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Thank you for inviting me to testify before the committee. My name is Kelly Brownell and I am professor of psychology, former Chair of Department of Psychology, and Director and Co-Founder of the Rudd Center for Food Policy and Obesity at Yale University. The Center seeks to improve the world's diet, prevent obesity, and reduce weight stigma by establishing creative connections between science and public policy, developing targeted research, encouraging frank dialogue among key constituents, and expressing a dedicated commitment to real change.

Current Conditions: Unhealthy Defaults for America's Children

Economists and public health experts have recently converged on the concept of creating conditions where actions that enhance health and well-being become the default. Stopping the sale of lead paint and leaded gasoline makes painting and driving less toxic, by default. There are innumerable examples as well in arenas where people make choices regarding personal behavior.

It is in the best interest of individuals and the nation if people enroll in pension plans. Some employers do not enroll people unless they specifically opt in while others enroll new employees automatically while giving them the option of opting out. Less than 50% of employees participate in pension plans in the first year if the default is suboptimal and people must opt in, compared to nearly 100% participation when enrollment is the default. Organ donation is another example. European countries are divided on whether people opt in or opt out of becoming an organ donor. About 15% of

people are organ donors in countries where one must opt in, compared to 98% in countries where opting in is the default.

The default conditions for America's children promote unhealthy eating and physical inactivity. It is hard to imagine any outcome other than rampant obesity and diabetes, given the relentless and powerful environment bearing down on children and their parents. Factors such as large portions, low costs for high-calorie foods and higher costs for fruits and vegetables, limited access to healthy foods for the poor, high consumption of soft drinks and fast foods, and massive marketing campaigns targeting children have been shown in scientific studies to be linked to poor diet, risk for excess weight gain, and in some cases diseases such as diabetes.

Legislative efforts to improve nutrition in schools offer hope of changing conditions such that healthy behaviors become more likely, by default.

The School Nutrition Environment

Over the past few decades, the food landscape for children has been deteriorating. Between 1994 and 2004, 1,643 new types of candies were introduced and marketed specifically for children, while in that same time period, only 52 fruit and vegetable-related products were introduced.¹ Food and beverage companies are clever to market these unhealthy products to youth: adolescents spend approximately \$140 billion dollars per year, while children under 12 spend another \$25 billion--and may influence as much as an additional \$200 billion of annual food spending.²

Children and adolescents are very specifically targeted by food marketers and hence are flooded with advertising - researchers estimate that a child is exposed to 40,000 food advertisements on television per year.³ Parents find it difficult to compete with television ads, but also with product placements in videogames, movies, and TV shows, sports, movie, and music stars endorsing foods, and ads on billboards, buses, taxicabs, bus shelters, trash receptacles, and more. In its own words, the advertising industry refers to some methods as "stealth, viral, and guerilla" marketing. These words alone indicate a predatory approach.

The school environment has become a marketer's dream. Snack foods, desserts, pastries, candy, and soft drinks are part of the nation's school landscape. Schools make money selling these products and become marketers themselves. Every child walking past a soft drink machine is exposed to advertising because of the brightly colored images on the machines. Television piped into many schools is replete with food advertising. The newest example is "bus radio," where a marketing company supplies radio equipment for school buses with claims it will reduce behavior problems, but mandates its own content-

¹ The Institute of Medicine (2006), *Food Marketing to Children and Youth: Threat or Opportunity*.

² Story, M., & French, S. (2004). Food advertising and marketing directed at children and adolescents. *International Journal of Behavioral Nutrition and Physical Activity*, 1-17.

³ Kaiser Family Foundation (2004). *The Role of Media in Childhood Obesity*.

-which contains advertising. Few parents fully grasp the commercial nature of a child's school experience and those who do find it difficult to shield their children. The typical American school today is an *unsafe* nutrition environment.

School foods are an important source of calories and nutrition for children; children and adolescents consume approximately one third of their daily calorie intake while at school.⁴ The nutritional quality of those calories is highly variable. The National School Lunch Program (NSLP) is required to serve children foods that meet federal nutritional standards while excluding certain foods from sale (i.e., “Foods of Minimal Nutritional Value” or FMNV). Classifying some foods as FMNV is a sound concept, but the definition of minimally healthful foods, established in 1979, is outdated and out of touch with the modern school environment. Foods like French fries, ice cream, cookies, chips, and snack cakes can be served in school cafeterias during lunchtime under federal guidelines, creating damaging defaults.

