

Reversing the Obesity Epidemic

The Importance of Policy and Policy Research

Thomas A. Farley, MD, MPH, Gretchen Van Wye, PhD, MA

The British epidemiologist Geoffrey Rose wrote that “mass diseases and mass exposures need mass remedies.”¹ When health problems become so prevalent that large segments of a population have them, they can stem only from social and environmental causes and can be solved only by policy and environmental solutions.

The epidemic of obesity clearly falls in this category. Two thirds of Americans are obese or overweight. The doubling of obesity in America in the past 30 years has occurred not because humans or their genes have changed, but instead because the environment has changed to one that promotes energy storage as a default. The way to reverse this epidemic is by altering that environment again, through policy and system changes that make the new default behaviors those that maintain energy balance.

Policy solutions to social problems often are controversial because of the fear of change and because of vested interests in the status quo. For example, calorie posting on menus met fierce opposition from the restaurant industry when it was introduced in 2006 in New York City.² That means it is particularly important to have solid data in developing public health policies.

Unfortunately, data on key questions that arise during policy development are often lacking. For example, in 2010, the New York State Office of Temporary Disability Assistance, in collaboration with the New York City’s Department of Health and Mental Hygiene and Health Resources Administration, submitted a proposal to the U.S. Department of Agriculture to remove sugary drinks from the list of purchases allowable with Supplemental Nutrition Assistance Program (SNAP; formerly Food Stamp) benefits. At the time of the submission it was known that obesity was prevalent among SNAP recipients, that sugary drinks were a major contributor to obesity, and that soda accounted for almost 6% of total caloric intake in SNAP households.³ However, there was little information available on the stores from which SNAP participants purchased their sugary drinks (e.g., supermarkets vs corner stores); the degree to which SNAP participants would respond to a restriction by pur-

chasing sugary drinks with their own cash; or the foods and beverages SNAP participants would purchase with their redirected benefits. Because of these uncertainties, the proposal was developed as a 2-year demonstration project with a rigorous evaluation plan that would measure the impact of the policy on store sales, beneficiaries’ purchases, and household consumption of sugary drinks.

It is not only this policy that requires intensive evaluation. Although it is clear that reversing the obesity epidemic will require environmental change, it is less clear which features of the environment are most important and most amenable to change, the mechanisms by which they can be changed, or the impact on energy balance in populations of changing them. It is for these reasons that we need more policy-oriented research and evaluation. This should be done at the levels at which policy is made, in the many settings that may serve as sites of intervention for environmental change, and among the populations most affected by this epidemic. The information may be obtained through routine surveillance of risk factors and outcomes, modeling to estimate the impact of potential interventions, surveys that assess public receptivity to interventions, key informant interviews of those most likely to be affected by interventions, or evaluations of policies that are changed. The raw data gathered in this research should not stop at self-report surveys but should also include measures of the environment, administrative data, and financial data.⁴ This research should be conducted at the same time as, and in coordination with, actual policy development and implementation, because we cannot wait to respond to an epidemic of this magnitude until all questions are answered.

Several papers in this supplement to the *American Journal of Preventive Medicine* exemplify research that is relevant to obesity policies. Sharkey et al.⁵ measured the availability and variety of snack foods and beverages in small stores in Texas border colonias. Small food stores often pack low-income neighborhoods that have high rates of obesity throughout the U.S., and there is good reason to believe that the over-abundance of the calorie-dense snack foods and sugar-sweetened beverages that they carry is a key contributor to excess weight gain. Any policy approach to addressing this over-abundance must start with a quantitative understanding of the problem.

Cradock et al.⁶ and Giles et al.⁷ conducted studies relevant to what ought to be the simplest of policy solutions to excess weight gain in childhood: provision of free

From the New York City Department of Health and Mental Hygiene, Queens, New York

Address correspondence to: Thomas A. Farley, MD, MPH, New York City Department of Health and Mental Hygiene, 42-09 28th Street, 8th Floor, Queens NY 11101. E-mail: tfarley@health.nyc.gov.

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drinking water to children as a healthy and calorie-free alternative to caloric beverages. Cradock et al.⁶ found that existing school wellness policies typically overlook this solution, despite its costing school systems very little. Giles et al.⁷ demonstrated in a group randomized controlled trial that children in after-school programs given water to drink consumed a remarkable 61 fewer calories per day from beverages, which is enough to substantially affect weight gain over time. Together, these studies point to the provision of drinking water as a clear opportunity to reduce childhood obesity, using real-world data that are of direct relevance to policymakers.

Good ideas like these do not become enacted policies on their own. They require advocates, who persuade others through formal and informal decision-making processes. These processes are crucial but often unfamiliar to public health experts. Ulmer et al.⁸ and Johnson et al.⁹ describe successful policymaking processes that can serve as models. Two more papers describe essential tools of advocacy: policy briefs¹⁰ and opinion surveys.¹¹ Decision makers rarely read scientific journals, but they do care about results, so distilling key information for them in policy briefs is a valuable service, and designing impactful policy briefs is an under-recognized skill. Elected officials need to understand the opinions of their constituents, so opinion surveys, though not determinative, are nonetheless an important ingredient to any policy decision.

In New York City, we have developed an agenda around obesity research and evaluation that includes assessments of the retail environment, surveys of New Yorkers' attitudes and opinions about sugary drinks, and biometric characterization of the physical activity levels of residents. Research of this type, and the interaction between such research and policy implementation, will be an ongoing need until this epidemic is reversed.

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