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## *In Health Care Policy*

### AN INSIDER'S VIEW OF NATIONAL STRATEGIES TO CONTROL THE OBESITY EPIDEMIC

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**R**apid increases in obesity in the U.S. represent a costly chronic disease epidemic. By 2010, 17 percent of children and adolescents and 36 percent of adults were obese.<sup>1,2</sup> Sixty percent of children and adolescents have at least one additional risk factor associated with obesity, such as elevated insulin, blood pressure or cholesterol, and 30 percent have two or more of these risk factors, greatly raising their odds of developing adult diseases like diabetes and heart disease. Obesity-related risk factors and chronic diseases are even more prevalent among adults; the direct costs of adult obesity were conservatively estimated at nearly \$150 billion for 2008, or almost 10 percent of all national spending for medical services.<sup>3</sup> In this essay, I provide an overview of our nation's evolving multi-pronged strategies to address this epidemic based on my 15 years on the frontline with the Centers for Disease Control and Prevention (CDC) and identify some ongoing challenges.

#### **HIGHLIGHTING THE PROBLEM AND FRAMING THE RESPONSE**

Our first efforts at the CDC were designed to increase the visibility of the obesity epidemic by publishing and widely disseminating a series of maps showing the annual increases in the prevalence of adult obesity across the U.S.<sup>4</sup> This dramatic series of slides did more than any prior scholarly article to galvanize attention to the problem. The CDC Director and I co-authored an accompanying editorial highlighting the role of excess energy intake as the cause of weight gain and pointing out the many environmental factors contributing to

rising daily caloric intake and declining energy expenditure.<sup>5</sup> A little over a year later, a Surgeon General's Call to Action outlined strategies to address these environmental factors, helping to establish the framework that would guide much of our future work.

By 2004 we were funding 28 state programs to address nutrition, physical activity and obesity. Program activities focused on a range of target behaviors and evidence-based interventions that public health departments and other institutions could adopt to improve access to healthier options and reduce access to less healthy options (Figure 1). We believed that these strategies would have a much broader population impact, be less costly, more sustainable and less prone to stigmatize obese individuals than a strategy focused on individual behavior change. Consensus studies from the IOM being developed at this time informed and confirmed our approach.

#### **DIFFERENT SETTINGS, DIFFERENT STRATEGIES**

Implementation of strategies addressing the target behaviors led us to focus on settings. CDC's Division of Adolescent and School Health had already developed school guidelines to improve nutrition and physical activity environments, and the Division of Nutrition, Physical Activity, and Obesity began to treat worksites as the adult equivalent of schools. The Healthier Worksite Initiative implemented within the CDC established lactation rooms, provided more healthful food choices in our cafeterias and at meetings, made all our campuses smoke-free and walkable, and instituted a weekly fruit and vegetable

vendor. Insights gained from those efforts, coupled with worksite nutrition and physical activity recommendations from the Guide for Community Preventive Services, led to the development of Lean Works, an online tool to help employers implement obesity prevention and control programs. We also established Health and Sustainability Guidelines for food services, which are now providing more healthful food choices for federal employees nationwide and promoting transformation of the U.S. food supply.

Hospitals were targeted as key strategic sites because of the potential to improve the health of hospital workers and patients and foster an increased public awareness of healthful choices. Successful examples include "Baby Friendly Hospital" initiatives to make breastfeeding the default behavior, Kaiser Permanente's positioning of farmers' markets near its outpatient clinics, and an initiative by Boston hospitals to reduce consumption of sugar drinks in their cafeterias.

Early care and education facilities became a third institutional focus after the CDC, Nemours and other partners co-hosted a national meeting in 2009 to develop strategies for obesity prevention and control in this setting. Resulting recommendations specified minimum levels of daily physical activity, strict limits on screen time, and requirements for healthful meals.

#### **CONTINUED FORWARD MOMENTUM**

Two major pieces of legislation made it possible for the CDC to invest in community-level obesity initiatives. The Communities Putting

Prevention to Work (CPPW) program funded by the American Recovery and Reinvestment Act of 2009 supported 30 communities targeting obesity. A year later the Patient Protection and Affordable Care Act established the Prevention and Public Health Fund, which supports obesity control initiatives through Community Transformation Grants (CTG). CPPW and CTG funds represent the largest federal investment to date in community initiatives to address obesity. Funded communities have begun to implement many of the strategies listed in Figure 1 in a variety of settings.

President Obama's first term also saw the initiation of other efforts targeting childhood obesity. The First Lady's *Let's Move!* initiative increased the visibility of the issue and engaged additional partners in schools, communities and child care centers, while the May 2010 report from a federal interagency Task Force on Childhood Obesity has spurred tangible developments in all five of its areas of focus. The report's call for increased rates of breastfeeding, limits to screen time, and quality child care (as recommended by the CDC-Nemours meeting) were incorporated as voluntary standards into the *Let's Move!* Child Care Challenge. Recommendations to empower parents are being pursued through FDA's consideration of revised food labels, a study by the Federal Trade Commission of the costs of food marketing to children, and an agreement with American Academy of Pediatrics to implement universal BMI screening in pediatric practices. The Healthy Hunger-Free Kids Act is making more healthful foods available in schools, and the Healthy Food Financing Initiative has provided low-interest loans to retailers building grocery stores in food deserts. And just last month, Mrs. Obama announced the *Let's Move!* Active Schools initiative, mobilizing numerous collaborating organizations with the goal of engaging 50,000 schools over five years to increase physical activity in children and adolescents before, during and after school.

