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To the Graduate Council:

I am submitting herewith a thesis written by Jo Ann Bond entitled "A Report of Nutrition Field Observations and Experiences in the Commonwealth of Pennsylvania." 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.

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We have read this thesis and recommend its acceptance:

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Accepted for the Council:

Dean of the Graduate School

A REPORT OF NUTRITION FIELD OBSERVATIONS AND EXPERIENCES IN THE COMMONWEALTH OF PENNSYLVANIA

A Thesis

Presented to

the Graduate Council of

The University of Tennessee

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

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by

Jo Ann Bond

August 1964

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INTRODUCTION

This report is based upon the student's observations and experiences during a seven weeks' period of field training in the Commonwealth of Pennsylvania. Three weeks were spent with the Pennsylvania Department of Health, Division of Nutrition, in Harrisburg; and four weeks were spent in the Bucks County Health Department, in Doylestown. Pennsylvania was selected since it has many social and economic characteristics which are similar to the student's home state of New York. Experience in a local health department was also planned because the student had no previous working experience in Public Health Nutrition.

The purpose of the field experience was to supplement the student's on-campus academic education in nutrition and to broaden her concept of public health work at the state and local levels. The specific objectives of the student were: (1) to study the organization, administration, and functions of an official public health agency, (2) to determine how nutrition programs are planned and executed, (3) to learn how nutrition is integrated into the overall public health program, and (4) to develop an appreciation for the programs and services of other disciplines in the public health agency.

To help accomplish these objectives, various activities were arranged. Before leaving for the field training, the student obtained background information on the state of Pennsylvania and on the Pennsylvania Department of Health by reading descriptive

material in reference books and in the Department of Health's Annual Report for 1963. The organization and programs of the Division of Nutrition were reviewed by reading the 1962-1964 biennial program plan for that unit.

The schedule for field training planned by the Director of the Division of Nutrition in the Pennsylvania Department of Health and the nutritionist for the Bucks County Health Department included a varied program to acquaint the student with the state and the activities of these health agencies. The activities observed included nutrition classes, health clinics, and staff meetings. Field visits were made with public health nurses, sanitarians, and caseworkers from a county board of assistance. The student also visited a nursing home with the nutrition consultant from the Nursing Homes Section, Division of Chronic Diseases. The student had an opportunity to participate during some of these field visits.

Conferences were arranged with nutritionists, staff members from the other divisions and bureaus in the state and local departments of health, and personnel from other agencies whose services are co-ordinated with those of the nutrition programs. The student also attended the meetings of the Second Pennsylvania Conference on Arthritis and the Pennsylvania Dietetic Association.

The student read annual and monthly reports of the nutritionists at both the state and local level to gain more knowledge about the nutrition programs. State publications, reports, and statistical information were read to learn more

about the Pennsylvania Department of Health and the population characteristics of the state.

In addition to the above activities, the student gained familiarity with the state and its people by making trips after working hours in the southcentral portion of Pennsylvania, particularly through the counties of Lancaster, Lebanon, and Bucks. Historical sites and towns were visited and the people and the countryside were observed.

Throughout the seven weeks, the student recorded daily the information gained through observations, meetings, readings, and conferences. It was realized that the entire scope of the health department programs could not be reviewed during the period of field training. An attempt is made to describe the health programs relevant to the public health nutrition programs of the Pennsylvania Department of Health and the Bucks County Health Department. The summarized material is presented under eight headings in this report. In Chapter I, the history and cultural, social, geographic, economic, and health characteristics of the state are presented, since each of these factors has some bearing upon the health problems and programs of the state.

In Chapter II, the history, organization, and certain departmental programs of the Pennsylvania Department of Health are described to give some indication of how the nutrition program is integrated into the overall public health program.

Chapter III covers the objectives, history, staff organization, and program plan of the Division of Nutrition of the

Pennsylvania Department of Health. The set-up and functions of the division affect the scope of the nutrition program.

In Chapter IV, the nutrition programs and services are presented. Nutrition activities are discussed as they relate to health department programs and to other departments, institutions, and official and voluntary agencies.

Chapter V provides a brief description of the history and characteristics of Bucks County as they relate to the health programs of that area.

In Chapter VI, the history, objectives, organization, and departmental programs of the Bucks County Health Department are presented. From this information the integration of the nutrition programs and services into the total health department program can be more easily observed.

In Chapter VII, the development, objectives, organization, and methods for professional advancement for the Division of Nutrition are presented. The chapter also covers the programs and services of the Division of Nutrition of the Bucks County Health Department. The co-ordination of nutrition activities with health department programs and other agencies and institutions is discussed. In the last chapter, Summary and Evaluation, the field experience is evaluated in terms of the objectives stated in the introduction.

THE COMMONWEALTH OF PENNSYLVANIA

The cultural, social, geographic, economic, and health characteristics of a region all influence the basic health needs of the people. These factors help determine the planning of public health programs and the methods or techniques to be used in carrying them out. It is therefore of interest to consider the background and characteristics of the state and the people that inhabit it when studying the public health programs of that area.

The dominant ethnic groups which populate the state determine the eating patterns in many areas. The cultural background of population groups may also contribute to the acceptance or rejection of state health standards and programs in certain regions. Cultural influences may affect the methods which can be employed in attempting to educate the people to bring about improvements in health practices.

The social characteristics of population groups contribute, in many instances, toward the kind of health problems created as well as the present use and demand for health facilities and services. Overcrowded urban areas are likely to produce higher rates of certain communicable diseases and cause stricter rules of sanitation to be imposed. Proximity of these urban groups to health facilities may produce a greater demand for services. Rural populations in certain areas are frequently hesitant about seeking out and using public services. Among many rural groups outmoded methods of sanitation are practiced. Problems of waste

disposal and sanitary food preparation as well as insect control are still prevalent. The reluctance of these rural people to seek public health services in no way decreases their need for these services.

The geography of an area, to a considerable extent, determines the types of crops grown, and whether the crops are used primarily for cash or grown for home use. The geography of a region may present some limitations in regard to transportation. The time involved in reaching people with public health services is often affected by geographic conditions.

A study of the economy, including the extent of natural resources and industries, gives some indication of the financial condition of the people, although there naturally is variation in income among individual families. The income of families, extent of unemployment, and use of public assistance gives a somewhat limited, but helpful, view of the potential amount of money available for food and the need for public health services.

Health statistics can provide a view of the existing health problems. When present and past statistics are compared, one can examine progress made toward the improvement of the health of the people. Statistics are valuable as a basis for planning and evaluating health programs.

The following information provides a profile of the Commonwealth of Pennsylvania as it relates to the health perspective of the state. Investigation of health conditions of the people as well as their cultural backgrounds is essential in the development of an adequate health program.

I. HISTORY AND CULTURAL BACKGROUND

Pennsylvania, popularly known as the "Keystone" state because of its central position among the thirteen original colonies, is one of the four states of the United States which is officially styled as a commonwealth. It is bounded by New York, New Jersey, Delaware, Maryland, Ohio, West Virginia, and Lake Erie.

The Swedes established the first permanent white settlement within Pennsylvania's present boundaries and located their capital below Philadelphia at Tinicum. In 1655 the Dutch took over the colony and ruled it until 1664 when they were dispossessed by the English. (1).

In 1681 King Charles II of England granted William Penn a charter to found a colony in payment of debts owed Penn's father, Admiral William Penn. The king named the new colony Pennsylvania or "Penn's Woods" in honor of William Penn's father. Penn came to America to develop a settlement where the persecuted English Quakers could worship freely. In 1682 Penn concluded peaceful treaties with the Indians, setting a new standard in relations with the original inhabitants of the continent. In the same year Philadelphia was laid out as the capital city; and Penn created the three original counties of Philadelphia, Chester, and Bucks. A constitution was drawn up guaranteeing religious freedom and universal suffrage. (1).

The liberal and tolerant principles of the Quaker government attracted thousands of immigrants seeking freedom from

political and religious intolerance and better economic opportunities. The English Quakers were the dominant element during the period of early colonial immigration and settled predominantly in the southwestern part of the state, in the area now known as Philadelphia, Chester, and Bucks Counties. The Welsh Quakers settled in the region now called Montgomery and Delaware Counties.

Thousands of Germans were also attracted to the colony, and by the time of the Revolution they comprised fully a third of the population. They came mainly from the Rhineland. The Pennsylvania Germans belonged largely to the Lutheran and Reformed churches, but there were also several smaller sects including the Mennonites, Amish, "Dunkers" or German Baptist Brethren, Schwankfelders, and Moravians. These groups settled predominantly in the interior counties of Northampton, Berks, Lancaster, and Lehigh. Their hard work transformed this region into rich farming country, contributing greatly to the expanding prosperity of the province. (1).

The third important national group was the Scotch-Irish who became an important influence about 1728. These hardy people were frontiersmen, expanding first into the Cumberland Valley Region and then farther into central and western Pennsylvania. (1).

Pennsylvania played a prominent part in the leadership and battles of the Revolution. Philadelphia was the scene of the First and Second Continental Congress and the signing of the Declaration of Independence. Upon the creation of the Federal Constitution, Pennsylvania was the second state to enter the Union in 1787.

Good seaports, a network of great rivers and tributaries, roads, canals, and rail construction hastened settlement and development of industry in Pennsylvania. The rise of industry and utilization of mineral resources influenced the economic life of the state, but Pennsylvania remained primarily an agrarian state throughout the late Eighteenth and early Nineteenth Centuries. After 1840 the effects of the Industrial Revolution became evident as Pennsylvania became prominent in the textile industry. The iron and steel industry along with the agricultural wealth of the state contributed greatly to the economic strength of the Union during the Civil War. (1).

Pennsylvania was a key region during the events of the Civil War. Pennsylvania regiments played an active part in the Civil War, and the decisive Battle of Gettysburg of 1863 was fought on the state's soil.

During and after the Civil War, there was a tremendous expansion in the iron and steel industry, in coal mining, and in the development of transportation facilities which changed Pennsylvania from a predominantly agricultural state to an industrial state. The demand for labor and the growing industrial economy caused a heavy influx of immigrants from the southern and eastern part of Europe during the period from 1865 to 1914. From Italy, Poland, Russia, Czechoslovakia and Austria came persons to work in the industrial and mining centers and to help in the building of canals and railroads. As the state grew industrially, a labor movement developed which

gave rise to the American Federation of Labor and the Congress of Industrial Organizations, both of which began in Pennsylvania. (1).

The Quakers exerted political leadership and gave Pennsylvania its liberal frame of government. In certain areas, folk tales and superstitions of the non-Quaker English settlers are still popular. The tavern and coffeehouse were institutions brought to America by English settlers other than Quakers. Even today old taverns are a familiar sight in eastern Pennsylvania where English traditions of cooking and hospitality are preserved. Among traditional holiday festivities is the Mummer's Parade on New Year's Day in Philadelphia. The Welsh were chiefly absorbed by the English, although various towns in eastern Pennsylvania retain names such as Cynwyd, Gwynedd, Penllyn, and Bryn Mawr. (2).

The German immigrants have succeeded in maintaining their separate language, customs, religion, schools, and eating patterns in certain areas of Pennsylvania. In many rural districts are people who still speak with a German dialect although their ancestors came to Pennsylvania almost 300 years ago. With their practicality and propensity for hard work, they have developed to a high degree the agricultural resources of the districts in which they settled. Farmers markets are a regular occurrence in these areas today. (2).

The Amish are a particularly distinctive group of Pennsylvania Germans. They conform strongly to tradition as evidenced by their conservative dress, agrarian pattern of life, and use of horse and carriage in preference to automobiles. They maintain

a doctrine of non-conformity to the world while living in closed communities bound by a sense of togetherness and conformity of attitude and behavior. The Amish maintain self-sufficiency through mutual aid to other members, preferring to remain independent of government aid programs. Through their practical knowledge, diligence, and hard work these people have prospered. The social organization of the Amish community has little facility for dealing with change. As a result, the effect is to preserve the old in the community and to incorporate new ideas or things slowly. However, today there is increasing unrest among groups of the Amish, particularly the young men. Contradictions of their culture and personal conflicts of values are making it difficult for them to fully accept their present way of life. (3).

The cultural influence of the latter groups of immigrants, the southern and eastern Europeans, is observed mainly in the mining areas and around industrial centers where these people settled. Folk tales, fraternal groups, and eating patterns are characteristic of the specific group studied. (2).

II. GENERAL DESCRIPTION OF THE STATE

Geography and Natural Resources

The Allegheny Plateau and the Appalachian Mountains, which extend across the middle of the state, are the most outstanding topographic features of the state. Nearly all of the southeast and central counties and the northeast portion of the Appalachian Plateau are drained by the Susquehanna and Delaware Rivers into

the Chesapeake and Delaware Bays. The greater part of the Allegheny Plateau is drained by the Allegheny and Monongahela Rivers into the Ohio River. Pennsylvania has a humid continental climate marked by an annual rainfall of thirty-five to fifty inches. (4).

Pennsylvania ranks high in the total value of its mineral resources. More than 85 per cent of the value of the state's mineral output is fuels. Pennsylvania ranks second in the nation in the production of coal and produces almost all of the anthracite mined in the United States. Mineral resources in order of annual production value are: coal, cement, oil and gas, stone, sand, gravel, lime, and clay. Other important materials produced are slate, sandstone, iron, and cobalt. (5).

Pennsylvania is one of the major manufacturing states. It produces more than one-fifth of the nation's steel. Pittsburgh is the center of eastern steel manufacturing. The other leading industry is textiles and related products. The state is also a leader in the production of chemicals and allied products, paper and printing industries, clay, glass and stone products, leather and rubber goods, lumber and its related products, tobacco and its kindred products, and mine and quarry products. Pennsylvania ranks first in the production of carbonated beverages, chocolate and cocoa products, and pretzels. The state ranks high in cane sugar refining, milk and milk products, slaughtering, and meat products. (5).

While Pennsylvania is usually regarded as an industrial leader, the Commonwealth is also a great agricultural state.

Almost half of the total land area of the state is in farm and range land. Climate, soil, altitude, and length of growing season combine to make possible the growing of fruits, vegetables, cereals, and grasses. The richest soil is found in the valley of the Appalachian Mountains and in the Piedmont region of the southwest, particularly in York, Lancaster, Chester, and Delaware Counties. Pennsylvania leads all other states in the production of mushrooms and cigar leaf tobacco. It ranks first in cash income from chickens and eggs. The state produces large quantities of buckwheat, corn, oats, wheat, rye, potatoes, apples, peaches, tomatoes, and grapes. (5).

Population and Economic Characteristics

According to the 1960 census the total population of Pennsylvania is 11,319,366, making it the third most populous state in the Union (6). This is a 7.8 per cent increase in population for the decade 1950 to 1960. Out of the total population, 7.6 per cent is non-white with the largest number of this group being Negro. Approximately 66 per cent of the population is urban. (7). The median age for persons living in the state is 32.0 years (8).

The median income for families in the state for 1960 was $5,719. Approximately 6.2 per cent of the civilian labor force for the state of Pennsylvania was unemployed in 1960. (9). The average per cent of the population receiving public assistance was 3.5 (7).

Health Characteristics

In 1962 the resident birth rate was 19.9 per 1,000 population; the resident death rate was 10.8 per 1,000. The leading causes of death for 1962 were heart diseases, malignant neoplasms, vascular lesions affecting the central nervous system, and accidents. Pneumonia and influenza, diseases of early infancy, congenital malformations, and suicides are also among the ten leading causes of death. (10). Chronic diseases are one of the major health problems in Pennsylvania. The control of communicable diseases and the resultant lengthening of the average life expectancy is associated with an increase in the incidence of chronic diseases of middle and later years. Environmental hazards are prominent as evidenced by the high number of accidents.

THE PENNSYLVANIA DEPARTMENT OF HEALTH

The student learned about the organization, administration, and functions of the State Department of Health through conferences, readings, and observations during the seven weeks' period of field training. The organization chart of the Pennsylvania Department of Health is shown in Figure 1. The functions and activities of the State Department of Health have a broad scope and could not be fully studied during the time of the student's field experience. A description of each bureau is presented, but only those divisions which have co-ordinated programs or services with the Division of Nutrition are discussed.

