenting basic nutrition, stressing the concept that nutrition is one phase of total patient care. Specific examples were discussed of nutrition concepts, content, and learning experiences which could be woven into areas of maternity and child nursing. These areas included antepartum care, delivery, postpartum care, infants, preschool and school age children, and adolescents. Throughout the

presentation, the nutritionist emphasized the need for cooperation and understanding between dietitians and nursing educators, in curriculum planning and nutrition instruction. She indicated the pressing need for further study of the integration of nutrition in the nursing curriculum in Minnesota.

It is hoped that sufficient interest and enthusiasm was stimulated by this workshop so that the nursing educators and clinical supervisors will request a series of workshops to discuss problems relating to combining pediatric and obstetric nursing into a single educational unit. After the units are combined further discussion can be included on the integration of nutrition in maternal child nursing.

As a result, future nurses would have a better understanding of the relationship of food and nutrition to total patient care. In the specific area of maternal child nursing, future nurses would have a greater understanding of this relationship as it applies to pregnant women and children, whether in the hospital or in the community.

University of Minnesota School of Public Health. The State Department of Health has a cooperative working relationship with the School of Public Health. The Department of Health serves as a laboratory for the School of Public Health; and the School of Public Health is a source of information and education for the members of the Department of Health. Arrangements can be made for personnel of the health department to continue their education in public health on a single quarter basis or on a yearly basis. Arrangements may also be made for members of the department to avail themselves of specific courses being offered.

Personnel of the Department of Health participate as lecturers on the staff of the School of Public Health. A course, Human Nutrition, is taught by the nutritionists during the summer session. This course includes the nutritional value of foods, food utilization and requirements, food management, nutrition education, and application of nutrition to public health. This course is taught during the winter session by a professor from the Laboratory of Physiological Hygiene in the School of Public Health. During the winter, the class is composed of nursing students from the School of Public Health, and dental hygiene students from the School of Dentistry. The summer class is composed of graduate students, students of collegiate nursing programs not certified for public health, diploma nurses who need certification for public health, health educators from the School of Public Health, students majoring in physical education, and home economics teachers who need a refresher course.

The student discussed the nutrition course with the instructors to learn the content and the approach taken to help meet the needs of the varied groups. The content of the summer course, Human Nutrition, includes the principles of nutrition, but emphasizes practical applications of these principles. The practical application includes methods of transferring nutrition information to families, and information on food and meal characteristics of various income levels. Basic principles of nutrition are included to help meet the total needs of all the students in the class.

The need for the summer course developed from the lack of public health certified collegiate schools of nursing. The course was also

started to meet the need for public health certification of graduates of diploma schools of nursing. Of the 7 collegiate schools of nursing in Minnesota, only the University of Minnesota School of Nursing was certified by the Accrediting Service of the National League for Nursing to train students in public health nursing. If a student graduated from any of the other colleges, she was not qualified to work in public health without taking further courses in public health nursing, and a course in nutrition. The students from some of these colleges could conveniently take the courses at the University of Minnesota. Others had more difficulty in obtaining their public health training. The Director and the Nutritionist of the Rochester-Olmsted County Health Unit were asked by one school of nursing, uncertified for public health, to conduct the courses for their students during their clinical experience in Rochester. These instructors are qualified to give the courses because of their public health training, and the students could then be certified by the State Board of Health. At the present time, the courses are part of the program of the Rochester-Olmsted County Health Unit.

One collegiate school of nursing in Duluth remains without facilities for training in public health. Various public health personnel in the area have taught the courses in the past, but at the present time there are no trained public health personnel available. Members of the State Department of Health are now teaching the courses during this emergency. The total course is coordinated from the health department, and various staff members travel to Duluth to teach individual units.

The Acting Chief of the Section of Maternal and Child Health teaches the unit on Maternal and Child Health. Accident prevention, dental health, school health, and nutrition are incorporated into this unit. The content of each unit is prepared by a specialist for the instructor. The nutrition content in the Maternal and Child Health unit includes family nutrition, school lunch, and food fads. Mimeographed material is prepared to supplement the nutrition content of the unit.

