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A COMMUNITY'S EXPRESSED INTERESTS IN NUTRITION
INFORMATION AND SERVICES

by

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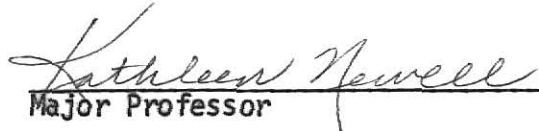

Major Professor

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**THIS BOOK
CONTAINS
NUMEROUS PAGES
WITH MULTIPLE
PENCIL AND/OR
PEN MARKS
THROUGHOUT THE
TEXT.**

**THIS IS THE BEST
IMAGE AVAILABLE.**

INTRODUCTION

The American Dietetic Association has defined nutrition education as the process by which beliefs, attitudes, environmental influences, and understanding about food lead to practices that are scientifically sound, practical, and consistent with individual needs and available food resources (1). The American Dietetic Association also stated that the objective of nutrition education is to transmit knowledge to consumers about their nutritional needs and the nutritive value of foods in a way which will motivate them to transform this knowledge into eating behavior which promotes health and well being (2).

Some nutritionists (3,4) have stated that nutrition education is often less than successful. There is very little known about successful ways of changing nutritional beliefs and attitudes or the best techniques for developing practices that are nutritionally sound. There is a definite need for research to improve the effectiveness of nutrition education (3,5).

Mayer (4) suggested that nutrition educators do not address the subjects of most interest to consumers and that this may be one reason their efforts have been unsuccessful. Nutrition educators often interpret and answer questions about nutrition on the basis of their own experiences and what they think people need to know rather than looking at the questions from the point of view of the persons asking them, and then providing information immediately useful to those persons (6).

Because consumers continually receive conflicting messages concerning food and health, they are frustrated and unable to cope in the marketplace (7).

According to a United States Department of Agriculture (USDA) publication (3), consumers want information about how to eat well on less money, how to avoid foods with harmful ingredients, how to plan "balanced" meals, and ideas for healthful snacks.

Effective nutrition education should result in changed behavior. Before behavior is changed, learning must take place. Individuals are more likely to learn and change if what is being taught is relevant to them, if they perceive the lesson as immediately useful in reaching their goals, and if they have a desire to learn what is being taught (8,9,10).

The results of nutritional status studies and nutrition knowledge surveys have formed the basis for planning the majority of nutrition education programs (11). Leverton (6) stated that nutrition education programs "must be tailored and related to the needs, interests, experiences, and goals of the individual or group being exposed to the subject." She suggested that such tailoring requires that nutrition educators try to discern problems according to perceptions of the individual or group. While the expressed needs of individuals as well as their physical needs should be considered in planning nutrition education programs, there has been very little attention given to the expressed needs of those intended to be served by nutrition education programs (11).

To plan an effective nutrition education program for the Family Resource Center at Kansas State University, information was needed about the community's perceived needs for nutrition information and services. The purpose of this study was to determine what the Manhattan, Kansas community perceived as needs for nutrition information and services, and to make recommendations for a nutrition education program to be implemented by the

Department of Foods and Nutrition through the Family Resource Center at Kansas State University (KSU).

REVIEW OF LITERATURE

Interest in Nutrition Information

Consumer interest in nutrition and its relationship to health continues to increase. In 1971, the Agricultural Research Service, USDA (12), gathered information on food and nutrition knowledge, practices, and opinions of 2,545 household members with major responsibility for food purchasing. Approximately 40% of the individuals interviewed expressed a definite interest in more nutrition information, while 30% expressed a slight interest in more information.

Yankelovich et al. (13) recently interviewed 2,181 American family members. They found that coping with high food costs ranked first in a list of major problems facing families today. Families were coping with inflation by buying fewer high quality foods and fresh fruits and vegetables and serving meat less frequently. In addition, they found that of the ten health issues family members believed were being underemphasized, eight related to eating habits or nutrition. They were: eating together as a family, eating at home rather than going to fast food restaurants, labeling products with nutrition information, eating a good breakfast, not snacking between meals, making sure meals are balanced, avoiding preservatives and food additives, and eating three meals a day. The nutrition issues they thought were receiving too much emphasis included being thin and eating health foods. How to teach children better health and eating habits, diets and exercises for effective weight control, and information on nutrition and better eating were among the

12 types of health information wanted most by adult family members.

The National Retired Teachers Association-American Association of Retired Persons, in response to a 1971 White House Conference on aging, developed a program of health education that included segments on nutrition for the elderly, called Vigor In Maturity (VIM) (14). In 1973, a three month study was made of 38 VIM programs, which included approximately 3,800 participants. A list of questions participants directed toward resource persons was compiled. Of the 370 questions asked about nutrition, 105 concerned cholesterol, 43, 30, 22, and 20 questions were asked about dietary supplements, food composition, general aspects of nutrition, and weight control, respectively.

Kirk et al. (15), in describing the methods used by the Tennessee Health Education Program for improving school health instruction, indicated one reason the health program was poorly planned and ineffective was that there was no evidence of student input. When students were asked about their health interests, nutrition was of the least interest to them. The educators revised their program and planned it around the subjects of greatest interest to students, and incorporated nutrition into those areas. Using this method, students were provided with the information they sought most as well as the information considered important by the educators.

Ikeda (11) investigated the expressed nutrition information needs of 15 home advisors, 130 program aides, and 128 low-income homemakers involved in various aspects of the California Expanded Nutrition Education Program. Home advisors coordinated and directed the program, while aides actually contacted and taught the low-income homemakers who were the target population. The purpose of the program was to help low-income families attain adequate

nutrition within their socioeconomic means. Nutrition information needs expressed by home advisors, in decreasing order of importance were: updating on nutrition subject matter and current issues, innovative teaching techniques, nutrition needs during the life cycle, and safety and wholesomeness of the food supply. Program aides expressed needs for knowledge about nutrients, specifically calcium, vitamin E, and the B vitamins; suggestions for motivating homemakers to change their food habits; and information concerning food shopping, meal planning, and cooking and recipes, in that order. The primary need of homemakers was for information on food shopping, meal planning, and cooking and recipes, followed by information on the "best foods" or "right foods" to feed their families, and advice on weight control.

Sources of Nutrition Information

Health information, including nutrition information, is available to consumers from a wide variety of sources. According to a USDA (12) study, 41% of respondents said they learned about nutrition in high school, 29% from newspapers or magazines, and 25% from their mothers or grandmothers. Seven percent learned about nutrition from a physician or other health professional, five from books, four from friends or relatives other than mother or grandmother, and three from radio or television.

Forty-five percent of family members surveyed by Yankelovich et al. (13) said doctors and dentists were their main sources of health information. Thirty-one percent received information from television programs, 29% from news stories on television and in newspapers, 16% from volunteer health organizations, 16% from their immediate families, 14% from medical books and encyclopedias, 14% from television commercials and magazine and newspaper advertisements, 13% from friends, 11% from popular books on health and diet,

ten percent from nutrition labels, ten percent from government publications, and nine percent from health and physical fitness magazines.

