Research on childhood obesity has primarily been conducted by experts in nutrition, psychology, and medicine. Only recently have public policy scholars devoted serious work to this burgeoning public health crisis. Here the authors advance that research by surveying national experts in health/nutrition and health policy on the public health impact and the political feasibility of fifty-one federal policy options for addressing childhood obesity. Policies that were viewed as politically infeasible but having a great impact on childhood obesity emphasized outright bans on certain activities. In contrast, education and information dissemination policies were viewed as having the potential to receive a favorable hearing from national policy makers but little potential public health impact. Both nutrition and policy experts believed that increasing funding for research would be beneficial and politically feasible. A central need for the field is to develop the means to make high-impact policies more politically feasible.

**Keywords:** childhood obesity; obesity policy; obesity prevention; nutrition; public policy; school lunch

Public health experts and economists have recently converged on the idea that conditions should be created where behaviors that improve health and well-being become the default (Choi et al. 2003; Thaler and Sunstein 2003). For example, there is agreement that individuals, and the nation as a whole, would be best served if people enrolled in pension plans. Some employers do not enroll people unless employees actively choose to opt-in, while other employers enroll new employees automatically (while providing them the option to opt-out). Less than 50 percent of employees take part in pension plans in the first year if enrollment is optional, compared to almost 100 percent participation when enrollment is the default (Choi et al. 2004; Madrian and Shea 2001). Organ donation also illustrates this point. In European countries where people must opt-in to become a donor, only 15 percent are donors. In contrast, in European countries...
where donation is the default, 98 percent of the citizens are donors (Johnson and Goldstein 2003).

In the United States, the default conditions for children promote unhealthy eating and physical inactivity. Factors such as large portions, high consumption of soft drinks and high-calorie fast foods, low costs for high-calorie foods and higher costs for fruits and vegetables, limited access to healthy foods for the poor, and massive marketing campaigns targeting children are linked to poor diet, high risk for excess weight gain, and in some cases diseases such as diabetes (Brownell and Battle-Horgen 2003). Given these powerful forces in the environment, it is hard to imagine any outcome other than increasing rates of obesity. Today, more than 17 percent of American children and adolescents are overweight or obese, with certain subgroups, such as African American youth, having even higher prevalence rates (18 to 26 percent) (Ogden et al. 2006). These trends have led to increased incidences of hypertension, diabetes, and even heart attacks among obese children (Komaroff 2003; Quattrin et al. 2005; Stephenson 2003).

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In the United States, the default conditions for children promote unhealthy eating and physical inactivity.

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Overview

The aim of this article is to explore which childhood obesity policies are most likely to create optimal defaults for healthy eating and physical activity in children. To this end, we present the results of an empirical study with experts in public policy and nutrition. We first briefly review the nutrition environment for American children and provide examples of current and proposed federal policies aimed at combating childhood obesity. Then we present the results of our study and discuss them in light of the current political climate and the state of nutrition science.

The Nutrition Environment for American Children and Federal Policy

In recent years, 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; only 52 fruit- and vegetable-related products were introduced (Institute of Medicine 2006). Food and beverage companies are keen to market products specifically to American youth: adolescents spend approximately $140 billion per year on food and beverages, while children younger than twelve spend another $25 billion—and may influence as much as an additional $200 billion of annual household food spending (Story and French 2004). In comparison, in 1997 McDonald’s spent more than $571 million dollars on advertising while the National Institutes of Health spent a mere $1 million dollars on its “5 A Day” program to increase Americans’ consumption of fruits and vegetables (French, Story, and Jeffery 2001).

Food marketers deliberately target children and adolescents, flooding them with advertising: researchers estimate that a child is exposed to twenty-one television advertisements for food every day, adding up to more than seventy-six hundred per year (Gantz et al. 2007). A recent review of these advertisements found that none of them promoted fruits or vegetables (Gantz et al. 2007). Anecdotal evidence suggests that parents find it difficult to compete not only with television ads, but also with product placements in video games, movies, and TV shows; sports, movie, and music stars endorsing foods; and ads on billboards, buses, taxicabs, bus shelters, trash receptacles, and more.

Food marketers have even infiltrated schools. Snack foods, desserts, pastries, candy, and soft drinks are part of the nation’s school food landscape. Television in schools, via Channel One and other educational outlets, is filled with food advertising. The most recent example is “bus radio,” where a marketing company supplies radio equipment for school buses claiming the service will reduce behavior problems, while filling the airwaves with content that contains advertising (National Public Radio 2006). Children are even exposed to food advertising when they walk by a soft drink machine in school. The typical American school today is an unhealthy and, thereby, unsafe nutrition environment (Brownell 2007).

