CHAPTER I
INTRODUCTION

The older, low-income population has a high rate of chronic diseases and conditions, such that these individuals generally suffer from as many as three or four chronic disorders.[1] In fact, persons with limited resources have a higher rate of chronic diseases and conditions than the general population.[2] For instance, a low-income person is 25% more likely to develop coronary heart disease (CHD) than an individual who does not have a limited income with the incidence rate of CHD within the low-income population being approximately 31%.[3] Also, the occurrence of cancer is inversely correlated with income.[2] Furthermore, diet-related chronic diseases and conditions become more common as a person ages. As individuals increase from 55 years to 85 years of age, the incidence rate of cerebrovascular disease rises from 3% to 10% and hypertension from 31% to 40%.[4] The incidence rate of hypertension within the low-income population is approximately 37%.[4] This high rate of chronic diseases and conditions warrants an increased effort toward treatment of older, low-income individuals.

One of the most common means by which people receive health care information is through physician counseling during office visits.[1,5,6] Physician nutrition counseling has been shown to decrease the occurrence of diet-related chronic disorders, such as high cholesterol.[7] However, a large percent of patients do not receive adequate or proper nutrition advice since only 10% to 20% of primary-care physicians provide dietary counseling to at least 80% of their patients.[5,8,9] To make matters worse, low-income patients often receive less dietary counseling from their physician than patients with higher incomes.[1]

Reasons for the inadequacy of physician dietary counseling include physician time constraints which limit the amount and quality of advice given during office visits.[10,11] Also, older, low-income individuals generally have poor literacy skills which prevent them from understanding written information that is provided to them. In addition, they often have limited or no health

care coverage which places them at high-risk to receive no chronic disease education.[8] Furthermore, the dietary counseling provided by many primary-care physicians does not take into account patients' socioeconomic constraints.[12] Typical dietary counseling, such as advising patients to buy low-fat, expensive foods, is unrealistic and may be ineffective for low-income patients.

Even though primary-care physicians are generally considered to be experts on health issues, they often are not adequately prepared to counsel patients on nutritional matters.[5,10,13] Thus, in order to better serve their patients, physicians make referrals to nutrition professionals outside of their practice.[10,14,15] However, low-income individuals do not have access to many of these services and are in need of nutrition education that is specifically tailored to people with limited resources.[8]

Approximately 10.2%, or 611,596 individuals, of the 6,187,358 residents of Virginia were classified as low-income in the 1990 census.[16] The elderly cohort had a poverty rate of 14.1% and comprised 11.1% of the population. This included 79,636 low-income adults aged 45 to 64 years and 88,570 low-income adults aged 65 years or older. The ratio of individuals living in urban areas to those living in rural areas was 2.7:1. Virginia's population was an estimated 6,618,358 people in 1995 with 230,000 households being enrolled in the Food Stamp Program.[16,17] Eighty-three percent of the individuals receiving food stamps were 59 years or younger, 3% were aged 60 to 64 years, and 14% were aged 65 years or older.[17]

The Food Stamp Nutrition Education Program (FSNEP) is a nationwide, federally-funded program that provides free nutrition education to food stamp households and other low-income individuals who are eligible to receive food stamps.[17] Funding of this program is provided by the Food and Consumer Service, U.S. Department of Agriculture (FCS-USDA), using designated federal food stamp administrative funds. In fiscal year 1997, this program was in existence in 39 states and was primarily implemented as a collaborative effort between

state Departments of Social Service and the Land-grant University Cooperative Extension Service in those states.[17]

Food stamp households at any stage of the life cycle can be reached by FSNEP, but the Virginia plan places particular emphasis on reaching middle and older-aged individuals, who are not eligible for nutrition education through Cooperative Extension's Expanded Food and Nutrition Education Program (EFNEP) or the Special Supplemental Food Program for Women, Infants, and Children (WIC).[17] In Virginia, informal feedback from FSNEP paraprofessionals (i.e. Program Assistants) indicates that a considerable proportion of FSNEP clients suffer from diet-related chronic diseases and conditions. There is a strong perception among FSNEP field staff that the program needs to be more active in educating and guiding participants to follow the dietary recommendations of their primary-care physician or other health care professional (Ruby Cox, personal communication). This need appears to be especially urgent in rural, medically under-served areas such as Southwest Virginia. At the present time, there is no system in place to inform primary-care physicians of FSNEP or to encourage their referral of patients to this free community nutrition education program, which is the problem on which this study is based.