Spindler (16) asked 290 homemakers where they would expect to get reliable information about nutrition. Physicians was the source most often mentioned, followed by home economics teachers, extension agents, dietitians, cookbooks, library books, womens magazines, and bulletins. The women indicated interest in a series of meetings on nutrition where they could talk with each other, discuss problems, and ask questions about their nutrition interests. Time, season, place, and the availability of baby sitting service were mentioned as factors influencing their attendance. The homemakers were not interested in television or radio courses, and those who received and read newspapers thought they could get more information from newspapers than from television or radio.

Schwartz and Barr (17) asked 150 new mothers who delivered infants at the Vancouver General Hospital in 1975 where they received their nutrition information. Resource persons mentioned were physician (62.2%), husband (37.4%), prenatal class instructor (30.2%), mother (17.6%), nutritionist-dietitian (16.8%), friends, neighbors, and relatives (20%), other professionals (11.2%), and other (4.6%). Past education and experience (62.2%), prenatal class booklets (44.2%), pocketbooks (28%), literature in doctors offices (16.2%), library books (12.8%), lectures, television, and radio (5.8%), and other (1.6%) also were listed as sources of nutrition information.

Manoff (18) stated that mass media can and does influence food habits. He believed that radio, television, and advertising techniques should be used more widely in nutrition education.

Kolasa et al. (19) studied learning at home by three age groups:

1) young families ranging in age from newborn to 34 years, 2) middle-age families (35-54 years), and 3) older families (55 years and over). They found that families used mass media resources extensively. Television, magazines, books, and newspapers were mentioned most often. Use patterns of the various media resources were similar in all three age groups with usage of pamphlets/flyers and radio increasing with family age.

Brent (20) evaluated the effectiveness of a series of 60-second and 30-second nutrition commercials designed to reach urban and rural low-income people. Bi-lingual commercials (English and Spanish) were prepared by the California Cooperative Extension Service nutrition specialist in cooperation with television writers and editors. Selected television stations in California ran the commercials for a two month test period. Listeners could request that printed food guides be mailed to them. The project was considered successful in that there were 5,000 requests for the food guides in the two month period. Analysis of the addresses of those requesting food guides indicated that the target audience was reached.

Axelson and DelCampo (21) studied the effect of a two-and-one-half months mass media nutrition campaign, including television, radio, and written brochures, on a group of Florida ninth graders. Approximately half of the 400 participants lived within the broadcast area and half did not. Gain in nutrition knowledge was measured by comparing precampaign and postcampaign nutrition quiz scores for both groups. Those students who lived within the broadcast area had greater ($p < 0.03$) gains in scores than those living outside the broadcast area. The investigators concluded that a mass media campaign can be effective in increasing nutrition knowledge.

Fifty-eight men and women between the ages of 21 and 75 years were solicited to participate in an evaluation of a one-hour television show, FOOD\$EN\$E, produced by The Pennsylvania State University (22). Twenty-eight participants took a nutrition knowledge test before viewing the program and 30 took the test after viewing it. The latter group scored 23% higher on the test than the former. The number of requests for free information offered during the program, as well as requests for more programs about nutrition and more nutrition information, indicated that the program was well received by the viewing audience.

In Mexico, three rural communities were selected to participate in a study comparing mass media techniques and a direct method for nutrition education (23). The participants, mothers with children under the age of five years, were divided into three groups: mass media, direct education, and a control. The mass media group were exposed to radio spots, posters, and pamphlets, and the direct education group to traditional classroom instruction. The effectiveness of the two education methods was evaluated by comparing pre- and post-test scores on a nutrition knowledge test completed by all three groups. There were significant increases in knowledge scores in all three groups, however the scores of the mass media and direct education groups did not differ significantly.

METHODS

The research proposal for the survey of interests in food and nutrition information and services and appropriate forms were submitted to and approved by the KSU College of Home Economics Committee on Research Involving Human Subjects.

Selection of the Sample

Every tenth residence listed in the first half of the Manhattan, Kansas telephone directory, and every twentieth in the second half, were selected to receive a questionnaire. Business and professional listings were excluded. A total of 1,374 residences were surveyed.

Development and Distribution of the Instrument

A cover letter (Appendix, p. 45) which stated the purpose of the research and gave a description of the Family Resource Center was prepared to accompany each questionnaire. Faculty members with experience in dietetics and community nutrition developed a four part questionnaire (nutrition interests, anticipated use of suggested nutrition services, and general information) (Appendix, p. 46). The questionnaire was pre-tested on 11 individuals similar to those in the sample population. No changes were made as a result of the pre-test. Identification Code numbers were employed for maintaining confidentiality of information and for facilitating follow-up mailings.

A questionnaire and cover letter were mailed to residences selected from the first half of the telephone directory ($n = 926$). All questionnaires were

addressed to the name listed in the directory. Approximately three weeks later a follow-up letter (Appendix, p. 51) and a duplicate questionnaire were mailed to every other non-respondent ($n = 356$). At the same time, questionnaires and cover letters were mailed to residences selected from the second half of the directory ($n = 450$). Follow-up procedures for the second mailing ($n = 165$) were the same as the first.

Data Analysis

Other nutrition interests (Part I, item 16), other ways to learn about nutrition interests (Part II, item nine), and occupation, sources of nutrition information, and recent questions about foods and nutrition (Part IV, items 6, 7, and 8 respectively) (Appendix, p. 46), were hand tabulated. Chi-square was used to study the relationships among nutrition interests, preferred ways to learn about nutrition interests, and anticipated use of suggested nutrition services and the age, sex, marital status, education, and annual income of respondents.

Data from Part I, item 16, and Part IV, item 8, were combined. For all items in Part III (use of food and nutrition services), a response of "DOES NOT APPLY TO ME" was considered a "NO" response. Age categories, Part IV, item one, were collapsed into three groups: 1) 20-30 years, 2) 30-50 years, and 3) over 50 years. Marital status categories, Part IV, item three, were reduced to three groups: 1) married, 2) single, and 3) other (separated, divorced, or widowed). Education categories, Part IV, item four, were collapsed into two groups: 1) less than a college education, and 2) some college or more. Occupations were categorized according to U.S. Department of Labor, Summary Listing of Occupational Categories, Divisions, and Groups (24).

RESULTS AND DISCUSSION

Usable questionnaires were returned by persons in 33% (n = 459) of the 1,374 residences surveyed in the Manhattan, Kansas community.

Characteristics of Respondents

Demographic data concerning respondents are listed in Table 1. More than half of the respondents were between 20 and 30 years of age, and 40% were men. There was a similar distribution of married and single respondents, and the majority (80%) had some college education or more. Forty-two percent earned annual incomes of \$15,000 and above, and 39% between \$5,000 and \$15,000. Less than one-fifth had incomes below \$5,000 per year.

Forty-six percent of those responding to the questionnaire worked in professional, technical, and managerial; clerical and sales; or service occupations; 54% worked in occupations classified as miscellaneous (24). Students were classified in the miscellaneous occupation category and represented one-third of the sample population.

Sources of information respondents used to answer their nutrition questions included books (cookbooks, textbooks, popular books); popular magazines, newspapers, radio, and television; family and friends; health professionals; and various other sources, in that order. Fourteen individuals indicated that their questions went unanswered. All of those sources of information have been mentioned by respondents in other studies (12,13,16,18).

