

Food Research and Action Center

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Highlights:

- Reducing hunger and promoting healthy eating can be mutually reinforcing and complementary strategies.
- 22.5 percent of the nation's children live in food insecure households. Nearly one-quarter of 2- to 5-year-olds and one-third of school-age children in our country are overweight or obese.
- Broadening participation in the federal nutrition programs as well as improving their quality will reduce hunger, and also promote healthy eating among vulnerable low-income and food insecure children.

How Improving Federal Nutrition Program Access and Quality Work Together to Reduce Hunger and Promote Healthy Eating

Too often reducing hunger and promoting healthy eating among children are viewed as competing interests in the federal child nutrition programs. In fact, as this paper will show, they can be mutually reinforcing and complementary strategies: expanding participation in federal nutrition programs reduces childhood hunger and improves children's diets. At the same time, improving the quality of these federal programs, with a primary goal of preventing obesity, may well increase participation.

This brief first will examine quickly America's childhood hunger problem and the childhood obesity epidemic, and then examine why and how the hunger reduction and healthy eating strategies can and should be mutually reinforcing.

America's Childhood Hunger Problem

The U.S. Department of Agriculture (USDA) and the Census Bureau report that in 2008 – the latest data available – 16.7 million children lived in food insecure households.¹ That's 22.5 percent of the nation's children. The depth of children's deprivation varies, from having to skip meals, to getting enough food but eating an unbalanced diet out of economic necessity, to watching parents or siblings go hungry so they can eat, to accompanying their parents on lines at food pantries.² In addition, some experts believe that the depth of childhood deprivation reported by parents to the Census Bureau surveyors – as appalling as it is – is understated: it is one thing to tell a stranger working for the government that you are struggling and skipping meals so your children get enough to eat, and quite another to report that your children are having to skip meals.³ The many reports from teachers and child care providers about the trepidation students feel about going home at the end of the week to empty cupboards and how ravenous they are on Monday morning also suggest that the official data may well understate the depth of childhood food insecurity.

Widespread food insecurity exists even with the many effective public nutrition supports the nation has created – the federal school meal programs, Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program), Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and others. These are strong programs with a proven record of alleviating hunger and improving the health of low-income children.^{4,5,6} Without them, America's childhood hunger problem would be much worse. But, as this brief will address, the reach and quality of these programs can be improved.

America's Childhood Obesity Problem

Nearly one-quarter of 2- to 5-year-olds and one-third of school-age children in our country are overweight or obese.⁷ The consequences of childhood obesity are numerous and detrimental to the health and future of children, and include diabetes, high blood pressure, depression, poor academic performance, behavior problems, school absenteeism,

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and greater risk for obesity as an adult.^{8,9,10,11,12,13} While obesity affects both genders and all racial and age groups, low-income children and food insecure children may be at even greater risk, although this risk may vary depending on age, race-ethnicity, and gender.^{14,15,16,17}

There are a number of reasons why low-income children and food insecure children may be at greater risk for obesity, including limited access to healthy and affordable foods, limited opportunities for physical activity, greater availability of fast food restaurants (especially near schools), and greater exposure to food-related marketing.^{18,19,20} Those who are food insecure and suffer periods of even moderate deprivation may also overeat when food does become available, resulting in chronic ups and downs in food intake that can contribute to weight gain.²¹

How Expanding Participation in Federal Nutrition Programs Can Support Healthy Eating and Prevent Obesity

Policymakers, public health professionals, researchers, and advocates are exploring a variety of solutions to the childhood obesity crisis, especially for low-income children. One viable solution – broadening participation in the federal nutrition programs as well as improving their quality – is often underemphasized. Yet these nutrition programs are effective, logical means of promoting healthful diets and contributing to a reversal of the current childhood obesity epidemic, especially given their reach in schools and communities across the country and among particularly vulnerable low-income and food insecure children. For example, 30.6 million children participated in the National School Lunch Program on an average day during the 2006-2007 school year.²² Approximately 18 million of these participants were receiving free or reduced price lunches.

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As detailed below, there is considerable evidence about the effective role that participation in the federal nutrition programs plays in providing the nutrients children need for growth, development, and overall health. There also is a growing body of research on how the programs impact obesity. For these reasons, increasing participation in the federal nutrition programs is one of the healthy eating and physical activity strategies recommended in the Institute of Medicine's report *Local Government Actions to Prevent Childhood Obesity*.²³

Participation in the Federal Nutrition Programs and Healthy Eating

The food children receive in federally funded programs have defined nutrition standards, and as such are generally of higher nutritional quality than the food they receive from schools or child care providers in the absence of these programs, are given at home in families without these supports, or choose for themselves outside of the federal programs. Consider the following:

- Low-income school-aged children who eat federally funded school breakfast have better overall diet quality (as measured by the USDA's Healthy Eating Index) than those who eat breakfast elsewhere or skip breakfast.²⁴
- School meal participants are less likely to consume "competitive foods" at school,²⁵ less likely to have nutrient inadequacies,²⁶ and more likely to consume fruit, vegetables, and milk at breakfast and lunch.²⁷ (Competitive foods are those foods and beverages sold outside of the federally-reimbursed school meals programs, often in a la carte lines, student stores, or vending machines. Many times these products include salty snacks, ice cream, candy, and soft drinks.)
- School-aged children have higher daily intake of fruits, vegetables, milk, and key nutrients like calcium, vitamin A, and folate on days they eat federally funded supper at an afterschool program compared to days they do not.²⁸

- The overall diets of young children 1 to 4 years of age enrolled in WIC are more nutrient-rich and lower in calories from solid fats and added sugars than the diets of income-eligible non-participants.²⁹ Those enrolled in WIC, alone or in combination with SNAP, have lower rates of nutrient deficiency.³⁰
- Child and Adult Care Food Program (CACFP) participants 3 to 5 years of age in child-care centers have higher intake of many key nutrients and foods, including vegetables and milk, and fewer servings of fats and sweets.³¹

