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To the Graduate Council:

I am submitting herewith a thesis written by Etha Mae Munn entitled "Nutrition Field Observations and Experiences in the State of Florida." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in nutrition.

Beth Duncan
Major Professor

We have read this thesis and
recommend its acceptance:

Ruth Buckley

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Accepted for the Council:

Dean of the Graduate School

NUTRITION FIELD OBSERVATIONS AND EXPERIENCES
IN THE STATE OF FLORIDA

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

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

by
Etha Mae Munn
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E. M. M.

TABLE OF CONTENTS

	PAGE
INTRODUCTION.	1
THE STATE OF FLORIDA.	5
Geography	6
Economy	7
Statistics and Health Information	9
Birth rate.	10
Mortality rates	10
THE FLORIDA STATE BOARD OF HEALTH	12
History	12
Philosophy and Organization	14
THE NUTRITION DIVISION IN THE FLORIDA STATE BOARD OF HEALTH	17
History and Objectives.	17
Organization and Staff.	18
Specific Services and Functions	19
Selected activities and programs.	19
Reports	25
Coordination of Nutrition Services with other Health	
Department Programs	26
Public health nursing	26
Chronic diseases.	28
Maternal and child health	30
Communicable diseases	33

PAGE

Dental health	34
Health education.	34
Mental health	35
Sanitation.	35
Nursing home short course	36
Coordination of Nutrition Services with Other Official	
Agencies.	38
Board of Public Assistance.	38
Department of Education	39
Extension Division of the United States Department	
of Agriculture.	40
Collaboration of Work with Other Groups, Agencies,	
and Organizations	40
Tampa Electric Company.	41
Hillsborough County Dairy Council	41
Hillsborough County Food and Nutrition Committee.	41
Florida Home Economics Association.	42
SUMMARY AND EVALUATION.	43
BIBLIOGRAPHY.	45
APPENDIX.	47

LIST OF FIGURES

FIGURE	PAGE
1. The Organizational Chart of the Florida State Board of Health, 1963	15
2. The Four Nutrition Regions of the Florida Nutrition Division, 1963.	20

INTRODUCTION

The purpose of this report is to present the student's observations and experiences during a 7 weeks' period of field training in public health nutrition in the state of Florida. One week was spent with the Director of the Nutrition Division, Florida State Board of Health in Jacksonville; 4 weeks were spent with the local nutritionist in the Hillsborough County Health Department, and one week with the regional nutritionist for Central Florida. The student attended the Fifth Annual Florida Nursing Home Short Course for one week. This course, held for nursing home operators, was conducted jointly by the State Board of Health, the Nursing Home Association, and the Florida Institute for Continuing University Studies. Although considerable information was obtained about the state and local nutrition programs, the information which is given in this report is limited because it was impossible to grasp the full scope of the state and local programs in such a short period of time.

Florida was chosen as the site of field experience because the student plans to work in a Southern state. Having had no previous experience in the field of public health nutrition, she desired training in the South because this experience would be helpful in the actual working situation in the future.

The student's main objectives in field training in public health nutrition were (1) to gain information about the problems and needs of public health programs, (2) to gain an understanding of the work of a

nutrition consultant and how the nutrition program is planned to meet the needs of the community, (3) to obtain information about the ways agencies concerned with nutrition work cooperatively in the community, and, (4) to obtain experience by participating in nutrition education programs. The field training was planned to supplement the student's academic training and to broaden her concept of public health nutrition.

To help the student accomplish these objectives, a program of varied experiences was planned by a state, a regional, and a local nutritionist. Information was obtained through observation, meetings, readings, and conferences. Activities observed included individual nutrition consultation conferences, nutrition classes taught by a nutritionist, and the work of the public health nurses and sanitarians. The student participated in (1) a demonstration for diabetic patients on the preparation of fat-free soups, gravies, and vegetables; (2) dietary consultation with diabetics and prenatal patients; (3) preparation of charts for use with diabetics; (4) assistance with registration at a preschool round-up; (5) consultation with school personnel on food service; and, (6) preparation of material for the nutrition paper which is sent to all public health personnel within the state. Conferences were arranged with personnel from other agencies and managers of food production plants to give the student a chance to learn about programs which she would have missed otherwise.

The need for nutrition education in Florida was pointed up in several studies. A research team, while conducting a study on the health needs of elderly people, learned that this group has special

nutritional needs. Hemoglobin determinations conducted on school children indicated that nutrition education for the teenager was needed because of the values obtained. The health department personnel in counties with a high infant mortality rate asked for nutrition teaching for prenatal patients.

The information gained in the field experiences is discussed and summarized in 4 chapters. In Chapter I the geography, economy, statistics, and health information are presented. From the geography, one can learn what foods are grown in the state and how available these foods are to the general population. Information about the state's economy gives some idea of the work and the income of the people; therefore, the approximate amount of money available for food can be determined. From written material, one can gain some understanding as to why emphasis is placed on certain programs.

In Chapter II the history, philosophy, and organization of the Florida State Board of Health are discussed to give some indication of how the nutrition program is integrated into a comprehensive health program.

In Chapter III the history, objectives, organization, staff, specific services, and functions of the Nutrition Division of the Florida State Board of Health are presented. Nutrition activities are discussed in terms of specific services rendered by the Nutrition Division: those services in connection with other health department programs, and those in other official and voluntary agencies or organizations.

In the last chapter, Summary and Evaluation, the field experience is evaluated in terms of the objectives stated in the introduction.

THE STATE OF FLORIDA

When studying the nutrition program of a health agency, it is important to have some understanding of the needs of the people for whom the services are planned. The geography, economy, and statistics which are related to health should be taken into consideration before one tries to understand the program.

Geography, to a considerable extent, determines food availability, since geographical factors limit the foods which can be grown in an area. For example, the number of rivers or nearness of the population to the ocean will determine whether fresh water fish or seafoods are readily available to the people in the state. From the economy, the approximate amount of money available for food can be determined. Health statistics are basic to all operations of a public health agency because all other functions of the organization depend upon an accurate vital statistical service. Current statistics, when compared to past statistics, can be used to know what is happening to the population. Therefore, statistics can be used locally as the basis of health activities in planning, in conducting, and in measuring the effectiveness of the programs. (Wilbur '62).

The student used various books and pamphlets published by the Tampa Chamber of Commerce and the Florida State Board of Health as sources of information. At other times it was possible to get a conference with some person versed in the geography of the area, the socio-economic conditions, and statistical health information.

I. GEOGRAPHY

Florida, a peninsula with a sub-tropical climate, lies closer to the equator than any other state in the United States. The state has a total of 58,560 square miles, of which 54,262 are land and 4,298 are water. This area is divided into 4 regions with a total of 67 counties. The regions, Northwest, North, Central, and South Florida, vary in temperature, economy, and population. In the entire state, there are 166 rivers and more than 30,000 fresh water lakes. (Tampa Chamber of Commerce '61).

The elevation in the state varies from less than 40 feet below sea level to 345 feet above sea level. The distance across the panhandle of the state is 385 miles, and the distance from Jacksonville, in the north, to Key West, the southernmost tip, is 507 miles. The tidal shoreline is 2,276 miles with no point in Florida more than 60 miles from the ocean. Because of these geographic factors and an average year-round temperature of 78.8 degrees Fahrenheit, Florida has a generous rainfall. Florida is now the fastest growing state east of the Rocky Mountains. The weekly gain in population averages approximately 5,000 persons. Of this number, 1,150 are by natural increase, that is, the excess of births over deaths, and almost 4,000 by immigration and migration. People from all occupations, from every state in the nation, and all social classes have relocated in this area. In 1960, the United States Bureau of the Census ranked Florida, with a population of 4,951,560, the tenth largest state in the nation. (Tampa Chamber of Commerce '61).

Problems in planning health programs exist in the area because of the influx of people who differ in their cultural heritage. No one health program can be planned for all the people in the state. The programs vary from one region to another and in some instances from one city or county to another. Therefore, if the needs of the people are to be met, each program may be continuously changing as the population changes.

II. ECONOMY

Florida is rich in natural resources: minerals, forests, agriculture, and marine life. In addition to varied industries growing out of natural resources, the state's favorable climate invites a large tourist trade and ever increasing retirement colonies.

The principal mineral products are phosphate rock, limestone, common and special purpose clays, titanium ores, zircon, monazite, and garnet sands. However, the most important mineral industry in the state is phosphate mining. Florida is the nation's largest producer of phosphate rock. (Tampa Chamber of Commerce '61).

