

The Main Street Economist

Commentary on the rural economy



2006

FEDERAL RESERVE BANK of KANSAS CITY

OBESITY: AMERICA'S ECONOMIC EPIDEMIC

JASON HENDERSON, SENIOR ECONOMIST, AND SARAH LOW, RESEARCH ASSISTANT

Americans consume calories at an alarming pace. According to the Center for Disease Control and Prevention, the obesity rate for adults has nearly doubled since 1990, reaching 22.1% in 2002.¹ As our waistlines swell, so do our medical bills and insurance premiums. Worker productivity suffers as we lose time on the job due to obesity-related illnesses. And we die younger.

Excess weight threatens all of us. But rural Americans, appear to be more at risk. People in counties without a city of more than 10,000 suffer the highest obesity rates in the nation (Chart 1). But perhaps our most endangered group is America's youth. In 2000, their obesity rate reached 16.1%—nearly triple the rate in 1980.

Healthcare and educational institutions are helping us battle the bulge. They are mobilizing resources, developing programs to raise awareness, and providing more opportunities for us to exercise. But the serious work has just begun, and not all Americans are even aware that the war is being waged.

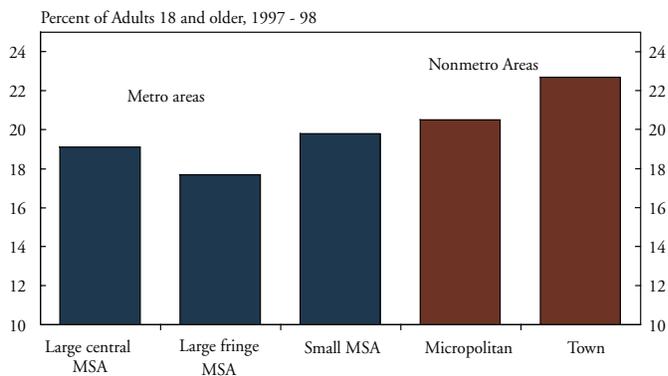
THE EATING EPIDEMIC

In an age of prepackaged meals, restaurant chains, and microwave ovens, today's Americans have changed what we eat, where we eat it, and how we prepare it. We have

more money than ever before and spend much of it on unhealthy food. We lead less-active lives, and so our need for calories is less than it used to be. Mix these ingredients together and we end up with a recipe for gaining unwanted and dangerous pounds.

In the past, Americans prepared their own meals and ate at home. Today, we eat salty snacks—32 pounds per person each year.² And we eat out *often*. In 2004, households spent more than half of their food budgets on meals away from home—twice what we spent in 1960.

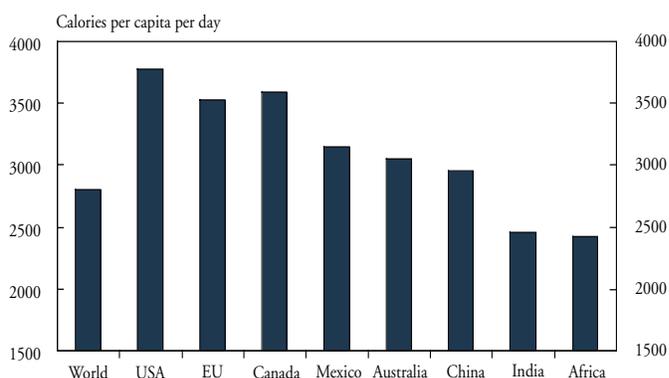
Chart 1
Obesity Rates by Metro Status



Source: *Health, United States, 2001, Urban and Rural Chartbook*, Center for Disease Control. Micropolitan counties are nonmetro counties that contain a city with more than 10,000 residents. Town counties are nonmetro counties that contain no city with more than 10,000 residents.

