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FOOD INSECURITY AND HUNGER IN AMERICA

by

Elizabeth Zufelt

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of the requirements for the degree**

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Food Insecurity and Hunger in America

Abstract

Studies have shown that about twelve percent (13.5 million) of American households experience at least some form of food insecurity in one year. Causes for food insecurity include disability, low income if employed, unemployment within the past six months, and retirement. Hunger and obesity are often seen in the same person at the same time, including children. The effects of hunger and food insecurity seen among children include: anemia, higher levels of anxiety, poorer performance on mathematical tests, depression, aggression, tardiness, a poorer sense of well-being, lower physical abilities, and lower psychosocial abilities. Food insecurity also affects the elderly population. Food insecurity among the elderly often pertains to the inability or lack of resources to purchase the right food for health, or lack of ability or resources to obtain food. There are multiple programs in place to help alleviate hunger and food insecurity in America. These include the Food Stamp Program, the Special Supplementation Nutrition Program for Women, Infants, and Children (WIC), and the National School Lunch Program. Other non-governmental programs are emergency food assistance programs, such as soup kitchens and food pantries, farmers' markets, and religious-affiliated organizations. Dietetics professionals are in a unique position to help prevent and eradicate hunger and food insecurity in America.

Food Insecurity and Hunger in America

Current Problems and Prevalence

America faces many challenges in the healthcare sector. Although advances in the scientific field are being made every year, cancer, heart disease, diabetes, and stroke continue to be leading causes of death and high medical costs in this nation. Smoking, drunk driving, and drugs also are a national health concern. However, there is one national health problem that is recognized less often: hunger and food insecurity. These two concerns are realities in many Americans' daily lives.

The large majority of U.S. households experience food security, in which each member of the household has access to enough food to sustain a healthy, active lifestyle (1). In 2004, the United States Department of Agriculture (USDA) conducted a survey, as it has done every year since 1995, to assess the food security of U.S. households. The successive report revealed that about twelve percent of American households experience at least some form of food insecurity, due to lack of money or other resources, at least some time during the year (1). One noted point from the USDA study is the fact that food security decreased from 88.8 percent in 2003 to 88.1 percent in 2004 (1). Of the 13.5 million households experiencing food insecurity, approximately 4.4 million experienced hunger because they were unable to obtain enough food (1). Those who experienced food insecurity, but not hunger, found other means of obtaining food, such as "eating less varied diets" or obtaining food from a food pantry (1). Approximately 0.5 to 0.7 percent of U.S. households had children who experienced both food insecurity and hunger (1).

The differentiation between food insecurity and hunger is noted; in this paper, food security basically refers to the financial ability to provide adequate food to sustain a normal, healthy, active lifestyle, while hunger refers to a “level” of food insecurity, and is characterized by “recurring involuntary reduction of food intake” and altered eating patterns (2). As noted above, the two are not always seen together. More often than not, food security is seen without hunger, while hunger is seldom seen without food insecurity. Regardless of these details, the data from the USDA survey indicate that the problem is still significant—even increasing—and many Americans are hungry from lack of resources to obtain food every day.

Causes of Food Insecurity and Hunger

The amount of food insecurity in America, 13.5 million households, pales in comparison to the staggering estimation of 800 million people worldwide who are experiencing deficiencies in their food supply (3). Climate change is a major contributor to crop failure and therefore contributes to food insecurity in many developing countries (3, 4). Our nation is not as affected by such changes, as the majority of the American population does not live directly off the land. However, there are multiple other reasons for food insecurity and hunger in America. Lack of income is often the cause for lack of food. Food is nearly always available except for in extreme situations such as war or famine; the problem is finding the resources to obtain the food (5). Present-day America arguably never experiences famine and war on our homeland, but poverty *is* widespread. Not only does poverty influence the financial ability to purchase food, but it also affects where people can afford to live (6). This, in turn, affects the family’s proximity to food

stores, food pantries, fast food restaurants, and social services (6). Social organization also determines whether a population is food secure or not (5). Culture within these social organizations influences how people react to food insecurity and food supply (5). For example, some cultures and mindsets are more accepting of available food assistance programs.

