An Analysis of the Field Experience with the Florida Division of Health

Charlotte Ann McDowell

University of Tennessee, Knoxville

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To the Graduate Council:

I am submitting herewith a thesis written by Charlotte Ann McDowell entitled "An Analysis of the Field Experience with the Florida Division of Health." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Nutrition.

Mary Nelle Traylor, Major Professor

We have read this thesis and recommend its acceptance:

Mary Rose Gram, Cyrus Mayshark

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)
July 7, 1972

To the Graduate Council:

I am submitting herewith a thesis written by Charlotte Ann McDowell entitled "An Analysis of the Field Experience 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.

[Signatures]

Major Professor

We have read this thesis and recommend its acceptance:

[Signatures]

Accepted for the Council:

[Signature]

Vice Chancellor for Graduate Studies and Research
AN ANALYSIS OF THE FIELD EXPERIENCE 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
Charlotte Ann McDowell
August 1972
ACKNOWLEDGEMENTS

The guidance of Miss Mary Nelle Traylor, Assistant Professor of Nutrition, during the year was most appreciated. Dr. Mary Rose Gram Professor of Nutrition, and Dr. Cyrus Mayshark, Associate Dean in the College of Education, provided additional direction for the student.

The student also wishes to thank Miss Mildred Kaufman, Administrator of the Nutrition Section for the Florida Division of Health, for allowing her to participate in the nutrition program of that state. The planning of Miss Frances Hoffman, Nutrition Training Coordinator, and the direction of Miss Doris Young, Regional Nutritionist, were necessary for the successful completion of the experience.

Financial support from the Public Health Service for the year of study is gratefully acknowledged. The student's parents, Mr. and Mrs. Thomas R. McDowell, must be given credit for their continued reassurance during the year.
ABSTRACT

The seven-week field experience was designed to increase the student's understanding of public health. She was also to develop her awareness of factors which affect public health program planning and the coordination of the roles of the public health nutritionist with the roles of other health workers.

These objectives were achieved through observation and participation in the program of the Nutrition Section of the Florida Division of Health. A review of environmental influences, health-related statistics, and the existing administrative structures of the Division of Health and the Nutrition Section was related to health program planning. The professional characteristics of the public health nutritionist were assessed and applied to the functional aspects of administration, consultation, and instruction. A project in in-service education for public health nurses is discussed, and its impact on the participants evaluated.

A principle of the public health philosophy described perceives the public health nutritionist as a specialized health professional with responsibility for leadership in achieving and maintaining adequate nutritional status. The influences of community cooperation on program planning and of coordination with other health workers on the role of the public health nutritionist is discussed.
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</table>
CHAPTER I

INTRODUCTION

Nutritional care is the application of nutrition science to the health care of the people (1). As the member of the health care team responsible for the nutritional care services, the public health nutritionist must understand her relationship to the other disciplines in the field. She must have a philosophy of public health which enables her to coordinate nutrition activities with the other programs of a department. To develop this philosophy is one of the reasons that persons providing health services seek further education. Through academic training they can increase their expertise in a specific field. To be a public health nutritionist implies a competence in human nutrition. Choice of a minor field of study broadens the outlook of the student and provides an added dimension to his training, for to be a public health nutritionist also implies an orientation toward maintenance and improvement of the health of all groups in the society and leadership in health and nutritional planning (2).

The field experience plays a unique part in professional development as it allows the student the opportunity to integrate facts and situations. She must determine the relevance of her knowledge to an environment, then communicate her recommendations. How she reacts to that situation and what she chooses to communicate will be a reflection of her philosophy.

Therefore, the student proposed objectives for the field experience which reflected the previous academic training and experiences and which
served to enlarge her public health philosophy and create an understanding of her role in the public health field. The objectives for the seven-week field experience completed in the state of Florida were as follows:

1. To implement the development of a philosophy of public health.

2. To increase the awareness of the various factors which influence health programs.

3. To increase the understanding of the role of the public health nutritionist in relation to the roles of other health workers.
CHAPTER II

FACTORS IN FLORIDA HEALTH PROGRAM PLANNING

Various factors influence health program planning. The topography, the population, and the existing administrative structures at the state and community levels affect program development.

I. ENVIRONMENTAL INFLUENCES

Florida means a bower of flowers (3). Plants respond to its climate by producing year round foliage and beauty. The eight county region selected for the field experience lies in the south central portion of the state in the heart of the Florida citrus belt. This area including Charlotte, DeSoto, Hardee, Highlands, Martin, Manatee, Okeechobee, and St. Lucie Counties is shown on the map of Florida in Figure 1. Florida ranked first as the nation's producer of oranges in 1969 (4). In this region, lands not suitable for groves produce grass where cattle ranches and dairies prevail. Except for Highlands, Hardee, and DeSoto Counties which are part of the Central Highlands terrain of low hills and flat lands, the region is Coastal Lowlands and is generally quite level (5).

Agricultural work represents the principle source of income for many inhabitants. All crops marketed in 1969 represented a 961 million dollar business for Florida (4). Often migrant workers cultivate and harvest the crops. Manufacturing employment also reflects the agribusiness as food processing is the main industry of the region (5).

This area is favored with the famed Florida weather which draws people to retire here. These counties have an average January temperature
Figure 1. The map of the state of Florida showing the eight county region for the field experience and the counties participating in Migrant Health Projects in 1970.
of 63 degrees and an average August temperature of 82 degrees (5). They have shared in the immigrant influx. Of the average monthly gain in population in Florida in 1969, 77 percent were in-migrants to the state (6).

II. HEALTH-RELATED STATISTICS

The climate and the immigration are keys to the assessment of the public health situation. Since the ground does not freeze, bacteria and fungi have a favorable environment. Mosquitoes breed near the large inland water areas. The Florida State Board of Health was formed in response to the yellow-fever epidemic of 1888 (7). Increased chronic disease death rates have been related to the use of Florida as a retirement haven (6). In 1969, 13.2 percent of the population of Florida were 65 years of age and older (6) as compared to 9.7 percent in the total United States population (8). Many of these older people have limited resources to provide adequate health care for themselves.

The ten leading causes of death are used as health indicators. This list for 1969 for the United States, Florida, and the eight counties of the region is shown in Table 1 (6, 9). The pattern for the state is similar to the nation with diseases of the heart, malignant neoplasms, cerebrovascular disease, and all accidents being the four leading causes of death. This is also true for the counties when the three leading causes of death are considered. After that, variation occurs which is inconsistent among the counties. This may be a reflection of the relatively small number of deaths recorded for certain causes. Certainly the facts that diabetes mellitus was in the listing for all but DeSoto
<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>U.S.*</th>
<th>Fla.</th>
<th>Charlotte</th>
<th>DeSoto</th>
<th>Hardee</th>
<th>Highlands</th>
<th>Manatee</th>
<th>Martin</th>
<th>Okeechobee</th>
<th>St. Lucie</th>
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<tbody>
<tr>
<td>Diseases of the heart</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Malignant neoplasms</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<td>2</td>
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<tr>
<td>Cerebrovascular disease</td>
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<td>3</td>
<td>3</td>
<td>3</td>
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<td>3</td>
<td>3</td>
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<td>All accidents</td>
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<td>5</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>7</td>
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<td>Bronchitis, emphysema, asthma</td>
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<td>6</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>5</td>
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<td>5</td>
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<td>Certain causes of mortality in</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>early infancy</td>
<td>6</td>
<td>7</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>-</td>
<td>8</td>
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<td>6</td>
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<td>Cirrhosis of the liver</td>
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<td>8</td>
<td>7</td>
<td>9</td>
<td>-</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
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<td>9</td>
<td>8</td>
<td>-</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>6</td>
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<td>Arteriosclerosis</td>
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<td>10</td>
<td>9</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>5</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Suicide</td>
<td>-</td>
<td>11</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>7</td>
<td>-</td>
<td>8</td>
<td>-</td>
<td>10</td>
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<td>Peptic ulcer</td>
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<td>8</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Infections of the kidney</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>

*Provisional statistics.

