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To the Graduate Council:

I am submitting a thesis written by Barbara Irene Devery entitled "Observations and Experiences Within the Nutrition Services Division, Department of Public Health, Government of the District of Columbia." 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 Nellie Traylor
Major Professor

We have read this thesis and
recommend its acceptance:

Mary Rose Gram
Cyrus Mayshark

Accepted for the Council:

Vice President for
Graduate Studies and Research

OBSERVATIONS AND EXPERIENCES WITHIN THE NUTRITION SERVICES
DIVISION, DEPARTMENT OF PUBLIC HEALTH, GOVERNMENT OF
THE DISTRICT OF COLUMBIA

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
Barbara Irene Devery
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B. I. D.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.	1
II. ECOLOGICAL FACTORS RELATING TO THE HEALTH DEPARTMENT AND ITS PROGRAMS.	3
Characteristics and Needs of the Population	3
Social and economic characteristics	3
Population trends	5
Vital statistics.	6
Biostatistics	9
Political influences of the federal government.	10
Programs of the Health Department	11
History of program development.	11
Organization of the health department	15
Preventive services	16
Bureau of Maternal and Child Health	18
Bureau of Chronic Disease Control	23
Bureau of Special Services.	27
Bureau of Nursing	28
Mental health and retardation	29
Mental retardation program.	30
Alcoholism and drug addiction program	30
Community mental health program	30

CHAPTER

PAGE

II. (CONTINUED)

Area C Community Mental Health Center	31
Bureau of Centralized Psychiatric Services.	31
Administration.	32
Health education.	32
Nutrition Services Division	33
History	33
Objectives.	35
Organization.	36
Administrative structure.	36
Statistical records and monthly reports	37
Staff meetings.	38
Specialized nutrition services.	38
Maternal and Infant Care Project.	39
Head Start services	40
Home care service	41
Nursing home services	42
Adult and geriatric health services	43
Generalized nutrition services.	43
Services to the Bureau of Nursing	43
Intradepartmental services.	44
Community services.	45
Pre-service education	46

CHAPTER	PAGE
II. (CONTINUED)	
Medical students' orientation	46
Dietetic interns' orientation	47
Medical-dental apprenticeship	47
III. ANALYSIS OF PERFORMANCE IN NUTRITION ACTIVITIES	49
Situations Demonstrating Nutrition Techniques	49
Consultation with professional workers.	49
Pre-service and in-service education.	51
Group work with non-professionals	52
Conference on behalf of planning.	53
Counseling of non-professional persons.	54
Development of a Nutrition Unit	55
Description of the nutrition unit	56
Development and planning.	56
Participation	56
Observation	57
Evaluation.	58
IV. EVALUATION.	59
BIBLIOGRAPHY.	61
APPENDICES.	64
A. NUTRITION EDUCATION FLYER	65
B. CYCLE MENUS FOR NURSERY SCHOOL.	66
C. REPORT OF PRENATAL INTAKE PROCEDURE	70
D. NUTRITION UNIT FOR PRE-SCHOOL TEACHERS.	73

CHAPTER I

INTRODUCTION

The field experience in public health nutrition is to complement the academic course of study by providing the student with a specific example of public health principles applied to meet the needs of a specific community. Within the framework of an agency, the student is given the opportunity to improve her knowledge of public health and strengthen her understanding of the role of nutrition within the programs of the agency. She is encouraged to plan and to participate in a variety of activities which give her a background for assessing her own capabilities and limitations. The field experience, then, affords the student a more complete understanding of the role of a nutritionist within an agency, and of how she will best be able to assume that role.

The student chose to do her field experience with the Department of Public Health, Government of the District of Columbia because it provided an opportunity to observe and participate in the program of a metropolitan health department. Specific objectives were to gain:

1. An increased knowledge of the administration and functioning of a health department.
2. An improved understanding of nutrition services within the programs of a health department and within other community agencies.

3. An opportunity to evaluate her own ability through:
 - a. consultation with professional and non-professional persons
 - b. planning, executing, and evaluating nutritional activities
 - c. periodic review and evaluation of her performance by the field supervisor and other nutritionists.

In this report, the student will present her experiences and observations within the Nutrition Services Division of the Department of Public Health, Government of the District of Columbia. Chapter II considers the ecological factors relating to program development and nutrition services within the health department. Chapter III covers the student's evaluation of her experiences and performance in selected activities. Chapter IV summarizes and evaluates the entire field experience.

CHAPTER II

ECOLOGICAL FACTORS RELATING TO THE HEALTH DEPARTMENT AND ITS PROGRAMS

The needs of the population of the District of Columbia and the influence of the federal government have, to a large extent, determined the development of programs and the direction of nutrition services within the Department of Public Health. It is, therefore, most important to understand the area, the needs of the population, and the economic and political structures which are peculiar to the District, in order to appreciate the programs and services which have evolved.

I. CHARACTERISTICS AND NEEDS OF THE POPULATION

Social and Economic Characteristics

The District of Columbia is an area of contrasts and contradictions, for it functions in the dual capacity of an American city as well as the Nation's Capital. It is contained within sixty-eight square miles, and is flanked on the southeast, northeast, and part of the northwest by Maryland, and on the northwest and southwest by Virginia. As the Federal Capital, it is the home of the President and his executive departments, Congress, and the Supreme Court, and is owned and operated by and for the entire nation (1),

As a city of over 800,000 residents, it must face many of the the same problems troubling all large cities in the country today. It must restore crumbling neighborhoods, improve its level of education and health, and expand occupational and cultural opportunities for its residents.

The population of the District of Columbia is composed of three distinct groups: the transients, the commuters, and the residents. The transient component is made up of the millions of tourists who visit the District each year, as well as those short-term residents assigned to embassies, to military units, and to government positions. The second component, the commuters, are those day residents who work within the District, but live in the suburban areas outside of the District. The third component, those residing within the District, present the largest number of health problems. It is this group which is the major concern of the health department (2).

Washington has a high proportion of socially and culturally disadvantaged residents. Of the 125 census tracts in the District of Columbia, fifty-nine were in "poverty areas," as delineated by the Bureau of the Census in 1966 (3). That is to say, within these poverty areas:

1. A significant percentage of the families earned less than \$5,000 per year.
2. A large proportion of the housing units were dilapidated and lacking adequate plumbing facilities.

3. A large percentage of the males over twenty-five years of age have not completed eight years of schooling.

As well as the inadequate housing, the low income levels, and the insufficient education among large portions of the population, the problem of illegitimacy is a concern. In 1966, over one-fourth of the children born to District mothers were illegitimate, and 59 per cent of the prenatal clients cared for in public health facilities were unmarried (4, 5).

Population Trends

The population of the District of Columbia in 1964 was 811,000. This is approximately three times as great as it was three decades ago (6). Although total growth is an important consideration, the changing composition of the population is a more significant trend to observe. While the total population has increased three times its size from 1900 to 1964, the non-white population has increased five and one-half times. Today 61 per cent of the population within the District of Columbia is non-white (6).

One important factor affecting the change in population composition was the large-scale immigration of non-white persons after the Civil War and after each of the World Wars. Another factor was the gradual decentralization of the white population from the District to the outlying suburban areas of Virginia and Maryland. These are some of the reasons that the District of Columbia has a higher proportion of non-white residents than any other urban center in the United States.

Vital Statistics

The birth and death rates of the two segments of the population reflect the age variance in these groups. In 1964, the birth rate of the non-white population, 29.0 per 1000 live births, was twice that of the white population. However, the death rate of the white population, 13.3 per 100,000 persons, was one and one-half times as great as for non-white persons (6). The higher death rate of the white population can be attributed largely to the advanced age of many of the white residents, just as the higher birth rate among the non-white population reflects the youthfulness of this segment. These age characteristics can be further illustrated by the graph in Figure 1.

In the non-white population, 41 per cent is less than twenty-one years of age; and the largest portion is less than four years. This is in considerable contrast to the white population which has 79 per cent of its population over twenty-one years of age, with the largest portion over sixty-five years. The dissimilarity in age groups of the two constituent populations presents different health problems to the community. The youngest group requires special health facilities to provide well child care, immunizations, school health care, and prenatal care; whereas the older population requires home care facilities, nursing homes, and treatment for long-term illnesses.

The ten leading causes of death in the District of Columbia are compared to those of the United States in Table I. The deaths caused by influenza and pneumonia were more than one-and one-half times as great for the District as for the United States. This was also true

ESTIMATED POPULATION BY AGE AND COLOR: DISTRICT OF COLUMBIA, 1964

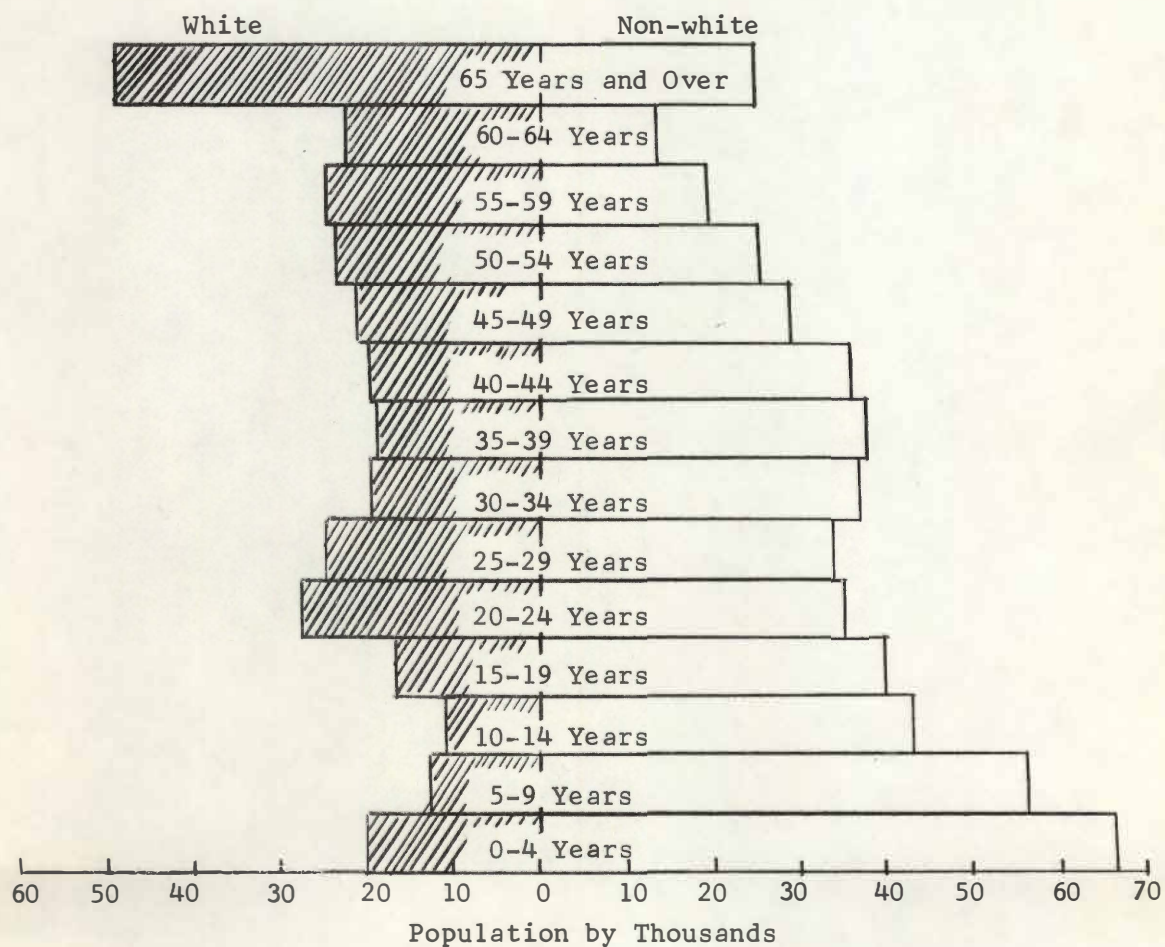


Figure 1. Comparison of the population of the District of Columbia by age and color, 1964.

