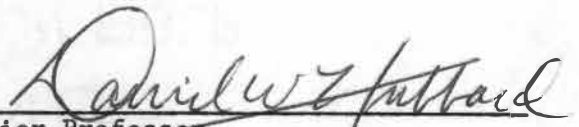


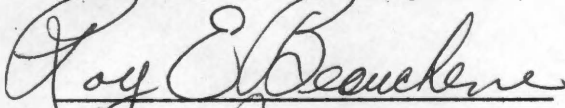
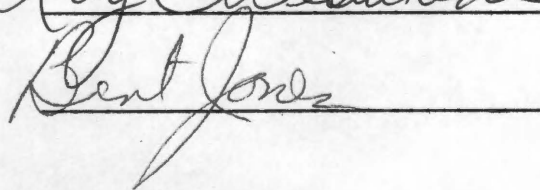
July 19, 1973

To the Graduate Council:

I am submitting herewith a thesis written by Susan Morrill Fowlkes entitled "A Field Experience in Public Health Nutrition with the Florida Division of Health." I recommend that it be accepted for nine hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Nutrition.


Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor for
Graduate Studies and Research

12

A FIELD EXPERIENCE IN PUBLIC HEALTH NUTRITION WITH
THE FLORIDA DIVISION OF HEALTH

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

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

by
Susan Morrill Fowlkes

August 1973

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ABSTRACT

For her field experience in public health nutrition the student chose the Florida Division of Health as the official health agency. In the south central region of the state of Florida, she hoped to develop in her chosen profession by becoming actively involved in health programs. In this rural region of the state there is a need for health programs aimed at the various needs of the eight counties. The Florida Division of Health functions to meet the health needs of all counties in the state. The division is divided into bureaus and sections. The nutrition section works with many of these bureaus and sections to provide health services for the state. The 45 persons employed in the Nutrition Section work in county health departments, special projects and state institutions.

The regional nutrition consultant provides services of consultation and group instruction through county health departments, professional agencies and institutions, and private groups. By observing and participating in these services and teaching an in-service education program for school food service workers, the student achieved her objectives for the field experience.

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CHAPTER I

INTRODUCTION

Field courses in public health nutrition provide an opportunity for a student to apply theoretical knowledge to practical settings. These courses strengthen the student's philosophy of public health by helping her identify with public health professionals and by providing the opportunity to observe the delivery of health services by an official health agency. By working with an agency the student can exercise her abilities to plan, execute, and evaluate public health nutrition activities.

The field course described in this thesis occurred between April 2 and May 18 in 1973. This student chose the Florida Division of Health as the official health agency for her field course and was assigned to work in the south central portion of the state. The student planned to accomplish the following objectives:

1. To increase her knowledge of nutrition and skill in application of that knowledge.
2. To observe and evaluate a variety of programs and assess the role of nutrition in them.
3. To become involved in planning, developing, executing, and evaluating activities with a nutritionist in public health.
4. To expand her philosophy of public health.

This thesis is organized into six chapters. The second chapter describes the characteristics of the south central region of Florida.

The third chapter explains the organization and functions of the Division of Health. In the fourth chapter the Nutrition Section of the Division of Health is described including the various positions for nutritionists and the various services offered by these nutritionists. The fifth chapter discusses the many services provided by a regional nutrition consultant as observed by the student. In the second part of the fifth chapter the student's special project is explained. Finally, a summary and evaluation of the experience is found in the sixth chapter.

CHAPTER II

ENVIRONMENTAL FACTORS OF THE SOUTH CENTRAL REGION

Florida is one of the fastest growing states in the United States today. Its population has increased 37.1 percent in the past ten years (1). Tourism is the leading industry because of the mild climate and the abundance of natural resources. Agriculture remains as one of the state's leading industries. Citrus is the biggest crop, contributing 400 million dollars per year to the economy (2). Other areas of agricultural production include truck farming, dairy farming, cattle ranching, fertilizer production, fishing, and the shellfish industry. Migrant workers provide the largest portion of the labor for farming. Construction and real estate are important to the coastal counties (3).

The eight counties in the field experience are located in the south central part of the state, as shown in Figure 1. These counties are rural in nature and have a high percentage of elderly people. Each county has its own health department with four health officers serving these eight counties; two health officers divide their time between three counties making two tri-county units (4).

The population of Florida was 7,025,100 on July 1, 1971 (5). This was a net increase of 2.7 percent over 1970, 28 percent of which represented the natural increase, the net difference between births and deaths. The remainder of the increase was due to in-migration (6). In comparison to the state gain in population, the counties of Charlotte,

STATE OF FLORIDA



Fig. 1. The map of the state of Florida showing the south central region.

Okeechobee, Martin, Manatee, and Highlands grew at a similar or greater rate, while St. Lucie, Hardee, and DeSoto did increase but were below the state level (1). The demands upon the health departments have increased correspondingly with the population.

The birth rates and infant mortality rates for Florida and the south central counties are shown in Table 1. The state had a birth rate of 16.1 per thousand in 1971. Four of the counties had a birth rate below that of Florida, while four counties had higher rates. The infant mortality rate in Florida was 20.7 per thousand live births in 1971. A higher rate existed in most of the counties studied, especially so in DeSoto, Hardee, Highlands, Okeechobee, and St. Lucie counties (5). More and better nutrition and health programs could contribute to a lowering of the infant mortality rate in these counties, since good nutrition during the prenatal state contributes to optimum outcomes of pregnancy (6).

Of further concern are the poor dietary habits of residents in these counties. The 1965 United States Department of Agriculture Food Consumption Survey showed that in Martin and Okeechobee Counties 22 to 24 percent of the households consumed poor diets. Charlotte, Hardee, Highlands, Manatee, and St. Lucie Counties had 25 to 26 percent of their households consuming poor diets; and DeSoto County had 27 to 30 percent (7). These figures indicate a need for nutrition education and services, since poor diets are not conducive to good nutritional status. This need is further emphasized by the recent rapid rise in food prices, making it even more necessary for low income families to learn how to get the most for their food dollar.

TABLE 1

The resident birth rates per 1,000 population and infant mortality rates per 1,000 live births, by race, for Florida and the eight county region in 1970 and 1971.

Resident Rates	Year	Fla.	Char- lotte	De- Soto	Har- dee	High- lands	Mana- tee	Mar- tin	Okee- chobee	St. Lucie
Birth rate	1970	16.8	8.6	17.9	17.7	16.5	13.3	17.0	20.9	19.3
	1971	16.6	9.3	18.4	20.8	16.1	12.6	16.4	25.4	21.1
White	1970	15.1	8.4	15.1	18.2	14.2	11.3	15.3	20.4	15.7
	1971	14.6	8.9	15.8	20.5	13.7	10.5	14.2	26.4	15.9
Nonwhite	1970	26.2	17.5	28.5	13.8	25.3	27.5	26.4	23.3	27.2
	1971	27.2	21.1	28.5	23.1	25.2	28.0	28.9	20.0	32.5
Infant mortality rate	1970	21.4	16.4	29.9	18.9	32.5	26.1	16.5	29.4	35.1
	1971	20.7	18.2	41.2	31.6	36.6	21.3	20.7	40.7	33.7
White	1970	17.4	13.0	12.7	16.5	23.9	13.3	8.1	25.5	18.1
	1971	17.1	19.6	12.0	35.8	27.4	15.1	16.8	38.6	17.4
Nonwhite	1970	32.9	71.4*	64.9*	45.5*	51.0	64.2	43.1	47.6*	48.5
	1971	30.9	0.0*	103.9*	0.0*	54.9	38.3	21.5	55.6*	51.5

*Based on a sample size of only 100 live births.

Sources: Division of Health 1971 Annual Report of the Florida Division of Health. Department of Health and Rehabilitative Services, Jacksonville, Florida; Division of Health 1973 Florida Vital Statistics 1971. Department of Health and Rehabilitative Services, Jacksonville, Florida.

Of special concern to health authorities is the large percentage of elderly citizens residing in Florida. In 1970 there were 850,000 people in Florida aged sixty-five and older, comprising 14.6 percent of the total population. In all of the eight counties studied, except Okeechobee and Hardee, the proportion of senior citizens was equal to or greater than that in the state, as shown in Table 2 (1). It is apparent that expanded health programs need to be provided for the elderly people.

Health programs should be carefully planned to meet the special needs of the community. As people grow older degenerative diseases become more common and are a major cause of death among the middle aged and older adults. Obesity and poor dietary factors contribute to these diseases (7). Diseases of the heart and cerebrovascular system, diabetes mellitus, and cirrhosis of the liver were among the ten leading causes of death in 1971 in Florida and in the eight counties studied. This is shown in Table 3 (5). Health programs must emphasize the prevention as well as the treatment of these diseases, and nutrition should be an active part of these programs. The special needs of the elderly population should not obscure other high risk groups, such as maternal, infant, preschool, and teenage. For example, in Okeechobee County 42.8 percent of the population is 18 years of age or younger (1). Health priorities must therefore be directed toward a younger age group in Okeechobee County.