County and that peptic ulcer was shown in the ten leading causes of death in Charlotte, DeSoto, Hardee, and Manatee Counties are of interest to the nutritionist. Cirrhosis of the liver which ranked higher as a cause of death in Florida and the eight counties than in the nation has nutritional implications.

The resident birth, death, and infant mortality rates also give clues to areas for emphasis in health program planning. These are shown for the United States, Florida, and the eight county region in Table 2 (6, 9). Florida has a slightly lower birth rate but a higher infant mortality rate than the nation as a whole. This trend is true for the eight county region. The high infant mortality rates of Charlotte, DeSoto, Hardee, and Okeechobee Counties are startling. With the exception of Hardee County all of the counties in the region had higher resident death rates than the state of Florida or the nation.

III. ORGANIZATION OF THE DIVISION OF HEALTH

The Florida State Board of Health was organized in 1888. With governmental reorganization in 1969, the board became the Division of Health of the Florida Department of Health and Rehabilitative Services. In addition to the administrative area which includes planning, health education, personnel, public health nursing, child health, and nutrition, the division has 13 bureaus and an Epidemiology Research Center which receives a part of its supervision from the Bureau of Research but remains organizationally part of administration (5), although it is not included in the administrative organization which is shown in Figure 2 (10).
Table 2. The resident birth and death rates per 1,000 population, and infant mortality rates per 1,000 live births, by race, for the United States, Florida, and the eight county region in 1969.

<table>
<thead>
<tr>
<th>Resident Rates</th>
<th>U.S.*</th>
<th>Fla.</th>
<th>Charlotte</th>
<th>DeSoto</th>
<th>Hardee</th>
<th>Highlands</th>
<th>Manatee</th>
<th>Martin</th>
<th>Okeechobee</th>
<th>St. Lucie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth rate</td>
<td>17.7</td>
<td>16.9</td>
<td>9.6</td>
<td>14.9</td>
<td>18.0</td>
<td>15.3</td>
<td>13.3</td>
<td>17.7</td>
<td>20.8</td>
<td>18.5</td>
</tr>
<tr>
<td>White</td>
<td>15.5</td>
<td>9.5</td>
<td>12.0</td>
<td>16.7</td>
<td>13.2</td>
<td>11.4</td>
<td>15.7</td>
<td>15.7</td>
<td>21.1</td>
<td>15.6</td>
</tr>
<tr>
<td>Nonwhite</td>
<td>23.7</td>
<td>12.5</td>
<td>25.0</td>
<td>28.8</td>
<td>22.7</td>
<td>24.3</td>
<td>26.2</td>
<td>19.3</td>
<td>23.9</td>
<td></td>
</tr>
<tr>
<td>Death rate</td>
<td>9.5</td>
<td>11.4</td>
<td>21.7</td>
<td>12.0</td>
<td>10.4</td>
<td>16.5</td>
<td>17.5</td>
<td>15.5</td>
<td>13.6</td>
<td>12.1</td>
</tr>
<tr>
<td>White</td>
<td>11.8</td>
<td>21.7</td>
<td>12.2</td>
<td>10.2</td>
<td>17.5</td>
<td>18.7</td>
<td>16.5</td>
<td>12.6</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
<td>Nonwhite</td>
<td>9.6</td>
<td>22.5</td>
<td>11.3</td>
<td>11.9</td>
<td>12.5</td>
<td>10.6</td>
<td>11.1</td>
<td>19.3</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>20.7</td>
<td>22.6</td>
<td>39.0</td>
<td>34.7</td>
<td>51.9</td>
<td>17.6</td>
<td>21.2</td>
<td>18.7</td>
<td>33.7</td>
<td>27.8</td>
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<tr>
<td>White</td>
<td>18.2</td>
<td>35.9</td>
<td>39.4</td>
<td>49.1</td>
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<td>15.7</td>
<td>16.1</td>
<td>39.1</td>
<td>17.3</td>
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<tr>
<td>Nonwhite</td>
<td>35.8</td>
<td>100.0**</td>
<td>26.7**</td>
<td>65.2**</td>
<td>23.6</td>
<td>35.9</td>
<td>25.4</td>
<td>0.0**</td>
<td>41.0</td>
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</tr>
</tbody>
</table>

*Provisional statistics, race unavailable.

**Based on less than 100 live births, which limits the significance of the rate.

Figure 2. The administrative structure of the Division of Health of the Department of Health and Rehabilitative Services of the State of Florida.
The Director of the Division reports to the Secretary of the Department. Those section administrators in the administrative area report to the Director. The other 12 section administrators communicate through the appropriate bureau chiefs to the Director. During the period of observation, the previous Bureau of Maternal and Child Health was divided into the Bureau of Maternal Health and Family Planning and the Section of Child Health.

Florida has had a State Migrant Health Project funded by the Public Health Service since 1964 (11). The 12 counties participating in nine projects in 1970 are shown in Figure 1 (10). The projects in Dade and Palm Beach Counties are funded separately (10). At a seminar presented by the section administrator, the problems of many of the migrant workers and the steps being taken to alleviate them were explained (12). A contract was negotiated with the Public Health Service to conduct a nutritional status evaluation and remedial outreach program for migrant agricultural workers and their families in Palm Beach and Lee Counties. The program included medical and dental examinations, wrist bone x-ray for evidence of malnutrition, biochemical tests for blood and urine levels of key nutrients, and assessment of nutrient quality of food intake of some 2,200 adults and children (13). This was completed in 1972.

Other special projects which are under the administration of the Division are those for maternal and infant care and children and youth health services. The infant mortality rate in Florida indicates a continuing need for health services for this high-risk group. There are five Maternal and Infant Care Projects located in Florida (10), although
none of them are located in the eight county region chosen for the field experience. There are also two Children and Youth Projects in Dade County.

The Bureau of Dental Health program emphasizes the prevention of dental disease. This means the active promotion of water fluoridation or of defluoridation in areas with excessive natural fluorides. The present dental health program also provides dental inspection and parent consultation for preschool and school children in areas lacking dental manpower resources (14). In 1971, 33 county health departments had dental programs with 29 full-time clinical dentists, six part-time licensed dentists, and 15 fee-for-service dentists who work in public health clinics (13).

The Bureau of Laboratories provides laboratory support for service, regulatory, and research programs of county health departments and the bureaus and sections of the Division of Health. Florida has a Guthrie screening program for the detection of phenylketonuria. These tests are analyzed at the laboratories in Jacksonville and Miami (13).

The Health Education Section sends appropriate materials to whoever requests them. A large selection of films is available. They also develop educational and audiovisual aids for the other sections and bureaus of the Division (15).

The 67 county health departments form the service base of the state health division program. In 1970 the Division employed 2,486 people at the county level and 936 persons at the state level (10). The minimal staff of a county department consists of a health officer, a public
health nurse, a sanitarian, and a clerk. Additional staff depends upon the population and the budget of the particular county.

