

F as in Fat:

How Obesity Threatens America's Future

2013



SANDWICHES	CALORIES	PRICE
Hamburger	280	.89
Cheeseburger	330	.99
Fish Sandwich	470	1.99
Fried Chicken	550	2.79
Quarter Pound Burger	430	2.29
Bacon Cheeseburger	540	2.29
Double Decker Burger	590	2.39
Grilled Chicken	450	2.89

Acknowledgements

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F as in Fat: *Obesity Policy*

SERIES

“F” as in “Forward?”



The following is a letter from Risa Lavizzo-Mourey, MD, MBA, president and CEO of the Robert Wood Johnson Foundation (RWJF), and Jeffrey Levi, PhD, executive director of the Trust for America's Health (TFAH).

If we fail to reverse our nation's obesity epidemic, the current generation of young people may be the first in American history to live sicker and die younger than their parents' generation. That's a frightening prospect and an unacceptable outcome. It's the reason our organizations collaborate to produce this annual report.

For 10 years, *F as in Fat* has raised awareness about the seriousness of the obesity epidemic, encouraged the creation of a national obesity-prevention strategy, and highlighted promising approaches for reversing the epidemic at the state and local level.

After decades of bad news, we're finally seeing signs of progress. In August 2013, the Centers for Disease Control and Prevention (CDC) announced that rates of obesity among preschool children from low-income families decreased in 18 states and one U.S. territory. That's after a handful of states as diverse as California and Mississippi already had reported progress in reducing rates of childhood obesity. We've also seen declines in New York City, Anchorage, Philadelphia and other cities that were among the first to adopt a comprehensive approach to preventing obesity among children.

And, in this year's *F as in Fat*, we can report that adult obesity rates remained level in almost every state. That's after three decades of increases.

The rates, however, remain very high, putting Americans at risk for a range of health problems and adding a major burden to national healthcare costs.

Currently, 13 states have adult obesity rates topping 30 percent, 41 states have rates above 25 percent, and every state is above 20 percent. It's hard to believe that—just 30 years ago—the highest adult obesity rate for any state was still lower than the lowest obesity rates today.

Even with an apparent stabilization of adult rates and the first signs of decreases in childhood obesity rates, progress is uneven. For instance, in most places where rates of childhood obesity have declined, children living in lower-income communities and communities of color are experiencing slower reductions in

**More than two-thirds
(68.7 percent) of American
adults are either overweight
or obese.**

obesity or no progress at all. Philadelphia provides a notable exception: in addition to overall progress, the city reports reductions in obesity-related disparities.

So where does this leave us? In talking about this year's report, we considered renaming it *F as in Forward* because we honestly believe real and lasting progress is being made in the nation's effort to

turn back the obesity epidemic. We know what is working to make that progress. Our success among children has taught our nation how to prevent obesity: changing public policies, community environments, and industry practices in ways that support and promote healthy eating and physical activity. When schools, parents, policymakers and industry leaders get together, they can create a culture of health that improves children's lives.

But no one should believe that the nation's work is done.

Our challenge is to ensure that everyone shares in the benefits of what we are learning and the progress we are making. We must build a movement around a truly comprehensive approach to making our nation healthier, citizen by citizen, town by town, state by state.

As you'll see in this year's report, we highlight specific features of that approach. For instance, all food in schools must be healthy, kids and adults should have access to more opportunities to be physically active on a regular basis, restaurants should post calorie information on menus, food and beverage companies should market only their healthiest products to children, our nation should invest more in preventing disease to save money on treating it, America's transportation plans should encourage biking and walking, and everyone should be able to purchase healthy, affordable foods close to home.

The good news is that we know what to do. The only question is, do we have the will to do it?

F AS IN FAT 2013 MAJOR FINDINGS

Adult Obesity Trends in the United States (based on latest available data):

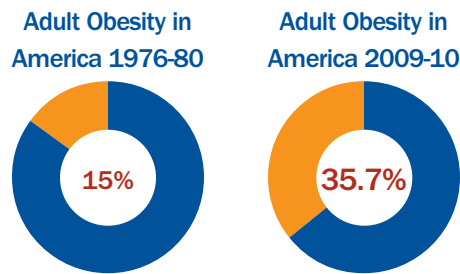
- Thirteen states currently have an adult obesity rate above 30 percent, 41 states have rates of at least 25 percent, and every state has a rate above 20 percent.
- Obesity rates remained level in every state except for an increase in Arkansas. Previously, the United States had experienced three decades of increases: in 1980, no state was above 15 percent; in 1991, no state was above 20 percent; in 2000, no state was above 24 percent; and in 2007, only Mississippi was above 30 percent. Since 2005, there has been some evidence the rates have not been climbing as rapidly. In 2005, every state but one increased; in 2008, 37 states increased; in 2010, 28 states increased; in 2011, 16 states increased.*
- Of the states with the 20 highest adult obesity rates, only Pennsylvania is not in the South or Midwest. For the first time in eight years, Mississippi no longer has the highest rate—Louisiana at 34.7 percent is the highest, followed closely by Mississippi at 34.6 percent. Colorado had the lowest rate at 20.5 percent.
- Rates vary by age. Obesity rates for Baby Boomers (45- to 64-year-olds) have reached 40 percent in two states (Alabama and Louisiana) and are 30 percent or higher in 41 states. By comparison, obesity rates for seniors (65+-year-olds) exceed 30 percent in only one state (Louisiana). Obesity rates for young adults (18- to 25-year-olds) are below 28 percent in every state.
- Obesity rates vary by education. More than 35 percent of adults (ages 26 and above) who did not graduate high school are obese, compared with 21.3 percent of those who graduated from college or technical college.
- Obesity rates vary by income. More than 31 percent of adults (ages 18 and above) who earn less than \$25,000 per year were obese, compared with 25.4 percent of those who earn at least \$50,000 per year.
- Nine of the 10 states with the highest rates of type 2 diabetes and hypertension are in the South.

*Note: CDC changed the methodology for measuring obesity rates in states in 2012.

