

EDITORIAL

The Unrelenting Challenge of Obesity

Jody W. Zylke, MD; Howard Bauchner, MD

In this issue of JAMA, Flegal and colleagues¹ and Ogden and colleagues² report updated findings related to the prevalence of obesity in the United States. **The news is neither good nor**



Viewpoint [page 2269](#)



Related articles [pages 2284](#)
and [2292](#)

surprising. Using 2013-2014 data from 5455 adults who participated in the National Health and Nutrition Examination Survey (NHANES), 35.0% of men were obese (BMI ≥ 30) and 5.5% were morbidly obese (BMI ≥ 40); among adult women, 40.4% were obese and 9.9% were morbidly obese. These prevalences are unchanged since 2005 among men and represent a slight increase in obesity among women. The data for children are similar. Based on 7017 youth 2 to 19 years old in 2011-2014, the prevalence of obesity was 17.0% and extreme obesity 5.8%. Obesity rates have decreased in children aged 2 to 5 years since 2003-2004, stabilized in 6- to 11-year-olds since 2007-2008, but steadily increased among adolescents since 1988.

Numerous foundations, industries, professional societies, and governmental agencies have provided hundreds of millions of dollars in funding to support basic science research in obesity, clinical trials and observational studies, development of new drugs and devices, and hospital and community programs to help stem the tide of the obesity epidemic. In addition, communities, schools, places of worship, and professional societies have become active in attempting to counteract obesity, emphasizing exercise, better dietary choices, and nutritional content labeling of foods. Although it is impossible to know what the extent of the obesity epidemic would have been without these efforts, **the data reported by Flegal et al¹ and Ogden et al² certainly do not suggest much success.**

These articles join a number of other recent reports that highlight the unrelenting challenge of obesity. In a detailed and extensive analysis of factors associated with life expectancy at age 40 years, Chetty and colleagues³ found that obesity was one of the factors most strongly associated with life expectancy. In a report summarizing recent preliminary data from the Centers for Disease Control and Prevention, Ludwig⁴ indicated that death rates increased for the first 9 months of 2015, compared with the same period in 2014, "most notably involving causes of death related to obesity." Obesity threatens to reverse decades of improvements in mortality.⁵

What is the next step in addressing the epidemic of obesity? Much research and attention have been directed toward treatment of obesity, but **the development of new drugs and procedures will not solve the problem.** Perhaps genetics will unlock some of the mysteries of obesity, but this will take time,

and more immediate solutions are needed. **The emphasis has to be on prevention, despite evidence that school- and community-based prevention programs and education campaigns by local governments and professional societies have not been highly successful.**

Obesity prevention must start with women of child-bearing age. The American College of Obstetricians and Gynecologists has issued guidelines for appropriate weight gain during pregnancy.⁶ A number of reports have suggested that maternal obesity is associated with offspring birth weight,⁷ which in turn is associated with child obesity. Prevention must continue throughout childhood, as studies have shown that obesity begins early and tracks into adulthood.⁸ **Prevention of overweight and obesity in young children is complicated because parents determine what and where children eat;** thus, prevention has to encompass entire families. Although this approach for preventing obesity may be difficult, it also has great potential. Not only are interventions reaching multiple persons, but parents are often highly motivated to keep their children healthy. However, even motivated parents may have trouble feeding their families nutritious food. Low-income neighborhoods often lack grocery stores. Balancing work, family, and other obligations means few parents have time to prepare meals at home regularly. Fast food and prepared foods are a part of life in 2016. Although some aspects of obesity prevention are a matter of individual responsibility, families need help.

However, scientists and physicians have not been particularly helpful, **often communicating confusing and conflicting advice about nutrition.** For example, after years of advice to only drink skim milk, including by the National School Lunch Program, a recent study suggests whole milk may be associated with less weight gain in children.⁹ The new *Dietary Guidelines for Americans* released by the US Departments of Health and Human Services and Agriculture shifted the emphasis from specific foods to dietary patterns.¹⁰ These recommendations may be easier to follow than previous iterations and so have the potential to affect obesity rates. However, **changing eating habits so that they are healthier is difficult.**

Many groups blame the food and restaurant industries for the development, processing, and marketing of unhealthy and obesogenic foods. Farmers and the agricultural community produce fruit and vegetables that can survive being shipped long distances but at the expense of taste, reducing consumers' desire to eat produce. Restaurants offer all-you-can-eat specials or do not include vegetables on the menu. Packaged foods may be high in sugar and salt and low in fiber. Yet the food and restaurant industries may be the sector of society with the greatest potential to affect the obesity

epidemic in a reasonable time frame. Perhaps it is time for the medical and public health communities to embrace a relationship with the food and restaurant industries. These industries have been good at developing and successfully marketing unhealthy foods; perhaps it will be possible for them to develop and market healthy foods.