From the forests, which cover approximately two-thirds of the land area, over \$400 million of manufactured products are produced each year. This includes the income from resin and turpentine, pulpwood products, veneer, and lumber. (Tampa Chamber of Commerce '61).

Florida agriculture includes citrus crops, vegetables, and tobacco growing; livestock and poultry breeding; dairying; horticulture; and "general farming". Although agriculture is concentrated principally

on citrus fruits and winter vegetables, Florida ranks high in beef production.

The state ranks high in seafood production. Excluding shellfish, the annual catch of all commercial fish is approximately 70 million pounds. Most of the 70 million pounds goes to the market as edible fish. The non-edible fish is used for animal food (Tampa Chamber of Commerce '61). The most important shellfish are shrimp, oyster, and crab. Florida produces large quantities of excellent crab meat. The shrimp industry is one of the nation's largest. One of the largest shrimp plants in the United States, The Ocean Products Plant, is located in Tampa. This plant manages not only the catching of the shrimp but also the processing of it. The plant owns 50 shrimp boats which travel the water of the Gulf of Mexico to harvest shrimp. Approximately every three days runner boats pick up and transport the shrimp 700 miles to the Tampa processing plant. Here the product is prepared for the market.

The oyster industry is in the beginning stage. This shellfish requires slightly salty water, 20 to 28 parts salt to 100 parts of water, in order to thrive. Oyster harvesting grounds are not yet abundant in Florida, because harvesting can be done only in waters that have been checked and pronounced safe by health departments; very little testing has been done thus far. The prediction for future years is that the oyster industry will be one of Florida's leading economic assets.

Because of the mild temperature, people from all sections of the

United States have made Florida a vacation land. Other attractions are the variety of sports and scenic areas which the state possesses. Actually the tourist trade has now become one of the leading ways of earning a livelihood. However, this has added problems to the health programs. In many areas, sanitarians are employed full time to check swimming pool and restaurant sanitation.

Adding to the wealth of the natural resources are excellent land, sea, and air transportation facilities. These facilities enable the agricultural products to reach all parts of the United States in short periods of time, thus extending markets for products and increasing Florida's wealth.

Florida is a land with rich natural resources, excellent transportation facilities, and a favorable climate. These factors contribute to the influx of people, resulting in an increasingly unstable population.

III. STATISTICS AND HEALTH INFORMATION

Statistical data provides some indication of the health problems in an area. From the birth rate, the need for expansion or decrease in health services can be determined. Because the infant is especially vulnerable to infections and environmental stresses, the infant mortality rate is often used as an index of the standards of health and social and economic conditions of an area (World Health Organization '63). Therefore, the birth and death rates of Florida are relevant to this study.

Birth Rate

The peak of resident births occurred in 1956 with a rate of 25.0 per 1,000 population. This rate has steadily dropped since 1956. In 1962, the rate was 22.1 with a total of 115,520 births recorded. Of the 1962 births, the white and non-white rate was 19.3 and 32.2 respectively. Both rates were slightly lower than the 1961 rates. (Florida State Board of Health '63).

Mortality Rates

The 1962 infant mortality rate, calculated per 1,000 live births, was 28.2 with 3,259 infant deaths. The 1952 rate was 32.0; this is a substantial reduction in the infant mortality rate during the past 10 years. During this 10-year period, the white infant mortality rate decreased from 25.8 in 1952 to 22.2 in 1962, while the non-white rate decreased from 55.3 in 1952 to 44.8 in 1962. (Florida State Board of Health '63).

The 10 leading causes of death for 1962 in the order of their prevalence are: heart diseases, malignant neoplasms, cerebral vascular diseases, all accidents, diseases of early infancy, pneumonia and influenza, general arteriosclerosis, other circulatory diseases, diabetes mellitus, and suicide. The first 6 leading causes of death remained in the same position each month throughout the year. The first three causes, heart diseases, cancer, and vascular diseases, are diseases associated with aging, and all three have increased during the last 10 years. The increase probably is due in part to

the increasing average age of Florida citizens. The next two, all accidents and diseases of early infancy, retained fourth and fifth positions respectively, as leading causes of death. During the last decade, deaths due to circulatory diseases have increased markedly. However, this increase also could be due to the increase in the average age of the population. (Florida State Board of Health '63).

Although the diabetes mellitus death rate decreased, it still remains ninth in the causes of mortality. In 1962, suicide with a rate of 13.1 ranked tenth as a cause of death. This was an increase from 1952 when it ranked in twelfth place with a rate of 11.6. Suicide mortality has increased markedly among the older people in the state. (Florida State Board of Health '63).

The greatest decline in deaths due to specific diseases during the 10-year period occurred with tuberculosis and nephritis, both of which no longer appear in the 10 leading causes of death. (Florida State Board of Health '63).

From statistical information on births, some indication of the health needs of a population can be determined. The causes of death may have implications for improvement in the maternal and child health or the chronic disease programs, while the birth rate gives some idea of how rapidly the program should expand to meet the future needs of the population. Therefore, valuable information for planning health programs can be obtained from the geography, economy, and statistical health information of a state.

THE FLORIDA STATE BOARD OF HEALTH

The state health services are dispersed among many different agencies, although the major responsibility rests on the State Board of Health. Policies and programs are usually developed after the appraisal of needs. Needs may be determined by the collection and analysis of vital statistics, the evaluation of health education, or examination of records on maintenance and operation of institutions such as tuberculosis, chronic disease, and mental illness. However, the principal job of the state health departments is to help the local health departments do their jobs as well as possible through: the selection, training, and provision of personnel; provision of financial assistance; promotion of establishment of local full-time health services; provision of consultation and other special services; research; and, evaluation of the various procedures used. (Wilbur '62).

Knowledge of the history of the State Board of Health is essential in understanding the organization and philosophy of the Florida State Board of Health which is discussed in this chapter. From this information, one can better understand why emphasis is placed on some programs and services.

I. HISTORY

Several times an attempt was made to establish a health department after the state was settled in 1565; each time the attempt failed. In

1889, after a yellow fever epidemic crippled the economy, the attempt was successful and a State Board of Health was established. (Maldonado '60).

Jacksonville was the site selected for headquarters for the health agency because it was a focal point geographically and had better transportation facilities at the time of the yellow fever epidemic (Maldonado '60). The State Board of Health, presently located in Jacksonville, has expanded its program and now serves all areas in the state.

In 1931, legislation was passed providing money for the establishment of county health departments. Appropriations came about as the result of a state-wide malaria epidemic. Before this time, a few municipalities had established health agencies but their services were limited to the local areas. All counties gradually began to build health departments after the legislation was passed. Taylor County, the first to establish a health department, withdrew its health services; and Leon County, the second to establish such a program, became known as the first county health department in the state. Only a few years ago did the last county take advantage of this legislation. St. John's County was the sixty-seventh county to establish a health department. Lee County, the sixty-sixth to organize a department, did so a few years before St. John's County. This information was given to the student by the Director of the Hillsborough County Health Department. He also stated that the State Board of Health works with the health departments in all counties to

make health services available to all residents in Florida.

II. PHILOSOPHY AND ORGANIZATION

The policy of the State Board of Health is to operate the department economically and provide the best possible service to the public. Efficiency in the provision of adequate and needed health services is continually stressed. Examples of services rendered to the general population are water testing and the keeping of vital statistics. In some instances, services such as medical and dental care are provided only to the indigent.

The Florida State Board of Health has established the following goals (1) prevention of disease, (2) prolongation of life, and (3) promotion of mental and physical efficiency. The programs are planned by the health agency in an attempt to accomplish these goals as far as it is possible to do so.