School foods are a significant source of calories and nutrition for children and adolescents as they consume a significant portion of their daily caloric intake.
while at school (Institute of Medicine 2006). The nutritional quality of those calories varies widely. The National School Lunch Program (NSLP) requires schools 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 good idea, but the definition of minimally healthful foods, established in 1979, is outdated for the modern school food environment. For example, under federal guidelines, foods such as French fries, ice cream, cookies, potato chips, and snack cakes can be served in school cafeterias during lunchtime, which may create damaging defaults for children.

American children and adolescents also get a significant percentage of their daily calories from foods sold in schools outside of the cafeteria. While foods that do not meet the FMNV standards are excluded from sale during lunch periods at schools participating in the NSLP, children are permitted access to them at other times throughout the day in vending machines, or school stores, which are not required to meet any nutrition standards (Harnack et al. 2000; Kann et al. 2004; Wechsler et al. 2001). One study found that 83 percent of elementary schools, 97 percent of middle schools, and 99 percent of high schools sell unhealthy foods inside and outside of the cafeteria (Government Accountability Office [GAO] 2005). Other research has found that the most frequently sold items are chips, candy, cookies, soft drinks, sports drinks, imitation fruit juices, and snack cakes (Wechsler et al. 2001).

Additional research has shown that the school food environment and food-related policies are associated with children’s weight. Researchers in Minnesota studied school practices such as allowing students to have food in class, allowing food and beverages in the hallways, allowing beverages in class, using food as a reward or incentive, selling food for classroom fund-raising, and selling food for schoolwide fund-raising. They found that schools restricting such food-related activities had lower rates of obesity among their students (Kubik, Lytle, and Story 2006).

Policy makers, the lay public, and experts across many fields agree that childhood obesity is a major public health problem in the United States (Kersh and Monroe 2002). One recent poll found that Americans view childhood obesity as the number one health issue facing the country today (Research America 2006) and that they support policy changes to fight this problem. A recent poll by the Robert Wood Johnson Foundation (2003) found that 90 percent of parents and teachers support replacing unhealthy items in school vending machines with healthy items. Another poll by the Wall Street Journal/Harris Interactive Health-Care (2005) revealed that 83 percent 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.”

Given this consensus and rising fears about obesity’s prevalence and medical toll, numerous federal, state, and local policies have been proposed to reduce and prevent obesity among children. On a federal level, there has been a flurry of rhetoric about the gravity of the problem and a number of bills introduced on both sides of the aisle, although actual passage of these bills has not occurred (Kersh and Monroe 2005). Former Senate Majority Leader William Frist’s bill,
which merely offered grants to encourage “healthy behavior” and “active lifestyles,” did not even pass in the House. In contrast, the Personal Responsibility in Food Consumption Act (H.R. 339), which was introduced in July 2003 and would outlaw lawsuits against food and beverage companies, passed in the House (but was not brought to a vote in the Senate). This so-called “Cheeseburger Bill,” however, was enacted by at least fourteen states, with at least eighteen others considering similar legislation (Kersh and Monroe 2005).

Congressional Democrats have proposed more progressive childhood obesity legislation, although as of July 2007, nothing has passed both chambers of Congress. For example, The Child Nutrition Promotion and School Lunch Protection Act—introduced by the current chair of the Senate’s agriculture and nutrition committee (Senator Harkin), would require the U.S. Department of Agriculture (USDA) to update nutritional standards for foods sold outside of school lunch meals. This bill ultimately aims to create a better set of defaults and hence make progress in improving children’s diets and preventing childhood obesity.

The most recently enacted federal legislation to address childhood obesity emphasizes local control over universal standards. However, many believe this approach is not a strong enough effort to reduce or prevent childhood obesity as local standards tend to be highly variable and in many cases weaker than universal standards. For example, 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., NSLP, School Breakfast Program, After-School Snack Program and Special Milk Program) create a local School Wellness Program (SWP) for the 2006-2007 school year. As a result, thousands of SWPs were written at the same time across the country. The law mandates that these 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 (e.g., 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.