From Vital Statistics Summary, 1964, District of Columbia.

TABLE I

LEADING CAUSES OF DEATH WITHIN THE DISTRICT OF COLUMBIA AS COMPARED
TO THOSE OF THE UNITED STATES AS A WHOLE FOR 1964 (6, 8)

Leading Causes of Death (Per 100,000 Population)	District of Columbia		United States	
	Rank	Rate	Rank	Rate
Heart Disease	1	376.5	1	365.8
Cancer	2	184.6	2	151.3
Vascular Lesions of the Central Nervous System	3	100.6	3	103.6
Accidents, All Forms	4	62.8	4	54.3
Diseases of Early Infancy	5	56.8	6	31.1
Influenza and Pneumonia	6	52.2	5	31.5
Cirrhosis of the Liver	7	34.3	12	12.1
Other Diseases of the Circulatory System	8	23.2	9	13.5
Diabetes Mellitus	9	21.8	8	16.9
Homicide	10	17.8	--	5.1

for diseases of early infancy. Deaths from cirrhosis of the liver were almost three times as prevalent, and the diabetes mellitus death rate was comparatively high. Though not listed within the leading causes of death, the high proportion of complications in pregnancy and the high incidence of prematurity among pregnant women has contributed to Washington's high rates of infant and maternal mortality. Presently the District's rates are higher than any city within the nation (5). In 1964 the infant mortality rate was 34.6 per 1,000 live births, as compared to 24.8 for the United States as a whole. The maternal death rate for the District, 68.0 per 100,000 live births (years 1960-1962), is almost twice as great as that for the United States (36.4 per 100,000 live births for the same years) (6).

Biostatistics

Aside from some of the leading causes of death, there are other health indices which show that Washington's health problems rank high among the cities of the nation. The District has the second highest rate of gonorrhea, and the fifth highest of syphilis in the United States. It has the sixth highest tuberculosis rate of any city within the country (7).

Among the 20,000 resident females who give birth each year, 7,000 seek hospital delivery at public expense. Approximately 89 per cent of these indigent or medically indigent females suffer from complications of pregnancy and/or give birth to premature infants and/or are unwed and/or are under sixteen years of age. The number of maternity

cases delivered without prenatal care is about 2,800 each year (5).

Political Influences of the Federal Government

The local government is administered by a board of three presidentially appointed commissioners who operate under the authority delegated by Congress. This board is made up of two civilian residents, and an officer of the Army Corps of Engineers. Each commissioner has a number of departments under his supervision. The Board President, elected by the other two commissioners, supervises public safety. The other civilian commissioner directs health and welfare programs. The Engineer Commissioner is responsible for public works (1).

There are two sub-committees of the Senate and House Appropriations Committees which are in charge of recommending appropriations for the District of Columbia. Revenue for the city government's programs and construction projects is channeled through five avenues:

1. A general fund, a water fund, and a highway fund from local District taxes and fees.
2. An annual federal grant to help offset the loss of revenue from federally owned tax-exempt property.
3. Federal loans.
4. Grants-in-aid (since the District is treated as a state and as a city, it is eligible for federal grant-in-aid money).
5. Federal grants from funds appropriated to federal agencies for special programs, research, and demonstrations.

The federal government has complete jurisdiction over the government of the District of Columbia and, therefore, its total budget for the operation of all departments must be submitted to Congress for approval. For this reason, the federal government has considerable influence in determining the development of health programs and of nutrition services within the health department.

II. PROGRAMS OF THE HEALTH DEPARTMENT

The history, the administrative structure, and the future plans of the health department reflect the needs of the population. They are also linked closely with the history and development of Washington and the changing philosophy of public health.

History of Program Development

The first board of health in Washington was organized in 1819 (9). In 1823, 1933, and 1946, smallpox epidemics swept the District. With the assistance of the local medical society, the board of health was able to dispense free vaccine and treatment to those afflicted residents otherwise unable to afford treatment.

Provision of medical care for the indigent population has been a continuous policy throughout the history of the health department. The sum allotted for this care in 1874 was \$5,000 per year. This provided care for 840 cases. Several years later, Congress refused to appropriate further funds for treating medically indigent persons. The medical sanitary inspector's report in 1876 stated that 689 people died that

year for lack of medical attention (9).

The act of June 11, 1878 provided a permanent form of government for the District of Columbia, a municipal corporation administered by three commissioners. It also replaced the board of Health by a health officer (10). The first health officer, Dr. Smith Townsend, set about obtaining funds for caring for the indigent sick among the population. In his first annual report to the commissioners, he described the magnitude of indigency, the amount of untreated sickness, and the number of deaths occurring each year because no medical treatment was available.

There are at this time 40,000 Negroes in the District, a majority of whom flocked to the seat of government after the (Civil) War, expecting to gain an easy livelihood . . . but the reaction came, and with it hard times . . . they have remained in the shanties and huts which fill the alleys of Washington and Georgetown. Poorly clad, ill fed and surrounded with filth and squalor, they fall easy prey to disease and are a constant care to the health authorities.

There is also a number of poor whites who find the struggle for existence a hard one and whom when sickness overtakes them, find difficulty in procuring medical attention. . . .

There is no other city in the country of even half the population of Washington but that makes provision for the medical care of its indigent sick. That many die for lack of medical care is illustrated by the fact that the health officer is called upon daily to investigate the cause of death in cases where . . . no medical aid whatever had been rendered (9).

On January 15, 1879, an allotment of \$1,200 was made to the health officer for care of the indigent sick. He estimated that \$7,000 annually was needed to adequately meet the needs of the population (9).

From 1900 to 1960 there were many changes in the practice of public health within the District as within the entire nation. Some

of the factors affecting these changes were:

1. Successful treatment and control of communicable diseases.
 2. Increased interest and research in chronic diseases.
 3. Availability of federal funds for expanding and improving health facilities.
 4. Change in the nature of patient needs from acute, short-term hospitalized care to long-term out-patient and hospital care.
- Providing medical care for the indigent had become a much more comprehensive process involving many different medical and paramedical services. As the demand for these services increased, it became apparent that coordination of all health facilities within the community would have to be undertaken to provide efficient and continuous medical care.

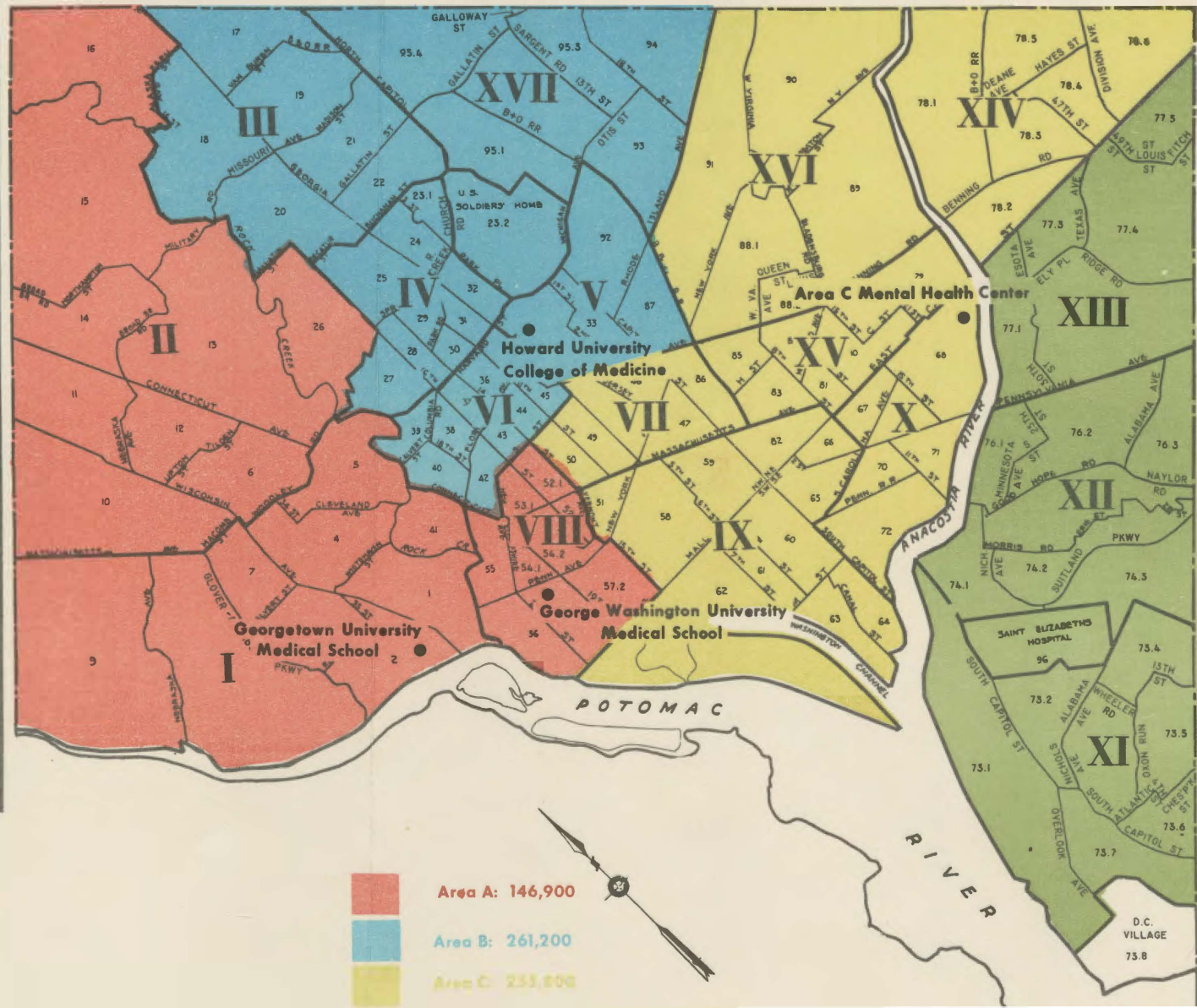
In 1963, the Department of Public Health of the District of Columbia began a program reorganization for the purpose of providing more coordinated health care for its residents. The proposed program would eliminate the individual geographic district divisions drawn up by each service by providing four service areas which would encompass the entire District (Figure 2). Within each health service area there will be a comprehensive health center adjacent to one of the large hospitals operating within that area. Each center is to provide mental health and mental retardation out-patient and in-patient facilities. Each will also contain complete in-patient and out-patient medical facilities. Small satellite clinics offering additional medical and

Health Service Areas

for Community Health Centers

DEPARTMENT OF PUBLIC HEALTH
Government of the District of Columbia

1964 Estimated		
TOTAL POPULATION		811,000*
AREA A		146,900
Statistical		
Area	I	52,300
	II	59,600
	VIII	35,000
AREA B		261,200
Statistical		
Area	III	59,400
	IV	65,000
	V	33,700
	VI	58,900
	XVII	44,200
AREA C		255,800
Statistical		
Area	VII	43,000
	IX	31,300
	X	39,400
	XIV	45,100
	XV	59,100
	XVI	37,900
AREA D		136,300
Statistical		
Area	XI	41,900
	XII	55,000
	XIII	39,400
*Inst. Population		10,460



mental health services will exist within the neighborhoods surrounding the health centers.