The governing body of the State Board of Health is composed of 5 members; one pharmacist, one dentist, and three medical doctors. The governor of the state appoints these 5 members, and also a state health officer who directs the activities of the operating staff of the State Board of Health (Figure 1). There are 12 bureaus within the operational State Board of Health. Each bureau has a director. The bureau director, under the supervision of the state health officer, directs the health activities for each division located in the bureau. Each division has a director who plans the health program and directs the work of all employed personnel within the division. In addition

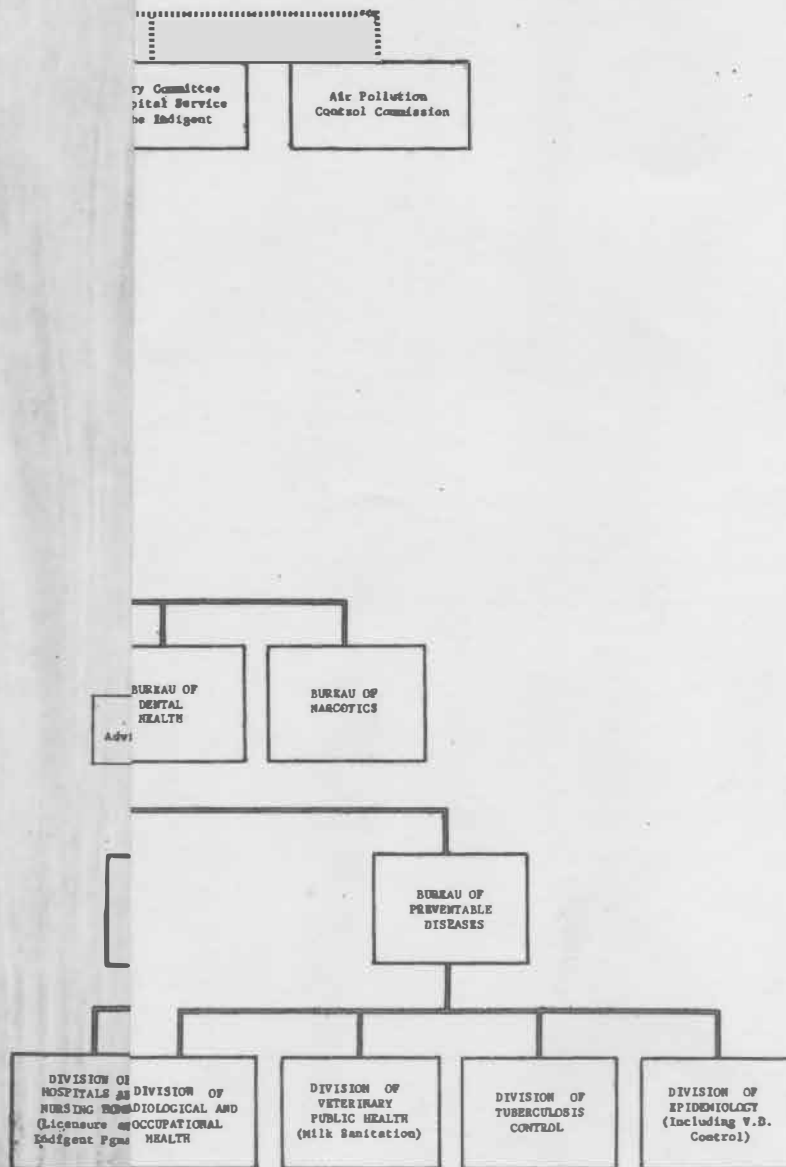
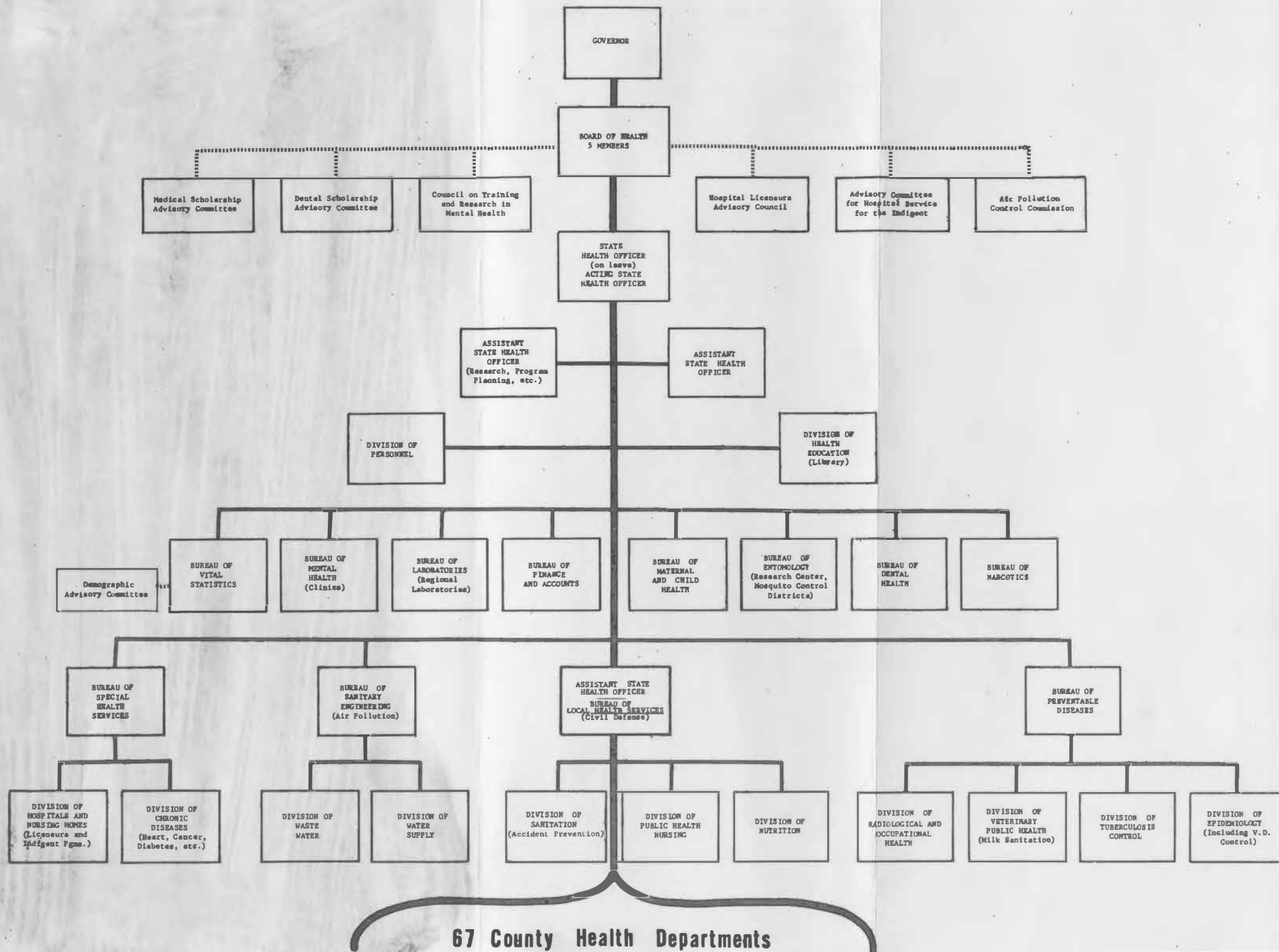


Figure 1. The Organizational Chart of the Florida State Board of Health, 1963.

Organizational Chart of the Florida State Board of Health



to these duties, each division head is available to the county health departments to aid in the planning of local health programs. Local public health needs must take precedence in planning for local health services.

The Bureau of Local Health Services provides services and consultation to the state's 67 counties. The Nutrition Division is in this bureau, as are the Divisions of Sanitation and Nursing.

THE NUTRITION DIVISION IN THE FLORIDA STATE BOARD OF HEALTH

I. HISTORY AND OBJECTIVES

The 1941 annual report of the Bureau of Maternal and Child Health stated that money was available to employ a nutritionist. The position remained unfilled because of the necessity for establishing qualifications for the position of nutritionist. In 1942, the position was placed under the merit system, qualifications for the position of nutritionist were established, and a nutritionist was employed. Thus, what is now the Nutrition Division of the State Board of Health had begun development. (Deaver '60).

The nutrition services were consolidated with the Division of Diabetes Control in 1950. By 1952, the services were established on a consultant rather than a direct basis as had previously been the policy. Separation of the Division of Diabetes Control and Nutrition took place in 1955, and nutrition was placed in the Bureau of Special Health Services. Another change was made in 1958, when the Nutrition Division was placed in the Bureau of Local Health Services. Since nutrition service is available through the local health units and is integrated into the general health program, this seems to be the most logical place for the Nutrition Division in the organization of the Florida State Board of Health. (Deaver '60).

The purpose and specific objectives of the Nutrition Division are (1) to promote good nutritional status insofar as possible for the

people of Florida, (2) to provide nutrition guidance for the optimum growth and development of children, (3) to provide nutrition assistance in the maintenance of health in adults, (4) to prevent disease and disability from nutritional causes, (5) to prevent the early onset of the degenerative diseases and to control the chronic diseases where possible through dietary means, and (6) to provide nutrition consultation in rehabilitation programs where diet is a concern. (Deaver '60).