American children and adolescents also get a significant amount of their daily calories from foods sold in schools outside of the cafeteria. While FMNV foods are excluded from sale during lunch periods at schools participating in the National School Lunch Program, children still can have access to them at other times in the day through vending machines, or school stores, which are not required to meet any nutrition standards.⁵ Between the unhealthy cafeteria a la carte foods and the foods available in vending machines—both of which are not adequately regulated by the current FMNV definitions, children are exposed to unhealthy foods throughout the school day. One study found that 83% of elementary schools, 97% of middle schools, and 99% of high schools sell unhealthy foods inside and outside of the cafeteria.⁶ Other research has found that the most frequently sold items are chips, candy, cookies, soft drinks, sports drinks, imitation fruit juices, and snack cakes.⁷

The Child Nutrition Promotion and School Lunch Protection Act would require the USDA to update nutritional standards for foods sold outside of school lunch meals.

⁴ USDA. (2004). National School Lunch Program.

⁵ Harnack, L., Snyder, P., Story, M., Holliday, R., Lytle, L., & Neumark-Sztainer, D. (2000). Availability of a la carte food items in junior and senior high schools: a needs assessment. *Journal of the American Dietetic Association, 100*, 701-703.

Kann, L., Grunbaum, J., McKenna, M., Wechsler, H., & Galuska, D. (2004). Competitive foods and beverages available for purchase in secondary schools - selected sites in the United States. *Journal of School Health, 75*, 370-374.

Wechsler, H., Brener, N., Kuester, S., & Miller, C. (2001). Food service and foods and beverages available at school: results from the School Health Policies and Programs Study 2000. *Journal of School Health, 71*, 313-324.

⁶ Government Accountability Office (2005). *School Meal Programs: Competitive Foods Are Widely Available and Generate Substantial Revenues for Schools*. Washington, DC: GAO.

⁷ Wechsler, H., et al (2001). Food service and foods and beverages available at school: Results from the school Health Policies and Programs Study 2000. *Journal of School Health, 71*, 313-324.

Center for Science in the Public Interest (2004). *Dispensing junk: How school vending undermines efforts to feed children well*. Washington, DC: CSPI.

Kann, L., et al. (2005). Competitive foods and beverages available for purchase in secondary schools—selected sites, United States, 2004. *MMWR, 54*(37), 917-921.

This aim is to create a better set of defaults and hence make progress in improving children's diets and preventing childhood obesity.

Opponents often claim that children and teenagers will just eat more of these foods outside school and hence no overall change in nutrition will occur. The inference is that children *must* have large amounts of these foods and will be driven to get them in one place or another. My colleagues at Yale recently completed a two-year study and found this is not true. Schools taking part in a program by the state of Connecticut to remove unhealthy snacks were compared to control schools that offered unhealthy snacks as usual. Students in schools making the nutrition changes ate healthier snacks during school hours, but as important, did not compensate by eating more outside school.

There is also research showing that the school environment and food related policies are associated with weight.⁸ Researchers in Minnesota studied food practices such as allowing students to have food in class, allowing food in the hallways, allowing beverages in class, allowing beverages in the hallways, using food as a reward or incentive, selling food for classroom fundraising and selling food for school-wide fundraising. They found that schools restricting such food-related activities had lower rates of obesity.

Local Control Over School Nutrition Policies Is Not Sufficient

The 2004 Child Nutrition and WIC Reauthorization Act required that all public and private schools participating in the USDA's Child Nutrition Programs (i.e., National School Lunch Program, School Breakfast Program, After-School Snack Program and Special Milk Program) create a local School Wellness Program for the 2006-2007 school year.²¹ As a result, thousands of SWP's were written at the same time across the country. The law mandates that the policies address nutrition education, physical activity, nutrition guidelines for all foods available, compliance with national school meal nutrition regulations, and a plan for implementation of the policy as well as who must be on the School Health Team that develops the policy (parents, students, food service, school board members, administrators, and the public). Otherwise, the act allows each school district to exert local control over the specific language and guidelines.

