



**TESTIMONY OF KELLY D. BROWNELL, Ph.D.**  
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**Before the**  
**Committee on Appropriations**  
**Subcommittee on Agriculture, Rural Development, Food and Drug Administration and**  
**Related Agencies**  
**U.S. House of Representatives**  
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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 at Yale University, former Chair of the Department of Psychology, Professor of Epidemiology and Public Health, and Director of the Rudd Center for Food Policy and Obesity. The Rudd Center seeks to improve the world's diet, prevent obesity, and reduce weight stigma by establishing creative connections between science and public policy, carrying out research that addresses key questions in nutrition policy, and serving as an information resource to leaders around the world on matters of food and nutrition.

I begin with several points regarding the role food plays in modern life, how our relationship with food has evolved, and how important the USDA can be as a force for change. I will then comment on specific programs.

I often begin talks by showing an audience a list of ingredients from a common food product and ask them to guess the name of the product. This product contains 48 entries in the ingredient list:

ENRICHED FLOUR (WHEAT FLOUR, NIACINAMIDE, REDUCED IRON, THIAMIN MONONITRATE [VITAMIN B1], RIBOFLAVIN [VITAMIN B2], FOLIC ACID), SUGAR, VEGETABLE OIL (SOYBEAN, COTTONSEED AND HYDROGENATED COTTONSEED OIL† WITH TBHQ AND CITRIC ACID FOR FRESHNESS), HIGH FRUCTOSE CORN SYRUP, DEXTROSE, CORN SYRUP, SEMI-SWEET CHOCOLATE CHIPS (SUGAR,

CHOCOLATE, COCOA BUTTER, DEXTROSE, SOY LECITHIN), CONTAINS TWO PERCENT OR LESS OF CRACKER MEAL, SALT, MODIFIED CORN STARCH, LEAVENING (BAKING SODA, SODIUM ALUMINUM PHOSPHATE), CORNSTARCH, NATURAL AND ARTIFICIAL FLAVORS, CARAMEL COLOR, NONFAT MILK, GELATIN, MONO- AND DIGLYCERIDES, SODIUM STEAROYL LACTYLATE, YELLOW #6 LAKE, DATEM, BLUE #2 LAKE, XANTHAN GUM, COLOR ADDED, RED #40 LAKE, SOY LECITHIN, YELLOW #5 LAKE, NIACINAMIDE, REDUCED IRON, DRIED EGG WHITES, VITAMIN A PALMITATE, PYRIDOXINE HYDROCHLORIDE (VITAMIN B6), RIBOFLAVIN (*VITAMIN B2*), *THIAMIN HYDROCHLORIDE (VITAMIN B1)*, *FOLIC ACID*.

Various forms of sugar and fat appear multiple times in this list, as do a list of chemicals industry adds to give the product the texture, consistency, color, shelf life, and of course taste to maximize consumption. These ingredients, individually or in combination, affect our bodies, most notably the brain, in ways that are not well understood.

These ingredients sum to become a Chocolate Chip Cookie Dough Pop Tart, but in various combinations could form many different products. One can legitimately ask whether these products should be called foods. Yes we eat them, but if one defines foods as things found in nature, that can be ingested without creating metabolic havoc, and that help us survive rather than interfere with life expectancy, some things simply wouldn't qualify.

Whether one defines a Pop Tart as a food is a complex subject, but it does show how distant we are from what we eat. Long gone is the knowledge of who grows our food, how it is handled and processed, and what gets stirred into the vast industrial vat when it is made. We are physically distant from its origins (we could not begin to guess what state it is made in) but also psychologically distant. Food, marketed much like alcohol and tobacco, becomes attractive in part because it is associated with being cool, fun, athletic, popular, etc. If you pay attention to food marketing you will see how seldom the properties of the food are mentioned. Absent is the close connection humans once had with their food.

This distance has many consequences. One is the common view of food as a commodity - we want as much as we can get at the lowest possible price. Quality becomes less important than quantity and lost in this equation entirely is the environmental impact of modern agricultural practices that make the Big Mac, the Coke, the Twinkie, the Cheeto, and the Pop Tart so widely available at such low cost. Agriculture policy has done much to promote this and little to thwart it.