Nutrition and Policy Experts Study

One problem facing policy makers and other opinion leaders is that there is little guidance to know which policy proposals would have greatest public health impact and which would be the most politically feasible (Wang and Brownell 2005). Scientific findings in childhood obesity cannot alone establish policy priorities. Data from fields such as tax policy, agricultural economics, trade policy, marketing, and political science need to be synthesized to help establish policy priorities. Given the gravity of the problem and the potential cost of implementing these policies, it is crucial to know two basic things about these policies: (1) their political feasibility—that is, the likelihood that they will receive a favorable hearing from policy makers; and (2) their potential public health impact—that is, the likelihood that they will help reduce and/or prevent childhood obesity.
To address this issue, we developed a methodological approach that asks policy and nutrition experts to assess the political feasibility and potential public health impact of a comprehensive list of childhood obesity policies. Our animating idea was to go to the “source”—leading figures in both nutritional science and health policy/politics—to gather valuable clues about how best to focus on and prioritize among specific childhood obesity policies.

Method

Participants

To develop our participant base of experts, we created two lists: one of the leading scientific experts on nutrition and physical activity and another comprising respected experts in federal obesity and related public health policies. We employed a “snowball” sampling technique wherein the experts we initially identified recommended additional sources of expertise. We contacted thirty-eight scientific experts in nutrition and physical activity, and thirty-three completed the survey.

For the sample of policy experts, we contacted forty-nine individuals, and twenty-eight completed the survey. We invited representative numbers of self-identified Democrats, Republicans, and Independents to participate in the survey. In the end, our policy experts consisted of six congressional legislative staff members (four Democrats, two Republicans), nine representatives of advocacy groups involved in federal health/nutrition policy, and eleven individuals from think tanks or the engaged academic community. Both the policy and nutrition experts completed the survey in the fall of 2006 (prior to the November 2006 elections), and both groups were assured complete anonymity to bolster our response rate and to generate more candid responses from our participants. The survey was administered over the Internet, and participants took, on average, fifteen minutes to complete it. Participants were not compensated for completing the survey.

Survey Instrument

We developed a comprehensive list of fifty-one federal obesity, nutrition, and physical activity policies relevant to children by reviewing all relevant federal legislation introduced between 2003 and 2005 and extracting every policy concerning childhood obesity prevention or treatment. We then reviewed state legislation that had been enacted or introduced and supplemented our list with policies that had been proposed in at least two states. We organized these fifty-one policies into five categories: Physical Activity Policies, Nutrition Education Policies, School Nutrition—Healthy School Environment Policies, Advertising Policies, and General/Miscellaneous Childhood Obesity Prevention Policies (see the appendix).

For each policy proposal, the nutrition experts rated its likely public health impact while the policy experts rated each policy’s political feasibility. Specifically,
the scientific experts in nutrition and physical activity were asked to “assess the likely impact of each policy item on improving nutrition and/or physical activity,” using a 7-point Likert-type scale (1 = none, 2 = minimal, 3 = minor, 4 = moderate, 5 = strong, 6 = major, 7 = maximal). Our policy experts were asked to “assess the likelihood that each policy item on improving nutrition and/or physical activity will receive a favorable hearing from national policymakers,” using a similar 7-point scale (ranging from 1 = extremely unlikely, 4 = neutral, to 7 = extremely likely).

Finally, both sets of experts had the opportunity to answer two open-ended questions asking them to (1) elaborate on and/or clarify their responses by specifying why they thought certain policies were more or less politically feasible or impactful and (2) suggest additional federal-level public policies that they believe would help prevent or reduce childhood obesity in the United States.

Analytic Approach

Because of the large number of policies that we asked participants to evaluate (and our necessarily small number of expert participants), we were unable to factor analyze the policies. However, upon visual inspection, there were no outliers or natural clusters of data among the policies. Additionally, all responses from participants were retained. To parsimoniously summarize these data, we took the median score of all policies for both policy experts’ feasibility ratings (median = 3.71) and nutrition experts’ public health ratings (median = 4.30). We then created a four-quadrant table wherein the fifty-one childhood obesity policies are ranked as “high impact, high feasibility,” “high impact, low feasibility,” “low impact, high feasibility,” and “low impact, low feasibility.” Policies were put in the high-impact quadrants if they were above the median score for impact (3.71) and in the high-feasibility quadrants if they were above the median score for feasibility (4.30). Table 1 displays these results in matrix form.

For the qualitative data analyses, we each examined the open-ended responses in light of the feasibility and impact ratings in the four-quadrant table. To summarize these qualitative data, we converged on a series of five themes (discussed below) through discussions with each other. To clarify the open-ended responses, we also conducted follow-up interviews with a sample of our participants.