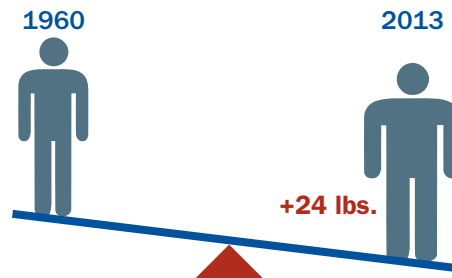
Obesity Rates and Related Trends

ADULT OBESITY RATES RISING OVER TIME:

More than two-thirds (68.7 percent) of American adults are either overweight or obese.¹ In the past 30 years, adult obesity rates have more than doubled — from 15 percent in 1976–1980 to 35.7 percent in 2009–2010. The average American adult is more than 24 pounds heavier today than in 1960.²

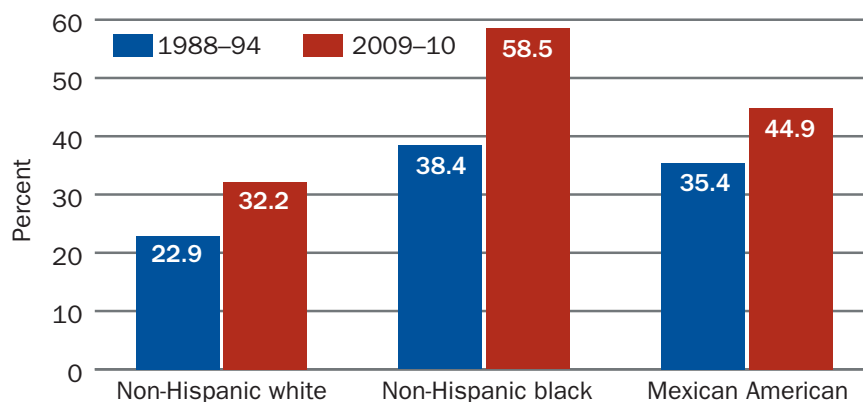


Gender Gap Closing: Ten years ago, the obesity rate for women was significantly higher than the rate for men — 33.4 percent compared with 27.5 percent.³ Currently, men's (35.8 percent) and women's (35.5 percent) obesity rates are essentially the same.⁴



RACIAL/ETHNIC GAP EXISTS AMONG WOMEN:

Prevalence of Obesity Among Women Age 20 and Older by Race and Ethnicity: 1988 to 1994 and 2009 to 2010



Obesity rates for men are relatively similar among different racial/ethnic groups: 36.2 percent among White men; 38.8 percent among Black men; and 36.6 percent among Mexican-

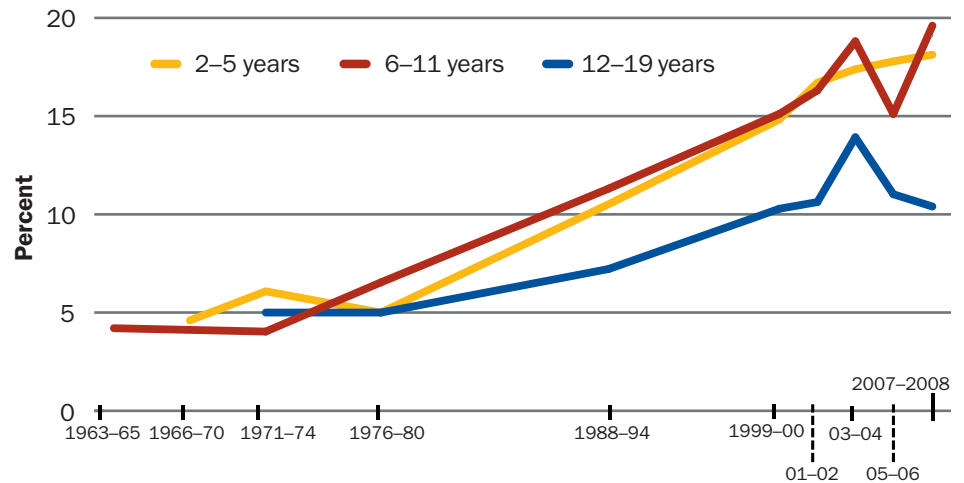
American men. However, women's rates vary significantly: 32.2 percent among White women; 58.5 percent among Black women; and 44.9 percent among Mexican-American women.⁵

Childhood Obesity Rates Stabilizing:

Researchers at the Centers for Disease Control and Prevention (CDC) report that rates of childhood obesity have remained statistically the same for the past 10 years, with the exception of the prevalence of obesity among boys (2 to 19 years old) increased from 14 percent in 1999 to 2000 to 18.6 percent in 2009-2010.⁶ However, rates of obesity among children ages 2 to 19

are still far too high—more than triple what they were in 1980.⁷ According to the most recent National Health and Nutrition Examination Survey (NHANES), 16.9 percent of children ages 2 to 19 are obese, and 31.7 percent are overweight or obese.⁸ This translates to more than 12 million children and adolescents who are obese and more than 23 million who are either obese or overweight.

TRENDS IN OBESITY AMONG U.S. CHILDREN AND ADOLESCENTS



Extreme Obesity Rates Rising Among

Adults and Children: The number of extremely obese adults and children also has grown significantly over time. The rate of extremely obese adults grew from 1.4 percent between 1976-1980 to 6.3 percent during 2009-2010.⁹ An individual is considered extremely obese if his or her body mass index (BMI) is greater than or equal to 40, which is roughly the equivalent of being 100 pounds or more above ideal

body weight. The number of extremely obese women is nearly twice that of men (8.1 percent versus 4.4 percent). For children and teens ages 2 to 19, severe obesity grew from 1.1 percent among boys and 1.3 percent among girls during 1976 to 1980 to 5.1 percent among boys and 4.7 percent among girls during 1999 to 2006.^{10,11} Rates were particularly high among Hispanic boys (9 percent) and non-Hispanic Black girls (12.6 percent).

A. ADULT OBESITY AND OVERWEIGHT RATES

According to the most recent data released in July 2013, adult obesity rates increased in one state and stayed level in the remaining states. Thirteen states currently have an adult obesity rate over 30 percent. Louisiana now has the highest rate of obesity at 34.7 percent, followed closely by Mississippi at 34.6 percent, while Colorado had the lowest rate at 20.5 percent. Of the states with the 20 highest adult obesity rates, only Pennsylvania is not in the South or Midwest. Northeastern and Western states comprise most of the states with the lowest rates of obesity.

The U.S. Department of Health and Human Services (HHS) set a goal to reduce the national adult obesity rate from 33.9 percent to 30.5 percent by 2020, which would be a

10 percent decrease.¹² *Healthy People 2020* also set a goal of increasing the percentage of people at a healthy weight from 30.8 percent to 33.9 percent by 2020.

