Older adults use public and private services, as well as personal resources, to meet nutritional needs. In-depth interviews conducted with 73 service providers and community experts in two rural North Carolina counties were analyzed for these experts’ perceptions of barriers to adequate nutrition for older adults. Perceived barriers included characteristics of the county and programs, transportation, and kin, as well as older adult medical and economic conditions, food habits, knowledge, and attitudes. The importance given each of these domains varied by respondents’ area of expertise. Community experts and providers may not see the connection between their services and nutritional well-being of older adults.

Key Words: Elderly, North Carolina, Nutrition, Service providers, Rural aging

Barriers to Nutritional Well-Being for Rural Elders: Community Experts’ Perceptions

Thomas A. Arcury, PhD,¹ Sara A. Quandt, PhD,² Ronny A. Bell, PhD,² Juliana McDonald, MA,² and Mara Z. Vitolins, DrPH, RD²

Adequate nutrition for older adults is important for both health and quality of life. A wide variety of research has linked nutritional status to immune function and infectious disease risk (Chandra, 1995; Bell & High, 1997). Declines in nutritional status have been associated with increased morbidity and mortality (Wallace, Schwartz, LaCroix, Uhlmann, & Pearlman, 1995; Comonni-Huntley et al., 1991; Lissner et al., 1991). Other research has shown the importance to older adults of foods and meal patterns to which they are accustomed, and the sense of loss that can accompany changes in diet and food consumption patterns (Quandt, Vitolins, DeWalt, & Roos, 1997). It has been suggested that the social and nurturing aspects of food increase in importance with aging (American Dietetic Association, 1996) as the preventive and therapeutic effects of nutrition begin to diminish (Schlettwein-Gsell, 1992).

Both biological and social dimensions of nutritional well-being are subject to change in old age, and these changes result in a range of potential barriers to adequate nutrition. Chronic diseases common among older adults result in different food and nutrient needs (Campbell, Crim, Dallas, Young, & Evans, 1994). Older adults are less able than younger adults to regulate their food intake due to changes in appetite, particularly anorexia (Roberts et al., 1994). Polypotency (Roe, 1989), declines in sensory function (Rolls, 1992), and oral health problems (Atkinson & Fox, 1992; Marcus, Kaste, & Brown, 1994; Posner et al., 1994) can also result in changes in appetite and food consumption. Mental conditions such as Alzheimer’s disease and depression result in reduced food intake (Rosenberg & Miller, 1992; Claggett, 1989). Widowhood, declines in income, and loss of mobility can also increase the likelihood of eating an inadequate diet (Rosenbloom & Whittington, 1993; Ryan & Bower, 1989; Posner, Jette, Smith, & Miller, 1993; Olson, Rauschenbach, Frongillo, & Kendall, 1997). Thus, a host of changes that occur among older adults interact to make them more vulnerable to inadequate nutrition than younger adults. This vulnerability has been recognized by nutrition professionals and has resulted in programs such as the Nutrition Screening Initiative (White et al., 1992) aimed at encouraging service providers to screen elders for nutritional risk and refer them to appropriate services.

A variety of public and private services can promote or facilitate adequate nutrition for seniors. These services range from those that have an obvious nutritional component (e.g., congregate meals, home delivered meals, food stamps) to those whose connection to nutrition is indirect (e.g., home health, housing, income assistance) or more distant (e.g., home heating assistance, transportation, prescription drug payments). The level of such services frequently does not meet the need. Meal programs reach only a fraction of the older adult population (U.S. Department of Health and Human Services, 1992; Ponza et al., 1996). Surveys of hunger and food insecurity of older adults have shown that 20% report food insecurity (e.g., days without eating or having to take steps such as choosing not to fill prescriptions to avoid hunger [Burt, 1993]), and comparisons of various measures...
of food insecurity have shown their ability to detect the economic and social factors known to prevent older adults from obtaining sufficient food (Wolfe, Olson, Kendall, & Frongillo, 1996). In rural areas, the provision of services meets with unique obstacles, such as low population density and lack of infrastructure (Krouth, 1986, 1994; Ralston & Cohen, 1994), and the adequacy of services is more variable from county to county and within counties than it is in urban areas (Salmon, Nelson, & Rous, 1993; Rosenberg & Miller, 1992).