An outgrowth of the White House efforts has been the establishment of the Partnership for a Healthier America, which has produced landmark agreements with food companies, non-profits, and others to improve the food supply and foster physical activity. Other private-sector interests have also been important partners in the struggle against obesity. The Robert Wood Johnson Foundation is now five years into its \$500 million, ten-year commitment to address childhood obesity, and Kaiser Permanente, the Kellogg Foundation, and the California Endowment have all provided significant support for obesity prevention and control.

**FIGURE 1. TARGET BEHAVIORS AND EXAMPLES OF INTERVENTION STRATEGIES DEVELOPED BY CDC FOR OBESITY PREVENTION AND CONTROL**

TARGET BEHAVIOR	INTERVENTION STRATEGIES
<b>Physical activity</b> <i>Increases energy expenditure, reduces obesity associated comorbidities</i>	<ul style="list-style-type: none"> <li>■ change community infrastructure to support walking and biking</li> <li>■ physical education in schools</li> </ul>
<b>Breastfeeding</b> <i>Lower prevalence of obesity in breastfed children</i>	<ul style="list-style-type: none"> <li>■ Baby Friendly Hospitals</li> <li>■ support breastfeeding in worksites and child care</li> </ul>
<b>Fruit and vegetable intake</b> <i>Low caloric density foods displace foods of higher caloric density</i>	<ul style="list-style-type: none"> <li>■ community gardens</li> <li>■ farmers' markets</li> <li>■ salad bars in schools</li> </ul>
<b>Sugar drinks</b> <i>No nutritional value</i>	<ul style="list-style-type: none"> <li>■ eliminate sugar drinks from vending machines</li> <li>■ increase prices</li> </ul>
<b>High caloric density foods</b> <i>Contribute to excess caloric intake because satiety is regulated by volume</i>	<ul style="list-style-type: none"> <li>■ improve product labeling</li> <li>■ institute standards for food purchases by municipalities and other institutions</li> <li>■ increase prices</li> </ul>
<b>Exposure to food marketing</b> <i>Association of television time with obesity is likely mediated by consumption of foods advertised on television</i>	<ul style="list-style-type: none"> <li>■ limit television time in child care facilities</li> <li>■ limit food and beverage advertising on television and in schools to healthful products</li> </ul>
<b>Pre-pregnant weight, and weight gain, tobacco use and diabetes during pregnancy</b> <i>All factors contribute to early childhood obesity</i>	<ul style="list-style-type: none"> <li>■ improve provider counseling during pregnancy</li> </ul>

### ONGOING CHALLENGES

Efforts of the last 15 years to frame the problem and implement environmental solutions appear to have had an impact. Recent data suggest a plateau in obesity prevalence among women<sup>1</sup> and decreases in obesity in specific locales, such as Mississippi, California, New York City and Philadelphia, that have instituted multicomponent efforts in schools and other settings.<sup>6</sup> Challenges remain, however. Marked disparities in obesity prevalence persist and reducing obesity rates in minority populations appears more difficult to achieve. Budget cuts threaten the Prevention and Public Health Fund and its support of Community Transformation Grants. The anti-regulatory stance in Congress and at other levels of government has brought increased scrutiny and criticism to CDC's emphasis on environmental change and makes adoption of policies such as those seeking to curtail consumption of fast food or sugar drinks less likely. Finally, in addition to seeking to prevent and control obesity through environmental changes, we must develop effective clinical approaches for weight loss in those who are already obese, particularly adults, who generate most of the health costs related to obesity.

The successful control of tobacco required a social movement, involving a widespread and personalized perception of a threat, a common language and agenda, grass roots engagement, and mechanisms to assure the rapid spread of innovation. Because many of these characteristics are still absent in our fight against obesity, a continued focus on wellness

through improved nutrition and physical activity may resonate more with the public than a focus on obesity, with its pejorative connotations and considerable self-denial about its causes and health consequences. Environmental changes take time to implement and will not yield results overnight. Almost 30 years elapsed after the health effects of tobacco were widely recognized before smoking began to decline. Let's hope that the rapid communication afforded by the internet and the innovation for which this country is known reduce the time required to reverse the obesity epidemic.

### ENDNOTES

- 1 Ogden CL, Carroll MD, Kit BK and Flegal KM. "Prevalence of Obesity and Trends in the Distribution of Body Mass Index Among US Children and Adolescents, 1999-2010." *Journal of the American Medical Association*, 307(5)(February 1, 2012):483-90.
- 2 Flegal KM, Carroll MD, Kit BK and Ogden CL. "Prevalence of Obesity and Trends in the Distribution of Body Mass Index Among US Adults, 1999-2010." *Journal of the American Medical Association*, 307(5) (February 1, 2012):491-7.
- 3 Finkelstein EA, Trogdon JG, Cohen JW and Dietz W. "Annual Medical Spending Attributable to Obesity: Payer- and Service-Specific Estimates." *Health Affairs*, 28(5)(September/October 2009):w822-31.
- 4 Mokdad AH, Serdula MK, Dietz WH et al. "The Spread of the Obesity Epidemic in the United States, 1991-1998." *Journal of the American Medical Association*, 282(16)(October 27, 1999):1519-22.
- 5 Koplan JP and Dietz WH. "Caloric Imbalance and Public Health Policy." *Journal of the American Medical Association* 282(16)(October 27, 1999):1579-81.
- 6 Trust for America's Health and the Robert Wood Johnson Foundation. "F as in Fat: How Obesity Threatens America's Future, 2012." Issue Report. September 2012. <http://tinyurl.com/9vmpqvl> (accessed January 15, 2013).