Our research group at Yale is collecting and evaluating every school wellness policy in Connecticut. Our preliminary analysis shows that there is tremendous variability across these policies. Some meet only the bare minimum requirements of acknowledging the importance of nutrition education, physical education, and setting some type of nutrition standards while other districts created comprehensive policies complete with mechanisms to ensure implementation and compliance. Consequently, children in one Connecticut town are presented with an array of only healthy beverages and snacks, while children in the next town have the same, nutritionally-poor foods they were eating before the school wellness policies were written.

⁸ Kubik, M. Y., Lytle, L. A., & Story, M. (2005). School-wide food practices are associated with body mass index in middle school students. *Archives of Pediatric and Adolescent Medicine*, 159.

In 2001, Congress passed the No Child Left Behind Act to ensure that all American children would receive a more equal and high-quality education. It is essential that the health and well-being of our children not be left behind. Current school wellness policies demonstrate that local control results in uneven, haphazard standards that protect only some children. In Connecticut, the school districts with the best policies have strong leaders who are committed to children's health. This is the type of leadership that every child in this country deserves—and that the federal government can help provide.

A Winning Issue: Scientists and the Public Support Improving School Foods

Scientists, parents, and the American public all strongly support improving the quality of school foods. Fully 90 scientific and health organizations support the Child Nutrition Promotion and School Lunch Protection Act, including organizations such as the American Academy of Pediatrics, American Heart Association, and the American Cancer Society.

Nutrition experts also consider these issues to be extremely important. Last fall, my colleagues and I completed a study where we surveyed 33 of the country's leading experts in nutrition, obesity and physical activity. These experts reported that implementing the policies contained in the Child Nutrition Promotion and School Lunch Protection Act would have a "strong" impact on improving children's nutrition and physical activity.

The American public, including parents, also want our government to improve school foods. A recent poll by the Robert Wood Johnson Foundation found that 90% of parents and teachers support replacing unhealthy items in school vending machines with healthy items. Another poll by the Wall St Journal/Harris Interactive Health-Care revealed that 83% of adults believe that "public schools should do more to limit children's access to unhealthy foods like snack foods, sugary soft drinks, and fast food." Parents may not know what "FMNV" means, but they do know that their kids deserve healthier foods at school.

The Food and Beverage Industry

It can be anticipated that the food industry will use its considerable political influence to fight this act and others that mandate changes in the nutrition environment, arguing that voluntary self-regulation by the industry will be sufficient to protect the well-being of the nation's children. It is common to hear dramatic claims from industry that schools will suffer dearly from nutrition changes, that poorer public schools will be especially hard hit, that freedom is usurped by mandates, and that the food companies just want to offer children choices. These industry positions defend the status quo and defend the very conditions that have created a public health disaster for our children. An example is how the beverage industry, represented by the American Beverage

Association (formerly the National Soft Drink Association), has addressed the issue of soft drinks in schools.

Conventional Industry Arguments

At least four claims are frequently advanced by industry representatives about beverages in schools.

1. “Restrictions on beverages will cost schools major revenue.”

This is a common concern, but in fact, school districts that have made changes have reported no loss of revenue; in fact, some schools have found that revenue increased due to increased sales of water.⁹ There are also studies showing that removal of unhealthy snacks leads to increased participation in and greater income from the National School Lunch Program. Data also show that children who participate in the NSLP eat healthier (e.g., more fruits and vegetables).¹⁰

2. “Beverages already are regulated under the federally defined Foods of Minimal Nutritional Value (FMNV).”

As this hearing has amply demonstrated, the FMNV definition is out of date and only excludes carbonated sugared beverages. Further, FMNV regulations do not extend across the entire school day. Students can drink sports drinks and other sugared drinks at lunch and in mornings and afternoons when the cafeteria is closed.

3. “Industry already solved the problem of soda in schools.”

Though a potentially promising start, the agreement between Clinton’s Alliance for a Healthier Generation and the American Beverage Association is a voluntary, non-binding agreement. It will not necessarily affect current pouring rights contracts and sets weak standards for high schools, where the majority of sugared beverages are sold.

It is clear that the soft-drink industry agreed to what in fact was their only option – to pull some of their most nutritionally unsound products from schools. Small towns, large cities like Philadelphia and Los Angeles, states like California and Connecticut, and countries like England and France have all banned soft drinks from schools. Each time state or local legislation has been introduced the media calls attention to problems with soft drinks and raises public awareness of exactly what occurs in schools. Rather than risk unfavorable local and state actions, the industry itself proposed weak standards and then celebrated them as a significant public health achievement.

