The Administration and Practice of Public Health Nutrition in the Michigan Department of Public Health

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University of Tennessee, Knoxville
To the Graduate Council:

I am submitting herewith a thesis written by Lynne Maria Roberson entitled "The Administration and Practice of Public Health Nutrition in the Michigan Department of Public Health." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Nutrition.

Mary Nelle Traylor, Major Professor

We have read this thesis and recommend its acceptance:

John T. Smith

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)
To the Graduate Council:

I am submitting herewith a thesis written by Lynne Maria Roberson entitled "The Administration and Practice of Public Health Nutrition in the Michigan Department of Public 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.

Mary Jezek Tracy
Major Professor

We have read this thesis and recommend its acceptance:

John T. Smith

Accepted for the Council:

Vice President for
Graduate Studies and Research
THE ADMINISTRATION AND PRACTICE OF PUBLIC HEALTH NUTRITION
IN THE MICHIGAN DEPARTMENT OF PUBLIC 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
Lynne Maria Roberson
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L. M. R.
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CHAPTER I

INTRODUCTION

People often call some men idealists and others practical folks as if mankind were by natural inclination so divided into these two groups that an idealist cannot be practical or a man of affairs have a lofty purpose where as in fact no man approaches perfection who does not combine both qualities in a high degree (1).

This quotation describes the problem of training public health personnel today. Impressed by an abundance of scientific knowledge demonstrating the importance of nutrition to the achievement of total physical, mental, and social health and well-being of an individual, the student of public health nutrition must supplement her academic training with appropriate practical activities to strengthen her abilities to contribute to the fulfillment of the goal of public health. The goal of public health workers is to translate basic scientific health principles into practical application appropriate to the needs and cultural characteristics of the general population. At this time, this goal remains largely an ideal which can be fulfilled only by the acquisition of skill in analyzing problems, planning and conducting programs, and evaluating the progress made in meeting the problems. Implicit in the achievement of this goal is the need for organization which facilitates and encourages communication, decision-making, and change to meet the changing needs of populations in a progressive manner. The challenge to the student of public health nutrition is to
gain an understanding of the philosophy of public health and the practical means by which it may be implemented.

The field experience was designed to help the student strengthen her philosophy and understanding of public health by introducing her to the following aspects of an official health agency:

1. The practice of public health at the state and local level.
2. The administrative organization for public health nutrition.
3. The practice of public health nutrition.

The Michigan Department of Public Health was chosen as the training agency because it has an established nutrition program and offered an opportunity to observe the program at both the state and local level. In addition, this department offered experience in working with personnel within the agency as well as in other agencies in dealing with public health problems. Finally, opportunities were available for the student to develop her ability to plan and execute activities with and for professional and non-professional groups and individuals.

The report of the field experience is divided into four chapters. Chapter II provides an analysis of the factors which determine the policies and programs of the Michigan Department of Public Health. Chapter III considers the value of the field experience in providing the student with advanced training in the practice of public health nutrition at the state and local level. Finally, Chapter IV summarizes the experience in relation to the student's academic background and her objectives for the field training.
CHAPTER II

FACTORS WHICH DETERMINE THE POLICIES AND PROGRAMS OF

THE MICHIGAN DEPARTMENT OF PUBLIC HEALTH

Growth and sophistication characterize Michigan's approach to the changing health needs of the Twentieth Century. Tremendous population increases and changing economic conditions have been accompanied by progressive educational and political efforts to meet the needs of the population and provide a framework for continued achievement in health, education, and living standards. Parts I and II of this chapter examine the changing nature of public health in Michigan and the simultaneous effort to provide comprehensive planning, money, and manpower to meet the health needs of the people. In Part III particular emphasis is placed on the nutrition component of health problems and programs.

I. CHARACTERISTICS AND NEEDS OF MICHIGAN'S POPULATION

Vital and Health Statistics

Michigan's population has tripled since 1900 and now has surpassed the eight million mark (2). One factor which has contributed to the population growth is the consistent excess of births over deaths. The birth rate has fluctuated considerably over the years increasing to a peak of 26.2 per 1,000 of the population prior to World
War I; and decreasing during the Depression, World War II, and again following the all time high of 27.4 in 1956. In 1963, following the sixth consecutive year of decline, the birth rate was 22.3. In contrast to the variable nature of birth rate trends, the death rate has shown a relatively continuous decline from 13.4 per 1,000 of the total population in 1900 to 9.0 in 1963. These trends toward decreased birth and death rates along with a shift in the pattern of age at death have resulted in an increased total population with the greatest increase occurring in the younger and older age groups. By 1970, it is estimated that one-half of Michigan's total population will be under twenty-five years of age (3).

The increased population in the younger and older age categories is related to the decreased proportion of deaths among children and young adults and increased longevity for older people. In 1900, 34 per cent of all deaths occurred among children and infants under fifteen years of age. The proportion decreased to 7.6 per cent in 1963. In contrast, while in 1900 only 28 per cent of all deaths occurred in the age group of sixty-five and over, by 1963 the proportion increased to 60 per cent.

The changing pattern of age at death reflects, in part, a decrease in deaths due to communicable diseases and other diseases of childhood and an increase in those related to chronic disease in older age groups. The changing trend of death rates attributed to chronic and infectious diseases parallels that of the United States since 1900. This trend is particularly important to those responsible for the administration of
public health programs, calling for a definition of concepts in the
goals for prevention and treatment of chronic diseases.

A comparison of the ten leading causes of death in Michigan in 1940 and 1963, as shown in Table I, indicates that deaths from chronic
diseases increased from 61 per cent in 1940 to 72 per cent in 1963.
Diseases of the heart, cancer, and vascular lesions of the central
nervous system remained the three leading causes, but accounted for
an increased proportion of deaths in 1963. Cardiovascular diseases
lead as a cause of death among all age groups thirty-five years and
over (4), and are responsible for approximately one-half of all deaths
in Michigan each year (2). Cancer, the second leading cause of death
in both Michigan and the United States, accounted for over twelve
thousand deaths in 1963 (4). The overall rate of death from cancer
has increased gradually since 1940.

Diabetes mellitus ranks sixth in Michigan and eighth in the
United States as a cause of death (5). Michigan's mortality rate for
diabetes increased 219 per cent between 1900 and 1949 (2). Minor fluc-
tuations occurred during the Fifties followed by an increase in the
early Sixties. In 1960 the mortality rate from diabetes was 22.9 per
100,000 of the population, ranking as fifth highest in the nation (5).
This rate far exceeded the U. S. rate of 16.7 and the regional rate of
19.1.

Increased concern is being directed toward the problem of alco-
holism in Michigan (4). In 1965, 425 deaths were attributed to alco-
holism. In addition, Michigan is ranked eleventh nationally in the
### TABLE I

THE TEN LEADING CAUSES OF DEATH IN MICHIGAN, 1940 AND 1963

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>Deaths in 1940</th>
<th>Deaths in 1963</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>Per Cent</td>
</tr>
<tr>
<td>1</td>
<td>Diseases of Heart*</td>
<td>15,480</td>
<td>29.7</td>
</tr>
<tr>
<td>2</td>
<td>Cancer*</td>
<td>6,513</td>
<td>12.5</td>
</tr>
<tr>
<td>3</td>
<td>Vascular* Lesions of C.N.S.</td>
<td>4,690</td>
<td>9.0</td>
</tr>
<tr>
<td>4</td>
<td>Accidents</td>
<td>3,961</td>
<td>7.6</td>
</tr>
<tr>
<td>5</td>
<td>Nephritis, Nephrosis*</td>
<td>2,918</td>
<td>5.6</td>
</tr>
<tr>
<td>6</td>
<td>Pneumonia, Influenza</td>
<td>2,747</td>
<td>5.3</td>
</tr>
<tr>
<td>7</td>
<td>Tuberculosis</td>
<td>1,752</td>
<td>3.4</td>
</tr>
<tr>
<td>8</td>
<td>Diabetes*</td>
<td>1,408</td>
<td>2.7</td>
</tr>
<tr>
<td>9</td>
<td>Premature Births</td>
<td>1,298</td>
<td>2.5</td>
</tr>
<tr>
<td>10</td>
<td>Arteriosclerosis*</td>
<td>941</td>
<td>1.8</td>
</tr>
</tbody>
</table>

*Chronic diseases totaled 61 per cent in 1940; 72 per cent in 1963 (from Statistical Methods Section, Michigan Department of Public Health).
estimated number of alcoholics, the present number exceeding 200,000. There is a particular need to alleviate the stigma attached to alcoholism and to recognize the problem as one amenable to prevention and treatment.

Although tuberculosis no longer appears as a leading cause of death, the morbidity rate remains high (2). An estimated 20 per cent of Michigan's population are infected with tuberculosis, and a considerable amount of money and time are spent at the state and local level to insure its control.

Based on information from the state and national level, Michigan has identified a particular need for rehabilitation programs for people afflicted with various chronic conditions. While the number of persons under forty-five years of age who have evidence of chronic disease is comparable to the number over forty-five, the degree of disablement and the proportion with activity limitations are greater in the older age group. Of particular concern is the group over sixty-five in which, for the United States as a whole, an estimated one-third have multiple chronic conditions. In Michigan approximately 8 per cent of the population is over sixty-five years, and the number and proportion of the population in this age bracket are on the increase. At the present time, there is an inadequate number of quality rehabilitation, home-health, and other services for the advanced age group. The need for upgrading nursing homes and providing more comprehensive rehabilitation services is great.
Similar to the experience at the national level since the turn of the century, Michigan has experienced a progressive decrease in the rate of maternal and infant deaths. From 1900 to 1934 the infant mortality rate decreased 67 per cent and the maternal death rate, 48 per cent (2). From 1935 to 1963 the mortality rate decreased almost twice as fast for mothers as for infants, 92 per cent and 51 per cent respectively. Deaths related to prematurity among infants decreased, but remain the leading cause of death for infants under 28 days of life as well as in the first year of life. Among the leading causes of maternal deaths, mortality from hemorrhage and toxemia decreased while deaths associated with infection increased. Although the progress in reducing maternal and infant deaths has slowed down in recent years, both rates remain below the national level. However, in certain rural and metropolitan areas of Michigan the maternal mortality rate is more than double the rate for Michigan and for the United States.

Economic and Social Characteristics

While birth and death trends have had a measurable influence on the characteristics and needs of Michigan's population, the socio-economic changes are significant determinants to be considered. Michigan's rapid population growth and characteristic changes in the distribution and composition of the population are closely related to the trends in migration and immigration in response to economic changes throughout the state.
Population trends. Population growth has occurred largely in the southern half of the lower peninsula, where 91 per cent of Michigan's total population is located (2). The northern part of the lower peninsula and the upper peninsula maintain 5 and 4 per cent of the population, respectively. There is evidence of population loss from some areas of the upper peninsula.