Many forces have pushed the nation down this road. Advances in agriculture technologies, improved transport, the genetic modification of foods, and subsidy policies are but a few examples. These were not put in place with evil intent. Quite the contrary, these were designed to maximize food production in an effort help both farmers and the larger agriculture industry, and to address what was, and still is a vexing problem - hunger. Agriculture and nutrition policy today, at least to some extent, is a holdover from these earlier times. The goal of producing immense quantities of food at low cost has been realized, but what the architects of the policies could not and did not anticipate was a downside – the massive production of processed foods high in sugar, fat, and salt. Combine this with relentless marketing of such food, particularly to children, effective strategies employed by the industry to maximize sales,

including packaging, portion sizing, pricing, and the making of health claims, and the economics of food that make unhealthy choices the default for so many American families, and we have a recipe for a nation in nutrition crisis.

But now we know, and in fact have known for several decades that the nation's food policies, as all policies do, have upsides and downsides. There is unprecedented attention to these policies – witness the debate over the most recent Farm Bill. The challenge is to set a course that helps remedy hunger, prevent obesity, insure healthy foods are available to all, and allow the country to establish a new relationship with food.

This will not be easy. Food policy is affected by factors deeply woven into the economics and politics of our country. Change requires more than tinkering around the edges. USDA Secretary Vilsack said at the outset of his appointment, “This is a department that intersects the lives of Americans two to three times a day. Every single American. So I absolutely see the constituency of this department as broader than those who produce our food -- it extends to those who consume it.” This implies a bold new approach - placing human nutrition at the center of agriculture policy.

### **Better Defaults**

Economists and public health experts are converging on the concept of creating healthy defaults – conditions where it becomes easy to make healthy choices. Stopping the sale of lead paint and leaded gasoline makes painting and driving less toxic, by default. There are innumerable other examples – fluoride in drinking water, air bags in automobiles, immunization requirements for children – the list goes on.

A remarkable example of the power of defaults involves the choice to be an organ donor. A study of European countries compared those like the U.S. where individuals are not donors by default, but can opt in when they get a driver's license, to other countries where people are a donor by default but can choose to opt out. The choices are the same in both cases, but there are stunning differences in the percentage of people who are donors – about 15% in countries where one is not a donor and 98% in countries where opting in is the default. With an unlimited budget, an educational campaign encouraging people to be donors could only dream of a 98% success rate. Writing a different default into law costs little and works, *really* works.

Default nutrition conditions in American are good in many ways and disastrous in others. There are fewer nutrition deficiencies than in the past and food is more available to the poor. And to the extent we wish to have supermarkets with 100 choices of salad dressings, 50 choices of yogurt, and several dozen types of ice cream, victory can be declared. But conditions also favor high consumption of foods that contribute to a cascade of diseases related to poor diet. Obesity, diabetes, heart disease, and cancer top the list. As you probably know, medical professionals were forced to drop the term “adult onset diabetes” when children as young as age 8 were being afflicted. Given modern food defaults, it is hard to imagine any outcome other than rampant obesity and diabetes, given the relentless and powerful environment bearing down on people.

We can use food marketing as an example. Let's say hypothetically that we sum the amount spent on nutrition education programs across all government agencies and the amount comes to \$100 million per year. This would be a very generous estimate, but let's use it as a round number. The food industry spends this by the first week in January, just marketing to children. And what is being marketed? Sugared cereals, fast food, soft drinks, candy, etc. Other factors such as large portions, low costs for high-calorie foods, higher costs for fruits and vegetables, limited access to healthy foods for the poor, high consumption of soft drinks and fast foods, and food marketing 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. Less than ¼ of American adults, and even fewer children, get the recommended servings of fruits and vegetables each day. By any standard we need better defaults.

### **Strengthening Existing Programs**

A number of USDA programs could be strengthened to have a positive effect on the nation's nutrition. We can begin with children.

**Children and Schools.** Alice Waters, a champion for better school lunches, has said, "Right there in the middle of every school day, lie time and energy already devoted to the feeding of children. We have the power to turn that daily school lunch from an afterthought to a joyous education, a way of caring for our health, our environment and our community." How can USDA programs and policies help accomplish this?

First is consideration of what should *not* be in schools, namely foods that contribute to ill health in our children. The USDA uses old standards to define permissible competitive foods. Using standards already defined by the Institute of Medicine could help modernize and tighten this important definition.

Second is the financing and composition of school breakfast and lunch. Increasing reimbursement rates would permit the purchase of better foods such as fresh fruits and vegetables and whole grains, and decrease reliance on foods high in fat and sodium. Other helpful advances would be to improve the nutrient quality of USDA commodity foods, require district level engagement of nutrition professionals, issue grants to schools to purchase food preparation equipment, increase funding for the Department of Defense Fresh Fruit and Vegetable Program, and require that only low fat or skim milk be available in schools.