TABLE 2

Population by race and age group, for Florida and the eight county region April 1, 1970.

County	Population (1,000)	Change 1960-1970	Nonwhite	Distribution by Age		
				Under 18	18-64	65 and over
		%	%	%	%	%
Florida	6,789.4	37.1	15.0	31.1	54.4	14.6
Charlotte	27.6	118.8	3.0	18.4	46.5	35.1
DeSoto	13.1	11.8	28.5	30.8	53.6	15.6
Hardee	14.9	20.4	10.5	37.8	52.2	10.0
Highlands	29.5	38.3	21.0	30.8	48.5	20.7
Manatee	97.1	40.4	12.1	23.5	46.3	30.2
Martin	28.0	65.6	15.4	28.3	50.3	21.3
Okeechobee	11.2	74.9	15.5	42.8	49.1	8.1
St. Lucie	50.8	29.4	31.1	34.2	51.2	14.6

Source: Bureau of Economic and Business Research 1972 Florida Statistical Abstract 1972. 6th ed. E. C. Jones, ed. University of Florida Press, Gainesville, Florida.

TABLE 3

Rank order listing of the ten leading causes of death in Florida and the eight counties of the south central region in 1971.

Cause of Death	Fla.	Char- lotte	DeSoto	Hardee	High- lands	Mana- tee	Martin	Okee- chobee	St. Lucie
Diseases of the heart	1	1	1	1	1	1	1	1	1
Malignant neoplasms	2	2	2	2	2	2	2	2	2
Cerebrovascular disease	3	3	3	3	3	3	3	4	3
All accidents	4	4	3	3	4	4	4	3	4
Influenza, pneumonia	5	5	5	5	5	5	-	9	5
Bronchitis, emphysema, asthma	6	6	6	8	7	6	9	9	-
Certain causes of mortality in early infancy	7	10	7	6	9	-	10	5	6
Diabetes Mellitus	8	8	-	-	10	7	-	-	7
Cirrhosis of the liver	9	8	-	8	-	9	5	6	-
Arteriosclerosis	10	-	9	8	6	10	-	7	-

Source: -Division of Health 1973 Florida Vital Statistics 1971. Department of Health and Rehabilitative Services, Jacksonville, Florida.

CHAPTER III

FLORIDA DIVISION OF HEALTH

During 1889 the first public health agency in Florida was established in Jacksonville under the direction of Dr. J. Y. Porter. This was done in response to a yellow fever epidemic in the Jacksonville area (8). It has grown today into the Division of Health under the Florida Department of Health and Rehabilitative Services.

As shown in Figure 2, the Division of Health is among nine divisions of the Department of Health and Rehabilitative Services. The department is administered by the Secretary of Health and Rehabilitative Services, who is appointed by the Governor of the State of Florida (9).

The Division of Health consists of thirteen bureaus, five sections, and 67 county health departments as shown in Figure 3. The Director of Health provides the leadership for the division and is appointed by the Governor. The bureaus are established by legislative authority and the sections are set up by the director. The division functions to maintain and improve the health status of Florida's residents (9). The Nutrition Section works closely with many of the sections and bureaus which are described below.

I. SECTIONS

The Public Health Nursing Section assists public health nurses throughout the state in meeting the health needs of their counties.

DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

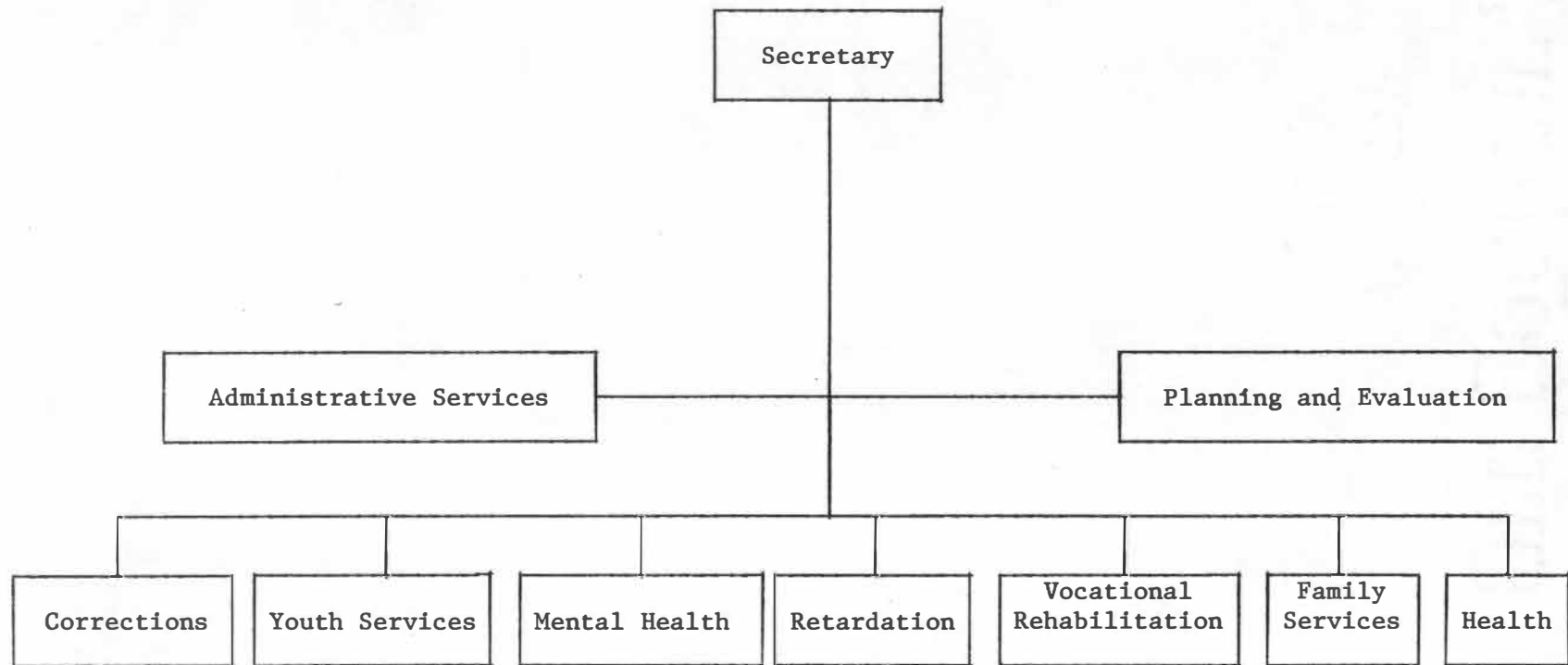


Fig. 2. The administrative structure of the Department of Health and Rehabilitative Services of the State of Florida.