Because the links of particular services to nutrition may not be explicit, service providers may fail to recognize the impact their services can have on the nutritional well-being of older adults. The perceptions of service providers toward community problems and their etiology can, in turn, affect priorities and policies. Although steps have been taken to raise awareness of nutritional risk among service providers (e.g., the Nutrition Screening Initiative), there has been no assessment of their effectiveness. Therefore, an examination of service providers’ perceptions of nutritional issues for older adults can help identify inaccuracies or biases in perception and knowledge among current service providers.

Few researchers have examined expert and care provider perspectives of service needs of elders in the communities they serve. Research on such topics is limited to the work of Rabiner and colleagues (Rabiner, Arcury, Copeland, & Howard, 1996, 1997, 1998), who conducted a nationwide survey of experts and policy makers that asked their perceptions of the quality of and needs for long-term care in the areas they served. They found that service provider and agency worker perceptions of access and use of long-term services varied by region of the country (Rabiner et al., 1996), and that services in rural areas were perceived to be of lower quality and less available than those in urban areas (Rabiner et al., 1998). More importantly for the current study, differences in perceived access, use, quality and cost of long-term care (including nutrition programs) varied by service type and agency affiliation (Rabiner et al., 1997). There has been no research on service provider perceptions of needs specific to nutrition.

In this article we focus on the perception of barriers to adequate nutrition for elders in rural environments. Using in-depth interview data, we document what community experts in services directly and indirectly related to nutrition perceive to be the barriers to adequate nutrition among local elders, and compare the barriers perceived by experts in different types of organizations. We then suggest ways of communicating to service providers the importance of adequate nutrition for elders, and the role their organizations can play in facilitating adequate nutrition.

**Study Design**

**Study Communities**

This study was conducted in two rural counties in central North Carolina. Each county is ethnically diverse, with substantial numbers of African Americans and Native Americans in the counties. (We used pseudonyms River and Plains for the county names.) In River County, approximately 19% of the 5,300 residents aged 70 and older are minority group members, according to the 1990 Census. Plains County has approximately 7,300 residents aged 70 and older with 50% being minority group members. A large proportion of the populations in both counties are poor; 26% of River County elder residents have incomes below the poverty line, compared with 32% in Plains County.

Study counties were chosen because they include characteristics typical of rural environments, such as low population densities, lack of major urbanized areas, a mix of long-term residents and recent migrants, and economies based on agriculture and small manufacturing. River County is between two metropolitan regions and is experiencing spillover of residential development on the county edges. Plains County is more removed from metropolitan areas and has a small city in which county services historically have been based. Despite a substantial number of Native Americans in the study area, there are no Indian Health Service facilities available to county residents.

**Data Collection**

In-depth interviews were conducted with a purposeful, snowball sample of community leaders and experts in each county. To begin generating the list of community leaders and experts eventually interviewed, we first contacted the directors of the most obvious agencies in each county, including county health departments, county aging services departments, area agencies on aging, social service departments, county cooperative extension offices, and ministerial associations. These directors were usually interviewed, and they were asked to recommend the names of others in their organizations or in other organizations. For example, the director of the county health department referred us to specific individuals in the department who dealt with adult health education and adult nutrition programs; the director of county aging services referred us to the directors of senior centers and nutrition sites. Some of these individuals referred us to the directors of other public (e.g., housing) and private (e.g., church-based food pantries) program directors. The purposive sample in each county was fairly exhaustive of all providers of public and private services for older adults. Such a sampling technique led us beyond the obvious service providers to private and informal services, some of them in remote areas of the counties or run by concerned individuals. We stopped adding to the sample when no new participants were being recommended. It was not possible to interview all ministers in these counties due to the large number, so individuals with broad knowledge (ministerial association directors, chaplaincy group leaders) were sought out from across different denominations. Every individual contacted completed an interview.
An interview guide was used to ensure comparable data were collected in each interview. The topics covered by the interview guide included: (a) the respondent's background; (b) services to elders provided by the respondent's organization; (c) knowledge and evaluation of elder services provided by community organizations; and (d) knowledge of nutritional, health, and housing issues and problems for elders in the community. Most interviews were tape-recorded and transcribed verbatim; in a few instances extensive notes were taken in lieu of transcription. Interviews lasted approximately one hour and were conducted from September 1996 through August 1997.