I. HISTORY AND ORGANIZATION

The State Department of Health, superseding the existing Board of Health, was created by an act of the Legislature in 1905. The act states that the Secretary of Health has the responsibility for the protection of the health of the state and for the determination and use of the most efficient and practical means for the prevention and elimination of disease. The Secretary of Health serves as the administrative head of the State Department of Health, directs its activities, and is responsible for the enforcement of the state health laws. He is appointed by the Governor with the advice and consent of the Senate for the term of four years. By virtue of his office he is the Chairman

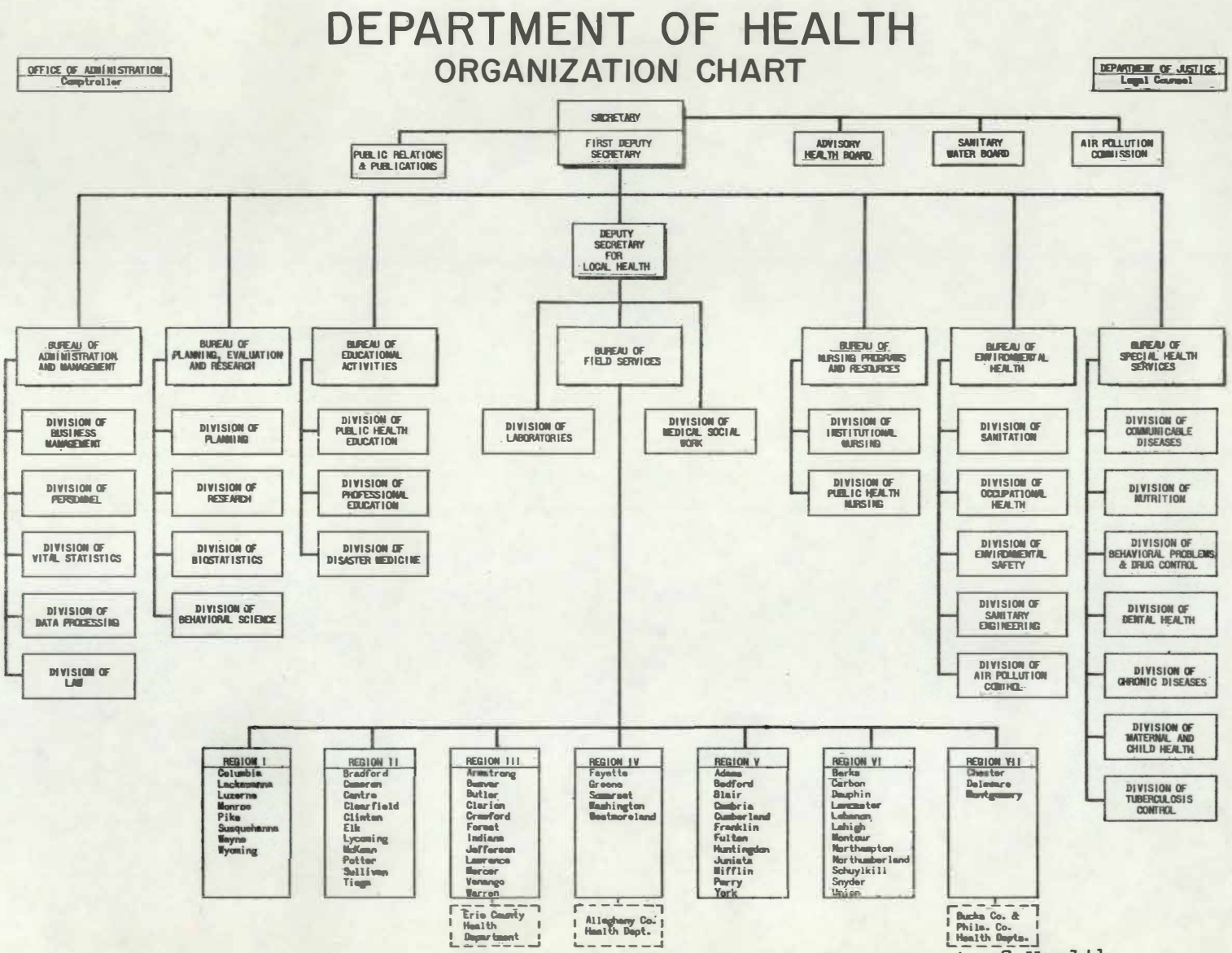

Figure 1. Organization Chart of the Pennsylvania Department of Health.

of the Sanitary Water Board; Air Pollution Commission; Drug, Device and Cosmetic Board; and Advisory Health Board. (11).

The Advisory Health Board is responsible for the enactment of rules and regulations for the State Department of Health which are considered necessary for the protection of the lives and health of the people of Pennsylvania. The Board advises the Secretary of Health concerning all matters which he may bring before the Board. Further duties of the Advisory Health Board include the setting up of standards for county health departments and the adoption of rules and regulations for staff administration. (11). The Board consists of nine members in addition to the Secretary of Health. At present the Board is composed of five physicians, one dentist, one pharmacist, and three lay persons (12).

In 1962 the Executive Board of the Commonwealth approved a new organization plan for the State Department of Health. The organization chart of the Pennsylvania Department of Health (Figure 1, page 16) shows the functional organization of seven bureaus. They are the Bureaus of Administration and Management; Planning, Evaluation and Research; Educational Activities; Nursing Programs and Resources; Environmental Health; Special Health Services; and Field Services.

Bureau of Field Services

In 1954 the Pennsylvania Department of Health decentralized health services. The state was divided into seven health regions (Figure 2) composed of from five to thirteen counties each. The

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
STATE HEALTH REGIONS

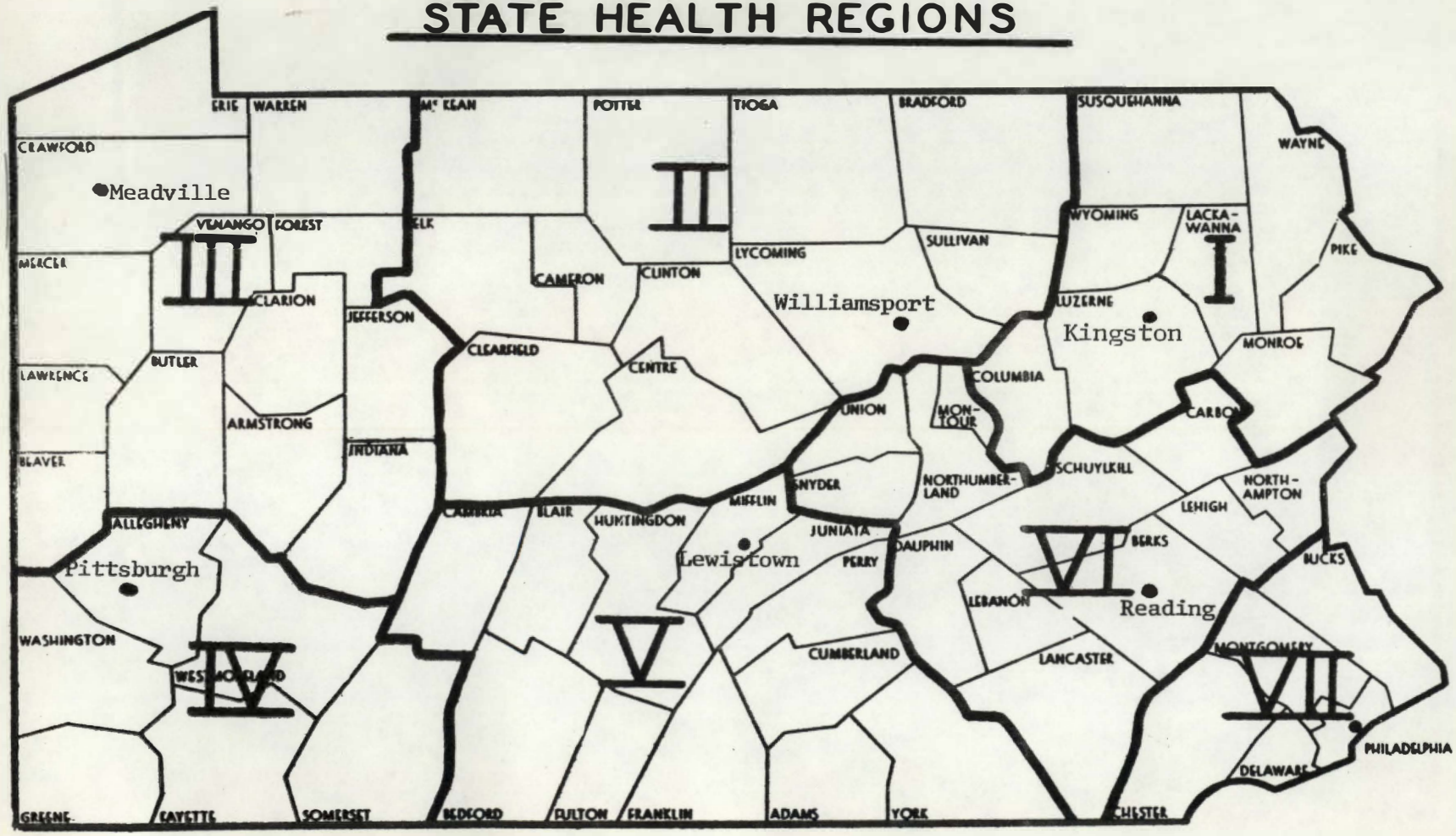

Figure 2. State Health Regions of the Pennsylvania Department of Health.

regions were organized on the basis of population distribution and the "Clean Streams" program. Regional offices provide for more effective and efficient administration of the technical programs of the State Department of Health by bringing the services and activities closer to the people. The regional offices are located in Kingston (Region I); Williamsport (Region II); Meadville (Region III); Pittsburgh (Region IV); Lewistown (Region V); Reading (Region VI); and Philadelphia (Region VII).

Under the general direction of the Deputy Secretary for Local Health, the Director of the Bureau of Field Services is responsible for the administration of the technical programs of the State Department of Health through co-ordinated planning with the regional offices. The duties of the director are to plan, organize, direct, evaluate and co-ordinate the various activities in the state health regions. Field operations are under the immediate supervision of the Assistant Director of the Bureau. (13).

Each respective regional office is staffed with a medical director, a business manager, and clerical staff in addition to the regional representatives of categorical programs. The regional medical director is responsible for the administration of the categorical programs within his region. He is authorized to determine staff needs for the region and is charged with the planning of the regional budget and the evaluation of regional programs. The regional staff provides consultation and carries

out the policies and programs of the State Department of Health as they relate to local needs and facilities. Although administratively responsible to the regional medical director, each regional program representative is technically responsible to his respective program director in the central office.

The bureau is responsible for the administration of public health programs of the State Department of Health throughout most of the state because adequate health services are offered by relatively few of the counties, cities, or townships. The Bureau of Field Services through the regional offices maintains a consultative and advisory relationship with municipal and county health departments which together serve approximately 67 per cent of the state's population. All other counties receive public health services directly from the State Department of Health except in municipalities that maintain independent status. (11).

Each county, exclusive of the four full-time county health departments in the state (Allegheny, Bucks, Erie, Philadelphia), has a health center which serves as the basic unit for the state services to that area. The staff operating from these facilities provides services to about 33 per cent of the total population of the state. The county health centers are staffed with nurses, sanitarians, clerks, and occasionally other professional personnel. Each county office is under the immediate administrative directorship of a professional or clerical person so designated at the administrative discretion of the regional medical director. The

staff from state health centers is responsible to the regional medical director covering their area. Other health personnel responsible to the regional office are part-time county or municipal medical directors, nurses, sanitarians and selected professional program representatives assigned to counties or multi-county service areas. (14).

Bureau of Administration and Management

The Bureau of Administration and Management includes the Divisions of Business Management, Personnel, Vital Statistics, Data Processing, and Law. The Bureau administers the activities of the various divisions.

The Division of Personnel serves as a central office for all personnel functions. These functions include staff recruitment, compensation, employee performance rating, employee counseling, transfers, leaves of absence, retirement programs, and salary advancement. The Division of Nutrition has worked with the Division of Personnel on revising class specifications for nutritionists and on the development of nutritionist positions.

Bureau of Planning, Evaluation, and Research

Four divisions are included in the Bureau of Planning, Evaluation, and Research. These are the Divisions of Planning, Research (Vacant), Biostatistics, and Behavioral Science. The bureau and its component divisions provide consultation services and systematize the handling of project applications, contracts, and research grants.

The Bureau of Planning, Evaluation, and Research was established in 1962 to strengthen the development of bureau and division programs and to help bring about a balanced public health program. Planning must be detailed carefully for individual programs in order to determine the priority of state and local needs. It is also imperative that evaluative procedures be an integral part of planning.

The Division of Planning is responsible for the biennial "Public Health Plan" of the State Department of Health. It provides help in planning individual programs, formulates methods for determining program needs, helps plan programs to meet specific objectives, and evaluates programs. The purpose of the plan is to convert the various activities or programs of the health departments into comparable units of basic outline for the development of a co-ordinated health program.

Bureau of Educational Activities

The Bureau of Educational Activities co-ordinates the activities of the Divisions of Public Health Education, Professional Education, and Diaster Medicine. The functions of the bureau include the integration, correlation, and promotion of educational activities conducted by the State Department of Health.

The Division of Public Health Education consists of the sections of community health, media, and public relations. The division is primarily a service unit for other bureaus and

divisions, helping them to do their work more effectively through the use of visual and printed materials. The Division is responsible for planning and organizing a state-wide program of health education, for providing consultation services, and for preparing health education materials for both professional and lay groups.

The division prepares publications for the other bureaus and divisions, as well as the Annual Report and "Pennsylvania's Health," a quarterly bulletin of the programs and activities of the State Department of Health. The division manages the "Annual Health Conference" and other in-service training programs. Through public relations and educational programs the activities of public health educators help familiarize residents of Pennsylvania with the programs, resources, and facilities of the State Department of Health. The Division of Public Health Education maintains a film library for the use of the health department personnel, schools, civic groups, voluntary, and other official agencies. It also provides a departmental library for reference and research for both staff members and lay persons.

Bureau of Nursing Programs and Resources

The Bureau of Nursing Programs and Resources, composed of the Divisions of Public Health Nursing and Institutional Nursing, has been set up in the organizational structure of the Department of Health. At the present time, however, only the Division of Public Health Nursing is a functioning unit.

The central office of the Division of Public Health Nursing is staffed by a Director and an Assistant Director, who is in charge of administration. The field staff includes regional nursing consultants assigned to each of the seven regional offices. These regional nursing consultants are available for technical assistance to the State Department of Health staff, county health departments, hospitals, community groups, voluntary, and other official health agencies. The regional nursing consultants are administratively responsible to the regional medical director and technically responsible to the Division of Public Health Nursing.

It is the responsibility of the division to provide for a state-wide public health nursing service to those counties with no organized county health departments or Visiting Nurse Associations. Visiting nurses provide nursing care, and in some cases education, to certain areas of the state.

Each health region in the state is further subdivided into "service areas" which may be single or multi-county units. Supervising nurses, who are responsible to the regional nurse, are assigned to these "service areas." The supervising nurses co-ordinate the activities of staff nurses in the county health centers within these "service areas."

Public health nursing services are used to implement the following programs of the State Department of Health: tuberculosis control; communicable diseases; chronic diseases; home accident prevention; and maternal and child health, including

special programs for crippled children, child cardiacs, children with cleft palate, and children with rheumatic heart. Special nursing consultants are assigned to Maternal and Child Health Programs and to Chronic Disease Programs.

In 1961 legislation was passed which permits official agency nurses to collect fees for home nursing care. A new program in home care services to the chronically ill and aged was started in the state.

Bureau of Environmental Health

The Bureau of Environmental Health consists of five divisions: Sanitation, Occupational Health, Environmental Safety, Sanitary Engineering, and Air Pollution Control. This bureau is responsible for the direction and co-ordination of the programs and services of the divisions. The activities of these divisions include all of the programs concerned primarily with the public health aspects of the environment. The bureau administers its preventive and control measures through seven state regional offices and from the central headquarters in Harrisburg.

The Division of Sanitation includes the following sections: environmental development, institutions and camps, and food. Within each state health region are supervising sanitarians who direct the activities of the staff sanitarians in "service areas" in the implementation of the technical programs. The division is responsible for the supervision of field services such as vector

control, food inspection, mobilehome parks, and private and semi-public water and sewage facilities. Emphasis is placed on the motivation of communities, industries, and individuals to raise their sanitation standards and co-operate with the Division of Sanitation in enforcing sanitation regulations.

Bureau of Special Health Services

The bureau is comprised of seven divisions, each of which is responsible for a specific disease, group of diseases, or population group. The divisions are as follows: Communicable Diseases, Nutrition, Behavioral Problems and Drug Control, Dental Health, Chronic Diseases, Maternal and Child Health, and Tuberculosis Control. The Bureau of Special Health Services is responsible for determining the most efficient and practical methods of prevention, detection, control, and eradication of diseases and deformities. It is also responsible for the development of programs and services to prevent death and deformity from those diseases whose occurrence has not yet been checked.

Division of Dental Health. The Division of Dental Health is concerned with dental health education, and correction and prevention of dental caries. Some of the programs and services include dental clinics, promotion of fluoridation of public water supplies, school dental health, cancer detection, research and surveys, and services for children with dento-facial deformities. The dental hygiene section of the division develops dental

health education programs and provides consultative services for dental hygienists employed by the school districts. (13).

Division of Chronic Diseases. The division consists of three sections: heart and metabolic diseases, cancer control, and nursing homes. The main concern of the division is the prevention, early detection, control, and treatment of chronic illness and disabling diseases. The program also emphasizes the establishment and expansion of hospital and community health services.

The heart and metabolic diseases section is concerned with the programs involving adult heart disease and metabolic diseases such as diabetes mellitus, obesity, and glaucoma. Screening programs, education, research, rehabilitation, and financial assistance are part of the activities of the section. Stroke rehabilitation, using multi-disciplinary personnel to help the stroke patient, has recently been introduced in some of the regions. (13).

The cancer control section renders factual and financial assistance in the promotion of cancer research and in the education of professional staff. The section also conducts screening programs for the early diagnosis of cancer.

The objectives of the nursing homes section are accomplished mainly through the services of a staff of consultants. The physician in charge of the section is assisted by a nursing consultant, a nutrition consultant, and a dental consultant. Staff members

from other departmental units of the State Department of Health also provide services to the section. The consultants work with the administrators of nursing and boarding homes in the state to raise the standards of patient care.

The nursing homes section also works co-operatively with the Office for the Aging, Department of Public Welfare, in developing and implementing programs leading to the improvement of patient care in nursing homes. The Department of Welfare is concerned with the supervision, inspection, and licensure of institutions. The nursing homes section co-operates in the training of nursing home staff through the use of conferences, institutes, seminars, workshops, and consultant service. The subjects included in discussions are administration and management, dental and medical care, nursing care, rehabilitation, nutrition and food service, recreation, sanitation, and safety. The section has conducted research projects on the dental and nutritional needs of the aged.

Division of Maternal and Child Health. The division consists of seven sub-divisions: the sections of children's cardiac, cleft palate, infant and pre-school, and school health; the speech and hearing and orthopedic programs; and the Crippled Children's Hospital at Elizabethtown. The Division of Maternal and Child Health, in co-operation with the staffs of the regional offices, is responsible for public health services to mothers and children in Pennsylvania. The policies of the program are: (1) to provide

education for parents on knowledge of child care and nutrition, (2) to provide child health conferences, and (3) to exert an effort to have all children under the supervision of a physician or clinic.

The children's cardiac section provides consultative and diagnostic services for children with, or suspected of having, rheumatic or congenital heart disease. The section also provides for surgical and hospital care for children with congenital heart disease. Cystic fibrosis diagnostic and treatment centers are also conducted by the section.

The cleft palate section provides surgical, dental, and speech treatment for cleft palate children up to sixteen years of age. Financial assistance is available to children whose families are unable to bear the total cost for treatment. Diagnostic clinics are maintained in the state.

The philosophy of the infant and pre-school section is primarily one of prevention. The objectives of the program are to supervise the health of children from birth to school age and to educate parents on better methods of caring for the health of their children. Child health clinics are conducted throughout the state.

The school health section provides consultant services to school personnel. Screening programs are conducted yearly within the schools.