A discussion with the Director of Public Health Nursing of the School of Public Health, and with the nutritionist, revealed that the problem of collegiate certification is being solved. All of the uncertified collegiate schools of nursing are in the process of becoming certified by the Accrediting Service of the League for Nursing.

The problem of public health certification for students of the 17 hospital diploma schools of nursing in the state continues to exist. If the students of these schools wish to enter the field of public health after graduation from the hospital, they are required to take several years of collegiate training or they must at least take the basic public health courses for certification. It is hoped that the changes being made in the curricula for public health certification in the collegiate schools of nursing will provide a solution for this problem.

Schools of Home Economics. The student attended the annual Home Economics Career Talks and Workshop which illustrates the work of the nutritionists with Minnesota schools of home economics. This workshop is a joint endeavor by the Minnesota Dietetic Association and the

Minnesota Home Economics Association for the recruitment of home economists. These associations joined together to stress home economics and job opportunities for high school students. The facilities of the University of Minnesota School of Home Economics are used for the workshop.

Each year, two co-chairmen are chosen. One is from each association. The co-chairman from the Minnesota Home Economics Association is always a member of the Homemaker Group within that organization. The Nutrition Consultant of the Department of Health was the co-chairman from the Minnesota Dietetic Association for the 1961 workshop. Funds are obtained from each association and from registration fees.

Two students from each of the 1200 high schools throughout the state are invited to attend the workshop. Each school selects the students, who must be in either the sophomore or junior year. Senior students were included at one time, but it was felt that most seniors had already chosen their careers. Two college students from each school of home economics are invited to take an active part in the workshop, and to act as "Big Sisters." Home Economics teachers are invited as counsellors.

In presenting career opportunities in the 1961 workshop, short talks were given by representatives of the following areas of home economics: dietetics; education; extension; equipment and demonstration; food research and home services; clothing and textiles; journalism, radio, and television; and free lance home economics and homemaking. Tours were conducted, each of which included a commercial company; a

high school; a hospital; and one other tour to the Laboratory of Physiological Hygiene, or the County Extension Office, or another commercial company. The second day of the workshop included conferences with consultants from the university schools of home economics, and with career consultants.

The health department nutritionist assists in this recruitment project to supplement the department's recruitment program. The Career Talks and Workshop might recruit some dietitians, thus representing the field of health. It is more effective for the two nutritionists at the health department to work cooperatively with others in recruitment programs rather than through individual endeavor.

The nutritionists also cooperate with other disciplines of the health department in their recruitment programs. The health department recognizes the need for professional people to staff the hospitals which are licensed by the department. In the allied medical fields, there is a need for more trained personnel. The department conducts a combined recruitment program, but each discipline is urged to be active in recruitment activities of their respective professional organizations.

In Minnesota, through the Health Careers Committee of the Minnesota Commission on Patient Care, a project was developed to stimulate the recruitment of young people in allied health professions. The Health Careers Committee represents the paramedical groups of anesthesia, dietetics, medical social work, medical technology, physical therapy, X-ray technology, hospital administration, medical records, medicine, and nursing. This committee has developed packets of descriptive

brochures on each paramedical profession for distribution to guidance personnel and libraries in schools. Members of the Women's Auxiliary of the Minnesota State Medical Association delivered the packets to school officials. These packets are also being distributed to hospitals and libraries throughout the state by members of the Minnesota Hospital Association Auxiliary.

Another recruitment program to which the Department of Health contributes is a biennial Career Festival held at St. Thomas College in St. Paul. Many careers are represented at this Festival. The Health Careers Committee coordinates the allied health and medical fields which are presented as a unit.

The Department of Health is able to conduct a more effective recruitment program through these combined organized projects. The nutritionists work with the other disciplines of the department which supplement recruitment activities with those of their own professional groups.