At the present time, the Area C Health Center has been developed the most extensively. The health facilities are affiliated with the municipal hospital. Mental health services are provided for children, adolescents, adult psychiatric patients, alcoholics and drug addicts, and geriatric patients. General health services are provided through clinics for dental health, crippled children, maternal health, tuberculosis, venereal disease, and family planning. A laboratory and a pharmacy serve all of the clinics. The other health centers located in Areas A, B, and D have not begun to function.

While planning toward the completion of the four comprehensive health centers, the department of health maintains a full range of decentralized programs and services to meet the many and varied needs of the population. Administratively, it functions as a state health department in defining health needs and representing these needs to the Board of Commissioners, in planning and coordinating programs, in evaluating the existing conditions and making recommendations, and in applying for federal grants. It differs, however, from states in that it provides a complete health program directly for the community. For this reason, it is unique among health departments in the country.

Organization of the Health Department

The Department of Public Health, Government of the District of Columbia is comprised of the Office of the Director and six Associate

Directors (see Figure 3). Within each of the six directorates, there are a number of bureaus, divisions, and sections. Special projects are usually under the supervision of bureaus. The directorates or program areas are: (1) preventive services, (2) mental health and retardation, (3) administration, (4) hospitals, (5) environmental health, and (6) medical care.

Revenue for the health department comes from three general sources: District funds, which comprise approximately 87 per cent of the available revenue; and federal grants and miscellaneous funds, which contribute about 13 per cent. The budget for the fiscal year 1967 was about \$65,000,000. Over 42 per cent of this sum was allotted for hospitals and medical care. Mental health and retardation services, including payments made to St. Elizabeth's Hospital, received 36 per cent of the budget. Preventive services received 17 per cent, and the remainder of the budget was used for administration and environmental health services (11).

While the student realizes the importance of cooperative interaction of the six directorates, she has chosen to discuss in depth those directorates most closely allied with nutrition. These were also the programs and services with which the student became most familiar.

Preventive Services

The responsibility of the Associate Director for Preventive Services is to plan, coordinate, and implement services for prevention,

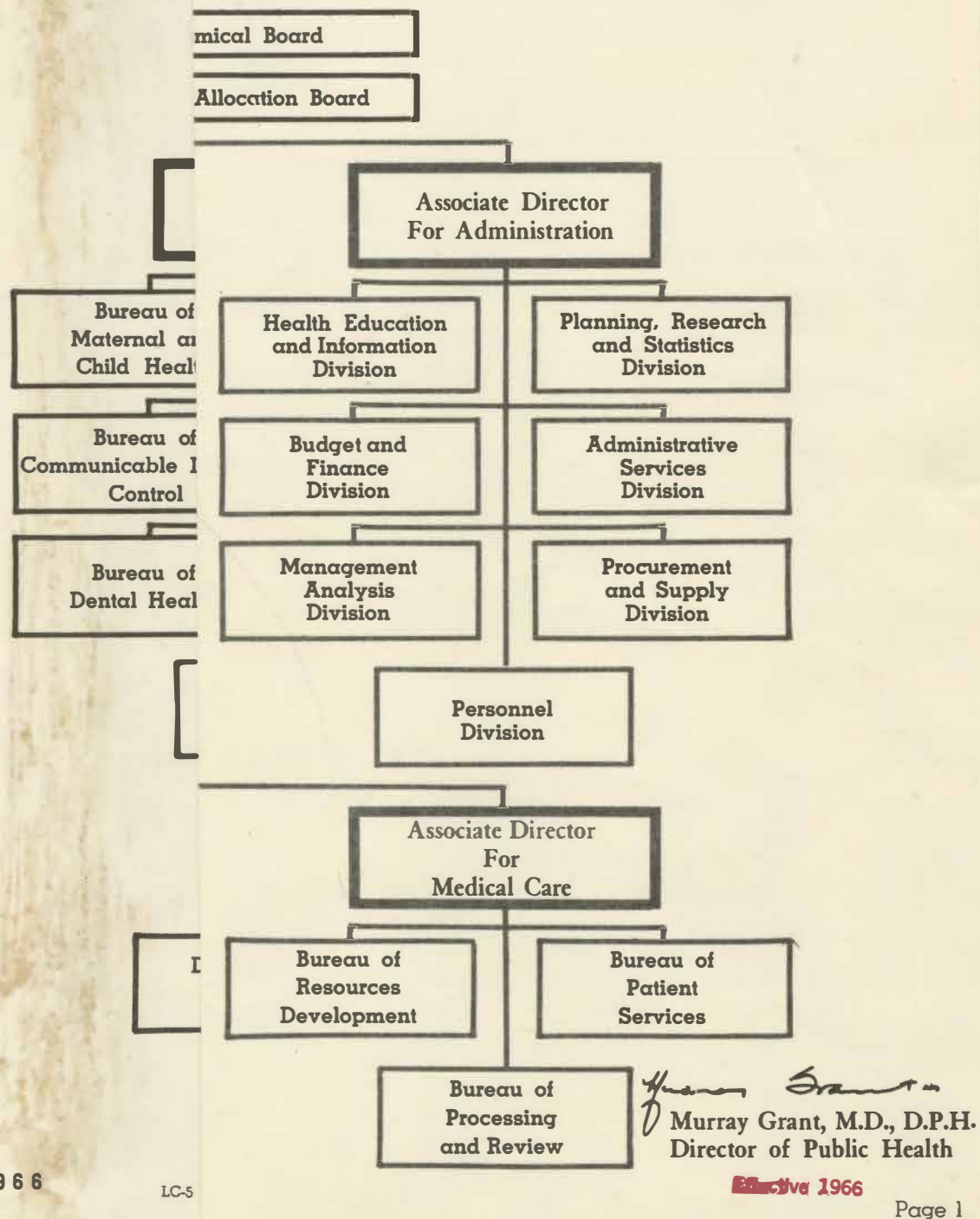
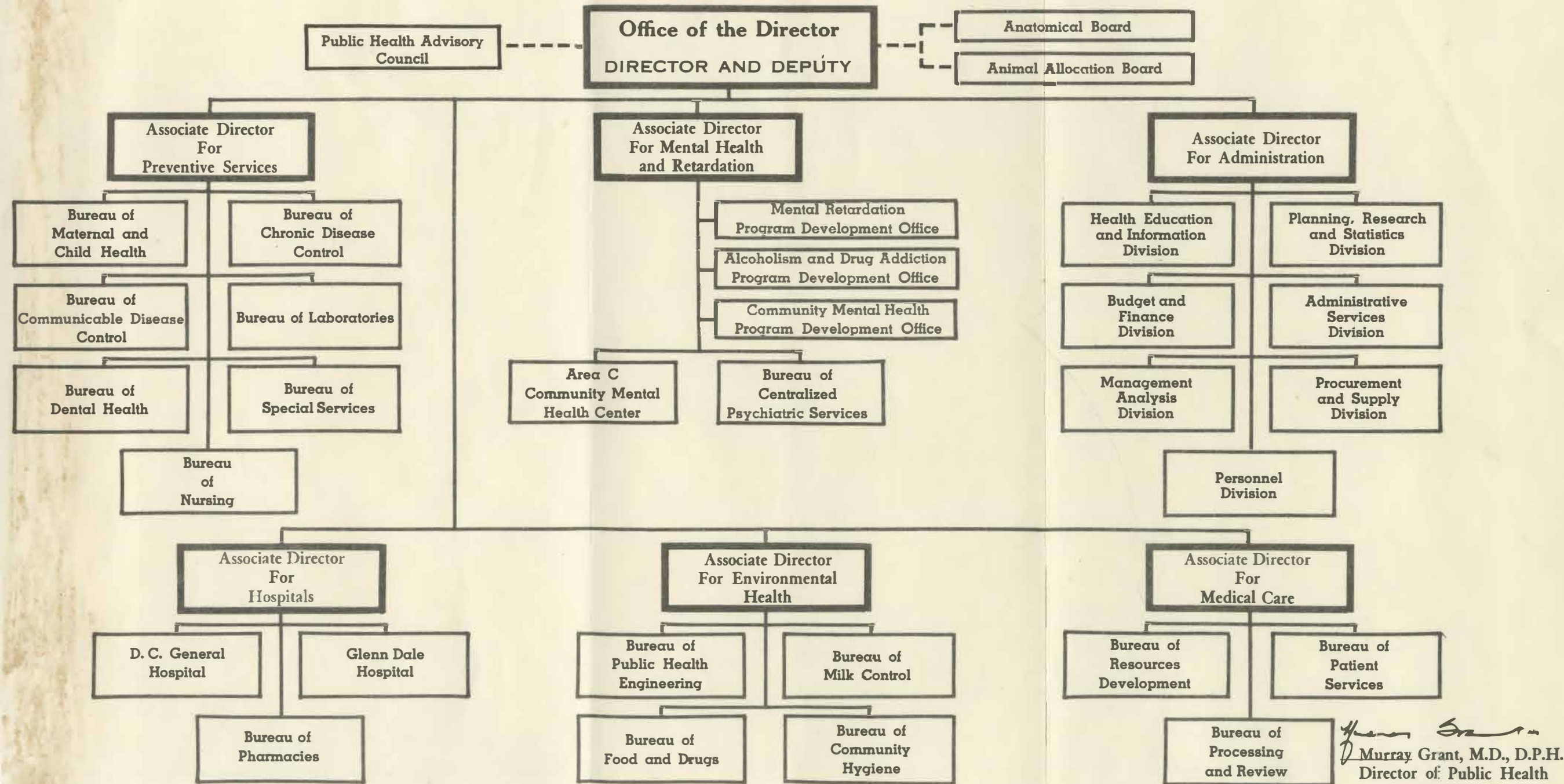


Figure 3. Organizational chart of the Department of Public Health, Government of the District of Columbia, 1966.

Government of the District of Columbia
DEPARTMENT OF PUBLIC HEALTH
ORGANIZATION CHART



Henry S. Murray
Murray Grant, M.D., D.P.H.
Director of Public Health

Effective 1966

treatment, and control of those communicable and chronic diseases which can be prevented. He is responsible for the epidemiological investigation of outbreaks of disease, the control of communicable diseases, and the preventive and rehabilitative treatment for all residents of the District. The seven bureaus within the Directorate of Preventive Services provide programs and services for the promotion of maternal and child health; dental hygiene and clinic service; screening and treatment of chronic diseases; public health nursing in all areas; laboratory services; and special services such as occupational and employee health, accident prevention, emergency health mobilization, nutrition services, and social services. Four of the seven bureaus will be discussed.

Bureau of Maternal and Child Health. The Bureau of Maternal and Child Health administers all of its maternal care program under the Maternal and Infant Care Project. Services include prenatal clinics, family planning clinics, and prenatal care given to the students of Webster School for Girls. The Bureau of Maternal and Child Health provides programs for infant and pre-school children, elementary school children, for Head Start and other special pre-school programs, and for licensure of newborn and day-care facilities.

In 1963, a five-year Maternal and Infant Care Project was initiated for the District of Columbia. The purpose of the project was to "... expand medical services and care to mothers and infants in the high risk categories ..." (5). At that time, the existing services

included maternity case-finding, clinic, and hospital services. These services were insufficient for five reasons:

1. The prenatal care program failed to reach over 2,500 women each year who delivered at public expense without receiving any prenatal care.
2. It did not provide the necessary supportive services; that is, health education, nutrition, clinical social services, field nursing, dental care, or homemaker service.
3. The municipal hospital's obstetrical service was overcrowded and understaffed.
4. There was insufficient follow-up for high risk infants.
5. There were inadequate family planning facilities (5).