Much of the urban development seen in the Twentieth Century is related to the growth of the automobile industry, particularly in the cities of Detroit, Flint, Pontiac, Lansing, and Muskegon (6). The largest growth occurred in the Detroit metropolitan area where approximately one-half of the state's population resides (2).

Though there has long been evidence of urban to suburban population movement, the trend did not affect the cities' growth until 1950 (6). Several major cities lost population between 1950 and 1960. For example, between 1950 and 1960 in Detroit there was a 10 per cent decrease in the city population in contrast to an 80 per cent increase in the suburban areas. The result of this movement has been a decreased valuation of properties and diminishing tax returns for the cities, with an increase in the need for municipal services for the suburban areas.

Immigration. Immigration accounted for a major proportion of the population growth in the early part of the century. In 1924, the imposition of immigration quotas at the national level was followed by a decrease in immigration and gradual assimilation of the foreign-born population into the culture of Michigan. Although characteristic
remnants of a variety of ethnic groups of European and Canadian extraction are evident in Michigan today, in general they have become firmly established in the Michigan agricultural and industrial way of life.

**Migration.** Migration of white and Negro populations from the South has contributed to an increase in the total population and changes in the racial composition of the Michigan population. The Negro population increased from 3 per cent of the total population in 1930 to 10 per cent in 1960. The most significant increase was in Detroit where approximately 30 per cent of the population is Negro. This rapid influx created critical race-relations problems. Although Negroes were forced to take low-paying jobs, the situation has improved somewhat as a result of legislation placing legal sanction behind equal opportunity in employment. However, evidence of racial discrimination, poor educational level, substandard housing, and high maternal and infant death rates in certain census tracts indicates a need for continued service to the health, education, and welfare concerns of these people.

Michigan's agricultural economy is dependent on migratory workers, who account for about 58 per cent of the total farm-labor force (7). They are employed primarily in the fruit belt along the western side of the state and the sugar beet, tomato, and cucumber growing areas in the southeastern part of the state. Generally, the migrant families are located in camps, lack formal education, have an average total income of less than $1,800 a year, and suffer invertebrate health problems.

Recreation is Michigan's second largest industry, accounting for a considerable influx of non-residents each summer. Both the migrant
population and the vacationers have imposed problems for communities which are allotted funds for public health services on the basis of the resident population only. For the migrant population, at least, the financial problems have been partially resolved through the availability of project grants for improving their health services. Health education and continuity of care for this mobile population remain a problem.

**Governmental Aspects of Public Health**

Michigan has evidenced a long history of progressive health legislation aimed at preserving the autonomy of the local health agency as well as providing the legal framework for the development and maintenance of standards for progressive health programs. The history and legal basis for operation of the health department at the state and local level are discussed here as determinants of policies and practices for the health agencies.

Efforts to create a State Board of Health in Michigan began after the Civil War, when public health was not a widely accepted concept and the germ theory of disease not yet established (8). As a result of the diligent effort of a few proponents, the Michigan Department of Health was established in 1873. The original State Board of Health consisted of six members appointed by the Governor and a secretary, an elected member of the board and its executive officer (9). The board was successful in soliciting the cooperation of professionals throughout the state and in initiating board of health advisory groups at the local level.
In 1919 the State Board of Health was abolished and replaced by a state Health Commissioner, who served as a policy-forming executive with a five member advisory State Council of Health. Significant contributions to the practice of public health at both the state and local level were evidenced in the early twenties, but the legal sanction to provide local health services did not come until 1927 (8).

At that time the legislature gave the county boards of super­visors the authority to establish and maintain county or multi-county health departments. In addition, this act placed the financial responsibility for the provision of health services at the local level (8). Financial support was largely derived from two private foundations, the Children's Fund and the Kellogg Foundation. The Children's Fund was responsible for the establishment of twenty county and district health departments throughout the northern part of the state. The departments were designed to demonstrate services which would meet the needs of the people and which the communities could continue to support when funds were withdrawn. The Kellogg Foundation organized and financed health centers in seven counties in southwestern Michigan. These centers were well-equipped, staffed with highly qualified personnel, and designed to serve as training centers as well as demonstration units. When the funds from the foundations were discontinued, all counties continued to support health department activities, although some counties could not maintain the level of service previously attained.
Further reorganizational legislation was enacted in 1949 and 1965. Both acts were designed to facilitate more efficient communication and service to the local level. The 1965 act, along with other state and federal legislation passed that year, indicates a new perspective in the philosophy and practice of public health in Michigan, with broad implications for carrying out public health programs on a coordinated and comprehensive basis.

The major reorganization provided for by the 1965 act occurred at the state level where 144 agencies and organizations were consolidated into nineteen. The Michigan Department of Health was renamed the Michigan Department of Public Health and was expanded to include the Veteran's Facility, the Alcoholism Program, and the Crippled Children Commission. In addition, the act provided for the replacement of the State Health Commissioner by the Director of Public Health and the appointment of an eight member board of advisors by the Governor (9).

Furthermore, the 1965 legislation made it compulsory for all counties to contribute to the support of and have the services of a full-time, approved health department. As a result, by 1967 Michigan had fifty-four health departments serving eighty-three counties, four cities, and 100 per cent of the population. An additional feature of the law was the provision for consolidation into multi-county units or associated districts. This permitted better use of personnel, facilities, and local funds as well as qualification for state funds with county populations of less than 35,000. Finally, the law provided for local boards of health selected by and generally consisting of members
of the county boards of supervisors. Although this law permits greater state control through the required approval of the health officers and the health department facilities and through the maintenance of minimum standards for basic health services, there remains an important element of local autonomy in that the local board of health is the policy-making body.

Another step forward in 1965 was the legislation to provide a threefold increase in state financial support for local health department programs. Subsequent increases were allocated in 1966. The 1966 expenditures for basic public health services at the local level exceeded fifteen million dollars. Of these expenditures 12 per cent were state funds appropriated to the local health agency on a population basis. Federal monies, distributed as categorical grants, represented 3 per cent of the local expenditures. The increase in state funds and the alternative of apportionment on a population basis (20 cents per capita with a minimum of $8,500 per county) alleviates some of the inequities of the disbursement of funds on the basis of the county tax valuation.

Federal legislation of the Sixties had a significant impact on the present health department programs and policies. Briefly, Title XVIII of the 1965 Social Security Amendments provided hospital insurance for the aged and supplementary medical benefits on an optional basis. Title XIX provided for consolidation and expansion of current medical-care provisions for the medically indigent. Other amendments to the Social Security Act provided increased funds for maternal and child
health services, crippled children services, child welfare, and a new comprehensive medical-care program for children and youth in economically depressed areas. The implications of these acts for redefinition and reorganization of the philosophy and practice of public health in Michigan are discussed in Part II of this chapter.

II. PROGRAMS AND SERVICES OF THE MICHIGAN DEPARTMENT OF PUBLIC HEALTH

The basic philosophy of the Michigan Department of Public Health is the assurance of autonomy at the local level. Thus, within the framework of the state laws and minimum standards for health department services, the local health department determines its own programs and goals. The state acts primarily in a consultative capacity. In addition to consultative services, the state health department provides personnel and other services on a demonstration basis, urging the local health department to assume responsibility within the local framework when it becomes feasible.

Comprehensive Planning, Coordination, and Organizational Aspects

Presently, the officers of the Michigan Department of Public Health are the Director, an Assistant Director for Planning, and five Associate Directors who also serve as bureau chiefs. As indicated by the organizational chart shown in Figure 1, there are six bureaus. The divisions within each bureau are further divided into sections, and finally, program areas.
Figure 1. Organizational chart of the Michigan Department of Public Health, 1967.
In the office of the Director, the Assistant Director has the major responsibility for coordination of planning within the department. In addition, she and consultants in the Developmental Services unit provide liaison with state agencies with an interest in one or more phases of health planning. These agencies include: Department of Public Instruction, Department of Social Services, Department of Mental Health, State Human Resources Council, Michigan Association of Regional Medical Programs, Michigan Health Facilities Planning Council, and Michigan Community Health Services Study.

Having provided the administrative framework for planning and coordination of state resources, the Michigan Department of Public Health has requested that the Governor designate the state health department as the sole agency to administer or supervise the administration of the state's health planning function and other responsibilities under the Comprehensive Health Planning and Public Health Services Amendments of 1966. Although the decision had not been announced at the time of the student's field experience, it was felt by health department personnel that the state health department would be the designated agency.

Within the state health department, the administrative units function interdependently through the sharing of personnel and through intradepartmental committees on selected health programs. Although there is a nutrition component in most bureau programs, the Nutrition Section is more closely related to programs administered through the Bureaus of Medical Care Administration, Maternal and Child Health,
Management Services, and Community Health. The objectives of these bureaus and their programs pertinent to the Nutrition Section are discussed in the following text.

**Bureau of Medical Care Administration**

The Bureau of Medical Care Administration was established as a result of the state reorganization legislation in 1965. The formation of the bureau brought together into two divisions previously fragmented programs concerned with health facility planning, construction, operation, licensing, and certification (10). Prior to 1965, the most important phase of the state health department's program was the administration of the Hospital Survey and Construction (Hill-Burton) Act. More recently, however, major bureau effort has been concentrated on the implementation of Title XVIII and Title XIX of the 1965 Social Security Amendments.

The Division of Health Facility Planning and Construction provides the executive direction and coordination of the planning and construction program. This division aims to develop a coordinated system of health facilities which will provide high quality institutional care and services which are accessible to the people of the state. Progress toward achieving this goal at the local level is accomplished through consultation with regard to the need and scope of facilities; through assistance in educational and training programs related to health facility planning, construction, licensing, and certification; and through the administration of federal grant-in-aid programs for the construction and/or modification of health facilities.
The Division of Health Facility Standards and Licensing provides direction and coordination for the standards and licensing program. This division has been active in the development and application of standards basic to licensure and certification of health facilities. The trend has been to bring all medical facilities under the jurisdiction of the health department. At this time the division provides necessary liaison with the Social Security Administration regarding certification of facilities and agencies desiring to participate under Title XVIII of the Social Security Amendments, and with the Michigan Department of Social Services regarding certification of facilities and agencies desiring to participate under Title XIX.