At the local level the programs are integrated for the provision of health services to the people. The screening programs of the Bureau of Adult Health and Chronic Diseases, immunization programs administered by the public health nurses, and the tuberculosis control programs are examples of services widely available. These services are designed to meet those needs indicated by the vital statistics for the county and the state. In order to hold a screening program the agreement of the local medical society, the county health department, and a community club sponsor is necessary (16). For example, such a program to detect diabetes mellitus was conducted in 11 counties in 1970 (10). These counties were selected on the basis of need and local approval of the project.

The cost of maintaining the public health structure in Florida in 1970 was 47.2 million dollars. The money came from state appropriations, local finances, federal grants, and other grants and donations. Special grants for maternity and infant care, children and youth health services, tuberculosis control, migrant health, family planning, health services for Cuban refugees, and pesticide studies were also used for funding (13).
CHAPTER III

THE NUTRITION COMPONENT IN FLORIDA HEALTH SERVICES

In 1915 pellagra was a relatively common cause of death in Florida exceeded only by cardiovascular renal diseases, cancer, and tuberculosis. It was this disease that pushed the State's nutrition program into action when the State Board of Health undertook aggressive measures aimed at diet improvement (7).

Anemia was a primary factor in the organization of the Department of Nutrition Investigations and Services within the State Board of Health in 1946. Florida was the first state in the country to organize such a service. From 1950 to 1958 Nutrition and Diabetes Control were combined in a division. From 1958 until 1972 the Division, then Section, of Nutrition was a part of the Bureau of Local Health Services (7). It is now a section in the administrative area.

I. THE OBJECTIVES FOR NUTRITION SERVICES IN FLORIDA

The objectives of the Nutrition Section of the Division of Health form a part of the explanatory material on the nutrition program in each county health officer's manual (17). These objectives are as follows:

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 to 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 to guide 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 service 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.

II. THE NUTRITION SECTION ORGANIZATION

The Administrator of the Nutrition Section is directly responsible to the Director of the Division of Health. The Administrator of the Section now heads a staff of 41 public health nutritionists. State consultants, regional, county, and special project nutritionists, and nutrition residents provide the services of the Section.

Four positions for nutrition residents have been developed. In this way it is possible to employ a person without a Master's degree who will be assigned to a county or an area of several counties which have expressed an interest in a nutritionist. They attend seminars while in residency, and the opportunity for further education on full salary is afforded them.

Administration

The Administrator of the Nutrition Section directs the work of the staff and plans the role that the Section will take in the development of nutrition services for the people of Florida. The planning is done in cooperation with the staff.

A regional staff meeting illustrated the close communication which the Administrator maintains with the staff. The Administrator reported
on happenings at the state level which would affect the staff while the regional, county, and special project nutritionists responded with reports of current program work. She emphasized the place of pertinent trip reports in adequate program planning and evaluation. These reports should indicate that the work accomplished related to the proposed goals for the year (18).

The Administrator provides the budget estimates for the section. She prepares a yearly legislative budget request in August for the coming fiscal year. Funds from the state, federal grants-in-aid, and grants and donations are used to provide the services planned in the program (19).

To support these budget requests, planning and evaluating are continuing processes for the Administrator. Monthly narrative and statistical reports are required from each nutritionist and the annual report for the section is included in the Division of Health Annual Report (10). To meet the projected needs of the state, the recommended budgeted nutritionist positions would be one day per week per 10,000 population or one full time nutritionist per 50,000 population. Currently they have reached the half-way point toward their goal (20).

**State Consultants**

Six state consultants serve in their fields of expertise such as training, maternal and child health, and institutional nutrition. Their principle emphases in coordination of services are with the Bureau of Adult Health and Chronic Diseases, the Bureau of Maternal Health and Family Planning, the Bureau of Local Health Services, and the Sections of Child Health and Public Health Nursing.
The nutrition training coordinator plans for the work of the graduate students and dietetic interns, develops the in-service programs for staff conferences, determines the seminar subjects for the nutrition residents, serves as the consultant for the Bureau of Adult Health and Chronic Diseases, and provides nutrition services for a three-county area.

She planned the program and conducted the discussion following the presentation of the public health nursing consultant in renal dialysis at the regional staff meeting which the student observed. The training coordinator had developed a diet booklet for dialysis patients. She also has the responsibility for reviewing the current nutrition and public health journals and providing copies of pertinent articles for nutritionists throughout the state. In 1972 graduate students in public health nutrition from Tulane University, the University of North Carolina, the University of Michigan, and the University of Tennessee were assigned for field experience with the Nutrition Section. The student participated in several of the sessions planned for the dietetic interns from the J. Hillis Miller teaching center who have a one-month field experience in public health nutrition (21).

The state nutrition consultant in maternal and child health serves as a liaison between the Bureau of Maternal Health and Family Planning and the Sections of Nutrition and Child Health. In addition she is assigned to a three-county area. She provides current educational information to the nutritionists and helps to establish guidelines for using these materials (20). An example of her responsibilities in continuing education was observed as she participated at a teachers'
workshop. A slide series which she prepared illustrated the possibilities for innovative approaches to the presentation of nutrition information. A wealth of visual aids promoted audience understanding during her verbal presentation.

The three state institutional nutrition consultants give guidance to day care centers, hospitals, and nursing homes. They have licensure and certification responsibilities as well as teaching duties. The state has been divided into four regions for administrative purposes.

Currently there is no state-wide licensure law for day care centers in Florida. Although Duval, Orange, and Dade Counties are covered by state regulations administered by the Division of Family Services governing the operations of such centers, in the other 64 counties the responsibility may be delegated to a licensing board, the county health department or no one. One state consultant provides consultation on nutrition and management to the day care centers in addition to her other duties. She works through the regional and county nutritionists and is based in the Nutrition Section in Jacksonville (22).

The observations at the private day care centers in Jacksonville and in the Community Coordinated Child Care program there showed the possibilities and the need for such facilities. The educational program for child care students at Florida Junior College was explained and the day care center observed. These visits illustrated the need for professional nutrition consultation as many centers do not have trained food service supervisors. Often the consultant's role may change to that of the teacher as she provides the necessary information for operation of the center.
Two state consultants are located with the Bureau of Health Facilities. They must be able to recognize good practices and offer necessary suggestions for the improvement of poor services. Their responsibilities are centered around the licensure and certification surveys for hospitals and nursing homes and the promotion of good communication between the facilities and the Division. Licensure is based on state law and regulation. Certification for Medicare and Medicaid facilities requires meeting the Federal Conditions of Participation (23). Detailed survey forms are used which explain the conditions for assessment of compliance. Because of the number of facilities in each area, the regional or county nutritionist may be called upon to do the nutrition part of the licensure survey. The student observed this process and the techniques involved in a nursing home survey.

The institutional nutrition coordinator to the Division of Administrative Services who provides for technical supervision of the state institutions such as correctional facilities, tuberculosis hospitals, and mental hospitals explained her responsibilities and the thrust of her new position at the regional staff meeting and the seminar for dietetic interns. Through coordination of all facets of the program, the Division of Health hopes to provide better care and more efficient services to this population. She indicated that the role of the regional nutritionist in the program would be in providing service and consultation as needed at the institutional and community levels (24). The student observed this role when the regional nutritionist presented a class at the Alcoholic Rehabilitation Center and consulted with its trained food service supervisor.
Regional Nutritionist

The activities of a regional nutritionist were observed for five weeks. She was involved in all areas of comprehensive nutritional care. These nutritional care services included activities related to assessing food practices and nutritional status; planning, developing, and evaluating nutrition education activities; dietary counseling services; consultation to group-care facilities; and referral to food assistance programs (25).

