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Food Insecurity in Rural New York State

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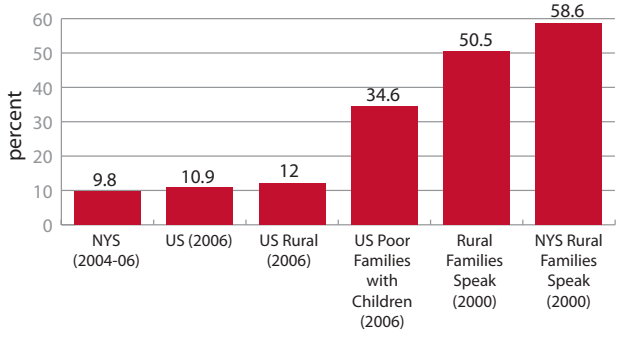
What is The Issue?

In 2006 10.9% of U.S. households reported experiencing food insecurity at some time during the year, according to the annual U.S. Household Food Security Report from USDA's Economic Research Service. In this brief we examine the characteristics of food insecure families, the factors that keep families food insecure, and the relationship between health and food insecurity, particularly the hunger-obesity paradox.

Food insecurity is defined as "the limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways" (Anderson 1990*). The three-year average rate of food insecurity in New York State, from 2004-2006, was 9.8%. Nationally, in 2006 food insecurity was more prevalent in households with children (15.6%) and households with income below 185% of the federal poverty line (27.3%). Poor households with children had particularly high levels of food insecurity (34.6%). Food insecurity was also more common in rural areas than in metropolitan areas (12.0% vs. 10.7%). Research has shown that food insecurity is related to decreased food and nutrient intakes (Kendall, et al., 1996), increased risk of obesity in women (Olson, 1999), compromised cognitive achievement in children (Alaimo, et al., 2001), and decreased ability to follow medically prescribed diets in elders and others with chronic disease (Nelson, et al., 1997).

Figure 1: Food Insecurity in America



Sources: USDA's annual food security assessment: Nord M., Andrews M., & Carlson S. (2007) Household Food Security in the U.S. 2006 (Economic Research Report 49). ERS, USDA 2007; and Rural Families Speak Project, 2000-2003.

The Rural Families Speak Project

The Rural Families Speak Project (also known as Tracking the Well-Being and Functioning of Rural Families in the Context of Welfare Policies) is a multi-state, longitudinal study of rural, low-income families in the United States. There were 414 low-income, rural families across 14 states who participated in Rural Families Speak. In New York State, 29 families from two rural counties were interviewed once a year for three years, from 2000-2003. Questions were asked of the female head of household in each family relating to household composition and income, education and skills, transportation, health and well-being, and food security. All families who participated had household incomes below 200% of the federal poverty line, and at least one child less than 13 years of age living in the household.

Food Insecurity in the Rural Families Speak Project

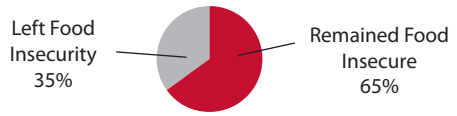
Of the 414 families interviewed in the Rural Families Speak project, 50.5% were food insecure during the first year of the project. In the New York State sample, a somewhat larger proportion, 58.6% (17 of the 29), were food insecure during the same period (see Figure 1). Nationally, food insecurity was a fairly persistent condition with 57.1% of initially food insecure families remaining so across the study period. By the final year of the project, 11 of the 17 (64.7%) initial food insecure New York families were still food insecure. Only six families, or 35.3% of those initially food insecure, became food secure over the course of three years (see Figure 2). Food insecurity is a persistent condition for a majority of these rural, low-income families with children.

What Keeps Families Food Insecure?

Several factors have been identified in the multi-state data set of the Rural Families Speak project as being related to food insecurity. These include:

- ***Lower levels of food skills (shopping for bargains, comparing unit prices, preparing meals) and financial management skills held by the mother:*** While food and financial skills were high in this sample, 83% of those who were classified as having a low skill level were food insecure, compared to only 42% who had a high level of skills.
- ***Higher levels of depressive symptoms in the mother:*** In the NY sample depressive symptoms were related to remaining food insecure throughout the three-year study. In these families, depression interfered with the ability to maintain employment (Lent, et al., 2008).