2012 ADULT OBESITY RATES

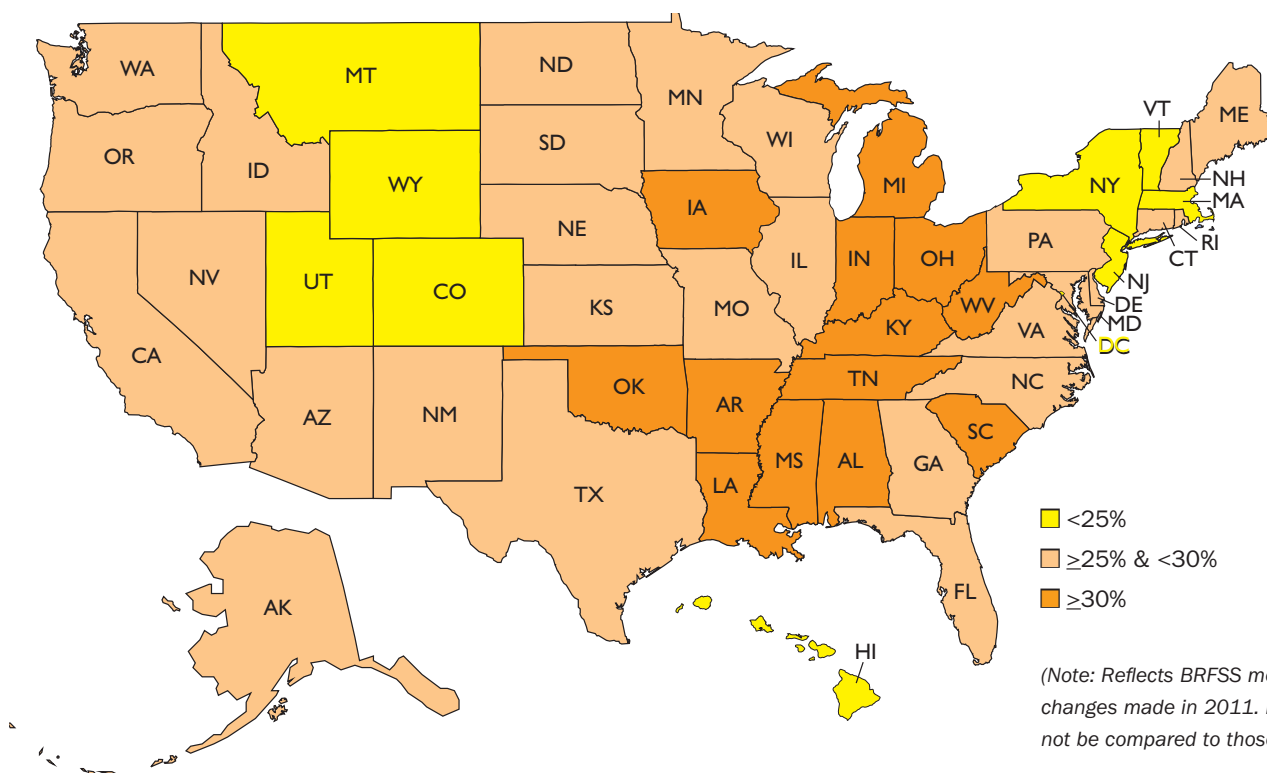


CHART ON OBESITY AND OVERWEIGHT RATES

ADULTS									
States	Obesity		Overweight & Obese	Diabetes		Physical Inactivity		Hypertension	
	2012 Percentage (95% Conf Interval)	Ranking	2012 Percentage (95% Conf Interval)	2012 Percentage (95% Conf Interval)	Ranking	2012 Percentage (95% Conf Interval)	Ranking	2011 Percentage (95% Conf Interval)	Ranking
Alabama	33.0% (+/- 1.5)	5	67.7% (+/- 1.5)	12.3% (+/- 0.9)	3	27.2% (+/- 1.4)	8	40.0% (+/- 1.6)	1
Alaska	25.7% (+/- 1.8)	36	64.8% (+/- 2.1)	7.0% (+/- 1.0)	51	18.5% (+/- 1.6)	45	29.4% (+/- 2.1)	37
Arizona	26.0% (+/- 1.8)	35	62.1% (+/- 2.0)	10.6% (+/- 1.2)	14	22.6% (+/- 1.6)	27	28.0% (+/- 2.0)	47
Arkansas	34.5% (+/- 1.9)*	3	68.8% (+/- 1.6)	11.3% (+/- 1.0)	10	31.5% (+/- 1.8)	1	35.7% (+/- 2.1)	8
California	25.0% (+/- 1.1)	41	60.3% (+/- 1.2)	9.8% (+/- 0.7)*	24	19.2% (+/- 1.0)	42	27.8% (+/- 0.9)	48
Colorado	20.5% (+/- 1.0)	51	55.7% (+/- 1.4)	7.4% (+/- 0.6)	46	17.0% (+/- 1.0)	49	24.9% (+/- 1.0)	50
Connecticut	25.6% (+/- 1.3)	39	62.3% (+/- 1.5)	9.2% (+/- 0.8)	33	22.1% (+/- 1.3)	30	29.7% (+/- 1.5)	36
Delaware	26.9% (+/- 1.7)	31	66.1% (+/- 1.8)	9.6% (+/- 1.0)	29	23.5% (+/- 1.6)	20	34.6% (+/- 1.9)	10
D.C.	21.9% (+/- 2.1)	50	52.0% (+/- 2.7)	8.2% (+/- 1.2)	42	17.4% (+/- 1.8)	47	29.9% (+/- 2.0)	33
Florida	25.2% (+/- 1.6)	40	62.2% (+/- 2.0)	11.4% (+/- 1.1)	9	23.3% (+/- 1.5)	22	34.2% (+/- 1.3)	12
Georgia	29.1% (+/- 1.7)	20	64.7% (+/- 1.8)	9.9% (+/- 0.9)	22	23.6% (+/- 1.5)	18	32.3% (+/- 1.3)	18
Hawaii	23.6% (+/- 1.6)	47	56.1% (+/- 1.7)	7.8% (+/- 1.0)	44	18.7% (+/- 1.4)	44	28.7% (+/- 1.5)	43
Idaho	26.8% (+/- 2.0)	32	62.4% (+/- 2.0)	8.5% (+/- 1.0)	39	20.3% (+/- 1.8)	39	29.4% (+/- 1.7)	37
Illinois	28.1% (+/- 1.7)	24	64.0% (+/- 1.9)	9.4% (+/- 1.0)	30	21.8% (+/- 1.6)	31	31.0% (+/- 1.8)	24
Indiana	31.4% (+/- 1.3)	8	65.5% (+/- 1.4)	10.9% (+/- 0.8)	11	25.9% (+/- 1.2)	10	32.7% (+/- 1.3)	15
Iowa	30.4% (+/- 1.4)	12	64.8% (+/- 1.5)	9.7% (+/- 0.7)*	26	23.1% (+/- 1.2)	24	29.9% (+/- 1.3)	33
Kansas	29.9% (+/- 1.2)	14	65.6% (+/- 1.2)	9.4% (+/- 0.6)	30	22.9% (+/- 1.0)	26	30.8% (+/- 0.8)	27
Kentucky	31.3% (+/- 1.4)	9	66.9% (+/- 1.4)	10.7% (+/- 0.8)	12	29.7% (+/- 1.3)	5	37.9% (+/- 1.5)	5
Louisiana	34.7% (+/- 1.6)	1	69.6% (+/- 1.6)	12.3% (+/- 1.0)	3	29.9% (+/- 1.5)	4	38.3% (+/- 1.4)	4
Maine	28.4% (+/- 1.2)	23	64.2% (+/- 1.2)	9.7% (+/- 0.7)	26	20.9% (+/- 1.0)	36	32.2% (+/- 1.0)	19
Maryland	27.6% (+/- 1.3)	26	63.8% (+/- 1.5)	10.2% (+/- 1.0)	20	23.1% (+/- 1.3)	24	31.3% (+/- 1.4)	21
Massachusetts	22.9% (+/- 0.9)	49	58.8% (+/- 1.1)	8.3% (+/- 0.5)	40	19.8% (+/- 0.8)	41	29.2% (+/- 1.0)	40
Michigan	31.1% (+/- 1.3)	10	65.6% (+/- 1.3)	10.5% (+/- 0.8)	17	23.3% (+/- 1.2)	22	34.2% (+/- 1.3)	12
Minnesota	25.7% (+/- 1.1)	36	63.1% (+/- 1.2)	7.3% (+/- 0.6)	47	17.6% (+/- 0.9)	46	26.3% (+/- 1.0)	49