The Division of Maternal and Child Health operates hearing and speech centers where complete diagnostic and therapeutic services are provided. Hospital care and hearing aids are

supplied to children who require surgery or hearing devices.

The crippled children's section provides diagnostic services; clinic, hospital, and convalescent care; and orthopedic appliances for crippled children under twenty-one years of age. Parents are expected to pay for that share of medical costs which does not impose a financial burden. The Crippled Children's Hospital at Elizabethtown provides hospital and surgical care for handicapped children whose families cannot provide private care.

Division of Tuberculosis Control. Tuberculosis continues to be a public health problem in the field of communicable diseases. Although the mortality rate has declined considerably, the decrease in case rate has followed more slowly. The division conducts mass chest x-ray surveys and tuberculin testing programs. The case finding techniques include follow-up contacts. Four state tuberculosis hospitals are operated by the division. Tuberculosis clinics are conducted for diagnosis and outpatient treatment of persons. (12).

THE DIVISION OF NUTRITION

I. GOAL AND OBJECTIVES

The goal of the Division of Nutrition is to improve the health and nutritional status of the people of Pennsylvania. To achieve this goal the Division of Nutrition has established the following long-range objectives: (1) the development of a broad program of consultation, education, and information for professional and lay groups concerned with health, welfare, and educational services for the people of the Commonwealth that can be adapted by the regions to meet their particular needs, (2) the promotion of regular, continuing nutrition consultation in counties under the administration of the regions of the State Department of Health, and (3) the expansion of the number of nutritionists in the regions of the State Department of Health. (14).

II. HISTORY AND ORGANIZATION

Nutrition programs in the Commonwealth of Pennsylvania originated in 1934 when a nutritionist was appointed to the Preschool Division of the State Department of Health for a period of four months. In 1937 another nutritionist was appointed, and later in the same year two additional nutritionists joined the staff. The majority of activities under the early nutrition programs were conducted in Maternal and Child Health Clinics. (15).

Since these initial nutrition services were developed, the nutrition program has expanded and the staff enlarged so as to warrant the existence of a separate division for nutrition in the Pennsylvania Department of Health. More acute recognition of the role of nutrition in the maintenance and restoration of optimum health has also promoted the expansion of nutrition activities into broader health areas.

As stated previously, the Division of Nutrition of the Pennsylvania Department of Health is one of the seven divisions located in the Bureau of Special Health Services. The present staffing pattern of the division provides for a Director and an Assistant Director in the central office, a nutrition consultant in the Nursing Homes Section, a regional nutrition consultant in each of the seven health regions, and a nutritionist in Delaware County. At present all of the positions are filled except for a vacancy of a nutrition consultant in Region I (Figure 2, page 18).

Two additional staff positions have been budgeted recently. These provide for a hospital nutrition consultant and for a nutritionist in the tri-county area of York, Cumberland, and Perry Counties. Neither of these positions is filled at the present time.

Nutritionists are also employed by two of the four local health departments although they are not technically a part of the State Department of Health. The Allegheny County Department of Health employs three nutritionists and the Bucks County Department

of Health employs one nutritionist. The Philadelphia Health Department purchases its nursing care from the Community Nursing Service in that area. This association employs one full-time and one part-time nutrition consultant to work with the nurses.

The Division of Nutrition has an agreement with the Bucks County Health Department whereby staff courtesies are extended to the local nutritionist. She attends the staff education meetings and receives nutrition correspondence which is sent to the regional nutritionists.

III. STAFF

Staff Qualifications

The position of Director of the Division is classified as a Public Health Nutritionist IV. The requirements for this position are a Baccalaureate degree with major course work in foods and nutrition; a Master's level degree in nutrition or public health; and six years of experience as a nutritionist in a health agency, including at least two years in a supervisory or administrative capacity in a public health agency.

The qualifications for a Public Health Nutritionist III, or Assistant Director, are a Baccalaureate degree with major course work in foods and nutrition, a Master's level degree in nutrition or public health and five years' experience in a public health agency.

The positions of Hospital Nutrition Consultant and Nursing Homes Nutrition Consultant are classified as Public Health

Nutritionist II. The requirements for these positions are four years of experience as a nutritionist in a health agency or six years of experience as a hospital dietitian in addition to the same academic qualifications as for a Public Health Nutritionist III or IV.

The requirements for a regional nutrition consultant, Public Health Nutritionist I, include the same academic qualifications as described for the above positions with two years of experience as a nutritionist in a health agency or four years' experience as a hospital dietitian, home economist in a food clinic, or teacher of foods and nutrition.

A Nutritionist provides consultant service for a county, bi-county, or tri-county area. This position requires a Baccalaureate degree with major course work in foods and nutrition. The experience for the position should include three years as a hospital dietitian, nutritionist or home economist in a health or welfare agency, dietitian or nutritionist in a food clinic, or a teacher of foods and nutrition.

Job specifications for the nutrition positions can be found in the Appendix (see pages 114-121).

Staff Responsibilities

The Director of the Division of Nutrition is administratively responsible to the Director of the Bureau of Special Health Services. The policies, standards, and priorities for the nutrition program are established by the Division of Nutrition

and are co-ordinated with the basic policies of the State Department of Health. The regional nutritionists are administratively responsible to the regional medical director and technically responsible to the Division of Nutrition.

The Division of Nutrition is responsible for reviewing nutrition programs and providing technical assistance to the nutritionists in the regions and the local health departments. The Director or Assistant Director visits the regions and confers with the nutrition consultants and the medical directors (1) to help assess needed nutrition services, (2) to assist in the planning of the nutrition program, (3) to help establish priorities, and (4) to evaluate the nutrition program. With the guidance of the Director and Assistant Director, the regional nutrition consultants are responsible for adapting the nutrition program to the needs of the region under the administrative direction of the regional medical director.

Nutritionists assigned to counties or multi-county areas within a region are administratively responsible to the regional or local medical director. They receive technical supervision from the regional nutrition consultant and the central office of the Division of Nutrition. There is one such position in Delaware County. One of the newly-budgeted positions will cover the tri-county area of York, Cumberland, and Perry Counties.

The specialized nutrition consultant working in the Nursing Homes Section of the Division of Chronic Diseases is technically responsible to the Director of the Division of

Nutrition and administratively responsible to the director of the program unit. The recently established position of hospital nutrition consultant has not been filled at this time. This dietary consultant will be administratively and technically responsible to the Director of the Division of Nutrition.

Appointments and Promotion

A merit system examination is required for the provisional appointment of a nutritionist. After successful completion of the six-month provisional period and the satisfactory accomplishment of the duties entailed in the job, a permanent appointment is received.

At the conclusion of the provisional appointment period and at the yearly anniversary date of employment with the Pennsylvania Department of Health, the regional medical director prepares a "Performance Rating Report" and submits it to the Director of the Division of Nutrition, who serves as the reviewing officer. This rating provides an opportunity for commendation of good work and discussion of areas of work in which the nutritionist may need improvement. These performance ratings are important in determining salary increments and areas for in-service education.

Recruitment and Orientation of New Staff

Recruitment of competent people into public health is a continuing responsibility. The Division of Nutrition works with the Division of Personnel of the State Department of Health

and the State Civil Service Commission in the recruitment of qualified nutritionists. The Division of Nutrition co-operates with recruitment programs of the Division of Public Health Education of the State Department of Health and the American Dietetic Association. Leaflets and other information written by the Division of Nutrition or the American Dietetic Association are distributed by the division. Regional nutritionists participate in career days sponsored by schools, colleges, and organizations where they discuss the role of the nutritionist in public health programs. Career opportunities in health fields are also promoted by the State Civil Service Commission.

The orientation of new staff members is conducted jointly by the regional medical director and by the Director of the Division of Nutrition. During the orientation period in the region, the nutritionist is acquainted with the staff. The medical director also explains administrative details such as the use of expense accounts, compensatory time, and other personnel benefits. An orientation manual for new staff members is available.

Part of the orientation period is spent in the central office. Policies, procedures, programs, and services of the Division of Nutrition are reviewed or explained. Orientation for new staff members is provided through individual conferences, demonstrations, observations, and field visits. The length of time for orientation of new personnel in the central office is

for a one- to two-week period. This length of time may be extended in the future.

A one and one-half day orientation program planned by the Director of the Division of Professional Education is held in Harrisburg for all new State Department of Health employees. Here the nutritionist and other new personnel are introduced to the heads of the bureaus, divisions, and sections. It is important for the nutritionist to have an understanding of the work of other disciplines with which she will be associated.

Communications

Official communications from the central office of the Division of Nutrition to the regional nutrition consultants are cleared through the office of the regional medical director. This is a method of keeping the medical director informed of developments in nutrition and is a means of gaining administrative and financial support for nutrition programs.

IV. NUTRITION STAFF EDUCATION AND PROFESSIONAL ADVANCEMENT

Professional advancement is encouraged through in-service education at staff meetings, workshops, and institutes, and by attendance and participation in professional meetings. All in-service education contributes to the professional advancement and competence of the staff members.

Nutrition Staff Meetings

The Division of Nutrition conducts approximately five to

six in-service staff education meetings each year for the nutritionists employed by the State Department of Health and the nutritionist from the Bucks County Department of Health. These staff meetings are held bi-monthly in the central office and extend for about three days. Generally, all the regional nutritionists attend these meetings. Conferences and topics for these meetings are pre-scheduled. Regional nutrition consultants may assist in planning these meetings by submitting ideas, problems, or suggested topics of interest. A discussion of problems or presentation of new programs, materials, books, journals, or films may be on the agenda. Consultants and speakers for the meetings have included directors of divisions and bureaus in the departments of health and welfare; and representatives from the United States Public Health Service and the Children's Bureau, United States Department of Health, Education, and Welfare. The United States Public Health Service is hereafter referred to as Public Health Service. Administrative plans are also discussed at this time.

Staff meetings provide an excellent opportunity for disseminating and discussing recent nutrition information, for exchanging ideas, for discussing problems, and for learning about the most recent projects and plans of the division. These meetings contribute to the nutritionist's knowledge of diverse health and welfare programs conducted by governmental agencies which are related to nutrition activities. They also help to develop

an awareness of the many potentials for expanding and enriching the public health nutrition component of health programs.

The bureau and division directors are kept informed of policies and developments in the State Department of Health by means of direct communications and staff meetings. The Director of the Bureau of Special Health Services holds weekly meetings with the division directors. The Secretary of Health conducts monthly meetings with the heads of the divisions and bureaus. In this manner the Division of Nutrition has representation at top level meetings in the State Department of Health and is kept informed of recent decisions and information originating in the Office of the Secretary of Health.

Annual Health Conference

The Annual Health Conference, held at Pennsylvania State University, is co-sponsored by the State Department of Health, the Pennsylvania Medical Society, the Pennsylvania Health Council, and the Pennsylvania Public Health Association. It is a three and one-half day meeting. The purpose of the conference is to provide in-service education and to provide an opportunity for professional growth for all health workers in Pennsylvania from both voluntary and official health agencies. The staff from county health departments in the state also participate in the conference. The program is constructed around inter-disciplinary interests and features speakers in the fields of health, special sessions by professions, "curbstone" conferences, film previews,

and technical and scientific exhibits.

Representatives from each of the co-sponsoring agencies form the steering committee which evaluates previous conferences and prepares policies for the following year's program. The overall co-ordination of the conference is the responsibility of the General Chairman assisted by committee chairmen. The program committee has the duty of preparing the program content. The Division of Public Health Education provides guidance and technical assistance for the conference.

All staff members of the Division of Nutrition attend the conference yearly. The positions of the General Chairman and the committee members change each year. The director of the Division of Nutrition assumed the general chairmanship for the Twelfth Annual Health Conference in 1963. Other nutrition staff members may participate as committee members.

Nutrition sessions for the conference are developed in co-operation with other program units of the State Department of Health such as disaster medicine, sanitation, maternal and child health, and chronic diseases. Several nutrition programs were scheduled for the 1963 Annual Health Conference including topics on recent trends in nutrition, disaster feeding, child nutrition, and nutrition in later years. Films related to nutrition were also previewed. Consultants in nutrition at the conference from agencies and institutions other than the State Department of Health were university professors, physicians, and a representative from the Children's Bureau.

The conference provides an opportunity to improve the understanding of the total health problems and needs of the people by bringing together professional representatives of voluntary and official health agencies for a sharing of ideas. It also promotes co-operation and planning among the health disciplines.

Professional Meetings

The Division of Nutrition promotes the attendance of public health nutritionists at professional meetings such as those of the American Dietetic Association, the American Home Economics Association, the American Public Health Association, and those of their respective state associations. Official time is allowed for attendance at these meetings. The attendance of the regional nutrition consultants at meetings is also encouraged through the working relationships established with the regional medical director and central office since salaries and travel expenses for these nutritionists come from the regional office budgets. However, the availability of funds does limit the number of meetings for which the nutritionist can be reimbursed. Requests for attendance at out-of-state meetings must be accompanied by proper justification and must have the approval of the Secretary of Health. Upon returning, the nutritionist must submit a written report of the meeting attended.

Active participation of the nutritionists in the professional associations mentioned above is also an important activity.

Nutritionists in the central and regional offices have served as officers, on committees, or as speakers or consultants at meetings of the above mentioned organizations.

V. DEVELOPMENT AND EVALUATION OF PROGRAMS

Initiation of Programs

At the state level, the use of nutrition as an integral part of specific public health programs may be initiated by the Director or Assistant Director of the Division of Nutrition or by the directors and chiefs of other divisions and sections of the State Department of Health in accordance with established policies. At the regional level, the nutrition consultants and other public health personnel follow the same procedure under the direct supervision and administration of the regional medical director.

County Profile

The potential needs for nutrition services are determined in part by a survey of the health, education, and welfare agencies; organizations; and institutions in each county. This survey includes a review of population characteristics and community resources. The regional nutritionists gather their data on each county within their region. The compiled information for each county is called a "County Profile." The development of the "County Profile" by the Division of Nutrition was stimulated by a former nutrition student participating in field training in Pennsylvania.

After the data on the social, cultural, and economic characteristics of the population and on health personnel resources for each county in a region has been assembled, the information is sent to the central office of the Division of Nutrition. The material accumulated for the state is used as a basis for the rationale for new positions, programs, and developments for the division. It also aids regional nutritionists in identifying areas where nutrition services are needed and areas particularly ready for nutrition services. A scheme of priorities is also established.

Program Plan

The Pennsylvania Department of Health writes a biennial Public Health Plan. Each bureau, division, and section submits a proposed plan for its unit for the two-year period to the Division of Planning which has the responsibility for assisting in the development of programs. The Director of the Division of Nutrition writes the program for the unit with the guidance of the Division of Planning.

In the development of the biennial program plan, the Director of the Division of Nutrition does an analysis of nutrition needs of the state. Requests received for information, surveys, reports, suggestions made by the state nutritionists, the "County Profiles," and any recommendations made by federal agencies are considered. The old plan is also reviewed by the director before proposing a new plan for the

next program period. The scope of the program is determined by the available resources of time, money, and personnel.

Copies of a proposed program plan are submitted to the Director of the Bureau of Special Health Services, Public Health Service, Children's Bureau, and either the regional medical directors or nutritionists for review and comments. It is realized that not all of the proposed services can be carried out in each region since the needs and resources vary.

Each departmental unit develops its program within the framework of questions established by the Division of Planning. Seven questions to be considered in organizing the program plan are: (1) the problem, (2) the specific objectives to be achieved, (3) the methods to be used in attaining these objectives, (4) the standards for determining achievement of objectives, (5) evaluation of the program, (6) the effect of the program on the problem, and (7) new projects anticipated.

Reports

Records of nutrition activities and requests for services are important in determining program needs and are also useful in the evaluation of a program. Reports of nutrition field activities keep the Directors of the Bureau of Special Health Services and the Division of Nutrition advised of programs, plans, and developments. This information is used in budget justifications, and to inform and stimulate interest among the staff nutritionists regarding programs carried on in a particular region.

The regional nutrition consultants and the nutritionist for Delaware County submit monthly reports to the Division of Nutrition. They also send one copy to the regional medical director. These monthly reports include a schedule of activities, a narrative report of activities, and a numerical tabulation presenting data on the types of activities and the kind and number of people contacted.[1] Each month a tentative schedule for the following month is sent to the central office by the nutritionists. This procedure encourages advance planning and keeps the central office advised of field activities.

The Division of Nutrition is planning to revise their tabulation sheets to include some aspects of the Public Health Service sheets. The goal is to define more exactly the specific programs which cover the services rendered and to identify the groups or individuals contacted and the subject covered. This information can be of benefit in future planning based on assessed needs.

The activities of the Director and Assistant Director are compiled along with the principal points of the regional and county programs into a report for the Division of Nutrition. A copy of this report is circulated among the Division of Nutrition staff members. A duplicate copy of the report is sent to

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[1]There is an exception to this general operating procedure. The nutritionist for Delaware County uses the numerical tabulation sheet developed with the help of the Public Health Service.

the Director of the Bureau of Special Health Services. In this office the report is abstracted and compiled with similar reports from the other six divisions in the bureau. The bureau report is then circulated throughout the divisions of the bureau. One copy of the summarized report for the bureau is sent to the Secretary of Health. Here a further condensation and compilation is made of the reports from each bureau. This final report is circulated among all the divisions and bureaus in the State Health Department to help keep the staff informed of the activities of each unit.

Although the Division of Nutrition does not receive activity reports from local nutritionists in the county health departments, the compiled reports for the Division of Nutrition are sent to the nutritionist in the Bucks County Department of Health. These reports help to keep the local nutritionist informed of nutrition programs and services conducted at the state level. It is also a means for stimulating the development of new nutrition programs at the local level.

Each of the nutritionists responsible to the Division of Nutrition also writes an annual report. This includes a summary of activities in narrative and numerical tabulation form. The Director of the Division of Nutrition combines and summarizes all of these reports and prepares an annual report for the division. The narrative report of the division's yearly activities forms the basis for the description of the Division of Nutrition's program and services published in the Annual Report

of the Pennsylvania Department of Health.

Program Evaluation

At present no objective scale has been developed for the evaluation of nutrition programs. The problems of evaluation are also compounded when a program operates to a large extent as a consultation service for professional workers who, in turn, transmit this knowledge directly to persons they contact. (14).

