August 7, 1969

To the Graduate Council:

I am submitting herewith a thesis written by Vera Geraldine McRae entitled "Nutrition Field Observations and Experiences in the State of New Mexico." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Nutrition.

Mary Nell Traylor
Major Professor

We have read this thesis
and recommend its acceptance:

Roy E. Beauchene

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Accepted for the Council:

Vice Chancellor for
Graduate Studies and Research

NUTRITION FIELD OBSERVATIONS AND EXPERIENCES IN THE STATE OF NEW MEXICO

A Thesis

Presented to

the Graduate Council of

The University of Tennessee

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

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by

Vera Geraldine McRae

August 1969

ACKNOWLEDGMENTS

The author wishes to express sincere appreciation to Miss Viola Fisher, Nutrition Consultant in the Maternal and Child Health Section, New Mexico Health and Social Services Department, for her time and effort in planning and coordinating such a valuable field experience. The knowledge and help she so willingly gave made the field experience an extremely beneficial and enjoyable one.

Grateful appreciation is extended to the author's major professor, Miss Mary Nelle Traylor, Department of Nutrition, The University of Tennessee, for her guidance and help throughout the year. Appreciation is also given to Dr. Cyrus Mayshark, Department of Public Health Education, and Dr. Roy Beauchene, Department of Nutrition, for their assistance.

A very special acknowledgment is extended to the author's parents, Mr. and Mrs. M. G. McRae, for their constant support and understanding.

V. G. M.

ABSTRACT

This report describes and analyzes the observations and experiences of the author during eight weeks of field experience with the Nutrition Consultant in the Maternal and Child Health Section, New Mexico Health and Social Services Department. The field experience provided an opportunity for the application of theories and principles to the actual practice of public health nutrition while working under the supervision of a nutritionist. The experience was designed to strengthen the author's understanding of public health by furthering her knowledge of the practice of public health in the community, of the role of nutrition within these public health programs and within the community, and of the functions of a public health nutritionist. The author observed and participated in the nutrition program within the health agency as well as with other community agencies and professional groups.

The experience provided the author with an overview of the public health program within the state of New Mexico, the role of nutrition in the program, and an opportunity to observe and participate in activities with the nutritionists and other health personnel. Her understanding of the role of the public health nutritionist within the total health program was strengthened by the opportunity for observing the different ways in which health agencies strive to meet the nutritional needs of the population. Observation of another nutritionist's methods of providing services effectively demonstrated to the author that there is no one method that is right in every situation.

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CHAPTER I

INTRODUCTION

This report is a presentation of the nutrition observations and experiences of the student nutritionist during eight weeks of field training with the New Mexico Health and Social Services Department. During this period, March 25 through May 16, 1969, the author observed and participated in the nutrition program under the supervision of the Nutrition Consultant in the Maternal and Child Health Section.

The primary purpose of the field experience was to supplement the academic work and experience of the author in public health, particularly in the nutrition component of public health. The field experience provided an opportunity for the application of theories and principles to the actual practice of public health nutrition while working under the supervision of a nutritionist.

The objectives of the field experience were:

1. To study the community as it relates to health and nutritional needs and to observe how health and nutrition services are provided to meet these needs.

2. To observe the organization and functions of the health agency and to learn how nutrition services are related to the total program.

3. To observe the interrelationship between the health agency and other community agencies and how nutrition services are coordinated between these agencies.

4. To further develop professional abilities for planning, developing, and carrying out nutrition activities within a health agency.

The following report of the field experience is divided into six chapters. Chapter II is an analysis of the factors which determine the policies and programs of the New Mexico Health and Social Services Department. In Chapter III, the history and organization of the New Mexico Health and Social Services Department are briefly described. Chapter IV discusses the nutrition programs and services as they relate to health department programs, institutions, and official and voluntary agencies. Chapter V is an analysis of the field experience as related to the author's professional development. Chapter VI is a summary and evaluation of the field experience in terms of the objectives stated in the introduction.

CHAPTER II

THE STATE OF NEW MEXICO

Health and nutrition programs, in order to be effective, must be individualized to meet the needs of the population being served. A necessity then is knowledge about the population, its health, its nutrition practices, and the factors that will contribute to these; for it is these characteristics that will determine priorities in the total public health program and in nutrition services.

I. GEOGRAPHICAL AND CULTURAL CHARACTERISTICS

The area north of the settled Mexican provinces was given many names during the days of the Spanish explorers. It was not until after 1582 that the name New Mexico (Spanish Nuevo Mejico) was used permanently (1).

New Mexico, popularly known as "The Land of Enchantment" because of its magnificent scenery, is one of the southwestern states of the United States. It is bounded by Colorado on the north, Oklahoma and Texas on the east, Texas and Mexico on the south, and Arizona on the west. The capital city is Santa Fe. New Mexico entered the Union as the forty-seventh state on January 6, 1912 (1).

New Mexico has four main land regions: (1) the Great Plains, (2) the Rocky Mountains, (3) the Basin and Range region, and (4) the Colorado Plateau. The Great Plains of New Mexico cover roughly the eastern third of the state, extending from a high plateau in the north to the Pecos River Valley in the south. Cattle and sheep graze in the

deep canyons cut by streams as the plateau slopes away from the Rocky Mountains. Agricultural products are grown in the southern portion by both dry farming and irrigation. The Rocky Mountains extend from Colorado to a point in north-central New Mexico near Santa Fe. In winter there is deep snow on the mountains; in spring the melting snow provides moisture for crops in the fertile Rio Grande Valley. The Rio Grande cuts between the Sangre de Cristo Mountains to the east and the Nacimiento and Jemez ranges on the west. The Basin and Range region covers about a third of the state, extending south and west from the Rocky Mountains to the Arizona and Mexican borders. This region includes scattered ranges of rugged mountains with broad desert basins lying between the mountains. The Colorado Plateau is a broken country of wide valleys and plains, deep canyons, sharp cliffs, and mesas in the northwest part of the state. The southern portions of this region include a forty-mile strip of a badland of extinct volcanoes and lava plains (2).

Most New Mexicans are descended from one of the three major cultural groups that settled the area--Indians, Spaniards, and English-speaking Americans. Both the Indian and the Spanish cultural influence show strongly in place names, architecture, household furnishings, speech, dress, foods, and holiday customs (3).

Citizens of Indian descent still occupy reservations set aside for their ancestors after the southwest was acquired from Mexico. They include include the Navajo, largely in northwestern New Mexico; the Jicarilla Apaches in the north central region; and the Mescalero Apaches in the south (4). The Pueblo Indians continue to occupy their ancient home sites, 18 in number, mostly along the Rio Grande (1).

II. POPULATION AND ECONOMIC CHARACTERISTICS

New Mexico's population of 951,023, as tabulated in the 1960 census, represented an increase of 39.6 percent over the 1950 population. By comparison, the national growth for the same period was only 18.5 percent. In 1965 the Bureau of Business Research, University of New Mexico, estimated the total population at 1,126,000; the population density was 7.8 persons per square mile, as compared to a density of 50.5 persons per square mile for the United States as a whole.

Of the total population in 1960, 875,763 were white; 56,255 were Indian; 17,063 were Negro; and the remaining 1,942 were composed of other ethnic groups (3). The state is not highly urbanized; Albuquerque, with a population of over 250,000, actually contains about one-third of the population of the state. There were only 12 other cities with an estimated population greater than 10,000 in 1965. Figure 1 shows that these major cities are concentrated in the southern, southwest, and northwest portions of the state (5).

Prior to World War II New Mexico's economy depended primarily upon agriculture and mining. When the federal government established military and research bases throughout the state during the war, federal activities quickly became a part of the state's economy, and soon after they developed into the major economic activity in New Mexico (6).

Mining is one of the foremost activities in New Mexico. New Mexico ranks first among the states in uranium production and it is estimated that about two-thirds of all uranium reserves are in the state. Other important mineral products are petroleum, natural gas and natural gas liquids, potash, and copper.

