

The Hunger Vital Sign™:

A NEW STANDARD OF CARE FOR PREVENTIVE HEALTH

Early childhood health depends on consistent access to an adequate and nutritious diet. Unfortunately, one in five U.S. families with children under age six struggles to provide enough food to lead active, healthy lives (are **food insecure**).¹ To identify young children living in households at risk for food insecurity, Children's HealthWatch validated the **Hunger Vital Sign™**, a 2-question food insecurity screening tool² based on the US Household Food Security Scale. The Hunger Vital Sign™ measures families' concerns about and access to food, much the way health care providers check other key vital signs, such as pulse and blood pressure. **Healthcare providers, social service providers, community-based outreach workers, teachers, and anyone who works with young children can use the Hunger Vital Sign™ to identify young children and families who may need assistance.**

The Children's HealthWatch Hunger Vital Sign™

Drs. Erin Hager and Anna Quigg and the Children's HealthWatch team validated the Hunger Vital Sign™, a 2-question screening tool, suitable for clinical or community outreach use, that identifies families with young children as being at risk for food insecurity if they answer that either or both of the following two statements* is 'often true' or 'sometimes true' (vs. 'never true'):

- "Within the past 12 months we worried whether our food would run out before we got money to buy more."
- "Within the past 12 months the food we bought just didn't last and we didn't have money to get more."

What Does the Hunger Vital Sign™ Tell Us?

When compared to children under the age of four who screened as food secure using the Hunger Vital Sign™, young children screening as at risk of food insecurity using the Hunger Vital Sign were:

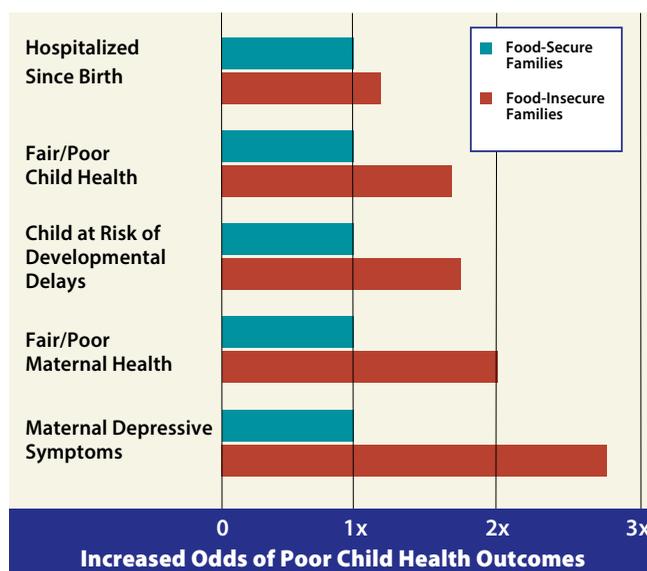
- 56 percent more likely to be in fair or poor health
- 17 percent more likely to have been hospitalized
- 60 percent more likely to be at risk for developmental delays

Compared to mothers screened as food-secure, mothers screening as at risk of food insecurity were:

- Almost twice as likely to be in fair or poor health
- Almost three times as likely to report depressive symptoms

Figure 1:

Families at risk of food insecurity had worse child health outcomes and worse maternal mental and physical health.



Source: Children's HealthWatch Data, 1998-2005. All increases statistically significant at $p < 0.05$.

*These two statements are the first two items in the US Food Security Scale.³

Research Summary

Children's HealthWatch™ has developed the Hunger Vital Sign, a 2-question screening tool to identify young children in households at risk of food insecurity.

Compared to young children in food-secure households, young children in families at risk of food insecurity are more likely to:

- Be in fair or poor health
- Have been hospitalized
- Be at risk for developmental delays

Compared to food-secure mothers, mothers of young children who are at risk of food insecurity are more likely to:

- Be in fair or poor health
- Report depressive symptoms

The Hunger Vital Sign™ identified young children and mothers at high risk of food insecurity in order to help them obtain assistance if needed.



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Children's HealthWatch is a nonpartisan network of pediatricians, public health researchers, and policy and child health experts that conduct primary research to inform public policies that impact children's health.

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Apart from the harm to mothers themselves, poor maternal mental health affects mothers' ability to provide care for their children, and can impede children's development.⁴

Putting the Hunger Vital Sign™ Into Action – Health Care Settings and Beyond

Health care providers can use the Hunger Vital Sign™ during routine primary or acute care visits as well as visits to the emergency room, treating food security as a vital sign just like temperature, blood pressure or pulse, all essential measurements for understanding a child's health and prognosis. The screening tool is also very useful when incorporated into electronic medical records, so that it becomes part of the child's medical history. The Hunger Vital Sign™ may also be used by emergency food assistance programs, community outreach workers, advocates, and social workers, among others.

Hospitals and other health care institutions can improve the food security, and ultimately the health, of the children they serve through a variety of interventions, including:

- Referring families to nutrition assistance programs, such as the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Assistance Program for Women, Infants, and Children (WIC)

- Some hospitals provide application assistance through their financial assistance departments (or the departments where patients register for health insurance)
- Collaborating with partner food pantries to provide onsite food pantries and/or WIC offices in health care facilities
- Using hospital facilities as sites for community-based summer and after-school feeding programs

Healthcare settings using the Hunger Vital Sign™:

- Minnesota Department of Health and Family Home Visiting Program
- Baltimore City Health Department
- Community Health Center of Burlington, Vermont
- Addison Gilbert and Beverly Hospitals of Lahey Health in Beverly, Massachusetts
- Orange County, California community health clinics
- Fletcher Allen Health Care in Burlington, Vermont

Conclusion

The validated Children's HealthWatch Hunger Vital Sign™ is a 2-item screening tool that provides a straightforward means of identifying families who struggle to access food and whose children are therefore at greater risk of fair or poor health, hospitalizations and developmental delays, and whose mothers are at greater risk of fair or poor health and depression. By routinely screening for food insecurity as a vital sign, healthcare providers and others who work directly with families of young children can connect families at risk of food insecurity with effective resources to sustain and improve their mental and physical health, reducing health care costs for the families and society as a whole.

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Authors: Nathan Goldman, Policy Intern; Richard Sheward, MPP, Senior Policy Analyst; Stephanie Ettinger de Cuba, MPH, Research and Policy Director; Maureen M. Black, PhD, Principal Investigator; Megan Sandel, MD, MPH, Principal Investigator; John Cook, PhD, MAEd, Principal Investigator; and Sharon Coleman, MS, MPH, Statistical Analyst.

For additional information, please contact: Stephanie Ettinger de Cuba, MPH, Research and Policy Director, Tel: (617) 638-5850 / Email: sedc@bu.edu.

¹ Coleman-Jensen, A., Nord, M., Andrews, M., and Carlson, S. (2012). Household food security in the United States in 2011. Economic Research Report no. 141. U.S. Department of Agriculture.

² Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, T., Rose-Jacobs, R., & Frank, D. A. (2010). Development and validity of a 2-item screen to identify families at risk for food insecurity. *Pediatrics*, 126(1), e26-e32.

³ Hamilton WL, Cook JT, et al. "Household Food Security in the United States in 1995: Technical Report." A report provided to USDA/FCS under Contract No. 53-3198-5-028 by Abt Associates Inc., Alexandria, VA, September 1997.

⁴ Kiernan, K. E., & Huerta, M. C. (2008). Economic deprivation, maternal depression, parenting and children's cognitive and emotional development in early childhood. *The British Journal of Sociology*, 59(4), 783-806.