Sample
The sample consisted of 73 leaders and experts, 37 in River County and 36 in Plains County. Each was classified into one of five categories, based on the primary service provided by the expert or his or her organization. Service categories and the types of organizations of which each is comprised are:

- Health education: adult health education, nutrition education, cooperative extension, hospital nutrition counseling;
- Other health services: health department divisions other than health or nutrition education, home health, hospitals, health care providers;
- Social services: social service departments, transportation, housing, volunteer service;
- Nutrition services: senior centers, senior clubs, congregate meal programs, home-delivered meal programs, food assistance; and
- Ministers: pastors of various denominations, ministerial association leaders.

Table 1 shows the numbers of experts per category interviewed by county. The greater number of “Other Health Services” and “Social Services” experts interviewed in Plains County is consistent with the larger size of the county and presence of some special service agencies for Native Americans. The lower number of “Ministers” in Plains County reflects the presence of strong ministerial associations, whose leaders were interviewed rather than individual pastors, as in River County. The gender and ethnicity of the sample (Table 2) reflects gender ratios in service professions, as well as the historical bias of European Americans occupying such positions.

Data Reduction and Analysis
Each author was randomly assigned approximately 30 transcripts to review and mark. To minimize any biases in interpretation, each transcript was assigned to two authors who marked the barriers to adequate nutrition that were discussed by a respondent. Barriers were defined as factors that prevent elders from consuming the amount and type of food that meets nutritional standards generally accepted by health professionals, or that prevent elders from being within parameters of nutritional status generally accepted by health professionals (neither under- nor overnourished). Marked transcripts were reviewed by the two lead authors, and intercoder differences were reconciled. The marked statements were abstracted and compiled; 421 statements were abstracted.

Based on a review of the compiled barriers statements, the investigators developed a coding dictionary of nine domains, or broad categories, in which experts described barriers. Table 3 presents definitions of these domains. Three pertain to aspects of the rural environment, and six to characteristics of rural residents. The two lead authors independently assigned each marked statement to one or more domains. They had 80% agreement on this initial coding. The investigators discussed differences in assignments; these were easily reconciled.

Data analysis was designed to lead to the identification of dominant themes, and to reduce the likelihood of erroneous conclusions (e.g., by attending only to extreme statements or spurious relationships) (Miles & Huberman, 1994). Statements were sorted by domain; all investigators reviewed the coded statements independently and developed a list of themes summarizing the content of each domain. These were combined, and investigators then used the same steps to identify additional themes that crosscut multiple domains.

To examine differences between categories of experts in the frequency of citing types of barriers, the number of experts in each category making at least one barrier statement in a barrier domain was tabulated. Taking into account the different number of experts interviewed in each category, the distribution was divided roughly into thirds (labeled some, many, and most) of how many experts listed a type of barrier. The labels some, many, and most are used rather than assigning a percent value to the number of experts.
Table 3. Domain Labels and Definitions Used to Code Barrier Statements From Expert Interviews

<table>
<thead>
<tr>
<th>Domain Labels</th>
<th>Definitions</th>
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<tbody>
<tr>
<td>County</td>
<td>Characteristics of the county that act as barriers to adequate nutrition for elders, including physical, social, historical, and economic characteristics</td>
</tr>
<tr>
<td>Programs</td>
<td>Characteristics of existing publicly and privately funded programs that act as barriers to adequate nutrition for elders</td>
</tr>
<tr>
<td>Transportation</td>
<td>Instances and situations where the type or availability of transportation acts as a barrier to adequate nutrition for elders</td>
</tr>
<tr>
<td>Kin</td>
<td>Characteristics of kin and families in the county that act as barriers to adequate nutrition for elders</td>
</tr>
<tr>
<td>Medical</td>
<td>Medical conditions and health characteristics of the county elders that act as barriers to adequate nutrition, including aspects of physical, mental, and dental health</td>
</tr>
<tr>
<td>Economic</td>
<td>Economic conditions of the county elders that act as barriers to adequate nutrition</td>
</tr>
<tr>
<td>Food Habits</td>
<td>Food habits and attitudes toward food (including apathy) of the county elders that act as barriers to adequate nutrition</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Ignorance, or lack of knowledge or education of the county elders that acts as a barrier to adequate nutrition</td>
</tr>
<tr>
<td>Attitudes</td>
<td>Attitudes of elders (other than about food) that act as barriers to adequate nutrition</td>
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</tbody>
</table>