Table 1 Characteristics of respondents¹

Characteristic	Percent ²	Characteristic	Percent ²
Age, years		Education	
20-30	58	Less than college education	20
30-50	24	Some college or more	80
over 50	18		
Sex		Annual family income (after taxes)	
Male	40	Less than \$5,000	18
Female	59	\$ 5,000 - \$ 9,999	19
Marital status		\$10,000 - \$14,999	20
Married	48	\$15,000 - \$19,999	15
Single	42	\$20,000 - \$24,999	12
Other ³	9	\$25,000 and above	15

¹n = 413-459²Due to rounding off percentages, totals may not equal 100%³Other = separated, divorced, or widowed

Nutrition Interests

Related to Age

Interest in food budgeting, meal preparation, prenatal, infant, child, teenage, and geriatric nutrition, and therapeutic diets was related ($p < 0.001$) to age of the respondents (Table 2). More than 55% of those between the ages of 20 and 50 were very interested in food budgeting. The majority (50-60%) of respondents over 50 years of age expressed a high degree of interest in geriatric nutrition and therapeutic diets. The degree of interest in nutrition during pregnancy and infant nutrition decreased as age of respondents increased. Those between 30 and 50 years of age showed the most interest in child and teenage nutrition.

Interest in menu planning also was dependent ($p < 0.01$) on age with those between 20 and 50 years of age being more interested than those over 50. There was a relationship ($p < 0.05$) between interest in food safety and age. Forty-three percent of respondents over age 50 expressed a high degree of interest in that subject, while the majority of those under 50 indicated they were somewhat interested in the subject.

Forty percent or more of respondents over age 30 indicated they were very interested in nutrient composition of food and health foods. Weight reduction, food shopping, nutrient composition of foods, and nutrient function were of similar interest to all three age groups; more than 40% of each group indicated they were very interested in weight reduction. Elwood (14) found that participants in a program for the elderly (VIM) showed interest in cholesterol, dietary supplements, food composition, and weight control.

Table 2 Nutrition interests according to age in years

Subject	Very Interested ¹			Somewhat Interested ¹			Not Interested ¹			Chi-square
	Percent ²			Percent ²			Percent ²			
	20-30	30-50	Over 50	20-30	30-50	Over 50	20-30	30-50	Over 50	
Menu planning	33	39	23	49	40	40	18	20	36	14.850**
Food budgeting	57	56	36	34	32	28	9	12	35	34.382***
Food shopping	42	35	36	39	43	34	18	21	30	5.421
Meal preparation	41	48	32	45	33	32	14	19	36	21.347***
Food safety	36	34	43	45	48	27	19	17	30	10.746*
Food nutrient composition	33	44	41	41	38	31	27	17	28	7.347
Nutrient functions	31	39	40	34	32	30	34	28	30	3.643
Nutrition in pregnancy	30	18	8	35	15	10	35	67	81	62.493***
Infant nutrition	35	28	9	35	20	11	30	52	80	57.985***
Child nutrition	34	38	8	37	23	16	29	39	76	54.473***
Teenage nutrition	26	46	14	44	24	17	30	29	70	57.795***
Geriatric nutrition	26	37	60	37	35	20	36	27	20	32.002***
Therapeutic diets	26	26	51	33	48	19	40	25	30	27.889***
Weight reduction	45	42	49	29	33	22	26	25	29	2.603
Health foods	32	42	40	38	34	31	30	24	29	4.582

¹ n, 20-30 = 260-266; n, 30-50 = 104-107; n, Over 50 = 64-77

² Due to rounding off percentages, totals may not equal 100%

* p < 0.05; ** p < 0.01; *** p < 0.001

Related to Sex

Nutrition interests of respondents in relationship to their sex are listed in Table 3. Women were more interested ($p < 0.001$) than men in infant and child nutrition and nutrition during pregnancy. Women also were more interested in menu planning and teenage nutrition ($p < 0.01$) and meal preparation and geriatric nutrition ($p < 0.05$). There was a high degree of interest in food budgeting, food shopping, and weight reduction among individuals of both sexes. Between 67 and 88% of both men and women indicated they were interested in those subjects.

Related to Marital Status

The relationship between nutrition interests and marital status is shown in Table 4. Marital status was related to the degree of interest in infant, child, and teenage nutrition ($p < 0.001$) and nutrition in pregnancy ($p < 0.01$). More single respondents indicated interest in nutrition during pregnancy than those who were married, separated, divorced, or widowed. However, married and single respondents expressed more interest in infant, child, and teenage nutrition than those who were separated, divorced, or widowed.

Interest in food budgeting and weight reduction was high. Approximately half of the respondents in all age groups indicated that they were very interested in food budgeting and about 40% in weight reduction.

Related to Education

As indicated in Table 5, there was a relationship between the education of respondents and interest in therapeutic diets ($p < 0.001$), geriatric nutrition ($p < 0.01$), and nutrient functions ($p < 0.05$). Individuals with less than a college education had a higher degree of interest in those subjects than did respondents with some college or more. Both groups showed

Table 3 Nutrition interests according to sex

Subject	Very Interested ¹		Somewhat Interested ¹		Not Interested ¹		Chi-square
	Male	Female	Male	Female	Male	Female	
	Percent ²		Percent ²		Percent ²		
Menu planning	27	38	44	46	29	16	12.350**
Food budgeting	49	56	34	32	17	12	3.662
Food shopping	40	40	35	42	25	18	4.027
Meal preparation	44	39	33	45	23	16	7.378*
Food safety	37	37	41	44	22	19	0.885
Food nutrient composition	37	37	38	39	24	25	0.003
Nutrient functions	32	36	34	33	34	31	0.981
Nutrition in pregnancy	13	31	23	28	63	41	25.175***
Infant nutrition	18	37	29	27	52	36	18.635***
Child nutrition	20	39	32	30	47	31	19.235***
Teenage nutrition	21	35	35	35	43	30	11.286**
Geriatric nutrition	31	37	29	37	39	26	9.113*
Therapeutic diets	25	34	39	31	36	34	5.387
Weight reduction	41	48	26	30	32	22	5.404
Health foods	32	38	34	38	34	24	5.592

¹n, Male = 178-185; n, Female = 258-266²Due to rounding off percentages, totals may not equal 100%

* n < 0.05; ** n < 0.01; *** n < 0.001

Table 4 Nutrition interests according to marital status

Subject	Very Interested ¹			Somewhat Interested ¹			Not Interested ¹			Chi-square
	Percent ³			Percent ³			Percent ³			
	Married	Single	Other ²	Married	Single	Other ²	Married	Single	Other ²	
Menu planning	33	33	35	44	49	37	23	18	27	3.533
Food budgeting	53	54	49	32	34	31	15	12	20	2.208
Food shopping	38	42	39	40	38	39	21	20	21	0.606
Meal preparation	42	41	37	39	43	34	19	16	29	3.822
Food safety	39	32	43	41	48	31	20	19	26	5.663
Food nutrient composition	39	33	46	39	40	27	21	27	27	4.971
Nutrient functions	37	31	35	31	35	38	32	33	27	2.116
Nutrition in pregnancy	22	28	11	23	31	19	54	41	70	13.894**
Infant nutrition	34	28	11	24	34	19	42	38	70	18.508***
Child nutrition	40	25	13	25	37	27	35	37	59	20.645***
Teenage nutrition	39	21	16	31	42	24	30	36	60	27.038***
Geriatric nutrition	40	29	38	34	34	36	27	37	26	7.597
Therapeutic diets	34	25	35	31	39	32	35	36	32	5.536
Weight reduction	45	46	39	30	29	16	25	24	45	8.079
Health foods	39	32	35	34	37	35	26	30	30	2.270