Some companies are producing lower-calorie items, but this effort does not go far enough. **After all, if consumers buy unhealthy products, a for-profit company will be glad to supply them.** More widespread changes in products and serving sizes are needed. Some companies may be willing to do this voluntarily. Some food manufacturers may find a marketing incentive in healthy foods. Others may need some encouragement from policy makers.

The example of sugary drinks, a major source of calories in US diets, is instructive. The role of sugary drinks in the obesity epidemic is debated because consumption has decreased while obesity rates have increased. Regardless, a number of initiatives have been undertaken to curb intake. New York City attempted to limit the size of sugar-sweetened beverages sold in restaurants, but a judge invalidated the regulations.¹¹ Others have suggested taxing sugar-sweetened beverages. Some data have emerged reporting that this approach could be successful,¹² but it is likely the political process in the United States will limit widespread adoption of

such taxes. Many organizations and public health departments have suggested that high-fructose corn syrup and sugar should be regulated,¹³ but the US Food and Drug Administration has not yet required this action. However, perhaps in response to these efforts, some companies are already developing no-calorie sweeteners.

Perhaps new incentives are needed to encourage the food industry to work with families and the medical community to prevent obesity. Could some form of tax credits be used to ensure that if food company profits decline with the phase-out of unhealthy products and failure or slow adoption of new products, the industries will be protected from shareholders' concerns? Are partnerships between medical organizations and the food industry feasible, such as a local healthy eatery providing nutrition or cooking classes at a medical clinic? **The stakes for the health of people in the United States are high, and creative solutions are needed.**

The obesity epidemic in the United States is now 3 decades old, and huge investments have been made in research, clinical care, and development of various programs to counteract obesity. However, **few data suggest the epidemic is diminishing. Perhaps it is time for an entirely different approach, one that emphasizes collaboration with the food and restaurant industries** that are in part responsible for putting food on dinner tables.

Author Affiliations: Dr Zylke is Deputy Editor and Dr Bauchner is Editor in Chief, *JAMA*.

Corresponding Author: Jody W. Zylke, MD, *JAMA* (jody.zylke@jamanetwork.org).

REFERENCES

1. Flegal KM, Kruszon-Moran D, Carroll MD, Fryar CD, Ogden CL. Trends in obesity among adults in the United States, 2005 to 2014. *JAMA*. doi:10.1001/jama.2016.6458.
2. Ogden CL, Carroll MD, Lawman HG, et al. Trends in obesity prevalence among children and adolescents in the United States, 1988-1994 through 2013-2014. *JAMA*. doi:10.1001/jama.2016.6361.
3. Chetty R, Stepner M, Abraham S, et al. The association between income and life expectancy in the United States, 2001-2014. *JAMA*. 2016;315(16):1750-1766.
4. Ludwig DS. Lifespan weighed down by diet. *JAMA*. doi:10.1001/jama.2016.3829.
5. Ma J, Ward EM, Siegel RL, Jemal A. Temporal trends in mortality in the United States, 1969-2013. *JAMA*. 2015;314(16):1731-1739.
6. American College of Obstetricians and Gynecologists. Committee opinion: weight gain during pregnancy. <http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Weight-Gain-During-Pregnancy>. January 2013. Accessed April 21, 2016.
7. Tyrrell J, Richmond RC, Palmer TM, et al; Early Growth Genetics (EGG) Consortium. Genetic evidence for causal relationships between maternal obesity-related traits and birth weight. *JAMA*. 2016;315(11):1129-1140.
8. Singh AS, Mulder C, Twisk JW, van Mechelen W, Chinapaw MJ. Tracking of childhood overweight into adulthood: a systematic review of the literature. *Obes Rev*. 2008;9(5):474-488.
9. Scharf RJ, Demmer RT, DeBoer MD. Longitudinal evaluation of milk type consumed and weight status in preschoolers. *Arch Dis Child*. 2013;98(5):335-340.
10. DeSalvo KB, Olson R, Casavale KO. Dietary guidelines for Americans. *JAMA*. 2016;315(5):457-458.
11. Grynbaum MM. New York's ban on big sodas is rejected by final court. *New York Times*. June 26, 2014. http://www.nytimes.com/2014/06/27/nyregion/city-loses-final-appeal-on-limiting-sales-of-large-sodas.html?_r=0. Accessed April 19, 2016.
12. Zhen C, Brissette IF, Ruff RR. By ounce or by calorie: the differential effects of alternative sugar-sweetened beverage tax strategies. *Am J Agric Econ*. 2014;96(4):1070-1083.
13. Center for Science in the Public Interest. FDA urged to determine safe limits on high-fructose corn syrup and other sugars in soft drinks. <http://www.cspinet.org/new/201302131.html>. February 13, 2013. Accessed April 19, 2016.