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Government Food Assistance Programs: A Nutritional Perspective

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GOVERNMENT FOOD ASSISTANCE PROGRAMS: A NUTRITIONAL PERSPECTIVE

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Abstract

Food security remains a problem in the United States. Historically, the government began to distribute excess agricultural goods to those in nutritional need. Efforts to provide food to people in need continue today through the Food Stamp Program (FSP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Nutrition status of participants in these programs demonstrates the nutritional effectiveness of these programs. These programs provide needed benefits and are making positive changes in food security, but improvements can be made to fully improve the nutrition status of these low-income participants. Nutrition professionals can be key in improving these programs.

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Food Insecurity, an Introduction

Access to food is one of the most basic human rights and needs. According to psychologist Abram Maslow, lack of food prevents humans from fulfilling any meaningful behavior beyond seeking satiation of the physical need (1). This need can be a major driving force to behavior. Children who are hungry are more distracted and less able to learn during school. Lack of food also affects adults' functionality (2). The food supply in the United States provides 4000 calories per person and throws away 96 billion pounds of food each year (3). With these statistics and everyday experiences of most Americans, lack of food and hunger are considered problems that exist only outside the United States. Unfortunately this is not the reality for nearly thirty-eight million people in the United States who suffer from food insecurity sometime during the year, 11.9 percent of the United States population. Of those, 13.9 million are children (4).

Food security means that all members of a household have access to sufficient food to support an active, healthy life. Food is readily available, safe, contains adequate nutrients, and is able to be procured in a socially acceptable manner. Socially acceptable manner is without resorting to use of emergency food supplies, scavenging, stealing, or other coping strategies. Food insecurity is uncertain or limited access to nutritionally adequate and safe foods and inability to procure them in a socially acceptable manner (5).

At the World Food Summit of 1996, a gathering of 185 nations, a declaration was made to "achieving food security for all and to eradicate hunger in all countries, with an immediate

view to reducing the number of undernourished people to half their present level no later than 2015" (5). The United States responded with a Healthy People 2010 goal of reducing food insecurity by half. When the goal was set, 88 percent of households in the United States were food secure. The goal for 2010 is to have 94 percent of United States households experiencing food security (6).

A History of Food Assistance

The United States relies on food assistance programs to provide food security to families, especially low-income families which are at most nutritional risk (5). The use of government food assistance has its roots in the 1930's during the Great Depression. Agriculture had slumped and there was no longer a market for some products including wheat. The United States Farm Board began to purchase wheat to alleviate the troubled market. There were no plans for its use and it began to accumulate in warehouses. At the same time, many Americans were suffering food insecurity due to the depressed economic climate (7).

In 1932, despite claims that food assistance would undercut work ethic, Congress authorized distribution of government wheat to the unemployed. This program further developed into the Federal Surplus Relief Corporation (FSRC). This program was responsible for purchasing agricultural surpluses, processing these food items, and distributing them to those in need. In May 1939, the experimental Food Stamp Program, through the United States Department of Agriculture (USDA), began. This allowed recipients to purchase orange stamps (at face value) to buy food at food retailers. With this purchase, the recipients also received half of that value in blue stamps. These blue stamps could be redeemed for free agricultural surpluses. This format was designed to guarantee that money was spent on food as well as supplement those purchases with free commodities (7).

Effects of malnutrition became a concern of national security when men were not able to perform military service during World War II because of nutrition deficiencies. This concern led to one of the first major legislations related to government food assistance. In 1946, the National School Lunch Act was passed "as a measure of national security, to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food" (8). The Child Nutrition Act of 1966 followed to "extend, expand, and strengthen" the efforts of safeguarding the health and well-being of the Nation's children (9). This act acknowledged the role of nutrition in the development and learning ability of children. In 1972, the Child Nutrition Act was furthered with the amendment that started the Supplemental Food Program for Women, Infants, and Children (WIC) (10). Finally, in 1977, a modernized form of government food assistance, the Food Stamp Act, passed in Congress, eliminating payments for stamps (11).

These programs have progressed through the years and are regularly monitored and modified to address social, political, and nutritional issues. The question arises whether these programs are effective in meeting their objectives.