As discussed above, the state-employed nutritionists submit records of services rendered to the Director of the Division of Nutrition. These records are analyzed periodically to evaluate the progress of program development, to determine new directions, and to establish priorities.

The standards for determining the achievement of program objectives include data obtained from these reports. This information includes the number of co-operative programs with other divisions and sections of the State Health Department; the number of co-operative programs with units of other departments and agencies; the number of meetings and conferences with professional workers; the number of services to institutions; and the number of requests received, filled, or referred.

The Director of the Division of Nutrition is responsible for self-evaluation of the division's program plan. This self-evaluation is encouraged by the Office of the Deputy Secretary of Health and the Division of Planning. A list of questions which may serve as a guide is distributed. These questions

stimulate an analysis of the objectives, the standards or criteria used in measuring achievement of these objectives, and the adequacy of methods or procedures employed in executing the services. A report of the evaluation is submitted to the Secretary of Health.

NUTRITION PROGRAMS AND SERVICES

The policy of the Division of Nutrition is to promote optimum nutrition for the largest number of people in the Commonwealth. To help accomplish this policy, the Division of Nutrition has integrated nutrition education into the programs of other departmental units in the State Department of Health and provides technical assistance and consultative service to these units.

It is also essential to encourage the development of nutrition programs and services in conjunction with other health and welfare resources in the state. Co-operation with official and voluntary agencies, organizations, and institutions in the assessment of needs and provision of nutrition services is promoted by the Division of Nutrition.

Decentralization of nutrition services is emphasized. Requests for materials or services sent to the central office are usually forwarded to the regional nutrition consultant. However, the Director or Assistant Director are available on request for special meetings or programs. It is the philosophy of the division that the regional nutritionist is more aware of needs in her area and better able to judge the use of services. Decentralization of services is also a means of keeping her informed of the person or group requesting service so that she may provide follow-up activities. If the central office performs any activities within a region, the regional nutrition consultant

is kept advised of the plans. This makes it easier to conduct follow-up services in the future.

I. CONSULTATION SERVICES

Consultation is a service given by the nutritionist to another professional person, such as a nurse, social worker, caseworker, physician, dental hygienist, or dietitian. The means for consultation services may be staff meetings, conferences, institutes, or workshops. Although consultation is generally recognized as the most efficient and effective use of the nutritionists' time, knowledge, and skills, direct services on a demonstration basis are necessary when a new program is initiated.

Nutrition Consultation Program in Delaware County

A nutritionist is assigned to Delaware County to help provide a nutrition consultation program for the chronically ill and aged. This project is sponsored by the Division of Nutrition, Pennsylvania Department of Health and the Division of Chronic Diseases, Public Health Service.

The purposes of the program are: (1) to improve the nutritional and dietary services of the aged and of the chronically ill, (2) to improve the nutritional status of the chronically ill and aged and attempt to reduce or eliminate the need for hospital care, (3) to serve as a demonstration of continuing consultation services to the community agencies and

programs concerned with the care of the aged and the chronically ill, and (4) to serve as a center for training and orientation to which health and welfare personnel may be referred. (14).

The nutritionist in Delaware County is employed by the State Department of Health. The project provides intensive, regular, and continuing consultative services to the staffs of health and welfare agencies, institutions, and organizations serving the chronically ill and aged. These services are provided through conferences, meetings, and staff education programs. In providing consultation services to nursing homes in the county, the nutritionist works with the Nursing Homes Section of the State Department of Health and the Office for the Aging in the Pennsylvania Department of Welfare. She works closely with the nutrition consultant of the Nursing Homes Section.

The nutritionist in Delaware County works with voluntary health and welfare agencies in the development of adult health programs that are aimed at the prevention of chronic diseases or rehabilitation of patients. She provides educational materials and consultative services to these agencies.

The nutritionist in Delaware County is administratively responsible to the Medical Director for Region VII (Figure 2, page 18) of the State Health Department and technically responsible to the Director of the Division of Nutrition. She also receives technical guidance from the regional nutrition consultant. The Director of the Division of Nutrition is the

director of the Delaware County program and submits quarterly reports to the Public Health Service Region II Medical Director who, in turn, forwards them to the Washington office. The nutrition consultant for the Region II Public Health Service office can make recommendations concerning the project.

The project was initiated in 1962 and is approved for a period of three years. At the end of this time it is hoped that the State Health Department will support the project in its entirety.

The program is based upon those needs indicated by the Delaware County Community Health and Hospital Study which was published by the Health and Welfare Council, Incorporated, of the Delaware County District in 1961. The report recommended an extension of consultation services to agencies and institutions in the county. It also suggested a need for expanded nutrition consultation services to the nursing agencies, nursing homes, and other community agencies and organizations,

Nutrition Consultant Service at the Medical-Geriatric Clinic and the Philadelphia Center for Older People

In 1962 an agreement was made with the Jefferson Medical College and Hospital in Philadelphia whereby the Division of Chronic Diseases of the Pennsylvania Department of Health would finance a nutrition consultation service at the Medical-Geriatric Clinic. Under this program a nutritionist is employed by the director of this clinic: (1) to provide in-service staff

education for the professional staff and senior medical students assigned to the clinic, (2) to develop procedures for the students to apply in their future medical practices, (3) to provide nutrition counseling and instruction to the patients as a demonstration for the students, (4) to collect data regarding the eating practices of older people, (5) to develop a diet manual for staff use and nutrition educational materials for use with geriatric patients, and (6) to provide nutrition consultation services to community agencies serving the aged. (14).

Direct nutrition consultation services are also extended to members of the Philadelphia Center for Older People. One day per week is spent by the nutritionist at the Center which has recreation facilities for older persons. The Center is supported by voluntary funds. The nutritionist plans the meals for the Center, conducts classes in nutrition, and writes nutrition articles for the Center's newsletter.

The nutritionist is administratively responsible to the medical director of the clinic. Reports and records of the program are directed to the Pennsylvania Department of Health. The Division of Nutrition consultants provide technical services to the director of the clinic and to the nutritionist.

Nutrition Services to Nurses

The Division of Nutrition aids in in-service staff education for nurses. Staff meetings are held with public health and visiting nurses. In Pennsylvania the Visiting Nurse Associations

are voluntary agencies supported by private funds. The Visiting Nurse Association nurses provide bedside care for patients and, in some areas, health education and other related nursing services. These in-service meetings are planned by nursing supervisors on the basis of expressed interests and needs. Group and individual conferences are held when the nurses require help with modified diets or feeding problems of patients. Prior to the scheduling of these conferences, the nurses requesting the service are asked for referral forms on the patients. The referral forms include a record of a twenty-four-hour recall of the patient's food intake. The twenty-four-hour recall aids the nurses and nutritionists in evaluating food intake. These records are a valuable tool in assessing dietary problems.

The student observed two in-service education classes for the York Visiting Nurse Association. These classes were part of a series of nutrition meetings on low-cost diets taught to new staff nurses by the Assistant Director of the Division of Nutrition. These classes were conducted as a demonstration of nutrition services in the community since a new position for a nutritionist in the tri-county area of York, Cumberland, and Perry Counties has been established.

II. NUTRITION SERVICES IN CO-OPERATION WITH OTHER HEALTH DEPARTMENT PROGRAMS

Nursing Homes Section

The Nursing Homes Section of the Division of Chronic Diseases has been previously mentioned in relation to the Bureau of Special Health Services. As of October 1963, there were about 890 institutions for the aged in Pennsylvania. The bed capacity of these facilities is approximately 47,000. The services of a nutrition consultant from the Nursing Homes Section are available to the staffs of nursing homes for consultation and advice in the following categories of nutrition and food service: nutrition for the aged, menu planning, special diets, personnel, food purchasing, food cost, equipment, food preparation, sanitation, and food service to patients and staff. (14).

The purpose of the nutrition consultant is to improve that aspect of patient care which relates to nutrition and food service. It is hoped that this objective can be accomplished by helping to develop in the personnel (1) an understanding of the nutritional requirements of the aged and of the relationship of nutrition to the rehabilitation of the patient, (2) an appreciation of the physical and psychological value of nutritious, attractive, and palatable meals, and (3) a knowledge of the basic principles of the administration of food service institutions.

The nutritionist provides direct consultation services to nursing and boarding homes upon request. Many of these early visits to nursing homes demonstrated aspects with which the homes needed assistance, thus serving as the basis for the development of a series of educational meetings on nutrition and management.

A pilot series of eight meetings on nutrition and food service was conducted in Delaware County in 1962. The course was developed for administrators and food service supervisors in nursing and boarding homes by the nutrition consultant in the Nursing Homes Section with the guidance and technical assistance of the Division of Nutrition. Preliminary and follow-up visits were made to all homes where staff participated in the course. After completion of an outline for the extension of the course to other areas of the state, a series of meetings were offered in other counties by the regional and local nutritionists. The course consisted of a series of weekly, two-hour meetings held for eight consecutive weeks. Follow-up visits were made to homes from which personnel attended the meetings.

A manual on "Nutrition and Food Service for Facilities Caring for the Chronically Ill Adult and the Aged" was prepared by the nutrition consultant from the Nursing Homes Section using the course outline for the meetings as the basic material. This manual will be available for nursing and boarding homes in Pennsylvania. At the request of the Public Health Service,

the nutrition consultant has modified and expanded the scope of the manual. This revised edition will comprise the text of a food service manual to be distributed by the Public Health Service.

The Nursing Homes nutrition consultant participates in educational programs of institutions and professional groups. She has served as a consultant at the Institutes on Rehabilitation Services in Nursing Homes and on Nursing Home Administration. The nutrition consultant was a member of the Institutional Living Committee which did a survey of nursing and boarding home needs.

The Pennsylvania Board of Accreditation of Nursing Homes and Related Facilities is a multi-lateral committee set-up to encourage higher standards in institutions for the aged. The licensure of nursing and boarding homes comes under the Department of Public Welfare. The Board of Accreditation evaluates and sets standards for accreditation of these homes. The Board consists of representatives from various disciplines interested and involved in the administration, service, and maintenance of these institutions. The nutrition consultant of the Nursing Homes Section is a representative from the Pennsylvania Dietetic Association and presently secretary of the Board. The Nutrition Division also has a great interest in up-grading the standards of nursing homes.

Check lists on "Institutional Menu Evaluation" and "Nutritionist's Review of Institutional Food Service Department" have

been developed by the nutrition consultant from the Nursing Homes Section (see Appendix, pages 122 and 123). These check lists help the nutritionists in evaluating menus and food service departments according to established standards. Other educational materials have been developed by the section for use with professional and lay groups.

The student made a visit to a nursing home in Harrisburg with the nutrition consultant from the Nursing Homes Section. The nutrition consultant had been referred to this home by the Office of the Aging. The home requested help with menu planning. The student and the nutritionist reviewed and evaluated menus for a week and offered appropriate suggestions for their improvement. The nutrition consultant sent a letter to the administrator of the home following the visit to add further comments about the menus reviewed.

Division of Maternal and Child Health

The nutritionist is available for consultation concerning patients served at any of the clinics in the state such as orthopedic, cleft palate, or well-child. She works mainly through public health nurses in providing consultation about patients referred for nutrition or feeding problems. The nutritionist may give direct services to patients on a demonstration basis. The provision of guidance and technical assistance to nursing agencies on nutrition for prenatal classes is also one of the activities of the nutritionist.

One of the new programs of the Division of Maternal and Child Health is the detection and treatment of phenylketonuria. Dietary treatment is essential in early childhood if mental retardation in these patients is to be prevented. The nutritionist gives dietary instruction to the parents of children with this metabolic disease. Demonstrations on dietary management of phenylketonuria is also a part of the educational program for public health personnel.

III. NUTRITION CONSULTANT SERVICES FOR OTHER AGENCIES, INSTITUTIONS, AND DEPARTMENTS

Department of Public Instruction

The Department of Public Instruction is responsible for the school lunch program. The home economists of the Division of Family, Migrant, and Nursing Education supervise and provide consultant service to school lunch supervisors and food service personnel. Nutrition services are integrated with the educational programs of this division.

At the request of the Superintendent of the Pennsylvania Department of Public Instruction, the Assistant Director of the Division of Nutrition served on the Committee on Nutrition and School Food Service. She is also a member of the advisory committee preparing a "Health Education Program Guide." This is a co-ordinated project, planned by an inter-disciplinary group of school nurses, physical education and home economics teachers, and school lunch personnel, on how nutrition relates

to total school health. (16).

The Division of Nutrition participates in pre-service and in-service education of teachers and school nurses through nutrition and health education workshops, special classes at colleges and universities, teacher institutes, and conferences. The Division of Nutrition also participates in training programs for school lunch personnel.

Department of Public Welfare

The consultation services of the Division of Nutrition are available to the Department of Welfare. Joint conferences and meetings with the unit and program directors from the separate departments are promoted.

The Office of Public Assistance and County Boards of Assistance use nutrition services. The Division of Nutrition provides consultant services for the Office of Public Assistance in helping to develop food budget standards that are the basis of money grants to relief recipients. Materials, conferences, and in-service education programs for caseworkers and social workers are provided to County Boards of Assistance to help them with nutrition problems in their "case load." Food budgeting, modified diets, and other special dietary problems are a few of the topics which have been discussed. Similar services are given to the "Homemakers" from family service associations. These "Homemakers" provide homemaking services to families where the mother is ill, disabled, or absent from the home. The objective of these services is to keep the family together as a

unit during problem periods.

The Lebanon County Board of Assistance has developed a food demonstration program on the use of donated foods. The program also emphasizes the importance of a well-balanced diet. This food and nutrition project was initiated as the result of the interest of a student in social work. The vocational home economist for the region, including Lebanon County, and the Division of Nutrition provided guidance and technical assistance to the project. At the present time, food demonstrations are planned once a year for recipients of donated foods in the county. The home economist from the local gas company plans and gives the demonstration. The demonstrations are designed to create an awareness of the variety of ways in which the foods can be used and to provide an impetus for improved nutrition among low-income families.

The Division of Nutrition co-operated with the Office for Children and Youth in nutrition consultation and education projects. The division assisted the Office for Children and Youth in establishing standards for nutrition and food services in day-care centers, foster homes, child-care institutions, and youth forestry camps, and in providing staff education for the personnel concerned. In Philadelphia, the regional nutritionist has conducted in-service education meetings and conferences with the field representatives on the nutritional needs of children, menu planning, food preparation and food service for children's group care facilities.

At the request of the Office for Children and Youth, the Division of Nutrition participated in program planning and in the orientation programs for staff members of the day-care centers for children of migrant workers. Follow-up services provided by the regional nutritionists included the distribution of educational materials, demonstrations on the use of donated foods, and the development of educational programs for parents and children.

Hospitals

Consultant services are given to food service supervisors in hospitals unable to employ qualified dietitians. These services include guidance in the standardization of modified diets and the preparation of diet manuals. At the request of the Directors of the Divisions of Tuberculosis Control and Maternal and Child Health, the Division of Nutrition provided consultant services to one of the state tuberculosis hospitals and the State Hospital for Crippled Children at Elizabethtown while these two institutions were without dietitians. Revisions of cycle menus and modified diets, food purchase orders, and educational programs for the staff and patients were conducted. At the Crippled Children's Hospital improvements in other phases of food service and administration were made which included rearrangement of equipment, rescheduling of employees, changes in portion control practices, and supervision of employees. (16).

Nutritionists gave consultant services to members of the professional staff of other hospitals on methods for strengthening the nutrition content of nursing courses, on the selection and evaluation of nutrition education materials, modified diets, and nutrition education of patients with tuberculosis. Talks were also presented on public health nutrition and dietary adjustment of patients with diabetes and tuberculosis to classes of student nurses. (16).

Schools

The Division of Nutrition provides nutrition consultant services to school personnel. The nutritionists have planned nutrition programs for school nurses; Home and School Visitors, who investigate student absenteeism; teachers; and supervisors. The nutritionist co-operates with the school administrators and nurses and provides nutrition consultant service to assist them with plans for correcting nutritional defects in school children. She works with school nurses for the correction of student's weight problems and with athletic directors to improve the diets of high school boys. She also co-operates with dental hygienists in presenting demonstrations to promote good nutrition and dental health. Food habit surveys may also be conducted in schools by nutritionists. The nutritionists have planned exhibits, demonstrations, nutrition education materials, and projects with school personnel.

Pennsylvania Community-School Health Education Workshops

The Pennsylvania Community-School Health Education Workshops are held annually at six colleges and universities throughout the state during the summer session. The workshops are sponsored by the Inter-Agency Planning Committee for Health Education in Pennsylvania. Scholarships are available to cover the major portion of costs involved in attending these workshops.

The purposes of the Health Education Workshops are: (1) to enable the participants to study common health problems of students, (2) to learn educational techniques, (3) to review community health resources, (4) to promote inter-professional understanding, and (5) to stimulate group action for more effective community-school health education programs. The workshops are planned for teachers, nurses, parents, administrators, dental hygienists, guidance personnel, nutritionists, and health agency personnel.

The programs are set up to fulfill the needs, problems, and interests of the participants. The workshop is organized: (1) to provide opportunities for work on individual and group problems, (2) for participation in discussion groups, panels, and role playing, (3) for consultation with resource persons, and (4) for acquaintance with audio-visual and other teaching aids and materials, and evaluative procedures.

The health of the school child is of primary concern in these workshops, including his physical, mental, and emotional

well-being. All aspects of the school health program are considered: health teaching, health services, and healthful environment.

Graduate or undergraduate credits may be earned if the college or university requirements are met. These credits are applicable toward teaching and nursing certification in Pennsylvania.

Nutritionists from the Division of Nutrition serve as full-time faculty members at four of these workshops. The workshops provide a means of sponsoring a nutrition program for teachers and other school personnel. Nutrition programs in the past have covered such topics as nutrition for athletes, weight control for children, combatting food fads and quackery, and nutrition in the school curricula.

College Health Conference

The College Health Conference is held every three years at a college or university in the state. The conference is sponsored by the Pennsylvania Department of Health, voluntary, and other official health agencies. The program is set up for presidents, deans, physicians, nurses, and faculty members from colleges and educational institutions. It is a two-day conference.