Nutrition programs for the state are planned to help accomplish these objectives. The nutrition services may be provided solely by the Nutrition Division or planned in conjunction with other health programs.

II. ORGANIZATION AND STAFF

As stated previously, the Nutrition Division of the State Board of Health is located in the Bureau of Local Health Services. At the present time the staff consists of a director, 4 regional nutrition consultants, and a dietary consultant to nursing homes. There is a budgeted position for a nutritionist in a rural demonstration project in a two or three county health district. The specific district is to be selected at a later date. The Nutrition Director, who is administratively responsible to the Director of the Bureau of Local Health Services, and the nursing home consultant's headquarters are in the State Board of Health building in Jacksonville. The regional consultants for North, Northwest, Central, and South Florida work from offices in Jacksonville, Tallahassee, Lakeland, and West Palm Beach,

respectively (Figure 2). Public health personnel in local health departments or other agencies desiring help with nutritional problems may request services provided by the regional nutritionists. These requests may be written or verbal, and can be made either to the regional nutritionists or the Nutrition Division in the State Board of Health. If the request is made directly to the State Board of Health, it is sent to the nutritionist working in the area of the state from which the request came. In either instance, the nutritionist plans with the agency personnel requesting the service and schedules a time for providing the requested service.

Three local health departments have budgeted positions for nutritionists. The counties having such positions are Dade, Hillsborough, and Volusia. Palm Beach County has the services of the nutritionist working with the migrant project. This nutritionist is a member of the team employed by the State Board of Health with Children's Bureau Funds, Department of Health, Education, and Welfare, to provide health services to migrant workers.

III. SPECIFIC SERVICES AND FUNCTIONS

Although the majority of the nutrition services are rendered in conjunction with programs of other divisions in the official health agency, the Nutrition Division also plans a program of work which is executed by the nutritionists.

Selected Activities and Programs

Among the services provided by the nutrition division are

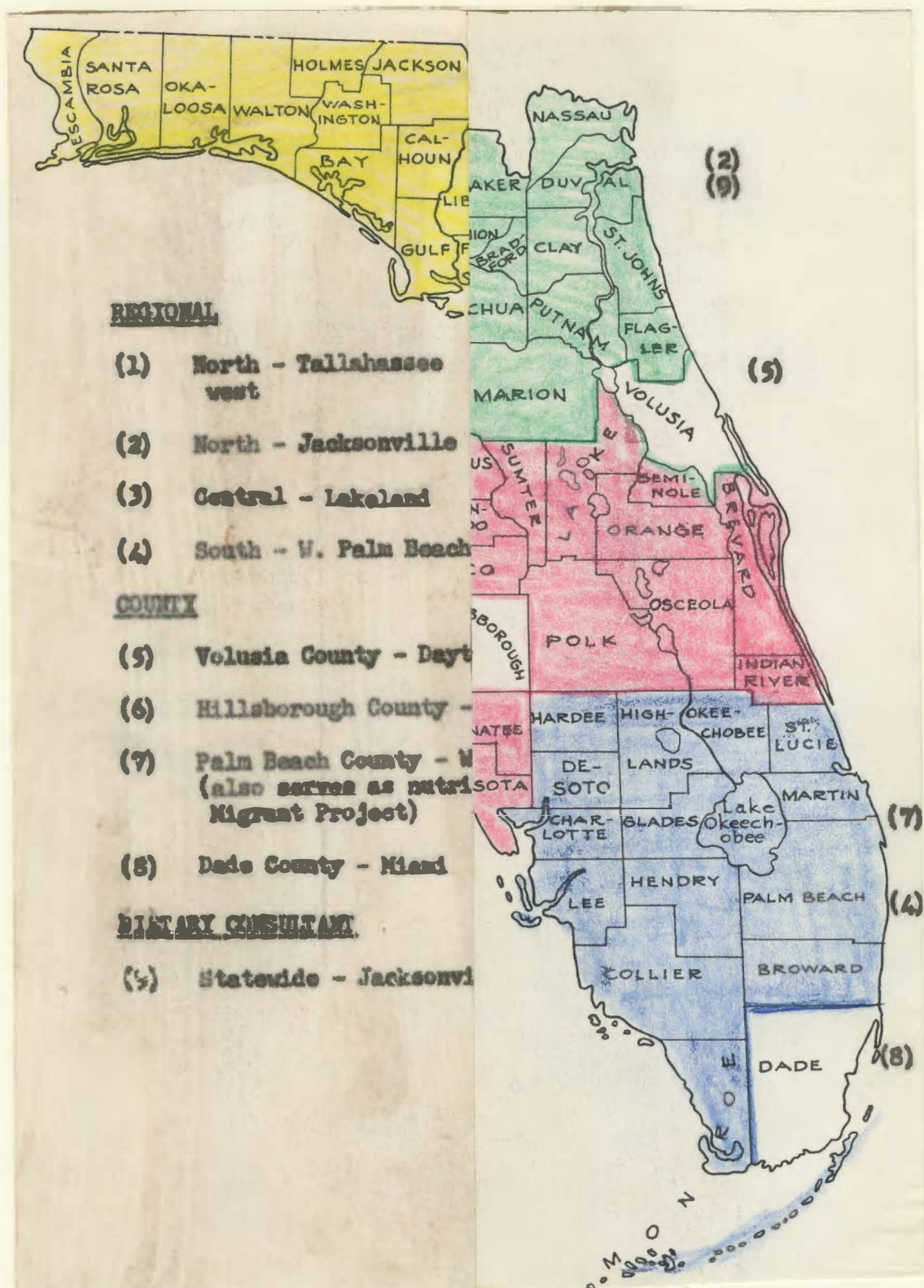
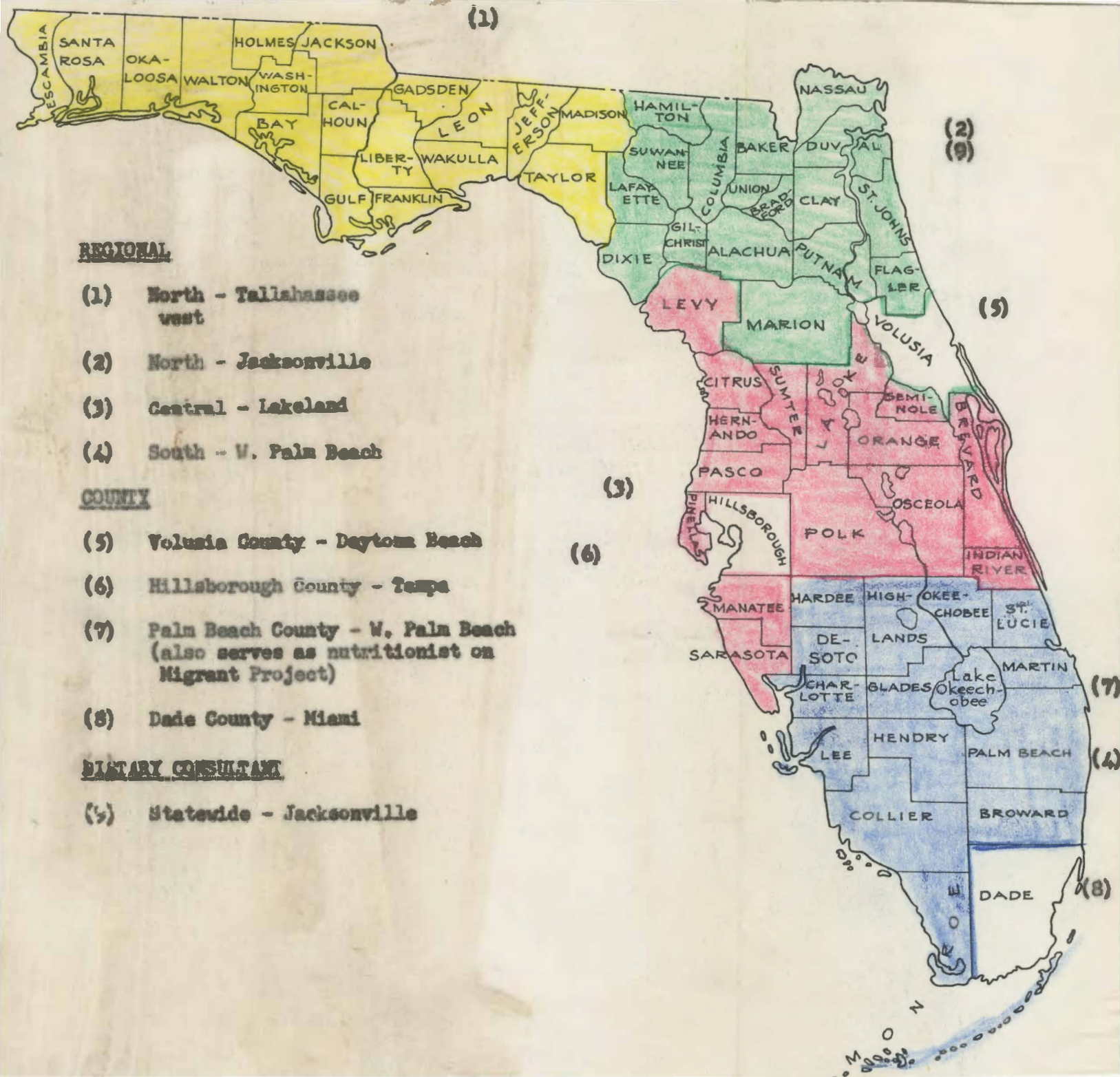