Hospitals. The nutrition program includes the provision for field experiences for dietetic interns from the University of Minnesota Hospitals in Minneapolis and is arranged by the Minnesota Department of Health. The public health experience is planned to give the dietetic intern some orientation to the total services of agencies concerned with health. The general objective is to develop in the intern an awareness of community resources to which she has access, and to which she can contribute as a member of a hospital staff. The specific objectives for the intern are as follows:

- 1) To further appreciate the interrelationship of the hospital and other community agencies.

- 2) To become acquainted with the functions of the state and local health agencies.
- 3) To acquire an understanding of the role of the nutrition consultant in a health agency.
- 4) To gain an appreciation of the patient's home situation, his food habits, and his ability to use nutrition information.
- 5) To become aware of community group activities concerned with nutrition and to relate these experiences to hospital work.

A two-week program for the dietetic intern is planned by the nutritionists to help meet these objectives. The nutritionist discusses the purpose and function of the health department and provides practical learning experiences. Field trips to the Minnesota Department of Public Welfare, the Twin Cities Dairy Council, and suburban school districts are arranged to help acquaint the student with the activities of the home economists in related organizations. One of the important objectives is to develop in the intern a realization of community health situations and problems so that she may become more realistic in her approach to the treatment of patients in the hospital.

The intern is asked to write an evaluation of her public health field experience. This evaluation helps the nutritionist in planning adequate and suitable experiences for future dietetic interns. By providing this experience, the nutritionist contributes her services in cooperation with the hospital to help improve the training of needed hospital personnel.

A LOCAL NUTRITION PROGRAM

Nutrition Services

As previously stated, the Rochester-Olmsted County Health Unit is the only local health department in Minnesota which employs a nutritionist. The nutritionist in this unit functions as an educator whose responsibility is to teach individuals and groups about their dietary and nutritional needs. The objective is the promotion of better health by improved dietary habits. The main emphasis is on a well-balanced diet for the entire family. Nutrition services are determined by the requests of the community.

There is close cooperation between the Mayo Clinic and the Rochester-Olmsted County Health Unit. The Mayo Clinic uses the Health Unit as a demonstration unit, and the influence of the Clinic is seen in many of the programs and services provided by the Health Unit. For example, the Mayo Clinic employs dietitians who work with patients in the community who are on therapeutic diets. As a result, the services of the nutritionist in the Health Unit are concentrated on the normal diet for well individuals in the community.

The nutritionist offers direct and consultation services on request or by referral. Within the Health Unit, in-service education is provided, and the nutritionist participates and cooperates in any special projects being conducted. The student observed and discussed some of these services with the nutritionist, and with staff members of the Health Unit and related organizations.

Direct Services to Lay People

The direct services of the nutritionist include work with individuals and families. Requests for direct service may come from nursing home administrators and the general public for assistance with patient nutrition needs and with family nutrition problems. Welfare clients may be referred to the nutritionist for assistance with family food budget problems. This referral is made by the social worker from the Health Unit or the County Welfare Office. Arrested tuberculosis patients may be referred from public health chest clinics for advice on weight, food planning, or food budget problems. Obstetric patients attending maternity clinics may require instruction in nutrition and food preparation.

The maternity clinics are not public clinics. Those who attend are patients of Mayo Clinic doctors. These patients find it more convenient to make an appointment to see a Mayo Clinic doctor who comes to the Health Unit. The patients pay full Mayo Clinic fees for prenatal care and delivery at St. Mary's Hospital. During the clinic, educational conferences are held with the nurse, and the patient may be referred to the nutritionist. The nutrition teaching for pregnancy follows the current practices of the Mayo Clinic doctors. The diets prescribed for pregnancy are outlined in the Mayo Clinic Diet Manual, and the doctor may stress certain nutrients. If a special diet is not prescribed, the nutritionist discusses normal diet for the pregnant condition. If a prescribed diet is discussed by the nutritionist, she reports this to a public health nurse who follows up with a home visit within a week. The Mayo Clinic doctors stress a high protein diet during pregnancy. The

lowest protein prescription for the period of pregnancy is 100 grams. The recommended intake of milk is stressed, and it is unusual for these doctors to prescribe calcium supplements. A vitamin supplement of half the daily requirement is used routinely during pregnancy. The total weight gain advocated by the Mayo Clinic doctors is 18 to 21 pounds for women in the normal weight range. Weight control is stressed during pregnancy along with a high protein intake. If required, the low calorie diet prescribed is 1770 Calories, and for weight maintenance, 2300 Calories. The nutritionist does not discuss the modified diet with a pregnant diabetic patient. If necessary, the patient is referred to the Metabolic Unit of the Mayo Clinic.