The purpose of the meeting is to bring together persons with a common interest in student health for an exchange of ideas. The activities for the conference include discussions on ways to

improve environmental conditions, health services, and health education on college and university campuses; to formulate suggestions for relating health services, health education, and healthful environment to other college functions; and to consider by joint planning how to improve the total college health program.

Nutrition topics are integrated into some of the programs. Exhibits on nutrition subjects are also displayed. Nutritionists may participate as committee members for the conference.

Nutrition Co-ordination Meeting

The co-ordination of nutrition programs on a state-wide basis is carried out through joint meetings with the state-appointed nutritionists and nutritionists in local health departments. Also participating in these meetings are nutrition instructors at universities, schools of nursing, and a medical college for women; representatives from Visiting Nurse Associations; state agricultural extension home economists; and home economists from the Department of Public Welfare and Department of Public Instruction.

The programs and materials of the various official and voluntary agencies and institutions are discussed during these two-day annual meetings. The objective is to help avoid duplication of services and to encourage agreement among the nutrition representatives on the use and place of nutrition materials. An outgrowth of these meetings is an exchange of materials by

representatives of the various agencies and institutions.

Public Health Nutrition Institutes

The Pennsylvania Department of Health and the University of Pittsburgh have co-sponsored Public Health Nutrition Institutes, held at the Graduate School of Public Health, University of Pittsburgh, biennially since 1958. The programs are planned for public health nutritionists and instructors responsible for educating and training in public health nutrition.

The themes of some of the past Institutes have been "Nutrition and the Life Cycle," "Aging and the Nutritional Problems of the Aged," and "The Nutritionist in Health and Welfare Programs for Children." The subject of the 1964 Institute was "Program Planning in Public Health Nutrition." The program is under the direction of professors from the Graduate School of Nutrition, University of Pittsburgh; and the Director of the Division of Nutrition, Pennsylvania Department of Health.

The Institutes are planned for a period of five days, and stipends are available to participants to cover tuition and housing. The speakers for the Institutes include well-known consultants and staff from local, state, and federal public health agencies; and colleges and universities. The Public Health Nutrition Institute provides an excellent opportunity for summarizing the latest advances in nutrition and interpreting their application to community health needs.

Institute on Fat-Controlled Diets

Six one-day Institutes on "Fat-Controlled Diets--Their Rationale and Application," co-sponsored by the Pennsylvania Dietetic Association and the Pennsylvania Department of Health, were held in 1963. The Institutes provided in-service education for nutritionists and dietitians in Pennsylvania. The speakers for the meeting included representatives from the Division of Nutrition, the Pennsylvania Dietetic Association, the University of Pittsburgh, the Pennsylvania Heart Association, Public Health Service, hospitals, and public health nursing.

The basic program for these Institutes consisted of: (1) a review of the role of fat in the body, (2) how the diet may be adjusted to change the ratio of saturated fats to polyunsaturated fats, (3) a discussion of the American Heart Association booklets on fat-controlled diets, (4) a demonstration of how to use the diets in meal planning, and (5) a panel discussion of the responsibility of professional workers in the dietary management of the patient. (16).

Second Pennsylvania Conference of Arthritis

The student attended the Second Pennsylvania Conference on Arthritis which was held for two days in Harrisburg. The conference was co-sponsored by the Pennsylvania Arthritis and Rheumatism Foundation and by the Pennsylvania Department of Health.

The program included inter-disciplinary programs for physicians, nurses, physical therapists, nutritionists and other personnel associated with voluntary and official health agencies. Outstanding research workers and consultants participated in the conference. The conference included concurrent sessions for physicians and a general session. Workshops in nutrition, physical medicine and physical therapy, and community services for the arthritic patient were conducted.

The workshop on nutrition and arthritis included a panel discussion moderated by the Assistant Director of the Division of Nutrition, Pennsylvania Department of Health. Consultants on the panel included the Director of the Division of Nutrition and a physician who had done research on arthritis.

At the close of the conference a summary of the highlights of the discussion from each of the three workshops was presented to the entire group. This conference provided a means for giving nutrition services to other professional persons. It was also an in-service education program for the nutrition staff.

Dial-a-Dietitian Project

A "Dial-a-Dietitian" project was developed in the Pittsburgh area for the purpose of providing accurate nutrition information to the public and answering questions on foods or nutrition. Reliable nutrition information helps to combat food fallacies.

An answering service operates for the project five days a week. Questions received during this period are answered by one of the volunteers working with the project. The director of the project telephones the answer to the inquirer. There are about sixty volunteer nutritionists, dietitians, and university nutrition faculty who alternate answering a "day's" questions.

The volunteers have found that the number of questions received has a direct relationship to the publicity given the project. Public service announcements on television and radio, newspaper articles, and hospital newsletters have brought a good response to the project.

An analysis of the kinds of questions received indicated that modified diets were asked about most frequently, followed by inquiries on constituents of foods; general nutrition; food preparation, recipes, and storage; weight control; food facts and fallacies; careers in dietetics; and other miscellaneous subjects.

Nutrition Education Project in Conjunction With the Food Stamp Plan

A special nutrition education project planned for families participating in the United States Department of Agriculture Food Stamp Plan program has been initiated in selected counties within three of the State Department of Health Regions. The project was developed co-operatively by the Regions

IV and V Nutrition Consultants, Pennsylvania State University and Cambria County Extension Home Economists, and an Allegheny County Health Department nutritionist.

The Department of Agriculture started the Food Stamp Plan program in 1961 to improve the diets of low-income families through increased purchasing power rather than by direct donations of food. A Pilot Food Stamp Program was introduced in Fayette County in Pennsylvania which is an area economically depressed by chronic unemployment. It replaced the direct food distribution programs of the area. Families in Pennsylvania are certified as eligible for the program by the Office of Public Assistance in the Department of Public Welfare. Upon certification of eligibility, participating families are required to purchase some of the food coupons or stamps. These families exchange the amount of money they could normally be expected to spend for food for an allotment of coupons of greater monetary value. The difference between what each family pays and the total value of the coupons allowed represents the Federal Government's contribution to the program. These coupons may be used to buy foods of their own choice at any participating supermarket or grocery store. (17).

Food consumption surveys have shown that lack of purchasing power is only one of the factors that result in inadequate diets; therefore, an educational campaign accompanies the pilot program. Participants are informed of seasonal plentiful foods and provided with information on the wise selection and use of nutritious low-cost food. (17).

The extension of the Food Stamp Plan program to other counties in the state stimulated interest among professional nutrition workers to develop a new means for providing families with nutrition information. "Penny Planner" cards were designed as an educational device by the group of nutritionists and extension home economists to present nutrition information to low-income families participating in the Food Stamp Plan program. Small cards were chosen as the medium for carrying the nutrition message since these would fit a machine which stuffed the food stamp cards in envelopes. Since space is limited on the cards, the message must be kept simple and clear.

There are twelve "Penny Planner" cards in the series. These cards are mailed out every two weeks with the food stamp cards to new recipients until all of "Penny Planner" cards in the series are included. In March of 1964 the first cards were mailed. The first card introduces "Penny Planner," a cartoon character developed by an artist, and lists the names of the nutrition consultants and extension home economists in the one city and three counties now included in the project. The second card gives information on the basic-four food groups and also includes references for additional nutrition literature which can be obtained from the Division of Nutrition, State Department of Health. The remaining cards contain facts on good food buys and recipes using low-cost foods.

After the program has been in progress for a period, an evaluation of the use of the cards will be conducted. Indirect

contact with families through public health nurses, caseworkers, and other professional workers will be employed to check the value of the cards. Direct conferences with families receiving the cards are also planned. The number and kinds of requests for nutrition literature listed on the "Penny Planner" cards will be used in the evaluation of the project.

Nutrition Literature, Teaching Aids, and Exhibits

Preparation of nutrition literature and exhibits is an important part of the educational program designed to promote optimal nutrition among the people in the Commonwealth of Pennsylvania. Subject-matter information may be developed by the nutritionists alone, in co-operation with other disciplines in the State Department of Health, or with personnel from other official or voluntary agencies or institutions. The Media Section of the Division of Public Health Education provides consultant service and technical assistance in the final production of nutrition literature. The Division of Public Health Education further implements the nutrition education program by providing charts, posters, exhibits, and slides; and by maintaining a film library that includes nutrition films. Literature, exhibits, and other materials on nutrition are available to the regional offices.

Some materials originate in the regional or local offices of the nutritionists. However, most of the nutrition materials for distribution are developed in the central office. The

Division of Nutrition writes the manuscripts for booklets and leaflets. The contents are reviewed by the bureau director and sent to the Division of Health Education where the final form of the publication is developed.

The majority of nutrition materials are written for lay persons. "Nutrition News" is published to provide nutrition information and research findings for nutritionists and other professional groups (see Appendix, page 124). Each issue generally covers one topic of interest for a large audience. Some of the issues are prepared in co-operation with other divisions.

BUCKS COUNTY

I. INTRODUCTION

Bucks County, comprising an area of 617 square miles, occupies the southeastern corner of the Commonwealth of Pennsylvania. It is bordered by Lehigh, Northampton, and Montgomery Counties; by the Delaware River; and the City of Philadelphia (Figure 3). The chief centers of commerce and population are located in the lower portion of the county near the cities of Trenton, New Jersey; and Philadelphia, Pennsylvania. With the exception of a few commercial and industrial centers, the upper and central portions of Bucks County have remained comparatively rural. History and tradition still influence life in Central and Upper Bucks County although the industrialized areas of Lower Bucks County are beginning to exert a stronger effect on the social and economic life of the area. (18).

II. HISTORY

Bucks County was one of the three original counties created by William Penn in 1682. The name "Bucks" is a contraction of Buckinghamshire, an English shire where Penn's family had lived for generations (1). William Penn chose Bucks County as the site of his home "Pennsbury Manor" located on the Delaware River in the southern part of the county.

The Dutch were actually the first European immigrants to challenge the dominance of the powerful Lenni Lenape (Delaware)

Figure 3. Townships and Boroughs in Bucks County, Pennsylvania.

Tribe who held the area which includes the present Philadelphia-Lower Bucks County region. Explorations by the Dutch began in 1616 and were continued in later years by the Swedes and English, lasting until 1680. (18).

William Penn took control of his newly acquired colony under the English crown in 1682. His first purchase from the Indians called the "Walking Purchase" was the tract of land extending between the Delaware River and Neshaminy Creek, northeast to the present site of Doylestown.

During the Eighteenth Century the county was settled mainly by English Quakers who came to establish farms in the area. Other groups contributing to the development of the county during this period included French Huegenots, Scotch-Irish, Dutch from Long Island, and German-speaking people who migrated northward from the Germantown area reaching Upper Bucks County in the 1720's. The agricultural economy of the Pennsylvania Dutch soon dominated the upper third of the county. (18).

Because of the strategic geographic position of Bucks County, it became the crossroads of the American Revolution. Although no important battles were fought in the county, it was a main route for the passage of armies. George Washington's celebrated crossing of the Delaware to attack the Hessian stronghold took place south of New Hope on Christmas night in 1776.

The Industrial Revolution by-passed Bucks County for the most part. There was, however, a paper mill on the Delaware River in Solebury Township as well as the Durham Iron Furnace, which went out of business in the late Eighteenth Century. The pattern of life in Bucks County remained agrarian for much of the Nineteenth and early Twentieth Centuries. In 1812 the county seat was moved from Newtown to Doylestown, which is more centrally located in the county. Doylestown, named for William Doyle an early innkeeper, was incorporated as a borough in 1838. (18).

During the second quarter of the Nineteenth Century the development of transportation facilities took place in the county. The Delaware Division of the Pennsylvania Canal was built along the west bank of the Delaware coming from Easton and terminating at Bristol. Roads were "turnpiked" and reconstructed by private capital. Bridges were built across the Delaware River at Morrisville and New Hope. Most important during this period of growth was the construction of the main railroad routes from Philadelphia to New York City and to the Lehigh Valley cities through the county.

Urban centers developed rapidly in the early Twentieth Century where the railroads and highways converged. Industry grew and the population of the boroughs expanded, but the townships remained primarily agricultural until after World War I. At this time industry began to develop along the Delaware River below Morrisville. The people began to move northward from

Trenton and Philadelphia in the 1920's and Lower Bucks County became more populated.

The extremely rapid growth of the county since World War II was initiated by the construction of a United States Steel Corporation Mill below Morrisville on the big bend of the Delaware River. This large plant was built to open eastern markets for steel products. This expansion was soon followed by the building of new "cities," Fairless Hills and Levittown, in Lower Bucks County which opened up thousands of homes for industrial workers. In the next five years the population of Bucks County grew by approximately 75 per cent. The upper areas of the county are presently experiencing a similar development on a smaller scale. (18).

III. GENERAL DESCRIPTION OF THE COUNTY

Geography

Bucks County is divided into three main sections both geographically and economically. The topography of Lower Bucks County is level in the coastal plain area. Central Bucks County has many rolling hills, and the upper part of the county contains many steep and rocky areas. As a result of these differing geographic features and proximity to urban areas, the county has developed in a heterogeneous manner. (18).

Manufacturing

The major areas of manufacturing in Bucks County are in the larger boroughs, the three tidewater townships and the four

townships adjacent to Montgomery County from Warrington southward (Figure 3, page 77). Expansion in the metals and chemical industries located in the tidewater townships and Bristol Borough have contributed much to the increased employment and growth of population in recent years. Metal production provides the chief source of employment for the lower county. The Fairless Works of the United States Steel Corporation and their National Metal Tube Division are the largest single employers. Light metal products, apparel, and paper and paper products are other important manufactured goods in the county. (18).

Agriculture

Bucks County ranks high among all Pennsylvania counties in agricultural income. The chief products are milk, eggs, and vegetables. Dairy farming is the main agricultural interest north of Newtown, while poultry raising predominates in Central Bucks County. Truck farms are found to the south of Newtown, where the soils are sandy. The trends in recent years have been toward fewer and larger farms and increased output per worker and per acre. (18). Approximately 45 to 60 per cent of the land area in Bucks County is in farms (7).

Population Characteristics

According to the 1960 census the population of Bucks County is 308,567, which is a 113.4 per cent increase during the decade 1950 to 1960 (7). Out of the county's total population, 1.9 per cent is non-white (19). The median age for persons

living in the county was 27.2 in 1960 (8). The median income for families in the county was $6,782. The per cent of the population receiving public assistance in 1960 was 0.6. There was an unemployment rate of 3.6 per cent of the population. (9).

In 1962 the resident birth rate was 23.2 per 1,000 population; the resident death rate was 7.2 per 1,000. The leading causes of death for the county were heart disease, malignant neoplasms, vascular lesions affecting the central nervous system, and accidents. Certain diseases of early infancy, pneumonia and influenza, diabetes, general arteriolsclerosis, congenital malformations, and suicide were also among the ten leading causes of death. (10).

The total health picture in Bucks County is similar to that of Pennsylvania. There are no special or outstanding problems which differ from those in other areas. Statistically, chronic diseases, accidents, and environmental health hazards are the most notable health problems. Although the population of Bucks County is considerably younger than other areas of Pennsylvania, chronic diseases are a salient health problem. (20).

THE BUCKS COUNTY HEALTH DEPARTMENT

I. HISTORY OF LOCAL HEALTH SERVICES

Public health in Pennsylvania has traditionally been a part of municipal responsibility. In the late 1880's and early 1890's, laws were enacted establishing boards of health in cities designated on the basis of population as first, second, and third class. An act passed in 1913, which was later amended, required boroughs and first class townships to create local boards of health. Jurisdiction over health services is thus delegated by the state to cities, boroughs, and first class townships (hereafter referred to in general as municipalities). (14).

Laws relating to first and second class cities provide that these cities administer and supervise citizen activities pertaining to public health. Philadelphia, Pittsburgh, and Scranton belong in this classification. The city of Pittsburgh's health department has been joined with the Allegheny County Health Department. The two remaining cities have health departments. Shortly after World War II, the Philadelphia County and City governments were merged. The Philadelphia Health Department, therefore, is actually a city-county health department.

Although third class cities are required to enforce the health laws of the state either through a board of health or

the city council, boroughs and first class townships may administer health laws or relinquish the responsibility for public health matters to the State Department of Health. The pattern has been for an increasing number of municipalities to surrender their jurisdiction over health services to the state. Approximately 70 per cent of these boroughs and townships in the state have given up their independence in performing public health programs. This is due in part to the increasing difficulty municipalities are encountering in obtaining qualified personnel and sufficient local funds. (14).

The state's recognition of the need for strong local health units resulted in the passage of Act 315 in 1951 by the Pennsylvania Assembly. Act 315 provides for the establishment of county and multi-county health departments. A local health department may be created by a resolution of the County Commissioners or by a popular referendum.

The state has jurisdiction and legal responsibility for providing direct health services to those areas in Pennsylvania which are not covered by either county health departments or by local municipal health departments. In Pennsylvania only four of the sixty-seven counties have full-time health departments serving about 36 per cent of the population. These local health departments are: Allegheny, Bucks, Erie, and Philadelphia. Municipalities retaining independent status provide health services to about 31 per cent of the population on a part-time basis. The state provides direct services to the

remaining 33 per cent through its county health centers. (14).

Counties have generally been reluctant to develop locally autonomous health departments. The reasons for this hesitance appear to be based upon lack of understanding of public health work in general, cost involved, local jurisdictional jealousies, and a general feeling of resentment of the county absorbing the rights of local municipal government (14).

II. DEVELOPMENT OF THE BUCKS COUNTY HEALTH DEPARTMENT

The Bucks County Health Department was created by public referendum in 1954. The Health Department became officially organized in 1955. Certain procedures were followed to set up the Health Department in the county. The County Commissioners appointed five persons to a Board of Health. Two members of the Board are required to be physicians. The members of the Board of Health selected a health officer who is required to be a physician. The County Board of Health adopts rules and regulations pertaining to health and advises the medical director. The health officer or director of the county health department is responsible for the enforcement of health laws, rules and regulations, control of health nuisances, and for the overall administration of the health department.

The County Commissioners also provided for: (1) annual appropriation of local funds to finance the health department, (2) a budget for required facilities and equipment, (3) organization of the department, and (4) employment of personnel in accordance with the State Department of Health regulations.