¹n, Married = 206-216; n, Single = 180-194; n, Other = 37-40²Other = separated, divorced, or widowed³Due to rounding off percentages, totals may not equal 100%

Table 5 Nutrition interests according to education

Subject	Very Interested ¹		Somewhat Interested ¹		Not Interested ¹		Chi-square
	Less Than College Education	Some College or More	Less Than College Education	Some College or More	Less Than College Education	Some College or More	
	Percent ²	Percent ²	Percent ²	Percent ²	Percent ²	Percent ²	
Menu planning	34	33	43	45	23	21	0.179
Food budgeting	55	53	24	34	21	13	5.433
Food shopping	42	39	43	38	15	22	2.336
Meal preparation	39	41	43	39	17	19	0.443
Food safety	46	34	37	44	16	21	4.704
Food nutrient composition	36	37	41	38	23	25	0.247
Nutrient functions	44	32	23	35	32	32	6.041*
Nutrition in pregnancy	24	23	24	27	51	50	0.183
Infant nutrition	31	29	27	28	42	43	0.120
Child nutrition	38	29	22	33	40	38	4.177
Teenage nutrition	38	27	29	36	32	36	4.507
Geriatric nutrition	48	31	31	34	20	34	10.703**
Therapeutic diets	51	26	21	37	27	37	21.418***
Weight reduction	52	43	23	30	24	27	2.554
Health foods	40	34	31	37	28	28	1.441

¹n, Less than college education = 81-89; n, Some college or more = 356-364

²Due to rounding off percentages, totals may not equal 100%

* p < 0.05; ** p < 0.01; *** p < 0.001

a high degree of interest in food budgeting and weight reduction.

Related to Income

Interest in prenatal, infant, and teenage nutrition was related ($p < 0.05$) to income (Table 6). Respondents who earned annual incomes between \$5,000 and \$14,999 had the greatest interest in prenatal and infant nutrition. More than half of the individuals in that income range expressed interest in those subjects. There was more interest in teenage nutrition among respondents earning \$5,000 to \$24,999 per year than among those whose incomes were below or above those levels.

Ikeda (11) found that low-income homemakers were interested in information about food shopping, meal planning, cooking and recipes, "best" or "right" foods to feed their families, and weight reduction. In the present study, 74-86% of respondents with annual incomes below \$5,000 expressed interest in weight reduction, menu planning, meal preparation, food shopping, and food budgeting.

Other Nutrition Interests and Questions About Nutrition

A small number of respondents indicated interest in vegetarianism, nutrition and sports, sugar, "good" and "bad" foods, the reliability of nutrition information, and food stamps. The other nutrition interests and questions listed were the same as, or similar to, those in the questionnaire.

Preferred Ways to Learn About Nutrition Interests

Effect of Age

Table 7 lists the ways respondents preferred to learn about their nutrition interests according to age. Preference for individual counseling, lectures, and newspapers was related to age ($p < 0.01$). Almost half of the

Table 6 Nutrition interests according to income

Subject	Very Interested ¹			Somewhat Interested ¹			Not Interested ¹		
	Less than \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999	Less than \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999	Less than \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999
	Percent ²			Percent ²			Percent ²		
Menu planning	26	34	39	52	44	48	22	22	13
Food budgeting	56	53	62	30	38	28	14	8	9
Food shopping	42	46	40	44	32	38	14	22	22
Meal preparation	40	40	50	39	46	35	21	14	14
Food safety	26	43	35	53	36	49	20	21	15
Food nutrient composition	39	36	38	39	40	41	22	25	21
Nutrient functions	39	28	39	28	39	39	33	32	22
Nutrition in pregnancy	19	34	17	29	29	35	51	37	48
Infant nutrition	24	39	28	33	29	34	43	31	37
Child nutrition	18	46	36	39	28	27	43	26	37
Teenage nutrition	18	42	28	42	26	37	40	32	35
Geriatric nutrition	33	41	32	29	31	39	37	28	29
Therapeutic diets	25	29	29	35	33	38	39	37	33
Weight reduction	44	45	43	30	30	25	25	25	32
Health foods	29	47	28	42	29	42	29	24	30

Table 6 (continued) Nutrition interests according to level of income

Subject	Very Interested ¹				Somewhat Interested ¹				Not Interested ¹				Chi-square
	\$15,000 to \$19,999	\$20,000 to \$24,999	\$25,000 and over	Percent ²	\$15,000 to \$19,999	\$20,000 to \$24,999	\$25,000 and over	Percent ²	\$15,000 to \$19,999	\$20,000 to \$24,999	\$25,000 and over	Percent ²	
	35	34	30		43	53	38		21	13	32		
Menu planning	48	51	42		29	36	39		22	13	19		12.175
Food budgeting	31	55	33		42	30	44		27	15	22		13.019
Food shopping	41	36	33		30	53	44		28	11	22		12.334
Meal preparation	33	49	38		40	34	43		27	17	19		15.699
Food safety	36	36	41		39	34	36		25	30	22		12.486
Food nutrient composition	36	38	28		28	25	38		35	36	33		2.063
Nutrient functions	27	18	21		19	24	16		54	58	63		9.378
Nutrition in pregnancy	28	23	28		29	28	15		43	49	57		18.607*
Infant nutrition	29	23	31		33	35	23		38	42	46		16.079*
Child nutrition	26	23	38		40	46	21		34	30	41		18.201
Teenage nutrition	35	26	32		32	52	30		33	22	38		19.089*
Geriatric nutrition	29	39	30		29	35	38		41	26	32		11.568
Therapeutic diets	44	52	48		25	35	30		30	13	22		5.228
Weight reduction	42	38	32		26	38	39		31	24	29		7.166
Health foods													10.876

¹ n, Less than \$5,000 = 71-73; n, \$5,000 - \$9,999 = 71-76; n, \$10,000 - \$14,999 = 82-85; n, \$15,000 - \$19,999 = 61-64; n, \$20,000 - \$24,999 = 43-47; n, \$25,000 and over = 61-63

² Due to rounding off percentages, total may not equal 100%

* p < 0.05

Table 7 Preferred ways to learn about nutrition interests according to age

Way to Learn	Good ¹			Fair ¹			Poor ¹			Chi-square
	20-30	30-50	Over 50	20-30	30-50	Over 50	20-30	30-50	Over 50	
	Percent ²			Percent ²			Percent ²			
Individual counseling	39	33	38	34	33	14	27	35	48	14.764**
Community classes	38	37	29	40	40	27	21	23	43	13.193*
Lectures	32	35	33	49	39	25	19	26	41	17.856**
Pamphlets	54	57	68	34	33	18	12	10	14	6.922
Radio	26	26	38	39	34	40	35	39	22	7.211
Television	33	29	36	39	35	46	27	35	18	5.943
Newspaper	37	48	56	42	42	33	21	10	11	15.029**
Telephone	8	19	16	22	19	24	69	63	60	8.880

¹n, 20-30 = 261-264; n, 30-50 = 101-106; n, 50 and Over = 62-75

²Due to rounding off percentages, totals may not equal 100%

* p < 0.05; ** p < 0.01

respondents over 50 years of age indicated that individual counseling was a poor way for them to learn. The majority (70-80%) of persons between ages 20 and 50 selected the lecture as a good or fair way for them to learn about their nutrition interests, but more than 40% of individuals over 50 indicated it was a poor method of learning. Respondents over 30 years old preferred newspapers as a source of nutrition information more frequently than younger respondents.