The regional nutritionist assessed food practices and nutritional status each time she counseled a patient. With the aid of a 24-hour dietary recall record and an interview, she was able to determine what the nutrition education emphasis should be and to choose the materials accordingly. This diet history form is shown in Appendix A. She had also participated on the interviewing team for the agricultural migrant workers nutrition survey.

Good planning for appropriate nutrition education requires adaptability. The nutritionist had to adjust her vocabulary and method of presentation to the audience and the situation. An example of this was the migrant health clinic where space was at a premium and where the clients had completed a day's work in the fields prior to coming to the clinic. Here, a food demonstration using a minimal number of familiar ingredients and utensils was done. The preparation was explained simply with the aid of posters, and tasting samples were provided.

The regional nutritionist helps to develop the teaching materials she uses. The student was involved in a pricing survey to update data
which had been compiled from throughout the state of Florida for establishing the minimal costs for nutritionally adequate family food budgets. These standards are used in counseling low-income families and assisting the Department of Health and Rehabilitative Services' Division of Family Services to establish food allowances (13). Each individual nutritionist priced 100 items at four different locations. The student visited one urban chain store and one rural independent grocer and noted the differences and similarities of food choices and prices available to the consumer.

The nutritionist must evaluate the educational materials in relation to the need. Several recipe books, flyers, and pamphlets have been produced, but careful perusal is still necessary to find suitable information for particular needs. These materials are chosen to reinforce the purpose of the particular presentation such as a recipe for a vitamin A-rich dish or an appetizing meat substitute.

The nutritionist regularly provided counseling services in prenatal and well-child clinics in her region recognizing the priority needs of this high-risk group as indicated earlier. Patients were referred by the doctors in charge of the clinics. Certainly referrals of patients who needed help with normal diet during pregnancy or with prevention and treatment of iron-deficiency anemia were most common. The nutritionist had reviewed the National Academy of Sciences' publication *Maternal Nutrition and the Course of Pregnancy* (27) and provided copies of the summary to each of the physicians in the prenatal clinics.

Recognition of the importance of nursing homes to the Florida population became apparent during a consultation visit and a licensure
survey completed by the nutritionist which the student observed. Effective supervision of the food preparation and service may be available in the institution when they have a trained food service supervisor and a consulting dietitian. When either component is lacking, it is difficult to provide safe, quality food to the patients. The service of food appropriate to physical needs and medical conditions is important. Regular surveillance by the nutritionist combined with effective consultation helps to alleviate problems.

Food assistance programs are also a part of the comprehensive nutritional care services in Florida today. Because the food stamp program was new in several of the counties in her region, the nutritionist discussed the requirements for certification and the available benefits with the director of the program. This information was then communicated to the public health nurses during an in-service education program.

Although the regional nutritionist usually functioned in a multidisciplinary setting, she was observed in an interdisciplinary situation at the Tampa Diagnostic and Evaluation Clinic. A child with phenylketonuria whose family lives in her region is being followed by the Center. She participated in the case conference to develop a care plan for him involving the physician, social worker, nutritionist, and psychologist from the Center.

Thus the regional public health nutritionist fulfills her role in providing comprehensive nutritional care. She assesses food practices during her clinic work. She plans, develops, and evaluates her nutrition
education activities such as food demonstrations to groups. Dietary
counseling services are a regular part of her clinic schedule. She
works with both state and local institutions providing consultation and
instruction. Her knowledge of food assistance programs is shared with
her co-workers so that those clients eligible for program benefits may
receive them.
CHAPTER IV

PROFESSIONAL COMPETENCIES OF A
PUBLIC HEALTH NUTRITIONIST

Several factors influenced the professional growth of the student during the field experience. These may be classified as growth in the areas of professional competencies of the public health nutritionist: administration, consultation, and instruction.

I. ADMINISTRATION

The public health nutritionist is the member of the health team who assesses community nutrition needs and plans, directs, coordinates, and evaluates the nutrition component of health services (2). The fulfillment of each of these functions related to the over-all success of her job.

The regional nutritionist actually does planning on three administrative levels. The "Community Study to Identify Nutrition Program Needs" form shown in Appendix B is completed annually for each county. After studying various factors affecting health programs, the nutritionist prepares an annual program plan containing her objectives for the year. The vital statistics compiled by the Bureau of Vital Statistics and published in the annual report, the characteristics of the community including businesses, health personnel, finances, educational facilities, and the facilities and staff of the county health department serve as guidelines for the outline of the program. After assessing the needs
and establishing priorities, she must budget her time to provide services to meet these needs. The Highlands County Program Plan for 1972 is included in Appendix C as an example of the completed plan. The state program plan reflects a compilation of these individual plans.

A good rapport with the health officers and nursing supervisors had been established by the regional nutritionist. She sought their approval in the preparation of the program plan and communicated with them regularly at staff meetings or informal conferences. The student reaped the benefits of their cooperation in her teaching opportunities. Groups which were regularly included in the nutritionist's schedule welcomed the person she brought with her.

The student discussed the on-going health programs in the counties with the nursing supervisors. These programs usually centered around the services offered in the clinics and home visits for nursing care. The student began to realize the influence of the various factors such as community interest, local facilities, and health department staff on the programs which the health department can offer. The nursing staff charged with all home nursing care for the Medicare program will have less time for other program development than the one with minimal responsibility in this area.

Once the objectives for the year have been determined, the monthly schedule must be planned in accordance with these objectives. The student noted how certain regular clinics had priority in this schedule due to the assessed needs in the county that year. Other duties and special activities completed the calendar. It was emphasized that the time to plan for events must be included in the schedule. Without
adequate planning the time used in presentation would be poorly utilized. The first three weeks of the student's program had been planned as a part of the nutritionist's regular schedule. The student participated in selecting activities for the last two weeks which included situations to implement the previous professional experiences.

The necessity for flexibility in planning was shown at the third level where the program for each day was prepared. After the visits for a particular day had been scheduled and preparations made for the presentations, a call from the special project nutritionist indicated that a case conference for a child in the region had been scheduled. Since the regional nutritionist was to play an integral part in the formulation of the child's care plan, she postponed her previous engagements.

The nutritionist reported her work daily to the health department of the county in which she worked. These reports and the monthly trip reports which she filed with the Nutrition Section helped her evaluate the thrust of her program.

II. CONSULTATION

The areas of cooperation between the nutritionist and the public health nurse highlighted the consultative role of the public health nutritionist. When a nutritionist is not available full-time at a health department, one method of making optimum use of her time is through consultation with the public health nurse. Those cases which require home visits are outlined on a nutrition referral form. When possible, both professionals made the home visit together so the nurse would also
understand the instructions and recommendations given to the particular patient. In this way she would have a better background when dealing with similar cases. In any event the nutritionist recorded the outcome of the visit and the recommendations for care on the patient's record at the county health department.

In addition to the public health nurses, the nutritionist was observed in other consultation work. She often played both roles, the consultant and the consultee.

She was a consultant to a junior high school home economics teacher who had a degree in home economics education and wanted specific information on nutrition teaching materials. The nutritionist provided addresses for information and ideas for activities. She relied on personal files and experience to respond to the questions asked by the teacher.

To relate most effectively to the needs of a group, the nutritionist must sometimes be a consultee. One example was a conference with the Head Start program director in one of the counties. By discussing the parent participation in the program and the nutrition education available to the children in the school, the nutritionist was able to gauge what her role might be in providing nutritional services.

These two situations helped illustrate the role of the nutritionist in relation to other community service workers. Often it is reciprocal. By sharing information, the two can implement the goals of the other. They can also aid each other in problem solving situations.