The Food Stamp Program

Description

The Food Stamp Program (FSP) was designed to "provide for improved levels of nutrition among low-income households through a cooperative Federal-State program of food assistance" (11). It is a safety net and safeguard for low-income individuals. The FSP is the largest food assistance program in the United States, expending $31 billion in 2005 for 25.7 million participants (12).

Eligibility

To be eligible, recipients must have a monthly gross income at or below 130 percent of poverty, a net income of less than 100 percent of poverty, and assets limited to $2,000. Households with elderly or disabled members and households receiving other financial assistance may be exempt from some of the financial requirements. Also, non-disabled, non-elderly adults without children must meet work requirements such as registration for work, acceptance of job offers, and compliance with welfare job trainings programs in order to be eligible. Ineligible populations include strikers, permanent non-citizens, unauthorized immigrants, and postsecondary students. The FSP is an entitlement program and therefore all eligible people receive benefits (13, 14, 15).

Benefits

Benefits are calculated based upon monthly net income, any applicable reduction rates, and the maximum food stamp benefit guideline for household size and location based upon the Thrifty Food Plan (TFP). The final monthly food stamp allotment for a household is totaled by subtracting 30 percent of the household's net income from the maximum benefit. The average benefit per person is $92.70 a month (15). Benefits are issued on an electronic benefit transfer card similar to a debit card. When purchases are made, the cost is electronically deducted from the client's account. Recipients cannot buy ready-to-eat hot foods, vitamins or medicines, pet foods, tobacco, cleaning items, alcohol, or non-food items (except for garden plants and seeds) with their benefits (2).

Effects on Food Insecurity

It would logically conclude that the FSP would decrease food insecurity for households due to its supply of regular food to the households. When compared with similar households,

FSP participants were less likely to be food secure than income-eligible non-participants (IENP) (83 percent of FSP households versus 89 percent IENP households) (14, 17). This could be due to self-selection. Those who choose to utilize the FSP's services may be more food insecure, even without food stamps, than those do not participate. Also, food allotments may be insufficient to meet the needs of its participants. Research shows that cash, food stamps, and WIC benefits for monthly food expenditures of FSP participants only purchased 80 percent of the TFP and were often still in need of emergency food by the end of the month (2).

Effect on Nutrient Status

FSP participation does, compared to similar households, increase calories consumed (14). This possibly shows that the FSP is meeting its objective of improving nutrition by increasing the amount energy available to these low-income participants. Sufficient energy is an important step in increasing nutrition for a population at risk of being malnourished, but a breakdown of these calorie sources is less reassuring. With the increase of cheap, low nutrient-dense foods, increasing calories may actually be detrimental. Obesity is a problem plaguing society, especially low-income populations. It is not enough to increase calories--- to truly improve nutrient status the FSP must be able to improve sources of these calories.

Participation in the FSP has been significantly associated with increased intake from added sugars, total fats, and meat, which are often associated with poor dietary quality. There were no significant associations with increased intakes of fruits, grains, or dairy, which are desirable sources of calories (16). There was a slight increase of vegetable consumption which is positive. Another study found that the percentage of FSP participants meeting the recommended intakes for vegetables, fruit, and dairy was lower than in high-income non-participants (HINP) and IENP. The variety of diet was also lower (14).

Analysis of micronutrient intakes for FSP was also less than desirable. Compared to HINP and IENP, FSP participants had lower percent of persons with adequate usual intake of iron, zinc, and calcium. They also had significantly lower use of dietary supplements. Although dietary supplementation is not usually desirable, it could make up for these deficiencies of intake in FSP participants. Because dietary supplements are not being used, it is important to improve these micronutrient intakes through food (14).

The Healthy Eating Index (HEI) is another measurement of dietary intake used to assess FSP participants' intake. This tool uses a single 24-hour recall to analyze conformity of diet with the Food Guide Pyramid recommendations for five main food groups, grains, fruits, vegetables, dairy, and meat. It also assesses conformity of diet with the Dietary Guidelines for Americans for daily intake of fat, saturated fat, sodium, and cholesterol. Variety of diet was also scored. FSP participants again had a significantly lower mean HEI score than both HINP and IENP. They also had lower percentages usually meeting the Dietary Guidelines for total fat intake, saturated fat intake, and cholesterol intake. FSP participants did have higher percentages of persons meeting the Dietary Guidelines for sodium, especially compared to higher-income populations (14).