With the additional Maternal and Infant Care Project funds, an expansion of the maternal care program was begun in 1965. A second admissions clinic for new patients was opened; and two additional prenatal clinics for follow-up care were started. Services of additional physicians and nursing personnel, as well as dentists, nutritionists, clinical social workers, and health educators were provided under the project. Funds were made available for contracting the services of the Homemakers Association for prenatal patients and their families in emergency situations.

Out-patient care in the prenatal clinics of the health department is available free of cost to any pregnant woman residing within the District. Hospital care, however, is free only to those women classified as indigent or medically indigent. Fees for high risk clients are provided from project funds, whereas the expenses of non-high risk clients are provided from health department funds.

All patients seeking prenatal care in one of the health department clinics must first register at one of the two admissions centers. After going through the initial examination, the client may elect to return to either of the two admissions clinics, or to one of the five neighborhood clinics to continue her prenatal care. The neighborhood maternity clinics will handle only "normal" pregnancies. If a serious complication such as rheumatic heart condition, diabetes, or syphilis is noted at the initial examination, or if a complication develops during the pregnancy, the client is referred, at the physician's discretion, to the maternity clinic at the municipal hospital for further care. This clinic is able to provide more intensive diagnostic and treatment services than are available in neighborhood clinics.

If a client chooses not to deliver at the municipal hospital, an alternative arrangement can be made with one of the three participating contract hospitals. The health department purchases prenatal, hospital, and post-partum care from the contract hospitals. Approximately 10 per cent of those clients eligible for free hospital care choose to use the contract hospitals. The majority deliver at the municipal hospital.

An important component of the comprehensive health plan for mothers provided by the Maternal and Infant Care Project, is the family-planning service. Clients are encouraged to take part in the program as soon as they have delivered. There are family-planning services offered in each of the seven maternity clinics. At the six weeks post-partum visit, those desiring information on family-planning

methods are given a general orientation by a public health nurse. They are then examined by a physician and instructed in the birth control method which they choose. Family-planning information and contraceptive devices are available, free of charge, to all married residents and to those single residents who have been pregnant. The project director stated that between 5,000 and 6,000 new client visits are recorded each year.

The Maternal and Infant Care Project staff provides service for the students attending Webster School. Webster School for Girls is a fully accredited public day school for pregnant girls under sixteen years. It was initiated by the Board of Education to allow girls in the seventh through twelfth grades to continue their education throughout their pregnancy. The school has an annual enrollment of 300 girls. In addition to the regular curriculum, the students receive instruction, counseling, and prenatal care from an obstetrician, a public health nurse, and three nutritionists from the Maternal and Infant Care Project.

Since the infant care component of the Maternal and Infant Care Project will not be activated until the fiscal year 1968, the Bureau of Maternal and Child Health provides twelve separate infant and pre-school clinics for well-child care. Those children with diagnosed illnesses are treated either at the out-patient clinic of the municipal hospital or at one of the two crippled children's centers. The infant and pre-school clinics provide continuous care from the time a child is one month old until he enters elementary school. A continuous

record of growth and development, childhood diseases and other illnesses, and immunizations received is kept on each child enrolled in the clinics.

Health services for the 169 public and parochial elementary schools are provided to the Board of Education from the health department. Medical health services, provided by the Bureau of Maternal and Child Health, and supporting services provided by other health disciplines are coordinated by the Coordinator of School Health Services. She functions as the liaison with the Board of Education, the health department, and other agencies servicing the schools. Presently, only diagnostic health services are provided to the schools. Treatment is provided by referral to other health department clinics, and to other community facilities. The Nutrition Services Division has assisted with programs and has given consultation on request to a number of the schools.

Funds for the Head Start programs within the District were granted to the Board of Education and to a number of independent agencies. The Board of Education program involved fifty schools and served 7,500 children last summer in a six-week program. Health services for this Head Start program were contracted from the Health Department. The other Head Start programs were undertaken by eleven independent agencies which have subsequently banded together into an organization called Capital Head Start, Incorporated. They provide a twelve-month program for about 250 children. Although the health

department does not provide medical service for this group, the Nutrition Services Division gives regular consultation.

Under funds from the Office of Economic Opportunity and Title I of the Elementary and Secondary Education Act of 1965, the Board of Education set up five Model Pre-schools in an area of the District which has a high percentage of children coming from socially and culturally deprived families. These pre-schools continue with Head Start children until they are prepared for elementary school. Routine school health services are provided to the pre-school children by the health department, with special direct and consultative services given by the Nursing Division and the Nutrition Services Division.

Bureau of Chronic Disease Control. The program for the Bureau of Chronic Disease Control was organized for the prevention and treatment of heart diseases, cancer, arthritis, diabetes, glaucoma, and other chronic diseases as well as for tuberculosis and venereal disease treatment. The four major areas of emphasis are: venereal disease, tuberculosis, home care, and adult and geriatric health.

The Venereal Disease Control Program maintains three clinics to provide diagnosis and treatment free of charge for any resident of the District. Even a minor may be treated without parental consent, but a visit by a venereal disease epidemiologist is made to the home of every minor treated to inform the parents of the treatment. Venereal disease personnel and public health nurses participate in health education classes in the schools and in educational programs for medical and other professional groups.

The Tuberculosis Control Division has a detection and follow-up program including a chemo-prophylactic program, in-patient and out-patient treatment, and a tuberculosis register for the District. Two clinics give chest X-ray examinations and tuberculin skin tests, and a mobile X-ray unit circulates throughout the District. Public health nurses and tuberculosis investigators follow up all contacts of diagnosed tuberculosis patients to be certain that each person who has been in contact with a tuberculosis victim is tested.

The Home Care Services Division provides a comprehensive home care program for indigent or medically indigent chronically ill persons who are unable to conveniently attend clinics. The program has two components: the District Physician Service and the Home Care Program. The District Physician Service consists of five physicians who have contracted to make emergency home visits to patients unable to afford the services of private physicians.

The Home Care Program provides medical services, nursing care, social services, podiatric care, physical therapy, occupational therapy, nutrition consultation, laboratory services, some home dental services, health-aide services, equipment, and pharmaceutical services to home-bound patients. These services are provided primarily to chronically ill and some acutely ill patients who are able to be maintained at home but are unable to be conveniently taken to clinics. The majority of the Home Care patients are over sixty-five years of age and are residents of the District with limited financial means.

The procedure for accepting and maintaining a patient on Home Care services is as follows:

1. A referral is made by a hospital, a physician, a public health nurse, or another qualified person.

2. An evaluation of the patient is made by a Home Care team which consists of a physician, a nurse, and a social worker.

3. This evaluation and subsequent recommendations are brought before the members of the Home Care Conference which consists of a representative of each of the medical and paramedical services offered in the program. If the patient is accepted into the program, medical treatment and the frequency of visits are determined.

4. Periodically each patient on the program is discussed by the Home Care Conference to determine if the home services are still necessary and to review treatment and evaluate the patient's medical progress.

The program of the Adult and Geriatric Health Division takes in a variety of activities: multiphasic screening, diagnostic examinations for the medically indigent, geriatric clinics, and an advisory project for nursing home operators. The health department has two multiphasic screening clinics; one in a health center, and one in a mobile unit. Each provides a battery of tests for detecting cardiovascular disorders, glaucoma, chest diseases, some types of cancer, syphilis, and vision and hearing defects. Before taking the tests, each participant must fill out a card with the name and address of his physician or the clinic which he attends. Results of the examinations

are then sent to the physician. If any of the test results are suspicious, a card is sent to the participant asking him to contact his physician to discuss the test results. A chronic disease clinic is maintained to provide thorough medical examinations and diagnoses for those indigent persons unable to afford this service. Patients are not treated at this clinic but are referred to other sources for care.

There are two geriatric clinics located in public housing complexes which have a high proportion of aged persons living within the complexes and in adjacent neighborhoods. The average age of the clients seen is sixty-eight years, their average income is about \$87.50 per month. The major aim of the geriatric clinics is to keep these clients from having to undergo hospitalization by providing continuous preventive care. The clinics are staffed by a physician, a public health nurse, a medical social worker, a nutritionist (part-time), a laboratory technician, a recreational therapist, and a physical therapist. They are equipped for diagnostic testing and follow-up treatment.

The purpose of the Nursing Home Improvement Project is to improve the services and standards of care in nursing homes and other extended care facilities within the District. This is brought about by consultation with nursing home operators, in-service education programs, and direct service on a limited demonstration basis. The project staff consists of two public health nurses who act as a liaison between the project and the Inspections and Standards Division of the Bureau of Nursing, a recreational therapist, an institutional nutrition consultant,

as well as a part-time physician, podiatrist, and dentist. The Inspections and Standards Division is responsible for licensure inspections and recommendations for nursing care in extended care facilities. By providing a liaison between this division and the Nursing Home Improvement Project, there is a much more coordinated effort toward locating and assisting facilities with problems.

Bureau of Special Services. Within the Bureau of Special Services, there are five divisions; Occupational and Employee Health, Accident Prevention, Health Mobilization, Nutrition Services, and Clinical Social Services. Since Nutrition Services will be discussed in depth in a later section, it will not be covered at this time. The student has chosen to discuss Clinical Social Services because of its widespread interaction within many health programs.

The Division of Clinical Social Services provides all of the medical and psychiatric social services within health department programs. Social workers give consultation to both individuals and groups. They function as a liaison between the individual and the health department in an attempt to alleviate psychological pressures, thereby increasing the effectiveness of medical assistance.

In prenatal clinics, social workers counsel high risk clients in an attempt to solve financial and family problems, as well as other problems which might cause emotional disturbances. Special attention is given to unwed prenatal patients with the hope of reducing the number of repeated illegitimate pregnancies.

In programs for crippled and mentally retarded children, social workers counsel both the child and his family in resolving problems within the home. In the Home Care Program, a social worker, along with a physician and a public health nurse, evaluates the suitability of each applicant for Home Care services.

Aside from medical clinic service, social workers participate as members of the evaluation and supervisory teams for the comprehensive mental health program conducted in the Area C Community Mental Health Center. They also give service to each of the other mental health and mental retardation programs.

Bureau of Nursing. The Bureau of Nursing provides service and participates in most of the programs within the health department. The organization of nursing services is classified in four divisions: the Division of Public Health Nursing, the Division of Clinic Nursing, the Division of Mental Health Nursing, and the Division of Inspections and Standards.

The Division of Public Health Nursing provides health education and nursing services to individuals and families in their homes; to groups and to schools, clinics, and institutions. There are approximately 150 public health nurses employed in the nine nursing districts of the health department. Each nurse carries a generalized patient load. As the comprehensive health areas develop more fully, the nine nursing districts will no longer be used. Instead, nursing teams composed of public health nurses, registered nurses, licensed practical

nurses, and nursing aides will be assigned to each health area.

The Division of Clinic Nursing involves clinic management and direction of clinic aides. The staff is composed largely of registered nurses. The clinic nurses provide health education and nursing services to all attending the clinics.

The Division of Mental Health Nursing participates in all aspects of the mental health and mental retardation programs. These services include educational programs on mental health problems for community groups and agencies.

The Division of Inspections and Standards, as was mentioned previously, makes periodic visits to all convalescent and nursing homes, and other extended care facilities to determine whether the quality of nursing care meets licensure standards. The nurses also work closely with the other disciplines in the Nursing Home Improvement Project to provide consultation and limited service for operators.

Mental Health and Retardation

The Associate Director for Mental Health and Retardation coordinates mental health and retardation services within the health department and provides assistance to private agencies and community groups. There are five divisions within this directorate: Mental Retardation Program Development Office, Alcoholism and Drug Addiction Program Development Office, Community Mental Health Program Development Office, Area C Community Mental Health Center, and the Bureau of Centralized Psychiatric Services.