In order to help the local health agencies and institutions meet the standards of participation under Title XVIII, the division provides specialized consultation in the areas of facility administration and operation, nursing, medical records, medical social service, environmental sanitation, and facility planning (in cooperation with the Division of Planning and Construction). Service from nursing, medical, sanitarian, and hospital planning consultants comes from within the bureau. Consultation for planning and modification of food service facilities is provided by two Dietary Consultants from the Nutrition Section of the Bureau of Community Health. In addition, medical social service consultation is available from the medical social worker in the Adult Health Section of the Bureau of Community Health.
Michigan's team for certifying hospitals, extended care facilities, and home-health agencies for participation under Title XVIII consists of the Medical, Nursing, Dietary, and Sanitary Engineering Consultants. The members may inspect the facilities on an individual basis or as a team. In any event, all team members confer to determine whether the institution meets the statutory requirements for participation. Subsequent recommendations for acceptance or denial are sent to the Regional Social Security Administration office (Chicago, Illinois) for final approval. Follow-up consultation and inspection for yearly licensure of hospitals and nursing homes is often provided through local health departments.

**Bureau of Maternal and Child Health**

The objective, activities, and organization of the Bureau of Maternal and Child Health reflect Michigan's goal of providing comprehensive care for mothers and children in compliance with the progressive state and federal legislation of the Sixties. The overall objective of the bureau is the promotion of physical and mental health, and the prevention of disability for mothers and children through the provision and improvement of preventive and therapeutic health services (11). The primary means of implementing this objective is through the provision of planning, evaluation, and consultative services, and the coordination of these services with other health, education, and welfare agencies at the state and local level. Services are divided into program areas within the Divisions of Maternal Health,
Child Health, and Services to Crippled Children.

**Division of Maternal Health.** The broad objective of the Division of Maternal Health is the assurance of a successful outcome of pregnancy for mothers and infants (11). There are five major programs designed to implement this goal. Family planning along with health and family life education are two of these program areas. In addition, in cooperation with the Maternal Health Committee of the State Medical Society, the division has participated in a study of the cause of maternal deaths. The information derived from the study has been used as a guide for improving the teaching and practice of obstetrics as well as for program planning. The Expectant Parent Education Program, a fourth major division activity, was designed to provide mothers with prenatal guidance regarding the physical, emotional, and social aspects of pregnancy. This has been accomplished indirectly through consultation, workshops, and institutes for teachers of expectant parents' classes. In 1966, 15 per cent of Michigan's pregnant mothers were reached by these classes. The concern in the implementation of this program at the local level has been the problem of training teachers, gaining the support of physicians in encouraging class attendance, and motivating low-income mothers to participate. Finally, the fifth major activity is the provision of complete maternity care for the medically indigent through programs such as the Detroit Maternity and Infant Care Project.
Detroit Maternity and Infant Care Project. An evaluation of the vital statistics of the city of Detroit revealed that the highest maternal, neonatal, and perinatal mortality rates and prematurity rates were in five census areas in the center of the city. Most of the medically indigent of the city were living in these tracts. Furthermore, mothers in these areas received late and irregular prenatal care, or none at all; few postpartum visits; and no family planning. Although nearly all the mothers were accommodated for delivery at hospitals, the place they were received depended more on the available bed space than on proximity to the family residence. In response to these needs and to the availability of federal project funds, the Detroit Maternity and Infant Care Project was created (12).

The project, established in 1964, is administered jointly by the Bureau of Maternal and Child Health and the Detroit Department of Health. Other agencies participating in the program include four Detroit hospitals, the Visiting Nurse Association, and Wayne County School of Medicine. Project activities are directed and coordinated by a central staff consisting of the Director, Associate Director, Public Health Nursing Consultant, Nutrition Consultant, Medical Social Work Consultant, Health Educator, Administrative Assistant, and clerical workers. The Director also serves as an obstetric consultant; and the Associate Director, as a pediatric consultant.

The program offers complete, comprehensive, and convenient outpatient and in-patient service to mothers and their infants in hospital settings. The ideal is to provide complete service for mothers through
the prenatal, postpartum, and interconceptional periods, and for infants through the first year of life. Quality obstetric and pediatric services include guidance and consultation from public health nurses, nutritionists, and medical social workers. For continuing well-baby care, infants are referred to clinics adjoining project hospitals, or to health centers of the Detroit Department of Health. After the first year of life the children are referred to the Preschool, School, and Adolescent Program (hereafter abbreviated PRESCAD) for health supervision through the eighteenth year of life.

Thus far, observations of the program indicate that women have reported for prenatal care sooner, and that there has been an increase in the percentage of mothers returning for their six-week postpartum visits with their infants. The increased return has been attributed, in part, to the personalized service, the consistent encouragement for the mother to return, and the availability of family planning services in the postpartum clinics (13).

Division of Child Health. The Division of Child Health works regularly with educational agencies on planning health aspects of programs, such as Project Head Start, Consultation is also given to the Departments of Social Services and Public Instruction on the development and upgrading of health standards for day-care centers and nursery schools.

In addition, the division participates in a comprehensive program for mentally retarded children in Michigan. A division
medical consultant represented the health department on the State Interagency Coordinating Committee which was responsible for planning and implementing the program. He also is a member of the state's interagency Cadre, a five member group of consultants who help to implement programs on a regional basis. One important contribution to the program's goal of the prevention of mental retardation in children was the 1965 legislation making testing for phenylketonuria mandatory for all of Michigan's infants. Out of 100,000 tests performed last year, six were found to be positive. After referral of the information to private physicians, all infants were followed up by local health department personnel.

**Project PRESCAD.** PRESCAD is a program designed to provide comprehensive and coordinated continuing health services for preschool, school, and adolescent children in Wayne County through case-finding, preventive health services, diagnosis and treatment, correction of defects, and follow-up care. The project is funded by a Children's Bureau grant made available through Title II of the 1965 Social Security Amendments to the Michigan Department of Public Health for use with matching funds provided by the Wayne County and City of Detroit Departments of Health. The project provides for the implementation, coordination, and utilization of all available community resources into a functional matrix, thus avoiding the duplication of existing services. Some of the resources of the project include the Detroit Maternity and Infant Care Project, schools, medical staff and facilities of three universities, the medical society, and the Visiting Nurse Association.
Presently, the project is in Phase I of its operation which is the recruitment, employment, and training of the core staff. Two part-time clinics are in operation. Phase II will include the improvement and expansion of service programs; and, finally, Phase III will consist of continued application of Phase II programs, and evaluation and refinement of continuing services.

Division of Services to Crippled Children. The Michigan Crippled Children Commission was established in 1937 with the directive to administer a program of services for children who are crippled or who are suffering from conditions which may lead to crippling. Under the Executive Organization Act of 1965, the Crippled Children Commission was transferred to the Department of Public Health as a division of the Bureau of Maternal and Child Health.

The division is organized into a central office in Lansing and five regional offices, each designed to coordinate services for crippled children in the area. In each of these regional offices there is a medical coordinator, nursing consultant, and necessary clerical and administrative personnel.

The activities of the division include the following:

1. Case-finding.

2. Maintenance of a registry of handicapped children for use in referral, follow-up activities, and program planning.

3. Maintenance of field clinics for diagnosis, evaluation, and follow-up of children with orthopedic conditions, cerebral palsy,
cardiac problems, plastic surgery, and mental retardation combined with physical handicaps.

4. The provision for in-patient and out-patient care including physicians' services, drugs, and appliances for handicapped children.

5. The determination of medical and financial eligibility for services, and referral to Social Services if the cases are eligible to receive assistance under Title XIX of the Social Security Amendments.

The placement of this division in the Bureau of Maternal and Child Health has been an important contribution to the state's health department objective for comprehensive and continuous health care. Successful administration of program activities is contingent on coordination within the bureau and active communication with the Department of Social Services.

Bureau of Management Services

Two important functions of the Bureau of Management Services are the collection, evaluation, and distribution of vital and health statistics, and the communication of health information to the public. The Division of Health Statistics and Evaluation collects certificates of births, deaths, marriages, adoptions, and divorces. Statistical data is analyzed and reported in a variety of ways through the Division of Health Information.

This division works closely with other units of the health department in developing, producing, and distributing materials for use
in their respective program areas. Among the written communications prepared by the Division of Health Information is a bi-weekly circular which is sent to local health departments and distributed within the state health department. Michigan's Health is a publication on general health concerns and the state health department's role in providing for them. The publication is sent on request to the lay population and to officials of the state. Other functions of this division include the preparation of weekly news releases entitled "Undertaking Your Health," five-minute radio spots, and films.

Bureau of Community Health

Of the five divisions within the Bureau of Community Health (see Figure 1, page 16) there are three which are actively related to Nutrition Section programs. These include the Divisions of Adult Health, Local Health Administration, and Public Health Dentistry.

Division of Adult Health. Primary prevention of chronic and infectious diseases as well as secondary prevention of disability among the population over age twenty-one is the chief objective of the Division of Adult Health. Increased program emphasis has been placed on the development and improved utilization of community resources for education, early detection, continuous care, and rehabilitation. In this respect, the division's medical social worker offers guidance and consultation on the social and behavioral aspects of coordinating and implementing programs at the local level. The control programs include: (1) chronic disease, (2) cancer, (3) cardiovascular

disease, (4) rehabilitation services, (5) alcoholism, (6) tuberculosis, and (7) venereal disease.

The chronic disease section and specific disease related sections are responsible for the organization and implementation of case-finding programs. The program consists of two major activities: (1) education for physicians through demonstration screening projects, such as glaucoma and cancer screening; and (2) consultation and administration of project grant funds for diabetes and multiphasic screening in local health departments (4). At the present, there are five permanent multiple-screening units in local health departments, each designed to serve approximately 5,000 individuals per year. The Section Chief indicated that in terms of numbers reached by these programs, the impact has been low. Continued stimulus for including and expanding detection programs is an important aspect of the division's activities. Diagnosis and follow-up care are provided through referral to private physicians, and local health departments are encouraged to evaluate and assist with follow-up procedures.

The Rehabilitation Services Section has the following broad objective: to assist in the planning, development, implementation, and evaluation of programs which make available a state-wide network of rehabilitation, gerontological, and home-health services for the people of Michigan. The means of implementing this objective are by aiding local health departments, rehabilitation centers, long-term care facilities, and other institutions through the provision of consultation, financial assistance, and training programs for health related personnel, including home-health and nurse aids (4).
The need for upgrading nursing homes and providing more comprehensive rehabilitation services is great. Presently, seventy-five of the state's 450 nursing homes meet the criteria for certification as extended care facilities under Title XVIII of the Social Security Amendments (14). However, 438 nursing homes and county medical facilities have been certified under Title XIX, leaving only forty homes unqualified for licensure (15). The potential for expanding present services to include rehabilitation services is low, primarily due to the limitations imposed by insufficient staff and facilities. Thus, assistance in training of auxiliary personnel is an important aspect of the program activities.

