RUDD REPORT

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SCHOOL FOOD
Opportunities for Improvement

A Policy Brief

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SCHOOL FOOD ENVIRONMENTS

Introduction

Children in the U.S. spend a significant amount of time in school in what should be a nourishing environment for their minds and bodies. The school environment—its physical, social, and educational surroundings—plays a crucial role in establishing students' life-long habits, beliefs, and attitudes on important issues, including their health.

Childhood obesity, with its many related diseases—among them type 2 diabetes, cardiovascular disease, and asthma—is one of the most serious health concerns facing children today. Many still believe that obesity is the result of individuals' lack of willpower, or in the case of children, the lack of proper oversight by parents. But public health experts consider it to be the result of living in "toxic" environments in which foods with little or no nutrition are more accessible, affordable, and more heavily marketed, than are foods which would promote health.[1] Therefore, to reduce the prevalence of obesity, the *food environments* in which children live, learn, and play must be improved. This includes the school food environment.

This brief focuses on what can be done, through policy, to create the *optimal* school food environment in which *only* nutritious food would be sold or served to children.

The Child Nutrition and WIC Reauthorization Act

Policies to improve school food environments are routinely under consideration in state legislatures and local school boards, but one important piece of federal legislation, the Child Nutrition and WIC Reauthorization Act (CNRA) is considered by Congress only once every five years.

If a food is not a healthy choice it doesn't belong in school.

—Dr. Marlene Schwartz, Deputy Director, Rudd Center

The CNRA affects nearly every public school in the nation. It allocates funds for feeding programs on which millions of U.S. children depend in large part for their daily food intake, and therefore may have a large impact on their diet,[2] and health. Those programs include:

- The School Breakfast Program;
- The National School Lunch Program;
- The Summer Food Service Program;
- The Fresh Fruit and Vegetable Program which provides fresh snacks in elementary schools in which 50 percent or more of the children are eligible for free or reduced-price meals;
- The Special Milk Program which helps children obtain milk in pre-schools and schools which do not participate in other feeding programs;
- The Child and Adult Care Food Program;
- The Special Supplemental Program for Women, Infants, and Children (WIC).

In addition, the CNRA contains language which determines nutrition standards for school foods, meal reimbursement rates, and school wellness policies, along with a variety of administrative and technological issues.

The CNRA is scheduled to be considered again in Congress in late 2009. Strategic changes in its language could result in significant and positive steps toward creating optimal school food environments around the country.

This policy brief is intended for policy makers and interested community members wishing to be part of the movement to prevent childhood obesity and encourage healthful nutrition in schools. It includes:

- Problem areas identified in school food environments;
- Scientific findings that demonstrate the need for changes, and promising methods to achieve them;
- Policy recommendations.

Issues, Scientific Findings, and Policy Recommendations

ISSUE: Competitive foods*

Competitive foods contribute to an unhealthy school food environment. They typically have little or no nutritional value, and are found in vending machines, school stores, and on cafeteria à la carte lines. They are also sold in fundraisers on campus.

Many school administrators fear the loss of revenue if they eliminate the sale of competitive foods, and it has been argued that children will compensate by eating more of these foods at home.

Findings:

- A 2006 Centers for Disease Control study found that 33 percent of elementary schools, 71 percent of middle schools, and 89 percent of high schools had vending machines, a school store, canteen, or snack bar where students could buy food. Most of what was sold was of poor nutritional quality.[3]
- Studies show an association between the availability of competitive foods in schools and higher intakes of total calories, total fat and saturated fat, and soft drinks; and lower intakes of fruits, vegetables, milk, and key nutrients.[4]
- One-half of states do not mandate nutrition standards for competitive foods.[5]
- A systematic review of papers and reports found that few data exist to substantiate the fear that revenue will be lost by eliminating competitive foods. On the contrary, several reports noted increased participation in the National School Lunch Program, which may play a role in buffering financial losses.[6]
- An analysis of school sweetened-beverage contracts found that the average revenue was just $18 per student per year, with beverage companies keeping an average of 67 percent of the money that children (or more often, their parents) spend. Schools can make money without selling these low-nutrition beverages.[7]
- A recent study found that removing low-nutrition foods decreased students' consumption of it with no compensatory increase at home.[8]

Recommendations:

- Competitive foods, if they are allowed at all, should consist only of fruit, vegetables, whole grains, and low- or non-fat dairy products, as set forth in the Institute of Medicine Standards for School Food.**
- Increase funding for the Fresh Fruit and Vegetable Program to include more school districts in all states.