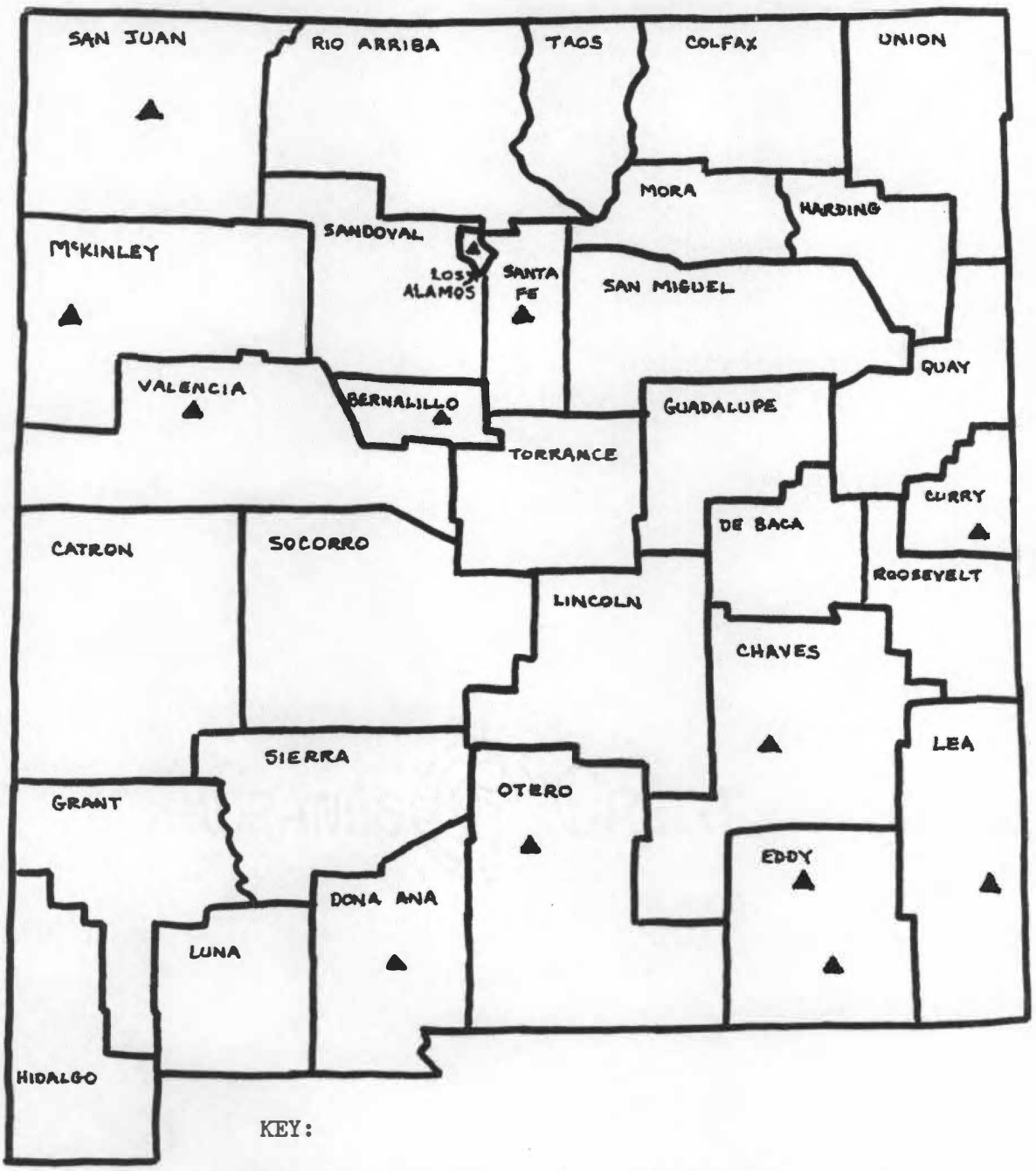


Figure 1. New Mexico urban centers with estimated populations over 10,000 in 1965.

Agriculture is important in the economy of the state. The most important agricultural activity is ranching; cattle and sheep can graze in areas where low rainfall or rough land prevents crop farming. Livestock brings New Mexican farmers and ranchers more than half again as much income as do crops.

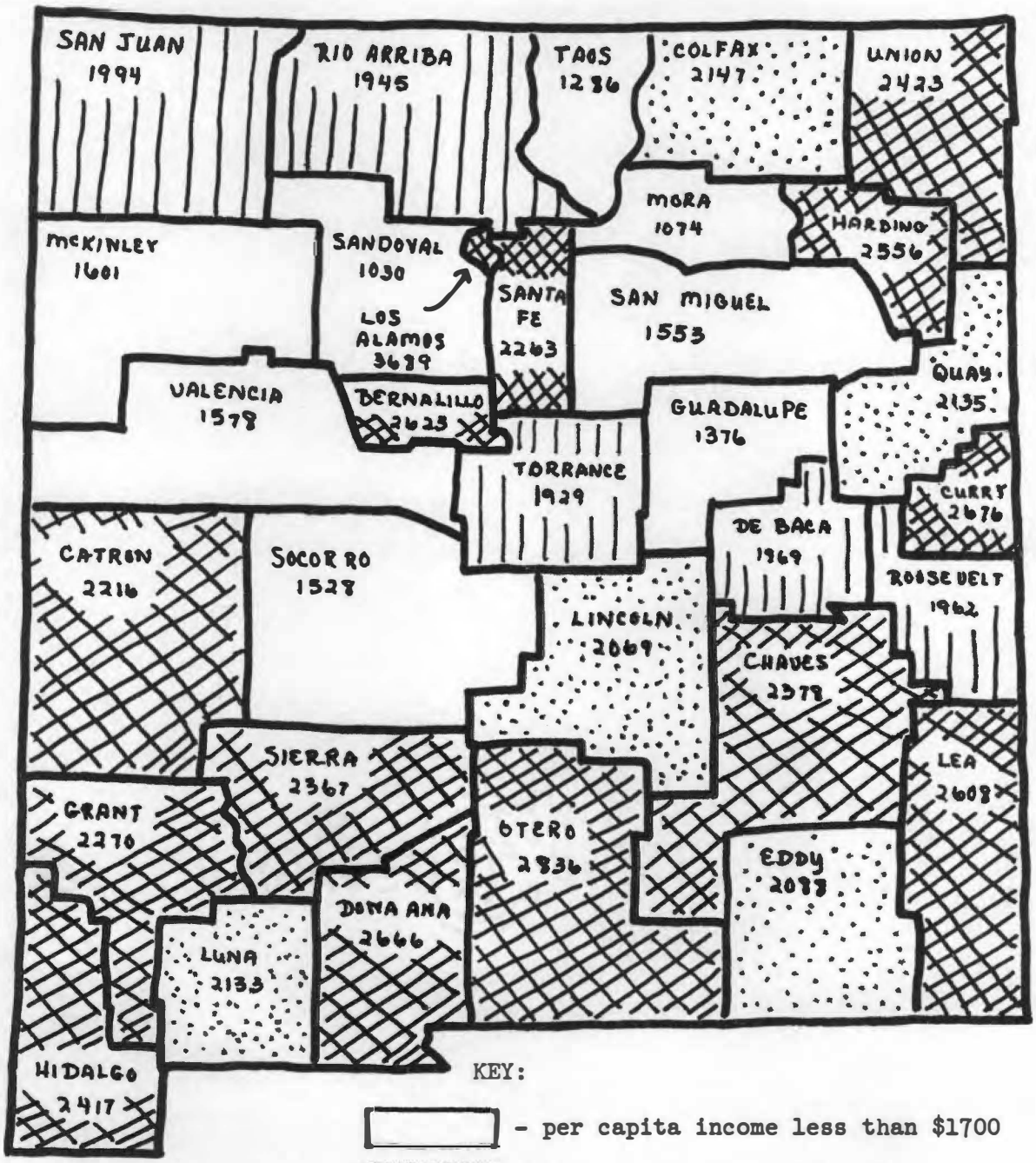
Dry farming is practiced on about two-thirds of the state's cropland, while only about one-third is irrigated. The leading cash crop is cotton, followed by grain sorghums, hay, winter wheat, corn, and dry beans.

Manufacturing has expanded since World War II, but it still provides only a small portion of the value of all goods produced in New Mexico. The chief manufacturing industries include food and kindred products, stone, clay and glass, printing and publishing, chemical and allied products, and petroleum products (1).

In 1966 the per capita income in New Mexico was $2,323 as compared to $2,963 for the United States as a whole. Figure 2 shows that the per capita income was very low in certain counties (6).