The objective of the alcoholism program is to acquire for alcoholics the same quality of understanding and treatment resources currently available for patients with other illnesses. The major focus of the program is to give assistance to existing and potential resources for education, treatment, and research related to alcoholism. Twenty locally operated alcoholism treatment and information centers have been established and are subsidized by the Alcoholism Program. Three of these are administered by local health departments.

The tuberculosis control program consists of financial support for in-patient and out-patient services for tuberculosis patients and services to local health departments. More specifically, education, training, and program consultation are provided to local health departments in the areas of treatment, case-finding, case management, administration, and records management. With the trend toward out-patient
treatment, special emphasis is being placed on efficient control programs in local health departments.

Division of Local Health Administration. As indicated thus far, the trend in the application of current knowledge in public health administration and practice is the provision of comprehensive health planning and coordinated, efficient service to and through state and local health, education, and social service programs. Efficiency and coordination are two of the main concerns of the Division of Local Health Administration. There are three sections in the division, Office Management, Nursing, and Nutrition, each serving as a channel of communication to the local level. The Nutrition Section is considered in detail in Part III, page 32.

The division's Office Management Section provides the following services:

1. Coordinates activities of local health departments.
2. Coordinates and clears department services to local health departments.
3. Coordinates pre-service and in-service training and recruitment programs for local health department personnel.
4. Summarizes activity reports from local health departments and prepares reports of such activities for federal and state agencies.
5. Provides administrative and procedural consultant service to local health departments in the broad area of public health administration, including office management (16).

The Nursing Section furnishes generalized consultation to local health departments and agencies employing public health nurses. Some
of the activities include recruitment and training for local health department nurses; consultation on administrative procedures; demonstration and consultation on the implementation of home-health services in connection with the 1965 Amendments to the Social Security Act; and participation in special projects. An example of one special project was a Patient Progress Study conducted in Genesee County in cooperation with the U. S. Public Health Service. The study was designed to identify met and unmet nursing needs and to encourage comprehensive planning, concentrated service, and evaluation of program activities (17).

Division of Public Health Dentistry. The objectives of the Division of Public Health Dentistry include the prevention and control of dental diseases. Major division activities include:

1. Fluoridation of municipal water supplies and topical fluoride programs.
2. Education for the lay and professional population.
3. Research and evaluation of the needs of Michigan's population as well as of effective preventive and treatment methods, including dietary sources of fluorides.

For the dentists at the local level, educational programs were developed to demonstrate methods to increase efficiency in order to accommodate larger numbers of patients; to encourage home-care programs for the aged in institutions; and to teach methods of caring for handicapped children.

Funds for program activities come from a variety of sources. The program for dental care for handicapped children was co-sponsored
by the Mott Foundation, the Michigan Cerebral Palsy Association, and
the Michigan Department of Public Health through the Bureau of
Maternal and Child Health and the Division of Public Health Dentistry.
Additional funds for other programs at the local level were derived
from the Elementary and Secondary Education Act and the Office of
Economic Opportunity. Payment for individual services by private
dentists has been arranged through the Michigan Dental Service Coop­
erative, the fiscal agent for the dental prepayment plan (18).

III. THE NUTRITION SECTION

History of Administrative Placement

Timely and progressive administrative efforts have been made to
locate the Nutrition Section in an organizational position to facil­
itate efficient, coordinated service to Michigan's people. Nutrition
became part of the health department program in 1936 when federal
funds were made available as a result of the Social Security Act.
A nutrition division was established in the Bureau of Maternal and
Child Health, and public health nutritionists were placed under the
supervision of nurses. In 1945, though the administrative placement
had not changed, a nutritionist was given the responsibility of staff
supervision and program planning (19).

When major health department reorganization occurred in 1949,
the Nutrition Section was formed and placed in the Division of Local
Health Administration. Thus, nutrition was no longer administratively
responsible to Maternal and Child Health. Presently, though major
reorganization occurred in 1965, the Nutrition Section remains in the Division of Local Health Administration; and, as indicated in Figure 1, page 16, it is structurally grouped with a variety of divisions serving the local level through the Bureau of Community Health.

Philosophy and Objectives of the Nutrition Section

Although it has been recognized that good nutrition is basic to the maintenance of good health, the need for the application of sound nutritional principles to health and educational activities remains a major concern of the Nutrition Section. Therefore, the goal of the section is to apply the science of nutrition to the prevention of ill health, the promotion of adequate growth and development, and the dietary control of disease by incorporating nutrition into the programs of health, educational, and social agencies at the state and local level.

More specifically, the Nutrition Section has outlined the following broad program objectives and means of implementing them:

1. To reach Michigan's vulnerable population—those with long term illness, pregnant women, the aging, socially and culturally deprived individuals and families, and institutionalized persons—by making available accurate and current knowledge of food and nutrition through local health departments and institutional personnel.

2. To provide consultation and teaching to professional personnel concerned with services which can improve nutritional status and prevent certain illness.

3. To provide direct service, such as diet therapy, in areas where services are not otherwise available.

Implicit in the achievement of these objectives is the need: (1) to research the needs of the population and the means by which the people
may most effectively be reached; and (2) to stimulate the coordination of resources available to the people.

Organization

The Nutrition Section functions on the basis of three operational units: (1) administration, and special projects and studies; (2) community services; and (3) institutional services. These units are headed by the Section Chief, the Associate Chief, and a Dietary Consultant, respectively. Additional personnel include five Nutrition Consultants and two Dietary Consultants. One dietary position was unfilled at the time of the field experience.

Qualifications. The state health department operates under a merit system. Qualifications for the positions are based on the qualifications established by the American Public Health Association and the American Dietetic Association. The qualifications for a Nutrition Consultant are a Master's degree in foods and human nutrition, public health or community nutrition, and at least two years experience as a nutritionist or in a closely related position. A more detailed description of the Nutrition Consultants' qualifications is included in Appendix A. To qualify as a Dietary Consultant one must have had experience as an administrative dietitian. She need not have a Master's degree, but it is highly recommended.

Distribution of services. As indicated in Figure 2, Nutrition Consultants work in specified areas of the state; Dietary Consultants
Figure 2. Consultants' work areas, Nutrition Section, Michigan Department of Public Health, 1967.
Nutritionists

Alice H. Smith
Margaret Ann McCarthy
Maria Raidl
Matilda Stone
Martha Thomason
Edith Wald
Sally Poux (Detroit)
Local Nutritionists

Dietary Consultants
Statewide

Ann Hains
Marilyn Grigg
Vacancy
serve the entire state. All staff members work out of the state office with the exception of the Nutrition Consultant permanently located with the Detroit Maternity and Infant Care Project.

Consultants serve on a request basis to and through local health departments. The length of time to be spent in each area and the frequency of visits are determined by the nutritionists; and, are related to the degree of existing organization of the local health department and the nature of the request. From time to time, nutrition consultants are placed in local health departments on a part-time demonstration basis. For example, one Nutrition Consultant has been working half-time in Wayne County until a full-time position is budgeted in the local health department.

Programs and Services of the Nutrition Section

Many of the nutrition services are related to and integrated with programs of other health department divisions as well as with programs of other official and voluntary health, educational, and social service agencies. The objectives and pertinent programs of the more closely related health department units have been discussed in Part II of this chapter. The methods by which the Nutrition Section contributes to the programs of these agencies are discussed in the following text.

Services to local health departments. The chief function of the public health nutritionist is to render consultant service to the staff of local health departments. When rendering service in a county, the nutrition consultant is administratively responsible to the health
officer. The local health department, in turn, arranges schedules for nutrition consultation service in the area. When other local agencies, such as social services, schools, and institutions, request service directly from the Nutrition Section, the local health department is immediately informed and involved in the plans. While service to local health departments represented only 20 per cent of the nutritionists' activities in 1965, practically all services at the local level were channeled through the health departments.

Services to local health department nursing staff may include consultation on the nutrition content of: family service; home-care and rehabilitation service; staff in-service education; and orientation of new staff. Help is also provided with nutrition education in schools; diet therapy; family food budgeting; identification of community nutrition problems; and the availability and use of community resources. When nutrition is a component of a broader program, the nutritionist may plan cooperatively with state health department nurses from the Nursing Section or from specialized program areas, such as Maternal and Child Health or Chronic Disease. Together they may arrange consultant service, workshops, and conferences for local health departments and other community nursing agencies.

There has been an observable change in the type of service rendered at the local level. Participation in in-service education has increased. This service to personnel who will, in turn, be in contact with large segments of the population, is considered to be a more efficient use of the Nutrition Consultant's time than direct service.
However, nutritionists no longer function exclusively as consultants giving direct service on a demonstration basis only. While a system of patient referral providing comprehensive and continuous care remains their objective, most communities are not presently organized to facilitate this ideal, and direct service has also increased. At the same time, nurses are acquainted with the problems and involved in the follow-up visits. Service to local health departments is an efficient means of reaching the local population; and, with all counties now being served by local health departments, the potential for reaching all of Michigan's population is greater than ever before.

**Maternal and child health.** The 1965 statistics indicated that 24 per cent of the nutritionists' activities were related to child health and 8 per cent in services to programs for maternal health. In working with the Bureau of Maternal and Child Health, nutritionists serve as consultants, primarily to local health department nurses with regard to the nutrition component of maternal and child health programs. Local program activities may consist of prenatal and postpartum clinics, well-child conferences, clinics and home visits for crippled and mentally retarded children, and school health programs. Thus, Nutrition Consultants provide in-service education with regard to the nutritional considerations of pregnancy, normal growth and development, as well as special considerations with regard to handicapped children or disease conditions. In addition, nutritionists assist in expectant parent classes through participation in institutes for teachers of the
classes, by teaching on a demonstration basis, or through their availability as resource persons. In cooperation with the Department of Public Instruction, nutritionists have participated in expectant parent programs for unwed mothers.

Approximately 5,000 mothers receive dietary counseling through clinic dietitians in hospitals participating in the Detroit Maternity and Infant Care Project. The state Nutrition Consultant, who serves as a permanent member of the central project staff, gives direct service on a demonstration basis only. Her primary responsibilities are administration, coordination, and consultation. She is responsible for the development and implementation of nutrition services in each of the hospital clinics. She interprets these services to other central project staff members and to the staff members in the clinics. Technical advice and continuing interpretation of project services is provided to the clinic dietitians. While the state nutritionist has no direct authority over the dietitians in the clinics, she helps to orientate them and provides perspective in helping them to adapt their teaching abilities. In addition, she has been instrumental in effecting a cooperative effort to evaluate and standardize normal and therapeutic diets being used in the prenatal clinics throughout the city. Furthermore, in cooperation with the Health Educator and the Nursing Consultant, films for use in the clinic waiting rooms are being developed. Other educational materials are developed as needed.