⁹ Food and Nutrition Service, US Department of Agriculture (2005). *Making It Happen! School Nutrition Success Stories*. Alexandria, VA.

¹⁰ Wharton, C. M., Long, M., & Schwartz, M. B. (2007). Changing nutrition standards in schools: The impact on school revenue. (*manuscript under review*).

4. “Some studies find there is no link between soft drinks and obesity.”

When evaluating research, it is important to consider the source. The food industry, including the National Soft Drink Association, has funded many studies that have found no link between their products and negative health consequences. Research, including a study by our group at Yale just published in the *American Journal of Public Health*, shows that industry-supported research on beverages is much more likely than other studies to report results favorable to the industry.¹¹ Abundant science definitively affirms that soft drinks contribute to poor diet and risk for key diseases such as diabetes and obesity.

There is serious reason to question whether industry’s calls for and attempts at self-regulation have any substance. Parallels in other arenas such as tobacco reveal industry actions that benefit industry and help sell more products, not less.

Industry & School Nutrition

We also have ample evidence, beyond the merely anecdotal, that past regulatory efforts to achieve progressive, nutritionally beneficial changes to school meals have been altered or entirely blocked by industry interest-group lobbying.¹² In fighting such bans, food and beverage employ a range of tactics: in Connecticut, for example, industry lobbyists claimed that schools had the option to sell healthier beverages but then it was discovered that there were pouring right contracts that the sales commissions that schools get for the sale of soda are up to 25% higher for soda than for other, healthier drinks such as bottled water. Also, in Connecticut, the Coca-Cola Company made heavy-handed threats to state legislators that they would rescind scholarships and academic and athletic enrichment programs if they supported the junk food ban.¹³

The recent school-beverage agreement brokered by the Clinton Foundation evokes a worrisome comparison with tobacco history. When the Fairness Doctrine was passed in 1960s, equal time for anti-smoking messages was mandated for television advertisement for cigarettes. The industry, as was revealed later in internal documents, knew it lost ground every time it advertised because anti-smoking messages were so powerful. Tobacco companies announced they would voluntarily stop advertising on TV, in exchange for calling off critics who demanded cessation of all forms of advertising. What appeared a public health victory was not: the industry moved their marketing dollars from a cost-ineffective medium to ones where more people could be convinced to smoke.

¹¹ Lesser, L. I., Ebbeling, C. B., Goozner, M., Wypij, D., & Ludwig, D. S. (2007). Relationship between funding source and conclusion among nutrition-related scientific articles. *PloS Medicine*, 4, e5.

¹² See, for example, Dobbs et. al., (2004). Analysis of interest group influence on federal school meals regulations, 1992 to 1996. *Journal of Nutrition Education and Behavior*, 36, 90-98.

¹³ April 6, 2006, Press release from Connecticut President Pro Tem Senator Donald Williams.

In the context of food and beverages, key truths are apparent. First is that children are critical consumers in the eyes of food and beverage companies and the industry will not release them easily. Changes in the school environment could be undermined by increases in other forms of marketing such as product placements in movies and television shows, advertisements beamed over cell phones, billboards, etc. A troublesome possibility is that companies may increase promotion near schools through point-of-purchase promotions in mini-markets, service stations, and fast-food restaurants, or worse yet, encourage these food delivery businesses to open ever closer to schools.

Who Should Develop Nutrition Standards?

It is likely that calls will be made for the USDA to establish the definitions of Foods of Minimal Nutrition Value. This could be a barrier to progress, given the dual and oft-conflicting priorities of the agency to help promote food sales while at the same time establishing national nutrition policy.

Having the FMNV criteria established by the Institute of Medicine or the Centers for Disease Control and Prevention could help alleviate the dual role experienced by the USDA and also avoid to some extent the problems created by the “revolving door” between the USDA and the food industry. It is important that the guidelines be science-based and free of political influence.

In Conclusion

Children deserve an environment that supports their becoming happy, healthy, and productive citizens. Too many modern schools instead deliver a powerful blow to the hopes of parents who want their children to eat well. Unhealthy conditions are clearly the default – it is why the prevalence of obesity in children has spiraled out of control.

A window has opened where federal and state legislators can make an important difference. The public is aware of the problem and has grown steadily more supportive of actions by legislators to protect children. Thus a winning political issue aligns with good public health. Acting now can prevent untold problems as the next generation of American citizens develops.