III. HEALTH CHARACTERISTICS

The New Mexico birth rate in 1966 was 21.5 per thousand population compared to the United States birth rate of 18.5 per thousand population. The infant mortality rate was 26.8 per thousand live births as compared to the United States rate of 23.4 per thousand live births (5). The leading causes of infant deaths in descending order of importance were: immaturity, ill-defined or unknown, congenital malformations, influenza and pneumonia, and asphyxia or atelectasis (7). In 1965 the maternal mortality rate in New Mexico was 4.1 per ten



Source: Bureau of Business Research, University of New Mexico.

Figure 2. Per capita income in New Mexico by county, 1966.

thousand live births as compared to a rate of 3.1 per ten thousand live births in the United States (5). The ten leading causes of death in descending numerical order were: heart disease; malignant neoplasms; all accidents; vascular lesions; unknown causes; motor vehicle; influenza and pneumonia; other respiratory diseases; diseases of liver, gallbladder, and pancreas; and diseases of the arteries (8).

CHAPTER III

THE NATURE OF PUBLIC HEALTH IN NEW MEXICO

I. HISTORY

On March 15, 1919, House Bill No. 118 was signed by the Governor of New Mexico, creating the New Mexico State Department of Health to include a state board of health, with three members, and a commissioner of health. This department was empowered with the responsibility of making and enforcing rules and regulations relating to quarantine, sanitation, and the public health. This bill also provided for the appointment of a county health officer in every county and a municipal health officer in each incorporated city, town, and village.

House Bill No. 80 was passed by the legislature in March of 1921 creating the New Mexico State Department of Public Welfare. The State Department of Health became the Bureau of Public Health under the Department of Public Welfare. This act also provided for a state board of public welfare with five members who were to be appointed by the Governor. The legislature in 1935 passed the health district bill, dividing the state into ten health districts and providing for the appointment of a full-time health officer in each district. Authority formerly given to the county health officers was transferred to the district health officers.

In 1937 the legislature re-established the New Mexico State Department of Public Health as a separate entity under a separate board, as it had been under the 1919 act. Senate Bill No. 54 was

passed in March, 1953, changing the name by law to the New Mexico Department of Public Health (9).

The New Mexico Department of Public Health and the New Mexico Department of Public Welfare were merged again in October, 1967. The name was changed by law to the New Mexico Health and Social Services Department. The State Board of Health and Social Services consists of five members appointed by the Governor (10).

II. ORGANIZATION

At the second and third meetings of the state board of health in 1919 the following divisions were created: vital statistics, preventable diseases, sanitary engineering and sanitation, public health education, public health nursing, child hygiene, and laboratories (9). Through the years changing needs and changing organization have brought about the addition of other divisions, sections, and services.

The organization plan for the New Mexico Health and Social Services Department was approved in 1967. Figure 3 shows the functional organization for the following Divisions: Legal, Systems, Communications, Business Administration, Personnel Management and Development, Emergency Services, Medical Services, Assistance Administration, Community Development, Social and Rehabilitation Services, Environmental Services, Health Facilities Services, and Health Laboratories. The divisions and sections are headed by directors who are responsible for administering the specific programs. Those divisions and sections whose programs and services are related most directly to the nutrition activities are discussed briefly in Chapter IV.

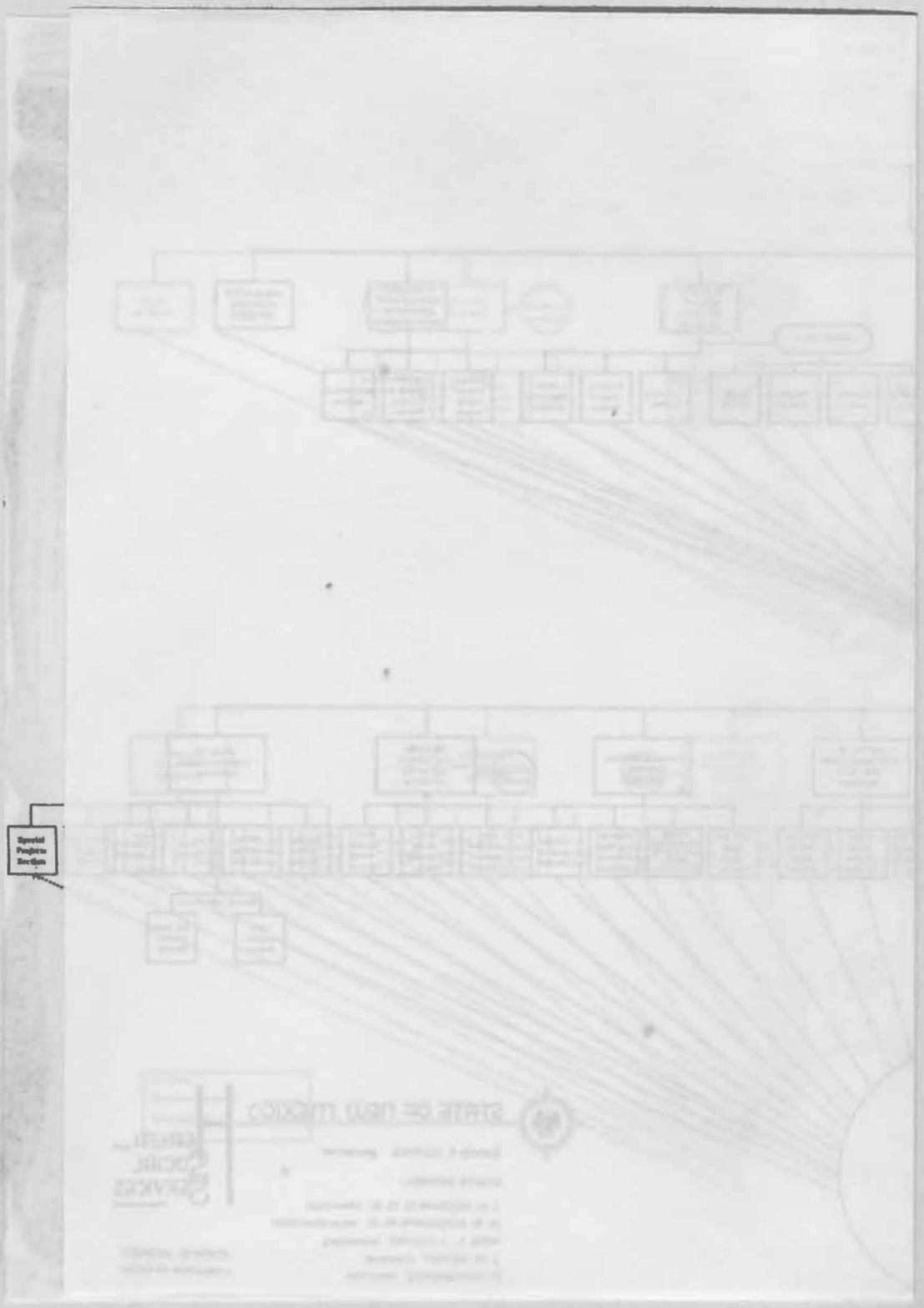
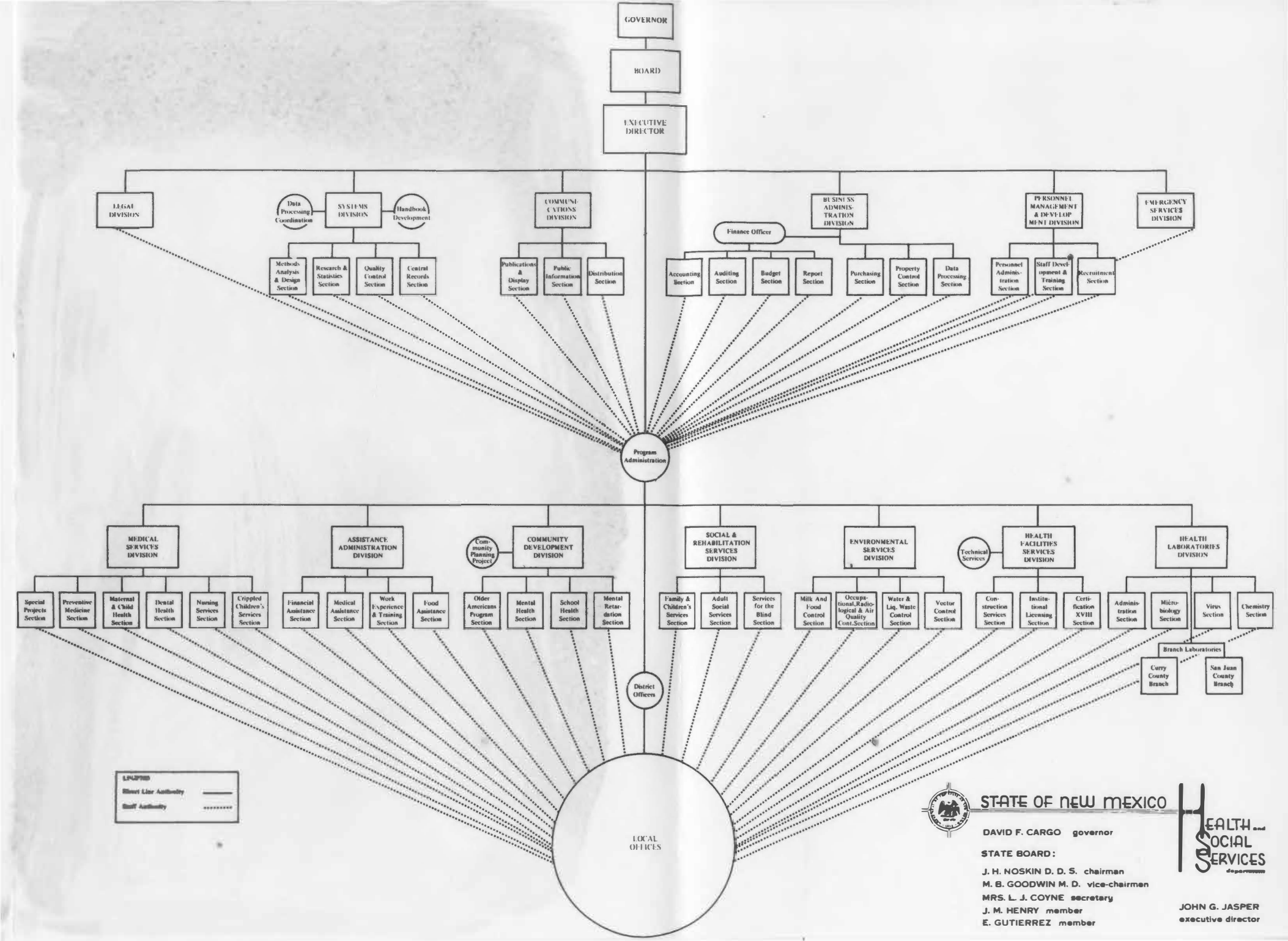