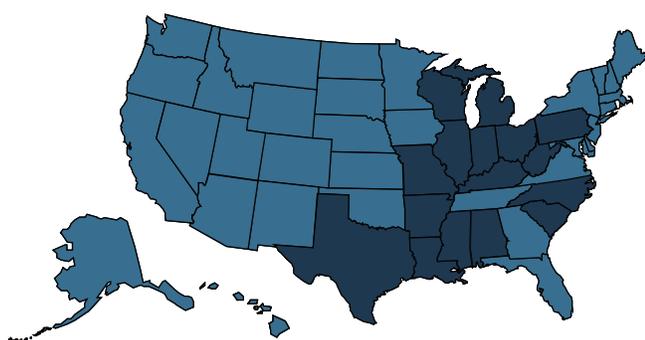
Our rising incomes have enabled us to fuel our growing appetites. At 3,800 calories per day, we consume more high-calorie foods than any other people in the world (Chart 2). At the same time, our less strenuous lifestyles have slashed our need for calories. Simply put, we eat more calories than we burn. And so obesity rates have surged. In 1994, not a single state had an adult obesity rate above 20% (Map 1). In 2004, just ten years later, only a handful of states had adult obesity rates *below* 20% (Map 2).

Chart 2
Global Caloric Consumption



Source: FAO-STAT

Map 1
Adult Obesity Rates, 1994



Legend: No Data, <10%, 10% - 14%, 15% - 19%

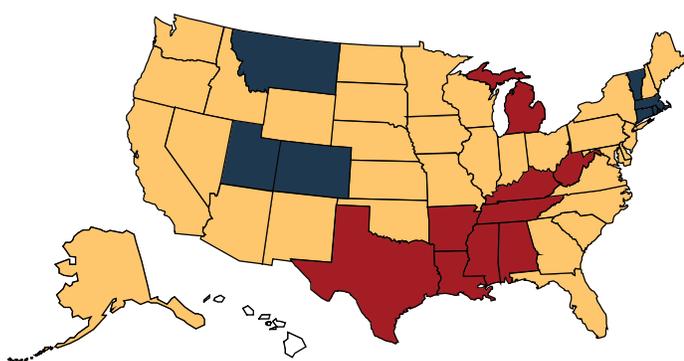
Source: Center for Disease Control and Prevention

THE HEAVY COSTS OF OUR GROWING APPETITES

As obesity rates soar, so do the costs. In 2000, the Surgeon General estimated that obesity costs had reached \$117 billion a year. Half of these costs emerged directly, through healthcare spending. The other half emerged indirectly, through higher insurance premiums, time off work, and even premature death.

At the end of the 20th century, the direct costs of obesity reached \$61 billion. The Center for Disease Control and Prevention reported that in 1998 obesity and overweight costs accounted for 9.1% of all U.S. medical expenses. Taxpayers picked up the tab for more than half of our obesity-related healthcare bills in the form of Medicare and Medicaid spending (Chart 3). Private insurance companies picked up a third of the tab.

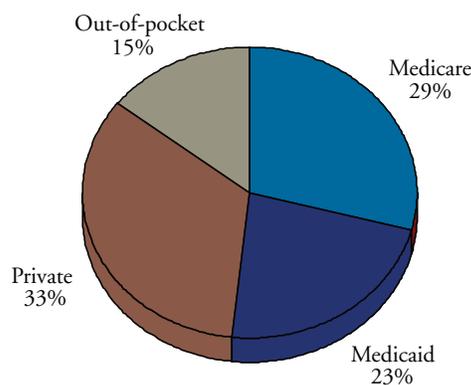
Map 2
Adult Obesity Rates, 2004



Legend: 15%–19%, 20%–24%, =25%

Source: Center for Disease Control and Prevention

Chart 3
Share of Obesity-Related Medical Spending by Insurance Status



Calculations based on Center for Disease Control and Prevention data

A large part of the direct costs stems from how obesity exacerbates other serious diseases, such as type 2 diabetes, hypertension, and heart disease. Over their lifetime, obese patients spend \$10,000 more on medical bills for these health problems than people who are not obese.