Mental retardation program. The mental retardation program is in its beginning stages. It includes a diagnostic and evaluation clinic for children, adolescents, and adults; special education and work therapy classes; resocialization treatment; and counseling. The largest complex of rehabilitation services will ultimately be located in the four health centers.

Alcoholism and drug addiction program. The Office for Alcoholism and Drug Addiction Program Development is responsible for planning and providing rehabilitative therapy for chronic alcoholics and drug addicts within the District. It is also responsible for the 700 chronic alcoholics referred annually by the courts of the District to the health department. In-patient care is provided at the alcoholic rehabilitation facility in Occaquan, Virginia. Within the District there is an out-patient alcoholic rehabilitation clinic providing individual and group psychotherapy. Patients coming to this clinic are referred to other health department facilities for medical treatment and to community agencies for special services.

Community mental health program. The Community Mental Health Program Development Office is responsible for developing and expanding mental health services within existing community programs. Adding the services of mental health personnel from the health department strengthens and maximizes the resources of private agencies. This directed and coordinated effort minimizes duplication of services.

Area C Community Mental Health Center. Centrally located mental health services are concentrated in the Area C Community Mental Health Center. Area C provides all treatment services, such as psychotherapy, rehabilitation, pre-care, and community consultation. These services are available on an in-patient and out-patient basis in each of the five program areas: child, adolescent, adult, geriatric, and alcoholism and drug addiction.

One of the out-patient facilities presently being developed is a therapeutic nursery school for emotionally disturbed pre-school children. This nursery will provide care for children referred from other day-care and nursery school facilities within the District.

Bureau of Centralized Psychiatric Services. The Bureau of Centralized Psychiatric Services is in charge of the legal aspects and provisions for severely ill persons who must undergo long-term hospitalization. It also maintains an Emergency Psychiatric Consultative Service. This twenty-four hour telephone service was begun to intervene in crisis situations. Psychiatric personnel are available to give assistance to persons contemplating suicide, to provide referrals for those desiring information on public or private sources of psychiatric or rehabilitative assistance, and to provide professional attention quickly and conveniently for those needing advice during periods of extreme stress.

Administration

The Associate Director for Administration plans and coordinates the business management of the health department. Working under the Director of Public Health, he is responsible for budget and finance, personnel, health education planning, research and statistics, and centralized procurement and supply management. The student will discuss the Division of Health Education and Information because of its widespread participation in health department programs and because several of the services provided by this division were of particular interest to her.

Health education. The Division of Health Education plays an important role in interpreting health services to the community through radio, television, and newspaper reports. Aside from the dissemination of health information, the Division of Health Education carries on a number of other services. The Behavioral Science Section develops and conducts motivational studies on attitudes to identify health problems. With this information, programs can be developed with more scientific understanding of the needs of the population. Health Information and Referral Center is a centrally located facility dispensing information on public and private health services located within the District. Persons seeking information call or visit the center.

The Community Organization Section brings health information to the community through direct contact. Health educators work within certain program areas to promote available health services. In the

Maternal and Infant Care Project, health educators work with community and neighborhood groups to promote use of prenatal clinics. Health aides go into the homes in certain densely populated neighborhoods to locate those in need of prenatal care. Similar services are provided for tuberculosis and venereal disease control programs.

III. NUTRITION SERVICES DIVISION

The Nutrition Services Division, which is located within the Bureau of Specialized Services under the Associate Director for Preventive Services, maintains a program of broad nutritional services designed to evaluate and provide for the nutritional needs of the population. The history, the philosophy, and the objectives of the Nutrition Services Division are reflected in the types of service which it provides to specific programs and projects within the health department, as well as to agencies within the community.

History

The first nutrition program in the health department was started in 1938. At that time a nutrition specialist was employed primarily to teach residents about the donated food programs, but she also provided some nutrition instruction for clinic patients. When she left in 1941, the nutritionist position was removed from the District budget.

In 1946, funds were provided through a Children's Bureau grant for a nutritionist within the Maternal and Child Health program. At first, the nutritionist placed her primary emphasis on direct service to maternity clinics. As requests for nutrition consultation from

other disciplines and agencies increased, the nutritionist had to decrease direct clinic service and provide more consultation to nurses within the clinics (12).

In the 1963 reorganization of the health department, the nutrition unit was removed from the Bureau of Maternal and Child Health and placed in the newly formed Bureau of Special Services as the Nutrition Services Division. This transfer allowed the nutritionist to expand the range of her services to all programs within the department as well as to agencies within the community.

Although requests for nutrition services increased as the health department expanded, no budgetary provision could be secured for increasing the number of nutrition positions. The reason given was that Congress had predicated the need for additional staff positions on the basis of statistical accomplishments rather than on the number of services given or amount of educational consultation provided. By comparison, the statistical results of services performed by sanitarians or by public health nurses were more readily apparent in light of the needs of the population for specific services and the number of personnel required to adequately meet those needs. Nutrition, on the other hand, could not establish a need priority within the population and could not statistically determine the effects of the services already being provided. It was, therefore, difficult to demonstrate the need for additional nutrition personnel. Thus, from 1946 to 1963, there was only one nutritionist giving service in the health department (12).

In 1963, the Nutrition Services Division began expanding through project grants. Two positions were provided through Medical Aid to the Aged funds. In 1965, the Maternal and Infant Care Project funds provided five additional nutrition positions. In the summer of 1966, a nutrition position was added to provide services for the Board of Education Head Start Program. Presently there are eleven nutrition positions funded through project grants. One position, thus far, has been approved on the District budget. This position, which services the Nursing Home Improvement Project, was originally funded by a U. S. Public Health Community Service grant.

Objectives

Because optimum nutrition is essential to the achievement and maintenance of good health, the most basic objective of the Nutrition Services Division is to promote nutrition at all levels and in all programs within the health department as well as within other agencies providing health and allied care for the residents of the District of Columbia. More specifically, the Nutrition Services Division tries to determine the nature and extent of nutrition needs in the population and to provide services to meet these needs. These services, whether in the form of training, research, consultation, advisory or direct service, place special emphasis on attacking nutrition problems through informational and educational techniques (12).

Organization

Each nutritionist provides generalized service to all health department programs as well as specialized service to the nutrition component of projects. Because most of the nutrition positions are supported by project funds rather than by District funds, much emphasis is placed on justifying the time and services given to other programs, and showing a relationship to the projects. For this reason, the nutritionists work on an equivalent time basis; that is, a certain number of hours and services must be provided each month to those projects supplying funds. It is the total amount of time spent in specialized activities rather than the time given by individual nutritionists which is tabulated. This broad interpretation of project funding allows the nutritionists to perform as generalists as well as specialists.

Administrative structure. The organizational structure of the Division of Nutrition Services has been a straight-line relationship from the Chief of the Nutrition Services Division to the nutritionists. Because of rapidly expanding staff numbers and the increase in programs and services offered, this type of structure has become cumbersome, and a more functional structure has been proposed. The tentative structure would group all of the nutritionists in one of three sections according to categorical support. The nutritionists in each section would then be responsible to a section chief or coordinator who would, in turn, be responsible to the Division Chief. The three

proposed sections would be: Maternity Services, containing those nutrition positions funded under the Maternity and Infant Care Project; Children and Youth Section, containing those nutrition positions to be funded under the Children and Youth Project; and Consultant Services Section, which will contain all other nutrition positions.

Statistical records and monthly reports. Each nutritionist keeps two records of the services which she gives in a month. One is a daily record which is kept for the Research and Statistics Division. The other, also a daily record, is kept for the Nutrition Services Division. All services are categorized into individual or group consultation, and professional and non-professional consultation. Within the prenatal clinics, the high risk factors are coded and tallied individually. Prenatal, post-partum, and family planning client services are also tallied separately. By keeping an accurate record of the services which are given as well as the groups which are receiving service, it is easier to evaluate the adequacy of nutrition services to projects. These figures also give the nutrition division a common statistical denominator for comparison with other disciplines.

Each nutritionist must also turn in a narrative report describing the kinds as well as the amounts of service which she has given in a month. These reports are then organized by the Nutrition Services Division Chief, and presented to the Chief of the Bureau of Special Services. In this way, he is informed of current activities of the nutritionists.

Staff meetings. The monthly staff meeting of the Nutrition Services Division serves three important functions: (1) dissemination of information, (2) evaluation of programs, and (3) provision of in-service education. The first order of business is discussion of new regulations, changes in procedure, and other types of general information which would be important for the staff to know.

Program evaluations are also made at this time. The purposes, objectives, and results of nutrition programs or services are reviewed and evaluated. Suggestions for future or continuing services are made, and the entire staff is able to benefit from what has been learned.

An in-service education program is usually included at every staff meeting. This may consist of a lecture by representatives of other disciplines or other agencies; or it may be a workshop. The nutritionists provide staff education for one another by reporting on meetings, seminars, and other educational conferences which they have attended. By sharing information and materials, each benefits from the experience of the others.

Specialized Nutrition Services

Much of the service of the nutritionists is devoted to projects within the health department. Those projects with nutrition components are the Maternal and Infant Care Project, the Head Start Program, the Home Care Program, the Nursing Home Improvement Project, and the Adult and Geriatric Health Program.

Maternal and Infant Care Project. There are four full-time nutritionists, one part-time nutritionist, and a nutrition coordinator functioning in the maternal health component of the Maternal and Infant Care Project. One permanent nutritionist is located in each of the admissions clinics to give initial dietary instruction to each client as she begins her prenatal care. Along with general nutrition instruction, the client is given a leaflet to reinforce the instruction and to remind her of the types of foods which she should have. After instructing the client, the nutritionist briefly summarizes the visit on the patient's record so that further counseling can progress from this initial instruction.

There are two nutritionists in the five neighborhood clinics. They concentrate their direct services on high risk clients and those having dietary difficulties. They also give group demonstrations and set up displays within the clinics. The nutritionist located within the maternity clinic at the municipal hospital gives consultation to new and returning prenatal clients including those referred with serious complications.

One nutritionist is assigned to the maternity clinics of the three contract hospitals to give service to contract patients. She does not, however, limit her services to these patients alone, but counsels any pregnant woman whom the attending physicians refer for dietary advice.

Because family planning is part of the Maternal and Infant Care Program and is carried out at the maternity clinics, the services of

the nutritionist can be utilized. Nutritionists counsel patients in these clinics on a referral basis. The need for increased nutrition service to this program has been recognized, but time and numbers limit the service which the nutritionists can give.

Also included in the Maternal and Infant Care Project is pre-natal care for Webster Girls' School. Three nutritionists work within the school three days each week teaching classes, counseling individuals, and participating in staff conferences.

The nutrition coordinator and the other nutritionists working with the Maternity and Infant Care Project meet weekly to discuss program procedure. At this time, they also discuss cases, share new information, and present and evaluate materials which they have developed.

Head Start services. The nutritionist working with the health services team of the Head Start Program has a dual role: that of an educator and that of a member of the medical evaluation team. As an educator, she participates in nutrition workshops with teachers, she develops materials for their use, and she suggests methods for implementing nutrition education units. Throughout the summer program, she is available for consultation to teachers and works with parent groups.

As a member of the medical evaluation team, the nutritionist visits the homes of children with diagnosed nutritional difficulties to give instruction to the parents. These families are then followed

throughout the entire year. Reports of the children's progress are kept.

Another aspect of follow-up activities is the consultation and direct service given to the five Model Pre-schools within the District. The Model Pre-school Program, described previously, is continued largely for Head Start children until they are prepared to enter elementary school. In the follow-up service, the nutritionist works with the pre-school teachers on planning and developing nutrition activities in which the children can participate. She works with the program supervisor in applying food service principles to improve the meals and snacks served to pre-school children.