The nutritionist must distinguish between the educational role and the consultative role. In education, the teacher has some clear idea
of the content which she wishes to impart to the student, whether this be factual knowledge or a range of skills or attitudes. In contrast, the consultant is guided in her work entirely by the presenting needs of the consultee. Education may be seen as a specific activity to promote a high level of competence and the need for it diminishes as the professional person becomes more competent and capable of high level independent operation. In contrast, the need for consultation and its value may rise with the increasing competence of the consultee (28). The differentiation of these two roles was illustrated in a nursing home without a trained food service supervisor. The nutritionist provided needed instruction in menu planning, cost control, and food service. She introduced information at the level of the inexperienced food service supervisor and explored the possibilities for improvement. She sought the cooperation of the manager and nursing director during consultation so that the recommendations might be implemented.

III. INSTRUCTION

The instructional role of the nutritionist may be with professional or nonprofessional persons. She must adapt her methods to the environment and needs of each of these groups. Two workshops presented during the experience illustrated the differences in techniques, one was for teachers and the other for community health aides.

Both workshops were cooperative efforts of area nutritionists. In the case of the teachers' workshop, the regional nutritionist was responsible for planning the program, in the other case she was a
participant. The joint effort meant that no one nutritionist was responsible for the entire program and that each could concentrate on her part of the presentation. For the teachers' workshop other resource people such as the school lunch director were included on the program. However, clear communication is essential if the information is to be presented effectively during a joint effort. This group coordination requires a greater time investment in planning for the program than that for the individual nutritionist.

The teachers' workshop covered a broad interest range as the participants taught classes from kindergarten to senior high school with subject matter areas ranging from home economics to psychology. The morning session was devoted to the conceptual approach to curriculum design including nutrition. One concept discussed was that food selection and eating patterns are determined by physical, social, mental, economic, and cultural factors. The employment of this concept at each grade level was amplified.

Presentations by the state consultant in maternal and child health and a high school home economics teacher highlighted the session. The latter speaker was one of the most enlightening participants in the program as she had successfully helped her students use commodity foods. She had also worked with the language arts teacher so that both groups of students cooperatively prepared one-minute nutrition spot announcements for the school public address system. In these examples effective teamwork for the achievement of mutual goals was illustrated. Serving as a liaison between the schools and the Division of Health, the public health nutritionist could communicate the current changes which might
affect their curriculum. The afternoon session dealt with specific ideas for certain age categories as the participants were divided into small discussion groups.

In contrast to the teachers' workshop, the purpose of the workshop for community health aides was to give correct nutrition information in a usable form. Several agencies may employ community health aides. They may be assigned to a specific program area, such as family planning, but in their function as a liaison between the home and the agency they often provide nutrition information.

This workshop was the student's first exposure to the plate concept as a teaching tool. It was developed by the Florida Nutrition Section and explained by one of the special project nutritionists. The four food groups had been color coded in accordance with the United States Department of Agriculture educational materials. The plate had been divided into thirds and the milk group was represented by a rectangle attached to the right of the plate. As the participants recalled their diets, the nutritionist wrote the food names on the appropriate area of the plate. Thus the meal was assessed for adequacy in terms of the four food groups.

The methods for evaluation varied between the two workshops. The teachers' workshop was begun using a quiz to illustrate the wide range which a thorough knowledge of nutrition covers. The student led one of the discussion groups following the quiz. At the end of the day a written evaluation of the program was elicited from the participants. They indicated the most helpful parts of the session and areas which they
would have expanded or deleted. These evaluations were reviewed by the nutritionist so that the ideas could be incorporated into the next workshop.

A pretest was given to the community health aides. A review of the test was included as part of the program. A posttest will be given at the last workshop in the series of four. Their comments and participation were encouraged during the session. For the student, it showed how allowing the group to react spontaneously to the ideas presented fostered a learning atmosphere.

The nutritionist is also able to broaden the range of her influence through using in-service education with professional groups. Planning the in-service programs meant deciding on the goals of the program. The topics were requested by the particular nursing personnel and included phenylketonuria, infant feeding, and food stamp regulations. The specific amount and type of material presented depended upon the topic and the nutritionist's assessment of the knowledge level of the staff involved. She also planned specific interviews when necessary to gain the correct, current information which she would need. A suitable time and place for the program had to be arranged with the nursing supervisor. Once again clear communication about the objectives was important.

Informality was the keynote of the presentations. The open atmosphere prompted response from the nurses so that their questions could be answered. Every attempt was made to relate the subject to the immediate situation through examples and illustrations. During the presentation the nutritionist related the information gained from interviews and her research into the topic.
The evaluation of an in-service program can be difficult. The nutritionist did not use tests for the professional groups. Some measure of the interest generated by the presentation could be determined by the comments from the nurses following the presentations. Long-range evaluation is also possible as she can observe whether the concepts she presented are used during the clinic consultation. Another assessment would be a record review to check how often plans for effective nutritional care included and evaluated in the chart commentary.

The principle nonprofessional instruction was done in diet counseling in the clinics. The student helped with the clinics and was responsible for one of them. She learned to appreciate the varied diets which patients consumed even though they were in the same geographical area. The greatest challenge was to help the pregnant patient understand the relevance of diet to her condition. The provision of an adequate diet seemed especially difficult for those mothers with several children in the home. They almost always put the children's nutritional needs ahead of their own. The other group of special concern were the high-risk pregnant adolescents. Often their typical diets of soft drinks and potato chips prevented feared weight gain and failed to provide adequate nutrition. These cases impressed the importance of flexibility in the method of teaching by the nutritionist.

It was possible to evaluate the teaching process through the measurement of certain biological parameters. Hematocrit determinations were used as a regular part of the diagnostic work-up of six-month and one-year-old children in three of the well-child clinics. Those children
who had lower than normal values were referred to the nutritionist. Certainly food dislikes are an important aspect of iron-deficiency anemia. It may also be precipitated by the consumption of large quantities of milk at the expense of other foods. The student noted that often parental dislikes were reflected in the child's attitudes. Therefore, the educational process had to be directed at the parent as well as the child. More immediate follow-up was scheduled for these children with repeat hematocrit evaluations used to determine improvement of the condition. Height and weight records also give indications of the effectiveness of nutrition education. Dietary adequacies and inadequacies are noted by the gain or loss of weight or failure to increase in stature.

The regional nutritionist and the student counseled nonprofessional persons at the roving clinics in one of the counties. Here, an outlying clinic was set up for an afternoon with three nurses and a physician in attendance who treated patients on a walk-in basis. Due to the space limitation, the educational emphasis was on prevention of nutrition-related disease through consumption of an adequate diet. The adaptations which must occur in cross-cultural communication were experienced here. One of the clinics was held in a primarily Spanish-American neighborhood. Cultural food habits and attitudes toward child rearing had to be considered if the teaching was to be effective. Indeed, we must know their attitudes, beliefs, and prejudices about food and why they have them before we can devise any educational programs that will be accepted (29).

The nutritionist also conducted home visits to teach nonprofessional persons. These were cases of special need which the nurses had referred
to the nutritionist. The most common referral was for the explanation of a diabetic diet. Since the professional time investment for such a visit is considerable, it is important that proper planning occur. The nutritionist discussed the patient's history with the nurse and checked the doctor's diet prescriptions as well as current medication. Although it was desirable for the nurse to accompany the nutritionist, if this were impossible, clear directions to the patient's home were a necessity. When possible, the patient was contacted prior to the visit.