A greater percentage of respondents under age 50 than over indicated that community classes were a good or fair way to learn about nutrition ($p < 0.05$). A large percentage of all three groups considered pamphlets a good way for disseminating nutrition information and the telephone a poor way. Between 65 and 72% of respondents in all age groups indicated that radio and television were good or fair ways for them to learn about their nutrition interests. Spindler (16) found that young homemakers were interested in a series of meetings about nutrition, but that they were not interested in radio or television programs about the subject.

Effect of Sex

Community classes was the only method of learning related ($p < 0.05$) to the sex of the respondents (Table 8), with more women than men selecting that method as a good way for them to learn. Between 80 and 90% of both sexes selected pamphlets and newspapers as good or fair methods, and two-thirds indicated the telephone was a poor way for them to learn about their nutrition interests.

Effect of Marital Status

Pamphlets as a method of learning about nutrition was related ($p < 0.01$) to the marital status of the respondents (Table 9). A higher percentage of

Table 8 Preferred ways to learn about nutrition interests according to sex

Way To Learn	Good ¹		Fair ¹		Poor ¹		Chi-square
	Male	Female	Male	Female	Male	Female	
	Percent ²		Percent ²		Percent ²		
Individual counseling	37	37	32	30	31	32	0.110
Community classes	31	41	37	38	32	20	8.173*
Lectures	28	36	49	39	23	24	4.565
Pamphlets	54	60	32	30	14	10	2.310
Radio	28	27	36	40	36	32	0.965
Television	35	31	33	44	32	25	5.746
Newspaper	41	43	39	42	19	15	1.362
Telephone	10	13	20	23	70	64	1.676

¹n, Male = 177-183; n, Female = 251-264²Due to rounding off percentages, totals may not equal 100%

* p < 0.05

Table 9 Preferred ways to learn about nutrition interests according to marital status

Way To Learn	Good ¹			Fair ¹			Poor ¹			Chi-square
	Married			Married			Married			
	Single	Other ²	Percent ³	Single	Other ²	Percent ³	Single	Other ²	Percent ³	
Individual counseling	36	39	34	27	36	26	38	24	40	9.935*
Community classes	33	41	37	40	37	23	26	21	40	8.240
Lectures	32	33	37	39	49	37	29	18	26	8.461
Pamphlets	66	48	54	24	38	32	10	13	13	13.886**
Radio	32	25	21	33	43	45	35	32	34	5.417
Television	37	31	16	35	43	54	28	26	30	8.354
Newspaper	50	34	41	36	45	46	13	21	13	12.543*
Telephone	15	9	12	19	23	26	66	68	62	4.083

¹n, Married = 202-214; n, Single = 189-193; n, Other = 34-39

²Other = separated, divorced, or widowed

³Due to rounding off percentages, totals may not equal 100%

* p < 0.05; ** p < 0.01

married, separated, divorced, or widowed individuals expressed a preference for that method than single respondents.

Preferences for individual counseling and newspapers as methods of learning also were related ($p < 0.05$) to marital status. Single persons more often selected individual counseling as a good or fair way to learn than those who were married, separated, divorced, or widowed. The telephone was considered a poor method by a large percentage (over 60%) of all three age groups.

Effect of Education

Table 10 lists preferences for methods of learning as related to education of the respondents. The three methods related ($p < 0.01$) to education were lectures, pamphlets, and telephone. More than half of individuals in both groups (less than college education, and some college or more) indicated pamphlets were a good way for them to learn; a higher percentage (70%) of respondents with less than a college education selected that as a good method. Respondents who had attended college selected lectures as a good or fair way for them to learn more often than those who had less than a college education. A larger percentage of those with less than a college education selected the telephone as a good or fair method than college educated respondents. More than 40% of respondents in both groups chose newspapers as a good way to learn.

Effect of Income

The only method of learning related ($p < 0.05$) to income was community classes (Table 11). Slightly larger percentages of respondents with annual incomes between \$5,000 and \$19,999 preferred this method of learning than those who earned incomes of less than \$5,000 or greater than \$19,999 per year.

Table 10 Preferred ways to learn about nutrition interests according to education

Way To Learn	Good ¹		Fair ¹		Poor ¹		Chi-square
	Less Than College Education	Some College or More	Less Than College Education	Some College or More	Less Than College Education	Some College or More	
	Percent ²		Percent ²		Percent ²		
Individual counseling	39	37	26	32	34	31	1.109
Community classes	33	38	37	38	30	24	1.267
Lectures	28	34	34	45	38	21	10.591**
Pamphlets	70	54	17	34	12	12	10.259**
Radio	33	26	36	39	31	35	1.599
Television	39	31	39	40	21	29	3.054
Newspaper	50	41	39	41	10	18	4.038
Telephone	22	9	23	21	55	69	10.443**

¹n, Less than college education = 81-88; n, Some college or more = 348-359

²Due to rounding off percentages, totals may not equal 100%

** p < 0.01

Table 11 Preferred ways to learn about nutrition interests according to income

Way To Learn	Good ¹			Fair ¹			Poor ¹		
	Less than \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999	Less than \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999	Less than \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999
	Percent ²			Percent ²			Percent ²		
Individual counseling	33	33	41	38	34	26	28	33	33
Community classes	47	39	43	24	38	35	28	23	22
Lectures	42	34	31	39	40	45	19	26	24
Pamphlets	60	57	56	26	26	26	14	17	18
Radio	25	24	23	34	43	33	41	32	44
Television	36	33	30	32	42	38	32	25	32
Newspaper	40	43	48	33	40	38	27	16	14
Telephone	8	10	14	21	21	25	70	69	61

Table 11 (continued) Preferred ways to learn about nutrition according to income

Way To Learn	Good ¹				Fair ¹				Poor ¹				Chi-square
	\$15,000 to \$19,999	\$20,000 to \$24,999	\$25,000 to \$29,999	Percent ²	\$15,000 to \$19,999	\$20,000 to \$24,999	\$25,000 to \$29,999	Percent ²	\$15,000 to \$19,999	\$20,000 to \$24,999	\$25,000 to \$29,999	Percent ²	
	47	39	32		24	37	26		29	23	42		
Individual counseling													10.830
Community classes	33	30	20		46	39	52		21	30	28		18.718*
Lectures	32	29	28		44	43	44		24	27	28		4.514
Pamphlets	64	48	58		30	48	35		6	4	6		17.092
Radio	28	25	38		43	48	29		28	27	33		11.927
Television	33	31	34		46	38	36		21	31	29		5.261
Newspaper	48	39	43		41	50	35		11	11	21		11.296
Telephone	16	9	10		19	7	28		64	84	62		11.455

¹n, Less than \$5,000 = 69-73; n, \$5,000 - \$9,999 = 70-77; n, \$10,000 - \$14,999 = 82-85; n, \$15,000 - \$19,999 = 62-64; n, \$20,000 - \$24,999 = 43-46; n, \$25,000 and over = 61-62

²Due to rounding off percentages, totals may not equal 100%

* p < 0.05

Other

Journal articles and reviews, cookbooks, food labeling, programmed learning, extension, films, and from health professionals were listed by respondents as ways to learn about nutrition. Other methods of learning listed by respondents were the same as, or similar to, those listed in the questionnaire.