Other causes of food insecurity exist. One study evaluated food assistance programs in Virginia to answer this question. Surveys were performed of users of randomly assigned food pantries or soup kitchens (7). Data from the surveys show that the leading causes for food insecurity for this population were disability, low income if employed, unemployment within the past six months, and retirement (7). Even though there is a higher likelihood of food insecurity below the poverty level, there is not a direct relationship between income and food insufficiency (7). Because other life crises and hardships play into the picture, particularly among those who are recently unemployed, income is not a reliable predictor of food insecurity or hunger (7). Income, even from full-time employment, does not always ensure adequate money to purchase enough food to support a family's needs (7). Of the Virginia sample of food pantry and soup kitchen users, only 40% of responders reported using the Food Stamp Program (FSP) (7). Possible reasons may include ineligibility, but more likely the dearth of participation is due to lack of information about the FSP, particularly among ethnic minorities (7).

The Hunger-Obesity Paradox

A somewhat paradoxical occurrence is being seen at increasing rates: obesity and hunger in a person concurrently. This paradox was first noted by Dietz in 1995 when he

noticed the problem while studying a young girl and her mother who lived below the poverty line (8). The girl was 220% of her ideal body weight, but the mother reported frequent episodes of food insecurity and hunger, even though the family was on welfare and food stamps (8). The mother had to purchase inexpensive high-calorie food to provide energy for her daughter that would prevent hunger (8).

Later, in 2001, a study used data from a national survey of food intakes to evaluate the prevalence of food insecurity and obesity occurring within the same person (9). The results showed that overweight and obesity in women increased as food insecurity increased, with 52% incidence of overweight of those known as moderately food insecure (9). The mechanism behind the hunger-obesity paradox is still unclear. Some suggest that it is due to episodes of binge eating following periods of food deprivation (10). Or, perhaps the mechanism is inverted: obesity may cause lower income, and therefore greater food insecurity (10). Regardless of the reasons behind this paradox, hunger may be even more hidden than it appears, as it is shown that hunger and food insecurity can be a struggle for persons who are overweight or obese.

The hunger-obesity paradox is not only seen in adults, but the prevalence is observed less often in children. One study used data from the Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K) to evaluate the incidence of overweight and obesity coupled with food insecurity in children (11). Of all children, 11.2% of girls and 11.8% of boys were overweight (11). This study found that, contrary to Dietz's observations, children from households in which food security was a problem were 20% less likely to be overweight than those children from food-secure households (11). Even though there are multiple reasons to eradicate food insecurity, especially in

households with young children, the evidence from this study does not pose a good argument. Still, other studies have found a positive relationship between obesity and overweight and food insecurity among children and adolescents (12).

Effects of Hunger and Food Insecurity on Children

Besides childhood overweight or obesity, hunger and food insecurity impacts children in many ways. A recent study evaluated among children the incidence of iron deficiency anemia coupled with food insecurity (13). Data was obtained from the Children's Sentinel Nutrition Assessment Program (C-SNAP). Caretakers of children less than or equal to three years old who visited the emergency department were interviewed and asked questions about food security in their households (13). The cross-sectional data recorded was linked with data from a database which contained values such as hemoglobin, red blood cell distribution width, and mean corpuscular volume (13). Results from the comparison of the two data sets showed that children in food-insecure households were significantly more likely to experience iron deficiency anemia than those in food-secure households (13). Iron deficiency anemia is known to be associated with many detrimental effects. This relationship alone is a worthy reason to enhance efforts to alleviate food insecurity, especially in households with children.

Food insufficiency, which is similar to hunger, refers to inadequate amount of food intake due to insufficient food resources (12). Children aged 6 through 12 who experience food insufficiency have been shown to have higher levels of anxiety, poorer performance on mathematical tests, depression, aggression, tardiness, and other such behaviors (12). Among kindergarten-age children, food insecurity is associated with

poor social development (12). Many of the studies to address issues of food insecurity in children have been cross-sectional. Jyoti et al used a longitudinal approach to evaluate the change over time (12). Utilizing data from the ECLS-K, the study aimed to determine if food insecurity lead to poorer development among kindergarten-age children and if changes in food security affected concurrent development (12). Results from data analysis show that children from food-insecure households demonstrated a smaller improvement in reading and mathematical scores as well as social skills as compared to children from food-secure households (12). Transitioning from food insecurity to food security showed an increase in social skills in both boys and girls (12). From this study, it is apparent that food security affects not only learning and reasoning abilities, as evidenced by the reading and mathematical scores, but it also affects social behavior as well.