Home care service. A nutritionist works within the Home Care Program on a two-thirds time basis. Her major functions are: to establish realistic dietary goals for patients in a home setting, to develop effective methods of assessing the nutritional status of patients, and to promote adequate nutrition by teaching patients and their families or caretakers.

As a member of the home care team, the nutritionist participates in the weekly team evaluation conferences. When a dietary recommendation is made, she reviews the case and either visits the patient directly, or works with the public health nurse on giving dietary consultation to the patient.

Aside from the case evaluations, the nutritionist holds individual and group consultation with physicians, nurses, and paramedical

personnel working within the program. She also participates in the in-service education program for the Home Health Aides within the Home Care Program.

A patient residing in his own home, in that of a friend or relative, or in a licensed personal care home is eligible for Home-Care Services. A personal care home is a residence which takes in four or fewer persons who are unable to effectively care for themselves but who are not seriously ill. If a home care patient living in a personal care home is having dietary difficulty, the nutritionist will often use a home visit to instruct the patient and to counsel the caretaker on the patient's diet and also on general nutrition principles.

Nursing home services. The institutional nutrition consultant, as a member of the Nursing Home Improvement Project team, visits all nursing homes within the District to evaluate the food service and/or nutritional status of the patients to determine needs. She then offers consultation to administrators on planning food service programs, on kitchen lay-out, on equipment selection, and on establishing cost estimates of the menus served.

Recently the institutional nutrition consultant has begun some educational projects for the residents of the nursing homes. The topics which are especially important for these aging residents are food fads and misinformation, over-eating, self-imposed dietary restrictions, and failure to observe special dietary restrictions.

The institutional nutrition consultant is often called upon to submit an evaluation of the food service section of buildings to be approved for Hill-Burton funds. She reviews the kitchen lay-out in terms of the type of food service, the number of people served, the practicability of the equipment, and other factors which are necessary for an efficient food production center.

Adult and geriatric health service. There is a nutritionist giving one-half time service to the two geriatric clinics within the District. She holds conferences with patients referred by the physician, gives group instructions, and participates in staff consultation sessions. Her purpose is to establish realistic nutritional goals for these financially limited, aging clients. Some of the topics that she covers in her group education sessions are: weight control, general nutrition principles, wise purchasing, and correct preparation of foods. Often she uses food models or actual foods for the clients to sample in her presentations.

Generalized Nutrition Services

Although each of the nutritionists functions within a project, all are staff nutritionists as well. In this capacity, they provide a broad scope of nutrition services to other disciplines and programs in the health department as well as to community agencies.

Services to the Bureau of Nursing. Each nutritionist gives at least four hours of service per month to one or two of the nine nursing

district offices. These services are varied. Some of the types of assistance which are provided are: supplying nutrition resource materials, current literature, and visual aids; participating in nutrition orientation sessions; accompanying nurses on patient visits to provide direct nutrition counseling; and assisting and participating in community nutrition programs. Although the nutritionists can give only four official hours each month to the nursing offices, the preparation and follow-up for these services take many additional hours.

Intradepartmental services. The Nutrition Services Division receives requests for a variety of services from many other units which have a nutrition component. Examples of these requests are: for participation in in-service education programs, for consultation for developing food service facilities, for participation in special interdisciplinary projects, as well as for development of nutrition materials.

In-service nutrition education is provided for many professional and non-professional persons whose work requires current knowledge of the basic nutrition concepts and practical applications of nutrition principles. One such program was recently conducted for the dental hygienists working within the elementary schools.

The nutrition division has given consultation and assistance in developing food service facilities for mental health in-patient centers. An example is the Alcoholic Rehabilitation Center. Guidelines for

meeting nutritional needs were outlined, sample menus and supplemental feedings were determined, and programs for nutrition education and dietary counseling were proposed for this facility.

Nutrition consultation and service is often requested in planning and participating in special interdisciplinary health projects. One pilot project included direct and advisory services of medical, nursing, health education, and nutrition personnel for a program in two elementary schools. The nutrition component will involve provision of consultation for teachers who are developing nutrition activities, participation with parent groups, and some direct service to selected families.

Specific nutrition materials have been developed for use in programs not having the regular services of a nutritionist. Examples of these are: a weight-control pamphlet outlining a sensible diet pattern, which was developed as a hand-out in the disease detection screening centers; and a series of four infant feeding sheets, which the nurses in the infant and pre-school clinics can use to reinforce verbal instructions. These were developed at the request of the Chief of the Infant and Pre-school Division, as a guide for mothers. To assist the nurses in using the infant feeding sheets, the nutritionists are developing a reference guide manual.

Community services. The nutrition staff participates actively in the programs of their professional associations. For example, they are represented on the Community Nutrition Committee of the District Dietetics Association and on a number of the District Home

Economics Association's Committees which give service to the community. Recently the Chief of the Nutrition Services Division planned and participated in a four-week consumer forum for the aged.

In addition, the nutrition division members give consultation to a number of interagency nutrition councils which serve community programs. One is the Nutrition Sub-committee of the Food Stamp Advisory Council. This committee plans and implements nutrition education programs for Food Stamp recipients. Another is the Advisory Committee on Nutrition for Capital Head Start, Incorporated. This committee develops nutrition standards and food service programs for the participating centers.

Pre-service Education

The Nutrition Services Division promotes an improved understanding of public health principles as they apply to nutrition within the community by providing orientation programs for medical students and dietetic interns from several universities and hospitals within the District. The programs consist of a general introduction to the health department and to the nutrition division, observations with several nutritionists, and field visits with members of other disciplines.

Medical students' orientation. Second year medical students visit the nutrition division to observe the nutrition program and to become familiar with the services performed by nutritionists. The student may want to focus on one particular aspect of nutrition service, such as prenatal nutrition. In that case, he would spend most of his

time observing nutritionists in the prenatal clinics. If the student has no particular interests, he will be given a broad overview of nutrition services within various programs.

Dietetic interns' orientation. Dietetic interns from two hospital internship programs are assigned to the nutrition division for an orientation to community nutrition. Each nutritionist takes responsibility for planning an orientation. After attending the introduction and after making some observational field trips, the interns develop, present, and evaluate a nutrition activity. At the end of the two-week orientation, the interns and the nutritionist meet to discuss their activities in terms of their improved understanding of community nutrition.

Medical-Dental Apprenticeship

The United States Public Health Service provided a grant to the health department in conjunction with the medical and dental schools within the District for a summer apprenticeship program. Under this program, the universities select freshmen and sophomore medical and dental students to participate in research projects which are designed by different divisions within the health department. This year, one of the projects which was selected was submitted by the Nutrition Services Division. It was entitled, "Nutrition Consultation Needs of Low Income, High Risk Prenatals Given Care in Private Hospitals." The project was designed to determine the cause of the apparent communications gap between the physicians, who give

dietary instruction in the out-patient clinics of private hospitals, and their clients, who are often unwilling or unable to correctly follow this advice. The aim of the project is to give the medical students, as well as the physicians with whom they work, a more realistic picture of the needs of the low income prenatal clients and of the sometimes unrealistic demands which private practitioners unknowingly make when they give dietary instruction. The nutrition staff, and in particular, the nutritionists in the Maternal and Infant Care Project, will assist the medical students in developing and implementing their project and in interpreting the results.

CHAPTER III

ANALYSIS OF PERFORMANCE IN NUTRITION ACTIVITIES

As has been indicated thus far, an important aspect of the student's field experience was the opportunity to broaden her understanding of community health needs, of the program of health services, and of the contribution of nutrition to the health program in the District of Columbia. Another aspect of the field experience was the provision of observation and participation in activities aimed at developing those practical skills needed by a nutritionist. This aspect furnished the student with a basis for analyzing her performance in a number of situations. She has chosen to discuss several of the experiences which were of particular value in broadening her perspective of the role of a nutritionist.

In part I, the student discusses and analyzes her experience in situations demonstrating techniques often used by nutritionists. In part II, she describes, in depth, her role in the development of a nutrition unit for pre-school teachers.

I. SITUATIONS DEMONSTRATING NUTRITIONAL TECHNIQUES

Consultation with professional workers. Consultation is a problem-solving process taking place between two or more professional people to improve the skill and knowledge of the consultee. The nutritionist,

because of her expertise in the application of nutrition sciences, is often called upon to give consultation. On occasion, she too may assume the role of consultee and seek assistance in her own or in other fields.

The student learned the value of consultation as a means of extending knowledge from her role as a consultee. On one occasion, the student sought assistance in developing a nutrition education flyer. The flyer, entitled "Betty Budget," was published monthly by the Nutrition Sub-committee of the Food Stamp Advisory Council. The purpose of this flyer is to provide simple, easily distributed, nutrition information for low-income families. The format of the flyer includes: a list of plentiful, low-cost foods; one day's menu and a related recipe; and food purchasing, preparation, and storage tips.

The student felt that she had sufficient knowledge of nutritional needs and skill to develop the material. She realized, however, that she was not familiar with the particular dietary problems or patterns of this segment of the population. Therefore, she consulted with several of the nutritionists. They were able to provide her with necessary information, but more than that, they were able to offer suggestions on ways of making the flyer meaningful to low-income families. After the format was developed, the student presented it as a meeting of the Nutrition Sub-committee. With the assistance derived from the consultations, the student felt confident in the appropriateness of the flyer and in justifying the content to the

committee. The format was accepted with only a few minor revisions and was printed and distributed during the month of May. A copy of this leaflet is found in Appendix A, page 65.

The consultation process served in improving the consultee's understanding of the dietary needs and patterns of the low-income population. A better understanding of the problem, then, helped the consultee in developing educational materials for this group.

Pre-service and in-service education. Pre-service and in-service education play an important role in expanding and continuing learning for all health department personnel. The nutritionist is often called upon to participate in such programs. One on-going program is being provided for fourteen Home Health Aides in the Home-Care Program. The Home Health Aides are trained to give supportive service to the para-medical staff. Since they are often called upon to prepare meals and purchase food for home care patients, it is important that they understand basic nutrition principles. Therefore, the nutritionist has taken part in the initial pre-service training and provides regularly scheduled in-service nutrition sessions.

The topic scheduled for the session which the student observed was an introduction to special diets. The session began informally with a discussion on several food purchasing problems which had been reported to the aides by personal-care home administrators. Because of the interest of the class, the nutritionist joined their discussion

and suggested some principles of wise purchasing, rather than attempting to pursue her original topic.

The student felt that the nutritionist had shown flexibility in adapting her content to the problems and interests expressed by the aides. The nutritionist had realized that if her information was to be meaningful and usable, it would have to apply to the immediate problems.

Group work with non-professionals. As part of the nutrition service to the maternal health program, nutritionists teach at Webster School for Girls. In observing one of the nutritionists teach the teen-age pregnant girls, the student noted that her presentation was informal. She encouraged class participation, and she attempted to stress only a few important principles.

Several weeks after observing the nutritionist working with this group, the student was given the opportunity to teach two tenth-grade classes at Webster School. By using some of the techniques which she had observed, the student was able to elicit interest and response to her topic, "The Importance of Teaching Your Baby Good Food Habits." She found that the class seemed more interested in nutrition principles when they were focused on improving the health of babies than when they were directed to the teen-age girls themselves.

The student enjoyed teaching the two classes of prenatal adolescents and felt that this experience would be beneficial in working

with other non-professional groups. Furthermore, she learned that an effective group presentation depends on several factors:

1. An understanding of the background and the interests of the group, as well as their attitudes on nutrition.
2. A familiarity with the available facilities.
3. An effort, on the part of the nutritionist, to make her discussion meaningful.