The state Nutrition Section has been consulted with regard to planning for the nutrition component of Wayne County's child and youth
project, PRESCAD. In addition, the section is presently helping to recruit for the four positions involving public health nutritionists and clinic dietitians.

In school health programs, emphasis is placed on methods of incorporating sound nutrition education into the context of the school and home environment and the school curriculum. Therefore, services are directed to school administrators, counselors, teachers, school lunch personnel, parent and teacher groups, and public health and school nurses. Special effort is made to coordinate the nutrition activities of these persons through group evaluation and program planning.

Services may include participation in staff conferences and meetings, talks, program planning, and in-service education. Through a special arrangement with the School Lunch Division of the Michigan Department of Public Instruction, nutrition consultation is given to school lunch programs with regard to the educational values of the program and meeting the requirements of the type A lunch pattern. Examples of Nutrition Consultants' activities with school and health department personnel on the nutrition phases of health education programs are considered in Chapter III.

With increased emphasis on special planning to meet the needs of the disadvantaged child, the Nutrition Section has become increasingly involved with planning and participation in day-care and nursery school programs developed for Head Start, migrant, and mentally retarded children. Comprehensive planning has included cooperation with the
Michigan Office of Economic Opportunity, Department of Social Services, Department of Public Instruction, and private agencies responsible for day-care.

Services may include participation in workshops or in-service education for any related personnel, talks, and conferences for community groups, program planning, and cooperative evaluation of feeding programs. Emphasis is placed on the educational value of feeding programs; and the need to implement available social and cultural information pertaining to food as a guideline in planning for food service and for learning experiences in foods and nutrition.

Work with summer camps is another important phase of the program for the school-age child; it consists primarily of dietary consultation with regard to facilities, food purchasing, food preparation, and nutrition education. Michigan's one thousand camps have been provided with a Food Service Manual prepared by the section. The consultants have also participated in training Camp Health Aides and administrators.

**Adult health and chronic disease.** In response to the increasing problem of chronic disease, the Nutrition Section has increased program emphasis on primary prevention as well as the dietary control of disease for the prevention of disability and promotion of rehabilitation. Approximately one-fourth of all consultant services are related to patients with chronic disease when diet management is a part of treatment. Those activities related to diabetes represent slightly less than one-half, and weight-control and cardiac diseases another one-half.
Other adult health programs which receive service include cancer, mental illness, alcoholism, tuberculosis, and food faddism.

State nutritionists play an important role in assuring continuity of care for previously institutionalized patients. Since 1950, the staff has given direct service to diabetic patients referred from the University of Michigan Medical Center. More recently, this has been expanded to include service to children with phenylketonuria and other conditions requiring therapeutic diets. The hospital and the nutrition clinic in the out-patient department have sent the names of patients and their referring physicians to the Nutrition Section. The Nutrition Section, in turn, relays this information to the appropriate health departments for follow-up care by nurses and/or nutritionists. Having been notified of the service, seventeen local health departments have participated. As the referrals increase, and as organization of local health departments and coordination of community resources improves, a comprehensive system for continuous care may become a reality.

In addition to direct service to diabetics and their families, nutritionists provide consultation to physicians, nurses, and food service workers in hospitals and nursing homes on the interpretation and use of therapeutic diet orders. In addition, the section has assisted with the development of diabetes classes for patients and their families. These classes have been conducted in both local health departments and community hospitals, with the support and approval of local medical societies.
The evaluation of materials and distribution of accurate information with regard to the nutritional needs of individuals throughout the life cycle is one of the main objectives of the Nutrition Section. Of particular concern are people in older age groups who are particularly vulnerable to the high pressure tactics of food faddists. Nutrition Consultants have worked through local health departments with groups of senior citizens providing talks with special emphasis on combating food faddism.

While weight control and food faddism may be considered as two different problems, in reality, they often go hand-in-hand. Nutrition Consultants are involved with weight control programs for all ages. Activities may include the evaluation and provision of accurate information to weight reduction groups and local health departments, and consultation to agencies interested in incorporating weight control into health programs. The student attended two planning sessions for weight control programs in high schools and discussed the need for weight reduction in elementary school children with a program coordinator in a local health department. The enthusiasm for a comprehensive approach to health planning was a pleasure to observe. These conferences are discussed in more detail in Chapter III.

Nutritionists have been concerned with weight control as it may contribute to rehabilitation efforts and to the control of heart disease, diabetes, and other chronic diseases. In addition, one nutritionist has participated in a hospital smoking withdrawal clinic. The focus of her speech was weight control during and after the period
of smoking withdrawal.

The trend toward providing rehabilitation and comprehensive home-health services has been accompanied by efforts by the Nutrition Section to assure continuity of care and sound nutrition guidance in the home. This has been achieved by serving the patients directly, as with referrals from institutions; and through participation in the training of professional persons and ancillary personnel working as a part of rehabilitation and home-care teams.

The role of the private physician, administrator, dietitian, and aides in nursing homes has been considered in a conference sponsored by the Commission on Aging and the Gerontology Society. The Nutrition Chief played a role in the conference, speaking on the nutritional needs of the aging population.

Nurse aides, who have been a part of the hospital and nursing home scene for some time, are appearing as ancillary personnel in local health departments and Visiting Nurse Associations. Only one of the counties providing home-health services under Title XVIII of the Social Security Amendments has a nutritionist. Therefore, the Nutrition Section has participated in the preparation of guidelines and in-service education of nurse aides and home-health aides in cooperation with the staff of the rehabilitation program of the Adult Health Section, the Nursing Section of the Division of Local Health Administration, and the nurses in the Bureau of Medical Care Administration.
Institutional services. The goal of the Nutrition Section in giving service to the institutional programs is to help hospitals, nursing homes, rehabilitation, and extended care facilities to provide optimal food service to their patients. Services may include: the provision of consultation on all aspects of food service management; encouragement and assistance in the training of food service workers; assistance in the recruitment of dietitians; and the provision of authentic information regarding food products, nutrient needs, and therapeutic diets.

Dietary Consultants of the section render service in close cooperation with the Bureau of Medical Care Administration. Approximately 200 architects' plans for hospitals, nursing homes, and other facilities are reviewed annually. Consultation is often related to licensure or certification for participation in medical aid programs as well as expansion and building of facilities. Therefore, activities may involve conferences with owners, architects, and health department engineers. Dietary consultation to hospitals is provided primarily to those without trained dietary staff and involves approximately 200 hospitals each year.

Workshops for food service workers, nursing staff, and administrators have been held to help upgrade food service in various institutions. For example, Dietary Consultants have participated in a Michigan State University campus program for training food service supervisors, and an extension program for nursing home administrators. In addition, Nutrition Consultants have provided consultation and
in-service education with regard to therapeutic diets, the social and nutritional needs of the aging, and food service management.

There is a need for continued effort in recruitment of qualified dietitians to provide consultation with regard to meeting the conditions of participation of Title XVIII of the Social Security Amendments. One Dietary Consultant has met with a group of local dietitians to acquaint them with the role of the part-time and consultant dietitian in nursing homes and small hospitals.

A number of useful materials have been prepared by the nutrition staff for use in institutional programs. The publications, "Administrative Guide for Services of a Consultant Dietitian" and "Administrative Guide for Services of a Shared Dietitian" are available to hospital and nursing home administrators and dietitians. Other materials include: a monthly bulletin, "Food Notes for Institutional Food Service," "Your Food Service . . . A Guide for the Food Service Manager in Small Hospitals and Institutions," and "Food Service Guide for Nursing Homes."

Family economics. In 1965, 2 per cent of the services rendered by the Nutrition Section were related to family economics. This figure is exclusive of the usual consideration given to providing guidance on diets which are within the economic means of the family. Nor does it reflect the amount of time spent developing guidelines and educational materials to be used as a basis of discussion of food budgeting and the use of commodity foods. Rather, this figure reflects
services such as consultation, demonstration, group conferences, and individual guidance in which the main subject is food budgeting for families.

Family economics includes the use of donated food commodities and food stamps. The Cooperative Extension Service, local health departments, and social service agencies have often worked cooperatively in promoting the use of food commodities. In addition, state and local social service departments have requested assistance with family budgeting and therapeutic diets. In response to this request, the Nutrition Section has recommended standards for therapeutic diets. Similarly, consultation and recommendations for adequate food budget allowances for senior citizens have been given to the Commission on Aging and the Legislative Committee of the Michigan Gerontological Society.

Research. Nutrition research is an on-going activity of the Nutrition Section. At the present, nutritionists are investigating aspects of family economics and patient education for diabetics. With regard to family economics, plans have been developed for a study in cooperation with state and local social workers in health agencies and the School of Social Work at the University of Michigan to determine the extent of use of donated foods and food stamps among the aging population in two counties.

In addition, the Nutrition Section has worked with the U. S. Public Health Service Diabetes and Arthritis Program and the University of Michigan Medical Center Hospital in a research study concerned with
patient education for adult diabetics. Michigan became involved with the project in 1963, when nutritionists assisted in field testing a Food Preference Questionnaire designed to improve diet counseling for diabetics and at the same time reduce the amount of professional time required to give instructions. In 1965 the Nutrition Section began a follow-up study in cooperation with the University of Michigan. Patients from the hospital and associated clinics were assigned to one of three groups, according to the way they received their dietary instruction. The plans for dietary instruction were:

1. A meal plan based on a meeting of the nutritionist and the patient, a food preference questionnaire, and the patient's diet prescription.

2. A meal plan based on the patient's diet history taken by a nutritionist by interview, plus the patient's diet prescription.

3. A standard meal plan, which the patient received without nutrition consultation.

Nutrition Consultants then followed patients with home visits within three months and within nine to twelve months after discharge. Follow-up forms were designed to help: (1) evaluate the effectiveness of the three methods of introducing meal plans; (2) identify gaps in diet counseling; and (3) provide a basis for revising methods and materials for use in counseling persons with diabetes.

The study had not been completed during the time of the student's field experience, but some of the results had been partially summarized. It appeared that the method of instruction did influence the patient's
understanding of the diet, but that all groups had problems adjusting to their diets and employing the exchange system in a correct and useful manner. Acceptance and understanding of the disease played a role in their acceptance of the meal plan, but even more important was the suitability of the diet plan to the characteristics of the individuals.