Food insecurity also affects children's overall well-being. Connell et al evaluated four components of food security: quantity, quality, psychological, and social (14). Studies have been done to assess adult's perceptions of children's food insecurity, but none addressed the children's own perceptions of food insecurity. This was the objective of the study done by Connell et al, to determine children's own perceptions of food insecurity (14). The study design included pre-tested interview questions of children, consisting of mostly preteens and teenagers, from after-school programs (14). Children reported that quantitative characteristics of food insecurity included eating less than usual or less than desired, or eating faster and more food when it was available (14). Qualitative aspects include consuming lower-cost food (14). Psychological consequences of food insecurity included feelings of anxiety, worry, and shame about not having

enough food, fear of being thought of as “poor,” and feeling there were limited choices of foods available (14). Children use social networks to obtain more food or money to buy food (14). From this study it is evident that food insecurity has a great effect on the social and psychological well-being of children.

A similar study examined children’s health-related quality of life (HRQOL) in relation to food insecurity (15). The study evaluated 399 children in the Mississippi Delta region of the United States (15). Different measures were used to determine the children’s self-reported quality of life (15). Results showed that HRQOL and physical function were significantly related to food insecurity in children in the Delta region (15). Children of ages 3 to 8 years were shown to have lower physical abilities, while children aged 12 through 17 years demonstrated lower psychosocial function (15). This study demonstrates the different effects food insecurity has on children, but the results still indicate that it has adverse effects on the well-being and quality of life in children even into the teenage years.

Food Insecurity and the Elderly

On the opposite end of the spectrum lays the concern of food insecurity among the elderly. The elderly are a vulnerable population. Similar to children, they may be dependent upon others to ensure adequate nutrition. Dissimilar to children is the fact that the elderly population is often overlooked as persons requiring assistance to ensure food security. The elderly population will continue to increase rapidly in the twenty-first century (16). Healthcare programs in place are attempting to care for this increasing population. Elderly persons who are food insecure are more likely to have lower intakes

or deficiencies of “energy, protein, carbohydrate, saturated fat, niacin, riboflavin, vitamins B-6 and B-12, magnesium, iron and zinc” (16). Additionally, persons from this population who are food insecure are more likely to report poorer health and nutritional status (16).

In 2000, 17% of low income elderly households and 7.1% of all elderly households were estimated to be being food-insecure (17). One study, concerned with misrepresentation of this data due to elderly persons’ different perceptions of food security, addressed a more conceptualized understanding of food insecurity among the elderly (17). Apparently, food insecurity among the elderly has a lot to do with the ability or resources to purchase the right food for health, not only for caloric intake (17). Furthermore, elderly persons often have enough money for food, but lack the ability or resources to obtain the food, such as a car or physical stamina to shop (17).

Programs to Alleviate Hunger and Food Insecurity in America

The Food Stamp Program is the most well-known of federal programs in place to alleviate hunger in the United States. It began in the 1930s, following the high unemployment and poverty levels during the Great Depression (7). The program was halted in the 1940s when soldiers required the surplus food from America (7). Not until John F. Kennedy was president was the plan reviewed and reinstated (7). Basically, the goal of the FSP is to alleviate hunger and food insecurity by providing families and individuals with subsidies and benefits provided by the United States Department of Agriculture (USDA); in other words, the purchasing power of low-income families is increased (7). The majority of costs are covered by the federal government, while a small

amount is covered by state governments (7). To maintain the ability to receive food stamps, participants must register to work, unless exempt due to reasons such as age (7). Households below 130% of the poverty line are eligible to receive assistance from the FSP, if they meet the other criteria (1). In 2004, the average monthly benefit total for food stamp spending per person was \$86.00 (1). Serving 23.9 million people, the total amount spent for the program was over \$24 billion (1).