Mississippi	34.6% (+/- 1.6)	2	69.0% (+/- 1.6)	12.5% (+/- 0.9)	2	30.8% (+/- 1.5)	3	39.2% (+/- 1.4)	2
Missouri	29.6% (+/- 1.6)	17	65.8% (+/- 1.7)	10.7% (+/- 1.0)	12	24.7% (+/- 1.5)	15	34.3% (+/- 1.6)	11
Montana	24.3% (+/- 1.2)	44	61.4% (+/- 1.4)	7.2% (+/- 0.6)	49	20.5% (+/- 1.1)	37	30.1% (+/- 1.3)	31
Nebraska	28.6% (+/- 0.9)	22	65.0% (+/- 1.0)	8.1% (+/- 0.5)	43	21.0% (+/- 0.8)	35	28.5% (+/- 0.8)	45
Nevada	26.2% (+/- 1.9)	34	62.8% (+/- 2.1)	8.9% (+/- 1.2)	36	21.3% (+/- 1.7)	33	30.9% (+/- 2.2)	25
New Hampshire	27.3% (+/- 1.5)	28	62.2% (+/- 1.7)	9.1% (+/- 0.8)	34	20.0% (+/- 1.3)	40	30.6% (+/- 1.5)	28
New Jersey	24.6% (+/- 1.0)	42	61.6% (+/- 1.2)	9.3% (+/- 0.6)	32	24.9% (+/- 1.0)	13	30.6% (+/- 1.1)	28
New Mexico	27.1% (+/- 1.2)	30	62.8% (+/- 1.3)	10.3% (+/- 0.7)	19	21.8% (+/- 1.1)	31	28.5% (+/- 1.2)	45
New York	23.6% (+/- 1.5)	47	60.7% (+/- 1.8)	9.7% (+/- 1.1)	26	24.7% (+/- 1.6)	15	30.6% (+/- 1.4)	28
North Carolina	29.6% (+/- 1.1)	17	65.9% (+/- 1.2)	10.4% (+/- 0.7)	18	24.9% (+/- 1.0)	13	32.4% (+/- 1.3)	17
North Dakota	29.7% (+/- 1.8)	15	66.3% (+/- 1.9)	8.6% (+/- 0.9)	38	23.8% (+/- 1.6)	17	28.9% (+/- 1.5)	41
Ohio	30.1% (+/- 1.1)	13	65.3% (+/- 1.2)	11.7% (+/- 0.7)*	6	25.3% (+/- 1.0)	11	32.7% (+/- 1.3)	15
Oklahoma	32.2% (+/- 1.4)	6	67.8% (+/- 1.4)	11.5% (+/- 0.8)	8	28.3% (+/- 1.3)	7	35.5% (+/- 1.4)	9
Oregon	27.3% (+/- 1.7)	28	61.3% (+/- 1.8)	9.9% (+/- 1.0)	22	16.3% (+/- 1.3)	51	29.8% (+/- 1.5)	35
Pennsylvania	29.1% (+/- 1.0)	20	65.0% (+/- 1.1)	10.2% (+/- 0.6)	20	23.5% (+/- 0.9)	20	31.4% (+/- 1.2)	20
Rhode Island	25.7% (+/- 1.6)	36	62.9% (+/- 1.9)	9.8% (+/- 1.0)*	24	23.6% (+/- 1.5)	18	33.0% (+/- 1.5)	14
South Carolina	31.6% (+/- 1.2)	7	66.2% (+/- 1.3)	11.6% (+/- 0.8)	7	25.1% (+/- 1.1)	12	36.4% (+/- 1.3)	7
South Dakota	28.1% (+/- 1.6)	24	66.1% (+/- 1.7)	7.8% (+/- 0.9) ^v	44	22.5% (+/- 1.5)	28	30.9% (+/- 1.9)	25
Tennessee	31.1% (+/- 1.6)	10	65.4% (+/- 1.7)	11.9% (+/- 1.0)	5	28.6% (+/- 1.5)	6	38.6% (+/- 2.6)	3
Texas	29.2% (+/- 1.4)	19	65.1% (+/- 1.5)	10.6% (+/- 0.8)	14	27.2% (+/- 1.3)	8	31.3% (+/- 1.3)	21
Utah	24.3% (+/- 1.0)	44	57.8% (+/- 1.2)	7.2% (+/- 0.5)	49	16.6% (+/- 0.9)	50	22.9% (+/- 0.9)	51
Vermont	23.7% (+/- 1.4)	46	60.3% (+/- 1.7)	7.3% (+/- 0.8)	47	17.2% (+/- 1.2)	48	29.3% (+/- 1.4)	39
Virginia	27.4% (+/- 1.4)	27	63.6% (+/- 1.5)	10.6% (+/- 0.8)	14	22.5% (+/- 1.3)	28	31.2% (+/- 1.6)	23
Washington	26.8% (+/- 1.0)	32	62.3% (+/- 1.1)	8.8% (+/- 0.9)	37	19.0% (+/- 0.9)	43	30.1% (+/- 1.2)	31
West Virginia	33.8% (+/- 1.6)	4	68.3% (+/- 1.6)	13.0% (+/- 1.0)	1	31.0% (+/- 1.5)	2	37.1% (+/- 1.6)	6
Wisconsin	29.7% (+/- 1.9)	15	66.5% (+/- 2.0)	8.3% (+/- 1.0)	40	20.4% (+/- 1.6)	38	28.9% (+/- 1.8)	41
Wyoming	24.6% (+/- 1.8)	42	63.4% (+/- 2.1)	9.1% (+/- 1.0)	34	21.1% (+/- 1.6)	34	28.7% (+/- 1.6)	43