Jurisdiction of a county health department extends (1) to all second class townships, (2) to all other municipalities which do not have departments or boards of health at the time of its establishment, and (3) to all municipalities in which services were being provided by the State Department of Health at the time of creation of the county health department. Municipalities exempt from powers of the county health department may choose to accept its jurisdiction. (14).

All authority for the local health department is delegated from the state. The county health department has the legal responsibility to enforce the state health laws and to enact local ordinances which are needed to cover local situations.

The local departments of health are required to prepare a classification plan for positions, which must receive the approval of the Advisory Health Board of the State Department of Health. Minimum qualifications for staff positions are listed in the plan. This procedure promotes the establishment of a competent staff free from local pressures. (21).

The State Department of Health will delegate as many public health functions as possible to county health departments, depending upon relevant statutes, the nature of the program, and ability of the county to perform the program under adequate standards and financial resources. The Bucks County Health Department has assumed more responsibility and thus expanded programs and services greatly since it was established. The number of staff has been enlarged from seven in 1954 to seventy in 1964.

The state has the responsibility for the health and welfare of the people; therefore, the state maintains supervisory control of local health departments. The Region VII Medical Director checks the Bucks County Health Department's maintenance of minimum health standards, but exerts little, if any, control.

Regional public health personnel are available for consultation and services to the county health department. The State Department of Health performs the activities of the "Clean Streams" program, radiological health, narcotic investigations, venereal disease investigations, control of air pollution, orthopedic clinics, and other programs which county health departments do not find economically or administratively feasible.

III. ORGANIZATION AND BUDGET

The duties and responsibilities of the Bucks County Board of Health are carried out under the direction of the Medical Director of the Health Department. The Health Department is set up to function as the agent for public health programs for the county. The organization chart of the Bucks County Health Department (Figure 4) shows the functional organization of two offices, two bureaus, and five divisions. The Offices of Business Management and Health Education provide services to the other health department units. The program or technical areas include: the Bureau of Environmental Health with Divisions of Sanitary Engineering, and Sanitation; and the

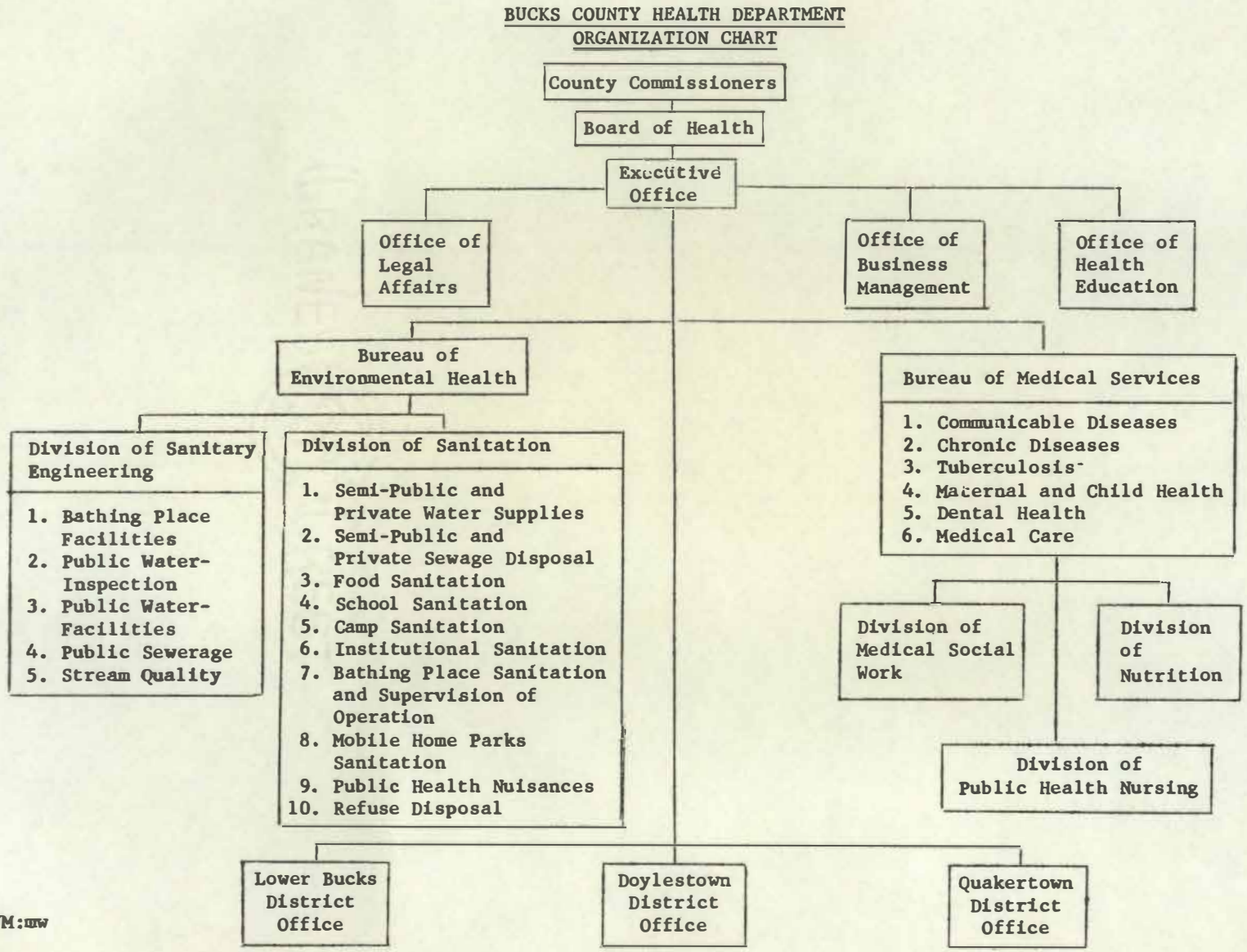

Figure 4. Organization Chart of the Bucks County Health Department.

Bureau of Medical Services with Divisions of Medical Social Work, Nutrition, and Public Health Nursing.

There are three district health offices which are located in Quakertown (Upper Bucks), Doylestown (Central Bucks), and Bristol (Lower Bucks). These district offices enable the staff to work more effectively and efficiently with less traveling. The Doylestown District Office is the center for the administrative staff and consultants. Each district office is a headquarters for the nurses and sanitarians assigned to that area of the county.

The county departments of health are reimbursed by the state for 50 per cent of their operating costs up to a maximum of $.75 per capita. The county health department receives the funds in quarterly installments from the state.

The budget for the Bucks County Health Department includes local and state funds, and monies from special service grants for chronic diseases, stroke rehabilitation, and the Philadelphia Health Research program in co-operation with the United States Examining Service. The operating expenditures in 1963 were $520,148, of which 64 per cent came from sources other than the general county tax fund. The cost was $.58 per capita to the county. Funds were also budgeted by the Bucks County Health Department in 1963 for the construction of a new health center in Bristol under the Hill-Burton Act of the Federal Government. This building was finished in early 1964. The student attended the dedication cermonies of this district health office.

IV. DEPARTMENTAL PROGRAMS

The policy of the Bucks County Health Department in accordance with the State Department of Health is to try to improve health standards through persuasion and education rather than police enforcement. The Health Department performs many programs similar to those existing at the state level. As more qualified staff members are employed, the Bucks County Health Department will absorb more of the duties and programs being carried out by the State Department of Health. The local health department also participates in health programs in conjunction with voluntary and other official health and welfare agencies in the county.

Office of Business Management

The Office of Business Management is responsible for personnel and administrative services to the Bucks County Health Department. The office plans, prepares, and controls the budget for the County Health Department. Inventory and control of supplies are among duties of the office. The clerical staff is under the supervision of the Office of Business Management.

Office of Public Health Education

A position of Health Educator is budgeted for this office. Although there has been no increase in the budget for other personnel in the Office of Health Education, a staff member from

sanitation, nursing, and business is on special assignment in the office. The clerk from business administration also does art work for the office.

The main function of health education is to aid other public health personnel to perform their work more effectively and efficiently. Health education has the responsibility for public relations, publications, local and inter-departmental public health news, and preparation of other news and education media. Requests for information from the public that are not the responsibility of any specific bureau or division are handled by the Office of Public Health Education. Health education plans a continuous program of orientation and in-service education for the staff of the Health Department. Promotion of health careers is part of the program of the Office of Public Health Education. The office organizes volunteers from the community to supplement the work of the professional public health staff in the operation of programs.

Bureau of Environmental Health

The Director of the Bureau of Environmental Health, who is a sanitary engineer, plans, organizes, and develops programs, policies, and procedures for the sanitary engineers and sanitarians employed by the County Health Department. The bureau provides assistance in the planning and operation of sanitation facilities.

Division of Sanitary Engineering. This division is responsible for: (1) the review and approval of all new public bathing facilities in Bucks County, (2) the operational supervision, inspection, and approval of plans for public water supplies, and (3) water quality control programs. Future departmental expansion will cover programs on public sewerage. Two sanitary engineers are employed in this division.

The sanitary engineers provide consultant service to the general public, municipal and private officials, engineers, technical groups, and other county departments on environmental health problems (8). As a part of the division's educational program, the sanitary engineers give talks to lay and professional organizations.

The Division of Sanitary Engineering works in conjunction with the Bucks County Water and Sewer Authority to encourage joint municipal water and sewerage projects. The division has advised the Water and Sewer Authority concerning methods of implementing the "County Water and Sewer Master Plan." This "Master Plan" for the county was set up for a fifty-year period, 1960 to 2010. It predicts the population growth and facilities which will be necessary to provide sanitation services to keep pace with the increase in population.

Division of Sanitation. This division is responsible for the inspection and supervision of sanitary facilities. The program for the division includes semi-public and private water

supplies and sewage disposal; food sanitation; school, institutional and camp sanitation; operational sanitation of bathing places; mobile home parks sanitation; refuse disposal; and public health nuisances. Consultation and technical assistance is available to persons involved in the construction of semi-public and private sewage or water facilities.

The division places an emphasis on education for compliance rather than strict enforcement of regulations. There are field sanitarians in each of the district offices and two supervising sanitarians. The Quakertown Office has no position budgeted for a supervising sanitarian.

Bureau of Medical Services

The Bureau of Medical Services is concerned with the promotion of health by the prevention, control, or cure of disease; and the rehabilitation of persons who have been disabled by disease. The bureau is administered by the Medical Director of the Bucks County Health Department. The educational programs of the bureau are implemented through consultation and direct services to residents of the county.

Division of Medical Social Work. The Medical Social Worker employed by the Bucks County Department of Health provides mainly consultant services to the public health nursing staff. He assists with social and emotional problems of families in their "caseloads." The Medical Social Worker also gives some direct services to patients when their social or

emotional problems are related to health problems. He participates in programs of health and welfare agencies in the community. He takes part in in-service education meetings for other members of the Health Department staff.

The social worker is participating in a three-year "Service and Research" project in conjunction with the Philadelphia Department of Health and the Armed Forces Examining Service in Philadelphia. The project is sponsored by the United States Public Health Service for residents of Bucks County who have been rejected by the Armed Services for medical or psychiatric reasons. The social worker contacts the subjects to learn whether they have used medical services to correct or alleviate their condition. He also assists them in locating and using needed health, welfare and vocational services.

Division of Public Health Nursing. This division provides a generalized public health nursing service. This service includes bedside nursing care, case-finding, and communicable disease control. The Division of Public Health Nursing also participates in the "Stroke Rehabilitation" program. The program provides services for patients under the direction of a team of professional workers from various disciplines. The aim of the program is to rehabilitate stroke patients through an inter-disciplinary approach. The public health nurses work in the various clinics held in the county, including chest, parasitology, well-child, orthopedic, and special immunization clinics.

The division's staffing pattern provides for a Director of Nursing, a supervising nurse in each of the district offices, and staff nurses. Registered nurses on the staff without a Bachelor of Science degree are required to take college courses to become fully "qualified."

THE DIVISION OF NUTRITION

I. DEVELOPMENT AND ORGANIZATION

Nutrition services for the county were brought into being in 1962 when a Division of Nutrition was established. This division is one of the three divisions of the Bureau of Medical Services. The position for nutritionist was budgeted from chronic disease funds. There is one nutritionist employed at the present time.

The nutritionist is administratively responsible to the Director of the Bucks County Department of Health. Through an agreement with the Division of Nutrition, Pennsylvania Department of Health, the nutritionist can receive technical assistance or consultation from this unit.

Objectives

The long-term objectives of the Division of Nutrition of the Bucks County Department of Health are: (1) to promote positive health through the improvement of the nutritional status of Bucks County residents; and (2) to provide nutrition guidance and education for the prevention of disease, retardation of the on-set of chronic and debilitating diseases, and the dietary treatment and rehabilitation of individuals in the county (20). To help accomplish these objectives, the nutritionist plans and provides consultant services to the staff of the Health Department; gives direct services to individuals in

the community; and provides both consultant and direct services to staffs of voluntary and other official health, education, and welfare agencies and institutions in the county. There is an emphasis placed on consultant services, but many direct services are given on a demonstrational basis at the initiation of new programs.

Professional Advancement

The nutritionist receives in-service education through participation in the staff meetings of the Division of Nutrition, Pennsylvania Department of Health, and the Bucks County Health Department. The nutritionist has other opportunities for professional growth and advancement by attending and participating in professional meetings, institutes, workshops, and conferences as described previously under the state nutrition program. The regional nutrition consultant is available to the local nutritionist for assistance and consultation.

Orientation of New Staff Members and Students

New employees of the Bucks County Department of Health are oriented to the general administrative and personnel practices of the Department by the Director. The bureau and division heads also participate in the orientation program for new staff members, medical students, and graduate students in public health disciplines. The nutritionist is specifically responsible for providing information on nutrition programs and services.

Program Development and Evaluation

As a basis for the assessment of community nutrition needs, the local nutritionist prepares a "County Profile," as discussed previously under the Chapter on the Division of Nutrition. The community's health, education, and welfare organizations and population characteristics are surveyed. Health statistics are also used in determining needs for program areas and priorities.

Each departmental unit (Figure 4, page 88) of the Bucks County Health Department writes a program plan. The format of the program plan is similar to that used at the state level with the addition of a timetable for the completion of certain projects. The program plan from each departmental unit, including nutrition, is reviewed by the Medical Director and by the heads of the bureaus and divisions of the Health Department. Appropriate suggestions or changes are incorporated before the final plan is written.

A review of the nutrition program, as well as the other programs, is done annually to change out-dated sections and to aid in future program development. This review includes an evaluation of accomplishments in relation to stated objectives, analysis of the methods and procedures being used, and a re-evaluation of the needs of the community and the available resources for meeting these needs.

Standards used for the measurement and evaluation of achievement of nutrition program objectives are based on the number of requests for nutrition services received and filled. This includes a record of the number of conferences held with public health personnel and other professional workers. The purposes of these conferences; co-operative projects; co-ordinated programs with other departments, institutions, agencies, and organizations are also a part of the evaluation of the nutrition program. The number of direct services to individuals and institutions is also an indication of the extent of use of nutrition services.

As a basis for the evaluation of the effectiveness of the nutrition program, the nutritionist may review the case records of the public health nurses with the co-operation of the director of nurses and the nursing supervisors. This review seeks to determine: (1) what each nurse is recording about nutrition; (2) what nutrition information and materials are provided to families by the nurses, (3) if possible, how well the patients understand the information, and (4) what is the change in the condition of the patient and family food pattern.

When considering the evaluation of direct nutrition services to individuals, the recording of certain information is helpful. This information should include the source of referral, the condition prior to consultation, and the number and kind of conferences held. Follow-up dietary consultation

should be made to determine the number of patients adhering to the diet, problems they might have, and the condition of the patient. (20).

Reports

Monthly reports are written by the nutritionist about activities and services rendered. An annual report is also written summarizing the year's nutrition activities. These reports are prepared to help keep the Director's Office informed of the programs and services of the Division of Nutrition.

Monthly reports written by each office, division, and bureau in the Health Department are circulated among the heads of these departmental units. This procedure helps to keep the County Health Department staff informed of the programs and activities being carried out.

II. NUTRITION PROGRAMS AND SERVICES

The nutritionist participates in many of the nutrition programs developed at the state level. Since the Division of Nutrition of the Bucks County Department of Health was created approximately two years ago, nutrition services have gradually been expanded. The future should bring a greater scope of nutrition services to the county. As the program broadens, the nutritionist plans to include more work with voluntary agencies and organizations in the community.

Nutrition Services in Co-operation with Other County Health Department Programs

The integration and co-ordination of nutrition services with other appropriate services within the Bucks County Health Department is promoted through meetings with the division directors. The nutritionist participates in in-service staff education programs by interpreting the nutrition program to other staff members. Consultation is a service provided by the nutritionist to Health Department personnel.

In-service staff nutrition education to nurses. A high priority is given to staff education for nurses since they make up the largest complement of professional workers in the County Health Department and through them a large part of nutrition services are implemented. The nutritionist attends staff meetings of the nurses to provide nutrition education services. In-service staff education on nutrition is centered on the expressed needs of the nurses. The education and guidance of professional workers in nutrition strengthens services to individuals, families, and institutions.

Individual conferences are held with the staff nurses on nutrition problems of patients in their "caseloads." A twenty-four-hour recall of a patient's dietary intake is generally requested by the nutritionist before consultation is given. The topics discussed include such phases of nutrition as dietary management in chronic diseases, modified diets,

weight control, low-cost food budgets, and diets for infants and children.

Direct nutrition services are given by the nutritionist to patients or families during home visits with the nurses. These services are provided by the nutritionist as demonstrations to acquaint the nurses with techniques and procedures which can be used in nutrition education.

Maternal and child health programs. The nutritionist is available to provide consultant service to patients referred from well-child, orthopedic, and other health clinics operated in the county. The nutritionist has assisted in the development of a class on prenatal nutrition. She taught some of the beginning classes to demonstrate methods of presentation of nutrition materials.

Nutrition Consultant Services for Other Agencies, Institutions, and Departments

Schools. The nutritionist provides consultant services to school nurses, health teachers, student teachers, and other school personnel. The nutritionist advises school nurses regarding student's nutrition problems. Subjects such as weight control and dietary habits have been discussed. The nutritionist also participates in school health career days.