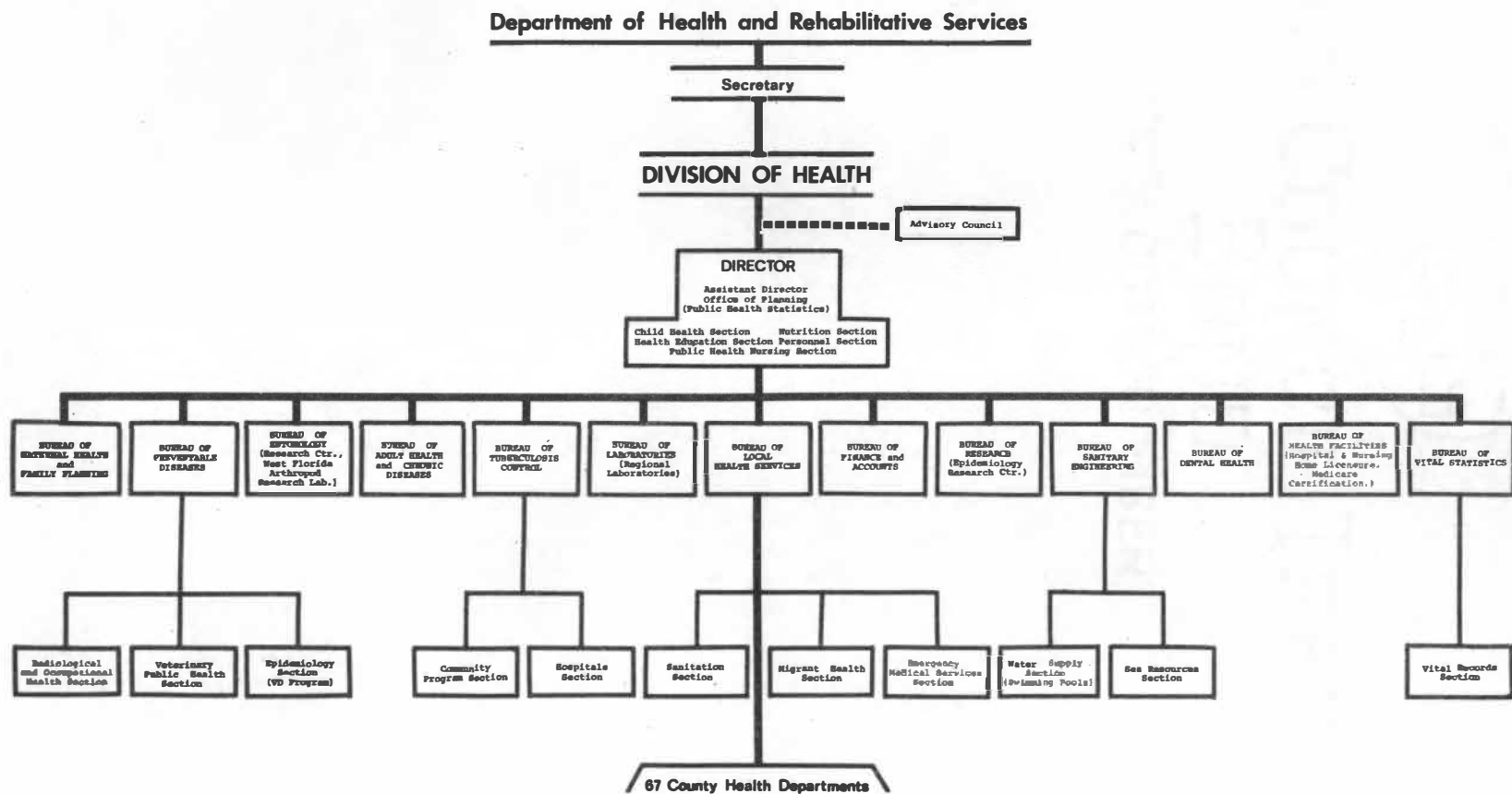


Fig. 3. The administrative structure of the Division of Health.

It provides leadership to over 1,200 public health nurses in the 67 counties and in the independent visiting nurse associations and certified home health agencies. The section plans for delivery of health care with other bureaus and sections of the Division of Health. The section's responsibilities include administrative work and furthering the education of public health nurses. For continuing education and staff development, the nurses in the designated areas meet together once a month for in-service programs. A six weeks orientation course is taught to nurses beginning employment in Florida's public health system. The section offers institutes and workshops on special topics for its nurses. Observation and field experience are planned for graduate student nurses. The section is also responsible for recruitment and evaluation of personnel. It works to advise and assist local agencies with their problems (10).

To accomplish the responsibilities the section has an administrator, assistant administrator, and eight regional nursing consultants. Each nursing consultant has responsibility for a geographical area as well as a specialty area. Consultants work with the counties in their geographical areas and upon occasion with other counties having problems related to their specialties (10).

The larger county health departments have a director of nursing and supervisors for teams of nurses composed of a registered nurse and a licensed practical nurse or clinic aide. Many counties are not large enough for both nursing directors and supervisors. In fact, some counties have only one public health nurse. The public health nurses

work in homes, clinics, and schools within the community (10). Since they are the health professionals seen most often by the public, they must provide all kinds of health care including nutrition services to the community. The public health nurses often make referrals to other health officials and agencies for assistance in health care. The nutritionist therefore must cooperate closely with the public health nurses.

The Health Education Section is under the Director of Health. It supports and complements other bureaus and sections within the Division of Health by presenting information about health and public health programs to the public. First, the section encourages health education through public speakers and through printed materials. It promotes health education at the county level by providing consultation services to the counties and by furnishing speakers for all types of health programs. It develops and prints pamphlets, leaflets, and slide-tape series for use upon request from the bureaus and sections and supplies these and other educational materials to the counties. The second area of service is the maintenance of a large medical library for both public health personnel and for private professionals. The books and journals are loaned through the mail to these individuals upon request, or photocopies may be provided. A third area of service is an audio-visual library that circulates films, slides, filmstrips, and other aids to health personnel (11).

The Child Health Section, located under the Director of Health, promotes health care for Florida's two million children. The section

coordinates community child health resources and education for the community. In Medicaid screening programs, problems such as anemia, dental caries, skin problems, and sickle cell anemia can be found and treated in children of families receiving aid for dependent children. Pediatric services are offered through clinics in county health departments; hearing and vision screening programs are included. School health programs are promoted and given assistance where needed. Mentally retarded children are studied and evaluated through the Developmental Evaluation Clinic in Miami and in the Diagnostic and Evaluation Clinic in Tampa. Staff nutritionists play an active role in the evaluation and follow-up of these children (12).

II. BUREAUS

The Bureau of Local Health Services is directly responsible for the 67 county health departments. It serves to coordinate all public health programs in the counties. Twenty-five staff consultants supervise the county health departments' budget process, personnel actions, programs, and administration. Each of the 67 counties has a public health department responsible to the Chief of the Bureau of Local Health Services. The basic staff includes a public health nurse, a sanitarian, a clerk, and a health officer. Health personnel may have responsibility for more than one county. Health officers may be assigned to two to five counties. As counties increase in size, more personnel and services are provided (13).

The Bureau of Local Health Services has several subdivisions. The Nutrition Section works primarily with the Sanitation Section and the Migrant Health Projects.

The Sanitation Section has five consultants to assist the local sanitarians. It recruits and trains personnel and provides in-service education for all sanitarians. The section works to evaluate and improve the programs in the counties. One of its current objectives is to train certified food hygiene program coordinators in each county. This will help to unify and standardize the implementation of the food service code throughout the state (14).

The Sanitation Section has responsibility for enforcing the sanitary code within each county. This is accomplished by 500 sanitarians with a minimum of one in every county. The program issues permits to water bottling plants, trailer parks, migrant camps, and food processing and rendering plants. Sanitarians control sanitation in dairies, schools, camps, nursing homes, and hospitals. They inspect and test water supplies, swimming pools, garbage disposal areas, bedding programs (inspecting mattresses and pillows to make sure they conform to the claims of the manufacturer), product safety, and drug registration. They inspect all food service establishments for proper sanitation. Nutrition personnel work with sanitation personnel in the certification and licensing of hospitals and nursing homes (14).

Migrant Health Projects are operated in Florida through grants from the United States Public Health Service. The projects provide medical, dental, nutritional, health education, and nursing services through local health clinics to the 100,000 migrants in Florida. Clinics are operated in migrant counties to furnish medical care. Nutrition

services are provided by regional nutrition consultants and county nutritionists. The services are coordinated by the Migrant Health Nutrition Coordinator (15).

The Bureau of Maternal Health and Family Planning sponsors five Maternity and Infant Care Projects in the state. Through federal funding in these projects, clinics are open five days a week to provide high quality care for selected "high risk" patients. Each project has at least one nutritionist as an integral part of the comprehensive health care unit. The state supplies a physician, health educator, and social worker as consultants to these projects. The bureau also promotes maternal and infant clinics in the county health departments.

Nine Family Planning Projects are supervised by the Bureau of Maternal Health and Family Planning. Nutrition plays a part in them through dietary counseling of patients and through in-service education. Family planning clinics are also promoted and funded in the county health departments (15).

The Bureau of Adult Health and Chronic Diseases works toward increasing knowledge and awareness of the public about chronic diseases. It provides new methods of prevention, diagnosis, treatment, and rehabilitation of patients with chronic diseases. The bureau has three sections: the Adult Health Section, the Cardiovascular-Renal Disease Section, and the Chronic Disease Section. The Adult Health Section promotes maintenance of health through programs for the aging, for early detection of chronic disease, for glaucoma screening, and for education of the hazards of smoking. The

Cardiovascular-Renal Disease Section is concerned with all aspects of heart disease, renal disease, stroke, and hypertension. Cardiovascular screening and follow-up is being done in 31 clinics around the state. The Chronic Disease Section works with cancer, diabetes, arthritis, epilepsy, and chronic obstructive respiratory diseases. The Diabetes Program provides insulin distribution for indigent diabetics, case-finding programs, and a monthly bulletin, "Timely Topics," for interested persons. The bureau emphasizes health education seminars and workshops for professional health personnel and develops leaflets, pamphlets, and audio-visual materials (17).

The Bureau of Health Facilities is responsible for licensing and certification for Medicare services in state hospitals and in all health care facilities that are not state owned, including hospitals, nursing homes, homes for the aged, and homes for the mentally retarded. Architectural plans for any medical facility must be submitted for approval by the bureau. Teams consisting of a nursing consultant, hospital consultant, and an institutional nutrition consultant participate in surveys for certification and licensing of facilities each year. Through the public health nurses and sanitarians the county health departments maintain day-to-day surveillance of health care facilities. Where correction of problems is necessary, a follow-up is done within 80 to 90 days. Hospital, nursing, and nutrition consultants work with facilities to assist in solving problems (18).

The Bureau of Dental Health provides for 36 clinics in 33 county health departments. These serve the indigent population in these

counties and also people in areas without dentists. The state provides professional consultation and recruitment of dentists for the counties. The Bureau provides salary support for dental personnel in certain counties, while the county provides facilities and equipment for the dentists. All dentists working in the clinics must have Florida licenses. Dental services are also offered in 23 state institutions including those for corrections, retardation, and mental health. The bureau is promoting legislation for state-wide fluoridation and for research in dental problems. It is constantly working on education programs to encourage good dental hygiene (19).