who gave a response in any domain. This approach is used so as not to give a false sense of precision to the analysis of these in-depth interview data. Because of the nature of qualitative inquiry, participants did not all respond to exactly the same stimuli (questions) in the same sequence in providing information. Some individuals were very talkative, or had a specific point to make, so they would mention a specific category many times. For example, one health educator felt that the food served in senior nutrition programs was of poor quality, and talked about this often and at length; other experts also felt strongly about the quality of these meals, but mentioned it only once or twice. Counting only whether an expert referred to a category allows some control of these differences in linguistic style. Using the nonnumeric labels provides ordered categories that reliably and validly represent differences among groups, without falsely applying a metric value to these differences. A total number of experts citing each domain was also calculated by averaging the citation frequency of the five categories. This was also divided into the three ordered categories of some, many, and most.

Results

Domain Themes

Within each domain, one or more themes around which the discussion of barriers centered emerged from a review of the statements made by experts. What follows is a summary of these central themes and examples of statements that further explicate the themes. The relative number of experts suggesting themes in each domain is shown in the total column of Table 4. The results presented here are the experts’ perceptions and are presented without regard to their accuracy; the accuracy or inaccuracy of some of these perceptions is reviewed in the Discussion section.

County.—Many experts perceived the rural nature of the counties to be a barrier to adequate nutrition

| Table 4. Number of Experts, by Category, Identifying Barriers to Adequate Nutrition by Domain |

<table>
<thead>
<tr>
<th>Barrier Domains</th>
<th>Health Education (11)</th>
<th>Other Health Services (18)</th>
<th>Social Services (20)</th>
<th>Nutrition Services (13)</th>
<th>Ministers (11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>County</td>
<td>Total (73)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Programs</td>
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<tr>
<td>Transportation</td>
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<td>Knowledge</td>
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<td>Attitude</td>
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<td>Food Habits</td>
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Note: Lightest shading indicates some experts in a category identified at least one barrier in a domain, medium shading indicates many, and darkest shading indicates most.
for older residents. Private and public services are centralized in the county seats and other large towns, as are retail grocery stores and farmer’s markets. Because of geographical barriers (e.g., crossing rivers with few bridges) as well as distance, some sections of the counties are reported to be too far from service providers for the elders there to be reached by programs like home-delivered meals. Especially in the more remote areas, older people are not aware of the services available in the towns. One expert said, “There’s a malaise in our county; people not used to getting services settle for the lack of services.” Others noted that people in remote areas have an orientation to towns in adjacent counties where they may not be eligible for services. Retail grocery outlets in some areas are reported to be limited to small convenience stores. They carry “what is able to survive on the shelf” and prices are high.

Another characteristic of the counties noted by experts was a perceived lack of social integration that resulted in barriers to meeting elders’ needs. Race, ethnicity, and culture were all cited as factors. Members of one group are hesitant to use a service where they will be in the minority, and there is a perception that services are less available to minorities. One expert commented on service priorities and said, “first it’s the Whites,” then it is minority group members. This is exacerbated in areas where there has been an influx of more affluent majority migrants who “do not want to mix with long-term residents who may be poor and Black.” Private services are also segregated. The largest church denomination has separate ministerial associations for each ethnic group. “People in organizations are content to function within their own framework or organization, so they function separately: it has to do with comfort level.” For example, “Churches have covered dishes [potluck meals], but it is not a real open arms sort of thing. It is tied to their own congregation.” Cultural barriers are reinforced by geography and infrastructure. River County is transected by a river with only two vehicle crossing points along its 32-mile course. Experts cited the rural telephone service as an indicator of the fragmentation of the county. Telephone service has been provided by a number of small companies. In the smaller of the two study counties (River), there are two area codes and six exchanges, often making it expensive and difficult to call a neighbor down the road.