Results and Discussion

Overall, the nutrition experts were more likely to think that the fifty-one childhood obesity policies would produce a significant public health impact ($M = 4.27$, $SD = 0.50$) than were the policy experts to believe that the same policies were politically feasible ($M = 3.58$, $SD = 0.88$). Although this difference was not statistically significant ($F < 1$, n.s.), it may be that nutrition experts are likely to view any policy as impactful because so few federal policies have passed that specifically aim to reduce childhood obesity. Or perhaps the policy experts were particularly pessimistic because most obesity-reduction policies are typically supported
### TABLE 1
FEASIBILITY AND IMPACT RATINGS OF CHILDHOOD OBESITY POLICIES

<table>
<thead>
<tr>
<th>Feasibility</th>
<th>Impact</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High feasibility, high impact</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund research on prevention and cost-effective interventions</td>
<td>4.96</td>
<td>5.19</td>
</tr>
<tr>
<td>Align federal programs with anti-obesity effort (National School Lunch Program [NSLP], food stamp, WIC [Women, Infants, and Children program])</td>
<td>4.39</td>
<td>5.03</td>
</tr>
<tr>
<td>Update federal law to include required fruit/vegetable servings</td>
<td>4.64</td>
<td>4.7</td>
</tr>
<tr>
<td>Provide free/subsidized fruits and vegetables at school lunch</td>
<td>4.36</td>
<td>4.91</td>
</tr>
<tr>
<td>Fund public service advertising (PSA) campaigns: portion sizes, obesity's dangers</td>
<td>4.75</td>
<td>4.39</td>
</tr>
<tr>
<td>Implement programs to encourage breast-feeding</td>
<td>4.5</td>
<td>4.58</td>
</tr>
<tr>
<td>Fund impact assessment of interventions</td>
<td>4.39</td>
<td>4.55</td>
</tr>
<tr>
<td>Mandate/encourage reduced-fat (1 percent or skim) milk in schools</td>
<td>4.57</td>
<td>4.36</td>
</tr>
<tr>
<td>Earmark transportation funding to increase activity (bike and walking paths)</td>
<td>4.15</td>
<td>4.61</td>
</tr>
<tr>
<td>Establish federal standard for portion sizes in school cafeterias</td>
<td>4.21</td>
<td>4.45</td>
</tr>
<tr>
<td>Promote media literacy among children</td>
<td>4.11</td>
<td>4.38</td>
</tr>
<tr>
<td>Apply federal school-lunch standards to a la carte options</td>
<td>4</td>
<td>4.44</td>
</tr>
<tr>
<td>Fund indoor activity centers, especially in low-income neighborhoods</td>
<td>3.85</td>
<td>4.33</td>
</tr>
<tr>
<td><strong>Low feasibility, high impact</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ban advertising of unhealthful foods in schools and school venues</td>
<td>3.71</td>
<td>5</td>
</tr>
<tr>
<td>Require grade-schoolers to perform twenty minutes of phys-ed each school day</td>
<td>3.71</td>
<td>4.67</td>
</tr>
<tr>
<td>Extend Children's Television Act to cover nutritional messages</td>
<td>3.5</td>
<td>4.81</td>
</tr>
<tr>
<td>Return unfairness jurisdiction to FTC regarding children's advertising</td>
<td>3.25</td>
<td>4.91</td>
</tr>
<tr>
<td>Ban/restrict unhealthful-food advertising to children age six and younger</td>
<td>2.86</td>
<td>5.09</td>
</tr>
<tr>
<td>Increase per pupil/meal subsidy for school meals</td>
<td>3.54</td>
<td>4.3</td>
</tr>
<tr>
<td>Subsidize inclusion of milk and other healthy alternatives in vending machines</td>
<td>3.43</td>
<td>4.3</td>
</tr>
<tr>
<td>Prohibit sale of snacks with &gt; 40 percent added sugar by weight and with &gt; 6 grams of fat</td>
<td>3.32</td>
<td>4.39</td>
</tr>
<tr>
<td>Ban use of cartoon characters to sell unhealthy food to children</td>
<td>2.71</td>
<td>5</td>
</tr>
<tr>
<td>Mandate equal time for pronutrition and proactivity messages</td>
<td>2.82</td>
<td>4.78</td>
</tr>
</tbody>
</table>

(continued)
TABLE 1 (continued)