CHAPTER IV

NUTRITION SECTION OF THE DIVISION OF HEALTH

The first nutrition program in the State of Florida was initiated in 1914 under the first State Health Officer, Dr. J. Y. Porter, for the purpose of eliminating pellagra from the state (7). Since that time the nutrition program has expanded and become an important part of the Division of Health. Nutritional services are provided through local health departments, special projects, and institutions. The Administrator of the Nutrition Section is responsible to the Director of the Division of Health (9). The Nutrition Section objectives and the role of nutritionists in the health care systems and its institutions are described in this chapter.

I. OBJECTIVES OF THE NUTRITION SECTION

The following objectives for the Nutrition Section are stated in the County Health Officer's Program Guide.

1. To promote understanding of the role of nutrition in health maintenance, health protection, and disease control by providing authoritative information on diet and nutrition to both the public and public health personnel.
2. To identify nutrition-related health problems existing at the local level.
3. To provide nutrition consultative services and nutrition education services in the development of good food selection habits essential for health maintenance and disease control.
4. To participate in basic and continuing education of public health professionals, educators, and sub-professional health personnel who can disseminate and apply nutrition information.

5. To provide consultation services to group care and day care facilities to help upgrade the quality, palatability, efficiency, and sanitation of food services.

6. To coordinate public health nutritional services with related programs of other state agencies and community groups (20).

II. PUBLIC HEALTH NUTRITION SERVICES

Public health nutrition consultants are assigned to administrative offices in Jacksonville as well as in regional and county offices throughout the state. The Public Health Nutrition Administrator directs the Nutrition Section and is responsible for planning and developing the nutrition program throughout the state. Special consultative services are provided to the Director of Health, to bureau and section personnel within the Division of Health, and to other state agencies. The administrator recruits, trains, and evaluates nutrition consultants throughout the state. She works with nutrition consultants to develop nutrition education materials. She is responsible for promoting cooperation with other agencies concerned with nutrition, and she prepares articles for release to professional journals and to the mass media (21).

There are two Public Health Nutrition Consultant III positions in Jacksonville. One position serves as training coordinator. The incumbent develops training programs for all professional staff and for students and dietetic interns. She edits the "Nutrition in a Nutshell" newsletter and recipes for "Timely Topics." Further, she serves as a nutrition consultant to professional staff in three county

health departments. The training coordinator is under the direction of the Public Health Nutrition Administrator, and the incumbent serves as an assistant to the administrator (22).

The second Public Health Nutrition Consultant III is responsible for coordinating nutrition services with the Bureau of Maternal Health and the Child Health Section. She plans the state-wide program for nutrition in maternal and child health, provides resource materials, and plans in-service seminars for nutritionists working with the Maternity and Infant Care Projects and the Children and Youth Projects (21).

The Public Health Nutrition Consultants (II and I) and Public Health Nutritionists work in specific counties or regions. The Public Health Nutrition Consultant II works as a regional nutrition consultant for a multi-county area, as a nutritionist for a metropolitan county health department, or as the chief staff nutritionist for a specialized health project. The incumbent plans, coordinates, and evaluates nutrition programs and services for her area. She serves as the nutrition specialist for public health nutritionists under her supervision and for professionals in other agencies and in private practice (21). The duties of the regional nutrition consultant will be discussed in Chapter V.

The Public Health Nutrition Consultant I plans, directs, and evaluates nutrition programs for a small- or medium-sized county health department. She may also assist a Public Health Nutrition Consultant II in a larger county health department. She provides nutrition

consultation to professionals, public health nurses, physicians, social workers, teachers, miscellaneous agencies, and to the public (21).

The Public Health Nutritionist works in the community under the supervision of a public health nutrition consultant and provides services to the public or for public health personnel. She works to educate and counsel individuals or groups about foods and diets. She provides therapeutic counseling and nutrition education for persons or groups with specific nutrition problems. These services may be offered in homes, clinics, or public health areas (21).

The nutritionists in these positions offer services through a variety of agencies, county health departments, state and local institutions, and special projects and programs. These services were being provided in 1972 in 66 of the 67 counties in the State of Florida (9).

Within the county health departments, public health nutritionists and nutrition consultants provide information about nutrition and diet therapy. This service is available to the public and to professional personnel. The nutrition consultant plans the overall nutrition program under the direction of the county health officer. It provides the public, various professional people, and other agencies with individualized programs (20).

Assistance is given to professionals of all types, for example, to a nurse working with a diabetic patient. Through clinics and by referral dietary counseling is given to patients and their families. Special classes on weight control, diabetes, and heart disease may be

held by the nutritionist with the assistance of the public health nurses and local physicians. Consultation is provided to health officials for program planning and for discussion and resolution of specific problems. In-service education programs are presented to professional personnel on many aspects of nutrition (20).

Additional responsibilities of the nutrition consultants include ordering leaflets, pamphlets, and audio-visual materials from the Health Education Section and from governmental sources for health department use. They assist the Bureau of Health Facilities in evaluating nutritional facilities for licensing and certification. Also, they provide technical guidance for students, dietetic interns, and nutritionists under their supervision (20). It is easy to see that the duties of the nutritionist require an individual well versed in all areas of nutrition and in the educating of others in proper nutrition.

III. NUTRITION SERVICES IN INSTITUTIONS

In addition to the public health nutritionists and nutrition consultants there are nutritionists working with all institutions in the state. An Institution Nutritionist Coordinator works with all state and county institutions in the Department of Health and Rehabilitative Services. The institutions involved include correctional institutions, youth training schools, mental hospitals, retardation centers, and tuberculosis hospitals. This position is funded through revenues of Administrative Services, yet it is housed

in the Nutrition Section so the Public Health Nutrition Administrator and her staff may be available for consultation. The Institution Nutritionist Coordinator is responsible to the Department of Health and Rehabilitative Services for the coordination of nutrition and food service programs for the institutions. She works to upgrade the nutritional care in these facilities and to teach the personnel proper standards of food service (23).

Within the Bureau of Health Facilities, Institutional Nutrition Consultants work to improve food service and nutrition in all private and local institutions. Institutional Nutrition Consultants can be found in Jacksonville within the offices of the Bureau of Health Facilities and Nutrition Section. The Institutional Nutrition Consultant II plans, coordinates, and supervises the Institutional Nutrition Consultant Program. The Institutional Nutrition Consultants I provide consultative services in assigned geographic areas (21).

These personnel work with regional and county nutrition consultants. Through these local nutritionists, consultation services are provided to small hospitals, nursing homes, and child care facilities. Institutional Nutrition Consultants give direct information to institutions concerning problem areas (24).

Since the Bureau of Health Facilities is concerned with certification and licensing of institutions, Institutional Nutrition Consultants participate in dietary and food service surveys for this purpose. They are charged with the recruitment and training of dietitians to serve as consultants. They are responsible for seeing

that an institution has a Registered Dietitian for the recommended amount of time, four hours per week for hospitals and eight hours per month for nursing homes. If an institution does not employ a Registered Dietitian, an Institutional Nutrition Consultant must approve the qualifications of the individual employed by the institution. Orientation is provided to new dietitians, and workshops are conducted for dietitians and food service personnel to continue their education (24).

IV. OTHER NUTRITION SERVICES

Nutrition plays an active part in many projects or special programs. There are five Maternity and Infant Care Projects serving serving 17 counties offering prenatal care to women classified as "high risk." Directed toward the low-income population, these projects try to reduce the number of infant and maternal deaths, prematurity, and mental retardation that occurs in the "high risk" group. The nutritionist teaches patients about proper nutrition during pregnancy and about good infant feeding practices. Also, nutrition consultation is provided in the Children and Youth Projects to both children and their mothers. There are two clinics for evaluation of children with mental retardation and developmental problems, the Dade County Developmental Evaluation Clinic and the Tampa Diagnostic and Evaluation Clinic. A nutritionist works as an integral part of the diagnostic team (25).

Nutrition care is available to the migrant population through the Migrant Health Projects. Dietary counseling and nutrition

education is provided for the migrants through family health clinics. In-service programs are held for community health workers so that nutrition education may be included in their programs (25).

CHAPTER V

EXPERIENCES WITH THE REGIONAL NUTRITION CONSULTANT

I. OBSERVATIONS AND PARTICIPATION

The regional nutrition consultant, whom the student observed, provides services in the eight counties described in Chapter I. Each county varies in kinds of health department facilities available and in types of existing agencies. Therefore, the way services are offered is different in each county. Since the counties are basically rural in nature and small in population, they provide few services. It is difficult to offer comprehensive nutrition services in each county. Also, the counties are broadly distributed across the state, so that much of the nutrition consultant's time is spent in travel. Knowing these limitations, the nutrition consultant prepares annual program plans for the region. Nutrition consultant services are then offered to county health departments, to other service-oriented agencies, and to groups of private individuals.

Service Through County Health Departments

The regional nutrition consultant visits each county at least once a month to confer with the public health nurses and health officer and to assist where needed. She relies on the judgment of field personnel as to how she can best utilize her time in that county. These individuals make requests for programs and suggestions for in-service education for nurses and refer her to other agencies in the county

that might need her help. The nutrition consultant must inform these public health personnel as to what types of services she can provide for them and the county, so they will know how to utilize her time to the best advantage.