Figure 3. Organizational Chart of the New Mexico Health and Social Services Department, 1967.



STATE OF NEW MEXICO

DAVID F. CARGO governor

STATE BOARD:

J. H. NOSKIN D. D. S. chairman
M. B. GOODWIN M. D. vice-chairman
MRS. L. J. COYNE secretary
J. M. HENRY member
E. GUTIERREZ member

HEALTH and SOCIAL SERVICES department

JOHN G. JASPER
executive director

At the present time the state is divided into the ten health districts designated by the law in 1935. Figure 4 shows these health districts and the location of District Health Officers or Acting District Health Officers (10).

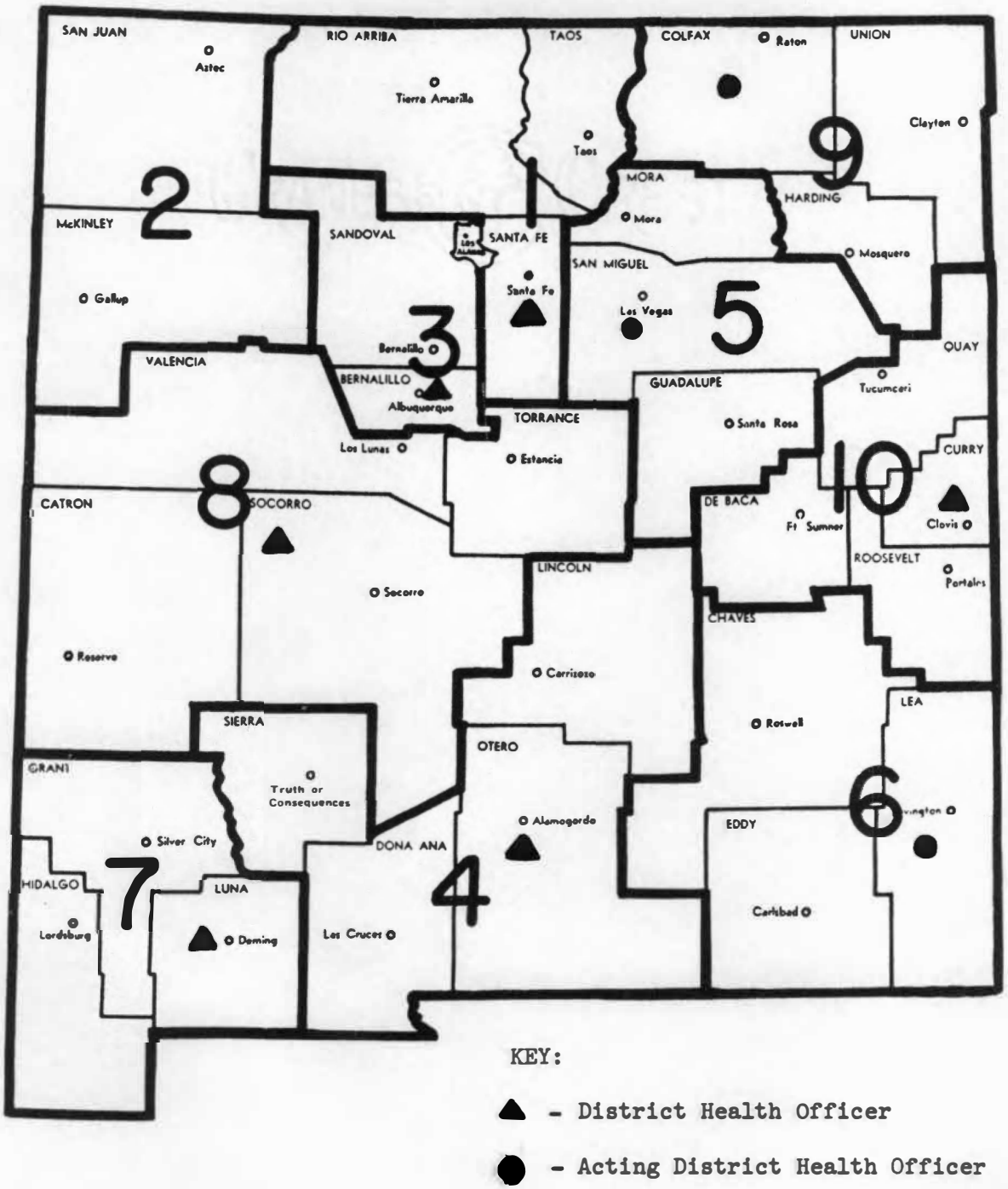


Figure 4. Health districts in New Mexico.

CHAPTER IV

NUTRITION SERVICES IN THE NEW MEXICO HEALTH AND SOCIAL SERVICES DEPARTMENT

I. HISTORY

The Maternal and Child Health Division was organized in July, 1936. Records do not exist as to the exact date of employment of the first nutritionist, but she was employed by this division sometime during the year 1937.

The major factor influencing this placement of the nutrition services was the fact that the position for a nutritionist was possible through funds available to the state from the Children's Bureau. These funds were for use in extending health services to mothers and children. Therefore, the most logical administrative placement for the nutritionist was under the medical director of the maternal and child health program. Through the years this placement has limited somewhat the scope of nutrition services. Approximately 80 percent of the Nutrition Consultant's time must be devoted to nutrition activities directly related to maternal and child health programs.

II. NUTRITION POSITIONS WITHIN THE NEW MEXICO HEALTH AND SOCIAL SERVICES DEPARTMENT

There are at present two functioning nutrition positions within the New Mexico Health and Social Services Department. A Dietary Consultant has been assigned to the Certification XVIII (Medicare) Section

by the United States Public Health Service. The other position is that of the Nutrition Consultant with the Maternal and Child Health Section.