The nutritionist participated in a co-operative project with one of the county schools in the translation of low-cost

recipes into Spanish. These recipes are to be used to aid Puerto Rican and other Spanish-speaking families with low-cost meals and food budgeting. The nutritionist also assisted homemaking students from some of the county high schools in demonstrations of low-cost foods.

Hospitals. The nutritionist provides consultant and direct services to hospitals in the county. The nutritionist teaches nutrition classes at a diabetic clinic which is held in one of the hospitals in Lower Bucks County. The nutrition classes are a part of a course of instruction for diabetic clinic patients. The course also includes sections on personal and medical care for the diabetic. The nutritionist has developed visual aids which are used in the teaching of the exchange system for diabetic diets in these classes. The student observed the nutritionist when she taught one of these classes.

Each new patient attending the clinic sees the nutritionist. A meal plan based upon the physician's recommendations and the patient's usual meal pattern is worked out by the nutritionist. The services of the nutritionist are used to aid the patient in adjusting to his diet.

The local nutritionist provides consultant service to the food service supervisor in a hospital in Doylestown. The food service supervisor has requested help with diabetic and other modified diets. Until qualified dietitians can be

employed in all county hospitals, the services of the nutritionist can be of benefit to hospital dietary personnel.

The nutritionist has worked co-operatively with two hospital dietitians in planning nutrition education for nursing students. The nutritionist contributed materials to these teaching dietitians.

Nursing homes. The local nutritionist taught the course for nursing home administrators and food supervisors which was developed by the nutrition consultant for the Nursing Homes Section, Division of Chronic Diseases of the State Department of Health. This course has been discussed previously in the Chapter on Nutrition Programs and Services. Upon completion of the course, consultation was offered to personnel of the participating homes.

Child caring institutions. Consultation and technical assistance are available to the management and food service personnel in child caring institutions and day care centers. The nutritionist provides help with the dietary needs of children.

Extension Service. The Extension Home Economists for Bucks County and the nutritionist from the local health department have worked co-operatively on a nutrition article for a newsletter. The nutritionist is available for technical assistance on nutrition subjects or problems.

Nutrition information, materials and visual aids. The nutritionist answers requests for nutrition information and materials. In general, the nutritionist uses materials developed by the Division of Nutrition of the State Department of Health. Materials from commercial companies are reviewed for accuracy and content by the nutritionist before acceptance for local use. Visual aids are prepared locally with the assistance of the Division of Public Health Education. At the present time, the local nutritionist is working cooperatively with the Region VII Nutrition Consultant and the nutritionist from Delaware County to develop visual aids on weight control and prenatal nutrition.

SUMMARY AND EVALUATION

The student has reported information obtained during a seven weeks' period of field observations and experiences in the Commonwealth of Pennsylvania. Due to the excellent planning of the field training by the Director of the Division of Nutrition, Pennsylvania Department of Health; and the nutritionist with the Bucks County Department of Health, the student was able to accomplish the objectives stated in the introduction of this paper.

In conferences with staff members, the student gained an understanding of the organization, administration, and functions of the Pennsylvania Department of Health. Knowledge about the problems, needs, and activities of various public health programs was also obtained during these conferences. By reading reports and other publications of the State Department of Health and the Bucks County Health Department and by making field trips with some of the nursing and sanitation personnel, the student developed an appreciation for the programs and services of other disciplines working in official public health agencies.

During the period of field training, the student increased her knowledge of how nutrition programs are planned and executed and how nutrition programs are integrated into the overall public health program of the Pennsylvania Department of Health. This was accomplished primarily by: (1) observing the various

activities of the nutritionists, (2) reading monthly and annual reports of the nutritionists, and (3) conferring with the nutritionists and other professional workers whose services are connected with nutrition programs. The student's review of the nutritionist's technique for the determination of community nutrition needs, as well as the evaluation procedures used by the Division of Nutrition, should help the student with similar problems in her future work in Public Health Nutrition.

The student gained an understanding of the role of in-service education in helping to keep nutritionists and other professional staff members informed of current technical information and educational methods. Good rapport between the Director of the Division of Nutrition, regional and local nutritionists, and other professional workers is a significant factor in the success of nutrition programs. Observations of the skills and techniques used by nutritionists will be of value to the student when assuming future responsibilities.

The period spent with the Bucks County Health Department gave the student an understanding of a local public health program. A comparison of the role of a local nutritionist with that of a state public health nutritionist was made possible through observations and readings about the programs at these two levels. There are more direct services given at the local level as compared with a greater emphasis on consultant services at the state level.

In addition to meeting the specific objectives stated in the introduction, the field training made the student more aware of the need for studying the characteristics of the area and the cultural background of the people she will be providing with nutrition services. The student also became acquainted with some of the voluntary health and official welfare agencies and institutions serving Pennsylvania communities. The field experience enhanced the student's educational background in nutrition and made her increasingly aware of the responsible role of the nutritionist in public health programs.

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APPENDIX

APPENDIX

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JOB SPECIFICATIONS FOR NUTRITION POSITIONS,

PENNSYLVANIA DEPARTMENT OF HEALTH

NUTRITIONIST

Definition: This is specialized work in the field of public health nutrition.

An employee in this class promotes and conducts a program of community nutrition for people of all ages in an assigned geographic area. Duties include providing educational and consultative services in nutrition practices to health, social and welfare agencies, schools, institutions and other interested groups. Work is performed under the supervision of an administrative or technical superior and is subject to review for conformance to established policies, techniques and procedures through conferences, reports and evaluation of results.

Examples of Work Performed: Analyzes community nutritional needs and develops nutritional services as part of a public health program in an assigned geographic area.

Provides consultative services in the field of nutrition and gives technical advice on diets to health, social and welfare agencies, schools and institutions.

Participates in the orientation and in-service training for personnel in health, social and welfare agencies, schools and institutions in the field of nutrition.

Participates in studies and surveys relating to food and nutrition.

Prepares talks and articles on nutrition for meetings, newspapers, radio, television and other educational media.

Maintains records and prepares reports.

Performs related work as required.

Required Knowledges, Skills and Abilities: Knowledge of the basic principles and practices of nutrition and dietetics, both standard and therapeutic.

Some knowledge of current developments in the field of public health nutrition.

Some knowledge of the principles and practices related to providing consultative services to institutions and group care facilities in the field of nutrition.

Ability to analyze nutritional problems of individuals, families and groups.

Ability to present educational material through the use of various media such as exhibits, slides, motion pictures, lectures and food demonstrations.

Ability to present ideas clearly and concisely orally and in writing.

Ability to interpret public health nutritional policies, procedures and techniques to individuals and community groups.

Ability to establish and maintain effective working relationships with professional and lay groups in developing educational nutrition programs at the local level.

Minimum Experience and Training: Three years experience as a therapeutic or teaching dietitian, nutritionist or home economist in a health or welfare agency, dietitian or nutritionist employed by a food clinic, or teacher of foods and nutrition; and such training as may have been gained through graduation from a four year college or university with major course work in foods and nutrition.

PUBLIC HEALTH NUTRITIONIST I

Definition: This is professional nutrition work of an educational and consultative nature in the field of public health nutrition.

An employee in this class is responsible for planning, promoting and conducting the nutrition program for people of all ages in an assigned region. Duties may include giving technical supervision and guidance to employees of a lower grade. Work is performed with considerable independence under the general supervision of an administrative or technical superior and is subject to review for conformance to established policies, techniques and practices through conferences, reports and analysis of results obtained.

Examples of Work Performed: Analyzes regional nutritional needs and plans, promotes and conducts the nutrition program in an assigned region.

Plans and conducts community nutrition surveys and demonstration projects; evaluates and interprets the results.

Advises local agencies on dietary standards for individual and group feeding and on methods for appraising the adequacy of the diets of population groups.

Plans and conducts community nutrition programs designed to prevent and control dietary deficiency disease.

Provides consultative and advisory services to personnel of health, social and welfare agencies, schools and institutions in the field of public health nutrition.

Establishes and maintains cooperative working relationships with local health agencies, community groups and others interested in the problems related to food and nutrition.

Organizes and conducts or assists in organizing and conducting nutrition workshops.

Participates in the orientation and in-service training for personnel of health, social and welfare agencies in the field of nutrition.

Provides technical supervision and guidance to employees of a lower grade.

Supervises field experience for graduate students in the field of nutrition.

Prepares or assists in the preparation of educational materials, articles, lectures or teaching media in the field of nutrition.

Participates in state, national and international nutrition surveys and studies.

Prepares reports and maintains records.

Performs related work as required.

Required Knowledges, Skills and Abilities: Thorough knowledge of the basic principles and practices of nutrition and dietetics both standard and therapeutic.

Considerable knowledge of modern public health administration and public health objectives in the field of human nutrition.

Considerable knowledge of the principles and methods of nutrition education and their application and adaptation to specific situations.

Knowledge of current developments in public health work as related to nutrition.

Knowledge of the functions of community health and welfare organizations.

Ability to work with professional and lay groups in the development of educational nutritional programs at the local level.

Ability to analyze the nutritional problems of individuals, families and groups.

Ability to prepare and deliver effective talks before professional and lay groups and to present material through the use of various media such as exhibits, slides, motion picture, food demonstrations, radio and television.

Ability to present ideas clearly and concisely orally and in writing.

Minimum Experience and Training: Two years experience as a nutritionist in a health agency or four years experience as a hospital therapeutic, teaching or administrative dietitian, home economist in a health or welfare agency, dietitian or nutritionist employed by a food clinic or teacher of foods and nutrition; and such training as may have been gained through graduation from a four year college or university with major course work in foods and nutrition, supplemented by graduate study in nutrition or public health to the level of a Master's Degree.

PUBLIC HEALTH NUTRITIONIST II

Definition: This is professional work of an educational and consultative nature in the field of public health nutrition.

An employee in this class is responsible for planning, integrating and coordinating a program of education in nutrition on a state-wide basis in a specific field such as maternal and child health, tuberculosis control, chronic disease, nursing and convalescent homes or group feeding. Work is performed with considerable independence under the general supervision of an administrative or technical superior and is subject to review for conformance to established policies, techniques and procedures through conferences, reports and analyses or results obtained.

Examples of Work Performed: Provides technical assistance and consultant services in nutrition or food administration to professional and lay personnel.

Determines nutrition needs and resources as a basis for program development.

Assists in the formulation of policies and standards pertaining to nutrition services in relation to group feeding and special programs.

Organizes and carries out in-service training programs for professional and lay staff of hospitals, institutions and health, welfare and education agencies.

Prepares or assists in the preparation of educational materials, articles, lectures or teaching media in the field of nutrition.

Cooperates with governmental agencies, professional and lay groups to coordinate the nutrition program with other programs.

Supervises field training for graduate students in public health in relation to the special nutrition program.

Cooperates with the public and private agencies and organizations, colleges and universities in planning and carrying out training institutes and other forms of in-service training for personnel concerned with nutrition or food administration and management.

Conducts surveys of food administration practices in hospitals, institutions and industrial installations.

Prepares reports of surveys and makes recommendations for improvements in such areas as menu planning, food purchasing, food preparation, purchase and arrangement of equipment.

Prepares budget estimates, food cost analyses and other cost control studies.

Reviews therapeutic diet practices in hospitals and other institutions and makes appropriate recommendations.

Consults with architects on efficient food service layouts.

Performs related work as required.

Required Knowledges, Skills and Abilities: Thorough knowledge of nutrition and dietetics in relation to health and disease.

Thorough knowledge of principles and techniques of therapeutic diets.

Considerable knowledge of current developments in public health work as related to nutrition.

Considerable knowledge of modern public health administration and public health objectives in the field of human nutrition.

Considerable knowledge of the operating principles and problems of small and large food service installations.

Knowledge of public health administration practices and principles.

Knowledge of in-service training principles and techniques.

Ability to plan, conduct and evaluate nutrition surveys and studies.

Ability to establish and maintain effective working relationships with lay and professional groups.

Ability to present ideas clearly and concisely orally and in writing.

Minimum Experience and Training: Four years of experience as a nutritionist in a health agency or six years experience as a hospital therapeutic, teaching or administrative dietitian; and such training as may have been gained through graduation from a four year college or university with major course work in foods and nutrition, supplemented by graduate study in foods and nutrition or public health to the level of a Master's Degree.

PUBLIC HEALTH NUTRITIONIST III

Definition: This is responsible professional work of an educational and administrative nature assisting in the direction of the state-wide program in public health nutrition.

The employee in this class assists the nutrition director in developing and administering a comprehensive and coordinated program in public health nutrition. Work includes providing technical aid and guidance to nutritionists of a lower level. The employee exercises a high degree of initiative and judgment and works with considerable independence in carrying out program responsibility. Work is reviewed by a professional superior through reports and conferences for achievement and program effectiveness.

Examples of Work Performed: Assists in planning, administering and evaluating a state-wide nutrition program.

Assists in integrating and coordinating the nutrition program with other state agency programs and outside public and private jurisdictions.

Assists in planning, administering and evaluating special public health nutrition projects.

Assists in recruiting, selecting, and supervising a staff of nutritionists to carry out the state-wide nutrition program.

Assists in developing a program of continuing education for nutritionists in the Department and other agencies.

Reviews and summarizes published nutrition research papers and reports and interprets research findings to professional and lay groups.

Organizes and conducts nutrition workshops or institutes for professional personnel at state, regional or county levels.

Cooperates with colleges and universities concerning nutrition courses content in the curricula.

Prepares nutrition education materials, visual aids and other teaching media for professional and lay groups.

Plans, conducts, evaluates and prepares reports of dietary and nutrition studies and surveys.

Performs related work as required.

Required Knowledges, Skills and Abilities: Thorough knowledge of nutrition and dietetics in relation to health and disease.

Thorough knowledge of current developments in public health nutrition and their application to state-wide, regional and special programs.

Thorough knowledge of modern public health administration and public health objectives in the field of human nutrition.

Thorough knowledge of the facilities, media, methods and techniques of preparing and disseminating nutrition information to health, welfare and social agencies, public and private schools and institutions.

Ability to establish and maintain effective working relationships with professional and lay groups.

Ability to interpret and evaluate research findings.

Ability to plan and conduct workshops and institutes and to prepare necessary educational materials and visual aids to meet the special needs of such activities.

Ability to organize, implement, supervise and evaluate nutrition surveys or studies.

Ability to prepare and deliver effective talks before interested professional and lay groups on public health nutrition.

Minimum Experience and Training: Five years of experience as a nutritionist in a health agency; and such training as may have been gained through graduation from a four year college or university with major course work in foods and nutrition, supplemented by graduate study in nutrition or public health to the level of a Master's Degree.

PUBLIC HEALTH NUTRITIONIST IV

Definition: This is responsible professional work of an administrative and educational nature in planning and directing a state-wide program in public health nutrition.

An employee in this class is responsible for planning, organizing and administering a comprehensive and coordinated program in public health nutrition on a state-wide basis. Duties include recommending policies relating to the public health nutrition program and the coordination of the program with other aspects of the total state public health program. The employee exercises a significant degree of independent judgment in directing the work of a staff of nutritionists engaged in a state-wide program of public health nutrition. Assignments and program objectives are outlined in directives and administrative orders which may be supplemented by conferences and staff meetings with administrative superiors. Work is reviewed by an administrative superior through reports, conferences and an evaluation of program results for conformance to departmental policies and objectives.

Examples of Work Performed: Develops, impelements, and administers a program for the improvement of nutritional practices on a state-wide basis.

Develops and directs a state-wide program in which a knowledge of nutrition is applied to the promotion of positive health and the prevention and dietary control of disease.

Supervises a staff engaged in the public health aspects of nutrition and in the maintenance and improvement of the nutritional status of individuals and population groups.

Establishes and maintains cooperative working relationships with public and private agencies and groups to promote and coordinate activities related to public health nutrition.

Supervises the conduct of nutrition research studies and provides consultation to study groups.

Participates in educational activities including orientation courses, in-service training and staff development programs.

Consults with and advises universities and colleges on academic and field training requirements for public health nutritionists.

Recruits and selects a professional staff of public health nutritionists.

Directs a field training program for graduate students in public health nutrition.

Cooperates with agencies concerned in setting standards for feeding in child caring institutions and agencies.

Performs related work as required.

Required Knowledges, Skills and Abilities: Extensive knowledge of nutrition and dietetics in relation to health and disease.

Extensive knowledge of current developments in public health nutrition and their application to state-wide, regional and special programs.

Thorough knowledge of the facilities, media and techniques of preparing and disseminating nutrition information to health, welfare and social agencies, public and private schools and institutions.

Ability to organize, direct and evaluate a public health nutrition program and to supervise a professional staff of nutritionists.

Ability to establish and maintain effective working relationships with professional and lay groups.

Ability to conduct, evaluate, report and interpret research.

Ability to plan and conduct workshops and institutes and to prepare necessary educational materials and visual aids to meet the special needs of such activities.

Ability to prepare and deliver effective talks before interested professional and lay groups on public health nutrition.

Minimum Experience and Training: Six years of experience as a nutritionist in a health agency including at least two years in a supervisory or administrative capacity in a public health agency; and such training as may have been gained through graduation from a four year college or university with major course work in foods and nutrition, supplemented by graduate study in nutrition or public health to the level of a Master's Degree.