Three conferences with three different health officers were observed. In Highlands County the meeting was mainly for the student to meet the health officer and to learn about activities occurring in the county. The nutrition consultant advised the health officer of what she planned to do in the county that week. In Manatee County the conference was used to inform the health officer of the known fallacies in a currently popular fad diet. In St. Lucie County the nutritionist discussed the possibility for placement of a nutrition consultant in the tri-county unit. By talking with the health officer, the nutrition consultant can learn about programs and can tell him about her programs in the county. She can also inform him about current findings in the field of nutrition. Thus, the functions of these conferences are to keep the nutritionist abreast of developments in the county and to provide current information to the health officer.

As the student had never observed a conference with a health officer, this experience was valuable. These discussions provided an opportunity to meet three different health officers, who each had different viewpoints on the functions of the health department and on the role of nutrition within a health department. These opinions ranged from enthusiasm for nutrition, with specific suggestions to the nutritionist for future programs, to complete apathy with failure to

understand the function of a nutritionist. Thus, the student realized that many times nutritionists have to work to gain the confidence and cooperation of their fellow workers in the local health departments.

Meetings with public health nurses are another means of learning about programs and needs of the community. The student observed seven such conferences between the nutrition consultant and public health nurses. Each was different because of the varying needs within the departments. Nutrition problems with individual patients were usually a major part of each of these discussions. The nutritionist would make recommendations for the patient or ask to see the patient at the health department or on a home visit. In these discussions plans for future in-service education programs would be made with the supervisor or director of nurses. These meetings provide an opportunity for the nurses to learn of new developments in nutrition education materials.

Conferences with nurses are very important to the nutrition consultant as the student soon learned. They provide many insights for the nutritionist including attitudes of the community toward public health. It was observed that each community has a different viewpoint of public health. Also, each nursing director knows the needs of her staff and community for nutrition education; therefore, she can point out these needs to the nutritionist. Thus, working with nurses can save the nutritionist much time in planning her programs. Another way of working in the health department is through in-service education programs. The student assisted the regional nutrition consultant with one during the field course.

In preparation for the nursing in-service education program for Charlotte County, the director expressed the nurses' desire to learn more about nutrition for the school-aged child and adolescent. The director also thought the nurses should know something about the various nutrition surveys including the Ten-State Nutrition Survey. The nutritionist and student decided the student would present the information about nutrition surveys and about the school-aged child.

After reading the Highlights of the Ten-State Nutrition Survey and Hunger and Malnutrition in Florida, the student prepared an outline for her part in the in-service. It was felt that the national survey should be compared to similar studies in Florida. The nutritionist and student discussed ways and means to coordinate the program and determined what visual aids should be used.

At the in-service the student presented her material using a chart of the information in the Ten-State Survey and graphs of height and weight development of school-aged children. The nutritionist presented points on teen growth and development and need for nutrients. The nurses enjoyed helping to calculate the nutrients in a typical Type A School Lunch. From this they could see that the children receive about one-third of recommended nutrients for one day and therefore require many other nutritious foods during the day. Also, during the in-service posters, pamphlets, and a film, "The Owl and Fred Jones," were shown. The nurses were enthusiastic about ordering these materials for use in their clinics and on home visits.

Both the nutritionist and the student felt the in-service provided useful information to the nurses. They seemed to enjoy it

and to obtain considerable information from it. The part that the student presented to the group was an important, although sometimes tedious, statistical review. The student attempted to relate the statistical information to program objectives in a simple manner which would be understood by the audience.

This experience was very important to the student, as she had done no previous work with any in-service program for a professional group. Through conferences with the nutrition consultant, she learned the type of information that should be presented and the depth that the nurses need to know. It provided experience in organizing an in-service program and developing appropriate visual aids. In the actual presentation the student profited from talking to the nurses. Interest in the program can be maintained if the nutritionist considers the needs of the nurses in presenting nutrition education programs. Providing learning activities that involve the group helps in the retention of the material. Sometimes more is learned if the nutritionist briefly discusses a common concern regardless of whether it pertains to the topic. An example was a question concerning weight control in the group. Because of this experience, the student is confident that she is capable of presenting in-service programs to professional groups.

Another important responsibility of the regional nutrition consultant is providing dietary counseling to individuals. This is usually accomplished through referrals in clinics or through home visits with nurses. The most common clinics attended by nutritionists

are prenatal, well-child, and those for migrants. In the eight counties included in the field experience, these types of clinics are operated in only a limited capacity. The nutrition consultant attends the migrant clinic in St. Lucie County and the prenatal and well-child clinics in Highlands County once a month. The clinics in Manatee County are not attended by the nutritionist, but patients may be referred to her when she visits the county.

While the student was with the consultant, few patients were referred during clinics. This happened in all the clinics the student observed. Only one patient was referred to the nutritionist during the prenatal clinic in Highlands County and none during the well-child clinic. No individual patients were counseled in the migrant general clinic when the student was there, but the consultant showed a film to the group in the waiting room. Consequently, the student observed only one counseling session during a clinic and did not have the opportunity to do any counseling herself.

From the observed counseling session the student saw how Florida nutrition forms and education leaflets are used in talking to a patient. Since these materials are different from those used in Tennessee, this was valuable to the student. It was interesting to observe the method the nutritionist used in interviewing the patient. Through early establishment of a friendly rapport, the nutritionist was able to obtain information without directly asking many questions. This information was freely volunteered and the patient was led to discover where her eating habits needed to change, rather than being told.

The student feels this is a good technique and hopes to utilize it in the future.

Although there are no large county health departments in the nutrition consultant's region, the student did have opportunity to observe some nutrition activities in a metropolitan county health department. This was due to the fact that the consultant's office is located in Hillsborough County. One activity was visiting the Lee Davis Maternity Clinic, which is located in the model cities area of Tampa. The Hillsborough County Nutrition Consultant provides services to prenatal patients who utilize the clinic. All new patients attend a group class on their first visit to the clinic Friday mornings. During the class a public health nurse discussed several aspects of pregnancy and delivery, and a home economist of the Hillsborough County Extension Service served a dish that contained an inexpensive source of protein. The nutrition consultant talked about diet during pregnancy, emphasizing that foods should be selected from the Basic Four Food Groups and others limited or eliminated. When the patients return on Thursdays, the nutrition consultant counsels individuals who are referred to her by the public health nurses or doctor.

The experience helped the student to see a way that public health nurses, a county nutrition consultant, and a home economist work together to provide services to patients. It seemed a very effective way to teach general nutrition principles to pregnant women.

This clinic was quite different from those observed in the two rural counties because of the small numbers of patients and few staff

members available to handle them. In a small clinic patients at all stages of pregnancy are seen. Therefore, no class can be given for new patients; there are not enough of them. Also, there is rarely a suitable room for group instruction in these small county health departments. Most instruction is done on an individual basis. Small county health departments often cannot support the service of a nutrition consultant. Consequently, when the regional nutrition consultant visits a clinic, the first priority is patients with nutrition-related problems and then new patients if time permits.

The student feels that the fluctuation in number of patients seen by the nutritionist from 0 to 20 in the small counties could be remedied by having a nutritionist at each clinic every week. Then the nurses would be accustomed to referring patients to nutritionists. However, time and travel does not permit this now. Also, patients could make appointments to see the nutritionist when she is in town.

When the student visited Manatee County for home visits with public health nurses, two diabetic patients were counseled in their homes. The first was an elderly man on a 1400 calorie diet, who had been having difficulty staying on his diet. He was using a mixture of NPH (Neutral Protamine Hagedorn) and regular insulin and had been known to have insulin reactions. His wife prepared the food and tried to encourage him to eat only what she gave him. It appeared that she was not giving him enough food, especially milk, and was not using seasoning such as salt or herbs and spices in his food to make it more palatable. Because the man was illiterate and could not read

his diet, the student stressed the importance of giving everything that was included in the diet and encouraged the use of low calorie vegetables and sugar-free soft drinks as a filler for between meal snacks. She also emphasized the size of servings through use of a measuring cup and food models.

On the second home visit the student discussed the diabetic diet with the sister of an elderly patient. Both women were visiting relatives in Bradenton when one of them was taken to the hospital. Prior to her visit to Florida the woman had been taking oral medication for her diabetes and had been given some food restrictions but no specific diet in writing. At the hospital she was placed on insulin and an 1800 calorie diabetic diet. Use of the diabetic exchange lists was explained to the sister and several misconceptions about foods and about the use of "dietetic" foods were corrected during the visit. The woman thought a doctor had told her to avoid all forms of peas and beans except green beans and lima beans because of diabetes. With the exchange list the student pointed out how other forms of beans could be used, but told her to check with the doctor first.

Because the student has not had much experience with counseling individuals, this opportunity was helpful. It gave the student a chance to teach use of the diabetic exchange lists to a woman who knew very little about diabetes and to correct some of her misconceptions about food. This was the first time the student had talked to a relative of a new diabetic. It was also the first time the student

had counseled an illiterate person, which challenged her to devise ways of emphasizing portion size and number of exchanges.

