Too Much of a Good Thing?
How the Economic Environment Plays a Role in the Obesity Epidemic

America is facing an obesity epidemic: Since the 1950s, obesity rates have been steadily increasing and have had a serious impact on public health. This is most visible in chronic conditions—especially diabetes, which has increased in lockstep with obesity. Many theories about why the obesity epidemic has occurred—for example, that obesity is caused by increased poverty and particularly affects specific demographic groups, such as black and Hispanic communities, those with lower income or education, or those living in particular geographic areas—rely on data at a single point in time. However, because the obesity epidemic is a development over time, trends should also be analyzed over time. While there are noticeable differences across groups at any particular point in time, body mass index levels have increased across all education levels at very similar rates (see Figure 1).

Conventional beliefs about the growth of the obesity epidemic—such as the idea that people now work more and have less leisure time and greater sedentary behaviors—are not well supported by time-use data. Over the past half century, the time Americans spend working—whether for pay or doing unpaid work, such as cooking, cleaning, and child care—has declined substantially, while free time has increased. The percentage of Americans who report no leisure-time physical activity or exercise has consistently fallen. There are limited data on other forms of physical activity—such as energy expenditures at work or utilitarian activities like walking to a store—however, the biggest declines in utilitarian physical activity probably occurred with motorization in the first half of the 20th century. Another myth is that consumption of fruits and vegetables has declined. While Americans eat fewer fruits and vegetables than dietitians recommend, consumption of fruits and vegetables has increased in recent years.

So what is driving the obesity epidemic? RAND researchers looking at the growth of obesity rates over time argue that the epidemic has been fueled by historically low food prices relative to income and the constant availability of food, which have driven high consumption.

Figure 1. Increase in Body Mass Index Over Time, by Educational Level

Key findings:
- The obesity epidemic is fueled by low food prices relative to income.
- Fruit and vegetable consumption may help reduce obesity, but only if consumption of other discretionary calories is lowered.
- Built environments affect physical activity levels, but their impact on obesity levels is less clear.

Americans Have the Cheapest Food in History
In the 1930s, Americans spent one-fourth of their disposable income on food. The average share of disposable income now spent on food is under one-tenth (with variance across income groups). Current U.S. food spending stands out when compared with other countries as well: In medium-income countries, such as Mexico and Turkey, approximately one-fourth of income is spent on food, and in lower-income countries, such as Kenya and Pakistan, food spending can take up as much as half of disposable income.
Lower food costs relative to income, paired with greater per capita food availability, mean that even a smaller share of disposable income now buys considerably more calories. Greater convenience, reduced preparation time, and increased availability have led to higher consumption (see Figure 2), arguably the major cause of weight gain since the 1980s.

**Built Environments May Affect Obesity, But It’s Not Clear How or to What Extent**

Many believe that urbanization has played a role in the obesity epidemic, but evidence is mixed. There is good evidence that some features of built environments can encourage physical activity—for example, utilitarian walking—but not that this translates to changes in obesity. In the long run, designing communities that are more conducive to physical activity is important, but remodeling or rebuilding existing neighborhoods is a slow and expensive process.

The “food environment” is often considered part of the built environment, but the current debate about “food deserts” may exaggerate the problem: Recent research finds little evidence for a robust link between neighborhood food outlets and obesity. Reducing unhealthy food options may also present limited solutions. The Los Angeles Fast Food Ban, for example, prohibits opening or remodeling a stand-alone fast food restaurant in a large section of the city, but it appears to have had no impact on reducing obesity rates in its target area. If anything, obesity rates have increased more quickly in the target area than in other parts of the city.

**Evidence-Based Policy Has Produced Tentative Results, But There Is No Quick Fix**

A previous scoping review in the Canadian context developed evidence-based recommendations regarding food and agriculture policy, including policies to (1) incorporate health impact assessments in reviewing agricultural policies, so that policies do not have a harmful impact on population rates of obesity; (2) implement a tax on sugar-sweetened beverages; and (3) examine how to implement fruit and vegetable subsidies targeted at children and low-income households. Though results were somewhat tentative, it is unrealistic to expect these measures to be a quick and easy fix for the obesity epidemic, and they appear to be a step in the right direction.

And while, to date, the most popular policy interventions have focused on eating more fruits and vegetables and getting more physical exercise, the biggest—and perhaps most important—challenge will be figuring out ways to get Americans to cut back on overall consumption, with unhealthy foods the first to go.

---


© RAND 2014
The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from www.rand.org as a public service of the RAND Corporation.

Support RAND

Browse Reports & Bookstore
Make a charitable contribution

For More Information

Visit RAND at www.rand.org
Explore the RAND Corporation
View document details

Research Brief

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see RAND Permissions.