Participation in the Federal Nutrition Programs and Obesity Prevention

By providing needed food and resources, federal nutrition programs help to reduce food insecurity and, by extension, its negative consequences, which include obesity.^{32,33,34} Most compelling is that when low-income children have greater access to nutrient-rich foods provided through federally funded programs that are subject to nutrition standards, the evidence suggests that their risk of obesity is lowered, as highlighted below. Conversely, when children are not participating in the federally funded nutrition programs but have to fall back on their family's limited resources, or their own choices, the obesity risk rises. Therefore, both by improving dietary intake and reducing food insecurity, participation in the federal nutrition programs plays an important role in obesity prevention. Here are some representative findings to demonstrate these points:

- A nationally representative study of U.S. school students found that school breakfast participation was associated with a significantly lower body mass index (BMI, an indicator of excess body fat).³⁵
- Food insecure girls participating in the school lunch, school breakfast, or SNAP programs (or all three programs combined) have a lower risk of overweight.³⁶
- Children are more vulnerable to rapid BMI gains and food insecurity during the summer – a time when many do not have access to the good nutrition provided by the school meal programs.^{37,38}
- Children of mothers working non-traditional hours are at greater risk of overweight and obesity, which suggests the importance of providing CACFP afterschool snacks and suppers to children, especially those from working families.³⁹
- WIC has been shown to prevent overweight and obesity in young children, which researchers predict will reduce obesity-related disease later in life.⁴⁰ Data from a recent national study indicate that children participating in WIC are less likely to be obese than income-eligible non-participants.⁴¹

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How Improving the Quality of Federal Nutrition Programs Can Increase Program Participation

Clearly, the federal nutrition programs are important programs with well documented nutritional and health benefits. But the programs can be even stronger. The standards for school meals, for example, should be updated to reflect the latest scientific evidence, illustrated in the recently released school meals recommendations from the Institute of Medicine.⁴² And although some schools are improving in their compliance with the current standards, too often they fall short.⁴³ A recent national study found that most school meals meet USDA standards for protein, vitamins, and minerals, but many meals are too high in fat and sodium and low in fiber.⁴⁴

Even though the federal nutrition programs have room for improvement, it is critical to increase participation in these programs given the associated benefits to overall health and development. One way to achieve this – and to strengthen the programs – is to improve quality. Although the scientific evidence is not as robust as the literature on the health benefits associated with program participation, there is a growing body of evidence

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About this series

Issue Briefs for Child Nutrition Reauthorization will explore various aspects of the child nutrition programs as Congress considers reauthorization. To learn more, visit FRAC's Web site (www.frac.org).

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as well as local success stories that demonstrate that improving quality improves program participation.

According to the Institute of Medicine, "students and parents will value a change toward more healthful school meals."⁴⁵ Furthermore, children are attracted to the school nutrition programs if they are given food choices, and if the foods offered are attractive (including eye-appealing and tasty), fresh, convenient (e.g., no lines), kid-friendly, culturally appropriate, and served at the proper temperature.^{46,47,48} As some of the studies synopsized below suggest, such quality improvements to the food and meal service need not be expensive at all. It is also important to involve children in the menu development process – such as taste testing panels – because they can provide invaluable feedback on acceptability and will be more likely to buy into changes.^{49,50} In addition, there is evidence that school meal program participation increases in schools that implement comprehensive reforms to the entire school food environment, as highlighted in several of the studies below on quality and participation in school meals.

- An evaluation of 69 diverse schools in the California Fresh Start Program found that increasing fruit and vegetable availability in the School Breakfast Program for all children increased breakfast participation by 2 percent (which amounts to almost \$1 million in additional federal reimbursements to the state).⁵¹
- In a study of 330 Minnesota school districts, federally funded lunch sales did not decline when healthier meals were served, nor did such lunches necessarily cost more to produce.⁵²
- The San Francisco Unified School District eliminated foods, snacks, and beverages that did not meet specific standards for fat, sugar, vitamins, minerals, and portion size from the federal school meals programs, snack bars, student stores, vending machines, and fundraising sales.⁵³ Based on an evaluation of 40 middle and high schools, overall participation in the school lunch program increased due in part to these changes and, as a direct result of this increased participation (free, reduced price, and paid), revenue also increased for the schools.
- School lunch participation increased significantly in one Minnesota high school after providing more healthful and appealing food choices to students in the National School Lunch Program, the a la carte line, and the vending machines.⁵⁴ Such changes included: more foods prepared on-site from scratch, more fresh fruits and vegetables, and a change to lower fat salad dressings and cheeses as well as whole-wheat breads and pizza crusts.
- A federal report describes 32 case studies of schools and school districts from across the country engaging in innovative strategies to improve the nutritional quality of foods sold in schools.⁵⁵ Although focused on competitive foods (e.g., increasing healthy choices in vending machines and a la carte lines, limiting access to competitive foods), the report concludes that students will purchase and consume healthier foods and beverages when made available, and many schools even reported increases in revenue when making the changes.

Conclusion

Obesity is a serious problem affecting millions of children across the country. Depending on age, gender, and race-ethnicity, some groups of low-income children and food insecure children are at even greater risk than other children, due to the additional risk factors associated with poverty. As this brief demonstrates, expanding access to federal nutrition programs so more children can participate will not only reduce childhood hunger, but also promote healthy eating and reduce childhood obesity, especially among this vulnerable group. At the same time, improving the quality of the programs, with a primary goal of preventing obesity, may well increase participation. Fighting hunger and fighting obesity, therefore, can be mutually reinforcing and complementary strategies.

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