Effect on Weight

These nutritional difficulties appear to have an influence on the weight of FSP participants. The mean Body Mass Index (BMI) for adult FSP participants was 28.3 versus 26.9 for income-eligible non-participants and 26.4 for higher-income non-participants. Only 28 percent of female participants are at a healthy weight versus 36 percent of IENP and 49 percent of HINP. Being underweight is no longer a significant problem for FSP participants with only 3 percent being underweight (14).

The Special Supplemental Nutrition Program for Women, Infants and Children

Description

The WIC program is designed to provide "supplemental nutritious food as an adjunct to good health care during critical times of growth and development, in order to prevent the occurrence of health problems and improve health status" (13). Total expenditures for the WIC program in 2005 were $5 billion, serving 8 million participants monthly (12).

Eligibility

Eligible participants must fall into one of the following five categories: pregnant women, breastfeeding women up to one year postpartum, non-breastfeeding postpartum women up to six months after giving birth, infants zero to twelve months, and children up to the age of five. Income eligibility is no more than 185 percent of poverty, but is determined specifically by state and local agencies. Also, nutrition risk must be demonstrated. This can include anemia, HIV, under- or overweight status, high-risk pregnancies, and diseases affecting nutrient status (13, 18).

Benefits

Benefits of WIC are supplemental foods, nutrition education, and referral to health and social services. Supplemental food packages vary for the different populations WIC serves, but focus primarily on increasing protein, iron, calcium, vitamin A, and vitamin C in the participants' diets. Packages can include dry beans, peanut butter, milk, cheese, cereal, juice, infant formula, tuna, and carrots. Benefits are often administered through vouchers that can be redeemed for food at certain food stores (18).

Effect on Food Insecurity

Although WIC's primary purpose is not to make a household food secure, the food packages it provides assist in providing adequate nutrition. The percentage of children ages one to four who were food secure was slightly higher in WIC participants than in IENP. It was below the percentage of HINP by 12 percent (19).

Effect on Nutrient Status

Children WIC participants consume 107 percent of the recommended energy requirement. This is above both IENP and HINP (19). Although this number is disturbing due to the rate of childhood obesity, the sources of the calories appear to not be from added sugars and fats. WIC participation is associated with significantly lower intake of added sugars when compared with non-participants. WIC participants also have lower intake of fat. Dairy and fruit consumption are also increased in WIC participants compared to non-participants (15). Food packages play a large role in creating these statistics. To meet WIC requirements, cereals must be low in sugar and juices must be 100 percent fruit juice with no added sugar. The juice also counts as fruit consumption leading to the high fruit intake. Dairy products, in the form of milk and cheese, are also a major component of the food packages, increasing intake of dairy products.

The food packages also appear to have a positive influence the micronutrient intake of WIC participants. WIC participants consume higher amounts of iron, folate, vitamin B6, vitamin A, vitamin C, and calcium (13, 17). The increased iron had a positive effect on hemoglobin or hematocrit, reducing the number of anemic children (10). Rates of iron deficiency in WIC children is about half of the rates in IENP and similar to those in HINP. Also, the mean HEI

scores for child WIC participants were higher than that of IENP and only slightly lower than that of HINP (19).

Effect on weight

WIC has had a significant effect on raising the mean birthweight and positively affecting many other birth outcomes such that Medicaid costs are significantly lowered (10, 13). Results show that WIC children are no more likely to be overweight than IENP, but were more likely to be underweight than IENP (19). The difference in underweight percentages could be due to self-selection, meaning that parents who are worried about their child's weight are more likely to seek WIC services. Parents of underweight children may be concerned, more than those of overweight children, and choose to go on WIC. Also, the nutrition risk component of WIC may also lead to there being higher numbers of overweight and or underweight children in the program than not (19).

