Common Sense Solutions at the Intersection of Hunger, Nutrition, and Health

Connections Among Hunger, Nutrition, and Health

The United States is facing a public health crisis related to diet-related disease. This crisis affects all segments of the population, but it disproportionately affects those who also struggle with poverty and food insecurity.

While the relationship between food insecurity, obesity, and diet-related disease is complex and not yet fully understood, we do know that many low-income individuals struggle with all three. Nutrition and health may be neglected as low-income families focus on the more urgent priority of maintaining immediate economic security.

Limited resources contribute to hunger, obesity, and diet-related disease but they also act as a barrier to solutions. Just as food insecure families often lack the resources for an adequate supply of nutritious food, they may also lack access to affordable health care, in particular preventative care.

Cross Sector Solutions

Increasingly, stakeholders across hunger, nutrition, and health are collaborating to jointly tackle these complex issues, presenting significant opportunity for innovation. Often these interventions provide common sense solutions that leverage the expertise and resources of multiple sectors to increase impact.

While there are many interesting collaborations happening across the country, Feeding America is focused on advancing two high-opportunity interventions at the nexus of hunger, nutrition, and health:

- **Coordinating and integrating food insecurity and health interventions** through efforts such as food insecurity screening by health care providers, health outreach at feeding sites, clinic-based pantries, “prescriptions” for food, and social health referrals.

- **Increasing demand for healthy foods across settings** through the use of incentives and marketing, the application of behavioral change research nutrition education, and increased access and affordability.

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Coordinating and Integrating Food Insecurity and Health Interventions

Food insecurity and obesity are prevalent among both children and adults. One in six individuals – including more than 1 in 5 children – live in food insecure households.\(^1\) Two-thirds of adults and one-third of children are overweight or obese.\(^2\) Socioeconomic, geographic, and racial and ethnic disparities persist for both food insecurity and obesity rates.\(^3\)

Food insecurity and obesity have significant, negative health, social, and economic consequences. Food insecure children are sick more often, recover more slowly, and are more likely to be hospitalized, at an average cost of $12,000 per pediatric stay.\(^4\) They are more likely to incur developmental delays and struggle in school.\(^5\)

At the same time, one in three children in the U.S. born in 2000 are expected to develop diabetes at some point in their lifetime; for Latino and African-American children, the rate is estimated to be one in two.\(^6\) Furthermore, obese children and adolescents are far more likely to become overweight or obese adults.\(^7\) Estimates for the medical cost of adult obesity in the United States range from $147 billion to nearly $210 billion per year.\(^8\)

Food insecurity and obesity share many similar risk factors, including limited resources; lack of access to healthy, affordable foods; cycles of deprivation and overeating; and high levels of stress. Food insecurity remains a singularly powerful indicator; individuals with very low food security have more than twice the risk of diabetes, even after controlling for other sociodemographic variables.\(^9\)

The coexistence of food insecurity and obesity creates unique treatment challenges. Food-insecure individuals with diabetes have poorer glycemic control, higher levels of diabetes distress, and lower scores on diabetes self-efficacy.\(^x\) A balanced diet high in fruits, vegetables, whole grains, and lean protein and low in in sugar and starches is required to maintain healthy blood sugar levels.

Unfortunately, for people struggling with food insecurity and diabetes, eating a balanced diet is often not possible, which can lead to cycles of dangerously high and low blood sugar levels and serious health consequences. Initial findings from a multi-year diabetes pilot in three food banks suggests that many food pantry clients struggling with diabetes are disconnected from the health care system, which further exacerbates disease management.\(^xi\)

Some communities are beginning to examine strategies to coordinate hunger and health interventions, including food insecurity screening by health care providers, social health referrals, clinic-based pantries, and “prescriptions” for food. Other opportunities include embedding food insecurity sensitivity into public health and medical professional training and incorporating health screenings and education into food assistance programs and feeding sites.
Increasing Demand for Healthy Foods Across Settings

The USDA Dietary Guidelines for Americans (DGA) are intended to promote healthy diets and encourage Americans to eat more fruits, vegetables, whole grains, low-fat dairy, and lean proteins, while reducing intake of foods high in fat, sodium, and added sugar. While recent reports indicate that obesity rates may be stabilizing, the guidelines have not catalyzed the necessary dietary changes needed to turn the tide on the obesity epidemic or its associated diseases — heart disease, cancer, stroke, and diabetes.