Certainly the home visit has the advantage that the patient can learn in a familiar environment. It is possible to provide the information which applies directly to the situation. Thus, the patient can realize the possibilities for following the physician's and nutritionist's recommendations.
CHAPTER V

THE IN-SERVICE EDUCATION PROJECT FOR NURSES

A major responsibility of the nutritionist in a local public health agency is the continuing nutrition education of public health nurses. It is the public health nurse who, more than any other public health professional, assumes the responsibility for nutrition education in direct contact with individuals, families, and groups. To do this she does not need to be an expert in nutrition, but she must have a sound basis for the many decisions regarding nutrition which she must make (30).

I. PROJECT CHOICE

The special project was chosen after discussion with the regional nutritionist. During the field experience the student had had an opportunity to teach nonprofessional groups and individuals. It was decided that the presentation of an in-service training session for the four Highlands County public health nurses would be appropriate.

The nurses suggested those topics in nutrition in which they are interested. In this case, they suggested a method, the case study, rather than a particular nutritional problem. A family from the current case load was chosen following discussions with the nursing supervisor, nutritionist, and nurse in charge of the family. The mother, the father, and the daughter illustrated three aspects of what has been called the number one nutritional problem in the United States, overweight.
The objectives for the particular in-service program were as follows:

1. To illustrate the different methods of care which may be used for the same nutritional problem.

2. To provide the public health nurses with an example of a method for evaluating nutritional problems which might be used in other cases.

3. To give the student the opportunity to teach a professional group using the case study method.

II. PROJECT PLAN

The case study method consists of introducing to a group descriptive information depicting people in a situation composed of a series of events culminating in ambiguity or conflict (31). By looking in depth at one person's problems, it is hoped that a carry-over to other situations will exist. In this instance, the mother and daughter had been seen in the clinic. The nursing supervisor, the public health nurse, the nutritionist, and the student believed that a home visit would be helpful in providing additional insight into the situation to allow the most beneficial counseling possible.

The background work prior to the home visit included an analysis of the diet history form and the patients' medical records. The mother had been counseled at the prenatal clinic by the student. She weighed 263 pounds and had a history of gestational diabetes mellitus and large babies. She indicated that she had always been heavy and had tried
to lose weight by fad dieting at different times in her life. Although
the last child weighed ten pounds at birth, the weight gain during the
entire pregnancy had been only seven pounds. This had been the pattern
for all six pregnancies. The five-year-old daughter was the only child
in the home. She had been brought to the clinic for immunizations. She
weighed 104 pounds. The father had been seen but not counseled. It was
felt that he was also overweight. This was confirmed by the mother.
From the mother's report, the family did not snack but ate three large
meals daily. Her concern when she spoke to the student was for acceptable
meat substitutes as the father was unemployed.

The home visit was conducted by the public health nurse, the
nutritionist, and the student. Company was welcome at the rural home and
the mother did not seem to regard the visitors as intruders. She had
taken the counseling seriously in regard to all family members and had
reduced the amount that she was preparing for meals. She had calculated
their caloric intakes as between 1000 and 1200 per day during the two
weeks since she had been seen at the clinic. An oral appetite control
agent had been prescribed for the child but had not yet been purchased
due to cost. The child didn't say that she was hungry but that she
"liked to eat." There was no scale available to check any possible weight
loss. The father was employed and was not in the home at the time of
the visit.

From the information collected during this visit and the diet
history form, an outline which formed the basis of the in-service
presentation was written. It included the family history and their
current living situation. This meant an assessment of their ability to
institute change, as any recommendations for diet changes usually affect very basic lifestyle patterns. Each person in the family was described according to his previous medical history, the reason for the current clinic visit, and any medication which might affect his appetite and/or mental state. Their previous dietary history was assessed and the positive aspects noted. These were included in the continuing care portion of the outline. This emphasized the importance of follow-up by both the nurse and the nutritionist.

Materials were taken from the file to illustrate the points to be made. The graphic presentations of weight gain during pregnancy even when the woman is overweight initially were used for the in-service program. Information which could be used in continued instruction of the mother was also reviewed. As she was literate, "Your Child's Appetite," (32) a more detailed description of the physiological and psychological influences on food consumption, was suggested.

III. PROJECT PRESENTATION

Adaptability was a factor in the presentation. Due to illness, the program was postponed from its original date. At the appointed time, one of the nurses still could not attend.

The case was presented to the staff using the outline as a guide. A discussion of the coordinated roles of the public health nurse and the nutritionist in the follow-up care of the family was emphasized. Because of the high-risk nature of the mother's case, it was suggested that close communication with the physician be maintained. It would not be desirable
to have weight loss during pregnancy, but an active program in this regard should be initiated following delivery. It was emphasized that the mother had a very positive attitude toward weight loss, especially for the child. However, due to the amount of excess weight in terms of desirable weight in both cases, this would be a long-term project. She would need extra support during those periods in which the weight plateaus. It was suggested that a conference with the school lunch director be included to outline the child's school meal. A desirable side-effect of having both women in the family on weight loss regimens would be to have a similar plan for the father. As he had a physically demanding job, the appropriate changes could be made in the lunch which he carried and the meals served in the morning and evening could be similar for the whole family.

IV. PROJECT EVALUATION

A follow-up clinic visit had been scheduled for the daughter. The mother would come to the prenatal clinic in one month.

No formal evaluation of the material presented to the nurses was conducted. However, positive responses about the value of the program were received. The nurses were able to identify other families in the case load with similar problems. They were surprised to realize that immediate weight loss was not recommended for the overweight pregnant woman. One nurse commented that the county could use a full-time nutritionist.

The nutritionist indicated that the presentation had been a successful one. She believed that the student had been able to relate well to
the nurses. However, she said that the nurse’s supportive role to the family could have been identified more strongly. The treatment of the overweight condition was not the sole responsibility of the nutritionist.

The presentation provided a worthwhile experience for the student. The planning and preparation of the outline proved to be the greatest challenges. This task brought out the importance of asking the right questions to gain needed information during an interview and a home visit. Also the integration of theoretical knowledge to provide appropriate nutritional care in the practical situation was emphasized. It provided the opportunity to assess the related roles of the public health nurse and the nutritionist in the care of a family. As was pointed out by the nutritionist, this idea could have been discussed in greater detail. It was not the student’s first experience with the case study method. However, previously she had formally presented a treatment plan which was discussed with a supervisor rather than a group. It illustrated again the advantage of going from the specific, familiar case to the general situation. If the audience is unable to identify the similarities between situations, however, this could be a disadvantage.

It is not always possible to evaluate the long-range effect of such a presentation. As the student left the county, she will be unable to judge the total impact of the program. The nutritionist will be able to observe the information disseminated during the clinic sessions and judge the merits of the presentation. She will also be able to assess it from comments recorded on the patient charts.
CHAPTER VI

SUMMARY AND CONCLUSIONS

The seven-week field experience in Florida provided the student with an opportunity to strengthen her own developing philosophy of public health. The public health workers seldom discussed philosophies, but their actions illustrated their principles. Their emphasis on the local health department as a provider of preventive services was an example. They were interpreters. To quote Glenn Frank,

The interpreter stands between the layman, whose knowledge of all things is indefinite, and the investigator whose knowledge of one thing is authoritative. The investigator advances knowledge. The interpreter advances progress (33).

Florida Health Notes suggested that public health is people caring about their neighbors (13). Certainly that is a justification for promoting health, however, the practice of public health involves administrative skills and instructional abilities. The health worker must be able to ascertain a community's needs and to identify the public health problems. He must then plan the use of his resources in relation to the situation and allocate them effectively. Following his actions, he must be able to evaluate them objectively.