<table>
<thead>
<tr>
<th>Policy</th>
<th>Feasibility</th>
<th>Impact</th>
<th>Total&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ban vending machines that sell Foods of Minimal Nutritional Value (FMNV)</td>
<td>3.04</td>
<td>4.42</td>
<td>7.46</td>
</tr>
<tr>
<td>Limit TV viewing in day care</td>
<td>2.64</td>
<td>4.75</td>
<td>7.39</td>
</tr>
<tr>
<td>Ban celebrity endorsement of junk foods</td>
<td>2</td>
<td>4.56</td>
<td>6.56</td>
</tr>
<tr>
<td><strong>High feasibility, low impact</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish Leadership Commission to Prevent Childhood Obesity within the Centers for Disease Control and Prevention (CDC)</td>
<td>5.14</td>
<td>4.23</td>
<td>9.37</td>
</tr>
<tr>
<td>Assess physical education progress of school-age population</td>
<td>5.18</td>
<td>4.09</td>
<td>9.27</td>
</tr>
<tr>
<td>Provide nutritional information to parents about school lunches</td>
<td>5</td>
<td>3.81</td>
<td>8.81</td>
</tr>
<tr>
<td>Expand applicable FMNV regulations to all school food options</td>
<td>4.56</td>
<td>4.09</td>
<td>8.65</td>
</tr>
<tr>
<td>Research and promote walking and biking to school</td>
<td>4.54</td>
<td>4.09</td>
<td>8.63</td>
</tr>
<tr>
<td>Update the definition of FMNV to include wider range of school cafeteria foods</td>
<td>4.68</td>
<td>3.85</td>
<td>8.53</td>
</tr>
<tr>
<td>Increase federal funding for nutrition education</td>
<td>4.64</td>
<td>3.85</td>
<td>8.49</td>
</tr>
<tr>
<td>Require nutritional labeling for school-lunch options</td>
<td>4.29</td>
<td>4.03</td>
<td>8.32</td>
</tr>
<tr>
<td>Ban trans fats from all school-lunch options</td>
<td>3.86</td>
<td>4.24</td>
<td>8.1</td>
</tr>
<tr>
<td>Teach healthy meal preparation and cooking skills</td>
<td>3.82</td>
<td>4.13</td>
<td>7.95</td>
</tr>
<tr>
<td>Maintain minimum number of functioning water fountains per student</td>
<td>4</td>
<td>3.76</td>
<td>7.76</td>
</tr>
<tr>
<td>Post nutrition information for vending machine food purchase</td>
<td>3.82</td>
<td>3.91</td>
<td>7.73</td>
</tr>
<tr>
<td><strong>Low feasibility, low impact</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Require nutritional labeling for a la carte foods in school cafeterias</td>
<td>3.64</td>
<td>4.13</td>
<td>7.77</td>
</tr>
<tr>
<td>Provide access to local foods and establishment of school gardens</td>
<td>3.43</td>
<td>3.97</td>
<td>7.4</td>
</tr>
<tr>
<td>Stock all beverage vending machines with water and 100 percent fruit juice</td>
<td>3.21</td>
<td>4</td>
<td>7.21</td>
</tr>
<tr>
<td>Require/promote corporate participation in PSAs</td>
<td>3.21</td>
<td>4</td>
<td>7.21</td>
</tr>
<tr>
<td>Rename “Foods of Minimal Nutritional Value” as “Foods of Poor Nutritional Value”</td>
<td>3.32</td>
<td>3.82</td>
<td>7.14</td>
</tr>
<tr>
<td>Ban fast-food corporations from school lunch programs</td>
<td>2.61</td>
<td>4.5</td>
<td>7.11</td>
</tr>
<tr>
<td>Limit school fund-raisers to healthy food or nonfood items</td>
<td>2.75</td>
<td>4.13</td>
<td>6.88</td>
</tr>
<tr>
<td>Stock 75 percent of beverage vending machines with water and 100 percent fruit juice</td>
<td>3.54</td>
<td>3.18</td>
<td>6.72</td>
</tr>
<tr>
<td>Eliminate sports drinks from school vending machines</td>
<td>2.68</td>
<td>3.52</td>
<td>6.19</td>
</tr>
<tr>
<td>Schedule all school lunches at midday</td>
<td>2.64</td>
<td>3.48</td>
<td>6.13</td>
</tr>
<tr>
<td>Increase length of school lunch period</td>
<td>2.39</td>
<td>3.55</td>
<td>5.94</td>
</tr>
<tr>
<td>Limit (or eliminate) school parties with high-sugar/high-fat foods</td>
<td>1.96</td>
<td>3.55</td>
<td>5.51</td>
</tr>
<tr>
<td>Tax sedentary activities: DVD/video game rentals, movie tickets</td>
<td>1.43</td>
<td>2.97</td>
<td>4.4</td>
</tr>
</tbody>
</table>

<sup>a</sup> Policies are all sorted by total score.
by politically liberal members of Congress (i.e., Democrats) and the survey was conducted before the Democrats regained the majority in the House and Senate. Thus, feasibility ratings may be greater today than prior to the November 2006 elections; more on that speculative point below.