Figure 2. The Four Nutrition Regions of the Florida Nutrition Division, 1963.



consultation with nursing home personnel on food service, provision of nutrition instruction to migrant families, preparation of a bi-monthly nutrition article for public health personnel, and the provision of nutrition field experiences for graduate and undergraduate students.

Consultation with nursing home personnel. The dietary consultant for nursing homes is one of a three-member educational team that works with nursing homes in the state. The team is composed of an administrative assistant, a nursing consultant, and a dietary consultant. This team assists in establishing the standards which nursing homes must meet before they can be licensed by the State Board of Health. One purpose of the team is to help educate the staff of the county health departments on how to interpret these standards. Since a study was made which indicated that the nutrient intake of the older people in institutions was less than adequate, a dietary consultant was employed to work with institutions on improving all phases of food service.

The plan of work of the dietary consultant includes the following: (1) to visit the nursing homes on an introductory basis and to let the responsible person know that dietary service is available; (2) to devise a menu guide to be used in planning meals; (3) to provide written information on the use of such foods as dry milk; (4) to teach the responsible person how to buy food; and (5) to give dietary counsel to operators of nursing homes and small hospitals that do not employ qualified dietitians.

After the introductory visit to the nursing homes and other institutions, the consultant provides services on a request basis. Any institution that desires help must request it through the local health department in the county where the institution is located or make a written request to the dietary consultant. The dietary consultant also aids in conducting workshops for nursing home operators and employees. These are held in various parts of the state each year.

Migrant project. As previously indicated, the nutritionist working with the migrant project is one of a 7-member team employed by the State Board of Health with funds allocated by the Children's Bureau for the purpose of rendering health services to migrant workers.

The migrant workers follow the harvesting season of many different crops. These workers travel from Florida to the New England States. They are not considered residents of any state, since a short period of time is spent in each place. The longest period of time, 8 or 9 months, is spent in Florida; therefore, it became necessary to try to provide more adequate health services in this state. The workers are located in 40 counties, with the greatest concentration in Palm Beach County; thus headquarters for the migrant project was established in this county. Many of the health services are provided from a mobile trailer which is moved from farm to farm. Family clinics are held at night on these farms so that workers and their families can attend.

The Director of the Nutrition Division in the State Board of

Health reported that the nutritionist with this project had conducted a dietary study. Because of limited staff and time, only 35 families were included in the study. As a part of the study a record was kept of all food which was brought into the home for one week and also food eaten away from home by the family members. At the end of the week, the amount of the food not eaten was subtracted from the original amount. The weekly food intake for the family could then be determined. The findings indicated that many available fruits and vegetables were not eaten. Breads and pastries composed the main part of the diet.

Following the dietary study, the nutritionist began a study to determine whether the growth patterns of migrant children were the same as those for non-migrant children. (See Appendix, page 49). This study has not been completed; therefore the results are unavailable.

Publications. A mimeographed bi-monthly publication called "Nutrition in a Nutshell" is sent to the local health department personnel in the state. This publication provides a summary of nutrition facts on various subjects which may be of interest and assistance to the health personnel. The theme for 1962-63 was "Nutrition During the Lifespan". A series of articles was started on nutrition as related to the stages of life: infant, child, teenager, mature adult, and older adult. These articles will be continued until the life span has been completed. Each nutritionist in the state contributes to this paper.

Other publications in the form of leaflets and pamphlets are prepared by the Nutrition Division. These are frequently distributed

to clinic patients when an educational need is found to exist in an area; materials and visual aids, however, are not distributed on a wholesale basis. The nutritionists inform those interested on how they may obtain materials.

Each nutritionist prepares any material which she believes will be helpful in her program. Literature is also obtained from other agencies.

Nutrition staff conference. Conferences are held quarterly for the nutrition staff. During the three-day conference, each nutritionist gives a progress report of her work and discusses materials which she has prepared. By this method, all nutritionists can obtain new ideas and materials. In addition to the exchanging of ideas, review of journal articles is emphasized. Since other health department personnel are invited to discuss programs of joint interest, the meeting also serves as a means of in-service education for other health personnel. Representatives from other agencies are also invited to participate when a topic of mutual interest is to be discussed.

Individual and group consultation services. Individual and group consultation are provided on a request basis. Any individual or group desiring such services may contact the public health nutritionist. If the request is for instruction on modified diets, the group or individual must be referred by a physician. The nutritionist will then give instructions according to the diet prescription. Consultation is frequently given on low-calorie, low-sodium, diabetic,

and low-phenylalanine diets.

Group instruction is usually given to members of community organizations or to clinic patients. In Hillsborough County, the nutritionist taught a class for the local heart association on low-sodium and low-fat diets. All members attending the class were referred by private physicians.

The regional nutritionist gives dietary instruction in selected clinics. These may include prenatal, metabolic, and diabetic clinics. In most instances, dietary instruction is not given to all patients but to new patients or to former patients who are having difficulty with their diets. This allows adequate time for instructing each patient; also, the patients who are in greatest need of instruction receive the service. The clinic physician refers the patients to the nutritionist.

Provision of field experiences and training for students. The nutrition program provides limited experiences and field training for students at the graduate and undergraduate level. These public health nutrition field experiences are offered to graduate students in nutrition from several universities. Summer experience is offered for undergraduate food and nutrition students from accredited schools of home economics.

Reports

The local nutritionist makes a duplicate daily report (see Appendix, page 51) and a monthly report of all nutrition activities. One copy is

given to the local health officer and a copy is kept by the nutritionist.

After working in a health department, each regional nutritionist writes a cumulative service report and a field trip report. Triplicate copies are made. One copy is sent to the health officer in the county where the work was done, a second copy is sent to the Director of the Nutrition Division, and the third is kept by the nutritionist (See Appendix, page 50). A monthly statistical report is also written and sent to the Director of the Nutrition Division. The Director of the Nutrition Division writes a section of the annual report of the Florida State Board of Health. This report is based on a summary of the activities reported by the regional and local nutritionists.

IV. COORDINATION OF NUTRITION SERVICES WITH OTHER HEALTH DEPARTMENT PROGRAMS

Public Health Nursing

Because the nutritional needs of people are so closely related to other health needs, the nutritionist conducts in-service nutrition programs for public health nurses. The aims of both nurse and nutritionist are to provide effective nutrition counseling to families or individuals. The nurse is teacher and appraiser of needs, and the nutritionist is the resource person for appraisal and planning. Keeping up-to-date with advances in nutrition and related areas is fundamental to the nurse's role, and helping her achieve this is one responsibility of the nutritionist. (Anderson and Browe '60).

Most of the nutrition teaching is done by the public health nurse.

However, if a special dietary problem arises on which the nurse needs additional information or help, she can consult the nutritionist or request the nutritionist to give counsel to the person needing dietary instruction. An interest in nutrition was stimulated in one area of the state when the nutritionist gave a nutrition test to the nurses. The results of the test prompted the nurses to ask for a series of nutrition classes. Because of the request, the nutritionist taught three nutrition classes. During the first class, the nutritionist presented a guide of food portions for the adult, the child, the pregnant and the lactating woman. Also given was a list of vegetables which were excellent sources of vitamin A and ascorbic acid. The second lesson was on low-cost food. For this class the nurses planned and brought to class a "low-income" menu for one day. The nutritionist discussed these menus in terms of nutritional adequacy and cost. The third class was a continuation of food-buying with emphasis on meat alternates and dry skim milk as good sources of protein.