Qualifications and Responsibilities

Qualifications for all nutrition positions are specified by the New Mexico Personnel Board. The minimum requirements for the Nutrition Consultant are a Master's degree in foods and nutrition or public health, and at least three years' experience as a nutritionist in a health or welfare agency or in agricultural extension. The Nutrition Consultant is responsible for planning and carrying out the nutrition aspects of the statewide maternal and child health program. A Public Health Nutritionist II must have a Master's degree in nutrition and two years of experience as a nutritionist or in a closely related position. The Public Health Nutritionist I must have a Bachelor's degree with a major in foods and nutrition and 18 months of experience in nutrition or dietetics.

To qualify as a Dietary Consultant, one must have a Bachelor's degree with a major in foods, nutrition, or food service management; have successfully completed an approved hospital dietetic internship; and have three years of experience, including experience in an administrative capacity. A more detailed description of the job specifications, qualifications, and examples of work performed is found in Appendix A, page 41. These job descriptions are being revised at the present time.

Continuing Education

No nutrition program can operate with optimal effectiveness unless the staff members are aware of current developments in nutrition

knowledge. Participation in the professional organizations is encouraged. Nutritionists in the New Mexico Health and Social Services Department are theoretically allowed to attend one out-of-state meeting per year, but due to budgetary limitations this is not always possible. One important method of sharing information is through informal conferences that are held periodically.

Program Evaluation

Since much of the work of the nutritionists involves consultation to other professional people who transmit what they have learned to others, evaluation of the relative success of the program is difficult. A quarterly narrative report provides the Nutrition Consultant with one method of evaluation. Other guides that are used for program evaluation include observation of nursing staff follow-through in nutrition and observation of the number and types of requests for service.

III. NUTRITION SERVICES PROVIDED BY THE NUTRITIONISTS IN THE NEW MEXICO HEALTH AND SOCIAL SERVICES DEPARTMENT

The Maternal and Child Health Section

Objectives. Good health is more than merely the absence of disease. Nutrition programs are developed which aim at the promotion of positive health, prevention of chronic and debilitating disease, and the rehabilitation of individuals.

The objectives that have been established for the nutrition program are incorporated within the overall objectives of the Maternal and

Child Health Program. The following overall objectives include those objectives which are related to nutrition services:

A. Reduction of maternal mortality and morbidity through optimal level of care throughout the maternity cycle.

B. Early case finding with extension and strengthening of maternity services.

. . . . . .

D. Reduction of infant mortality and morbidity.

E. Improvement in care of newborn with focus on "high risk" and potentially "high risk" infants.

F. Promotion of health supervision and immunization services for infant and preschool age children.

G. Promotion of health services for children of school age.

H. Education services directed toward:

1. Professional and sub-professional personnel.

2. The public for understanding and support to obtain and develop resources and facilities necessary to meet needs of mothers and children at local, state, and federal levels.

3. Parents.

4. Education - for family living and care of children.

5. Training of personnel for Maternal and Child Health services.

I. Provide consultation services to hospitals, agencies, professional, and nonprofessional personnel serving mothers and children.

J. Improve quality and scope of services. . . . (10).

Services provided. Since immaturity is the leading cause of infant deaths in New Mexico, a priority need in maternal and child health is concerned with the role of nutrition in preventing immaturity. Nutrition's value in maternal and child health is emphasized by the

importance of nutrition during the human growth period. To help families improve food practices both direct services and consultation are offered by the Nutrition Consultant through maternity clinics, well-child clinics, and immunization clinics. Work with the families of children with phenylketonuria helps these children to reach their growth potential and to reduce their illnesses.

Weekly maternity clinics are conducted in twelve locations throughout the state. The Nutrition Consultant provides direct services in these when it is possible. In one of the clinics a short demonstration on a specific topic is presented once a month. For example, some of the demonstrations presented have dealt with the cost of various sources of vitamin C, the iron content in infant foods, and sources of iron for the expectant mother. The primary goal of these visits to the maternity clinics is to help mothers select and consume an adequate diet, which will result in healthier babies.

The Nutrition Consultant attempts to improve food practices of families with infants and young children through individual and group counseling for mothers of children attending immunization and well-child clinics and by providing consultation on child nutrition to nurses. Nursing students from the University of New Mexico observe at well-child clinics in Albuquerque as a part of their public health training; planning is under way to include the Nutrition Consultant in the well-child clinic so that the student nurses can learn more about the functions of a public health nutritionist.

There are four children in the state who are known to have phenylketonuria. Three of these children are followed regularly by the Denver Phenylketonuria Center in Denver, Colorado; the Nutrition

Consultant cooperates with the dietitian at the Center, making home visits to counsel the families concerning the diet and to answer questions that they might have.

Direct services are provided to children referred for nutrition counseling at the regional Crippled Children's Clinics held in eight different locations in the state. A disadvantage is that many of the clinics are held only once a year, and follow-up of the nutrition teaching has been inadequate due to insufficient staff to provide such services. In order to help overcome this, duplicate copies of the nutrition recommendations are now being made at the clinic and left with the public health nurse so that she can make follow-up visits in the home. Another possible means for expanding nutrition services would be through case conferences concerning the children seen in the Crippled Children's Services clinics.

Services Provided to Colleges and Universities

The Nutrition Consultant has presented various educational lectures to colleges and universities in the state. Talks on the role and functions of the public health nutritionist in a public health agency have been given to home economics classes.

Certification XVIII Section

A Dietary Consultant is assigned to the Certification XVIII (Medicare) Section by the United States Public Health Service. She functions primarily in surveying the dietary departments of hospitals and nursing homes to meet the Standards of the Conditions of Participation and to furnish consultation to the administrators and the dietary consultants in upgrading the services of the departments. She has

recruited dietitians for full-time or part-time work, or to serve as consultants to these facilities. By meeting with the staff of the four Home Health Agencies in the state, she has tried to determine the needs for diet therapy services and how these needs can be met either by direct consultation or through local dietitians.

New Mexico Maternity and Infant Care Project

The New Mexico Maternity and Infant Care Project in Bernalillo County employs one nutrition coordinator and two nutritionists. Comprehensive health care, including direct nutrition services, is provided in five maternity clinics and one well-child clinic. This project is serving primarily the city of Albuquerque, which encompasses approximately one-third of the population of the state and a very large concentration of low-income families. The nutrition coordinator is responsible for assistance to the Director of the Project in developing the nutrition component of this program.

The nutritionists are doing some group teaching in the clinics as well as counseling with individual patients. Because the staff can provide more direct services, there are more opportunities to follow through in the teaching that has been done with the families; this follow through is necessary if lasting improvements are to be made in food habits. Limited consultation is also available to other health professionals on the Project staff.

The Maternity and Infant Care Project is funded through the Maternal and Child Health Section of the Health and Social Services Department, but it is not administratively responsible to the Section. There is a close working relationship between the personnel working

with the Project and the staff in the Maternal and Child Health Section. And although they are not administratively a part of the Health and Social Services Department, the qualifications for nutritionists in the Maternity and Infant Care Project are those specified by the New Mexico Personnel Board.

Gaps in Services Provided

Two nutritionists working in a state the size of New Mexico cannot provide comprehensive nutrition services for the population. In addition, the administrative placement of the nutrition positions has made it difficult to coordinate the nutrition services in the New Mexico Health and Social Services Department. At the present time nutrition services are directed primarily to the Maternal and Child Health programs and Certification XVIII. Nutrition consultation is either limited or unavailable to the following Sections which do include a nutrition component in their services: Preventive Medicine, School Health, Dental Health, Nursing Services, Family and Children's Services, Construction Services, Food Assistance, Older Americans Program, and Institutional Licensing.

The elderly are a nutritionally vulnerable population group and many times are in need of counseling because of poor food habits, limited finances, or modified diets. Nutrition services to children and adults with chronic diseases is limited to those referred to the Nutrition Consultant at two heart clinics held in Albuquerque and Santa Fe. Assistance to diabetics requiring help with their diets is given when a request is made for help by a public health nurse. Time and staffing do not permit further extension of nutrition services to

programs in the Preventive Medicine Section and the Older Americans Program Section.

The School Health Section is responsible for the formation of the joint school health committee, of which the Nutrition Consultant is a member. Nutrition education is offered to school-age children through the teachers and the school nurses. Consultation is available upon request to both the teachers and the school nurses, but the requests are few. It is difficult to reach the school nurses as a group; most contacts are on an individual basis.

It is through the Nursing Services Section that many of the programs of the health agency are implemented at the local level. The public health nurse in the local unit is usually the person responsible for the direct nutrition counseling. The Nutrition Consultant provides technical guidance and consultation to these nurses. Limited nursing staff at both the state and local levels leaves little time for the public health nurses to provide nutrition services as they are responsible for many other services as well.