The Well-Child Clinics are conducted by physicians of the Mayo Clinic, and by physicians of the Olmsted Medical Group. Other staff participating in the Well-Child Clinics are the public health nurses and clerks. The nutritionist and personnel of the Division of Mental Health are available as consultants. Eligibility for the Well-Child Clinics requires residence in Olmsted County, an age limit of school entrance, and an income level determined by a financial means test standardized for Well-Child Clinics in Minnesota. Under this test, applicants qualify when the total monthly income of the family is at or below the maintenance level which varies from \$210 for a family of two to \$400 for a family of 7. The maintenance budget is adjusted for the amount of regular payments on debts incurred from allowable living expenses. Payments on luxury items are not included. The maintenance budget is also adjusted to the amount paid for shelter. It is the

policy to check the financial eligibility annually, or at six month intervals when it is known or expected that the financial status will change.

The current practices and thinking of the Mayo Clinic doctors concerning infant and child feeding influences the nutrition teaching. The infant should double its birth weight by 5 or 6 months, and triple it by one year. Breast feeding is declining in the Rochester area. Thirty-three per cent of the babies are being breast fed; and if the babies are breast fed, this practice is seldom continued after three months. The Mayo Clinic doctors do not stress breast feeding. In order of frequency, the formulae prescribed are evaporated milk and water, whole milk and water, and proprietary formulae. If the baby is allergic, a soy or meat base formula is used. Sterilization of formulae is advocated for at least the first month. It may be continued until the fourth month but it is not stressed after the second month. At three to 5 months, the baby should be off the formula and should be given plain whole milk in a bottle. By 6 months, milk from a cup is advocated. Vitamin supplements are given for the first year. After that, the responsibility for a balanced diet belongs to the mother. Recommended additions to the formulae are: one teaspoon of 50 per cent diluted orange juice during the first few weeks, increasing thereafter; cereal at three months, followed by vegetables, then fruit; egg yolk at 6 months; meat at 6 to 7 months; then bread, crackers and toast. By 12 months, the child should be eating from the table with the exception of fried foods, strong vegetables, highly seasoned foods, rich desserts, gravy, nuts, candy, jam, and jelly. It is the feeling that by 12 months, the child

should become part of the family unit. In this way, he feels wanted as a part of the family group which produces a lasting feeling of security.

Most of the direct service is given in the Health Unit building. The nutritionist seldom makes home visits, except for special cases and problems. Group education is conducted on request for non-professional groups. Lectures, movies, nutrition exhibits, and food demonstrations are teaching methods used. The student observed two meetings which illustrate this service. Students from the fifth grade visited the Health Unit for an introduction to public health. The nutritionist took part by giving a demonstration which illustrated the work of the public health nutritionist. Another demonstration was given to Girl Scouts from Grade 8 who were working for food badges. This school does not teach home economics, and the leader requested an hour's presentation on 5 uses of milk and on meal planning. Food models and films were used at both meetings to supplement the nutritionist's teaching.

The nutritionist provides assistance in menu planning and food preparation in the school lunch program. She acts as a consultant for the cooks, and works regularly with school personnel. The city of Rochester has a School Lunch Manager; therefore these services are given only in the county.

Consultation Services to Professional Workers and Groups

The nutritionist provides consultation services on request. Her services are available to public health personnel, teachers in public and private schools, and professional groups. Some of the professional groups are Olmsted County teachers, physical education teachers, nurses, and

dietetic interns.