Figure 2: Persistence of Food Insecurity in NY Sample



Source: Rural Families Speak Project, 2000-2003.

- ***Difficulty paying for medical care:*** Families who reported having difficulties paying for medical expenses were three times more likely to be food insecure than families who did not report problems paying for medical care.
- ***Less than a high school education among non-White participants:*** Among non-White participants, having some higher education beyond high school was associated with less likelihood of being food insecure compared to Whites and non-Whites with a high school education or less.
- ***Not owning a home:*** Families who rented their homes as opposed to owning were greater than three times more likely to be food insecure (Olson, et al., 2004).

Food Insecurity and Health: The Hunger-Obesity Paradox

Studies have shown that being overweight or obese is more prevalent among women who are food insecure than women who are food secure. What is causing this seemingly paradoxical relationship? Interviews with the New York State women in the Rural Families Speak project provided evidence that growing up in a poor or food insecure household can have long-term effects on eating patterns and body weight. Indeed, 80% of the women who grew up in low SES households were overweight or obese when this project began, compared to 40% of those who grew up in higher SES households.

A variety of poverty-related conditions influence eating patterns for low income women. Cyclical periods of food scarcity and abundance caused by waiting for paychecks or dispersal of food stamps created binge-like eating behaviors. Rural isolation coupled with lack of resources for transportation created boredom-induced eating and barriers to physical activity. Factors identified among our project participants that contributed to being overweight or obese include:

- ***Disordered eating patterns.*** Food insecure participants reported changing their eating habits according to the household food supply, which rose and fell with the arrival and depletion of paychecks and food stamps. Participants who had disordered eating patterns were almost three times as likely to be overweight or obese compared to those who did not report symptoms of disordered eating (72.7% versus 25%).
- ***Emotional attachments to food.*** Six participants described out of control eating habits, bingeing, or obsessing about food. Five of these participants described periods of food scarcity during childhood, indicating that even early life experiences with food insecurity can lead to disordered eating patterns.
- ***Boredom.*** Some participants described eating as a result of feeling lonely or bored. This was heightened by transportation problems, winter weather, chronic health conditions, unemployment, and geographic and social isolation.
- ***Transportation difficulties*** were twice as common among women who were overweight or obese as those who were normal or underweight. When transportation was a problem participants generally spent their days at home, usually located outside the population center and along highways or other roads with no sidewalks or streetlights. The women who lived in remote areas of the countryside were less active in their daily lives than those who lived in or moved to village centers (Bove & Olson, 2006 and Olson et al., 2007).

What Are the Policy Implications?

- Food insecurity was very common in this sample of rural, poor New York State families with children, with a prevalence of 58.6%. Furthermore, food insecurity persisted over three years for the majority of these poor rural families with children in New York (65%) and nationally (57%). Current approaches are not moving families closer to the Healthy People 2010 Objective of a six percent national prevalence of food insecurity. Clearly something more and different needs to be done.
- The American Dietetic Association calls for a systematic and sustained action to address food insecurity. Ill-health, both physical and mental, and difficulty paying for medical care (if it is available) are major contributors to the ecology of food insecurity in rural areas. Coherent national and state-level health policies that recognize the unique nature of delivering comprehensive, quality health care to all families in a rural setting are needed. Nutrition education programs that build families' food and financial management skills, and Federal Food and Nutrition Assistance Programs such as Food Stamps, WIC and School Meals should be strengthened and the benefit levels increased, as part of a comprehensive strategy to address food insecurity in rural America.
- Multi-generational and severe poverty in rural America are barriers to achieving food security. Significant investments are necessary to strengthen human capital, social connections, and physical infra-structure (particularly transportation systems) in rural areas. Economic opportunities that allow families to earn a living wage in rural America are needed so families can escape poverty and achieve food security.
- The effects of food insecurity, especially on children, may last a lifetime and may appear to be paradoxical, at least on the surface. The evidence suggests that for some women, the roots of obesity stem from childhood experiences of food insecurity. Ready, steady access to sufficient, nutritious food across the life cycle (food security) appears to be an important component of obesity prevention efforts. ▲

* All references are available on the CaRDI website with this publication.

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