Anticipated Use of Suggested Nutrition Services

According to Age

Data concerning the anticipated use of nutrition services in relation to age of respondents is listed in Table 12. Use of potential services which would address the eating problems of children, nutrition in pregnancy, geriatric nutrition, and meal planning, food budgeting, and food safety was related ($p < 0.001$) to age. Anticipated use of individual counseling services for weight control and classes about food fads and fallacies also was related ($p < 0.05$) to age.

Younger respondents (under age 50) more often indicated they would attend classes about nutrition in pregnancy and eating problems of children than did those over age 50, and a larger percentage of those in the latter age group indicated they would attend classes about geriatric nutrition. Respondents between 20 and 50 years of age indicated a greater likelihood of using individual counseling services for weight control and attending classes concerning food fads and fallacies than those over 50. More than 70% of individuals under age 50 indicated they would attend classes about meal planning, food budgeting, and food safety, while only 35% of those over 50 indicated interest in such classes.

Table 12 Anticipated use of suggested nutrition services according to age

Potential Service	Would Use Service ¹			Would Not Use Service ¹			Chi-square
	20-30	30-50	Over 50	20-30	30-50	Over 50	
	Percent ²			Percent ²			
<u>Individual Counseling</u>							
Normal and therapeutic diets	36	38	26	64	61	74	3.107
Weight control	40	36	22	60	64	78	7.844*
<u>Classes</u>							
Eating problems of children	22	37	2	78	63	97	31.514***
Nutrition in pregnancy	25	11	0	75	89	100	30.275***
Geriatric nutrition	11	24	38	89	76	62	31.287***
Therapeutic diets	33	32	27	67	68	73	0.871
Nutrient functions	48	47	37	52	53	63	2.990
Food fads and fallacies	41	32	20	59	68	80	11.984*
Meal planning, food budgeting, and food safety	70	71	35	30	29	65	34.299***
Weight control	30	32	31	70	68	69	0.144

¹n, 20-30 = 259-262; n, 30-50 = 104-108; n, 50 and Over = 73-78

²Due to rounding off percentages, totals may not equal 100%

* p < 0.05; ** p < 0.01; *** p < 0.001

According to Sex

A greater percentage of women than men ($p < 0.001$) indicated they would attend classes about the eating problems of children, nutrition in pregnancy, meal planning, food budgeting, and food safety, and weight control (Table 13). More women than men also implied that they would use individual counseling services for weight control ($p < 0.05$).

According to Marital Status

Marital status of respondents was related ($p < 0.001$) to anticipated attendance of classes about eating problems of children and food fads and fallacies (Table 14). Attendance of classes about nutrition in pregnancy also was dependent ($p < 0.01$) on marital status as was the use of individual counseling services for weight control ($p < 0.05$).

A greater percentage of married individuals indicated they would attend classes about eating problems of children than did those who were single, separated, divorced, or widowed. Single respondents were more interested in attending classes concerning food fads and fallacies and nutrition in pregnancy and were more likely to use individual counseling services for weight control, than married, separated, divorced, or widowed respondents. Large percentages (55% or more) of individuals in all three categories inferred that they would attend classes concerning meal planning, food budgeting, and food safety.

According to Education

There was a relationship ($p < 0.001$) between education of respondents and their anticipated attendance of weight control classes (Table 15). Forty-six percent of individuals with less than a college education indicated they would

Table 13 Anticipated use of suggested nutrition services according to sex

Potential Service	Would Use Service ¹		Would Not Use Service ¹		Chi-square
	Male	Female	Male	Female	
	Percent ²		Percent ²		
<u>Individual Counseling</u>					
Normal and therapeutic diets	33	36	67	63	0.600
Weight control	29	41	71	59	5.958*
<u>Classes</u>					
Eating problems of children	13	28	87	71	14.962***
Nutrition in pregnancy	6	25	93	75	24.771***
Geriatric nutrition	17	19	82	81	0.181
Therapeutic diets	30	33	70	67	0.371
Nutrient functions	46	45	54	54	0.000
Food fads and fallacies	34	36	65	64	0.149
Meal planning, food budgeting, and food safety	54	71	46	28	14.570***
Weight control	19	38	80	62	17.153***

¹ n, Male = 179-183; n, Female = 260-267

² Due to rounding off percentages, totals may not equal 100%

* p < 0.05; ** p < 0.01; *** p < 0.001

Table 14 Anticipated use of suggested nutrition services according to marital status

Potential Service	Would Use Service ¹			Would Not Use Service ¹			Chi-square
	Percent ³			Percent ³			
	Married	Single	Other ²	Married	Single	Other ²	
<u>Individual Counseling</u>							
Normal and therapeutic diets	33	36	40	67	64	60	0.894
Weight control	33	42	21	67	58	79	7.390*
<u>Classes</u>							
Eating problems of children	33	12	12	67	88	87	28.621***
Nutrition in pregnancy	15	23	2	84	77	97	10.121**
Geriatric nutrition	22	13	30	78	87	70	9.378
Therapeutic diets	30	34	30	70	66	70	0.978
Nutrient functions	42	47	52	58	52	47	1.995
Food fads and fallacies	26	45	36	73	55	64	15.522***
Meal planning, food budgeting, and food safety	63	66	55	36	33	45	1.942
Weight control	30	31	27	70	68	72	0.262

¹n, Married = 211-219; n, Single = 186-191; n, Other = 38-40

²Other = separated, divorced, or widowed

³Due to rounding off percentages, totals may not equal 100%

* p < 0.05; ** p < 0.01; *** p < 0.001

Table 15 Anticipated use of suggested nutrition services according to education

Potential Service	Would Use Service ¹		Would Not Use Service ¹		Chi-square
	Percent ²		Percent ²		
	Less Than College Education	Some College or More	Less Than College Education	Some College or More	
<u>Individual Counseling</u>					
Normal and therapeutic diets	39	34	61	66	0.841
Weight control	47	33	53	67	5.615*
<u>Classes</u>					
Eating problems of children	24	22	75	78	0.297
Nutrition in pregnancy	16	18	84	82	0.116
Geriatric nutrition	21	18	79	82	0.279
Therapeutic diets	41	29	59	70	4.287*
Nutrient functions	47	45	53	55	0.086
Food fads and fallacies	29	37	70	63	1.660
Meal planning, food budgeting, and food safety	67	63	33	36	0.406
Weight control	46	27	54	73	11.445***

¹n, Less than college education = 84-88; n, Some college or more = 355-364

²Due to rounding off percentages, totals may not equal 100%

* p < 0.05; *** p < 0.001

use that service while only 27% of those with some college or more indicated they would do so.