Conference in behalf of planning. In planning a nutrition activity, it is important for the nutritionist to be aware of circumstances related to the program. To avail herself of information and existing attitudes, as well as to share her ideas with others concerned, the nutritionist frequently participates in planning conferences.

The student learned the importance of this procedure when she had the opportunity to develop four-week cycle menus for the Child Guidance Clinic for emotionally disturbed pre-school children. Before the menus could be adequately planned, the student felt that it was necessary to know about the facilities at the clinic, the length of time the clinic would operate each day, and the particular dietary patterns of the children attending.

First she conferred with the Head Start Nutritionist who had assisted in developing the food service procedure. From this conference she was able to identify two considerations:

1. The menus would have to provide between one-third and one-half of the children's nutritional needs each day since they would be at the clinic for more than five hours.

2. The menus could not be too complicated because the cook was inexperienced.

Next she spoke with the clinic director to ascertain the objectives of the staff, as well as the needs of the children. From this conference, the student learned that the teachers felt it would be necessary to give the children a substantial snack in the morning. From their experience, many children came to school without eating breakfast. They also felt that these children would accept simple, colorful, and familiar foods more readily than those foods which they did not know..

In planning and developing the four-week cycle menus for the Child Guidance Clinic (See Appendix B, page 66), the student realized the importance of planning conferences. She had been able to identify some of the basic factors and to plan accordingly, even though she had been unable to observe the menus in use or to evaluate the children's reaction to the menus.

Counseling of non-professional persons. The nutritionists within the maternity clinics devote a great amount of their time to direct prenatal counseling. To familiarize herself with this aspect of nutrition service, the student accompanied a fifteen year-old prenatal patient and her mother through each phase of the admission process at a maternity clinic. The social, cultural, and economic background of this patient; as well as the process of evaluation, diagnosis, and recommendations for her have been included in a report by the student

found in Appendix C, page 70. This experience was valuable to the student because it demonstrated the inter-disciplinary approach used by the maternity clinic team in evaluating the needs of a prenatal patient. It also gave the student a personal insight into the social, cultural, educational, and economic background of the type of clients that are seen in the clinics.

The experience of observing the admission process had served to "set the stage" for subsequent counseling experiences for the student. With the knowledge gained from this experience and with practice in nutrition counseling, the student felt that she acquired some skill in developing rapport, in eliciting response, and in making realistic dietary recommendations.

II. DEVELOPMENT OF A NUTRITION UNIT

A major aim of the Head Start Nutritionist is to involve Model Pre-school teachers in nutrition education activities. The student and the nutritionist frequently discussed methods of making these activities meaningful to the teachers so that nutrition education could be easily incorporated into their lesson plans. With the ideas which had evolved from these discussions, the student decided to develop a nutrition unit as a demonstration to pre-school teachers of a nutrition classroom activity. Her objectives in developing the unit were:

1. To encourage receptiveness toward nutrition education on the part of the teacher, and willingness to continue with this type of nutrition activity in the future.

2. To promote interest and response on the part of the children.

Description of the nutrition unit. With the assistance of the nutritionist, the student decided upon the subject and the format of the unit. The topic was a nutritious food which was either unfamiliar to the children or unpopular. The format included a brief lecture introducing the food topic, a related class-participation activity, and a summarizing discussion.

Development and planning. Liver was chosen as the food topic for the demonstration unit. The introduction used illustrations showing the importance of liver as a rich source of iron. The class activity consisted of preparing and tasting liver.

After planning the format, the student designed visual materials to implement the presentation. She also developed leaflets to present at the end of the activity. These leaflets served to reinforce the information given in the presentation as well as to provide a way for the children to share their knowledge with their families. An outline of the materials and a description of the visual aids can be found in Appendix D, page 73.

Participation. To determine the effectiveness of the material, and to increase her experience with pre-school children, the student presented the unit to four pre-school classes. The children in all of the classes responded enthusiastically to both the story and the

activity. After her demonstration, the student conferred with two pre-school teachers. Both indicated that they would be willing to use this type of presentation in their classes.

The Head Start Nutritionist, who had observed the student's presentation, commented on the favorable response of the children and the teachers. She also suggested several minor changes which could be made to improve the material for future use, and indicated that she would like to develop a series of similar units for use in the summer Head Start program.

Observation. The student felt that in order to assess the usefulness of the unit, she would have to observe the unit presented by a pre-school teacher. The nutritionist provided her with this opportunity by arranging for an observation of two pre-school teachers using the activity in their classes.

The student was pleased that the teachers were able to utilize the material and to incorporate techniques of their own, as well. These children were also responsive to the story, the preparation, and the tasting session.

In evaluating the nutrition unit, both teachers made favorable comments on the simplicity, colorfulness, and the appeal of the material. Both felt that this type of activity could be easily included in their classes. They further expressed a desire for similar nutrition education materials for future use.

Evaluation. The student believes that her activity was successful in meeting the established objectives. She felt that the teachers' interest in nutrition education was stimulated to some extent because of their favorable reaction to the nutrition activity as indicated by their expressed willingness to use the unit on other occasions. Furthermore, she felt that the children's acceptance of the material was manifested not only in their enthusiastic response to the story, but also in their willingness to taste a somewhat unpopular food.

In evaluating her own performance, the student believes that she received invaluable experience from this activity. Because she was given the opportunity to develop, plan, participate, and observe her nutrition unit, the student was able to employ a number of the consultative, planning, educational, and group techniques which are so valuable to a nutritionist. Since she was further able to evaluate her performance and her material with pre-school teachers and the Head Start Nutritionist, she was, in effect, evaluating herself. The student was very grateful for this opportunity and believes that it will be of assistance in the future.

CHAPTER IV

EVALUATION

Throughout her course of study, the student has become aware of the importance of nutrition service to the programs of a health department in assessing and providing for the health needs of the community. This concept has become more meaningful through her eight-week's field experience.

In evaluating her observations and experiences, the student believes that her objectives were achieved. Her understanding of the administration, direction, and cooperative interaction of health programs was increased, and she became more aware that successful programs are the realization of capable administration.

Consultation with nutritionists and observations of their services to health department programs and community agencies increased her understanding of the role and function of a nutritionist. The practical nutrition activities with and for professional and non-professional persons assisted her in broadening her own knowledge and ability in the field of public health nutrition.

Over and above the realization of her objectives, the student's own philosophy and understanding of public health was strengthened. Her experience provided her with a deeper insight into the projected goals of a health department, the adjustment in programs and services,

and the alignment of personnel necessary to meet these goals.

The student believes that her academic program and field experience were invaluable in preparing her for her role in public health nutrition. They provide a base for acquiring the knowledge and skills which will be necessary for meeting the challenges of the future.

The student of public health nutrition, as she assumes her professional role, takes up the challenge offered by the architect, Daniel H. Burnham:

Make no little plans; they have no magic to stir men's blood, and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency . . . (13).

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APPENDICES

APPENDIX A

NUTRITION EDUCATION FLYER



MAY

1967

BETTY BUDGET'S

BEST FOOD BUYS

MILK GROUP

Fresh Milk

Buttermilk

Non fat
Dry MilkEvaporated
Milk

Cottage Cheese

MEAT GROUP

Eggs

Liver

Chicken

Beef

Herring

Shad

Porgies

Fresh and Frozen
PerchFRUIT-VEGETABLE

Florida Oranges

Frozen
Orange Juice

Bananas

Onions

Corn on the Cob

Maine Potatoes

Carrots

Cabbage

Spinach

BREADS-CEREALSQuick Cooking
Cream of Wheat

Oatmeal

Enriched Bread

SHOP FOR
"SPECIALS"

A LOW-COST FAMILY MENU

BREAKFAST

Orange Quarters

Quick Cooking Cream
of WheatRaisin Toast - Margarine
Milk CoffeeLUNCHPerch Fillet on a Hamburger
RollBanana
Milk Iced TeaDINNER* Creamed Eggs and Peas on Toast
Salad Greens with Diced Carrots

Hot Gingerbread

Milk Coffee

RECIPE

OF THE MONTH

* Creamed Eggs and Peas on Toast (makes 6)

1. <u>Pour</u> off liquid from  1 lb. can of Peas and Add water to make  2 CUPS — <u>SAVE!!</u>	2. <u>Mix</u> in a heavy pan :  1 cup Instant dry Milk  4 T. flour  1 tsp. Salt * Little bit of pepper	
3. <u>Add</u> to pan:    2 cups liquid (a little at a time)  Stir out lumps	4. <u>Cook</u>: over low heat  UNTIL THICK. (KEEP stirring or it WILL STICK). Stir in:  2 T. margarine	5. <u>Serve</u>: Add  Peas +  6 sliced Hard-COOKED Eggs. Pour over  6 pieces of toast

BUYING AND USING EGGS

- * Buy whole, clean eggs which have been in refrigerator cases.
- * Keep all eggs (cooked or uncooked) in the refrigerator.
- * Cook eggs at low heat. High heat and long cooking will make an egg tough.

Eggs are a Good Buy!



JOIN THE
FOOD STAMP PROGRAM

Better Food.....Better Health

Apply at 1230 Taylor Street, N. W. (20011) 9:00- 3:00

629-3286



APPENDIX B

CYCLE MENUS FOR NURSERY SCHOOL

FIRST WEEK

	<u>SNACK</u>	<u>LUNCH</u>	<u>SNACK</u>
Mon.	Cold Cereal (Raisin Bran) & Milk	Spaghetti & Meat balls Green Salad Bread & Butter Milk Apple Sauce	Orange Quarters Milk
Tues.	Deviled Egg half Bread & Butter Cocoa	Chicked (broiled or baked) Baked Potato Spinach Bread & Butter Milk Molasses Cookie	Orange Juice Crackers
Wed.	Grape Juice Cheese Toast Milk	Hot Dogs Baked Beans Celery Sticks Milk Orange Quarters	Molasses Cookie Cran-apple Juice
Thurs.	Raisin Bread & Peanut butter sandwich Milk	Vegetable Beef Soup American cheese & Bologna sandwich Carrot & green pepper strips Milk Canned Peach slices	Orange Juice Graham Crackers
Fri.	French toast wedges Orange Juice	Baked Fish Sticks Whipped potatoes Green Beans Milk Corn Bread & butter Baked custard	Apple Quarters Cheese cubes Milk

SECOND WEEK

67

	<u>SNACK</u>	<u>LUNCH</u>	<u>SNACK</u>
Mon.	Raisin Bread & Peanut Butter Orange Juice	Scrambled eggs (add American Cheese) Toast - butter Broccoli Milk Oatmeal raisin cookie	Grape Juice $\frac{1}{2}$ Banana
Tues.	Apple Slices & Cheese Cubes Cocoa	Chipped Beef on Mashed Potato Green Peas Milk Gingerbread	Orange Juice & Oatmeal cookie
Wed.	Peanut Butter on Banana slices Milk	Meat Loaf Parslied Potato Carrots Milk Baked Rice Pudding	Orange - Grape- fruit Juice Cheese
Thurs.	Orange Juice Special K Milk	Tomato Soup Tuna Salad sandwich Milk Fresh Fruit (bananas, oranges, etc.)	Graham Crackers Milk
Fri.	Hot Apple Sauce with Raisins Milk	Baked Macaroni & Cheese Green Beans Tomato & Lettuce Milk Jello with fruit cocktail	Quartered Oranges Oatmeal cookie