Programs.—Most experts discussed barriers related specifically to public or private programs for older adults in the counties, echoing some of the same county themes. A number of them commented that many older people did not like using the congregate meal programs because they disliked the social aspect of the program: “They don’t like to be around people they don’t know.” Some noted that “folks are proud; if they are going to go somewhere and get something, they are not going to go out among strangers.” Others cited the age segregation of programs: “Some people won’t come to a nutrition site because they don’t want to be with old people.”

Another program-related barrier is the lack of resources of these programs to meet the nutritional needs of elders. In both counties, experts noted the critical shortage of volunteers for the home-delivered meal program. They believe that many are not willing to drive to remote areas of the county or places that are perceived to be dangerous. Even if willing drivers are found, the regulations limiting time in which a meal must be delivered prevent distribution of meals to some areas of the county. Several of the congregate meal sites offer no transportation or transportation only on certain days. Experts noted, “Meals on Wheels only delivers five days a week, and people have to eat seven days a week.” Limitations of the food stamp program were also cited by many of the experts, most stating that elders received only about $10 in food stamps per month, and because “it is difficult to negotiate the system, they don’t apply.”

A number of respondents noted programs that they believed were not available. These included commodity food distribution and food pantries. Others cited a lack of age-appropriate nutrition education programs. Most of the nutrition education programs are directed at mothers and children, in part, said the experts, because such programs are not reimbursable for other age groups.

Transportation.—Some experts mentioned transportation as a barrier. The primary problem noted was the limited transportation available for program participation and for grocery shopping. Said one expert, “If you offer a service, the first thing people are going to ask is how am I going to get there?” Many women never learned to drive and are now stranded by the deaths or disability of their husbands. Some experts noted that elders preferred not to ask others for a ride, because they know they will be charged.

Kin.—Many of the experts interviewed cited elders living alone and the lack of help from children as barriers to adequate nutrition among older adults. Some noted the changes in residence patterns and family activities over the last several decades: “You don’t find too many family members keeping the elderly in their homes any more, because we live in a corporate world and everybody works”; “Most women work, so they are not at home to be a caregiver, even if they live just across the street.” Others noted that children frequently live out of state and cannot take an active role in helping aging parents. Even if children are available, some experts stated that parents are reluctant to ask children for help, for fear of causing problems or because they already burden them with requests.

Whereas some of the comments indicated sympathy for children who fulfill multiple roles, others seemed to consider children neglectful, noting that “some children don’t help out the parents even if they are able. They only show up after the older person’s check comes—and they eat their food.” Experts believe that social values have changed: “Family support is not what it used to be. Before, kids stayed home and farmed and people were very supportive. Society is not that way any more. Families don’t take care of elders as
much any more. People work so hard, trying to make money, drive big cars, live big.”

Experts believe that the consequence of this lack of care, whether benign or neglectful, is that elders who cannot cook for themselves may have only one meal a day, from the home-delivered meal program. Food brought in by family may not be as nutritious as it should be, because “when a relative who works brings food to an older person, the food is fast food.” Others, often due to lack of appetite, will just eat “Nabs [cheese-flavored crackers] and Pepsi”: “Adequate nutrition is a problem because people live alone and they need to be encouraged to eat. When people are older they don’t eat as much or forget to eat or they are not hungry because eating is a social activity.” A recurring theme related to kin was the need for kin to “check on the elderly,” to make sure they have food and that they are eating.

Economics.—Many experts cited poverty and competing expenses as barriers to adequate nutrition; these limit both the amount of food available and the choices older adults can make: “It’s not that people don’t know what they ought to be eating, it’s that they eat according to their pocketbooks,” especially those who “only get Social Security.” Often “people don’t have enough money left to buy food by the time they pay their bills, insurance, medication, and pay someone to take them to the doctor.” The expense of prescription drugs and utilities causes them to “cut corners on food”: “They’re eating lunch meat, Spam, stuff like that because that is what they can afford”; “People buy the types of food they can afford, whether or not the food is healthy.” One expert said, “It’s more expensive to eat right, let’s face it.”