Source: Behavior Risk Factor Surveillance System (BRFSS), CDC. Red and * indicates a statistically significant increase and green and ^v indicates a statistically significant decrease.

AND RELATED HEALTH INDICATORS IN THE STATES

CHILDREN AND ADOLESCENTS

States	2011 YRBS			2011 PedNSS	2011 National Survey of Children's Health		
	Percentage of Obese High School Students (95% Conf Interval)	Percentage of Overweight High School Students (95% Conf Interval)	Percentage of High School Students Who Were Physically Active At Least 60 Minutes on All 7 Days	Percentage of Obese Low-Income Children Ages 2-4	Percentage of Obese Children Ages 10-17	Ranking	Percentage Participating in Vigorous Physical Activity Every Day Ages 6-17
Alabama	17.0 (+/- 3.9)	15.8 (+/- 3.0)	28.4 (+/- 4.3)	14.1%	18.6% (+/- 3.9)	11	32.7%
Alaska	11.5 (+/- 2.0)	14.4 (+/- 2.1)	21.3 (+/- 2.8)	N/A	14.0% (+/- 3.3)	32	32.9%
Arizona	10.9 (+/- 1.9)	13.9 (+/- 1.8)	25.0 (+/- 2.0)	14.5%	19.8% (+/- 4.6)	7	26.4%
Arkansas	15.2 (+/- 2.1)	15.4 (+/- 2.1)	26.7 (+/- 3.3)	14.2%	20.0% (+/- 4.2)	6	31.6%
California	N/A	N/A	N/A	16.8% ^V	15.1% (+/- 4.1)	21	25.2%
Colorado	7.3 (+/- 2.4)	10.7 (+/- 2.5)	29.2 (+/- 2.8)	10.0% [*]	10.9% (+/- 3.6)	47	28.3%
Connecticut	12.5 (+/- 2.7)	14.1 (+/- 1.9)	26.0 (+/- 3.1)	15.8%	15.0% (+/- 3.2)	23	25.8%
Delaware	12.2 (+/- 1.5)	16.9 (+/- 2.1)	24.9 (+/- 2.1)	N/A	16.9% (+/- 4.1)	16	26.5%
D.C.	N/A	N/A	N/A	13.1%	21.4% (+/- 5.5)	3	26.8%
Florida	11.5 (+/- 2.3)	13.6 (+/- 1.1)	25.8 (+/- 1.4)	13.1% ^V	13.4% (+/- 3.3)	38	31.5%
Georgia	15.0 (+/- 2.3)	15.8 (+/- 2.2)	25.2 (+/- 3.0)	13.2% ^V	16.5% (+/- 3.8)	17	30.6%
Hawaii	13.2 (+/- 2.4)	13.4 (+/- 1.6)	21.0 (+/- 2.3)	9.2%	11.5% (+/- 2.6)	44	28.7%
Idaho	9.2 (+/- 1.6)	13.4 (+/- 1.8)	25.9 (+/- 3.4)	11.5% ^V	10.6% (+/- 3.4)	49	25.5%
Illinois	11.6 (+/- 1.7)	14.5 (+/- 1.7)	23.2 (+/- 2.3)	14.7%	19.3% (+/- 3.9)	9	23.5%
Indiana	14.7 (+/- 1.8)	15.5 (+/- 2.1)	24.2 (+/- 2.7)	14.3%	14.3% (+/- 3.7)	28	28.6%
Iowa	13.2 (+/- 3.2)	14.5 (+/- 2.0)	29.1 (+/- 3.3)	14.4% ^V	13.6% (+/- 3.2)	35	31.2%
Kansas	10.2 (+/- 1.5)	13.9 (+/- 1.8)	30.2 (+/- 2.5)	12.7% ^V	14.2% (+/- 3.6)	31	28.2%
Kentucky	16.5 (+/- 2.5)	15.4 (+/- 1.6)	21.9 (+/- 2.5)	15.5%	19.7% (+/- 3.9)	8	32.3%
Louisiana	16.1 (+/- 2.6)	19.5 (+/- 4.5)	24.2 (+/- 3.5)	N/A	21.1% (+/- 4.0)	4	31.1%
Maine	11.5 (+/- 1.4)	14.0 (+/- 1.1)	23.7 (+/- 1.7)	N/A	12.5% (+/- 3.0)	42	32.0%
Maryland	12.0 (+/- 1.7)	15.4 (+/- 2.0)	21.4 (+/- 2.8)	15.3% ^V	15.1% (+/- 3.7)	21	24.4%
Massachusetts	9.9 (+/- 1.8)	14.6 (+/- 1.4)	22.4 (+/- 2.6)	16.4% ^V	14.5% (+/- 3.5)	25	25.5%
Michigan	12.1 (+/- 1.6)	15.3 (+/- 2.4)	27.0 (+/- 2.7)	13.2% ^V	14.8% (+/- 3.6)	24	27.7%
Minnesota	N/A	N/A	N/A	12.6% ^V	14.0% (+/- 3.7)	32	28.7%
Mississippi	15.8 (+/- 2.2)	16.5 (+/- 2.0)	25.9 (+/- 3.0)	13.9% ^V	21.7% (+/- 4.4)	1	27.7%
Missouri	N/A	N/A	N/A	12.9% ^V	13.5% (+/- 3.0)	36	33.7%
Montana	8.5 (+/- 1.1)	12.9 (+/- 1.4)	28.7 (+/- 1.9)	11.7%	14.3% (+/- 3.4)	28	32.4%
Nebraska	11.6 (+/- 1.2)	13.6 (+/- 1.3)	28.0 (+/- 1.8)	14.3%	13.8% (+/- 3.1)	34	31.3%
Nevada	N/A	N/A	N/A	12.7%	18.6% (+/- 4.2)	11	22.4%
New Hampshire	12.1 (+/- 1.7)	14.1 (+/- 2.2)	N/A	14.6% ^V	15.5% (+/- 3.6)	19	28.1%
New Jersey	11.0 (+/- 2.0)	15.2 (+/- 1.9)	28.0 (+/- 2.8)	16.6% ^V	10.0% (+/- 2.9)	50	25.3%
New Mexico	12.8 (+/- 2.1)	14.4 (+/- 1.2)	26.3 (+/- 1.6)	11.3% ^V	14.4% (+/- 3.7)	27	29.6%
New York	11.0 (+/- 1.3)	14.7 (+/- 1.0)	25.1 (+/- 2.4)	14.3% ^V	14.5% (+/- 3.2)	25	24.6%
North Carolina	12.9 (+/- 3.2)	15.9 (+/- 2.0)	26.0 (+/- 2.4)	15.4%	16.1% (+/- 4.0)	18	31.6%
North Dakota	11.0 (+/- 1.7)	14.5 (+/- 2.1)	21.8 (+/- 1.9)	13.1%	15.4% (+/- 3.8)	20	30.4%
Ohio	14.7 (+/- 3.1)	15.3 (+/- 2.3)	25.4 (+/- 3.5)	12.4%	17.4% (+/- 3.7)	14	28.5%
Oklahoma	16.7 (+/- 3.0)	16.3 (+/- 2.8)	33.1 (+/- 4.1)	N/A	17.4% (+/- 3.6)	14	34.9%
Oregon	N/A	N/A	N/A	14.9%	9.9% (+/- 2.8)	51	28.5%
Pennsylvania	N/A	N/A	N/A	12.2% [*]	13.5% (+/- 3.5)	36	27.0%
Rhode Island	10.8 (+/- 2.3)	14.9 (+/- 2.1)	26.7 (+/- 4.0)	16.6%	13.2% (+/- 3.3)	41	25.2%
South Carolina	13.3 (+/- 3.0)	16.3 (+/- 2.6)	25.8 (+/- 2.9)	N/A	21.5% (+/- 4.1)	2	30.3%
South Dakota	9.8 (+/- 2.0)	14.1 (+/- 1.4)	27.3 (+/- 3.5)	15.2% ^V	13.4% (+/- 3.3)	38	30.2%
Tennessee	15.2 (+/- 1.6)	17.3 (+/- 1.9)	30.2 (+/- 2.8)	14.2% [*]	20.5% (+/- 4.2)	5	34.5%
Texas	15.6 (+/- 2.0)	16.0 (+/- 1.4)	27.1 (+/- 2.7)	N/A	19.1% (+/- 4.5)	10	29.0%
Utah	8.6 (+/- 1.7)	12.2 (+/- 2.0)	20.8 (+/- 2.6)	N/A	11.6% (+/- 3.3)	43	18.1%
Vermont	9.9 (+/- 2.0)	13.0 (+/- 1.7)	24.4 (+/- 1.6)	12.9%	11.3% (+/- 2.7)	45	33.3%
Virginia	11.1 (+/- 2.5)	17.2 (+/- 2.7)	24.1 (+/- 4.0)	N/A	14.3% (+/- 3.6)	28	26.1%
Washington	N/A	N/A	N/A	14.0% ^V	11.0% (+/- 3.1)	46	28.5%
West Virginia	14.6 (+/- 2.4)	15.7 (+/- 2.4)	29.0 (+/- 3.2)	14.0%	18.5% (+/- 3.4)	13	34.1%
Wisconsin	10.4 (+/- 1.6)	15.0 (+/- 1.5)	27.7 (+/- 3.6)	14.0%	13.4% (+/- 3.1)	38	28.3%
Wyoming	11.1 (+/- 1.4)	12.0 (+/- 1.6)	25.8 (+/- 2.1)	N/A	10.7% (+/- 4.2)	48	30.2%