Another federal program in place to alleviate hunger and food insecurity is the Special Supplementation Nutrition Program for Women, Infants, and Children (WIC). This federally-funded program provides grants to states for nutritional support to low income pregnant, breastfeeding, or non-breastfeeding postpartum women, infants, and children up to the age of 5 years old (1). Vouchers are provided to participants and are used to purchase approved food of high nutritional quality from authorized stores (1). In 2004, 7.9 million people were served by WIC, with an average spending per person of \$38.00 per month (1).

Another federally-mandated program is the National School Lunch Program (NSLP). It operates in approximately 100,000 schools, both public and private, across the country (1). All meals served under the program receive subsidies from the federal government (1). Free or reduced-price lunches are available to children from low-income households (1). Children from households receiving food stamps are eligible for free lunches (1). Twenty-nine million children were served under the NSLP in 2004 (1).

Besides the three programs noted above, which are the cornerstones of federal programs to decrease food insecurity, the Emergency Food Relief (EFR) system is also working to provide food for food-insecure households. The EFR system, which has been

working to alleviate hunger for approximately 200 years, operates mostly through food pantries and soup kitchens (7). These are the main direct providers of food assistance to families and individuals in need (1). Local resources, as well as USDA supplements provided by The Emergency Food Assistance Program (TEFAP), supply the food for these organizations (1). The difference between food pantries and soup (or “emergency”) kitchens is that food pantries supply food to be prepared off-site, while kitchens provide prepared meals for patrons to eat on site (1). In 2000, approximately 474,000 meals were served on an average day at soup kitchens (1). The number of food pantries and emergency kitchens has grown significantly since the 1980s (7).

Besides locally-run food pantries and soup kitchens, other non-profit organizations are in place to relieve hunger in the United States. America’s Second Harvest, one of the nation’s leading private hunger relief organizations, attempts to “create a hunger-free America” by distributing food and grocery products, increasing public awareness of the issue, and advocating for public policies that aid those who are food-insecure (18). Every year this network provides to America’s hungry nearly two billion pounds of food from national product donors, US Government agencies, local product donors, and purchase (18). Other systems in place that help alleviate hunger and food insecurity include farmers’ markets, community gardens, and food-buying cooperatives (19).

Conclusion

Considering that the United States of America is a very “food-secure” nation compared with the majority of the world’s countries, it is surprising that such a problem

of food insecurity and hunger still exists with all the available resources and programs in place. This paper is not meant to place blame on any one entity or group of people for causing the problem, but to pose solutions to alleviate the problem. Dietitians are in an important role in which they can be a part of the solution. The position statement of the American Dietetic Association on the topic of Domestic Food and Nutrition Security reads:

“It is the position of the American Dietetic Association that systematic and sustained action is needed to bring an end to domestic food insecurity and hunger and to achieve food and nutrition security for all in the United States. The Association believes that immediate and long-range interventions are needed, including adequate funding for and increased utilization of food and nutrition assistance programs, the inclusion of food and nutrition education in all programs providing food and nutrition assistance, and innovative programs to promote and support the economic self-sufficiency of individuals and families, to end food insecurity and hunger in the United States (19).”

Dietetics professionals can play a key role in ensuring “safe, sustainable, and nutritious food supply” to the American people (19). Awareness of the problem is vital. It is important that assumptions about food security are not made when interviewing clients, but that issues related to food security are addressed (19). Education about programs that promote food security should be provided. Continuing teaching to build skills and resources that ensure food security is also important. These suggestions are a few of a long list of contributions dietetics professionals can make to help fight hunger and food insecurity. But as citizens of the United States, we can make a difference. The America’s Second Harvest website puts it best: “Be part of the solution. Donate. Advocate. Give time.” Research is showing that diseases like cancer, heart disease, and diabetes are oftentimes preventable. Food insecurity and hunger, which are currently seen in epidemic proportions, can also be prevented. Donate. Advocate. Give time.

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