Looking across the policies as we initially grouped them revealed that the advertising category was the only one in which policy and nutrition experts had a statistically significant divergent opinion, $t(58) = 5.64, p < .001$. Nutrition experts were significantly more likely to assign high public health impact of advertising policies ($M = 4.81$, $SD = 1.33$) than policy experts were to indicate that these policies were politically feasible ($M = 3.07$, $SD = 1.00$).

Examining these data qualitatively reveals five major themes. First, policies that were viewed as being politically infeasible but having a great impact on childhood obesity emphasized outright bans on certain activities. For example, banning advertising in schools, prohibiting sales of unhealthy snacks, banning vending machines with unhealthy foods, banning the use of cartoon characters to sell unhealthy foods, banning fast-food corporations from school lunch programs, and banning celebrity endorsement of junk foods all fell into this category. Our nutrition experts evidently conclude that, given the gravity of the childhood obesity epidemic, more interventionary federal regulations are needed. But our policy experts indicate (and confirm, in open-ended comments) that since so little has been done on a federal level to deal with childhood obesity, only smaller steps (such as policies that do not involve strict mandates or outright bans) will have a reasonable chance of becoming U.S. law in the near term.

Second, nutrition labeling on menus in schools (including school vending machines and providing parents with nutritional information about school lunches) was seen as moderately feasible but low impact, relative to other policies. Our policy experts viewed labeling policies as moderately feasible because they have been implemented on both the state and local levels. Currently, fifteen states have introduced nutrition-labeling legislation, and New York City has passed a menu-labeling ordinance in conjunction with a ban on trans fats in foods. However, the nutrition experts we surveyed viewed these policies as potentially having little impact on childhood obesity. Judging from their accompanying comments, they did not think that most children would effectively use this information because they would either not seek it out, not understand it, or not change their eating behaviors as a result. Assessing the results of labeling laws on adult obesity patterns, researchers have found mixed results (e.g., Variyam and Cawley 2006).

Third, policies in which the federal government would impose mandates on schools were generally seen as politically infeasible. For example, requiring that schools schedule all school lunches at midday, increase the length of the school lunch period, ban or otherwise limit school parties involving unhealthy foods, have grade-school-aged children perform twenty minutes of physical education per day, and limit TV viewing in day care were judged among the least politically feasible policies. Our policy experts may hold this opinion in part because the current political climate favors local control of schools, particularly in the wake of the No Child Left Behind Act (NCLB), which became law in 2001. NCLB imposed intensive and unprecedented requirements on public schools in the
United States and has become a highly unpopular law (Hargrove and Stempel 2007), leaving little if any room for new mandates imposed on schools.

The fourth theme to emerge from these data involved education and information-dissemination policies, such as increasing federal funding for nutrition education, teaching healthy meal preparation and cooking skills to children, and providing nutritional information to parents about school lunches. The nutrition experts in our study viewed these policies as having little public health impact if they were enacted, while our policy experts believed that they would receive a favorable hearing from national policy makers. Nutrition experts, in dismissing the impact of education-based policies, cite research demonstrating that simply telling people (particularly children) what they should and should not eat or how much they should exercise does little to change people’s eating and exercise behavior in the long term and therefore results in minimal, if any, weight loss or prevention of weight gain (Battle and Brownell 1996; Jeffery 2001; Kolata 2007; Mendoza 2007). However, individual-based education policies are popular among policy makers because, compared with large-scale environmental interventions, education policies are inexpensive, easier to implement, more in line with traditional American values that emphasize personal responsibility, and likely to be supported by the food industry. They also engender little political opposition, compared to new regulations or prohibitions.