For older adults, experts perceive that there are additional pressures of nutrition-related medical conditions. People with special diets (such as those persons with diabetes) “can’t afford to eat right because of the cost of the special foods.” “Low fat foods are 20 to 25% higher in cost.” Experts noted that doctors recommend Ensure, “but it is expensive.” Persons without a third-party payer source cannot get such a nutritional supplement.

Medical.—Some experts noted that lifelong inadequate nutrition has led to many of the major health problems seen in the counties’ older adults (including obesity, hypertension, and diabetes), and these themselves are affected by current nutritional intake status. Nevertheless, the experts stated that many elders “don’t see the interaction of diet, having to take medication, and an outcome like high blood pressure. People tend to minimize the importance of diet in management of chronic disease.”

Experts believe that nutrition-related health problems are also the result of the aging process. There are elders who underrate because of declining senses of taste or smell that may be linked to loss of appetite. As one expert said, “Something happens to taste buds in the elderly. They don’t like dark green vegetables like they once did, and they like sweets.” Experts also cited dementia and depression as factors in older adults that frequently lead to their preparing or consuming inadequate food.

Knowledge.—Many experts commented on the role of elders’ knowledge in creating barriers to adequate nutrition. A primary theme was that “people lack knowledge to take advantage of resources.” They may assume they don’t qualify for a service like food stamps or simply not know that services like home-delivered meals exist.

The need for basic nutrition education was stressed. People are ignorant of what they should eat, particularly those with diabetes: “People are behind the times; nutrition is not a big concern. The preventive model does not come into play, and people eat totally the wrong things.” But the level of general education is an issue, as “there are people who can’t read a word and nutrition education has to be individualized for them.” “Nutrition education is over the heads of some people.”

Attitudes.—Many experts cited the attitudes of elders as barriers to adequate nutrition. One theme is that people are proud and stubborn. They will not accept help, are “set in their ways,” and are “not receptive to change.” “Those people have worked hard all their lives and they are not going to accept any kind of charity.” They are even “too stubborn to accept help from families.” Part of this pride is a reluctance to accept help from the government: “Anything that is seen as government is bad; they won’t use food stamps or things like that”; “A lot of people think a nutrition site is a welfare program; people will not take a handout and they think it is a handout, so they say they don’t need it.”

Food Habits.—The food habits of older adults were a topic of considerable discussion by most experts as they identified barriers to adequate nutrition. A dominant theme is that elders overeat and eat the wrong kinds of foods. Experts believe that traditional food preparation techniques lead them to a diet high in fat, with fatback and grease used liberally to season food: People have “diet patterns that are unhealthful and they do not want to change”; “They were raised using fatback, so it is hard to change”; “Being old-fashioned Southern, every vegetable should be cooked with fatback”; “People won’t change the way they cook; they grew up on it—it was good enough then and it is good enough now.” Experts’ comments about traditional food habits did not always take an accusatory tone; some recognized the centrality of food habits to elders’ identity: “Change in food is difficult because it’s part of your culture, part of who you are. It transcends everything from home life to social life, and it often tells people who you are.”

Experts listed a variety of ways in which elders’ notions about what constitutes “proper food” prevents their eating well. This ranges from some elders rejecting convenience or fast foods (and eating too little) because “food has to be fresh,” to others overeating snack foods because they are unaccustomed to snacking on items like fresh fruit. Other elders think it
is proper to always have a filled candy dish in the house; they eat the candy “and then wonder why they are not hungry.”

Experts perceive that elders living alone do not cook or eat as much, often decreasing the number of meals they consume as well as their quality. Said one expert, “I’ve had some of them tell me, there’s just no need to cook all that food for myself.” Others noted: “People get only one meal because they don’t feel like cooking. They don’t have any energy; they just eat the Nabs crackers and drink a [soft] drink and that is it”; “They don’t cook like they once cooked—they don’t turn on the stove or oven as often, and just eat out of cans.” They have poor dietary quality because they eat at “fast food restaurants; they have discounts for seniors.”