The indirect costs of obesity reached \$56 billion at the turn of the century. These costs included higher insurance premiums, lost productivity from time off work, and premature death. Private insurance companies pay billions in obesity costs each year, leading to higher insurance premiums. Evidence shows that obesity accounts for 39 million days off work each year, in addition to 368 million restricted workdays and 63 million visits to the doctor.³ And premature death, of course, is the greatest cost of obesity. The Center for Disease Control and Prevention warns that, based on current obesity trends, today's youth may become the first generation in history to have a shorter life expectancy than that of their parents.⁴

THE HARSHER COSTS OF RURAL OBESITY

The problems of obesity are even more acute in rural places. In the late 1990s, the more rural a county was, the higher was the obesity rate of its people (Chart 1). Obesity rates for counties with at least one city were less than 20% on average. The rates for counties with towns of 10,000 or more were more than 20% on average. Counties without a town of 10,000 or more had rates above 22% on average. For rural and metro counties alike, the highest obesity rates occurred in the South and Midwest.

Given the higher obesity rates in rural places, obesity costs per capita were also likely to be higher there. At the state level, per capita spending on obesity-related healthcare was not only higher in rural states, but also accounted for a greater share of the states' total spending on healthcare.⁵ In the "most rural" states (where more than 40% of the people are rural), per capita obesity costs amounted to nearly \$270 per year. In the "least rural" states (where less than 15% of the people are rural), per capita costs were just \$243 per year.

Obesity costs in the late 1990s also accounted for a greater share of total healthcare spending in rural places. In the most rural states, 5.8% of healthcare costs were obesity-related, compared to 5.1% in the least rural states.

WHY ARE RURAL OBESITY RATES HIGHER?

Rates for obesity are high in rural areas for the same reasons that they are high elsewhere—consumption behavior has changed in the wake of technological advances and gains in income. Certain demographic and geographic characteristics of remote places may have also contributed to weight gain among rural Americans.

Three demographic features appear to be likely suspects. First, older people tend to have higher obesity rates, and the population in rural America is older than in the rest of the country.⁶ As people age, they tend to engage in less physical activity, reducing the number of calories they need. They also face the cumulative effect of multiple years of consuming more calories than they burn.

Second, research shows that people with less education consume more calories than other people, and rural populations often fall into this category. People with lower levels of education typically have less exposure to dietary, nutritional, and health information.⁷

Third, research shows that people with lower incomes often have a problem with obesity.⁸ Rural populations fall into this category as well. At lower income levels, people are less able to afford healthier foods, which typically cost more, and are reluctant to pay for access to exercise facilities.

Two features of geography may also be a factor in rural obesity. First, the remoteness of rural areas often limits people's access to healthier foods. Dietitians suggest that without easy access to supermarkets, people face a greater risk of diet-related diseases.⁹ From 1997 to 2002, rising health consciousness led to a 29% surge in health food stores—but most of the new stores opened in cities.¹⁰

Similar access issues arise for rural people who might want to visit exercise facilities. Rural areas average two exercise facilities per county.¹¹ Metro areas average 25.

COMBATING RURAL OBESITY

A confluence of forces underlies rural America's obesity epidemic—requiring a multifaceted approach to combat it. The first step, say healthcare advocates, is to educate rural Americans about obesity and its costs. According to the U.S. Department of Agriculture, 40% of those who are classified as overweight do not consider themselves overweight.¹²

The second step is to broaden access to exercise facilities. While rural communities usually lack private facilities, such as a YMCA, they do have exercise rooms in public schools. Finding ways to allow more access to gyms or weight rooms may be one way to promote exercise in rural places. Another way would be to encourage group exercise, such as walking clubs. Many urban hospitals offer wellness and exercise programs, which could serve as a model for rural hospitals.¹³

Some rural healthcare and educational institutions are already working together to improve nutritional awareness and encourage exercise. In southeastern Iowa, the Iowa State Extension helped establish a coalition of nutrition, health, and physical fitness professionals to promote healthy lifestyles in children.¹⁴ The coalition is serving as a resource for local school districts and is gathering information for walking paths and trails.