Source: Youth Risk Behavior Survey (YRBS) 2011, CDC. YRBS data are collected every 2 years. Percentages are as reported on the CDC website and can be found at <<http://www.cdc.gov/HealthyYouth/yrbbs/index.htm>>. Note that previous YRBS reports used the term "overweight" to describe youth with a BMI at or above the 95th percentile for age and sex and "at risk for overweight" for those with a BMI at or above the 85th percentile, but below the 95th percentile. However, this report uses the terms "obese" and "overweight" based on the 2007 recommendations from the Expert Committee on the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity convened by the American Medical Association. "Physically active at least 60 minutes on all 7 days" means that the student did any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes per day on each of the 7 days before the survey.

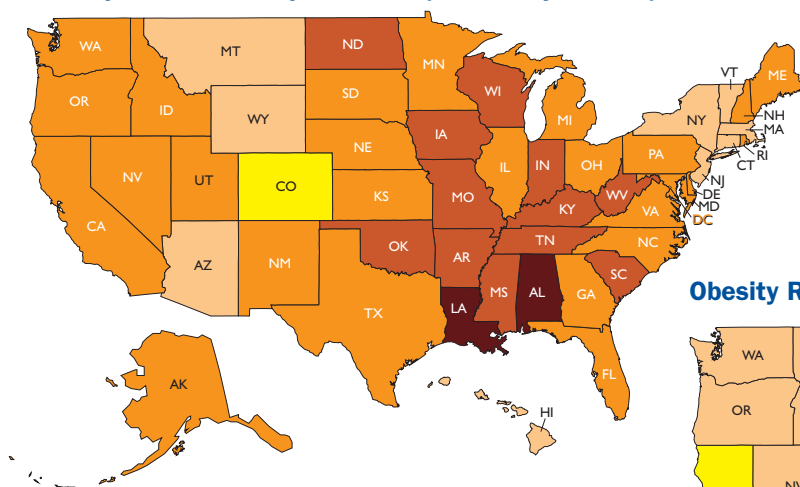
Source: CDC. Obesity Among Low-Income, Preschool-Aged Children—United States, 2008–2011. Vital Signs, 62(Early Release): 1–6, 2013. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm62e0806a1.htm>. Red and * indicates a statistically significant increase and green and ^V indicates a statistically significant decrease from 2008–2011.

Source: National Survey of Children's Health, 2011. Health Resources and Services Administration, Maternal and Child Health Bureau. * & red indicates a statistically significant increase and ^V & green indicates a statistically significant decrease (p<0.05) from 2007 to 2011. Over the same time period, SC had a statistically significant increase in obesity rates, while NJ saw a significant decrease.