Public Relations and Communications

In cooperation with the Division of Health Information and Education, the nutrition staff prepares educational materials for lay and professional groups. Materials are continuously revised to keep the content current and the format interesting. In addition, new materials are developed in response to requests and to identified need. Presently, the Nutrition Section is developing a guide for use by families with children who have phenylketonuria. This is being done in cooperation with the Bureau of Maternal and Child Health, the Division of Health Information, and the Gerber Company, which has done the food analysis for phenylalanine content.

In addition to the preparation of publications, the Nutrition Section supplies information and participates on radio and television programs. Other means of broad communication include the distribution of "Nutrition News for Public Health Personnel," and sections in Michigan's Health.

Recruitment and Training

Manpower shortages are a concern of all health-related occupations, and a built-in program for recruitment and training is a
significant contribution to the field. The Nutrition Section encourages interest in public health nutrition by providing observations, training, and experiences to the following groups or individuals:

1. Dietetic interns from the University of Michigan in cooperation with local health departments.

2. Public health and community nutrition students, and, more recently, an undergraduate student with an interest in public health nutrition.


4. Homemaker and Nurse Aides, and Food Service Supervisors.

5. Dietitians in the state who may be interested in positions as part-time or consultant dietitians.

6. Other persons with interests closely allied to public health nutrition, such as home economists and nutrition course directors.

The history of the nutrition resident position is indicative of the recognition and reaction to the need for new methods of encouraging interest in public health nutrition. In 1950 the shortage of personnel was acute throughout the health department, and the department activated efforts in the area of recruitment and training. Each discipline was given the opportunity to establish a Technical Advisory Committee and to develop their own plans. The committees varied in composition and size, but had similar objectives. The objectives were to interpret local recruitment and training needs within respective professions, to establish means of meeting these needs, and to maintain liaison between
state and local agencies concerned with the problems.

The Technical Advisory Committee for the Nutrition Section was composed of representatives of professional associations, business, colleges, and universities as well as the state health department. Through the committee the nutrition apprenticeship was established to give graduates of an undergraduate foods and nutrition program an opportunity to gain experience in public health nutrition. The position entails three months of training, observation, and orientation at the state and local level, and nine months placement in a local health department under close supervision by a member of the Nutrition Section staff. Michigan has benefited from this service, and the Nutrition Section has been rewarded by continued service from some of the residents.

Program Evaluation

Methods of measuring the quality and impact of nutrition service would be desirable adjuncts to program evaluation; however, valid devices are difficult to design and administer. Nevertheless, facts concerning past and present services to current programs are essential for effective program planning and administration. While constantly seeking new, more definitive methods for evaluation, the Nutrition Section has maintained a built-in system of program reporting. First, statistical reporting is done in cooperation with the Health Statistics and Evaluation Center. Each consultant keeps a daily statistical record of the number and types of persons served, and the types of activities,
and programs provided. These data are summarized monthly as well as annually. The information is used for program reports with regard to section activities; staff meeting discussions and program reviews; and program evaluation and planning.

Field visit reports, a second means of program reporting, have been an important means of maintaining communication within the department as well as between the section and agencies served. Each consultant writes a narrative progress report after completing her work in a county or district. Copies of these reports are sent to the health officers in local health departments, the Division of Local Health Administration, other departmental divisions with mutual program interests, and other state agencies when the visit has been made at their request. Additional copies are circulated among the staff, retained in the section files, and filed by the individual nutritionist. Similar, but more explicit reports are prepared for nursing home visits. These reports, however, are directed primarily to local health departments and retained in the section file. On request, excerpts, such as notes pertaining to licensure, are provided to the nursing home.

The Nutrition Section has participated in a comprehensive program review of all local health departments conducted by teams of health officers through the Bureau of Community Health, and summarized by the Division of Local Health Administration. The purpose of the review was to define needs for upgrading local health services in connection with the 1965 state law providing for the maintenance of
minimum standards for public health services. On the basis of field reports and accumulated information, the nutrition staff identified and evaluated the existing programs and services, and made recommendations for better services by the local health department and expanded services by the Nutrition Section.

Implicit in the use and distribution of all types of program reports is their value for educational purposes. Part of the student's responsibility was to complete statistical and narrative reports. This was a useful method of helping her to recount and to communicate experiences, and to draw implications for her own activities.
CHAPTER III

AN ANALYSIS OF THE STUDENT'S PARTICIPATION IN NUTRITION SERVICE AT THE STATE AND LOCAL LEVEL

Through observation and experience the student had an opportunity to develop her concepts of public health nutrition and her abilities for providing nutrition service at both the state and local level. A partial account of the experiences and an analysis of their contribution to the student's professional growth is considered in the following text. Part I relates the student's experience with certain techniques used in professional practice. An account of the student's experience at the local level is presented in Part II.

I. EXPERIENCE WITH TECHNIQUES USED IN PROFESSIONAL PRACTICE

Consultation. From a variety of consultative experiences, the student has chosen to discuss one because of its value in demonstrating the purpose, process, limitations, and values of the consultation process. The program coordinator in a local health department requested that the student meet with him to discuss the problem of obesity in elementary grade-school children. Having recognized the problem, he asked the student whether a treatment program would be appropriate as a preventive measure against adolescent and adult obesity. His main interests included how such a program would be organized, who would staff it, and the criteria for obesity.
In the discussion that followed a number of important attitudes and facts were revealed. First, the coordinator did not have a basic knowledge of the problem of obesity, but requested materials delineating the problem. Furthermore, he indicated his willingness to survey the schools to obtain an estimate of the extent of obesity. Secondly, he was not receptive to changing or combining the program with efforts toward primary prevention in the infant and preschool child. Third, he had an unfavorable attitude toward the participation of public health nurses, who serve the schools as part of the health department program for the school-age child. Rather, he wished to staff the project with highly trained professionals including psychiatrists, pediatricians, and nutritionists. Fourth, he felt such a project would serve as a demonstration of the value of a nutritionist to the community. He felt, however, that financial assistance for the program would come from the Board of Education; therefore, the nutritionist would not be employed by the local health department.

With these facts in mind, the student decided to: (1) provide the coordinator with information delineating the problem of obesity; (2) encourage the use of existing resources, including the public health nurses and the state nutritionist; (3) encourage the placement of the nutritionist in the local health department; and (4) encourage comprehensive planning beginning with preventive efforts in well-child conferences and kindergarten enrollments. Having provided reassurance that his recognition of the problem was appropriate, and having brought some perspective to the problem, the student withdrew. The student
felt that the health officer would, no doubt, be receptive to a co­ordinated, comprehensive approach which provided for the utilization of available personnel. A joint meeting involving the nutritionist, health officer, and the program coordinator would be desirable for further planning.

The value of this experience lay not in any measure of success, but in its demonstration of some of the important considerations of effective consultation. The purpose of the meeting was to share knowledge to solve a public health problem. It involved building a working relationship with another member of the public health team. The importance of attitudes, organization, communication, and philosophy in determining appropriate and feasible solutions was apparent. And, finally, the experience demonstrated that the effectiveness of consultation was limited by all these factors.

Group work with non-professional persons. An axiom of working with groups is that the approach to and content of group activities are often dictated by unknowns. These may include the facilities, time allowed, expected content, and the level of knowledge of the group. By evaluating the situation before participation and by listening to questions and comments as she talks, the experienced nutritionist can judge and adapt her subject matter and techniques to the level and expectations of the group.

Often, it is possible to plan ahead with persons requesting nutrition service. In one case observed by the student, the nutritionist
had received a request from a school nurse to talk with a parent-teacher group. The nutritionist, in turn, requested that there be a joint planning conference with the nutritionist, nurse, and other school personnel participating. As a result of this meeting, a questionnaire was devised to evaluate the food habits of tenth-grade girls in home economics classes. The results were included in the nutritionist's talk as a means of gearing the discussion to the needs and interests of the group. The comments and questions following the meeting indicated that the home economics teacher had identified some gaps in her teaching of nutrition; and that the talk had stimulated a renewed awareness of the value of home economics training for the children.

One is impressed by the variety of approaches and techniques used in group work with non-professional persons. The student observed several different nutritionists; and noted that each spoke in a manner in which she was comfortable, and demonstrated good judgement and flexibility in choosing subject matter and techniques for her presentation. The student felt that she derived valuable concepts from these experiences and that she may utilize these ideas in her future practice.

In-service education. The student's participation in in-service education with members of the Nutrition Section and with nurses in local health departments served to increase her knowledge of nutrition as well as improve her abilities to provide nutrition service. In-service education is a broad title given to activities designed to
further knowledge and stimulate professional growth for agency personnel. Experiences included may vary with the needs and interests of the group. For local health department personnel, in-service education may occur as frequently as once a week, or it may be less structured and may be held at irregular intervals. Well-organized units may have a committee or chairman responsible for developing and conducting a program of in-service education.

Provision for professional advancement and growth for Nutrition Section personnel includes membership and participation in various professional organizations such as the American Dietetic Association, the American Home Economics Association, the American Public Health Association, and their respective state branches. In addition, provision is made for staff representation at a variety of health-related conferences and workshops, and at division and section staff meetings.

Nutrition Section staff meetings are held once a month. They include not only discussion of policy and programs; but also reports of literature that has a bearing on health problems, and reports on local, state, national conferences attended by various staff members.

The student participated in four in-service education programs for local health department nurses. Her contribution was focused on the role of the research nutritionist in a primary prevention program for coronary heart disease. Underlying all discussions was the objective of comparing the dietary recommendations for research with those presently being made to the general public, demonstrating the present
dilemma in making recommendations to the public. Because of experience in such a research program, the student felt comfortable and particularly enthusiastic with each group talk. As might be expected, twinges of insecurity arose prior to the first presentation due to the student's limited experience in talking with groups and to not having an opportunity to assess the attitudes, interests, and needs of the nurses.

The characteristics and interests of the staffs differed; therefore, the content and approach differed in each presentation. One group, all nursing supervisors, was particularly interested in the technical aspects of the research study. Other nurses were primarily interested in the dietary recommendations as they related to their patients. In one health department, the student had an opportunity to assess the interest and attitudes of the nurses, and to plan accordingly. Among these nurses, the student noted a negative attitude toward including nutrition guidance in home visits. This was due, in part, to their difficulties in motivating patients to adhere to dietary recommendations. In response to these observations, the student chose to focus on her experience with the problems of motivation and adherence, and on incentives to stay with such a demanding regime. The objective was to assure the nurses that their problems were real, and that nutritionists were available and interested in helping them deal with these problems. Some techniques and concepts of patient education were introduced and discussion of diet was limited to a productive question and answer session. The student felt most comfortable with this talk and was rewarded by many favorable comments.
In many respects, the opportunity to discuss the same subject several times was one of the most valuable experiences the student had. It provided a basis for observing the student's ability to evaluate and change her technique in response to the needs of the groups. The student felt she made significant gains in adapting her teaching methods to varying situations.