Operators of day care centers and personnel in foster homes and other child caring institutions often have difficulty meeting the nutrient needs of the child during the day. Nutrition consultation should be available to them. The Nutrition Consultant is developing a working relationship with the day care consultant in the Family and Children's Services Section. It would be helpful if information on food service and nutrition could be included in a training program for case workers who work with day care centers, homes, and foster parents. Two other possibilities for expansion of services are being explored:

(1) group meetings of foster mothers, and (2) preparation of nutrition articles for the bulletin that is sent to day care operators.

Although her responsibilities are primarily in surveying and furnishing consultation to the dietary departments of hospitals and nursing homes to meet the Standards of the Conditions of Participation, the Dietary Consultant has cooperated with the Construction Services Section by reviewing kitchen plans for efficient work flow. These plans have included both facilities in new construction and those remodeling. Guidance needs to be available to group care facilities when kitchens are under construction or being remodeled so that they are convenient and the work flow is efficient, but this is not a requirement and other activities of the Dietary Consultant usually assume priority.

Facilities such as boarding homes or nursing homes which are unable to meet Title XVIII Certification have very limited opportunity to obtain help with their problems related to food service from the Dietary Consultant or other dietitians. This also applies to state institutions such as the School for the Deaf, the School for the Blind, and others. These health facilities need assistance in specific areas such as food purchasing, cost control, workshops for training personnel in food production, menu writing, and sanitation. The Health and Social Services Department does not have staff available to help.

IV. NUTRITION SERVICES WITHIN OTHER AGENCIES

United States Department of Agriculture

Consumer and Marketing Service. The 32 counties in New Mexico are covered either by the Food Stamp or the Commodity Food Program. The Supplemental Foods Program is a relatively new federal program which provides selected foods to persons in low-income groups--pregnant women, nursing mothers, infants, and preschool children--that are especially vulnerable to health problems caused by malnutrition. As yet, the Supplemental Foods Program has not been initiated in New Mexico. Along with these programs there is an unmet need for more basic nutrition education for the families receiving Food Stamps or Commodity Foods. Plans for nutrition education and nutrition education materials are shared by the two agencies.

Home Economics Extension. County home agents are assisted with the nutrition aspect of their programs by an extension nutrition specialist. Five counties are now participating in the Extended Home Economics Program which employs aides to work with low-income families in helping these families to improve their nutritional practices.

Technical Action Panel. Personnel in the Consumer and Marketing Service were responsible for bringing together the staff of agencies involved in the administrative and educational aspects of the Food Stamp and Commodity Food Programs. An outgrowth from that meeting was the formation of the New Mexico Inter-Agency Committee on Nutrition Education. This committee is now a standing committee of the New Mexico Technical Action Panel with members representing agencies

involved in nutrition education. Through the state Technical Action Panel, county nutrition education committees have been formed to help families who are receiving food stamps or commodities. A primary method by which this objective can be achieved is through the coordination of nutrition education activities so that the best possible use is made of resource persons and available materials.

Indian Health Services

The Dietary Consultant in the Albuquerque Area office of the Public Health Service is responsible for upgrading dietary services in the Public Health Service Indian hospitals. The Nutrition Consultant positions are vacant at the present time, but the Dietary Consultant does provide some nutrition services upon request. For example, she has provided demonstrations on the use of commodity foods for some of the Pueblo Indians.

Office of Economic Opportunity

A dietitian has been appointed to serve as the regional Nutrition Consultant for Headstart Programs. Communities that are in the process of establishing Headstart Programs may request her services from the regional Office of Economic Opportunity for assistance with the feeding programs. One of her educational activities has included classes for the parents of Headstart children.

Dairy Council of the Rio Grande Valley

The services of the two dietitians employed by Dairy Council of the Rio Grande Valley are centered around assisting teachers with nutrition education materials and activities in the elementary grades.

Dairy Council is participating in nutrition education activities of the Headstart Program.

Farmer's Home Administration

The two home economists employed by Farmer's Home Administration work with families who have received loans. Nutrition education is only one phase of their work with these families.

Department of Education

School Lunch. The Director of the School Lunch Division is responsible for the administration of the School Lunch Program. She is assisted by two field supervisors who visit the individual schools to assist the cooks in the various aspects of the program. A special workshop, aimed at upgrading services, is planned for school lunch personnel each year.

V. THE NEED FOR COORDINATION OF NUTRITION SERVICES

In an effort to combat the problem of hunger and malnutrition, many new programs have been created. Responsibility for these programs has been delegated to various agencies, which contributes to fragmentation of services. In order to derive maximum benefit from these programs, it is imperative that the agencies concerned coordinate their efforts.

An attempt at this coordination has been made through the formation of the New Mexico Inter-Agency Committee on Nutrition Education. The primary purpose of this committee is to help families who are receiving food stamps or commodity foods, but this is only possible

through the coordination of nutrition education activities in order to make the best possible use of resource persons and available materials.

CHAPTER V

ANALYSIS OF THE FIELD EXPERIENCE IN PUBLIC HEALTH NUTRITION

A partial account of the field experiences with the Nutrition Consultant in the Maternal and Child Health Section plus an assessment of their value in the author's professional growth follows. Part I includes an analysis of the skills gained through observation and experience. An evaluation of a field project, planned and carried out by the author, is presented in Part II.

I. ANALYSIS OF SKILLS GAINED THROUGH OBSERVATION AND EXPERIENCE

Consultation

Consultation is a process in solving problems which takes place between two or more professional people to augment the knowledge and skill of the consultee. Consultation is a tool used frequently by the nutritionist to extend her expertise in nutrition. And she may also on occasion assume the role of consultee as she seeks assistance from other health professionals or from other nutritionists.

Observation of several consultation sessions helped to give the author a better idea of the characteristics of an effective consultant. Flexibility was important in effective consultation. Effective consultation involved building a working relationship with another person so that ideas could be shared in attempting to solve a mutual problem. The importance of previous actions, organization, attitudes,

communication, and diplomacy in maintaining this relationship was obvious. Finally, these experiences demonstrated that all these factors may limit the effectiveness of the consultation.

In-Service Education

In-service education is a broad title given to activities designed to further knowledge and stimulate professional growth for agency personnel. Programs given may vary with the needs and interests of the group.

The author attended an in-service program provided for the public health nurses in a large county health department. Since the nurses had requested assistance with food budgeting, this was the topic for the in-service program.

In making advance preparation for the session, the Nutrition Consultant prepared menus and a marketing list for an adequate diet at very low cost for a specific family, using data on one of the families followed by that health department. In presenting the material to the nurses she emphasized the need for awareness of the family's situation, as many times even the cost of a very low-cost adequate diet is beyond the financial means of a family.

The in-service program was presented informally, and the exchange of ideas between the Nutrition Consultant and the public health nurses was good. There were two factors which contributed particularly to the effectiveness of this in-service program. First, the program was very informal; the Nutrition Consultant was relaxed and informal and invited discussion from the nurses. Secondly, she had personalized the presentation by using a family their health department was

following; the nurses could contribute to the discussion because they were familiar with part of what was being discussed. Participation in this and other in-service programs gave the author ideas for her future participation in in-service programs.

Group Work with Nonprofessional Persons

Group work is unpredictable as well as varied. It is helpful if the nutritionist has information about the facilities, the time allowed, specific content for the presentation, and the composition and interests of the group. Many times, however, the situation cannot be anticipated and the nutritionist must be able to adapt her subject matter and techniques to the individual occasion.

In one situation observed by the author, the Nutrition Consultant presented a brief demonstration on the cost of various sources of vitamin C to mothers attending a well-baby conference. Her presentation was informal, encouraging group participation, and she attempted to stress only one main idea.

Later that same day the author was given the opportunity to present the same demonstration to a different group of women. She used some of the techniques she had observed earlier and was able to elicit interest and response to the topic. The author enjoyed working with the group and felt that the idea of a brief demonstration could be useful in her future practice.

Counseling Nonprofessional Persons

In the past the author has had experience in interviewing patients attending the prenatal and other health department clinics.