The student discussed the public health program for dietetic interns with the nutritionist and with the director of the internship program at St. Mary's Hospital in Rochester. This program is designed to conform with the requirements set up by the American Dietetic Association. The purpose is to acquaint the intern with a city-county health program, and specifically with the nutrition program. It gives the intern an opportunity to learn the role of the public health nutritionist and the type of service she renders. The intern has the opportunity to observe and participate with the nutritionist in nutrition activities in a community. Work with the nutritionist includes nutrition demonstrations, conferences with mothers in Well-Child Clinics, and diet instruction to expectant mothers in the Maternity Clinics. Home visits are planned with the public health nurses. Other experiences which might be included are observing nutrition in-service education classes for public health nurses and students, planning food budgets for county welfare referrals, observing and evaluating school lunches, and preparing nutrition teaching materials. The intern's experiences include orientation to public health through conferences with the health officer, the nutritionist, public health nurses, the health educator, and mental health personnel. The sanitation program is discussed with the intern in a seminar meeting or field trips are made with sanitation personnel.

The public health program for the dietetic interns is determined by community needs and experiences available. The nutritionist also

considers the needs and future plans of the interns when she plans their experiences.

In-service Education of Staff and Students

This service involves the sharing of nutrition information with health team associates who in turn use this information in their program. In-service education in nutrition is currently being conducted on an informal, individual basis rather than in groups. This is considered an important part of the nutritionist's work.

The Rochester-Olmsted County Health Unit accepts graduate and undergraduate students for field training. The most frequently accepted students are in the areas of nutrition, health education, nursing, sanitation, and mental health. There is cooperation among personnel of the Health Unit concerning experiences provided for these students.

Nutrition Instruction Projects

The nutritionist cooperates with other personnel of the Health Unit when projects are being conducted in which nutrition is applicable. Recently, a two-year stannous fluoride public health research project was completed. While this dental project was being conducted, 500 children were brought in to the Health Unit. The research work occupied each child for 15 minutes. While they were waiting, an educational program was conducted by members of the Health Unit. Nutrition demonstrations were given as part of the educational program.

The student discussed another project with the nutritionist. Currently, a course is being taught to the students of a collegiate

school of nursing who are in Rochester doing their clinical work at St. Mary's Hospital. The course, entitled "Introduction to Public Health" is conducted by the Director and the Nutritionist of the Rochester-Olmsted County Health Unit.

SUMMARY

Due to the excellent planning and direction of the field training by the Supervisor of the Nutrition Unit of the Minnesota Department of Health, the student was able to meet the objectives set forth in the introduction of this paper.

The student developed a practical understanding of the organization, administration, and functions of an official health agency through conferences with personnel of the Minnesota Department of Health. This understanding was further increased by discussing the responsibilities and programs with various disciplines within the department, and by reading reports and other publications of the Department of Health.

During the field training, the student increased her knowledge of the functions and responsibilities of the public health nutritionist within the organizational structure and in coordination with other disciplines in the over-all program of the Department of Health. This was accomplished primarily through conferences with the nutritionists, and with those whose services are coordinated with the services of the nutritionists in programs or projects planned to meet particular health needs in Minnesota.

The student increased her appreciation of how coordinated services of organizations can be effective in extending the services of a centralized health agency. Conferences with members of the various organizations participating in workshops, conferences, and meetings revealed the respective purposes, objectives, responsibilities, and

functions of each in coordinated participation. The student gained some knowledge of the function of each of the participating organizations.

The student became aware of how the Minnesota Department of Health cooperates with several training and educational institutions. Although the details of the nutrition aspect of this cooperation was of primary importance to the student, it was of interest to learn also about the cooperation in other paramedical areas.

The week spent with the Nutritionist in the Rochester-Olmsted County Health Unit gave the student an understanding of the function of a public health nutritionist in a local health department. This was of particular value in providing a means of comparison of the role of a local public health nutritionist with the role of the state public health nutritionists.

