

Even Very Low Levels of Food Insecurity Found to Harm Children's Health

> Defining and Measuring Food Insecurity

Food Secure: When a household consistently has the resources to obtain enough nutritious food, it is "food secure." In 2006, the USDA split this group of households into two categories: "highly food secure" and "marginally food secure."

Food Insecure: If a household lacks consistent access to enough nutritious food, it is "food insecure." In 2006, what had previously been called "food insecurity" became "low food security," and what had been called "food insecure with hunger" became "very low food security." Frontline anti-hunger advocates often refer to both of these categories as "hunger."

The Food Security Scale: The government measures household food security with an 18-question Food Security Scale (FSS) administered each December by the Census Bureau. A household's food security status is determined by the number of questions it answers affirmatively.

> What We Know about Food Insecurity's Effects on Children

Census Bureau data for 2007 identified 12.4 million children as living in low or very low food-secure households. Research suggests that children whose families experience low or very low food security suffer damaging effects in the following domains¹:

- Brain and cognitive development in the perinatal period (0-3 yrs)
- School readiness in preschool years (0-5 yrs)
- Learning, academic performance and educational attainment during school years (6-17 yrs)
- Physical, mental, and social development, growth and health throughout childhood (0-17 yrs)
- Psychosocial functioning and behavior, and mental health during school years (6-17 yrs)
- Child health-related quality of life, perceived functionality, efficacy and "happiness/satisfaction" during school years (6-17 yrs)
- Some, not yet clear associations with obesity throughout childhood (0-17 yrs)

# of FSS questions answered affirmatively	Category
0	Highly Food Secure
1-2	Marginally Food Secure
3-7	Low Food Security
8 or more	Very Low Food Security

> New evidence of harm to very young children in marginally food-secure households

New research by Children's HealthWatch found that children suffer negative health and developmental effects at very low levels of inadequate access to nutritious food. Children under age three in marginally food-secure households were found to have health outcomes that are significantly worse than children in fully food-secure households. They are more likely to:

- Be in fair/poor health
- Be at risk for developmental delays
- Have been hospitalized since birth
- Lack stable housing
- Live in households with inadequate heating or cooling
- Have caregivers experiencing symptoms of depression
- Have caregivers with fair/poor health

Summary of Findings

1. The government system used to classify families struggling to access sufficient nutritious food does not capture the true impact of the problem on children's health and development.
2. Children in marginally food-secure households, who are traditionally counted by the government as food secure, are at serious risk of health and developmental problems.
3. Many of the 2.6 million children under age five living in marginally food-secure households are not receiving needed nutritional support through WIC.

By not classifying these households as food insecure, it suggests they are not at risk. We know, however, that they are not only at increased risk of poor health but that many are not getting the nutritional assistance for which they are eligible. Census Bureau data from the December 2007 Current Population Survey show that 70 percent of marginally food-secure children under age five lived in households with incomes below 185 percent of poverty (the gross income eligibility level for WIC). Of those, only 44 percent were receiving WIC.

> Millions of Children Lack Consistent Access to Nutritious Food

Census Bureau data for 2007 identified 12.4 million children as living in low or very low food-secure households. Another 8.8 million were in marginally food secure households.

> What do other researchers report about marginal food security?

Other researchers have also found evidence of harm to children and pregnant women in marginally food-secure households.

- The well-controlled Early Childhood Longitudinal Study (ECLS) found adverse impacts on school performance, social functioning, weight status and health of children in kindergarten to third grade in children in families with any affirmative responses to FSS questions.²
- Even in kindergarten, children in households with any signs of marginal food security score lower and learn less during the school year.³
- Another rigorous study of pregnant women found those who were marginally food secure had higher perceived stress, anxiety and depression scores than similar food-secure women.⁴

Age of Children	Marginally Food Secure Number (%)	Low Food Security Number (%)	Very Low Food Security Number (%)
Ages < 18 Yrs	8.8 million (11.9%)	8.7 million (11.8%)	3.7 million (5.1%)
Ages 5-17 Yrs	6.1 million (11.8%)	6.1 million (11.8%)	2.8 million (5.4%)
Ages < 5 Yrs	2.6 million (13.1%)	2.5 million (12.4%)	0.9 million (4.5%)
Ages < 3 Yrs	1.5 million (12.8%)	1.5 million (13.2%)	0.5 million (4.4%)

Source: Census Bureau, CPS, US Food Security Scale, December 2007

Conclusion

Marginal food security harms children's health and development. Research from Children's HealthWatch and others shows that children in marginally food-secure households are at greater risk for health problems, developmental delay, and impaired school performance than children in food-secure households. These findings argue for child nutrition programs that reach the broadest spectrum of children whose families may be struggling, even at the margins, to put enough nutritious food on the table. They also strongly suggest that a national discussion is needed around the terminology used to classify levels of access to adequate food and nutrition.

This Policy Action Brief was prepared by John T. Cook, PhD, Children's HealthWatch Co-Principal Investigator, Elizabeth L. March, MCP, Children's HealthWatch Executive Director, Stephanie Ettinger de Cuba, MPH, Children's HealthWatch Research, and Policy Director, and Sharon Coleman, MS, MPH, Statistical Analyst.

Children's HealthWatch is a non-partisan pediatric research network that carries out research on the impact of economic conditions and public policies on the health of children under age three. For more than a decade, Children's HealthWatch has interviewed families with young children in emergency departments and urgent care clinics in five hospitals in Baltimore, Boston, Little Rock, Minneapolis and Philadelphia that serve largely low-income families. Data are collected on a wide variety of issues including demographics, food security, public benefits, caregivers' health, health insurance and earnings, housing, home energy conditions and children's health status and developmental risk.

¹ Cook & Frank, NYAS, 2007.

² Jyoti, Frongillo et al., The Journal of Nutrition 2005

³ Winicki & Jemison, Contemporary Economic Policy 2003

⁴ Laraia, et al., The Journal of Nutrition 2006