During her field experience she had varied experiences in counseling patients in maternity clinics, in well-baby conferences, and in the Maternity and Infant Care Project. She learned additional interviewing techniques by observing the techniques of the nutritionists. These nutritionists were quite skillful in putting the patient at ease at the beginning of the interview and in phrasing questions to get the necessary information for dietary histories. Of particular interest were different ways of teaching about the use of low-cost foods. These experiences were also valuable in acquainting the author with a cross section of the population served by the health agency including low-income families, Spanish-Americans, and Indians. The author enjoyed the direct person-to-person contact and seemed to be able to relate well to the patients.

II. AN EVALUATION OF THE FIELD PROJECT

The field project chosen by the author during her field experience allowed her to assume the responsibility for planning, developing, and carrying out an activity which contributed to an area of need. With the assistance of the Nutrition Consultant, the author decided to plan a short demonstration for use with mothers attending one of the well-baby clinics.

In order to choose a topic that would be of value to the patients, background information was needed. The author conferred with the Nutrition Consultant to determine what topics had been previously developed and the most appropriate areas of need. It was not possible to attend a well-baby clinic beforehand, but the author discussed the patients and the clinic activities with the Nutrition Consultant in an

effort to gain an understanding of the patients' background, educational level, and nutritional needs. It would have been helpful to interview the patients to determine their interests, but time limitations made this impossible.

A decision was made to approach the interests of the mothers through their concern for their children. "Snacks for Children" was chosen as the topic; both the Nutrition Consultant and the author felt that snacks are an increasing problem in our society today.

Appropriate visual aids and teaching materials were discussed with the Nutrition Consultant. Bar graphs illustrating the nutritive value of different snack foods were selected from resource materials or made for use with the group. Some of the suggestions for nutritious snacks were prepared ahead of time and offered to the mothers and children present while snacks were being discussed.

Both the discussion material and the visual aids were geared to the educational level of the patients. Planning had included writing an outline in detail, but the presentation of the material was very different from the outline as it was modified to adapt it to the interests of the group. The demonstration was presented informally and included discussion during the twenty-minute presentation. The author found the group very receptive and all seemed to be interested in the subject.

The author presented the demonstration for two different groups of mothers during the well-baby clinic. The opportunity to discuss the same material twice was valuable in that it provided a basis for observing the author's ability to evaluate the interests and needs of a group and to adapt her techniques in response to the individual group.

The demonstration on snacks was also adapted for use with patients in a maternity clinic. With this group the author chose to emphasize cost in relation to the nutritive value of various snack foods. The bar graphs illustrating the nutritive value of different foods were used. The author also prepared a poster showing the cost of various nutritious snack foods as compared to the cost of various "lone-wolf calorie" items, such as candy, soft drinks, potato chips, and cookies.

The remaining part of the author's project involved the preparation of an issue of "The Chili Bean Scene," the bi-monthly nutrition newsletter edited by the Nutrition Consultant. The author decided to follow through with her demonstration topic by preparing an issue of the newsletter on "Snacks." She decided to restrict her discussion of the subject to snacking by young children, as it is in the childhood years that lifetime eating habits are formed. After reviewing pertinent references and consulting with the nutritionist, the newsletter was written. The issue of "The Chili Bean Scene" devoted to "Snacks" was printed during the month of June and distributed to public health nurses. A copy of this newsletter is found in Appendix B, page 46.

The project especially served to re-emphasize to the author the importance of careful, detailed planning and organization of an activity prior to its execution. The author felt that she made significant gains in her ability to adapt her techniques to different situations.

The agency adviser commented that the author developed good rapport with patients and presented the material well. She did state,

however, that she thought the author needed more experience with group work to help her conquer her lack of self-confidence.

CHAPTER VI

SUMMARY

The eight weeks of field experience in the New Mexico Health and Social Services Department gave the author a greater realization of the importance of nutrition services to the programs of a health department in assessing and meeting the health needs of the community. She learned that leadership, communication, organization, effective planning, and evaluation all were important in the function of safeguarding the public's health.

During the experience the author worked with nutritionists and other health personnel in an effort to correlate theories and principles learned during the academic year with the actual practice of public health nutrition in the community. As a result of the many varied experiences the author believes that her concepts of the services offered through the health agency have been both strengthened and clarified.

In evaluating her observations and experiences, the author believes that her objectives were achieved. Her understanding of how health and nutritional needs of the population are met by the health and nutrition services was increased. From previous experience the author had observed how one health agency attempted to meet the health and nutritional needs of the community. The field experience helped her to realize that, dependent upon the needs within the community, a variety of methods can be employed to meet these needs; there is no one method that will be successful in all situations.

The wide variety of experiences helped to strengthen and clarify the author's concept of services offered by nutritionists and other public health workers. Observing how these services were interwoven with the programs of other community organizations and agencies effectively demonstrated for her that coordination between these agencies is necessary if maximum benefit is to be derived from limited resources.

The practical nutrition activities with and for nonprofessional and professional persons aided the author in expanding her own knowledge and skills in the field of public health nutrition. She feels that the field experience also gave her a greater awareness of the complex administrative responsibilities that are involved in planning and carrying out a statewide nutrition program.

The author feels that her previous experience, the academic education, and the field experience have been invaluable in helping her to develop the professional skills and attitudes necessary for the practice of public health nutrition. She feels that she has learned from all of her experiences, and that she will continue to develop appropriate skills for the practice of public health nutrition.

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APPENDIXES

APPENDIX A

JOB SPECIFICATIONS FOR PUBLIC HEALTH NUTRITIONISTS

NUTRITION CONSULTANT

DEFINITION:

Under the direction of the Maternal and Child Health Chief, plans and directs a state-wide nutrition program.

EXAMPLES OF WORK PERFORMED:

Participates in the promotion, organization, establishment of standards and the conduct of a program to prevent and control dietary deficiency diseases; promotes better health through improved nutrition practices; supervises and directs work of other nutritionists; offers consultant service to state, district and county health department staff on all phases of nutrition, including basic facts and current research in normal nutrition and interpretation of therapeutic diets through individual or group conferences; offers consultant service to school personnel on nutrition; offers consultant service to public or private agencies, institutions or organizations; evaluates educational materials on nutrition and prepares educational materials adapted to food patterns in the state; gives direct service in clinics as part of staff orientation and evaluates nutrition teaching of the staffs; speaks on various phases of nutrition to community groups and makes radio and television appearances; orients new staff members in nutrition; collects nutrition data; prepares reports; performs related work as required.

MINIMUM QUALIFICATIONS:

1. A Master's degree from an accredited college or university with a major in foods and nutrition, including field work in a nutrition program, or in public health, plus 3 years of full-time paid employment within the past 10 years as a nutritionist in a health or welfare agency, or in agricultural extension. The following substitution may be made:

   Two years experience as a therapeutic or teaching hospital dietician or teacher of foods and nutrition may be substituted for 1 year of the above experience.

2. Thorough knowledge of the modern principles and practices of nutrition; knowledge of the developments in the field of public health work as related to nutrition; and of educational techniques.

3. Ability to interpret and apply the principles and practices of nutrition to the public health program; to speak effectively before professional and lay groups and to present material through the use of various media, such as exhibits, demonstrations and literature; to create and develop educational and instructional materials; and to work well with others.

DIETARY CONSULTANT

DEFINITION:

Under the general direction of the Nutrition Consultant is responsible for consultation on nutrition and food service to group care facilities in connection with the State public health nutrition program.

EXAMPLES OF WORK PERFORMED:

Plans, develops and conducts a program to improve standards in nutrition and food service as they relate to group care facilities; serves as the specialist on nutrition and food service in group care facilities for the public health agency and coordinates the program with other operating programs in the agency; consults with administrators and staff of group care facilities on menu planning, food purchasing, storage, preparation and service, budgeting and cost control, modified diets, work organizations, recruitment of staff, training of employees, and other activities that relate to food service; advises nutrition staff and other professional staff such as physicians, nurses, social workers and dietitians on nutrition and food service in group care facilities; interprets available services and provides consultation to agencies and professional organizations concerned with group care, establishes and maintains cooperative relationships with such agencies and organizations; plans and participates in educational activities such as in-service training and staff development programs; develops, evaluates and selects educational materials; participates in making studies and surveys related to nutrition and food service in group care facilities; provides consultation to building committees, administrators, architects, engineers, equipment specialists and others in the planning and evaluating food service departments; participates in public health field experience for graduate students such as nutritionists, dietitians, and other professional health workers in the field of nutrition as it relates to group care; reports and summarizes progress and activities at regular intervals; and perform related work as required.