Research has shown that consumers make food choices based on a variety of factors, including access, affordability, and social and cultural influences. Food insecure households also face the additional burden of limited resources, which may further restrict their food choices. Enabling and encouraging healthier food choices to improve nutrition and health will require an integration of behavioral change and educational strategies with efforts to increase resources, access, and affordability.

In recent years, considerable innovation has been applied to each of these factors — access, affordability, resources, and behavioral change — in an attempt to increase the consumption of nutritious foods.

Significant attention has been devoted to improving access to nutritious food in underserved communities, including building new stores in “food deserts,” increasing the availability of nutritious food in corner stores, and making it easier to redeem federal nutrition program benefits at farmers’ markets. Efforts to address limited resources have focused on improving benefit adequacy in the Supplemental Nutrition Assistance Program (SNAP) as well as private sector commitments to make nutritious food more affordable. Behavioral change approaches have explored product placement, marketing, and nutrition education. Perhaps most promising are strategies that engage multiple levers, such as incentive programs that combine resources, access, and behavioral economics to encourage low-income households to purchase more fruits and vegetables, and the work that some retailers are doing around the placement, pricing, and promotion of nutritious foods.

While many of these interventions have had demonstrable impact in communities across the country and hold promise for continued expansion, their reach remains woefully limited given the scale of the problem. Not all retail sites are making progress and not all underserved communities and families are being reached. Some of the most interesting innovations have been in corner stores and farmers’ markets, which are important access points but are not where most people shop for food most of the time. With many low-income families facing reduced resources, not increased benefits, in the wake of recent SNAP cuts, private sector and nonprofit innovation and coordination are even more important.

Promising interventions include the application of behavioral change research; incentives and marketing; increased affordability; and nutrition education. These strategies can be implemented in a broad variety of retail, restaurant, cafeteria, and food assistance settings to improve nutrition.
Considerations for Policy Makers

With innovative interventions taking place across the country, there are significant opportunities for lawmakers to observe programs on the ground in their communities. While some of these programs may require further exploration to identify the most successful models, others are ready to be scaled to increase impact. In particular, policymakers may be interested in identifying what resources are needed or which barriers must be overcome to scale successful programs.

Because communities have only recently begun to explore integrated strategies for addressing hunger, nutrition, and health, continued innovation is necessary. As such, policymakers may also ask communities to identify underexplored opportunities that would benefit from additional research, program innovation, and collaboration.

Suggested Reading

*Hunger, Nutrition, and Health*

- **Hunger and Socioeconomic Disparities in Chronic Disease**, New England Journal of Medicine, July 2010.

- **Exhaustion of Food Budgets At Month’s End And Hospital Admissions For Hypoglycemia**, Health Affairs, January 2014.

- **Hunger and Obesity: Understanding a Food Insecurity Paradigm - Workshop Summary**, Institute of Medicine, 2011.

- **Map the Meal Gap: County Level Food Insecurity**, Feeding America, 2014.


*Coordinating and Integrating Food Insecurity and Health Interventions*

- **Feeding America Diabetes Initiative**.

- **This Doctor Treats Poverty Like a Disease**, Center for Advancing Health, Prepared Patient Blog, November 6, 2013.

- **An Extraordinary Opportunity: Hospital Community Benefits**, Health Affairs Blog, May 2014.

Training Doctors for Prevention-Oriented Care: Teaching Nutrition and Physical Activity in Medical School, Bipartisan Policy Center, June 2014.


Increasing Demand for Healthy Foods Across Settings


One Man’s Tall is Another Man’s Small: How the Framing of Portion Size Influences Food Choice, Health Economics, July 2014.

Our Commitments: Making healthier food a reality for all, Walmart, October 2013.

References


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Severe food insecurity among adults with diabetes seeking food assistance at food pantries. American Public Health Association Meeting, November 4, 2013.


Prevalence of Obesity and Trends in Body Mass Index Among US Children and Adolescents, 1999-2010. Cynthia L. Ogden, PhD, MRP; Margaret D. Carroll, MSPH; Brian K. Kit, MD, MPH; Katherine M. Flegal, PhD, MPH.