Service Through Professional Agencies and Institutions

There are many ways the nutrition consultant works with agencies and professional persons outside the health department. One way is through in-service education. The first such education program that the student observed was presented to eight case workers of the Division of Family Services in Highlands County. This was the second program for the group and the subject was "Food Budgeting." The student participated by giving a short review of what had been covered in the previous program and then by participating in the discussion. The workers were very receptive to the material covered and they asked many questions about both general nutrition and food budgeting. They were especially concerned about how to apply the information gained to individual cases.

In preparing for this in-service the student reviewed material on food budgeting and food stamps. During the in-service the student noted that although the case workers had college degrees, they knew very little about nutrition. They were anxious to learn so that they could better serve the public. The questions they asked were quite basic and the student felt confident in helping to answer these questions.

The regional nutrition consultant works with county home economic extension agents. In Highlands County the nutritionist and student toured the new agricultural center and acquired new materials

for future use. While talking with a home economist, the nutritionist learned about problems a local day care center was having with menu planning. She offered to send educational materials which would help. Plans were made for a nutrition program for fourth and fifth grade children to be held in June. In Hardee County the home economist discussed the possibilities of developing a nutrition program for migrants on nutrition and food purchasing. Thus, the nutritionist learns about needs of the community and develops programs through the agricultural home economic extension agents in her region.

From these trips the student learned that regional nutritionists work with extension agents and she learned some of the types of activities the agent performs for the counties. It was observed that these agents work with other agencies including day care centers and that they are available to local health departments for consultation. Finally, extension agents perform a valuable service in making all kinds of educational materials available to the communities.

The regional consultant and the student held a meeting with the professor of home economics at Indian River Community College to learn about the courses offered to the public. The nutritionist was especially interested in a nutrition course offered to nursing students. At the time of this discussion, the college was searching for an instructor for the course. The nutritionist was concerned that a basic course be given to nursing students since they are frequently asked questions about nutrition by their patients.

The student had never realized that nutrition consultants worked with colleges before this meeting. Because this college is

community-oriented and only offers one course in nutrition, more work could be done to expand food and nutrition courses in the curriculum. The college will offer its first foods course, cake decorating, this summer. As more courses are presented in the future, the nutritionist might work to see that nutrition is included in the content of courses offered.

Another conference that the student observed was with the assistant administrator of Martin County Memorial Hospital. In this meeting plans were made for the promotion of the newly established, dietary counseling service and for a possible in-service program for hospital employees. This experience broadened the student's concept of the role of a nutritionist. She works with hospitals in the community through clinics and through education programs for the staff.

The nutrition consultant not only orders nutrition education materials for her counties, but she may participate in their creation. In April the nutritionist and student visited the Medical Director at the Alcoholic Rehabilitation Center in Avon Park. At this meeting part of a leaflet on food and alcohol was given to the director. She liked the layout and content of the leaflet and made suggestions about the content of the remaining part. She provided information on the physiology of how the body reacts to alcohol and lack of food. The nutritionist plans to include this information in the form of a story on the cover of the leaflet. It was felt that presenting information in story form would engender reader interest and assimilation of the information more easily. The student benefited from this interview

through learning basics about the alcoholism problem and by discovering different ways to present information in a leaflet.

The regional nutrition consultant visits institutions in the community upon request of the Institution Nutrition Consultants of the Bureau of Health Facilities or the local health department. The purpose of these visits is to correct problems found during inspections for licensure and certification or for sanitation. One such visit was to the Highland County Juvenile Home to check the progress made on menu planning since the last visit. The menus were neatly typed. Previously, they had been deficient in fruits and vegetables containing vitamins A and C; but at this time they were nutritionally adequate. The student toured the kitchen with the nutrition consultant as she looked at the new thermometers in the freezers and noted the new dishwasher. Both thermometers and dishwasher were needed to help with sanitation in the kitchen. One thermometer was not recording a temperature low enough for freezers. It was suggested that the thermometers be switched around to see if the fault was in the thermometer or in the freezer.

Another visit was made to a nursing home in Highlands County to investigate problems found in licensure inspection. The nutritionist and student found that the problems had been corrected before they arrived. The dietetic consultant for the nursing home had improved the menus and they met the minimum requirements at this time. Previously, the menus were low in vitamins A and C and high in the starch content. Also, therapeutic diets were not included in the menus. The time that

the evening meal was served had been changed to an hour later so that there would not be more than 14 hours between supper and breakfast. Plans were made to enroll the food service supervisor in an American Dietetic Association approved correspondence course to become a member of the Hospital, Education, and Institution Food Service Supervisors. The reports of sanitation inspectors were on file and a diet manual was used for prescribed diets. The nutrition consultant and student toured the kitchen and observed trays being prepared for a meal. It appeared that all recorded discrepancies found in the inspection were corrected or being corrected at the time of the visit.

This was the first time the student had ever inspected institutions with a nutritionist. Thus, she learned much from the experiences. It seems as though a typical problem in institutional menus is a lack of fruits and vegetables containing vitamins A and C. Dishwashers are needed for sanitation and thermometers are needed to be sure freezer temperatures are sufficiently low. Menus should be planned in advance and records of what is served should be kept on file for a year. Also, reports of sanitation inspectors should be kept on file. There should be no more than 14 hours between the evening meal and breakfast. Finally, food service supervisors need formal training.

Two courtesy visits were made to dietitians. Personal contacts advertise the availability of the nutrition consultant. The dietitian learns there is someone she can call on for help with her problems and can recommend to others as a resource person.

The regional nutrition consultant needs to know about on-going programs and organizations in the area. Therefore, the student and

nutritionist visited the Meals-on-Wheels program of both Charlotte and Manatee counties. Both programs serve the needs of older citizens by delivering meals to their homes, finding private duty nurses, providing homemakeing services and transportation for shopping or doctor's appointments, and reading to the blind. Charlotte County has the newer program which serves meals to 45 people. They have approximately 100 active volunteers delivering the meals and providing the other services. Manatee County serves meals to approximately 100 people. The student helped a team of volunteers deliver meals to twelve senior citizens. From a survey taken before the student arrived, it appeared that this was the only food the recipients were eating during the day. Often half of the meal was saved for the evening meal.

From her observations of the operation the student felt that the participants urgently needed the service because most were too old and senile to care for themselves. There is a definite need for such programs in the community. Volunteers can be organized to aid the elderly citizens by delivering hot meals to those who need them.

The student had the opportunity to visit the Tampa Diagnostic and Evaluation Clinic in Hillsborough County. This clinic evaluates children from birth through eight years of age for possible mental retardation. The diagnostic and consultative services included are pediatric, social, psychological, nutritional, speech, and hearing. Once a child has been seen by the personnel of each discipline, a staff conference is held to compile the findings and give recommendations. The clinic has a nutritionist who evaluates each child through

a dietary history and a one-week food intake record kept by the mother. The nutritionist gives nutritional guidance to the mothers. She is especially involved in the evaluation and follow-up of all children with phenylketonuria (PKU). While the student was at the clinic she observed an interview with a mother of a five year old PKU child who had been taken off her strict diet the year before. However, it had only been within the past two months that the child had started eating many meat and milk items. The nutritionist stressed the importance of including a complete source of protein to supplement the child's favorite food, peanut butter sandwiches.

Because the student had visited the Child Development Center in Memphis before going to Florida, this experience provided a good comparison between an agency that is training-oriented and one that is service-oriented. In Tampa the clinic is much smaller than the center in Memphis. The staff is responsible only for the services offered to the public, not for training personnel. The nutritionist in both plays an important part in the initial evaluation and follow-up of the patients, an interesting and exciting role.

Professional meetings and conferences are an important part of the regional nutritionist's activities. Conferences help keep the nutritionist informed about current theories and practices in nutrition and related fields. The student attended three such meetings with the regional nutrition consultant. The first was a regional nutrition section staff conference attended by nutritionists in the central portion of the state. During the meeting the Administrator

of the Child Health Section discussed some findings of the Medicaid Screening Program in children, including the numbers having low hemoglobin, a high incidence of dental caries, skin problems, and sickle cell anemia. The Institution Nutritionist Coordinator spoke about her work with institutions emphasizing food cost and the need for standards in state institutions. An Institution Nutrition Consultant discussed problems encountered by the group with the institutional survey forms for licensure. There was an opportunity to hear about the programs in which each of the nutritionists was participating. The training coordinator told of plans for students and shared her knowledge of new educational materials with the group. The Administrator of the Nutrition Section talked about legislation and other programs of interest to nutritionists.

Observation of a staff conference gave the student an opportunity to meet and talk with nutritionists working in the state. Hearing about the happenings in the Child Health Section and in the state institutions increased the student's knowledge of public health programs in the state. From the many nutrition consultants present the student realized that there are many ways that nutrition is involved in health programs.