Finally, the policy options that both nutrition and policy experts agreed would be impactful and politically feasible concerned funding for research. Both funding for research on prevention and cost-effective interventions and funding for impact assessments of childhood obesity interventions appeared in the five highest-rated policies. Since many of the nutrition experts we polled are researchers themselves, it is not surprising that they see research as important. As one of our experts pointed out in the open-ended section of the survey, “How can we have effective prevention strategies until we have better data on the causes?” Policy experts, on the other hand, cited different reasons for rating research funding policies as politically feasible. As with expanded educational resources, proposing policies that would fund research are generally less controversial and easier to pass than implementing regulations or additional taxes (Lowi 1972). Less political capital is necessary to appropriate additional funds for a program, as the process is common and even expected. Since we did not specify the amount of additional funding for research, it is possible that our policy experts had a specific funding ceiling in mind when considering these policy items in our survey. Perhaps our policy experts would not see increasing research funding for childhood obesity as politically viable if the question had asked whether funding could be tripled or quadrupled rather than just “increased.”

In the open-ended questions, both nutrition and policy experts emphasized that to effectively combat childhood obesity, a wide array of these policies need to be enacted. As one nutrition expert put it, “Impact will only be achieved by a combination of these interventions along with many others. No individual intervention or policy will have a major or maximal impact.” Nutrition experts we surveyed also repeatedly mentioned the need for increased funding for current childhood obesity programs and policies. Although this seems to be an obvious point, the lack of federal investment in childhood obesity is stark. Some estimate
that the federal government spends approximately $4.30 per obese person on this issue—for both adults and children (Brescoll 2006; Trust for America’s Health 2006). When compared with other public health problems, this is a very small investment. For example, spending on AIDS treatment and prevention hovers around $1,600 per HIV-positive individual and cancer prevention around $180 per person (Brescoll 2006).

Impact will only be achieved by a combination of these interventions along with many others. No individual intervention or policy will have a major or maximal impact.

The nutrition experts in our sample also repeatedly mentioned the need to involve parents in childhood obesity policies, although this was not included in the list of policies that they evaluated. For example, a number of respondents emphasized the need for research and education to encourage parents to modify their home environment in a way that develops healthy eating habits in children and the importance of engaging parents in school-based obesity prevention and treatment programs. Some of our nutrition experts noted that policy makers often talk about the role of parents in preventing obesity in their children but then do not reflect this rhetoric in the public policies they promote.

The policy experts we surveyed almost unanimously mentioned the need to reform school lunches, including revising the definition of FMNV and expanding the free fruit and vegetable program. Their consensus is that this is a promising policy change, but grassroots support for changing school foods remains crucial to gaining policy makers’ support. As one policy expert wrote, “I believe that lawmakers will move decisively on this issue based on the groundswell felt back at home. Since Congress is facing enormous budget deficits, tight elections, and elevated partisan bickering, they are not as likely to move on very many things unless motivated by the voting public.”

Conclusion

This study is a first step in outlining areas of childhood obesity legislation that seem politically plausible and genuinely significant if implemented. Future research should expand on this study by paring down the number of policies and performing structured interviews with a subset of nutrition and policy experts.
These interviews could supplement the quantitative data by supplying more detailed information as to why our experts rated certain policies as more or less impactful or feasible. Further investigation could also assess whether and how the political feasibility of these policies may have changed as a result of the Democrats taking control of Congress in the November 2006 elections.

In informal discussions with congressional staff members since we completed our survey, we learned that many of them believe that the overall feasibility of the childhood obesity policies would be rated higher now that Democrats are in control but that the order of the policies (i.e., the relative ranking) would remain generally similar. Although it is good that these policies may be more likely to be enacted with the new Congress, it remains troubling that a commitment toward a problem as serious as childhood obesity can change so rapidly with the political winds. To see any progress in preventing or reducing childhood obesity, Congress needs to put forth a consistent, and well-funded, commitment toward the problem. More grassroots lobbying and public awareness could persuade Congress to set aside a dedicated funding stream specifically for childhood obesity prevention and research at the Centers for Disease Control, the National Institutes of Health, and/or other government agencies.

The portfolio of obesity-related grants funded by the National Institutes of Health is dominated by biological and treatment research with a heavy emphasis on pharmacology and surgery. Relatively little work is being funded on economic and other social drivers of the obesity problem or on prevention.

It is noteworthy that funding more research on childhood obesity was ranked high by both policy and public health experts. We agree in principle, but it is important to look carefully at what gets funded. The portfolio of obesity-related grants funded by the National Institutes of Health is dominated by biological and treatment research with a heavy emphasis on pharmacology and surgery. Relatively little work is being funded on economic and other social drivers of the obesity problem or on prevention. The Centers for Disease Control supports such work, but its obesity budget is dwarfed by that of the National Institutes of Health. Research funds are needed to focus on factors that have created the epidemic and could be harnessed to reverse trends in prevalence; increased funding could be beneficial.
Once one places policies in a grid that crosses impact with feasibility, static or dynamic approaches might be taken. A static approach would accept where policies fall in the grid and argue for efforts in the high impact–high feasibility quadrant. Because we used median splits to place policies in the grid, one-fourth of the policies by definition will fall into the high impact–high feasibility quadrant. If one were to make absolute rather than relative placements of policies in the grid, relatively little would fall into the quadrant where both feasibility and impact are high.