Variation in Experts’ Perceptions of the Problem

Each of the barrier domains was mentioned by individuals from each expert category in both counties, indicating the salience of these domains across these counties and for rural counties in general. Nevertheless, individuals from different expert categories perceived different barriers as most germane to the problem of adequate nutrition for older adults (Table 4).

In all categories of experts except health educators, most experts cited programs as a barrier and only some cited medical characteristics of older adults as a barrier. Health educators appear to differ in their perceptions from other types of experts, insofar as most are likely to see medical factors, food habits of the elders, and aspects of the county as the major barriers to adequate nutrition, rather than programs. Of all experts, social service providers and ministers are most cognizant of the impact economic conditions can have on nutrition.

Discussion

Three common themes run throughout the individual domains. The first is that barriers to adequate nutrition relate to the geographic nature of the county. Experts recognized the difficulties in providing services across physical distances. They also recognized invisible cultural boundaries that correspond to geographic boundaries, referring to elders who “live out in the county” as having different needs and different attitudes from those “in town.” A second theme is that barriers are of a social nature, relating to problems of family structure and economics, racism and ethnic conflict, and social barriers in the community such as a reluctance of citizens to volunteer to provide services beyond their neighborhood. Finally, a third theme is that barriers relate to the characteristics of the elder county residents themselves. The tone of many comments reflected a stereotyping of elders as ignorant and resistant to change—in short, responsible for many of their own nutritional problems.

The perceptions of experts of barriers to adequate nutrition in these counties are not necessarily accurate. Although this study did not set out to rigorously evaluate the accuracy of the experts’ perceptions, inconsistencies among experts and instances where their statements conflicted with our observations in the county suggest an underlying level of error in the knowledge on which their perceptions are based. For example, although some experts in Plains County stated that commodity foods were not distributed, we observed commodity foods received by older adults in that county during the time of our interviews. Likewise, reports in River County that there were no food pantries were wrong. Several churches and other voluntary organizations maintained active food pantries there. These and other inconsistencies demonstrate that knowledge varies among experts and is likely reflected in the barriers they perceive. Service providers not directly involved in nutrition services had very little knowledge of available nutrition services, particularly at what location in a county the services were provided and what private or emergency services could be accessed by elders. Many of the experts interviewed freely discussed what they perceived to be the major issues for nutritional well-being. These issues included family support, food habits, and income. However, they appeared not to have an integrated knowledge of how such factors interact to produce different levels of nutritional well-being.

The comparison of different categories of experts suggests that at least some of the variation in experts’ perceptions and knowledge of the problem may be a consequence of providing different types of services. The contrast between the importance attributed to programs and medical factors as barriers to adequate nutrition is quite striking. Because a majority of the experts interviewed provide their services through programs, it is not surprising that they know well the shortcomings of their programs. Given the high prevalence of diabetes and other chronic conditions, dental problems, and cognitive impairment in older adults in these counties as well as generally, it is more surprising that the link between poor health and inadequate nutrition was not given more attention. This suggests that nutrition may be viewed fairly simplistically by the experts, perhaps as a matter of providing access to food, rather than involving special food or meal needs or nutrition education.

The difference between health educators and other experts in perceptions of barriers probably relates to the nature of much of health education in the counties. Medical indicators tend to initiate the work of the health educators (often on a one-to-one basis), and it is the food habits of the elders that they are trying to change to ameliorate medical problems. The focus on education, however, may lead to a failure to recognize structural factors, such as lack of transportation or access to meal programs, as significant barriers to changing food habits.

The importance attributed to economics by ministers and social service providers also reflects the nature of their work. Poverty initiates the work of most social service providers. Most ministers and ministerial associations are presented with frequent requests for financial assistance from the public at large, as well as church members. A variety of churches
in the counties have food pantries to be able to respond to such requests.

Because the nutrition literature establishes the importance of medical factors and food habits for nutrition of older adults (Posner, Jette, Smigelski, Miller, & Mitchell, 1994; Ralston & Cohen, 1994), it is somewhat surprising that nutrition service providers failed to make a strong connection between adequacy of nutrition and our domains. However, those providing nutrition services in these counties frequently reported having little knowledge of what their clients eat except for food provided by congregate or homedelivered meals, and they have limited training in nutrition. Those running a congregate meal site or home-delivered meal program are usually part-time employees drawn from the local labor pool. They have program administration skills, but are not dietitians.