The student also attended the April meeting of the Tampa Dietetic Association with the nutrition consultant. A local physician who has a number of hypoglycemic patients spoke about the various types of this disease and of their treatments. After his presentation a business meeting was held. From this meeting the student learned

more about the disease of hypoglycemia. Also, she heard about the concerns of the local dietetic association.

A third meeting the student attended was that of the Hillsborough County Nutrition Committee. The group was composed of dietitians, nutritionists, and other persons interested in nutrition. Because the speaker was unable to come, a general business meeting was held. In it various concerns of the members about therapeutic and fad diets were discussed. Since the nutrition consultant was well informed on these matters, she was able to clarify many questions for the members. This caused the student to realize that a nutrition consultant must provide answers for members of her own profession; therefore, she must be aware of the most current facts and fallacies.

Services to Citizen Groups

A final program that the student participated in was given to Pounds-A-Weigh, a weight reduction program in Charlotte County. For this program the nutrition consultant ordered a film on changing food habits entitled "The Owl and Fred Jones." The group quickly recognized their own problems as illustrated in the excellent film. Many questions were asked concerning dieting and the need for vitamin supplements. The nutritionist discussed the nutrient content of various foods using comparison charts. The student assisted with the charts and with the discussion. The group was very receptive to the presentation because of their interest in weight control. It was apparent that they learned a great deal from the program and that they had several misconceptions corrected. It was good for the student to

observe a program involving weight reduction with a lay group. She now understands the type of information that should be included in such a program.

In order to know what is happening in the community, the nutrition consultant visits many organizations. In Port Charlotte there is a community college for senior citizens called Port Charlotte "U." It has a Senior Lounge which is a very attractive meeting place for the older adults. It provides areas for game playing, selling of crafts, visiting with friends, and eating meals. Food for 200 lunches is prepared in the tiny kitchen. It is interesting to note that the lounge was built with donations from the community. The nutritionist and student met with the director and she conducted them about the center. The nutrition consultant advised the director of the type of services she provides and offered to assist in the activities of the lounge in any way she could, including programs and education materials. From this experience the student observed another area of service that she had not thought about before. A nutritionist provides assistance to any organization in the community desiring her help.

Miscellaneous Activities

A large volume of office work occurs within a region covering eight counties. Each service provided in a county must be coded and reported to the county health department clerk. Narrative reports of each trip must be sent to the Administrator of the Nutrition Section and to other concerned persons or agencies. An annual report of the

year's work and the annual program plan for the coming year must also be submitted.

A large volume of mail crosses the nutrition consultant's desk each day. Weekly and monthly journals and newsletters must be read and filed. Requests for educational literature are sent to the Health Education Section, federal and state agencies, and private companies and associations. When materials are received, they must be reviewed and filed. The nutrition section in Jacksonville frequently sends copies of journal articles and other materials to keep the consultant informed of current nutrition items. Many requests for services in the counties are received by letter. These must be answered and acted upon. The nutrition consultant does much of her preparation for programs and counseling in her office. Programs must be prepared and visual aids must be made. Films and other audio-visual materials must be ordered in advance of the presentation.

II. AN IN-SERVICE EDUCATION PROGRAM FOR SCHOOL

FOOD SERVICE WORKERS

The special project selected during the field experience was for the student to teach an in-service education class on nutrition to school food service employees. The Director of the School Food Service of Manatee County teaches a 30 hour training program in 15, two-hour sessions. All of the food service workers employed by the Manatee County School Board must take the course before being promoted. It gives the workers information in food service, management,

and state regulations. One session is devoted to nutrition. The director uses a resource person to teach the nutrition component.

Although the student had considerable experience in teaching children in the public schools, she needed to develop skills for use in adult education. Also, since she had little experience in working with food service personnel, the nutrition in-service would improve her competence in working with food service personnel and would broaden her scope of public health nutrition services.

Planning

A planning conference was held with the Director of the School Food Service to discuss the nutritional factors to be taught in the program. The director was specifically concerned with general nutrition including the Basic Four Food Groups and the Type A School Lunch. She thought a film would assist in the presentation and had two films for the student and nutrition consultant to review.

As these films were being shown, it became apparent that they were produced several years ago and were filmed in black and white. Neither was suitable for the group. Therefore, a film was ordered from the Health Education Section in Jacksonville. This film, "Food for Life," from the Dairy Council of California was previewed by the student and nutrition consultant and was found to be excellent for the needs of this class.

After this conference with the Director of the School Food Service, the student read A Menu Planning Guide for Type A School Lunch from the United States Department of Agriculture and decided upon the following objectives for the class.

1. To identify foods in each of the Basic Four Food Groups.
2. To identify foods that provide specific nutrients.
3. To recognize the foods a Type A School Lunch must contain.

There were six concepts to be presented.

1. Food contains the nutrients needed for life.
2. When all the body's needs for nutrients are not met, malnutrition is the result.
3. The Basic Four Food Groups are guides used to insure that all the recommended nutrients are included in the day's diet.
4. Type A School Lunch provides approximately one-third of nutrients recommended for each day.
5. Method of food preparation is important in preserving the nutrient content of foods.
6. Calories are important for life, but too many result in overweight.

The Director of the School Food Service was especially concerned that the workers learn concepts three, four, and five. The student felt that the importance of the others, one, two, and six, could not be overlooked. An effort was made to give emphasis to each of the concepts.

Development

Audiences retain more information when it is presented visually as well as orally; therefore, the presentation contained visual aids designed to make the presentation more effective. To illustrate the Basic Four Food Groups a poster "Every Day Eat the 1, 2, 3, 4, Way"

was obtained from the Dairy Council. This chart portrays the food groups colorfully and is appealing to the eye.

Working with the Type A School Lunch was a challenge. Prior to the in-service program a telephone call was made to the Director of the School Food Service. The purpose was to determine which menu would be used the day of the in-service. A poster was made listing the menu. Also, the nutrient compositions of the meal was calculated and the percentages of the Recommended Daily Allowances for 10 to 12 year old children was determined. These calculations were placed on posters and a large chart illustrating the percentage of Recommended Daily Allowances was drawn. Examples of these charts are included in Appendix A.

Activities were planned to actively involve the members of the group. One of these activities utilized empty food containers and the Basic Four Food Groups. In another one the student used plastic food models to illustrate the caloric content of various foods. Comparison charts were also used to illustrate the comparative food value of various foods.

Presentation

Twenty food service workers attended the in-service. After standing in hot kitchens during the day, workers initially appeared to be tired and disinterested. The class began with a general discussion about the purpose of food and the results of malnutrition. Then the class changed rooms to watch the film. The film "Food for Life" introduces the concepts of malnutrition and the Basic Four Food Groups.

Unfortunately, during the middle of the film the projector broke! Beginning to realize that things do not always go as expected, the student located a new projector. While it was being readied, the Basic Four Food Groups were discussed with the class along with the part of the film that had been seen. Thus, the student was able to cope with the unexpected. The workers responded well during the discussion and were asking many questions by the time the film was continued.

After the conclusion of the film the student stimulated discussion by asking the group questions about it. Then the workers participated in an activity using the Basic Four. Five groups were formed within the class, each receiving empty food cartons to categorize into the Basic Four Food Groups. The class learned the importance of reading labels to learn the food contents of the products.

Using the visual aids that the student had prepared, the discussion of the Type A School Lunch was begun. Most of the workers knew the federal regulations. Using this knowledge, they were then asked to compare the contents of that day's school lunch with the guide-lines set by the government. The nutrient content of the meals was examined. Most were startled to realize the large amount of the Recommended Daily Allowances the lunch provided.

Through use of the food models the calorie content of foods was discussed. The group discovered that the size of the serving is important. The student began to compare the nutrient content of various foods using the comparison charts; several of these were

discussed. In spite of the late hour the ladies were most enthusiastic and good humor prevailed throughout the discussion. The student was most elated by the excellent rapport obtained with the group. The outcome tremendously bolstered the student's confidence in her professional abilities.

Evaluation

The group's reaction to the nutrition in-service indicated that it was an enjoyable learning experience. Many questions were raised leading to profitable discussion.

The visual aids contributed to the presentation because they provided a break in the rather lengthy presentation and gave the student something to relate to as she talked. The film provided information in a factual, yet humorous way. It was something the student could refer to throughout the program. The posters and charts helped to demonstrate the nutrients in a Type A School Lunch. With them the workers realized that the school lunch contributes to the nutritional status of school-aged children.

The planned activities involved the group in the program. Everyone enjoyed deciding where the contents of the various food cartons should be placed in the Basic Four Food Groups. The food models stimulated discussion about calories and portion size.

The student profited greatly by teaching the nutrition in-service class. All objectives previously outlined were accomplished. Thus, through the activity with the food cartons the employees demonstrated that they could successfully identify foods in each of

the food groups. When they were asked questions by the student concerning certain nutrients, most could state foods containing these nutrients. After reviewing the federal guidelines the group analyzed the menu for the day and decided it met the nutritional requirements for a typical Type A School Lunch.