Effect on Breastfeeding Rates

Because of its many benefits, breastfeeding is the recommended way to feed an infant. It can protect against illness and allergies as well as supply correct nutrients to the infant. It also helps mothers by promoting weight loss and reducing risk of certain cancers (20). Thus breastfeeding is promoted by WIC. Still, WIC mothers have significantly lower rates of initiating breastfeeding (39 percent of WIC participants, 51 percent of IENP, and 71 percent of HINP) as well as shorter duration of primarily breastfeeding (31 percent of WIC, 39 percent of IENP, and 42 percent of HINP) (10, 19). Although breastfeeding is promoted through WIC, it is not required. Knowledge that free formula is available may prevent WIC mothers from pursing breastfeeding more fully (19).

Effect of Nutrition Education

Nutrition education methods and curriculum vary for each clinic. Thus, it is difficult to generalize findings related to it. Studies have found that nutrition education through WIC increases the knowledge of women as well as positive attitudes, perceptions, behaviors regarding nutrition. Studies have also shown that nutrition education can improve knowledge of children as young as three and four years old (10).

Effect of Referrals

Another hallmark of WIC is its referral system to social and health services. Although an indirect measure of effectiveness of these referrals, use of health services by WIC participants is greater than for IENP. WIC participants are more likely to have health insurance, mostly Medicaid, than IENP, and are more likely to visit a dental practitioner. Infants and children participating in WIC were also more likely to have a regular source of health care (19). WIC also improves the utilization and effectiveness of these health care services. Studies show that for every dollar spent on WIC, an estimated $3.50 is saved through healthcare costs (10).

Implications and Improvements

The differences between WIC and the FSP may be attributed to many causes. WIC strictly limits the type of foods obtained and also focuses on nutrition education. Also, it focuses on a less diverse population whereas the FSP covers people of many ages and situations, making it more difficult to define exact needs. Still, improvements can be made to improve each program.

Although the FSP is, for the most part, improving the availability of food, reviews of the foods available as well as the methods of administration may need to be evaluated to truly improve the nutrition status of low-income individuals. One key factor that appears to be

missing in the FSP is consistent nutrition education. Currently, Food Stamp Nutrition Education programs are optional for each state and are not a required part of the FSP. Studies show that when nutrition education supplements food stamp benefits, positive changes in food choice, food safety, and food preparation occur (21). Cultivation of certain food practices such as reading nutrition labels, planning meals ahead, and generally thinking about healthy food choices led to proper consumption of important nutrients such as calcium, iron, and zinc (22). These behaviors can be taught and demonstrated through more dissemination of nutrition education. Although education may not be the only missing component to improving the nutrition adequacy, it may be a crucial part.

WIC appears to be improving important parts nutrition outcomes of pregnancy, infancy, and childhood. There are still important areas of improvement.

The food packages have remained virtually unchanged since 1974. Revisions of the food packages may help support improved nutrition by incorporating more fresh fruits and vegetables and more alternatives such as more ethnically appropriate foods (3).

Even smaller, more clinic individualized changes can also affect the nutrition effectiveness of WIC. A recent study identified over sixty-eight barriers that prevent full effectiveness of WIC. Although these methods appear small and insignificant, customer satisfaction could play a role in acceptance and desire to follow nutrition recommendations. Simple changes such as providing activities for children in waiting areas, improving client flow through the office, education on age-appropriate servings, and modeling proper redemption of vouchers could impact the usefulness of WIC. Clients reported nutrition education as being repetitive and boring. This perception could be changed by more highly training frontline

nutrition educators, personalization of education material, and involving clients more fully in the nutrition education process (23).

Conclusion

Food insecurity is still a problem in the United States. Government food assistance programs are essential in solving the food security issues. It appears that merely providing calories is not enough to provide sufficient nutrition assistance to nutritionally at-risk, low-income individuals. Focus must be placed on macro- and micronutrient status, disease states, and weight status. This can be done through continual revisions and evaluation. Nutrition educators play a significant role through professional development of more low-income friendly education including simplistic, basic, and hands-on ideas such as budgeting, menu planning, and food preparation. Also, political advocacy for budget and policy improvements in food assistance is key to more positively benefiting low-income individuals.

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