The experience promoted growth in the recognition of factors affecting program planning. In order to best serve the community, one must be aware of the environmental influences, health-related statistics, and health department organization which affect the provision of services and the most effective methods of providing them.
If the public health nutritionist is to give comprehensive nutritional care to the community, she must provide leadership by participating in functions of allied organizations. In the clinic she also gives leadership in nutrition education to the nurses and physicians as she communicates her potential contribution to the team effort. Thus, she coordinates her role with those of other health workers to provide services.

The public health nutritionist is a health professional and an interpreter of nutrition information. The student needs additional practice in the application of knowledge to the various situations in which a public health nutritionist functions. She is, however, competent to practice as a public health nutritionist, the member of the public health team who assesses community nutrition needs, plans, directs, coordinates, and evaluates the nutrition component of health services (2).
BIBLIOGRAPHY


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APPENDIXES
APPENDIX A

THE DIET HISTORY FORM

Interviewer__________________ Position________________ Date________________

DIET HISTORY

Name__________________________ Age_______ Ethnic Group__________
Address___________________________
Reason for Nutrition Referral__________ Referred by _____________
Physician's diet order
Height __________ Weight__________ Desirable Weight__________

Have you ever talked with a doctor, nurse or nutritionist about what you eat? ________________________________
When?________________________ What did (he, she) tell you?__________________
What foods do you like best?_________________________________________
What foods do you not eat?_________________________________________

(Ask only if you think it applies):
Do you ever eat clay?____________ Laundry starch?____________________
Who cooks most of your food?________________ Who else eats the food cooked? (No., ages, etc.)________________
Where do you buy food?____________ About how often? _______________
About how much money do you spend for food?_______________________
What foods do you usually buy?_____________________________________
Do you get any foods that you don't buy at the store?_______ What?_____
Donated commodities?___________ Garden?___________ Fish or Hunt?_______
Other?__________
Do you have a refrigerator?__________ Does it keep food cold?__________
Do you have a place to keep frozen foods?__________________________
What kind of stove do you have? With an oven?

With a broiler?

How many meals do you eat away from home each week? Where?

How often do you take laxatives? What kind?

How often do you take vitamins? What kind?

Do you have any trouble chewing food?

Comments or observations of interviewer (Include impression of validity of information given):
**Food Intake (24 Hour Recall)**

Tell me about everything that you had to eat and drink since this time yesterday.

<table>
<thead>
<tr>
<th>About at what times did you have anything to eat? And anything to drink?</th>
<th>What did you eat? Drink? How much did you have? How was it fixed? Anything added like butter, margarine, fat, oil, salad dressing, sugar, syrup, salt, etc.?</th>
</tr>
</thead>
</table>

Recommendations (Use separate sheet to continued):
Checklist of Frequency of Food Use

Tell me how many times a day and/or week you eat each of these foods?

<table>
<thead>
<tr>
<th>Food</th>
<th>Day</th>
<th>Week</th>
<th>How Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk, whole</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Skim, buttermilk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canned milk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheese, cheddar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheese, cottage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ice cream, pudding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken, turkey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef, veal, lamb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pork, ham</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luncheon meats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dried beans, peas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peanut butter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bacon, salt pork</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter, margarine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooking fat, oil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salad dressing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange, grapefruit or juice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomato or juice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit, raw</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit, canned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrots, yellow veg.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweet potato</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potato</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice, grits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spagh., noodles, mac.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bread</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biscuits, rolls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crackers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cake, cookies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pie, pastry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syrup, honey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jam, jelly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft drinks, koolade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beer, wine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whiskey, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

THE COMMUNITY STUDY TO IDENTIFY NUTRITION PROGRAM NEEDS FORM

COUNTY:____________________

YEAR:____________________

COMMUNITY STUDY TO IDENTIFY NUTRITION PROGRAM NEEDS

1. Population:
   a. Total_______ White _______ Non-White _______
   b. Age distribution:
      (1) Infants (total live births last year) _______ White _______ Non-White _______
      (2) Preschool (8% of total population) _______
      (3) Elementary school age _______
      (4) High School age _______
      (5) Adult population _______
      (6) Estimated population over 65 _______
      (7) Estimated Seasonal Population
         Migrant _______
         Tourist _______

2. County characteristics:
   a. Square miles area _______
   b. Cities, villages or townships population _______
      (include military bases)

3. County government:
   a. County commissioners
      (1) Board Chairman: ________________
      (2) Board Members: __________________
         __________________
         __________________
   b. County health services
      (1) County Health Officer __________________
      (2) County Nursing Director __________________
         Number of Nurses __________________
      (3) County Sanitarian Director __________________
         Number of Sanitarians __________________
      (4) Other Personnel __________________

50
c. County Welfare Director

d. Socio-Economic factors

(1) Range of family incomes
   (a) % of population with incomes below current index of poverty: $ ______ % White ______ % Non-White ______

(2) Rate of unemployment ________________

(3) Major Business and industries:

(4) Number of persons receiving public assistance
   Old age assistance ________________
   Aid for dependent children ________________
   Aid to the blind ________________
   Aid to the disabled ________________

(5) County participation in food assistance programs
   (a) Commodity food program: No. participating ________________
       Estimated % of those eligible ________________
       Agency sponsoring ________________
       What are requirements for receiving the food?

   (b) Food stamp program:
       No. participating ________________ Estimated % of those eligible ________________
       Agency sponsoring ________________
       What are the requirements for receiving these stamps?

   (c) Supplemental food program:
       No. participating ________________ Estimated % of those eligible ________________

(6) Number of emergency food orders issued in past year ______

4. State government:
   a. Area senators:________________________

   b. Area representatives:________________________

5. Educational facilities:
   a. Universities, colleges, or technical schools
      Estimated Programs in food, nutrition, enrollment home economics, etc.
      (1) __________________________
      (2) __________________________
      (3) __________________________
      (4) __________________________
b. Schools (total number) _____________
   Public _____________
   Private and/or Parochial _____________
   Special Schools _____________

(1) School Board:
   (a) Chairman _____________
   (b) Members _____________

(2) Supervisory personnel:
   (a) Superintendent of Schools _____________
   (b) Supervisor of instruction _____________
   (c) Specialized personnel:
       School Food Service Supervisor _____________
       Home Economics Supervisor _____________
       Health Coordinator _____________
       Other _____________

(3) School food service participation

<table>
<thead>
<tr>
<th>Type</th>
<th>Total No. of students participating</th>
<th>% of students participating</th>
<th>Price range</th>
<th>No. served free</th>
<th>No. served at reduced price</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakfast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Milk</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

6. Community resources:

a. Hospitals, extended care facilities and nursing homes (include C.D.)

<table>
<thead>
<tr>
<th>Name</th>
<th># Beds</th>
<th>Remarks (Have fulltime or consulting dietitian)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

b. Health and medical personnel: (Number)

(1) Doctors _____________ Specialists _____________
(2) Dentists _____________
(3) Midwives _____________
(4) RN's _____________
(5) PHN's _____________
(6) LPN's _____________
(7) Registered dietitians _____________
(8) Food service supervisors qualified for HIEFSS _____________
c. Health agencies (official, non-official, VNA, Heart Association, diabetes association, etc.)

