Meeting the 2005 Dietary Guidelines for Americans: A “daunting challenge” for food-stamp recipients in Southeast Louisiana

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BACKGROUND OF STUDY:

In general, low-income women have diets that compromise their health. Low levels of food intake, coupled with poor food choices, specifically in low food security groups, increases the likelihood of vitamin and mineral deficiencies. Low-income females are more likely than middle- or high-income females to be overweight/obese and to report having poorer overall health or a chronic disease. Participation in the Food Stamp Program (FSP) adds an additional level of complexity to the link between diet and food insecurity. Food cost is a major barrier to eating healthy meals in this population; it is not known whether low-income individuals have adequate resources to meet the food recommendations of 2005 DGA.

METHODS:

A market basket of 149 menu items was priced at 29 food stores in eight parishes (counties) in Southeast Louisiana over a two week time period. Using these foods, a two-week cycle menu, with recipes, was planned that met the food recommendations for the 2005 DGA for a reference family of four (male, female, two children). Nutrient content was assessed using Nutritionist Pro. It was also determined whether low-income individuals could afford to buy and could find foods for the menus from Pennsylvania State University (Penn State menus) published with the Thrifty Food Plan. Lastly, the cost of both of these healthy low-cost menus was compared with the cost of food that low-income women in the State are actually eating.

FINDINGS/DISCUSSION:

The cycle menus that were designed had some preparation required, relied on canned fruits and vegetables, and consisted of mostly nutrient dense foods. Incorporating variety into the meals was a major problem while keeping costs low. Although menus met the food recommendations, they were low in potassium, linolenic and alpha-linolenic acid, vitamin E, (one child was low in calcium), and high in sodium and phosphorus. At the time of the study, the maximum FS benefit for a family of four was $471/month, and the average benefit was $326/month. The mean cost of the 2-week menus was $615.89 ($5.09/person), $144.89 higher than the maximum, and $289.89 higher than the average FS benefit, suggesting that the cost of the meals exceeds benefits. It remains to be determined whether low income families will accept these menus and recipes; although it was originally intended that foods commonly eaten in this area be incorporated into the menus, the foods eaten by the women were of such low nutritional quality and the 2005 DGA recommendations are so stringent, it was not always possible to do this. For example, 3 cups of low-fat dairy is recommended for each family member; previous studies have shown that low- income women consume much less than one
serving/day. Fruit and vegetables showed similar intakes and dietary shortfalls when compared with the DGA.

The total cost of the Penn State menus was $117.01±11.79 (mean ± standard deviation) for week one and $112.19 ±11.44 for week two. These average costs were 54% and 47% more than the average food stamp (FS) benefits received, respectively; however, it should be noted that these menus do not meet the food recommendations of the 2005 DGA. Only, 7 of the 29 stores (24%) carried all 86 items. The menu items most frequently missing were pearl barley, garbanzo beans, and ground pork. There were no differences in the costs of food from stores from high or low-income areas or in areas with a higher percentage of people in poverty. Data suggest that the menus are, on average, not accessible to people receiving the average food stamp benefits.

Lastly, food group intake, energy/nutrient intake, and diet cost were assessed in 64 female FS recipients in Southeast Louisiana. From one 24-hour dietary recall collected at the beginning of the monthly resource cycle (Day 1) and one at the end (Day 2), nutrient intakes and diet costs were determined for both days of the resource cycle. Data were analyzed as a whole population, by food security status, and fast food intake. Overall, intake was very poor and failed to meet recommendations for whole grain, fruit, vegetables, and dairy, and exceeded the recommendations for discretionary calories. Nutrition education, needed to plan healthy meals on a restricted income, was lacking. Overall, mean costs were lower than the healthy menus $4.94 (Day 1) and $4.08 (Day 2) (p=0.038). Food security status did not change the amount of money spend on food. Individuals consuming fast food spent significantly more money ($8.81) than those not consuming fast food ($4.72) on Day 1 and $7.14 and $3.44 for Days 1 and 2, respectively. These data suggest that FS-reliant women spend a considerable amount of money on food that is nutritionally poor and that with appropriate nutrition education, they could improve the quality of their diet; however, with the monies most are currently spending, they cannot meet the 2005 DGA.

These findings underscore the challenges that low-income individuals face in meeting 2005 DGA. Lack of money, lack of FS, and nutrition education are among the barriers to meeting the DGA. Future studies should evaluate the acceptability of these foods to low-income audiences, as well as barriers and enabling factors that would allow them to improve their diets.

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