The recent evaluation of the Title III Elderly Nutrition Program indicates that this is not unusual (Ponza et al., 1996). Over 60% of sites surveyed had no full-time employees and 60% had no registered dietitian or staff with other nutrition credentials. Krout (1994) points out that such local employees in rural areas often have an appreciation for elders’ values, but may not be highly trained. In the study counties, contracts with catering services for food are negotiated centrally for a multi-county area, and the nutrient content of the menus is assessed by consulting dietitians who live out of state and have no contact with local meal program personnel. Those experts we found in the counties who did have dietetics training and certification were health educators working with younger groups (e.g., Women, Infant and Children Nutrition Program [WIC]) or working in hospital settings with all ages, but they did not work specifically with the nutrition programs for older adults. This lack of training among meal program personnel helps explain why many nutrition service providers see the nutrition problems of older adults as related to limitations in the programs they can provide, rather than food habits or medical factors.

All experts interviewed in this study provide services that can affect the nutritional well-being of older adults living in their service areas. Taken together, their perceptions present what is probably a comprehensive picture of the barriers to nutritional well-being for older adults. Taken individually, however, most of these service providers possess only a fragmented picture of the problem. Such a picture is probably common to rural counties, with their patchwork of public and private, county and state services.

Known barriers to adequate nutrition among older adults include poverty, living alone, lack of transportation, chronic disease, sensory declines, and lack of access to nutrition services (Campbell et al., 1994; Olson, Rauschenbach, Frongillo, & Kendall, 1997; Rolls, 1992; Ryan & Bower, 1989). Few individual experts appear to have a comprehensive understanding of these barriers. Those who do understand know the programs and services that are available in their community, the limitations of the programs, and the causes of the limitations. They can suggest and they are pursuing ways to correct these programmatic limitations.

These individuals understand the society and culture of their community, and how social and cultural factors pose barriers to the nutritional well-being of their older citizens. They also have a sympathetic understanding of the knowledge, attitudes and food habits among the different people in their community, and they attempt to address those aspects (for example, by initiating a diabetes education class) that they can, without blaming the victims. Such rare individuals seem to have this comprehensive understanding because of the nature of their experience in the counties (e.g., they are older, lifelong residents), not because of their position. Other experts interviewed lacked this comprehensive knowledge of the barriers to nutritional well-being. These include individuals at all levels of the organizational hierarchy in the counties. Some acknowledged their lack of knowledge, particularly those new to the area, but other providers who lack knowledge seemed unaware of their limited view of the problem.

The end result of this is that many experts whom older adults can contact do not know which adults are most likely to be at nutritional risk or how to help these adults solve nutrition-related problems. Because older adults at nutritional risk can first interact with a service provider from any one of many private or public services, the knowledge that the service provider has of both issues of nutritional risk for elders and of available services may determine whether the elder receives appropriate assistance. One of the strengths of this study was its snowball sampling method conducted over a series of months. It reveals that a wide variety of persons provide services to older adults that can be linked to nutrition. These range from the obvious service providers (e.g., congregate meal site directors) to those less obvious (e.g., individuals who offer periodic health screenings for older members of their neighborhood-based churches).

The findings of this study suggest several steps that will help to reduce barriers to adequate nutrition among older adults. We must find ways to educate community leaders and service providers of the importance of nutrition for both health and quality of life for older adults. This should stress the variety of different factors that can determine food consumption patterns and nutritional status, as well as the barriers specific to older adults in their community. Nutrition and health educators should be the best equipped to deliver this message to their service providers and local expert peers. The Nutrition Screening Initiative program, with its focus on medical, social, and economic factors associated with nutrition problems in older adults, was designed to raise awareness of just the group of experts interviewed for this study. Despite its national publicity and promotion over the past several years, its effects are not evident in this study area.

The knowledge of the multidimensional nature of nutrition should be linked to specific services at the local level that can facilitate adequate nutrition for older adults. The connection of nutrition to those services without an obvious linkage needs to be clarified for service providers. In one of the counties included in this study, personnel from all aging-related services
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Received October 27, 1997
Accepted May 26, 1998