There was also a relationship ($p < 0.05$) between level of education and attendance of classes concerning therapeutic diets and use of individual counseling services for weight control. In both cases, those with less than a college education indicated they would use those services more than those who had some college or more. More than 60% of both groups implied that they would attend classes about meal planning, food budgeting, and food safety.

According to Income

There were no statistically significant relationships between anticipated use of nutrition services and income of respondents. Between 50 and 75% of respondents in all income categories indicated they would attend classes about meal planning, food budgeting, and food safety.

Preferred Time of Day

The majority of respondents, regardless of sex, marital status, education, or income, selected evening as the best time of day to use counseling services or attend classes. Afternoon and evening were selected as the best times to come for counseling or classes by the majority of respondents over age 50, while evening was chosen as best by those between 20 and 50.

SUMMARY AND RECOMMENDATIONS

If the effectiveness of nutrition education is to be improved, educators must give more attention to the nutrition interests and needs of individuals and groups. In order to determine the interests of the Manhattan, Kansas community in nutrition information and services, a questionnaire concerning nutrition interests, ways to learn about nutrition, and anticipated use of suggested nutrition services was developed and mailed to 1,374 residences. Approximately 33% of those residences surveyed responded to the questionnaire. The majority of respondents were between 20 and 30 years of age, more than one-third were men, and approximately one-third were students.

With the exception of prenatal, infant, child, and teenage nutrition, 50-60% of individuals in all age groups (20-30 years, 30-50 years, and over 50 years) and marital status categories (married; single; separated, divorced, or widowed) indicated they were very or somewhat interested in all the nutrition topics listed on the questionnaire. Larger percentages of younger (20-50 years) respondents were interested in prenatal, infant, child, and teenage nutrition than those over age 50, however a greater percentage of respondents in the latter age group expressed interest in therapeutic diets and geriatric nutrition. A slightly higher percentage of single respondents expressed interest in prenatal and infant nutrition than did those who were married, separated, divorced, or widowed. Larger percentages of married individuals indicated interest in child and teenage nutrition than did single, separated, divorced, or widowed respondents.

More than 50% of individuals in both education categories (less than a college education, and some college or more) expressed interest in all subjects mentioned in the questionnaire except nutrition in pregnancy. Forty-eight percent of the respondents with less than a college education were interested in that subject.

At least 60% of respondents at all income levels (ranging from less than \$5,000 to more than \$25,000 annually) indicated they were very or somewhat interested in all subjects except prenatal, infant, child, and teenage nutrition. The greatest interest in those subjects was among individuals whose annual incomes were less than \$15,000.

The majority of individuals, regardless of age, sex, marital status, education, or income, indicated pamphlets were a good or fair way to learn about their nutrition interests. Newspapers were also considered a good or fair method of learning by large percentages of respondents. Television was considered a good or fair way to learn by 64-82% of those surveyed. More than half of all individuals indicated that the telephone was a poor way for them to learn.

Between 50 and 75% of all individuals, regardless of sex, marital status, education, or income, but not age, indicated they would attend classes about meal planning, food budgeting, and food safety. Approximately 70% of younger (20-50 years) respondents were also interested in those classes, while only 35% of those over age 50 indicated they would attend. The majority of all individuals surveyed indicated they would not use any of the other services suggested.

Based on the results of this survey, the following recommendations were made for providing nutrition services through the Family Resource Center at Kansas State University:

1. Offer evening classes addressing the subjects of nutrient functions, meal planning, food budgeting, and food safety.
2. Design and offer pamphlets for distribution and write newspaper articles dealing with meal planning and preparation, food budgeting, food nutrients, nutrition needs throughout the life cycle, modified diets and health foods.
3. If possible, provide individual counseling services for normal and modified diets.

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APPENDIX

Department of Foods and Nutrition

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Justin Hall
Manhattan, Kansas 66506
913-532-5508

The Family Resource Center, located at 1221 Thurston Street, Manhattan, Kansas, is supervised by the College of Home Economics and offers educational programs and consultation for individuals and families. Presently, the programs offered include financial counseling and consultation, parenting, energy conservation in the home, consulting on interior design problems in the home, and nutritional and dietary counseling. These services are provided by faculty members or by students supervised by them.

At the present time, the Department of Foods and Nutrition provides nutrition counseling on an appointment basis. A nutritionist is available one-half day per week. Nutrition counseling services are free to members of families whose income is less than \$10,000.00 per year. There is a charge of \$3.00 per hour for those who can afford it.

We believe that nutrition services should be planned around the interests and needs of people in the community. Before planning additional services to be offered through the Family Resource Center, we would like to know what kinds of information and services you would like to have available.

We are asking your cooperation in completing the enclosed questionnaire. It includes questions concerning your interest in and needs for nutrition information and services, and how you would like us to meet your needs. It is very important to the success of this project that you complete the form as fully and accurately as possible. Please return the completed questionnaire in the enclosed envelope by _____, 1979.

We appreciate the time and effort which will be necessary for your completion of this questionnaire. By doing so, you will help us plan a community nutrition program better suited to your needs. Please contact us if you have any questions concerning the project.

Sincerely,

Susan D. Sanborn, R.D.
Graduate Student

Kathleen Newell, Ph.D., R.D.
Associate Professor

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SURVEY OF INTERESTS IN NUTRITION INFORMATION AND SERVICES

PART I: YOUR NUTRITION INTERESTS

3 = NOT INTERESTED IN LEARNING MORE ABOUT THIS SUBJECT

1. Menu Planning 1 2 3
(eg. how to plan nutritious meals; recipes)
2. Food Budgeting 1 2 3
(eg. how to get the most nutrition for your food dollar)
3. Food Shopping 1 2 3
(eg. understanding food labels, unit pricing, open dating)
4. Meal Preparation 1 2 3
(eg. cooking methods to preserve nutrients)
5. Food Safety 1 2 3
(eg. safe storage and handling of foods)
6. Nutrient Composition of Foods 1 2 3
(eg. amount of protein, carbohydrate, fat, vitamins, and minerals in foods)
7. Functions of Nutrients 1 2 3
(eg. how the body uses protein, carbohydrate, fat, minerals, and vitamins)
8. Nutrition Needs During Pregnancy 1 2 3

- | | | | |
|---|---|---|---|
| 9. Nutrition Needs During Infancy | 1 | 2 | 3 |
| 10. Nutrition Needs During Childhood | 1 | 2 | 3 |
| 11. Nutrition Needs During Teen-Age Years | 1 | 2 | 3 |
| 12. Nutrition Needs of the Elderly | 1 | 2 | 3 |
| 13. Diets Prescribed by Doctors
(eg. diabetic, low fat, low cholesterol, low salt) | 1 | 2 | 3 |
| 14. How To Lose Weight
(eg. safe weight reduction, how to identify fad diets) | 1 | 2 | 3 |
| 15. Health Foods
(eg. need for vitamin and mineral supplements; food additives) | 1 | 2 | 3 |
| 16. Other Interests (Please Specify) | | | |

PART II: WAYS TO LEARN ABOUT YOUR NUTRITION INTERESTS

DIRECTIONS: Please rate the following as to the best way for you to learn about the subjects of most interest to you.