**Competitive foods are those which "compete" with, and are sold separately from, the federally-regulated school meals programs.*

***See chart, p.7 for the IOM standards.*

Children in school are often served processed products with multiple forms of sugar, fat, and chemicals. Is this food? Yes we eat it, but if one defines food as things found in nature, that help us survive rather than interfere with life expectancy, some things simply wouldn't qualify. These types of food certainly don't belong in schools.

—Dr. Kelly Brownell, Rudd Center Director, in testimony before the Senate Agriculture Appropriations Subcommittee, Washington, D.C., March 2007

Kids can get plenty of junk food OUTSIDE of school. There's no reason to serve it in school. School should be a place that models the best nutrition possible.

—Mother of three school children

What Would the Optimal School Food Environment Look Like?

- The beverages available to children are water and low- and non-fat milk. Water fountains are clean and in good working order.
- The foods sold or served meet the Dietary Guidelines for Americans and are:
  - low in fat, calories, sodium, and sugar;
  - whole grain;
  - minimally processed;
  - low in sodium;
  - lean, unprocessed meat;
  - free of trans fat.
- No "competitive foods" are sold.
- Fundraisers sell non-food items.
- Food is not used as a reward or incentive in classrooms.
- Cafeterias are clean and pleasant places to eat.
- There is no branded marketing of food in school. All food promotion materials are consistent with nutrition education goals.

ISSUE: Reimbursement rates

The government reimbursement rates for meals are insufficient to allow schools to provide nutritious foods.

Findings:

- The USDA reimburses schools that use the National School Lunch Program $2.57 for every free lunch served, $2.17 for a reduced-price lunch, and $0.24 for a lunch paid for entirely by the student.[9]
- A 2008 USDA School Lunch and Breakfast Cost Study found that about 46 percent of the reimbursement goes to food costs, while the rest pays for labor, equipment, overhead, supplies, contract services, and indirect charges by school districts, among others.[10] This is inadequate to cover the cost of producing a meal.[11]
- Most school food service programs were at one time regular line items in local school budgets, but now must be completely self-supporting. This has resulted in a reliance on revenues from competitive food sales.[12]

Recommendation:

- Increase reimbursement rates for school meals to permit the purchase of nutritious food such as fresh fruit, vegetables, and whole grains; to decrease reliance on food that is high in fat and sodium; and to meet the Dietary Guidelines for Americans.

ISSUE: Sugar-sweetened beverages

Sugar-sweetened beverages and fruit juices are high in calories, low in nutrition, and contribute to childhood obesity. They are sold in schools.

Findings:

- A 2004 study found that soft drinks are the single largest contributor to calorie intake in the United States.[13]
- For children, each extra can or glass of sugar-sweetened beverage consumed per day increases their chance of becoming obese by 60 percent.[14]
- A systematic review of evidence concludes that greater consumption of sugar-sweetened beverages is associated with increased calorie intake, weight gain, diabetes, and obesity.[15] Studies not showing this effect are more likely to be funded by the beverage or sugar industries.
- The percentage of beverage calories from sugar-sweetened beverages consumed by 2-18 year olds has increased, while the percentage from milk has decreased. In the mid-1990s the intake of sugar-sweetened beverages began surpassing that of milk.[16]
- Sugar-sweetened beverage consumption leads to increased total daily calories because people do not compensate by eating less.[17]
- Consuming fruit in its full/pure form leads to more satiety and less calorie intake during a meal than consuming fruit juice or puréed fruit.[18]

Recommendations:

- Prohibit the sale or free distribution of all sugar-sweetened beverages, including soda and other carbonated soft drinks, sports drinks, sweetened teas, energy drinks, and sweetened vitamin waters.
- The only beverages available to children in all grade levels should be water and low- and non-fat milk.

Where Marketing Can be Found in Schools

PROMOTION OF BRANDED FOODS

- Brand logos on vending machines
- Cafeterias and school stores
- Exclusive soda contracts
- Fundraising
- Incentive programs providing awards, goods, or services (e.g. box tops for education)

BRANDED AND SPONSORED MATERIALS

- Program and activity sponsorship
- Sponsored educational materials
- Corporate sponsorship on scoreboards, bulletin boards, rooftops, walls
- Curricular materials, including text books

ADVERTISING

- Radio advertising on buses
- On Channel One television

ISSUE: Marketing unhealthy food in schools

The marketing to youth of food of poor nutritional quality is pervasive in schools. It influences children's diets and may contribute to childhood obesity.