OVERALL GOALS OF THE STUDY

The goal of this study was to assess the opinions, attitudes, and perceived nutrition counseling competence of primary-care physicians, as well as the attitudes and perceived dietary education needs of older, low-income adults with diet-related chronic diseases and conditions. The findings will be used as a basis of establishing a collaboration between FSNEP and primary-care physicians. The goal of the FSNEP/Physician collaboration would be to enable FSNEP staff to assist primary-care physicians in achieving a greater degree of dietary and lifestyle management of diet-related chronic diseases and conditions among their older, low-income patients, particularly in medically under-served areas. Such a collaboration would also enable FSNEP staff to more effectively guide food stamp recipients in the wise use of their food stamps and other food resources given the fact they are faced

with the added burden of managing a diet-related chronic disease or condition. Underlying assumptions for the need of such a collaboration are:

a. Rural areas are generally under-served by primary-care physicians, making it less likely that low-income clients will be seen by a physician on a regular basis.
b. Rural areas are under-served by registered dietitians (RDs) and trained nutritionists who otherwise might provide dietary counseling for chronic disease management.
c. Low-income individuals do not have the resources to pay for needed dietary counseling to manage their chronic diseases, thus creating the need for free community nutrition education programs to offer this service.
d. Since the educators in FSNEP are not RDs, but are paraprofessionals (i.e. Program Assistants) working under the supervision of Family and Consumer Sciences professionals, their work with chronic disease patients must be limited to those who have been given specific dietary recommendations by a physician, RD, or qualified health department nutritionist.
e. To be effective, a FSNEP/Physician collaboration must include a mechanism by which Program Assistants can be informed of the dietary recommendations of those physicians or health care professionals. Furthermore, Program Assistants must be trained on the current basic principles of dietary management of various chronic diseases and conditions.

OBJECTIVES OF THE STUDY

1. To determine the attitudes, beliefs, and practices of primary-care physicians in Southwest and the western side of Central Virginia relative to the need and utility of dietary counseling in the management of diet-related chronic diseases and conditions among their patients.
2. To better understand the nutrition counseling and referral practices of primary-care physicians as a component of the treatment of limited resource patients with diet-related chronic diseases and conditions.
3. To determine program attributes that would encourage or dissuade primary-care

physician referrals of low-income patients to free community nutrition education programs.

4. To assess the perceptions of FSNEP clients as to whether they are receiving adequate nutrition guidance from their primary-care physician.
5. To gauge the plausibility of establishing a formal collaboration between FSNEP and primary-care physicians to provide chronic disease counseling to older, low-income patients.

DEFINITION OF TERMS

FSNEP (Food Stamp Nutrition Education Program): A nutrition education program, funded by Food and Consumer Services-USDA, which targets food stamp households to educate and encourage members to make wise use of their food stamps and other food resources in achieving a balanced, healthy diet.

SCNEP (Smart Choices Nutrition Education Program): Specific title given to FSNEP in Virginia.

FSNEP Program Assistant: A paraprofessional employed to provide direct nutrition education to FSNEP clients.

EFNEP (Expanded Food and Nutrition Education Program): A nutrition education program funded through the Cooperative State Research Education and Extension Service of the USDA which targets younger, limited resource families. EFNEP's primary focus is the provision of general nutrition education to families with incomes of 185% or less of the federal poverty guidelines (WIC eligibility), or who receive other federal assistance. To be eligible in Virginia, EFNEP families must include a pregnant teen or woman, or a young female in the childbearing stage, or at least one infant or child 12 years or younger.

Primary-care physician: A physician who practices general/family medicine, internal medicine, obstetrics, gynecology, or pediatrics. Only general/family practitioners and internists will be surveyed in this study.

Older, low-income FSNEP client: An individual who has an income of 150% or less of the federal poverty guidelines, who is age 40 years or older, who is already enrolled in FSNEP, and has reported having a diet-related chronic disease or condition (cardiovascular disease, elevated blood lipid levels, elevated cholesterol, hypertension, obesity/overweight, osteoporosis, and/or type 2 diabetes).

Chronic disease patient: An individual who has been seen by a primary-care physician and has been diagnosed with a chronic disease or condition.