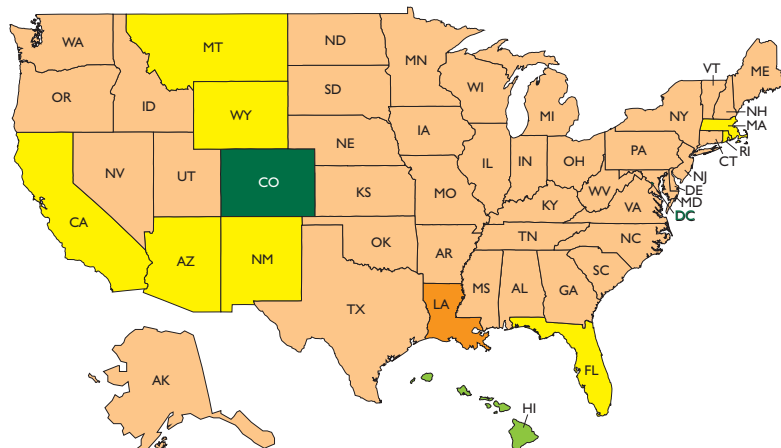
OBESITY RATES BY SEX AND AGE— 2013

	Obesity Rates by Sex		Obesity Rates by Age			
	MEN	WOMEN	18-25 Years Old	26-44 Years Old	45-64 Years Old	65+ Years Old
Alabama	31.7% (+/- 2.3)	34.1% (+/- 1.8)	24.4% (+/- 5.0)	33.0% (+/- 2.9)	40.0% (+/- 2.2)	26.9% (+/- 2.1)
Alaska	25.8% (+/- 2.6)	25.5% (+/- 2.5)	10.2% (+/- 3.2)	25.4% (+/- 3.3)	32.4% (+/- 3.0)	26.8% (+/- 4.3)
Arizona	26.6% (+/- 2.5)	25.8% (+/- 2.4)	18.4% (+/- 5.2)	29.4% (+/- 3.6)	28.9% (+/- 2.8)	22.6% (+/- 2.4)
Arkansas	34.1% (+/- 2.8)	35.1% (+/- 2.4)	27.5% (+/- 6.2)	38.8% (+/- 3.8)	38.9% (+/- 2.8)	25.9% (+/- 2.5)
California	26.2% (+/- 1.6)	23.8% (+/- 1.4)	13.7% (+/- 2.7)	26.0% (+/- 1.9)	31.0% (+/- 1.8)	21.1% (+/- 1.8)
Colorado	21.1% (+/- 1.5)	19.9% (+/- 1.3)	11.1% (+/- 2.6)	20.8% (+/- 1.9)	24.6% (+/- 1.6)	19.6% (+/- 1.8)
Connecticut	27.2% (+/- 2.0)	24.0% (+/- 1.7)	10.8% (+/- 3.3)	28.5% (+/- 2.7)	28.4% (+/- 2.1)	26.5% (+/- 2.3)
Delaware	26.1% (+/- 2.6)	27.8% (+/- 2.2)	11.2% (+/- 3.6)	27.7% (+/- 3.6)	33.5% (+/- 2.9)	26.0% (+/- 2.8)
D.C.	18.0% (+/- 2.8)	25.8% (+/- 3.1)	15.7% (+/- 6.3)	19.1% (+/- 6.0)	31.9% (+/- 3.7)	19.1% (+/- 2.8)
Florida	26.5% (+/- 2.4)	24.1% (+/- 2.1)	14.6% (+/- 4.4)	26.2% (+/- 3.3)	30.7% (+/- 2.7)	22.9% (+/- 2.4)
Georgia	27.7% (+/- 2.6)	30.6% (+/- 2.2)	16.1% (+/- 4.6)	31.2% (+/- 3.3)	34.6% (+/- 2.6)	25.4% (+/- 2.5)
Hawaii	26.8% (+/- 2.0)	20.3% (+/- 2.0)	17.1% (+/- 4.2)	29.1% (+/- 3.2)	26.8% (+/- 2.7)	14.1% (+/- 2.2)
Idaho	26.9% (+/- 3.0)	26.2% (+/- 2.7)	13.3% (+/- 5.1)	26.7% (+/- 4.0)	32.1% (+/- 3.2)	26.9% (+/- 3.1)
Illinois	28.2% (+/- 2.6)	28.0% (+/- 2.3)	14.3% (+/- 4.7)	28.6% (+/- 3.5)	33.6% (+/- 2.7)	27.7% (+/- 2.7)
Indiana	31.9% (+/- 2.0)	31.0% (+/- 1.7)	20.5% (+/- 3.7)	32.0% (+/- 2.6)	37.0% (+/- 2.1)	29.3% (+/- 2.2)
Iowa	31.6% (+/- 2.0)	29.4% (+/- 1.8)	17.7% (+/- 4.3)	31.4% (+/- 2.8)	35.9% (+/- 2.1)	29.6% (+/- 2.1)
Kansas	30.5% (+/- 1.7)	29.1% (+/- 1.5)	20.0% (+/- 3.5)	32.1% (+/- 2.4)	34.3% (+/- 1.8)	26.2% (+/- 1.6)
Kentucky	31.6% (+/- 2.1)	31.2% (+/- 1.8)	17.6% (+/- 3.8)	33.5% (+/- 2.7)	36.0% (+/- 2.2)	29.2% (+/- 2.5)
Louisiana	33.4% (+/- 2.6)	36.0% (+/- 2.0)	19.0% (+/- 4.5)	38.8% (+/- 3.4)	40.0% (+/- 2.4)	30.4% (+/- 2.5)
Maine	30.2% (+/- 1.7)	26.6% (+/- 1.5)	14.9% (+/- 3.6)	30.7% (+/- 2.5)	32.5% (+/- 1.8)	25.9% (+/- 1.9)
Maryland	26.6% (+/- 2.0)	28.7% (+/- 1.7)	11.8% (+/- 3.6)	27.9% (+/- 2.7)	34.4% (+/- 2.0)	26.2% (+/- 2.2)
Massachusetts	24.7% (+/- 1.4)	21.2% (+/- 1.2)	14.3% (+/- 2.6)	22.2% (+/- 1.7)	27.5% (+/- 1.5)	22.6% (+/- 1.7)
Michigan	31.5% (+/- 1.9)	30.7% (+/- 1.6)	19.4% (+/- 3.6)	34.2% (+/- 2.7)	34.4% (+/- 1.9)	29.6% (+/- 1.9)
Minnesota	27.8% (+/- 1.6)	23.7% (+/- 1.4)	15.0% (+/- 3.0)	25.5% (+/- 2.1)	30.0% (+/- 1.7)	26.3% (+/- 2.1)
Mississippi	31.9% (+/- 2.4)	37.4% (+/- 2.0)	23.6% (+/- 5.1)	38.9% (+/- 3.3)	38.5% (+/- 2.3)	29.0% (+/- 2.2)