In some instances, the public health nurse helps determine the nutritional needs of a community and makes plans for a joint visit with the nutritionist to give nutrition guidance and counseling to families. For example, on the day of the regional nutritionist's scheduled visit to Sumter county, the nurse had planned visits to two schools and the county jail. These institutions had requested help on food buying and menu planning; therefore, the nutritionist and the nurse visited these institutions and discussed these problems.

The value of the nurse-nutritionist relationship should not be

underestimated, because with mutual respect and understanding, imaginative and effective health services should result.

Chronic Diseases

Nutritionists work with health departments in chronic disease programs. They participate in selected clinics held for diabetics and heart patients. In many instances, the nutritionists counsel obese patients in an attempt to prevent or help control the chronic diseases.

Diabetes. Nutritionists give dietary instruction in selected diabetic clinics. Those receiving instruction are usually new patients or former patients who are having difficulty with their diets. These people are referred to the nutritionist by the clinic physician.

To arouse interest in foods which are allowed on a diabetic diet, demonstrations are occasionally given on the use and preparation of foods. These demonstrations are planned and presented after taking into consideration the food habits of the people in the area where the demonstrations are to be given. The student assisted a regional nutritionist in giving a demonstration on the preparation of vegetables, gravies, and soups without the use of fat. This demonstration was given for a rural diabetic group in Sumter County where fat in cooking is used frequently (See Appendix, page 52).

Heart disease. Cooperative nutrition work with the Florida Heart Association has been done in various areas. For example, the nutritionist in Hillsborough County worked with the local heart

association by instructing groups of heart patients on low-sodium and low-fat diets. Instructions were given on low-sodium diets in one meeting and on low-fat diets the following meeting. Each patient attending class was required to have a diet order from his physician.

Obesity. Realizing that obesity possibly leads to many of the chronic diseases which appear in later life, many people have become concerned about the overweight problem. Some of these people have asked the nutritionists for dietary instruction or for nutritional advice. In Hillsborough County, a group of obese women organized a club called the "Diet Forum". The club meets once each week. At each meeting a program on nutrition is presented. Once each month the nutritionist from the local dairy council presents the program; and once during the month, the local public health nutritionist presents a portion of the program. This part of the program may be a question-and-answer series, where the club members ask questions about food, or it may be a talk on a certain phase of nutrition. Each club member keeps a record of all food eaten for the week and presents this record to the club leader. The leader evaluates the records as compared to "The Basic 4". The diet record is returned at the following week's meeting with notes of adequacy or inadequacy added. Various techniques are used to help stimulate interest in losing weight. The one used when the student visited was the announcement of the names of all members who had gained weight. Also each week the person losing the most weight is crowned queen for the week and she receives a gift.

Maternal and Child Health

The nutritionists work closely with other health department members in maternal and child health programs. In this way nutrition education is given for prenatal groups, for well-child conference groups, for preschool groups, and for school groups.

Prenatal. Prenatal clinics are held throughout the state, and nutrition is taught to expectant mothers in these clinics. Nutrition information for individuals and groups is usually taught by the public health nurses. Direct service is provided by the nutritionists on a demonstration basis. When patients are given diet orders other than a normal diet, they are referred to the nutritionist for dietary instructions.

During a conference with the Director of the Nutrition Division and the regional nutritionist for Northwest Florida, the student learned that the 1962 infant mortality rate in Gadsden County is approximately 62. The national infant mortality rate for 1961 was 25.3 per 1,000 live births (National Vital Statistics Division '62). The public health employees became concerned and requested the services of a full-time nutritionist and a nurse-midwife. Because of this request, plans are being made to conduct a study to determine the nutritional needs of the prenatal patients in the county. The patients from two prenatal clinics in the county will be used in the study. To obtain information on the dietary habits of the patients, a student from Florida State University will be employed for three months during

the summer of 1963. The clinic study will include a 24-hour recall of food eaten, a medical and social history, and a physical examination by a physician. During the prenatal period, vitamin and iron supplements will be added to the diet of one-half of the group while the other half will serve as a control, receiving no supplements. It is hoped that the study can be continued to follow many of the patients through two successive pregnancies. When the study is completed, the infant mortality rate of the two groups will be compared and a nutrition program will be planned for the county on the basis of the findings.

Well-child conferences. Although the nutritionists do not regularly visit the well-child conferences to give dietary instruction, any family having a child with a nutritional problem may be referred for dietary consultation. However, to advance nutrition education on the feeding of infants and children under 6 years of age, pamphlets have been written. These pamphlets are frequently distributed at clinics. The suggested foods will not be available to indigent families in some cases. Because of this fact, the nutritionist for Central Florida prepared a leaflet which is practical for use with indigent families in her area. This written information, which is given to public health nurses, stresses foods that are usually available to these people.

Preschool. The public health nurse, nutritionist for the dairy council, school personnel, and the student took part in a preschool round-up in central Florida. After registration of the students,

nutrition materials were given to each mother on "The Basic 4" food groups and the importance of a good breakfast. Two food and nutrition films were shown to the mothers and their children.

School. In Hillsborough County, the public health nutritionist was asked to help with a "Breakfast Month" program in one of the elementary schools. The program had its beginning when the principal learned that many students were attending school without eating breakfast. The nutritionist helped with the program during the month by writing and giving a food-intake questionnaire to the students. She also kept height and weight records on each child. From these completed forms, food-intake information is available as to the number of children having eaten breakfast and the foods consumed. The program was promoted by posters displayed in the school halls during the month to remind the children to eat breakfast. At the end of the month all children and their parents were invited to school for breakfast. At this time the public health nutritionist presented the results of the study. The nutritionist stated that the results compared to the results obtained before the study indicated a greater number of children were eating breakfast before coming to school.

The nutritionist from Northwest Florida stated that after an unsuccessful football season, a coach asked her to conduct a study to determine whether the football players were eating an adequate diet. The nutritionist began the study by taking a 24-hour dietary recall, calculating the diets, and comparing the intake of nutrients with the

National Research Council's recommended dietary allowances. From the findings, the nutritionist prepared a talk for the players. During this talk, she stressed the nutrients lacking in the diet of the team members. Since the coach did not request a follow-up, no additional programs were planned.

Also in this region, the nutritionist has been conducting classes for a group of overweight teen-age girls. The nutritionist asked the girls to keep a record of all food eaten for two or three days. The records kept by the girls were brought to class. During the class, the nutritionist evaluated the diets for caloric intake and adequacy of other nutrients. Suggestions were then made about the foods that should and should not be eaten.

In Central Florida, the regional nutritionist worked with a home economics teacher in a large high school to provide nutrition education to home economics students in an attempt to improve the diets of the teen-age girls. The need for dietary improvement had been determined when low hemoglobin results were obtained in tests conducted.

Communicable Diseases

The nutritionists are working in communicable disease programs wherever problems with nutritional implications arise. Although nutrition has no direct relationship to many communicable diseases, the health workers are acquainted with the services of the nutritionist; if at any time these workers recognize a patient with a nutritional problem, the patient is referred to the nutritionist.

Dental Health

Florida has established a dental preceptor program which permits dentists who have graduated recently to work in the public health departments without a license. In this way the recent graduates can get experience before taking the state dental board examination. The purpose of such a program is twofold. One aim is to staff the health departments with dentists; the other is to interest recent dental graduates in public health work and to provide them with experience.

One of the objectives of the dentists is to educate the children and their parents on proper growth and care of teeth. The nutritionists are frequently asked to aid the dentists in presenting dental programs to school students. During these programs the nutritionists discuss the importance of good nutrition to dental health.

Health Education

Nutritionists work with health educators in a summer school course offered to teachers by Florida State University, Bethune-Cookman College, University of Miami, University of Florida, and the University of South Florida. The teachers of the state are given the opportunity, for college credit, to learn about the functions of their local health departments and community resources. The purpose of the program is to acquaint the teachers with the total health programs in the communities.

During 1962, the health educator in Hillsborough County conducted a workshop on methods of communications for the workers within the

health department. This worker coordinates her work with the nutritionist when there is a need for joint planning and participation.

Mental Health

The Hillsborough County Health Department has available the services of a psychiatric social worker. This worker is conducting an in-service training program for public health nurses. Four two-hour classes are offered and are limited to 6 of the most recently employed public health nurses. In the first session, the principles of working with people are discussed after listening to one of the records in the set, "The Initial Interview in Psychiatric Practice". During the three remaining sessions each nurse is responsible for presenting a case history from an actual working situation. The case is first presented in "theatre style"; that is, the actual conversation between the nurse and patient. After this, a discussion of the case follows. For the last two sessions, narrative progress reports are given by each nurse on the same patients.