Findings:

- Food marketing to youth is massive and expanding. It is composed almost entirely of messages for nutrient-poor and calorie-dense products that can adversely affect children's health.[19]
- Marketers promote their products extensively in schools.[20] Over 67 percent of students are exposed in their schools to corporate advertising for food of poor nutritional quality or food high in fat and sugar.[21]
- Food marketing has a direct effect on children's food preferences, requests for advertised foods, and behavior.[22]
- A nationally-representative survey of public schools found extensive participation in corporate-sponsored marketing for food whose high consumption may lead to obesity. In particular, 38 percent of primary schools participated in fundraising, 32 percent participated in incentive programs, and 16 percent participated in exclusive agreements with a corporation that sells such food.[23]
- Food advertising increases consumption of the advertised food in the short term.[24]

Recommendation:

Require school wellness policies to mandate the elimination of the marketing and sale of all branded foods on school grounds.

ISSUE: Fruit and vegetable intake

Children do not consume the recommended daily intake of five or more servings of fruit and vegetables. These foods must be promoted in schools.

Findings:

- Children under the age of 18 eat approximately 50 percent or less of the USDA recommended levels of fruit and vegetables. Among high school students, 78 percent do not consume the recommended daily amount.[25]
- Using a simple verbal prompt on a school lunch line to encourage children to take a piece of fruit, has a significant impact on the likelihood that they will do so, and then consume it.[26]

Recommendations:

- Increase the number of fresh fruits and vegetables served to children in schools.
- Serving policy should mandate that children get a verbal prompt to take fruit and vegetables with their meal, to increase their intake of important nutrients.
- Expand the Fresh Fruit and Vegetable Program to include more school districts in each state.

School Breakfast Program & National School Lunch Program FY 2008 Facts

THE NATIONAL SCHOOL LUNCH PROGRAM COST $8.1 BILLION AND SERVED AN AVERAGE OF 31 MILLION LUNCHES IN 101,650 SCHOOLS EACH DAY.[28]

THE SCHOOL BREAKFAST PROGRAM COST $2.4 BILLION AND SERVED 10.5 MILLION BREAKFASTS IN 87,000 SCHOOLS EACH DAY.[29]

The food sold through these programs should adhere to the most recent USDA Dietary Guidelines for Americans, and should provide:

- less than 30 percent of calories from fat;
- less than 10 percent of calories from saturated fat; and
- provide one-third of the Recommended Dietary Allowances of protein, Vitamin A, Vitamin C, iron, calcium, and calories.

Issue:

Wellness Policies

Strengthening the school wellness policy language in the CNRA will improve the school food environment. For more complete information, see the Rudd Brief on School Wellness Policies at www.yaleruddcenter.org.

Findings:

- Data indicate that school wellness policies led to significant improvements in the nutritional quality of competitive food sold in Connecticut.[27]

Recommendations:

Strengthen school wellness policies with language in the CNRA requiring that they:

- be made public;
- include specific language on implementation and evaluation;
- are evaluated by each state using a validated measurement tool, and the results be made public;
- establish permanent wellness committees;
- prohibit commercial, branded food marketing in schools.

Institute of Medicine Standards for Foods in Schools[30]

	Foods	Beverages

For all students	Fruits, vegetables, whole grains, and related combination products* and non-fat and low-fat dairy that are limited to 200 calories or fewer per portion as packaged and contain:
	■ no more than 35 percent of total calories from fat;
	■ less than 10 percent of total calories from saturated fats;
	■ zero trans fat (less than or equal to 0.5 g per serving);
	■ 35 percent or less of calories from total sugars, except for yogurt with no more than 30 g of total sugars per 8-oz. portion as packaged;
	■ a sodium content of 200 mg or less per portion as packaged. À la carte entrée items meet fat and sugar limits as listed above and:**
	  ■ are National School Lunch Program (NSLP) menu items;
	  ■ have a sodium content of 480 mg or less.
	*Combination products must contain a total of one or more servings as packaged of fruit, vegetables, or whole grain products per portion.
	**200-calorie limit does not apply; items cannot exceed calorie content of comparable NSLP entrée items.
		■ Water without flavoring, additives, or carbonation.
		■ One percent and non-fat milk (in 8 oz. portions):
		  ■ lactose-free and soy beverages are included;
		  ■ flavored milk with no more than 22 g of total sugars per 8-oz. portion.
		■ 100 percent fruit juice in 4-oz. portion as packaged for elementary/middle school and 8 oz. (two portions) for high school.
		■ Caffeine-free, with the exception of trace amounts of naturally occurring caffeine substances.

For high school students after school	Foods that do not exceed 200 calories per portion as packaged and contain: ■ no more than 35 percent of total calories from fat; ■ less than 10 percent of total calories from saturated fats; ■ zero trans fat (less than or equal to 0.5 g per portion); ■ 35 percent or less of calories from total sugars; ■ a sodium content of 200 mg or less per portion as packaged.	■ Non-caffeinated, non-fortified beverages with fewer than 5 calories per portion as packaged (with or without non-nutritive sweeteners, carbonation, or flavoring).

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