Third, a positive step occurred with the requirement in the Child Nutrition Reauthorization Act (CNRA) of 2004 that schools establish a school wellness policy. Research by my Yale colleagues Drs. Marlene Schwartz and Kathryn Henderson has shown that while there is wide variability in both the nature of the policies and their implementation, wellness policies *do* matter – better policies are associated with better nutrition practices. In the next CNRA, policies will be strengthened if: a) each policy is required to meet minimum nutrition standards determined by the state; b) a process is established by which schools create a permanent wellness committee with representation from school administration, teachers,

students, parents, health professionals, and the community; c) policies are made public; and d) the policies are evaluated using a validated measurement tool and the results be made public.

**CACFP (Child and Adult Care Food Programs).** Existing standards within the CACFP permit the use of meals of poor nutrient quality. Programs can be attracted to such meals because of low costs for calorie-dense, nutrient-poor foods. It is the classic problem faced by soup kitchens – serve more people worse food or fewer people better foods. USDA policy can help remove this tension.

Using the CACFP to improve nutrition defaults could be accomplished by: a) raising reimbursement rates to make it possible to serve healthier foods, especially perishable fruits and vegetables; b) eliminating juice as fruit serving or eliminating juice completely; c) allowing only water or 1% or skim milk for children over age 2; d) serving whole grains as the primary source of grain (e.g., 100% whole grain bread, pasta, cereal, and crackers); e) helping individuals develop skills for finding these products in their communities; f) eliminating fried foods, high-fat meats, and high-fat cheeses; g) requiring that snacks always consist of or include a fruit/vegetable; and h) limiting added sugar in products.

**Farm Bill.** With its size and central importance in the nation's nutrition, the Farm Bill can be a powerful tool for addressing nutrition issues. One controversial issue involves subsidies. This is a complex matter outside the scope of this testimony, but below I will recommend a means for establishing a base of information to help inform policy.

**Women, Infants and Children Program (WIC).** Important progress has been made with WIC by limiting reimbursement for juice, providing targeted fruit and vegetable support, and improving the breastfeeding package. Additional progress would be possible by providing reimbursement for only 1% or skim milk for children over age 2, and to increase targeted support for fruits and vegetables.

**Food Stamps.** This program needs the careful attention that WIC recently received. Consumers using food stamps face a number of challenges. The once-per-month allocation leaves many families strapped by the end of the month, creating strong incentives during this period to purchase cheaper, and therefore less healthy foods. The purchase of empty calories in foods such as soft drinks is now permitted. Above all, the value of food stamps is low enough overall to discourage purchase of foods such as fresh fruits and vegetables.

Possible remedies are to: a) give recipients the option to get food stamps monthly or bi-weekly; b) provide bonus benefits for the purchase of fruits, vegetables, and whole grains; c) increase access to farmer's market nutrition programs to increase the availability of vouchers for fruits and vegetables; and d) increase food stamp benefits overall, especially if coupled with programs to improve nutrition.

### **Possible New Initiatives**

A variety of new initiatives might be considered to maximize the positive impact of USDA policy on the nation's nutrition and health:

- 1) Develop ways to connect nutrition and environmental issues within the Farm Bill and across USDA programs in general. Consumers are becoming more aware of the environmental impact of their food choices. Linking these two issues could be helpful to both the environment and diet.
- 2) Create a commission to examine opportunities to connect groups, organizations, foundations, and agencies working on three issues – hunger, obesity, and the environmental impact of food practices. The aim is to eliminate competing interests and to establish common ground.
- 3) Increase support for farm to school programs. Eating habits are established early, as are food values such as the importance of locally grown food.
- 4) Increase support for school gardens, with the Edible Schoolyard as the model.
- 5) Commission the Institute of Medicine to complete a thorough economic and health analysis of the impact of subsidies, asking specifically for recommendations on how subsidy policy could be used to address the nation's nutrition and health concerns.
- 6) Commission the Institute of Medicine to complete a study examining the impact of food prices and food access on the health of the nation, with particular focus on vulnerable populations.

Before ending, I would like to mention the Yale Rudd Center website, which is at: [www.YaleRuddCenter.org](http://www.YaleRuddCenter.org). The site is rich with information on nutrition and food policy, offers policy briefs on a number of key topics, links to podcasts with leading experts, and provides a way to receive a free email newsletter on nutrition policy issues.

In closing, I would like to thank several groups for providing valuable input, including the Center for Science in the Public Interest and the National Alliance for Nutrition and Activity. This is an exciting time for the country and for the USDA. By refining existing programs and adding imaginative new initiatives, there is every potential to do what the country desperately needs.

Thank you, and good luck with your important work.