In addition to meeting the specific objectives, the field training also increased the student's general knowledge of agencies, organizations, programs, and services concerned with improving the health status of people. The study of the philosophy, objectives, needs, and educational techniques of the Nutrition Unit of the Minnesota Department of Health has furthered the student's understanding of public health nutrition programs. This experience enhanced the student's educational background, and should serve to increase her knowledge and awareness of her responsibility in the promotion of good nutrition.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Hansen, H. 1961 The World Almanac and Book of Facts.
New York World-Telegram and The Sun, New York.
- Hammond-Dell 1961 World Atlas. Dell Publishing Company Incorporated, New York.
- Lofquist, A. J., H. L. Knudsen, R. M. White, and B. A. Wolcyn
1960 The dietary department in a small hospital. J. Am.
Dietet. Assoc., 37:32.
- Minnesota Department of Health 1955 Minnesota's Health.
Minnesota Department of Health, Minneapolis.
- _____ 1956 Minnesota's Health. Minnesota Department of Health,
Minneapolis.
- _____ 1957 Demonstration and Study for Improving Patient Care
Services. Mimeographed material. Minnesota Department of
Health, Minneapolis.
- _____ 1958 Minnesota's Health. Minnesota Department of Health,
Minneapolis.
- _____ 1959 Minnesota Department of Health Organization and
Function. Minnesota Department of Health, Minneapolis.
- _____ 1959 Minnesota State Plan. Minnesota Department of
Health, Minneapolis.
- _____ 1960 Minnesota Vital Statistics 1959. Minnesota
Department of Health, St. Paul.
- Rosenfield, A. B. 1961 Maternal and Child Health. Mimeographed
material. Minnesota Department of Health, Minneapolis.
- Stief, R. 1954 A critical analysis of legal aspects of public
health organization in Minnesota at state and local levels.
Unpublished Report. School of Public Health, University
of Minnesota, Minneapolis.
- Stief, R., and M. Melrose 1959 Helping handicapped homemakers.
J. Am. Dietet. Assoc., 35:711.

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NUTRITIONIST I

Nutrition Consultant

KIND OF WORK: Professional nutritionist consultant work.

DIFFICULTY AND RESPONSIBILITY OF WORK: An employee in this class assists in the organization and promotion of a state-wide public health nutrition program. Work may also involve responsibility for promotion of specific nutritional programs in an assigned area or for a specific group. Supervision is received from a Nutritionist II who provides general direction and reviews reports, recommendations, and results.

ESSENTIAL REQUIREMENTS OF WORK:

Considerable knowledge of the principles and practices of dietetics and nutrition, and the ability to interpret and apply them as related to public health and individual and family food problems, and the development and conduct of educational or advisory programs.

Good knowledge of the developments in the field of public health work, as related to nutrition.

Ability to gain the confidence and support of professional workers and lay groups in the development of the program.

Ability to speak effectively before professional and other groups and to present material through the use of various media, as exhibits, demonstrations, and literature.

Ability to create and develop educational and instructional materials.

EXAMPLES OF WORK: (Illustrative only; indicates kinds of work performed in the class outlined above.)

Consults with public health personnel on food and nutrition programs. Gives talks and lectures before professional, school, and lay groups. Teaches courses in nutrition to teachers and public health and social workers, and assists in the preparation and distribution of educational materials.

Confers with superiors on work plans and problems.

Assists school and hospital administrators, dietitians, and other personnel with the planning and operation of food and nutrition programs.

Advises on food practices, problems, and teaching methods and techniques suitable for women's groups, community clubs, health expositions, county fairs, and organized classes, as food value charts, posters, and exhibits.

Assists in the preparation of educational materials for use in the state-wide program.

Conducts and participates in special projects and surveys in local areas.

Makes reports of activities and plans follow-up methods, if needed. Performs related work as required.

DESIRABLE PREPARATION FOR WORK:

Several years of experience in professional dietetic or home demonstration work, including internship in an approved hospital.

Graduation from a recognized college or university, with a major in foods and nutrition, and one year of graduate training in public health nutrition.

State of Minnesota

513.2

NUTRITIONIST II

Nutrition Supervisor

KIND OF WORK: Professional administrative or advisory nutrition work.