The process of planning and teaching a complete nutrition in-service increased the student's self-confidence in her ability to act as a public health nutritionist. Her understanding of the cooperation existing between health and school food services was enlarged. The student gained experience and technical competence in executing an in-service education program on nutrition. She applied her prior knowledge of basic nutrition and new facts acquired about Type A School Lunches to a teaching situation. It furthered her teaching skills by presenting an opportunity to work with adults. Appreciation of the importance of visual aids was gained; the stimulation of learning and the help in the retention of knowledge make them a great help in teaching the principles of nutrition.

The food service workers benefited from the in-service. A letter of appreciation from the School Food Service Director is included in Appendix B.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The student feels that she accomplished the major objectives of her field experience. For the first objective her knowledge of nutrition and skill in applying that knowledge was increased through counseling two diabetic patients, assisting with an in-service training program for public health nurses, and teaching a nutrition education class to school food service workers. For each of these activities literature was reviewed and the knowledge gained was applied to the situation.

For the second objective programs providing a wide range of services to the community were observed. Public health nutritionists must be aware of these programs and be able to assist in them whenever possible. The nutritionist provides the nutritional expertise to agencies requiring her services.

As expressed in the third objective, the student became involved in the planning and evaluation process with the regional nutrition consultant. This was especially evident in the in-service for nurses and in the class for the school lunch food service workers. Each program was fully planned, presented, and evaluated. While the student did not plan a year's program, she reviewed the program plans the nutritionist had developed and discussed them with her. The student is confident that she can now plan and present programs as a public health nutritionist.

For the final objective the student believes her philosophy of public health has been strengthened. Because of the field course, the student was able to talk to a large variety of public health professionals. From them she learned a great deal about the organizations, functions, programs, and goals of public health. Throughout the experience she has been impressed by the dedication of public health professionals. The field course has enabled the student to look forward with confidence to the time when she can serve as a public health nutritionist.

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APPENDIXES

APPENDIX A

CHARTS USED FOR THE SPECIAL PROJECT

TODAY'S MENU

Chicken and Noodles

Buttered Carrots

Cabbage Slaw

Roll, Butter

Strawberry Shortcake

Milk

NUTRIENTS IN TODAY'S MENU

Food	Portion size	Energy	Pro- tein	Cal- cium	Iron	Vita- min C	Vita- min A
		cal.	gm.	mg.	mg.	mg.	i.u.
Noodles	2/3 C.	106	3.5	8	0.8	-	-
Chicken	2 oz.	158	22.6	16	1.7	-	-
Carrots	2/5 C.	28	0.6	25	0.7	2	10,000
Butter	1 pat	50	-	1	-	-	230
Cabbage	1/2 C.	12	0.6	25	0.2	24	65
Oil	1 Tbsp.	31	-	-	-	-	-
Roll	1 med.	109	3.4	16	0.8	-	-
Butter	1 pat	50	-	1	-	-	230
Shortcake	1	121	3.2	4	0.1	-	-
Strawberries	1/4 C.	70	0.3	9	0.5	34	19
Whipped topping	1 Tbsp.	10	-	-	-	-	30
Milk	1 C.	159	8.5	288	-	2	340
Total		904	42.7	333	4.8	62	10,914

COMPARISON OF NUTRIENTS AND RECOMMENDATIONS

	Energy	Pro- tein	Cal- cium	Iron	Vita- min C	Vita- min A
	cal.	gm.	mg.	mg.	mg.	i.u.
Total nutrients served	904	42.7	333	4.8	62	10,914
Recommended Daily Allowances						
Boys ages 10-12	2500	45	1200	10	40	4,500
Girls ages 10-12	2500	50	1200	18	40	4,500
Percentage of RDA the lunch provided						
Boys ages 10-12	36%	95%	28%	48%	155%	243%
Girls ages 10-12	40%	85%	28%	27%	155%	243%

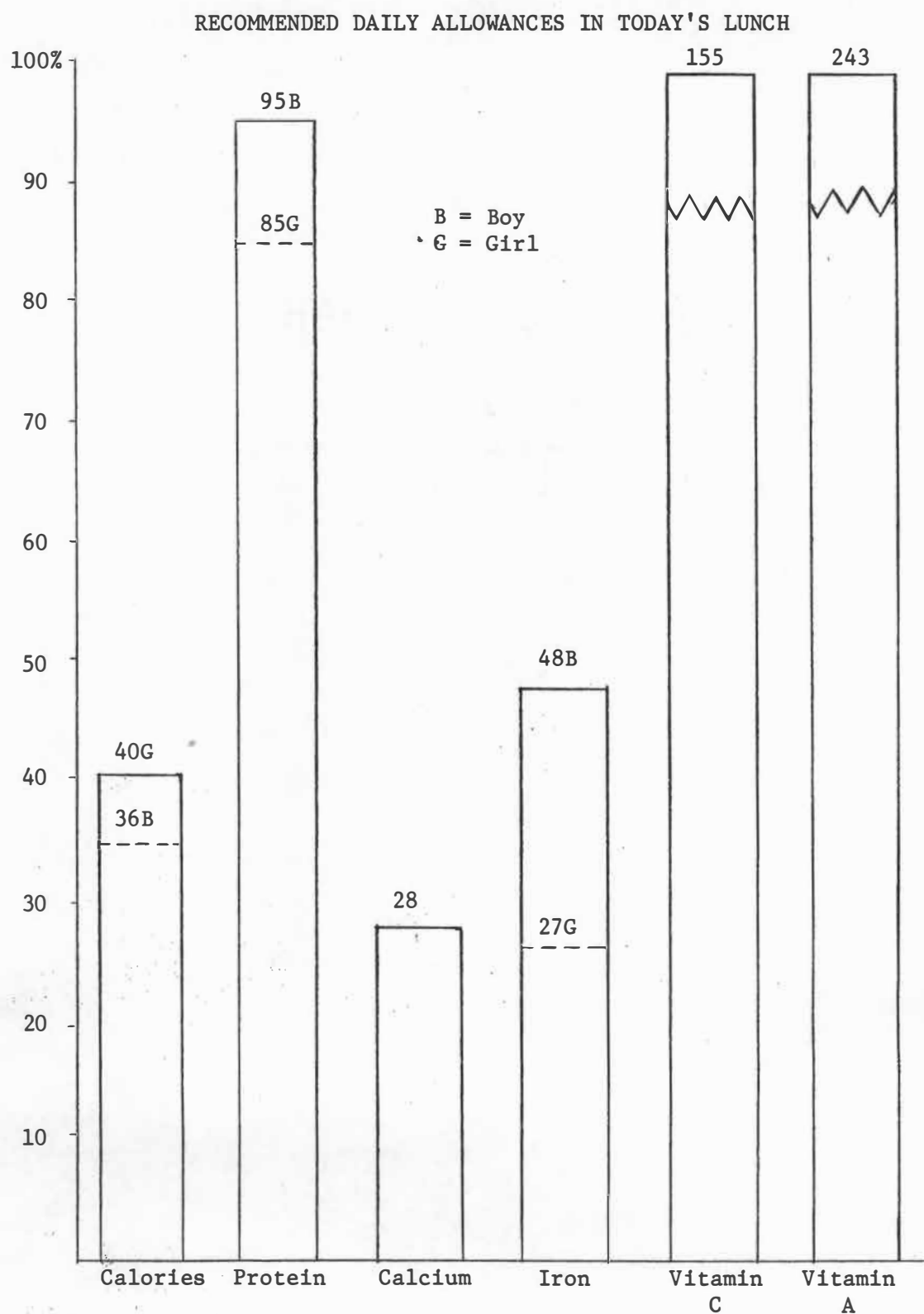


Fig. 4. Percentage of recommended daily allowances in today's lunch.

APPENDIX B

LETTER FROM THE SCHOOL FOOD SERVICE DIRECTOR

May 18, 1973

Mrs. Diane Koenig, R. D.
Regional Nutrition Consultant
Tampa Regional Laboratory
P. O. Box 2380
Tampa, Florida 33601

Dear Mrs. Koenig:

The accounts I have received from the members of the foundations class last Thursday have been very enthusiastic about Mrs. Fowlkes presentation.

I am most grateful to you for arranging it. I'm sure she should have a superior rating for her performance.

My apologies for leaving so soon. I am glad her instructor arrived in time to see her in action.

Since we do not have Mrs. Fowlkes address, I have enclosed her carbon copy of my letter with yours.

Sincerely,

Lucy Tokheim, Director
School Food Service
Manatee County

LKT/sas

cc: Mrs. Susan Fowlkes
cc: Mildred Kaufman

VITA

Susan Morrill Fowlkes was born in Miami, Florida, on September 23, 1948. Being from a Coast Guard family she received her elementary and high school education in many places. She received her Bachelor of Science in Home Economics Education, cum laude, from the University of Georgia in 1971. She worked as a Vocational Home Economics teacher in Worth County, Georgia, for one year. In July of 1972 she entered the University of Tennessee to study for a Master of Science degree in Nutrition. Phi Kappa Phi and Phi Upsilon Omicron are societies of which she is a member. She is married to James B. Fowlkes of Dickson, Tennessee.