This argues for a dynamic approach, one in which public health and policy experts work specifically to increase the political feasibility of high-impact policies. This will involve work on changing public opinion, creating a scientific foundation for policies, and examining novel legal and legislative approaches. Children are entitled to a nutrition environment that supports their becoming healthy adults, but currently unhealthy conditions are the default. It is not surprising that in the current environment, childhood obesity rates have skyrocketed. Given recent public interest in this issue and support for change, federal and state legislators are uniquely poised to make an important difference. Passing impactful legislation now, such as that which has been identified in this article, can prevent profound public health problems as the next generation of American citizens develops and matures.

Appendix
Childhood Obesity Policies Used in Survey

Physical Activity Policies

1. Fund indoor activity centers, especially in low-income neighborhoods
2. Assess physical education progress of school-age population
3. Require grade-schoolers to perform twenty minutes of phys-ed each school day
4. Tax sedentary activities: DVD/video game rentals, movie tickets
5. Research and promote walking and biking to school
6. Earmark transportation funding to increase activity (bike and walking paths)

Nutrition Education Policies

7. Increase federal funding for nutrition education
8. Teach healthy meal preparation and cooking skills
9. Align federal programs with antiobesity effort (National School Lunch Program [NSLP], food stamp, WIC [Women, Infants, and Children program])
10. Post nutrition information for vending machine food purchase

School Nutrition–Healthy School Environment

11. Stock all beverage vending machines with water and 100 percent fruit juice
12. Stock 75 percent of beverage vending machines with water and 100 percent fruit juice
13. Eliminate sports drinks from school vending machines
14. Subsidize inclusion of milk and other healthy alternatives in vending machines
15. Maintain minimum number of functioning water fountains per student
16. Update the definition of Foods of Minimal Nutritional Value (FMNV) to include much wider range of school cafeteria foods

(continued)
Appendix (continued)

17. Expand applicable FMNV regulations to all school food options
18. Rename “Foods of Minimal Nutritional Value” as “Foods of Poor Nutritional Value”
19. Ban vending machines that sell FMNV
20. Provide nutritional information to parents about school lunches
21. Require nutritional labeling for school-lunch options
22. Increase per pupil/meal subsidy for school meals
23. Increase length of school lunch period
24. Schedule all school lunches at midday
25. Provide free/subsidized fruits and vegetables at school lunch
26. Fund impact assessment of interventions
27. Provide access to local foods and establishment of school gardens
28. Apply federal school-lunch standards to a la carte options
29. Require nutritional labeling for a la carte foods in school cafeterias
30. Establish federal standard for portion sizes in school cafeterias
31. Mandate/encourage reduced-fat (1 percent or skim) milk in schools
32. Ban trans fats from all school-lunch options
33. Ban fast-food corporations from school lunch programs
34. Prohibit sale of snacks with > 40 percent added sugar by weight and with > 6 grams of fat
35. Limit school fund-raisers to healthy food or nonfood items
36. Limit (or eliminate) school parties with high-sugar/high-fat foods
37. Update federal law to include required fruit/vegetable servings

Advertising Policies

38. Ban/restrict unhealthful-food advertising to children age six and younger
39. Return unfairness jurisdiction to FTC regarding children’s advertising
40. Ban advertising of unhealthful foods in schools and school venues
41. Ban use of cartoon characters to sell unhealthy food to children
42. Ban celebrity endorsement of junk foods
43. Mandate equal time for pronutrition and proactivity messages
44. Extend Children’s Television Act to cover nutritional messages
45. Promote media literacy among children
46. Limit TV viewing in day care

General Childhood Obesity Prevention Policies

47. Fund public service advertising (PSA) campaigns: portion sizes, obesity’s dangers
48. Require/promote corporate participation in PSAs
49. Fund research on prevention and cost-effective interventions
50. Establish Leadership Commission to Prevent Childhood Obesity within the Centers for Disease Control and Prevention
51. Implement programs to encourage breast-feeding

Note

1. Here, overweight is defined as being at or above the 95th percentile for body mass index (BMI) for sex-specific age growth charts.
References