In West Point, Mississippi, the local hospital and county extension service developed a weight-loss program.¹⁵ The 780 people who took part lost a combined 5,612 pounds. Local restaurants, after hearing about the program, began to offer more healthful items on their menus. People started a walking club. And local leaders worked together to turn seven miles of abandoned railroad tracks into a walking trail.

Initiatives such as these highlight the importance of partnerships in fighting the epidemic. As obesity gains prominence as a national concern, education and healthcare institutions can team up with public health officials to raise awareness—clearly the most important step in winning the battle of the bulge.

Edited by Bob Reagan

Measuring Obesity

Health officials use the Body Mass Index (BMI), which accounts for both a person's weight and height, to determine excess body weight. People with a BMI between 25 and 30 are considered overweight. People with a body mass index (BMI) over 30 are considered obese.

Body Mass Index (BMI) definition and classification

	Healthy Weight	Overweight	Obese
BMI	18.5 to 25	25 to 30	> 30
Height			
6'	137 to 185 lbs.	185 to 220 lbs	> 220 lbs
5' 6"	115 to 155 lbs.	155-185 lbs	> 185 lbs

$$\text{Body Mass Index (BMI)} = \frac{\text{Weight (Kilograms)}}{\text{Height}^2 \text{ (Meters)}}$$

Source: Mancino, Lisa, Biing-Hwan Lin, and Nicole Ballenger. "The Role of Economics in Eating Choices and Weight Outcomes." Agriculture Information Bulletin Number 791, Economic Research Service, USDA, September 2004.

ENDNOTES

- ¹ National and state data obtained from the Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, <http://apps.nccd.cdc.gov/brfss/Trends/TrendData.asp>
- ² Kuchler, Fred, "Taxing Snacks to Reduce Obesity," Amber Waves Economic Research Service, U.S. Department of Agriculture. November 2004.
- ³ Current Estimates of the Economic Cost of Obesity in the United States, Obesity Research, 1998.
- ⁴ The National Advisory Committee on Rural Health and Human Services. *The 2005 Report to the Secretary: Rural Health and Human Service Issues*, April 2005.
- ⁵ *Health, United States, 2001, Urban and Rural Chartbook*, Center for Disease Control and Prevention.
- ⁶ *Health, United States, 2001, Urban and Rural Chartbook*, Center for Disease Control and Prevention.
- ⁷ Tai-Seale, Tom and Coleman Chandler. "Nutrition and Overweight Concerns in Rural Areas: A Literature Review," *Rural Healthy People 2010: A Companion Document to Healthy People 2010 Volume 2*. Southwest Rural Health Research Center, Texas A&M University, 2005.
- ⁸ The National Advisory Committee on Rural Health and Human Services. *The 2005 Report to the Secretary: Rural Health and Human Service Issues*, April 2005.
- ⁹ www.todaysdietician.com, May 2004, vol 6., no. 5 p. 38.
- ¹⁰ Calculations based on Census Bureau, County Business Patterns data.
- ¹¹ Calculations based on Census Bureau, County Business Patterns data.
- ¹² Kuchler, Fred and Jayachandran N. Variyam. "Misperceptions in Self-Assessed Weight Status Vary Among Demographic Lines," *Food Review*, Economic Research Service, U.S. Department of Agriculture, Winter 2002, pp. 21-27.
- ¹³ Tai-Seale, Tom and Coleman Chandler. "Nutrition and Overweight Concerns in Rural Areas: A Literature Review," *Rural Healthy People 2010: A Companion Document to Healthy People 2010 Volume 2*. Southwest Rural Health Research Center, Texas A&M University, 2005.
- ¹⁴ For more detailed information on Iowa State University Success Stories, see www.extension.iastate.edu/families/success/.
- ¹⁵ The National Advisory Committee on Rural Health and Human Services, *The 2005 Report to the Secretary: Rural Health and Human Service Issues*, April 2005.