INSTITUTIONAL MENU EVALUATION

H50,000

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH

INSTITUTIONAL MENU EVALUATION

INSTITUTION		DATE
EVALUATED BY	TITLE	DATES OF MENU

FOOD GROUP	SERVINGS: DAILY S	M	T	W	TH	F	S	WEEK TOTAL	MIN. ADULT REC. WEEK	NO. OVER OR SHORT
I. VEGETABLES AND FRUITS: TOTAL OF 4 OR MORE SERVINGS DAILY										
A. DARK GREEN OR DEEP YELLOW: 1 SERVING EQUALS ½ CUP BROCCOLI COLLARDS SPINACH CARROTS CRESS SWEET POTATOES CHARD KALE PUMPKIN GREENS {DANDELION, MUSTARD, TURNIP} WINTER SQUASH 5 APRICOT HALVES ½ MEDIUM CANTALOUPE									3 TO 4 SERVINGS	
B. CITRUS FRUITS OR VITAMIN C SOURCE: 1 SERVING DAILY 1 SERVING EQUALS: ½ GRAPEFRUIT OR CANTALOUPE; 1 MEDIUM ORANGE; ½ CUP STRAWBERRIES, BROCCOLI, GREEN PEPPER, SWEET RED PEPPER; ½ CUP GRAPEFRUIT, ORANGE, OR BLENDED ORANGE & GRAPEFRUIT JUICE. ½ SERVING EQUALS: 1 WEDGE HONEYDEW 1 TANGERINE ½ CUP TANGERINE JUICE ½ CUP TOMATO OR JUICE 1 MEDIUM TOMATO ½ CUP WATERMELON ½ CUP ASPARAGUS TIPS, BRUSSELS SPROUTS, RAW CABBAGE, KALE, MUSTARD OR TURNIP GREENS, SPINACH, POTATOES COOKED IN THE SKIN									7 SERVINGS (1 DAILY)	
C. OTHER VEGETABLES AND FRUITS: 1 SERVING EQUALS: ½ CUP VEGETABLE OR FRUIT, OR A USUAL SERVING SUCH AS 1 MEDIUM APPLE, BANANA, PEACH OR POTATO									17 SERVINGS	
II. MILK: 2 CUPS DAILY 1 SERVING EQUALS: 1 CUP FLUID WHOLE, SKIM OR BUTTERMILK ½ SERVING EQUALS: ½ CUP UNDILUTED EVAPORATED MILK, 2 TABLESPOONS NON-FAT DRY MILK POWDER, ½ CUP CUSTARD OR MILK PUDDING, 1 SERVING CREAM SOUP MADE WITH MILK, 1 SERVING MILK USED ON CEREAL ¼ SERVING EQUALS: ½ CUP ICE CREAM 1/3 SERVING EQUALS: ½ CUP COTTAGE CHEESE 2/3 SERVING EQUALS: 1" CUBE OR 1 OZ. CHEDDAR CHEESE									14 CUPS	
III. MEAT AND OTHER PROTEIN FOODS: 4 TO 6 OUNCES DAILY A. MEAT, FISH OR POULTRY: 1 OUNCE EQUALS: 1 OUNCE OF COOKED LEAN MEAT, FISH OR POULTRY; ALTERNATES OCCASIONALLY - - 1 FRANKFURTER, 1 THICK SLICE LUNCHEON MEAT, 1 THICK SLICE OR 1 OUNCE CHEESE (EXCEPT CREAM), ½ CUP DRIED BEANS OR PEAS, 2 TABLESPOONS PEANUT BUTTER									28 OUNCES	
B. EGGS: 5 OR MORE PER WEEK									5	
IV. BREADS AND CEREALS: 4 OR MORE SERVINGS DAILY WHOLE GRAIN OR ENRICHED 1 SERVING EQUALS: 1 SLICE BREAD, 1 OUNCE READY-TO-EAT CEREAL; ½ TO 3/4 CUP COOKED CEREAL, CORNMEAL, GRITS, MACARONI, NOODLES RICE OR SPAGHETTI									28 SERVINGS	
V. OTHER FOODS: BUTTER: 2 TO 3 TEASPOONS DAILY										

NUTRITIONIST'S REVIEW OF INSTITUTIONAL FOOD SERVICE DEPARTMENT

H 50,001

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF HEALTH

NUTRITIONIST'S REVIEW OF INSTITUTIONAL FOOD SERVICE DEPARTMENT

INSTITUTION			ADDRESS (INCLUDE COUNTY)	
TYPE OF INSTITUTION	BED CAPACITY	AVERAGE PATIENT CENSUS	TOTAL NO. EMPLOYEES	DATE OF VISIT
REASON FOR VISIT			REVIEWER (NAME AND TITLE)	

PERSON IN CHARGE OF FOOD SERVICE (NAME AND TITLE

EDUCATION (HIGHEST GRADE) _____

TRAINING IN FOOD SERVICE _____

EXPERIENCE IN FOOD SERVICE _____

PERSONS CONTACTED (NAMES AND TITLES)

SCALE

1	2	3	4	5
NEVER OR POOR	SELDOM OR FAIR	SOMETIMES OR GOOD	FREQUENTLY OR BETTER	USUALLY OR BEST

I. EMPLOYEES:

1 | 2 | 3 | 4 | 5

1. FULL TIME: NUMBER _____
   HOURS OF WORK: IN _____ AM OUT _____ PM
   IN _____ AM OUT _____ PM
2. PART TIME: NUMBER _____ AV. HRS. _____
3. SUPERVISION OF EMPLOYEES? _____
4. LENGTH OF SERVICE: 0-6 MOS. NO. _____
   7-12 MOS. NO. _____
   OVER 12 MOS. NO. _____

II. MENU:

1. WHO PLANS MENU? _____
2. FOR WHAT PERIOD OF TIME? _____
3. HOW FAR IN ADVANCE? _____
4. MENU PATTERN USED? _____
5. IS PATTERN ADEQUATE? _____
6. MENUS CHECKED FOR ADEQUACY? _____
7. MENUS USUALLY SERVED AS PLANNED? _____
8. GROUP PREFERENCES CONSIDERED? _____
9. INDIVIDUAL LIKES CONSIDERED? _____
10. IS A CHOICE PROVIDED? _____
11. EVALUATION OF MENU DONE? _____
12. VARIETY OF FOODS USED? MEATS _____
    FRUITS _____
    VEGETABLES _____
    BREADS _____

III. SPECIAL DIETS:

1. PHYSICIANS WRITTEN ORDERS? _____
2. KINDS OF DIETS USED _____
3. WHO PLANS THEM? _____
4. DIET MANUAL USED? _____
   NAME _____
5. ARE DIETS WRITTEN OUT? _____
6. DO MEALS, AS SERVED, FOLLOW DIET? _____
7. ARE DIETS ADEQUATE? _____
8. CONSULTANT SERVICES AVAILABLE? _____
   NAME _____

IV. FOOD PURCHASING

1 | 2 | 3 | 4 | 5

1. FROM ADVANCE PLANNED MENUS? _____
   IF NOT WHAT BASIS? _____
2. WHO DOES PURCHASING? _____
3. WHO DOES ORDERING? _____
4. USUAL FREQUENCY OF DELIVERY:
   MEAT _____ MILK _____
   PRODUCE _____ BREAD _____
   CANNED _____ FROZEN FOODS _____
5. INSTITUTION SIZE CONTAINERS USED? _____
6. BUY GOVERNMENT INSPECTED MEATS? _____
7. VARIETY OF MEATS PURCHASED? _____
8. VARIETY OF FRUITS PURCHASED? _____
9. VARIETY OF VEGETABLES PURCHASED? _____
10. ENRICHED FLOUR USED? _____
11. INVENTORY SYSTEM? _____
12. PURCHASE RECORD? _____

V. FOOD COST:

1. MEANINGFUL COST ACCOUNTING USED? _____
2. ARE SURPLUS FOODS RECEIVED? _____
   IF SO, ARE THEY USED? _____
3. INSTITUTION PRODUCE ANY FOODS? _____
   WHAT KINDS? _____
   IS THEIR USE A PROBLEM? _____
4. RAW FOOD COST: $ _____ PER _____

VI. FOOD PREPARATION:

1. MEAT COOKERY: LOW TEMPERATURE? _____
   TENDER? _____
   JUICY? _____
2. VEGETABLE COOKERY:
   COLOR NEAR THAT OF RAW? _____
   TENDER BUT NOT MUSHY? _____
   NATURAL FLAVOR DEVELOPED? _____
   NOT BROKEN BY OVER COOKING? _____
   AFTER DONE NOT HELD OVER THIRTY MINUTES BEFORE SERVING? _____
3. STANDARDIZED RECIPES FOLLOWED? _____
4. SIZE RECIPES USED: SERVINGS _____
5. HOT FOOD SERVICE BEGUN WITHIN THIRTY MINUTES AFTER READY? _____
6. COLD FOOD REFRIGERATED UNTIL SERVED? _____

SCALE				
1	2	3	4	5
NEVER OR POOR	SELDOM OR FAIR	SOMETIMES OR GOOD	FREQUENTLY OR BETTER	USUALLY OR BEST

VII. SERVICE TO PATIENTS:

	1	2	3	4	5
1. TYPE OF SERVICE: CAFETERIA ☐ FAMILY ☐ PLATE ☐ BEDSIDE TRAY ☐ TRAY IN GROUP ☐					
2. MEAL HOURS: BREAKFAST _____ MID-DAY _____ EVENING _____					
3. IS THERE A DINING ROOM? _____					
PATIENTS' USE ENCOURAGED? _____					
IS IT ATTRACTIVE? _____					
4. SUFFICIENT TIME TO EAT? _____					
5. IS SELF-FEEDING ENCOURAGED? _____					
6. IS NECESSARY HELP GIVEN WITH FEEDING? _____					
7. ATTRACTIVENESS OF MEALS:					
COLOR GOOD? _____					
CONSISTENCY VARIED? _____					
NEATLY SERVED ON PLATE? _____					
8. SERVING SIZE: RELATED TO NEED? _____					
CONDUCIVE TO GOOD APPETITE? _____					
9. IS PLATE WASTE MINIMUM? _____					
10. FOOD IN EASILY MANAGED FORM? _____					
11. HOT FOOD HOT WHEN RECEIVED? _____					
12. COLD FOOD COLD WHEN RECEIVED? _____					
13. SECOND SERVINGS GIVEN? _____					
14. BETWEEN MEAL FEEDINGS AVAILABLE?					
MID-MORNING? _____					
MID-AFTERNOON? _____					
BEDTIME? _____					
15. DO PATIENTS SEEM TO ENJOY MEALS? _____					
16. DRINKING WATER AVAILABLE TO PATIENTS AT MEALS? _____					
17. SERVICE OF LEFTOVERS AT A MINIMUM?					

VIII. SERVICE TO STAFF:

1. BREAKFAST: NUMBER _____
2. MID-DAY: NUMBER _____
3. EVENING: NUMBER _____
4. MENU SAME AS PATIENTS? _____ ☐☐☐☐☐

IX. EQUIPMENT:

1. RECEIVING OF FOOD _____
2. DRY STORAGE _____
3. REFRIGERATION _____
   TEMPERATURE _____ °F
4. SEPARATE FREEZER _____
   TEMPERATURE _____ °F
5. PREPARATION AREA _____
6. COOKING AREA _____
7. RANGE SPACE _____
8. OVEN SPACE _____
9. SERVING AREA _____
10. DISHWASHING: MECHANICAL _____
    HAND _____
    TEMPERATURES _____ °F. WASH
    _____ °F. RINSE
11. GARBAGE HANDLING _____

	TYPE	CONDITION	SUITABILITY
12. DISHES _____			
13. FLATWARE _____			
14. TRAYS _____			
15. TUMBLERS _____			

16. TRAY COVERS USED: PAPER _____
    PLASTIC _____ OTHER _____
17. PLATE COVERS USED? _____

X. SANITATION:

	1	2	3	4	5
1. KITCHEN _____					
2. SERVING AREA _____					
3. OVERALL _____					

XI. OVERALL IMPRESSION OF FOOD SERVICE DEPARTMENT: _____ ☐☐☐☐☐

COMMENTS

NUTRITION NEWS

nutrition news

FIRST ISSUE 1964

PENNSYLVANIA DEPARTMENT OF HEALTH

Division of Nutrition

NEW RECOMMENDED DIETARY ALLOWANCES

One objective of the Division of Nutrition is to present new material and research findings in nutrition to professional personnel through Nutrition News. This issue is devoted to the most recent revision of the Recommended Dietary Allowances of the National Research Council's Food and Nutrition Board.

Developed originally in 1941, these allowances were revised in 1945, 1948, 1953 and 1958. The fifth revision is presented in the chart below. It represents the thinking of more than sixty nutrition scientists.

Recommended Dietary Allowances, Revised 1963*—Food and Nutrition Board, National Academy of Sciences—National Research Council

Designed for the maintenance of good nutrition of practically all healthy persons in the United States

(Allowances are intended for persons normally active in a temperate climate.)

AGE† AND SEX	WEIGHT	HEIGHT	CALORIES‡	PROTEIN	CALCIUM	IRON	VITAMIN A	THIAMINE	RIBOFLAVIN	NIACIN EQUIVALENTS#	ASCORBIC ACID	VITAMIN D
	kg. (lb.)	*cm. (in.)*		*gm.*	*gm.*	*mg.*	*I.U.*	*mg.*	*mg.*	*mg.*	*mg.*	*I.U.*
Men												
18-35 years	70 (154)	175 (69)	2900	70	0.8	10	5000	1.2	1.7	19	70	
35-55 years	70 (154)	175 (69)	2600	70	0.8	10	5000	1.0	1.6	17	70	
55-75 years	70 (154)	175 (69)	2200	70	0.8	10	5000	0.9	1.3	15	70	
Women												
18-35 years	58 (128)	163 (64)	2100	58	0.8	15	5000	0.8	1.3	14	70	
35-55 years	58 (128)	163 (64)	1900	58	0.8	15	5000	0.8	1.2	13	70	
55-75 years	58 (128)	163 (64)	1600	58	0.8	10	5000	0.8	1.2	13	70	
Pregnant (2nd and 3rd trimester)			+ 200	+20	+0.5	+ 5	+1000	+0.2	+0.3	+ 3	+30	400
Lactating			+1000	+40	+0.5	+ 5	+3000	+0.4	+0.6	+ 7	+30	400
Infants, up to 1 year¶	8 (18)		kg. × 115 ±15	kg. × 2.5 ±0.5	0.7	kg. × 1.0	1500	0.4	0.6	6	30	400
Children												
1-3 years	13 (29)	87 (34)	1300	32	0.8	8	2000	0.5	0.8	9	40	400
3-6 years	18 (40)	107 (42)	1600	40	0.8	10	2500	0.6	1.0	11	50	400
6-9 years	24 (53)	124 (49)	2100	52	0.8	12	3500	0.8	1.3	14	60	400
Boys												
9-12 years	33 (72)	140 (55)	2400	60	1.1	15	4500	1.0	1.4	16	70	400
12-15 years	45 (98)	156 (61)	3000	75	1.4	15	5000	1.2	1.8	20	80	400
15-18 years	61 (134)	172 (68)	3400	85	1.4	15	5000	1.4	2.0	22	80	400
Girls												
9-12 years	33 (72)	140 (55)	2200	55	1.1	15	4500	0.9	1.3	15	80	400
12-15 years	47 (103)	158 (62)	2500	62	1.3	15	5000	1.0	1.5	17	80	400
15-18 years	53 (117)	163 (64)	2300	58	1.3	15	5000	0.9	1.3	15	70	400

*The allowance levels are intended to cover individual variations among most normal persons as they live in the United States under usual environmental stresses. The recommended allowances can be attained with a variety of common foods, providing other nutrients for which human requirements have been less well defined. See forthcoming text for more detailed discussion of allowances and of nutrients not tabulated.

†Entries on lines for age range 18-35 years represent the 25-year age. All other entries represent allowances for the mid-point of the specified age periods, i.e., children 1-3 years is for age 2 years (24 months); 3-6 years is for age 4½ years (54 months); and so on.

‡Tables 1 and 2 and Figures 1 and 2 in the forthcoming text will show caloric adjustments for weight and age.

#Niacin equivalents include dietary sources of the preformed vitamin and the precursor, tryptophan (60 mg. tryptophan represent 1 mg. niacin).

¶The caloric and protein allowances per kilogram for infants are considered to decrease progressively from birth. Allowances for calcium, thiamine, riblflavin, and niacin increase proportionately with calories to the maximum values shown.

This chart is published in the February, 1964, Journal of The American Dietetic Association in the article by R. W. Engel, Ph.D., "1963 Recommended Dietary Allowances". Dr. Engel is chairman of the committee that revised the allowances.

BASIS FOR REVISION IN ALLOWANCE LEVELS OF CALORIES AND CALCIUM

CALORIES. The Board devoted considerable attention to re-examining the basis for estimating the energy requirement. In the 1958 revision of the allowances the Food and Agriculture Organization's definition of the reference man was adopted for estimating calorie requirements. This reference man is defined as 25 years old, living in a temperate climate and weighing 70 kilograms (154 lbs.). He is presumed to be moderately active. The current downward revisions in calorie allowances are based on the opinion that the reference man as defined by FAO expends more energy than does the average American in physical work, walking, and household tasks. After corrections are made for these lowered activities, the 1963 calorie allowances for men and women of age 25, are 2900 and 2100 respectively as compared with 3200 and 2300 in the 1958 revision.

CALCIUM. Sufficient information is still not available to establish with any degree of accuracy the minimum calcium requirement. Therefore the allowances established in 1953 and reaffirmed in 1958 have been retained in the 1963 revision with minor exceptions. For example the allowances for children between ages one and nine years have been lowered from 1 gram to 800 milligrams. This change is based on a careful re-examination of the daily calcium required to build the skeleton.

Dr. Engel emphasized that a detailed discussion of each of the nutrients could not be presented within the limitations of this article. For complete understanding of the allowances, their development and use, he strongly urged a review of the forthcoming National Research Council's publication, the 1963 Recommended Dietary Allowances, to be released this year.

PURPOSES OF THE DIETARY ALLOWANCES

Caution must be exercised in the use of these figures for calorie and nine nutrient allowances. They are intended to serve as a guide in planning adequate diets and to promote good nutrition in essentially all healthy normal individuals in the population of this country. They were never intended to represent requirements for nutrients. Neither were they intended to assess the nutritional status of individuals by assuming that a failure to achieve the goals of the Recommended Dietary Allowances means malnutrition. Such use ignores the fact that many individuals, due to variability, can maintain good nutritional health with smaller amounts of nutrients than those indicated. Nutritional status of individuals or population groups can be determined only by combining clinical and biochemical assessments with a determination of nutrient intakes.

Unfortunately little is known of specific nutrient requirements in individuals. Therefore the allowances are placed sufficiently high to provide good nutrition for healthy normal persons as they live in the United States under usual environmental stresses. They are not to be considered adequate to meet the additional requirements associated with disease or for repletion of nutrients in severly depleted persons.

These recommended allowances for nutrients, plus others for which levels have not yet been established, can be attained through a variety of foods without vitamin and mineral supplements. However, flour, bread and cereals should be whole grain or enriched, milk for children should be fortified with vitamin D, and excessive use of vitamin-poor foods should be avoided.