**Conference in behalf of planning.** One of the most productive planning conferences that the student observed was a joint meeting of public health and school personnel to plan a weight-control program for obese adolescents. Participants were the state nutritionist, local public health nurse, school-guidance counselor, home economics teacher, and physical education teacher. In response to the recognition of several cases of extreme obesity, the school personnel were highly motivated and particularly receptive to suggestions made by the Nutrition Consultant. The nutritionist had an opportunity to evaluate proposed materials and to suggest techniques and materials for use in the program. Also demonstrated was the nutritionist's role in stimulating interest and reassuring available personnel of the importance of their contribution to the program.

The student found this experience a valuable example of the practical application of scientific principles to an interagency program. In addition, the student derived meaningful insight into the role of the nutritionist as a consultant and resource person. The importance of personal characteristics, such as judgement and diplomacy,
was particularly apparent in this experience.

Guidance and counseling non-professional persons. In the past, the student has had extensive experience in interviewing men in her role as a research nutritionist with the Coronary Prevention Evaluation Program at the Chicago Board of Health. During the field work, the student had a variety of experiences in counseling non-professional persons through participation in the Detroit Maternity and Infant Care Project clinics, and in home visits and kindergarten enrollments in Flint. Having had some experience, and having a particular interest in meeting people and observing them in relation to their environment, the student particularly enjoyed and felt comfortable in giving direct service to these individuals. The main contribution of these experiences was their value in acquainting the student with a cross section of the population. The individuals varied in age, sex, race, and socioeconomic background.

The limitations of this experience were related to the student's limited experience in diet therapy, and to time and organizational considerations of the activities. In several cases it was necessary to have a working knowledge of diet therapy in order to provide effective counseling. In these cases, the nurse was a valuable assistant. In the Detroit clinic, the student was immediately given patients to interview with minimal explanation of the clinic routine or methods and objectives of interviewing the patients. Despite some confusion, the student was generally pleased with the response of the patients; and
felt that she was able to reinforce previous dietary recommendations, and perhaps motivate some of the individuals to apply the information.

II. ANALYSIS OF PUBLIC HEALTH EXPERIENCE AT THE LOCAL LEVEL: FLINT AND GENESEE COUNTY

Part of the student's orientation to the philosophy and practice of public health included three weeks of observation and participation in a local health department. Since the department did not have a full-time nutritionist, the Director of Health requested that the student summarize her experience in Flint and Genesee County and make recommendations for expanding and improving certain aspects of the nutrition services presently being provided by health department nurses. The following section considers the student's orientation to the community; her participation in activities with health department nurses; and the recommendations for future nutrition services, based on the student's observations.

Observations and activities were designed to acquaint the student with: (1) the contribution of various public health workers to the total health program; (2) the programs in the health agencies; (3) the programs of other agencies related to public health; and (4) the relationship of nutrition to these programs. In becoming familiar with the programs and personnel of the city and county health departments, the student met with the health officer for a brief orientation to the organization and activities of the health departments. The
student also met with a sanitarian to observe his inspection of restaurants and public nuisances. In addition, activities in nursing home inspection, food handler's classes, and other aspects of environmental health were discussed. Finally, to become familiar with the activities of the Nursing Division, the student observed or participated in clinics, kindergarten enrollments, home visits, and a case folder review project.

The organization and programs for the Flint Department of Health are presented in Figure 3. In Figure 4, the proposed organization for the merged city-county health department is delineated. At the present, the only common feature of the two health departments is that they are both directed by the same health officer. Plans for establishing effective lines of communication between the County Board of Supervisors and the City Commission are under consideration. As indicated in Figure 4, the health officer has proposed that a nutritionist be added to the staff. Because the position has not been approved by the Flint City Commission or the County Board of Supervisors, the health officer has been restricted to the part-time services of the state Nutrition Consultant. The nutritionist has been well received in both health departments, and the potential demand for services seems to support the need for a full-time position.

Through arrangements made by health department personnel, the student spent some time with the following community health agencies: Mott Children's Health Center, a private foundation providing medical and dental education and treatment programs for the community; the
Figure 3. Flint Department of Health program organization.
GENESEE COUNTY BOARD OF SUPERVISORS

HEALTH COMMITTEE (BOARD OF HEALTH)

SUPPORTING SERVICES
Health Education
Information and Training
Medical Social Service
Dental Health
Nutrition

MATERNAL AND CHILD HEALTH
Maternal
Child Health
Infant, Pre-school, School
Crippled Children
Chronic Disease

MEDICAL EXAMINERS

FLINT CITY COMMISSION
# Genevieve County Board of Supervisors

## Health Committee (Board of Health)

### Public Agencies
- Bureau of Social Service
- Board of Education
- Civil Defense

### Environmental Health
- Water and Waste Water
- Food Protection
- Air Pollution
- Refuse
- Institutions and Housing Service:
  - Communicable Disease Control
  - Maternal and Child Health
  - Accident Prevention
  - Occupational Health

### Public Health Laboratory
- Serology
- Microbiology
- Chemistry
- Hematology
- Biologic Distribution
- General Service

### Biostatistical Center
- Register of Disease
  - TB-VD-Contagious, Chronic
  - Mortality and Birth
  - Morbidity Research

### Office of Director of Public Health
- Administration
- Planning
- Community Relations
- Fiscal Management
- Personnel
- Program Coordination

### Voluntary Agencies
- Visiting Nurse Association
- Medical Society
- Red Feather
- Council of Social Agencies
- Mott Foundation

### Nursing Services
- Communicable Disease Control
- Health Maintenance
- Family--Individual
- Home Health Services
- Chronic Disease and Rehabilitation
- Maternal and Child Health
- School Health
- Institutional Consultation

### Disease Control and Medical Care
- Acute Communicable Disease
- Tuberculosis
- Veneral Disease
- Chronic Disease Detection and Screening
- Alcoholism
- Rehabilitation
- Nursing Homes and Hospitals
- Medicare and Medicaid
- X-ray Services

### Maternal and Child Health
- Maternal
- Child Health
- Infant, Pre-school, School
- Crippled Children
- Chronic Disease

### Supporting Services
- Health Education
- Information and Training
- Medical Social Service
- Dental Health
- Nutrition

### Biostatistical Center
- Register of Disease
  - TB-VD-Contagious, Chronic
  - Mortality and Birth
  - Morbidity Research
Visiting Nurse Association, the agency providing home health services under Title XVIII of the 1965 Social Security Amendments; and the Genesee County Community Mental Health Services Board, an organization providing comprehensive planning for mental health facilities and guidance. Other agencies to which the student was introduced included: the Department of Social Services, the agency designed for the administration of Title XIX of the Social Security Amendments; Genesee County Cooperative Extension Service; Flint Dietetics Association; and a school lunch service.

Each of these experiences contributed to the student's objective of meeting those with common interests within the community and learning how public health personnel work within the framework of existing programs and community resources. Several of the student's activities deserve a descriptive account to demonstrate the importance of a coordinated approach to family health service, and to demonstrate the student's performance in specific situations.

Home visits with nurses. The cases for joint home calls by nurses and the student nutritionist were selected to give the student added insight into the variety of cases the public health nurse serves, as well as to provide services for the cases with obvious nutritional problems. The student had the opportunity to observe each nurse's discussion of nutritional practices and to discuss her approach later. In addition, the student participated in a number of interviews in order to demonstrate methods and suggest appropriate subject matter.
Both observation and demonstration were potentially useful means of helping the nurse as well as the family.

Because the student was not available for advance conferences and because the nurses were generally not familiar with the cases, the nurses and the student had an opportunity to realize the importance of planning for a home visit. In retrospect, some of the less successful home visits demonstrated that joint case conferencing and advance planning for the home visit are essential steps in assuring that a nutrition visit is appropriate, that sufficient information is available for planning the content of the visit, and that appropriate materials can be selected. In addition, if the family is informed in advance, they may be prepared for the visit with questions.

In cases where the nurse had prepared the families for a nutrition visit, the student was well received and deluged with questions. Plans for follow-up by the nurse evolved naturally, and all were pleased with the progress. In summary, the home visits demonstrated the importance of advance planning to make nutrition counseling effective and to identify cases with definite need so that priorities for nutrition service may be established.

**Kindergarten enrollments.** The student enjoyed her activities in three kindergarten enrollments. She particularly appreciated the lively interest in nutrition evidenced by school personnel, and the opportunity to work cooperatively with health department nurses. By the time of the third enrollment, a relatively efficient system for
nutrition service had evolved. In general, the activities included:

1. Orientation by the public health nurse to the characteristics of the population served and the nutrition problems noted.

2. Selection of nutrition materials which seemed appropriate to the needs and characteristics of the children and their families.

3. Introduction by the public health nurse to kindergarten teachers, and in some cases, school administrators and health committee representatives.

4. Screening and referral of nutrition problems by the nurse.

5. Nutrition counseling by the student.

6. Joint nutritionist-nurse conferencing and recommendations to the nurse for follow-up.

The student felt that further coordination and planning with appropriate school personnel and public health nurses would be necessary to provide impact on the total nutrition component of the school health education program. Screening and guidance at the enrollment were useful devices for distributing nutrition information, but reached relatively few individuals. In addition, there was no provision for recording the information in school folders or relating it to nutrition education in the kindergarten and grade school programs. While the experience was a valuable one for the student, it was really not a significant contribution to nutrition education.

Well-child conferences. Similar to the kindergarten enrollments, the well-child conferences had certain problems which limited
the impact of nutrition service. First, the limited facilities and the pressure to conserve the physician's time by rushing mothers and children through interviews made it difficult to both maintain the pace and at the same time provide good quality guidance. Secondly, the inconsistencies in nutrition recommendations were great; the philosophy and recommendations seemed to depend on which physician and which nurse were in the clinic. Consistent policies and recommendations for nutrition guidance would have been helpful to the staff. Furthermore, it would also have been desirable to give pre-service nutrition education to new nurses before they entered the clinic. There were many possibilities for providing meaningful, comprehensive, and continuous guidance in conjunction with subsequent child health programs.

**Nutrition education materials.** The student observed that the nurses particularly needed guidance in the selection and use of teaching materials for nutrition education. Material appropriate to the needs and characteristics of an individual should be selected for a specific purpose, and introduced with definitive instruction as to its usefulness. In addition, it was of interest that although a reference file of nutrition materials was prepared and made available in 1966, it was not being used in the city and could not be located at the Visiting Nurse Association. The student felt that nurses should not only take advantage of what has been made available, but also continue to use the services of the nutritionist for evaluation of nutrition
materials. Perhaps a committee on educational materials, possibly as a component of a broad in-service education committee, could work with the nutritionist to develop, evaluate, and implement the use of educational materials.