THIRD WEEK

	<u>SNACK</u>	<u>LUNCH</u>	<u>SNACK</u>
Mon.	French Toast Wedges Orange Juice	Cubed Steak Quartered Buttered Potatoes Collard Greens Milk Hot Gingerbread	Milk & Crackers
Tues.	Raisin Bread & Peanut Butter Sliced Oranges	Baked Ham Scalloped Potatoes Green Beans Corn Bread & Butter Milk Watermelon	Milk Bananas
Wed.	Baked Cheese Toast Milk	Liver Strips Buttered rice Cole Slaw Bread & Butter Milk Canned Sliced Pears	Cran-apple juice Oatmeal Raisin cookie
Thurs.	Raisin Bran & Milk-	Chicken Noodle Soup Ham Lettuce & Tomato sandwich Milk Fruit Cocktail	Quartered Orange Milk
Fri.	$\frac{1}{2}$ Sliced egg sandwich Cocoa	Tuna Fish Noodle Casserole Broccoli Hot Biscuits Milk Baked Custard	Orange Juice Oatmeal cookie

FOURTH WEEK

	<u>SNACK</u>	<u>LUNCH</u>	<u>SNACK</u>
Mon.	Bacon Strips Cinnamon Toast Apple Juice	Hamburger Buttered Carrots Potato Salad Milk Canned Peach Slices	Orange Juice Crackers with Peanut Butter
Tues.	Grape Juice Special K Milk	Liver Strips with Bacon Cheese - rice Green Peas Bread & Butter Milk Orange Slices	Graham Crackers & Sliced Cheese Milk
Wed.	French Toast Wedges Milk	Beef Stew with Potatoes & Carrots Tomato & Lettuce Bread & Butter Milk Baked Custard	Quartered Oranges Molasses Cookies
Thurs.	Peanut Butter Raisin Toast Milk	Vegetable Beef Soup Toasted Cheese sandwiches Fresh Green Salad Milk Fruit in Jello	Cran-apple Juice Graham Crackers
Fri.	Baked Cheese Toast Cocoa	Baked Fillet of Fish Broccoli Scalloped tomatoes Milk Molasses Cookie	Orange Juice Crackers with Peanut Butter

APPENDIX C

REPORT OF PRENATAL INTAKE PROCEDURE

General Information on Saundra T.:

A. Family Life:

The family unit consists of a mother, eight children and one grandchild. The first three children bear the mother's surname and have the same father. The remaining five children bear the surname of the second father. The mother, Mary T., is 32 years of age and has never been married. Her sole source of income has been Aid for Dependent Children, which she has received for 18 years. Neither of the putative fathers has ever contributed to the support of the children. The family income is \$214 per month. Rent is \$75 per month. The oldest daughter and her child live in the same home. Saundra and her baby will also live in her mother's home.

B. Client's Background:

Fifteen year old Saundra T. is the third oldest of the eight children. She had just recently been dismissed from her eighth grade class when it was discovered that she was in the fourth month of pregnancy. Saundra said she liked school and hoped to return after she delivered and study "to be a nurse."

The putative father, sixteen year old Arthur B., attended high school and had a part-time job. He was not going to assist in the support of the baby, and his mother said she would be unable to contribute because she was the sole support of her six children.

Clinic Procedure:

A. Intake Information:

Saundra and her mother first saw the intake interviewer who set up her file. Saundra was ultimately classified as "high risk" by the physician because she was (1) a minor (under 16 years of age) and (2) unwed, and determined that she would be eligible for hospital care because her family was medically indigent.

B. Eligibility Assessment:

Saundra's mother then discussed the pregnancy with a Patient Services caseworker. The hospital arrangements were tentatively made, the clinic which Saundra would attend was selected, permission was obtained for discussing family planning with Saundra and living arrangements were secured for the mother and child.

C. Medical Examination:

Saundra was given a thorough examination by a physician, and her medical history was obtained. It was determined that Saundra was not anemic, that her blood pressure was above normal, and that she had already gained about 7-10 pounds since becoming pregnant. She had recently had a kidney infection and was supposedly on chemoprophylaxis because of a positive tuberculin skin test. The physician recommended a limited sodium-limited calorie diet, and wrote out several prescriptions.

D. Nutritionist's Consultation:

The clinic nutritionist talked with both Saundra and her mother about the client's diet during pregnancy. Through a 24 hour recall, she attempted to identify Saundra's eating habits, types of foods and quantities eaten throughout the day. She then gave Saundra a copy of "Food For You and Yours - Restricted Sodium, Restricted Calories" leaflet to use as a guide in planning her diet. The nutritionist reviewed the foods and quantities which should be eaten each day, and gave special emphasis to those foods to avoid. She suggested that Saundra reduce the number of "sodas" (carbonated beverages) which she drank to one a day, and to exclude highly salted snacks. She also demonstrated how Saundra might space her meals leaving fruits and milk for in-between meal snacks.

E. Nurses's Consultation:

The nurse gave Saundra a month's supply of multivitamins, an iron supplement, a prescription for an antibiotic for her kidney infection and a vaginal cream. She instructed her in prenatal hygiene, possible danger symptoms and what to do if an emergency should arise.

F. Social Worker:

All girls 16 and under are referred to the social worker. Because Saundra had expressed an interest in returning to school, she discussed with the social worker for possible admittance referral to Webster School for Girls. Webster School is an accredited public school

maintained by the Board of Education, solely for pregnant girls 16 years of age or under in the 7-12 grades. It was begun 3 years ago to allow for continued education during ~~their~~ pregnancies. The school can accomodate 300 girls but there are over 1,000 girls each year in need of assistance.

After the girls deliver, they are then transferred to a public school. Along with continuing education, the Webster students attend classes taught by a physician, a nurse and nutritionists. The public health team covers many of the aspects of pregnancy and child care. They provide a continuity of care by also providing prenatal and post-partum care for these girls.

G. Referral:

Saundra's name was put on the long waiting list for Webster School and she was told of some child care classes which would soon begin at one of the neighborhood centers. She was then given an appointment for her next prenatal visit and dismissed from the intake clinic.

APPENDIX D

NUTRITION UNIT FOR PRE-SCHOOL TEACHERS

I. Objectives

- A. To present a simple and easily identifiable picture of liver: its source, its high food value, a method of preparation and tasting evaluation for the students.
- B. To provide a source of information for the teacher and materials with which to continue nutrition education not only with this food but other foods as well.
- C. To determine methods for implementing a unit for use at different grade levels.

II. Nutrition Unit - Liver

A. Introduction (2-5 minutes)

- 1. What is liver?
- 2. Where does it come from?
 - (a) Visual: Use pictures of cattle, sheep, chickens, pigs.
- 3. Why do we eat liver?
 - (a) Strong muscles.
 - (b) Most important, strong blood.

B. Story of the "Weak Drop of Blood" (2-5 minutes)

- 1. Visuals: Picture 1 - Weak Drop
 - (a) No strength, too tired to run around circulatory system.
(from arms to legs and up to head, etc.)
 - (b) Little child it lived in was too tired to run and play.
- 2. Picture 2: Liver on a plate.
 - (a) Child's mother fed him liver.

- (b) Little Drop of Blood received some IRON.
- 3. Picture 3: Drop of blood grew stronger and stronger and stronger.
- 4. Picture 4: Drop had more strength and little child had more pep.
- C. Preparation of Liver: (20-25 minutes)
 - 1. Children wash hands.
 - 2. Each child will cut several small strips of liver.
 - 3. Next roll liver in a tray of flour, salt and pepper.
 - 4. Fry liver in skillet.
(Do not drop liver into hot fat--place it gently).
 - 5. Put in small paper cup to cool.
 - 6. Taste and comment.
- D. Evaluation By Children and Final Instruction: (10-15 minutes)
 - 1. Encourage to "tell your mother about liver."
 - 2. Liver is good for whole family.
 - 3. Pass out leaflet on liver;
front side a coloring sheet;
back side a recipe for mother.

III. Materials and Equipment

A. Materials:

- 1. Animal pictures illustrating liver's sources.
- 2. Four-card picture series illustrating the "Weak Drop of Blood" story.
- 3. Leaflets to take home to mothers.

B. Equipment:

1. Food supplies

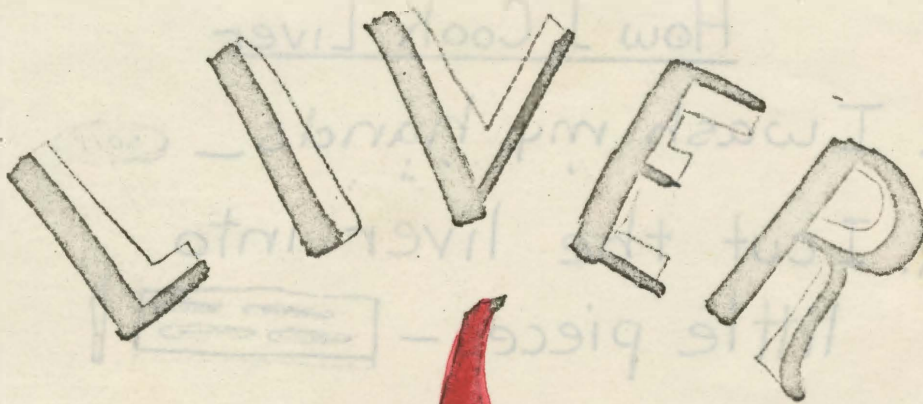
- (a) Liver - 1 pound (6 slices) for 30 children.
- (b) Flour - 2 to 4 cups.
- (c) Salt and pepper (to taste).
- (d) Shortening - $\frac{1}{2}$ to $\frac{3}{4}$ cup per pound.

2. Cooking utensils:

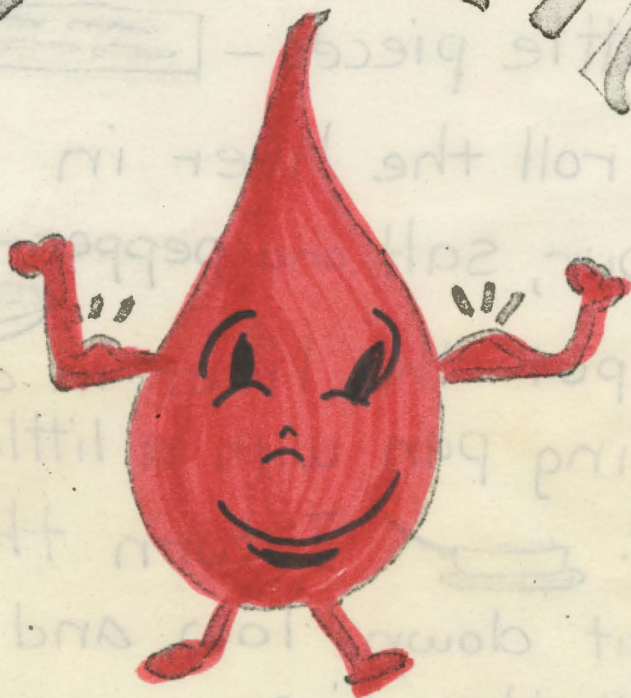
- (a) Cutting boards - 2 or more.
- (b) Trays
 - 1 for liver
 - 1-2 for seasoned flour.
- (c) Paring knives - 6.
- (d) Spatula or forks.
- (e) Fry pan (1-2).
- (f) Hot plate (if there is no easily available range).

VISUAL HANDOUT

LIVER

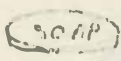
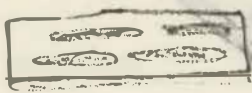
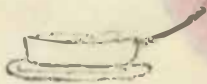


LIVER



HELPS My BLOOD
GROW STRONG
GIVES Me REP
All DAY Long.

How I Cook Liver

1. I wash my hands — 
2. I cut the liver into little pieces —  
3. I roll the liver in flour, salt and pepper —  
4. I put the liver in a frying pan with a little fat.  I turn the heat down low, and cook the Liver.

Liver tastes good and is good for me.

It doesn't cost much.