The psychiatric social worker is a consultant who helps interpret behavior problems and relates the information to the proper agency. This worker is available for consultation with the nutritionist on any problem which has a psychiatric aspect. Also, the social worker refers patients' nutritional problems to the nutritionist.

Sanitation

The nutritionists assist with orientation of the new sanitarians and with teaching of food handlers' classes sponsored by the sanitation.

division. In these classes, she emphasizes the importance of nutrition to the individual food handler, relates the knowledge of nutrition to the storage and preparation of foods, and stresses cleanliness and proper dress for the workers.

Although the student did not observe any of these classes, she made visits with sanitarians to food-processing plants, milk-processing plants, and dairy farms; and she went on a general sanitation visit which included restaurant inspection, dog quarantine, sewage disposal, and other phases of sanitation classified as general sanitation work.

Nursing Home Short Course

The Annual Florida Nursing Home Short Course held for nursing home operators is conducted jointly by the Florida State Board of Health, the Nursing Home Association, and the Florida Institute for Continuing University Studies. This course, held each year, is given on the various aspects of nursing home operation. The 1963 course focused attention on food service and interpersonal relations. Of the 5 day session, three days were devoted to food service. The Nutrition Division of the Florida State Board of Health was asked to participate in the program. The Director of the Nutrition Division, the Dietary Consultant to Nursing Homes, and the Nutritionist from the Hillsborough County Health Department participated in the short course. For one session, food production was the subject of discussion. How to buy, prepare, and serve fruits, vegetables, and meats was discussed. After the discussion on meat preparation, a demonstration was given

on how to thaw and prepare meat. In order to save time, the meat was thawed and cooked before the demonstration. One roast was thawed in the refrigerator and cooked at a temperature of 350 degrees Fahrenheit. Another roast was thawed at room temperature and cooked at 450 degrees Fahrenheit. The juice and meat from each roast were weighed. The results indicated that there was less loss if the meat was thawed in the refrigerator and cooked at a lower temperature.

A talk on "The Menu" was given and discussed in terms of nutritional adequacy. A flannel board was used to illustrate the percentage of the daily requirements of needed vitamins and minerals which certain menus would provide. Freeze-dried foods and pre-portioned foods were discussed by the Nutrition Specialist from the Agricultural Extension Service and the Administrative Dietitian of Food Service at the University of Florida, respectively.

All persons attending the short course were divided into groups. Each member was given a set of practice menus and the group was asked to make desirable changes in a day's menu. Each group selected a leader who reported the menu changes to a panel of 4 people. This panel evaluated the diet for cost, nutritive value, required equipment, color, and texture of food.

A Nutrition Consultant, Long Term Illness Program, Public Health Service, in Washington, D. C., spoke on "Getting the Food Ready for the Patients". Her speech was followed by a discussion on "Getting the Patients Ready for the Food." Also discussed were self-help devices for use with patients who cannot feed themselves with the normal eating

utensils. The food service part of the program was concluded with a talk followed by a discussion on kitchen layout and equipment. The last two days were devoted to interpersonal and community relations.

V. COORDINATION OF NUTRITION SERVICES WITH OTHER OFFICIAL AGENCIES

The nutritionist works not only with the various divisions within the public health department but also with other official agencies on any nutritional problem when there is a request.

Board of Public Assistance

When it was learned that some people receiving surplus commodities did not know how to use them, the Board of Public Assistance in Tampa, Florida, requested the help of nutritionists from the local health agencies. The nutritionists began work on the problem by giving a demonstration on the use of commodity foods to the employees from the Board of Public Assistance. These workers in turn gave demonstrations to the people who were receiving these foods. The nutritionists mimeographed a list of recipes in which commodity foods were used. These recipes were given to the Board of Public Assistance for distribution to the people receiving the surplus foods.

Also the Board of Public Assistance asked the public health nutritionist to calculate the cost and amount of food necessary for an adequate diet for one person for one week. Food prices were checked at several grocery stores, and calculations were made for the amounts

and the cost of food. This information, given to the Board of Public Assistance, was used as a guideline in establishing the amount of money to be paid to persons receiving assistance.

Department of Education

The public health nutritionist works with various branches of the Department of Education: administrative personnel, vocational home economics programs, school lunch, and the classroom instructors and supervisors.

Vocational home economics. Although the public health nutritionist does not work continuously with the vocational home economics personnel, she does work upon request with the homemaking supervisor.

School lunch. Much of the work done by the nutritionist with the Department of Education is with the school lunch program. Regional and local nutritionists work with the state school lunch staff and county supervisors in the planning and teaching of a nutrition course for school lunch personnel. Each summer a two-week workshop is held for school lunch personnel in various districts throughout the state. During the workshop, courses on quantity cookery, food purchasing, equipment, record keeping, organization and management, general education, and nutrition are offered. Each course, 60 hours in length, must be taught by a college graduate who majored in home economics. It is preferred, however, that this person have specialized in foods and institutional management or nutrition. The public health nutritionists

are asked to teach the nutrition course during these workshops.

At the request of the health department personnel, nutritionists will visit the schools in a county which does not have a school lunch supervisor. The student had an opportunity to visit a school and help with its food service. Occasionally the nutritionists participate in the school lunch association meetings.

Extension Division of the United States Department of Agriculture

At the state level, the Director of the Nutrition Division does not give direct service to the extension service because the extension service has a nutrition specialist. At the county level, however, the home demonstration agents often request the help of the public health nutritionist in the training of group leaders. The extension agent and the nutritionist frequently work on joint community projects where the help of both has been requested.

VI. COLLABORATION OF WORK WITH OTHER GROUPS, AGENCIES, AND ORGANIZATIONS

The public health nutritionist works upon request with any community group, agency, or organization that has a need for her services. In Hillsborough County, the nutritionist from the local health department has worked jointly on projects with the home economists from the Tampa Electric Company and the nutritionist from the local dairy council. She is also a member of the Food and Nutrition Committee for the tri-county area of Hillsborough, Polk, and Pinellas Counties.

Tampa Electric Company

Home economists at the Tampa Electric Company have a continuous program in which they demonstrate the use of electrical appliances. They also teach the local scout troops nutrition and food preparation. Upon request, they give demonstrations to clubs and home economics classes on entertaining, laundering clothes, and freezing foods. The home economists at Tampa Electric work with the public health nutritionist in judging nutrition projects, presenting nutrition programs, working on the County Food and Nutrition Committee, or any community services where they can be of assistance.

Hillsborough County Dairy Council

The nutritionist for the Hillsborough County Dairy Council supervises the work of the dairy council nutritionists in the neighboring counties of Polk and Pinellas. The Hillsborough County office receives educational materials from the National Dairy Council which have been prepared by nutrition authorities. These materials, developed as teaching aids, are distributed to any non-commercial agency interested in nutrition in the tri-county area.

The dairy council works with the public health nutritionist in Hillsborough County in many ways and also supplies National Dairy Council materials for use in the county.

Hillsborough County Food and Nutrition Committee

The Food and Nutrition Committee of Hillsborough County is composed of home economists, dietitians, and nutritionists from the

various institutions and agencies in the three counties. The Food and Nutrition Committee plans and presents one nutrition program each year for the citizens of the area. Previous programs have been on weight control and modern cooking. In addition to this annual program, the committee prepares exhibits about careers in home economics for high school career days. Committee members go into each school taking part in career day and talk about home economics careers. The purpose of this program is to recruit high school students for college so that they can prepare for careers in home economics.

Florida Home Economics Association

The student attended the annual Florida Home Economics Association meeting in St. Petersburg, Florida. The Director of the Nutrition Division was in charge of the nutrition program. As one part of the program the Research Division of the Pinellas County Health Department investigating the health needs of elderly people presented facts about their study. This team, including a medical director, a social scientist, a health educator, and a nurse, is conducting a study to determine the health needs of people 65 years of age and over in the community. Although the 6-year study has not been completed, the team stated that the findings thus far indicated that chronic diseases are prevalent, the average income is less than \$3,000, and nutritional problems exist among the older people.

SUMMARY AND EVALUATION

The student has reported experiences and observations during her 7 weeks' period of field training in public health nutrition. The training program was planned so that the student could become acquainted with a state-wide nutrition program in addition to the total health program in a local health department. In Hillsborough County, the trainee became acquainted with the work of the public health staff. Each member of the staff explained in detail his work in the public health program and in some instances the student observed these workers as they performed their duties. In this way the student was able to learn about some of the programs, problems, and needs of public health.