**Case folder review project.** As an exercise in the evaluation of family case folders, the student planned a project designed to help her: (1) become familiar with the types of cases served including the environmental and socioeconomic factors to be considered in counseling; and (2) assess the nutrition service given in these home visits.

Originally, the student had hoped to evaluate the impact of an in-service growth and development series on nurses as a stimulus to include nutrition when counseling families. However, the number of cases being seen consistently by one nurse during the periods prior to, during, and after the series was so small that, in the interest of the time required to select these cases, this objective was deleted. (The families were seen by as many as six nurses during the two-year period covered.) Instead, the student chose eighty cases at random and noted (1) whether nutrition was discussed, and (2) whether notes describing the discussion were made.

The information presented in Table II indicates that nutrition was often discussed in postpartum visits, but that it did not receive the same emphasis in the other types of cases. However, while notes indicated that diet was discussed in postpartum visits, many were so short as to be of limited value. Out of the fifty-four postpartum
### Table II

**Summary of Eighty Nursing Cases by Type of Case and Discussion of Nutrition, January to October, 1965**

<table>
<thead>
<tr>
<th>Type Case</th>
<th>Discussion of Nutrition</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes No. Cases</td>
<td>No. Cases</td>
<td>Total No. Cases</td>
<td></td>
</tr>
<tr>
<td>Antepartum</td>
<td>4 2</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Accidents</td>
<td>0 1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Illness</td>
<td>0 3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postpartum</td>
<td>53 1</td>
<td>54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>3 5</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, Child Health</td>
<td>3 5</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>63 17</td>
<td><strong>80</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
visits, notes describing the nature of the nutrition discussion were present in only four cases for mothers and nineteen cases for infants. In addition, often these families had a number of other children and adults, but reference to their diet was virtually non-existent.

In summary, there was a need to reconsider the following aspects of nutrition education for individuals and families by the nurses:

1. The importance of good nutrition for the promotion of positive health and rehabilitation, and the prevention of disease and further disability.

2. The importance of taking useful notes on the dietary patterns of the family as well as individual dietary characteristics as a basis for evaluation, planning, and follow-up counseling. The importance of this was augmented by the high turnover among the nurses.

Activities with nurses serving the community clearly demonstrated that nurses are in a position to assess the nutritional needs of patients and their families and to give subsequent counseling and follow-up guidance. It is also apparent that nurses need an on-going orientation to the use of the nutritionist, methods of assessing nutrition practices of families, knowledge of nutrition for evaluation of dietary practices and nutrition information, effective tools for instruction, guidance on what to look for in follow-up visits, and methods of recording these activities in a useful manner.

The evaluation of case records and joint activities with nursing personnel from the city, county and Visiting Nurse Association revealed a need to strengthen policies and practices aimed at improving nutrition
service to families. It was particularly apparent that in the city health department, the constant turnover in personnel resulted in less efficient use of the state nutritionist. The most probable explanation for this is that orientation to the services available was not consistent, and that additional support and reinforcement from supervisors was needed. The student felt that it would have been helpful if supervisory personnel provided interim orientation, guidance, and encouragement in the use of materials, knowledge, and techniques introduced by the Nutrition Consultant.

In summary, the choice of Flint and Genesee County for orientation to public health at the local level provided the student with two unique opportunities. First, the student had the opportunity to observe the city and county health departments which are in the process of redefining needs and goals for manpower and services, and which are making radical changes in the organizational structure to meet these needs in an efficient manner. This opportunity seems particularly important at a time when concepts of public health administration are undergoing rapid changes from the conventional approach of providing basic health services to the innovative approach of providing coordinated and comprehensive health programs for primary as well as secondary prevention. One is impressed by the evidence of potential for the implementation of a comprehensive approach to mental and physical health for Flint and Genesee County under the present direction of the health officer.
Second, the student had some opportunity to assess the needs and present level of nutrition services in a community not presently being served by a full-time nutritionist in the local health department. With the assistance of the state Nutrition Consultant, the student was able to develop her ability to plan and execute activities with and for professional and non-professional groups and individuals. The activities were rewarding and contributed to a better understanding of the practice of public health nutrition at the local level.
CHAPTER IV

EVALUATION OF THE FIELD EXPERIENCE

The eight weeks of field experience in the Michigan Department of Public Health and several local health departments provided the student with an accelerated orientation to the philosophy and practice of public health at the state and local level. With regard to the practice of public health, the student observed that organization, leadership, communication, and well-defined program plans were important determinates of progress in meeting the health needs of the population.

The wide variety of experiences introduced the student to the services offered by health department nutritionists, and to the means by which the services are integrated into the programs of health agencies and other official and voluntary agencies at the state and local level. The student felt that her graduate academic training was invaluable as a background for the field experience, providing her with scientific health information; concepts in the practice of nutrition; and the basic philosophy of public health administration and practice. Without this training, it would have been difficult to comprehend the implications of the student's activities and observations for her future work in public health nutrition.
The student realized that her limited background in diet therapy and in working with groups would be a handicap in providing nutrition services; however, these limitations will be resolved with further academic training and practice in the field. With the techniques and knowledge accumulated through both her academic training and the field experience, the student feels that she has learned and will continue to develop appropriate skills for the professional practice of public health nutrition.
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APPENDIX
GENERAL DESCRIPTION

Employees in these classes supervise and participate in a program for bettering health through nutrition education and consultation with local health agencies and institutions; and perform related work.

EXAMPLES OF WORK

**Nutrition Consultant IIIa**

In a region of the state, serves as an experienced consultant, with well-established working relationships in the area.

Serves as consultant to local health departments, schools, institutions, welfare agencies and lay groups.

Consults with health officers and nursing staff members on basic and recent nutrition information and its practical application.

Assists nurses with specific food and nutrition problems in their case load.

Works with school personnel in developing sound nutrition education programs, and evaluates the school lunch program.

Observes and evaluates food service operations in hospitals, nursing homes, and medical care facilities; interprets rules and regulations pertaining to food service.

Participates in programs of lay health organizations, service clubs, P. T. A. groups, hospital auxiliaries and others to promote nutritional improvement.

Assists in conducting surveys of food habits and needs in the community and the school.

Participates in conferences and workshops, and the preparation of educational materials.
Nutrition Consultant IV

Assists in the supervision of the nutrition section staff.

Participates in inservice training of personnel of local health departments, welfare agencies, schools, and hospitals.

Assists in planning and directing special projects in nutrition.

Plans and directs section staff conferences.

Keeps informed of current literature in the field.

Assists in the preparation and revision of educational materials relating to nutrition and dietetics.

Speaks before groups.

Serves as consultant in a region of the state; performs the work described for Nutrition Consultant IIIa.

Nutrition Consultant IVa

As chief of the nutrition section, develops, plans, organizes, directs and evaluates the nutrition program on a statewide basis.

Supervises a staff of nutritionists and dietitians serving as consultants in regions of the state.

Determines policies and procedures for nutrition and dietary consultation services.

Coordinates the nutrition program with other phases of the department's consultation services, including medical, nursing, dental, health education and sanitation, and with the programs of other agencies.

Reviews program plans submitted by local health departments.

Plans and develops research projects to determine and meet the nutrition needs of certain groups.

Establishes and maintains working relationships with research, educational and other agencies.

Prepares nutrition education materials.

Directs a program of field training for nutrition students, nutrition apprentices and dietetic interns.

Gives technical assistance to colleges and universities.
Keeps informed of current literature in the field.

Represents the department at state and national meetings concerned with nutrition.

 Prepares reports and conducts correspondence related to the work.

 May give direct consultation in an area of the state.

**EXPERIENCE AND EDUCATION REQUIREMENTS**

**Education**

*Possession of a master's degree in foods and human nutrition, public health nutrition or community nutrition.

**Experience**

**Nutrition Consultant IIIa**

One year of experience as a Nutrition Consultant III.

Note: Two years of experience as a nutritionist in a supervisory, administrative or consulting capacity (beyond the requirements for Nutrition Consultant III) may be substituted for one year of experience as a Nutrition Consultant III.

**Nutrition Consultant IV**

Two years of experience as a Nutrition Consultant III.

Note: Four years of experience as a nutritionist in a supervisory, administrative or consulting capacity (beyond the requirements for Nutrition Consultant III) may be substituted for two years of experience as a Nutrition Consultant III.

**NUTRITION CONSULTANT**

**Nutrition Consultant IVa**

Two years of experience as a Nutrition Consultant IIIa.

Note: Three years of experience as a nutritionist in a supervisory, consultant or administrative capacity (beyond the requirements

*Minimum requirements—Master's degree.
for Nutrition Consultant IIIa) may be substituted for three years of experience as a Nutrition Consultant IIIa.

OTHER REQUIREMENTS

Physical condition adequate for the performance of the work of the class.

Willingness to participate in inservice training courses.

Tact and similar qualities necessary in meeting and dealing effectively with others.

Established rapport with health departments, professional personnel and interested groups in the area.

Knowledge of the principles of human nutrition.

Knowledge of the methods and techniques applicable in conducting nutrition investigations and dietary studies.

Knowledge of the principles and practices of health education and public health administration.

Knowledge of community organization and resources.

Elementary knowledge of chemistry, physiology, child hygiene and development, educational methods, health education, social case work, and public health administration.

Ability to apply scientific knowledge of human nutrition to the promotion of health and dietary control of disease.

Ability to assist local health departments and social agencies in advancing better food and nutrition practices among groups and individuals.

Ability to assist in the professional education of state and local health personnel and in the field training of public health students in the areas of nutrition, nursing, health education and dietetics.

Ability to write and speak effectively on subjects related to the work.

Ability to obtain the cooperation and confidence of associates and the public.
ADDITIONAL REQUIREMENTS FOR NUTRITION CONSULTANT IV

Greater skill in the application of knowledges and abilities required at the lower level.

Knowledge of supervisory and training techniques.

Knowledge of current developments in the field of public health nutrition.

Ability to supervise professional personnel.

Ability to organize and carry out workshop programs.

Ability to write and speak effectively.

ADDITIONAL REQUIREMENTS FOR NUTRITION CONSULTANT IVa

Greater skill in the application of knowledges and abilities required for the lower level.

Knowledge of the professional and administrative problems involved in the planning and execution of a statewide program of public nutrition.

Knowledge of nutrition research projects and techniques.

Ability to plan, organize, develop and evaluate public health nutrition programs.