MINIMUM QUALIFICATIONS:

1. Graduation from an accredited four-year college or university with major course work in foods, nutrition, or food service management plus successful completion of an approved hospital dietetic internship, and 3 years of full-time professional experience as a dietitian in a group care facility including 1 year in a health care facility and 1 year in an administrative capacity. The following substitutions may be made:

a. One year of graduate study with a major in foods, nutrition, food service management, or public health nutrition may be substituted for 1 year of the non-specialized experience.

b. Three additional years of full-time experience as a dietitian in a hospital, a public health nutritionist or teacher in the field of nutrition, such as is qualifying for membership in the American Dietetic Association, may be substituted for the hospital dietetic internship.

2. Considerable knowledge of human nutrition in health and disease; considerable knowledge of the principles and practices of food service management, of current materials, equipment and methods used in all phases of food service in large and small group care facilities and of program goals of group care facilities; considerable knowledge of cultural and economic considerations in food service management and of community resources which can be utilized to effect a comprehensive food service program; some knowledge of principles of public health and welfare practices, and of research methods as applied to nutrition and food service in group care.

3. Ability to present ideas clearly and concisely; to establish and maintain effective working relationships with individuals and groups; to interpret and promote the nutrition program; to plan work effectively and to stimulate and give leadership to staff.

PUBLIC HEALTH NUTRITIONIST I

DEFINITION:

Under the general direction of a Public Health Nutritionist II or Nutrition Consultant, is responsible for nutrition service in a District Health Department and/or special projects.

EXAMPLES OF WORK PERFORMED:

Assists and participates in a Public Health nutrition services program; participates in an orientation program to learn the overall philosophy and organization of a Public Health agency and the relationship of a nutrition services program; coordinates nutrition services with operating Public Health programs; reports and summarizes progress and activities periodically; prepares, procures, and evaluates nutrition information materials for professional workers and the general public; participates in research studies on the relationships of dietary factors to health and disease; participates in in-service education and provides nutrition consultation to physicians, nurses, and social workers; assists with educational programs in institutions; and performs related work as assigned.

MINIMUM QUALIFICATIONS:

1. Graduation from an accredited four-year college or university with a major in food and nutrition and 18 months of full-time professional experience in nutrition or dietetics. The following substitution may be made:

   One year of an approved dietetic internship may be substituted for one year of the required experience. The internship shall include experience in an out-patient clinic.

2. Knowledge of human nutrition in health and disease; knowledge of principles of institutional food service management; some knowledge of methods used in nutrition and dietary studies; some knowledge of social and economic problems as they apply to families and individuals.

3. Ability to present ideas clearly and concisely, to establish and maintain effective working relationships with individuals and groups.

PUBLIC HEALTH NUTRITIONIST II

DEFINITION:

Under administrative direction, provides technical nutrition service in connection with State and District Public Health nutrition programs.

EXAMPLES OF WORK PERFORMED:

Conducts nutrition services as a part of a Public Health program and provides direct services where indicated; coordinates nutrition services with operating Public Health programs; interprets Public Health nutrition services and maintains cooperative relationships with civic, governmental and educational groups; reports and summarizes progress and activities at regular intervals; prepares, procures and evaluates nutrition education materials for surveys on the relationships of dietary factors to health and disease; participates in in-service education and provides nutrition consultation to professional staff, such as physicians, nurses, social workers and teachers of Public Health and allied agencies; provides nutrition and food service consultation and assists with educational programs of personnel in institutions of all kinds; performs related work as required.

MINIMUM QUALIFICATIONS:

1. A Master's degree from an accredited college or university with a major in nutrition, and 2 years of full-time paid professional experience in nutrition or dietetics, 1 year of which must have been as a nutritionist in a Public Health or Welfare agency, in agriculture extension service or in a private agency carrying on

a nutrition and health program. The following substitution may be made:

> Successful completion of an additional year of graduate study in nutrition or of an approved dietetic internship may be substituted for one year of the required experience.

2. Considerable knowledge of human nutrition in health and disease; good knowledge of appropriate educational methods as applied to Public Health nutrition practices; knowledge of methods used in nutrition and dietary studies, of community groups and organizations, of social and economic problems as they apply to families and individuals, and of principles of institutional food service management.

3. Ability to present ideas clearly and concisely, to establish and maintain effective working relationships with individuals and groups, and to plan and work effectively.

APPENDIX B

NUTRITION NEWSLETTER



Figure 5. The Chili Bean Scene.

the Chili Bean Scene



HEALTH AND SOCIAL SERVICES DEPARTMENT

Medical Services Division

Maternal and Child Health Section

BI-MONTHLY JUNE, 1969

S N A C K S

A snack may mean a "bite" or"taste" or it can mean a light, informal meal. For our purposes, we will consider as snacks, any food that is eaten between regular meals.

Snacks are frequently a part of the eating patterns of everyone in our society, but we are particularly concerned about snacking by young children for it is in these young years that lifetime eating patterns are formed. Too many mothers, in an attempt to quiet a fussy child, will give him a cracker, cookie or a bottle and the child seems to have some kind of food prepetually in his mouth. He is forming no pattern of regular meals and there also could be the added risk of overnutrition. Also of concern here is the fact that dental educators now tell us that dental caries are related not only to the kinds of food eaten, but also to the frequency with which they are eaten; when food is in the mouth more frequently, there is a greater chance of caries.

In our society, convention dictates that we have three meals a day. But this may not be realistic or practical for the child with a small appetite who is not able to meet his needs for food in three meals a day. There may be an advantage to the young child if he is given a between meal snack.

If the snacks are needed they should be planned as a part of the day's total food intake and should be given at times that will not interfere with the child's appetite for regular meals. Midmorning and midafternoon are usually good times to give snacks, but in homes where the evening meal is late, it may also be necessary for the young child to have a snack before the father comes home. For children who seem to be constantly hungry, it may well be helpful to keep on hand such foods as carrots, celery or radishes that will satisfy their hunger, but not necessarily spoil their appetite. These could be kept in a special place in the refrigerator where they could help themselves.

Snack foods consisting mainly of "lone wolf calories" such as candy, soft drinks, potato chips, etc., may well mean that the nutritional needs of the child are not met. Some suggestions for snack foods might be carrot sticks, fresh turnip strips, oranges, cauliflowerettes, tomato wedges, apples, grapes, fruit juices or milk. Children who desire more substantial snacks might like crackers and cheese, celery stuffed with peanut butter, or a sandwich. Additional suggestions may also be found in the pamphlet "From: Your Health Department To: Grandparents, Uncles and Aunts, Other Relatives, Neighbors".

Snack foods can be selected with budget limitations in mind and need not be expensive. We are all aware that the nutritive value of fruits, fruit pieces, vegetables, cheese,etc., is far superior to that of cookies, candy, soft drinks and other commonly chosen snack foods. But it is very revealing to compare the cost of some foods of each of these types that might be used for snacks.

Milk	2 qts.	.67	Soft drinks	1 carton (3 qts.)	.49
Oranges	1 lb.	.15	Kool-aid (pre-sweetened)	2 qts.	.10
Orange Juice (Frozen)	1½ qts.	.39	Potato Chips	9½ oz.	.59
Tomato Juice Juice	1½ qts.	.39	Fritos	10 oz.	.59
Carrots	1 lb.	.11	Candy bar (Hershey)	5 - for	.39
Cabbage	1 lb.	.08	Hard Candy (Lifesavers)	6 - for	.25
Celery	1 lb.	.29	Cookies, assorted	1½ lbs.	.45
		$2.08			$2.86

This very dramatically illustrates that the more nutritious foods need not be the most expensive, especially if "in season" foods are utilized.

Prepared by:

Miss Gerry McRae
Field Student
University of Tennessee

VITA

Vera Geraldine McRae was born in Pahokee, Florida, in 1943. She attended elementary schools in Jacksonville Beach, Florida, and Morven, Georgia, and was graduated from Brooks County High School in 1961. Her B. S. degree in Foods and Nutrition was granted by Florida State University in August, 1965.

In October, 1965, the author accepted a position as nutrition resident with the Florida State Board of Health. She served as nutritionist for two counties in southwest Florida from January, 1967, until August, 1968. She entered the Graduate School at the University of Tennessee in September, 1968, to work toward a Master of Science degree in Nutrition.