Through participation, observation, and conferences with the nutrition consultants in the state, the student was able to gain some understanding of the work of nutrition consultants and the planning of a nutrition program. She learned that the programs are based on the needs of the area for which the program is planned.

A knowledge about how agencies concerned with nutrition work cooperatively in the community was gained by talking with personnel from the Dairy Council, the Tampa Electric Company, the School Lunch Association, the Home Economics Association, and the Extension Division of the United States Department of Agriculture. From these personnel, it was learned that all nutritionists cooperate by participating on

panels, programs conducted by the Food and Nutrition Committee, and on any other nutritional program where a request is made for such a service.

The student gained experience in nutrition education by making charts for use at diabetic clinics and giving dietary instruction at prenatal and diabetic clinics. Although participation was limited in the nutritional education work being done with the nursing homes and the schools, she was favorably impressed.

After evaluating her total field experience, the student feels that these experiences did supplement her academic training, broaden her concept of public health nutrition, and accomplish the objectives of her field training. The trainee is now aware of some of the problems that must be overcome before the work of a nutrition consultant can reach its full effectiveness. She has learned some of the things to take into consideration in order to do effective educational teaching.

In summary, the student feels that this experience has been invaluable for preparing her to enter the field of public health as a nutrition consultant. Although the field experiences were a revelation of how much there is still to learn, the student feels that these experiences provided a sound framework of ideas for her beginning a nutrition program in another area.

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CHAPTER 5

APPENDIX

APPENDIX CONTENTS

	PAGE
Growth Study Record, Florida State Board of Health.	49
Cumulative Service Report, Florida State Board of Health.	50
Daily Service Report, Florida State Board of Health	51
Recipes Used at a Diabetic Clinic, Sumter County.	52

GROWTH STUDY RECORD

FLORIDA STATE BOARD OF HEALTH

GROWTH STUDY RECORD

RECORD NO.

Instructions

Page 1, Identification: Record all data on page 1 prior to the physical examination. A separate record is to be used annually, but the same record number (columns 1-4) must be carried over from year to year.

Page 2, Medical Examination: The examining physician is asked to place a check () mark in the box to the left of the items which apply to the child being examined. He is also asked to verify the checked items and the date of examination before signing his name in the appropriate space provided in the upper right portion of page 2. Where "other abnormality" is applicable, please specify.

Page 3, Related Data: These data are to be recorded by the Migrant Project Nutritionist.

- If the lingual ascorbic acid test was not done on the child to whom the record refers, mark "X" for columns 35 through 42. If hematocrit was not done, mark "X" for columns 43-44.
- Percentile: the channel for each quarter will be recorded.
- Bone age: the duration by 1/2 years will be recorded.

Questions regarding the study should be directed to the Migrant Project Nutritionist.

NAME OF CHILD

CHILD'S BIRTHDATE

CHILD'S PLACE OF BIRTH

C O L	C O D E	CHILD'S RECORD NUMBER:				C O L	C O D E	CHILD'S AGE AT TIME OF EXAMINATION:		
		COL.	1	2	3			4	COL.	5
	✓	CODE					✓	CODE		
7		SEX				9		MIGRATION STATUS		
	1	Male					1	Never migrated		
	2	Female					2	Has migrated within 12 months		
8		CULTURAL GROUP					3	Migrates but not in past 12 mos.		
	1	Negro				10		SCHOOL		
	2	Spanish					1	Experimental		
	3	Anglo					2	Control		

SCHOOL

C O L	C O D E	✓	DATE:	C O L	C O D E	✓	PHYSICIAN:
11			GENERAL APPEARANCE	22			GLANDS
	1		Good		1		Normal
	2		Fair		2		Thyroid enlarged
	3		Poor		3		Other abnormality:
12			SKIN	23			EYES
	1		Seborrhea		1		Normal
	2		Pallor		2		Blepharitis
	3		Dermatitis		3		Other abnormality:
	4		Follicular Keratosis	24			CHEST
13			NOSE		1		Normal
	1		Clean		2		Abnormal
	2		Crusty	25			SKELETAL
	3		Runny		1		Normal
	4		Both (crusty and runny)		2		Harrison's Groove
14			POSTNASAL DRIP	26	1		Knocked knees
	1		Present	27	1		Bowed legs
	2		Not present	28			Winged Scapula
15			TEETH	29			EVIDENCE OF RICKETS
	1		Good		1		None
	2		Fair		2		Rachitic Rosary
	3		Poor		3		Flaring of Costochondral Junction
16			GUMS		4		Bowed legs
	1		Normal		5		Other:
	2		Hypertrophy	30			LUNGS
	3		Gingivitis		1		Normal
17			TONGUE, PAPILLAE		2		Pathology
	1		Normal	31			HEART
	2		Abnormal:		1		Normal
18			BUCCAL MUCOSA		2		Functional Murmur
	1		Normal		3		Organic Murmur
	2		Stomatitis		4		Other abnormality:
	3		Angular stomatitis	32			ABDOMEN
19			TONSILS		1		Protuberant
	1		Present, normal		2		Flat
	2		Present, abnormal	33			KIDNEYS
	3		Removed		1		Palpable
20			LIVER		2		Not palpable
			inches palpable below costal margin	34			GAIT
21			SPLEEN		1		Normal
			inches palpable below costal margin		2		Abnormal

LINGUAL ASCORBIC ACID TEST ABSORPTION TIME										HEMATOCRIT		
FIRST TEST	A		B		SECOND TEST	A		B				
COL.	35	36	37	38	COL.	39	40	41	42	COL.	43	44
CODE					CODE					CODE		

HEIGHT

COL.	45
CODE	

PERCENTILE

Code

0-3 = 1
 4-10 = 2
 11-25 = 3
 26-50 = 4
 51-75 = 5
 76-90 = 6
 91-97 = 7
 98-100 = 8

WEIGHT

COL.	46
CODE	

BONE AGE AND DEVIATION

NEGATIVE DEVIATION

COL.	47
CODE	

None = 0
 .5 = 1
 1.0 = 2
 1.5 = 3
 2.0 = 4
 2.5 = 5
 3.0 = 6
 3.5 = 7
 4.0 = 8

BONE AGE

COL.	48	49	50
CODE			

If there is no deviation, record
 "0" for both negative and positive
 deviations (Cols. 47 and 51).

POSITIVE DEVIATION

COL.	51
CODE	

None = 0
 .5 = 1
 1.0 = 2
 1.5 = 3
 2.0 = 4
 2.5 = 5
 3.0 = 6
 3.5 = 7
 4.0 = 8

Notes:

COUNTY _____

PERIOD _____

NUTRITION SERVICES	Home Visits		Consultation		Classes		Number Attended		Meetings Attended		Talks		Number Attended		Materials & Exhibits (original)	
	Total this month	Total this year	Total this month	Total this year	Total this month	Total this year	Total this month	Total this year	Total this month	Total this year	Total this month	Total this year	Total this month	Total this year	Total this month	Total this year
C. Tuberculosis Control																
D. Maternity Service																
E. Child Health Service																
F. School Health																
G. Dental Health																
H. Chronic Diseases																
1. Diabetes																
2. Cardiac																
J. Mental Health																
K. Miscellaneous (Morbidity)																
M. Nursing Homes																
V. Health Information																
Nursery and Kindergarten																
TOTALS																

CUMULATIVE SERVICE REPORT

FLORIDA STATE BOARD OF HEALTH

RECIPES USED AT A DIABETIC CLINIC,
SUMTER COUNTY

TOMATO SOUP

- 1 c. stock (prepared from fat-free boullion cubes)
- 2 T. Tomato paste
- 3 T. Dry milk powder
- 1 T. Flour

Cook until thick.
1 milk exchange
1/2 bread exchange

GRAVY

- 1 c. stock
- 1 1/2 t. Gravy Aid
- 2 T. Milk powder (dry)
- 2 T. Flour

Cook until thick.
1 milk exchange
1 bread exchange (in full recipe)

TURNIP GREENS

- 2 c. stock (prepared from fat-free boullion cubes)
- 1 drop Liquid Smoke
- 1 Pkg. Frozen greens

Free - no exchanges

CORNBREAD

- 2 T. Enriched cornmeal
- 1/4 c. hot water
- Dash salt

Place in skillet with a small amount of fat.
1 bread exchange