<table>
<thead>
<tr>
<th>Co Health agencies (official, non-official, VNA, Heart Association, diabetes association, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior or supervising Home Economics Extension Agent ______________________</td>
</tr>
<tr>
<td>No. of agents __________________ No. of program aides __________________</td>
</tr>
<tr>
<td>Nutrition Committee members and agencies represented</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>f. Daytime Programs for children: Number ____________________</td>
</tr>
<tr>
<td>Number of children served ______________________________________________________</td>
</tr>
<tr>
<td>Number serving meals _____________________________________________________________________________</td>
</tr>
<tr>
<td>Head Start Programs: Number ____________________</td>
</tr>
<tr>
<td>Number of children served _____________________________________________________________________________</td>
</tr>
<tr>
<td>Sponsoring Agency(ies) _____________________________________________________________________________</td>
</tr>
<tr>
<td>Director _________________________________________________________________________________</td>
</tr>
<tr>
<td>g. Newspapers ___________________________________________________________________________</td>
</tr>
<tr>
<td>Radio stations ___________________________________________________________________________</td>
</tr>
<tr>
<td>Television stations __________________________________________________________________________</td>
</tr>
<tr>
<td>h. Other pertinent programs, e.g., Office of Economic Opportunity,</td>
</tr>
<tr>
<td>Community Action Program, Emergency Food and Medical Program, Home Delivered Meals,</td>
</tr>
<tr>
<td>Senior Citizen Center, etc.</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td>7. Vital statistics: (county)</td>
</tr>
<tr>
<td>a. Birth rate 19__ Actual Number births _____________</td>
</tr>
<tr>
<td>(1) White ____________ &quot; White &quot; ____________</td>
</tr>
<tr>
<td>(2) Non-White ____________ &quot; Non-White &quot; ____________</td>
</tr>
<tr>
<td>b. Death rate 19__ Actual Number Deaths _____________</td>
</tr>
<tr>
<td>(1) White ____________ &quot; White &quot; ____________</td>
</tr>
<tr>
<td>(2) Non-White ____________ &quot; Non-White &quot; ____________</td>
</tr>
<tr>
<td>c. Specific mortality rates (last calendar year)</td>
</tr>
<tr>
<td>(1) County: Maternal: Total _______ Rate ____</td>
</tr>
<tr>
<td># White ____________ # Non-White ____________</td>
</tr>
<tr>
<td>Infant Total _______ Rate ____</td>
</tr>
<tr>
<td># White ____________ # Non-White ____________</td>
</tr>
</tbody>
</table>
Neonatal: Total ____________ Rate ____________
# White ____________
# Non-White ____________

State: Maternal: Total ____________ Rate ____________
# White ____________
# Non-White ____________
Infant: Total ____________ Rate ____________
# White ____________
# Non-White ____________
Neonatal: Total ____________
# White ____________
# Non-White ____________

d. Deliveries (Last Calendar Year) Total White Non-White
(1) # live births ____________
(2) # hospital deliveries ____________
(3) # home deliveries ____________
(4) # illegitimate births ____________
(5) # births less than 5lbs.8oz. ____________
(6) # births to mothers under 18 years ____________

e. Ten leading causes of death (Last Calendar Year) Number
(1) ____________
(2) ____________
(3) ____________
(4) ____________
(5) ____________
(6) ____________
(7) ____________
(8) ____________
(9) ____________
(10) ____________

8. Cultural characteristics: (such as Ethnic Groups, Attitudes, Nutrition, Food and Health Concepts, Opinion Molders, etc.)

9. Results of any nutrition status or dietary studies done in the county.
10. Discussion of food and nutrition problems and needs which can be met through the public health nutrition program.
APPENDIX C

THE HIGHLANDS COUNTY 1972 NUTRITION PROGRAM PLAN

I. Overview

During the past year the need for nutrition services in Highlands County has continued, while interest in nutrition and opportunities for providing nutrition services have increased. A well-baby clinic has been started at the Health Department and a Community Health Worker has been hired. The nutritionist has been asked to provide nutrition services at Avon Park and Lake Placid Clinics. Nurses have begun to ask for in-service training in nutrition.

Mothers and children and the elderly are groups deserving priority in program planning. According to the 1968 and 1969 issues of Florida Vital Statistics, the resident infant mortality rate in Highlands County declined from 32.1 in 1968 to 17.6 in 1969. In 1968, 10.1 percent of the babies born in Highlands County weighed 5 lb. 8 oz. or less, while in 1969, 9.6 percent were in this category. Some progress may have been made in improving prenatal and infant nutrition, but more work is needed.

Much could be done for the elderly, if time were available. Twenty percent of the Highlands population is over 65. Older people tend to eat poorer diets because they have lower incomes and often live alone and do not feel like cooking for themselves. They tend to have more chronic conditions and require more therapeutic diets. With heart disease being the leading cause of death in the county and diabetes mellitus being among the ten leading causes of death, the need for diet counseling is clear.
By July, 1972, all counties in Florida are to be participating in the Food Stamp Program. This will create another area of need for nutrition education, for food stamps must be spent wisely if they are to promote good nutrition. At present, Highlands County does not have a Home Economics Extension Agent who could help with this teaching.

Secretary Emmett Roberts has asked the Nutrition Section to provide assistance to State Institutions which are part of the Department of Health and Rehabilitative Services. The Alcoholic Rehabilitation Center does not have a Registered Dietitian and has expressed interest in receiving assistance from the nutritionist.

II. Major Objectives

1. Provide nutrition counseling to all maternity patients.
2. Provide nutrition counseling for selected patients at well-baby clinics.
3. Provide and coordinate nutrition education for Food Stamp recipients.
4. Provide general nutrition education and diet counseling at Avon Park and Lake Placid clinics.
5. Strengthen nurses' ability to provide nutrition counseling.
6. Serve as a nutrition resource person for the community health worker.
7. Provide nutrition consultation to the Alcoholic Rehabilitation Center.
III. Criteria for Evaluation of County Nutrition Program

1. Completion of planned services.

2. Food habits of approximately 50 maternity patients will be evaluated at their first visit and the 8th month. Weight gains, hemoglobins, and infant weight will also be recorded.

3. Comments from co-workers and program participants regarding worth of programs.

IV. Plans for Nutrition Services

1. Nutrition counseling at maternity clinic will be provided by the nutritionist and public health nurses. The nutritionist will try to be at maternity clinic twice a month, but will definitely be present once a month.

2. Nutrition services will be provided once a month at Avon Park and Lake Placid well-baby clinics.

3. One afternoon a month will be available for consultation at the Alcoholic Rehabilitation Center.

4. In-service nutrition training will be provided as requested by the nursing staff. This could be done on a monthly basis.

5. The nutritionist will be available on an informal basis to answer questions of the nurses and community health worker.

6. The nutritionist will work through the Highlands County Nutrition Committee in planning and coordinating nutrition education programs for Food Stamp recipients.

V. Procedures to be Used in Carrying Out Nutrition Services

Group and individual counseling will be provided at maternity, Avon Park, and Lake Placid Clinics. Public health nurses will assist with
nutrition counseling at maternity clinic. At well-baby clinic individual counseling will be provided to selected patients. Home visits will be limited, with most counseling being done at clinics.

Plan discussed with Nursing Director and Health Officer.

__________________________ Health Officer  ____________ Nursing Director

__________________________ Nutritionist
VITA

Charlotte Ann McDowell graduated from elementary school and high school in Allamakee County, Iowa. She received her Bachelor of Science degree with Distinction in Food and Nutrition from Iowa State University. After finishing a year of study in public health nutrition in Norway under the auspices of a Fulbright Fellowship, she completed a dietetic internship at Massachusetts General Hospital. She worked as a therapeutic dietitian at the University of Missouri Medical Center prior to serving with the Peace Corps as an advisor with the Institute of Nutrition for Central America and Panama (INCAP) for the Centers for the Recuperation of Malnourished Children and Education of Mothers. She entered the University of Tennessee in September, 1971, to study for a Master of Science degree in Nutrition.