1 = GOOD WAY FOR ME TO LEARN

2 = FAIR WAY FOR ME TO LEARN

3 = POOR WAY FOR ME TO LEARN

- | | | | |
|--------------------------|---|---|---|
| 1. Individual Counseling | 1 | 2 | 3 |
| 2. Community Classes | 1 | 2 | 3 |
| 3. Lectures | 1 | 2 | 3 |
| 4. Pamphlets | 1 | 2 | 3 |
| 5. Radio | 1 | 2 | 3 |
| 6. T.V. | 1 | 2 | 3 |
| 7. Newspaper | 1 | 2 | 3 |
| 8. Phone | 1 | 2 | 3 |

9. Other (Please Specify)

10. When is the best time for you to attend classes, lectures, or come to the Family Resource Center for counseling?

_____ Morning

_____ Noon Hour

_____ Afternoon

_____ Evening

PART III: YOUR USE OF NUTRITION SERVICES

DIRECTIONS: Circle one answer for each statement

If the following services were available, would you use them?

1. A counseling center to go to for individual help in planning normal or special diets.

YES NO DOES NOT APPLY TO ME

2. Classes about eating problems of young children.

YES NO DOES NOT APPLY TO ME

3. Classes about eating properly during pregnancy.

YES NO DOES NOT APPLY TO ME

4. Classes about eating problems of the elderly.

YES NO DOES NOT APPLY TO ME

5. Classes about special diets.

YES NO DOES NOT APPLY TO ME

6. Classes about nutrients in food and how the body uses them.

YES NO DOES NOT APPLY TO ME

7. Classes about food fads and fallacies.

YES NO DOES NOT APPLY TO ME

8. Individual counseling for weight control.
- | | | |
|-----|----|----------------------|
| YES | NO | DOES NOT APPLY TO ME |
|-----|----|----------------------|
9. Group classes for weight control.
- | | | |
|-----|----|----------------------|
| YES | NO | DOES NOT APPLY TO ME |
|-----|----|----------------------|
10. Classes about meal planning, food shopping, budgeting, and food handling.
- | | | |
|-----|----|----------------------|
| YES | NO | DOES NOT APPLY TO ME |
|-----|----|----------------------|

PART IV: GENERAL INFORMATION

DIRECTIONS: Please check the blank that describes you and answer the following questions.

1. Your Age in Years
- | | |
|-------|--------------|
| _____ | 20-30 |
| _____ | 30-40 |
| _____ | 40-50 |
| _____ | 50 and above |
2. Your Sex
- | | |
|-------|--------|
| _____ | Male |
| _____ | Female |
3. Your Marital Status
- | | |
|-------|-----------------------|
| _____ | Married |
| _____ | Single |
| _____ | Divorced |
| _____ | Separated |
| _____ | Other, please specify |
4. Your Education
- | | |
|-------|-------------------|
| _____ | 8th Grade or Less |
| _____ | Some High School |

- _____ High School Graduate
- _____ Technical or Vocational School Graduate
- _____ Some College
- _____ College Graduate
- _____ Graduate School
- _____ Other, please specify

5. Average Family Yearly Income After Taxes

- _____ Less than \$ 5,000
- _____ \$ 5,000 - \$ 9,999
- _____ \$10,000 - \$14,999
- _____ \$15,000 - \$19,999
- _____ \$20,000 - \$24,999
- _____ \$25,000 or over

6. What is your occupation?

7. The questions I have about foods and nutrition are usually answered by:

8. What questions concerning foods and nutrition have you had in the past month that you wish someone could have answered?

Department of Foods and Nutrition

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Justin Hall
Manhattan, Kansas 66506
913-532-5508

A short time ago a questionnaire about your interests in nutrition information was mailed to you. Your name was selected at random from residents in the Manhattan area.

If you have already completed the form and returned it to us, please accept our sincere thanks. If not, we would appreciate your taking a few minutes of your time to complete the questionnaire and return it to us. Because it has been sent to only a small, but representative, sample of the Manhattan residents your participation is extremely important if the results are to accurately represent the opinions of the Manhattan community.

In the event that you did not receive the questionnaire, or it has been misplaced, a replacement is enclosed.

Your cooperation is very much appreciated.

Sincerely,

Susan D. Sanborn, R.D.
Graduate Student

Kathleen Newell, Ph.D., R.D.
Associate Professor

A COMMUNITY'S EXPRESSED INTERESTS IN NUTRITION
INFORMATION AND SERVICES

by

SUSAN D.S. WATT

B.S., Kansas State University, 1974

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Foods and Nutrition

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1980

ABSTRACT

If the effectiveness of nutrition education is to be improved, educators must give more attention to the nutrition interests and needs of individuals and groups. In order to determine the interests of the Manhattan, Kansas community in nutrition information and services, a questionnaire concerning nutrition interests, ways to learn about nutrition, and anticipated use of suggested nutrition services was developed and mailed to 1,374 residences. Approximately 33% of those residences surveyed responded to the questionnaire. The majority of respondents were between 20 and 30 years of age, more than one-third were men, and approximately one-third were students.

With the exception of prenatal, infant, child, and teenage nutrition, 50-60% of individuals in all age groups (20-30 years, 30-50 years, and over 50 years) and marital status categories (married; single; separated, divorced, or widowed) indicated they were very or somewhat interested in all the nutrition topics listed on the questionnaire. Larger percentages of younger (20-50 years) respondents were interested in prenatal, infant, child, and teenage nutrition than those over age 50, however a greater percentage of respondents in the latter age group expressed interest in therapeutic diets and geriatric nutrition. A slightly higher percentage of single respondents expressed interest in prenatal and infant nutrition than did those who were married, separated, divorced, or widowed. Larger percentages of married individuals indicated interest in child and teenage nutrition than did single, separated, divorced, or widowed respondents.

More than 50% of individuals in both education categories (less than a college education, and some college or more) expressed interest in all subjects mentioned in the questionnaire except nutrition in pregnancy. Forty-eight percent of the respondents with less than a college education were interested in that subject.

At least 60% of respondents at all income levels (ranging from less than \$5,000 to more than \$25,000 annually) indicated they were very or somewhat interested in all subjects except prenatal, infant, child, and teenage nutrition. The greatest interest in those subjects was among individuals whose annual incomes were less than \$15,000.

The majority of individuals, regardless of age, sex, marital status, education, or income, indicated pamphlets were a good or fair way to learn about their nutrition interests. Newspapers were also considered a good or fair method of learning by large percentages of respondents. Television was considered a good or fair way to learn by 64-82% of those surveyed. More than half of all individuals indicated that the telephone was a poor way for them to learn.

Between 50 and 75% of all individuals, regardless of sex, marital status, education, or income, but not age, indicated they would attend classes about meal planning, food budgeting, and food safety. Approximately 70% of younger (20-50 years) respondents were also interested in those classes, while only 35% of those over age 50 indicated they would attend. The majority of all individuals surveyed indicated they would not use any of the other services suggested.

Based on the results of this survey, recommendations were made for providing appropriate nutrition services through the Family Resource Center at Kansas State University.