DIFFICULTY AND RESPONSIBILITY OF WORK: An employee in this class is responsible for planning, organizing, and directing a state-wide public health nutrition program, or for developing, recommending, and interpreting standards of assistance for clients of state public welfare agencies. Major emphasis is placed on improving family diets, but all aspects of public health and welfare activities in which food and nutrition play a role are included. Stimulation and maintenance of cooperative relationships with professional and lay groups as well as integration with larger health and welfare programs are also a part of the work. General direction is received from the division head, but the employee is given wide latitude in deciding on methods and procedures to be used to obtain desired results.

ESSENTIAL REQUIREMENTS OF WORK:

- Thorough knowledge of the principles and practices of dietetics and nutrition as related to public health and individual family food problems.
- Thorough knowledge of the developments in the fields of public health and public welfare as related to nutrition.
- Ability to speak effectively before professional and other groups and to present material through the use of exhibits, demonstrations and literature.
- Ability to create and develop educational and instructional materials.

EXAMPLES OF WORK: (Illustrative only; indicates kinds of work performed in the class outlined above.)

- Develops and maintains standard individual and family budgets for different activity and age groups and prepares this material for inclusion in the Public Welfare Manual.
- Analyzes food, clothing, utilities and fuel costs in establishing standards of assistance, including allowances for special diets.
- Develops procedures and tables to be used in evaluating economic resources of applicants and estimating amount of support received from relatives.
- Prepares reports and recommendations for the formulation of policies, plans, and procedures including budget requests, for a state-wide nutrition program.
- Advises public health nurses and other groups on nutrition problems in connection with prenatal care, infant care, child development, special diets, and aging.

Supervises and conducts in-service training programs.
Organizes and conducts surveys of problems encountered in
implementing food and nutrition improvement activities.
Confers with officials of other agencies interested in nutri-
tion and with the division director on work plans and problems.
Performs related work as required.

DESIRABLE PREPARATION FOR WORK:

Considerable experience in public health or welfare work, in
advising or instructing in nutrition or home economics.
College graduation with a major in dietetics or home economics,
and completion of one year of graduate work in nutrition
or home economics.

Rev. 12/2/53

Checked 1/31/61

EVALUATION QUESTIONNAIRE

Minnesota School Food Service Association Meeting
April 21, 22, 1961

1. What did you like least about this meeting?

Why?

2. What did you like most about the meeting?

Why?

3. What suggestions do you have for the next program planning committee?

a. List some topics you would like included.

(Be specific)

b. List names and addresses of some people for the program:

c. What type session do you like best?

- ☐ General sessions with lecture only
- ☐ General sessions with demonstrations
- ☐ Special Interest sessions
- ☐ Discussion groups

4. This space is reserved for any additional comments, criticisms, suggestions, ideas, etc. your group wants to make. (Use back of page if necessary)

MINNESOTA SCHOOL FOOD SERVICE ASSOCIATION

Dear

We're glad to hear you're coming to the annual Minnesota School Food Service Association meeting. Our president, Miss Mildred Toop, tells us she is certain you will work on an evaluation committee with us.

In general, here is the problem. A lot of work goes into planning a program and the planners say it's a hard job to do unless they know what people want. So, we were asked to work out a plan to evaluate this year's meeting and to give next year's planning committee some specific ideas to help them in their work. They want to hear from all the members.

Briefly, here is what we hope you will do:

1. Meet with us in the cafeteria, at 8:00 A.M., Saturday, April 22, for a few minutes during the registration period. We will give you a copy of a short questionnaire (3 questions).
2. Agree to sit at an assigned table at the luncheon. Your friends may join you at the same table.
3. During the special 15 minute period that the presiding officer allows us, ask the people at your table to talk about the three questions.
4. Listen and write down their comments. Then hand in the questionnaire.

Do you agree with us that it's very important for every MSFSA member to have a voice in the Association? You can help make this possible. Just fill in the enclosed card and send it back. We are counting on you to help.

Thank you. We'll see you in the cafeteria at 8:00 A.M., Saturday, April 22, 1961.

Sincerely yours,

Eleanor Peterson, Lake Johanna School
Corinne Zent, Capitol Heights School
Ruth Stief, Minnesota Department
of Health

Enc.

3/61 MCH-545