Missouri	29.7% (+/- 2.4)	29.6% (+/- 2.1)	15.5% (+/- 4.5)	29.0% (+/- 3.1)	36.9% (+/- 2.6)	28.1% (+/- 2.8)
Montana	25.2% (+/- 1.8)	23.4% (+/- 1.6)	15.4% (+/- 3.7)	24.1% (+/- 2.4)	29.1% (+/- 2.0)	22.3% (+/- 2.0)
Nebraska	29.2% (+/- 1.4)	28.1% (+/- 1.3)	17.1% (+/- 2.7)	28.8% (+/- 1.8)	34.5% (+/- 1.6)	26.8% (+/- 1.5)
Nevada	26.6% (+/- 2.8)	26.0% (+/- 2.4)	13.9% (+/- 4.7)	27.2% (+/- 3.5)	31.1% (+/- 3.5)	25.1% (+/- 3.5)
New Hampshire	29.0% (+/- 2.3)	25.8% (+/- 1.9)	16.3% (+/- 5.3)	27.9% (+/- 3.1)	31.3% (+/- 2.2)	26.5% (+/- 2.2)
New Jersey	26.4% (+/- 1.6)	23.0% (+/- 1.3)	13.3% (+/- 3.2)	25.0% (+/- 1.9)	27.3% (+/- 1.7)	27.2% (+/- 2.0)
New Mexico	26.7% (+/- 1.8)	27.6% (+/- 1.6)	20.1% (+/- 3.7)	31.3% (+/- 2.5)	30.2% (+/- 1.9)	20.4% (+/- 2.0)
New York	24.3% (+/- 2.3)	22.9% (+/- 2.1)	13.2% (+/- 4.1)	23.0% (+/- 2.8)	27.6% (+/- 2.6)	25.7% (+/- 3.5)
North Carolina	29.6% (+/- 1.7)	29.8% (+/- 1.4)	20.5% (+/- 3.5)	30.2% (+/- 2.1)	34.7% (+/- 1.9)	26.2% (+/- 1.9)
North Dakota	32.3% (+/- 2.6)	26.8% (+/- 2.4)	18.9% (+/- 5.3)	31.1% (+/- 3.6)	35.0% (+/- 2.7)	27.3% (+/- 2.8)
Ohio	30.5% (+/- 1.8)	29.7% (+/- 1.5)	15.3% (+/- 3.2)	32.2% (+/- 2.3)	34.8% (+/- 1.8)	28.8% (+/- 2.0)
Oklahoma	33.1% (+/- 2.1)	31.4% (+/- 1.8)	25.4% (+/- 5.0)	34.0% (+/- 2.6)	36.7% (+/- 2.1)	26.8% (+/- 2.1)
Oregon	27.4% (+/- 2.6)	27.5% (+/- 2.2)	13.9% (+/- 4.4)	29.7% (+/- 3.5)	32.0% (+/- 2.7)	25.4% (+/- 2.5)
Pennsylvania	28.9% (+/- 1.4)	29.2% (+/- 1.4)	19.1% (+/- 3.1)	28.7% (+/- 2.0)	33.2% (+/- 1.6)	29.3% (+/- 1.7)
Rhode Island	27.8% (+/- 2.6)	23.8% (+/- 2.0)	14.2% (+/- 4.8)	27.5% (+/- 3.3)	30.2% (+/- 2.5)	24.5% (+/- 2.7)
South Carolina	30.1% (+/- 1.9)	33.1% (+/- 1.6)	19.2% (+/- 3.5)	34.7% (+/- 2.4)	36.8% (+/- 2.0)	27.2% (+/- 2.0)
South Dakota	28.7% (+/- 2.4)	27.6% (+/- 2.3)	16.2% (+/- 3.9)	28.4% (+/- 3.0)	32.9% (+/- 1.8)	28.4% (+/- 3.4)
Tennessee	30.5% (+/- 2.4)	32.0% (+/- 1.9)	16.8% (+/- 4.5)	33.0% (+/- 3.1)	38.2% (+/- 2.5)	26.3% (+/- 2.5)
Texas	28.5% (+/- 2.0)	30.0% (+/- 1.9)	14.4% (+/- 3.2)	31.5% (+/- 2.5)	34.9% (+/- 2.4)	26.9% (+/- 2.4)
Utah	24.6% (+/- 1.5)	24.0% (+/- 1.4)	12.7% (+/- 2.4)	23.5% (+/- 1.8)	32.3% (+/- 1.8)	25.6% (+/- 1.9)
Vermont	24.4% (+/- 2.1)	23.0% (+/- 1.9)	15.7% (+/- 4.7)	22.9% (+/- 3.0)	26.4% (+/- 2.2)	25.5% (+/- 2.4)
Virginia	27.3% (+/- 2.1)	27.5% (+/- 1.8)	14.1% (+/- 4.0)	26.5% (+/- 2.6)	34.2% (+/- 2.2)	26.8% (+/- 2.3)
Washington	27.4% (+/- 1.5)	26.4% (+/- 1.3)	15.4% (+/- 2.8)	27.9% (+/- 2.0)	31.3% (+/- 1.6)	25.6% (+/- 1.6)
West Virginia	34.5% (+/- 2.4)	33.1% (+/- 2.0)	27.9% (+/- 5.7)	35.5% (+/- 3.2)	37.8% (+/- 2.4)	28.7% (+/- 2.5)
Wisconsin	29.6% (+/- 2.8)	29.8% (+/- 2.6)	17.6% (+/- 5.5)	28.9% (+/- 3.6)	35.4% (+/- 3.1)	29.5% (+/- 3.6)
Wyoming	22.6% (+/- 1.9)	26.9% (+/- 2.6)	15.4% (+/- 5.2)	26.2% (+/- 3.7)	29.4% (+/- 2.6)	20.5% (+/- 2.3)

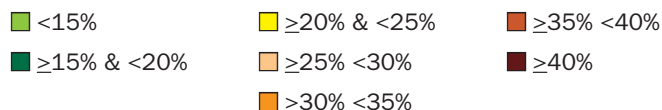
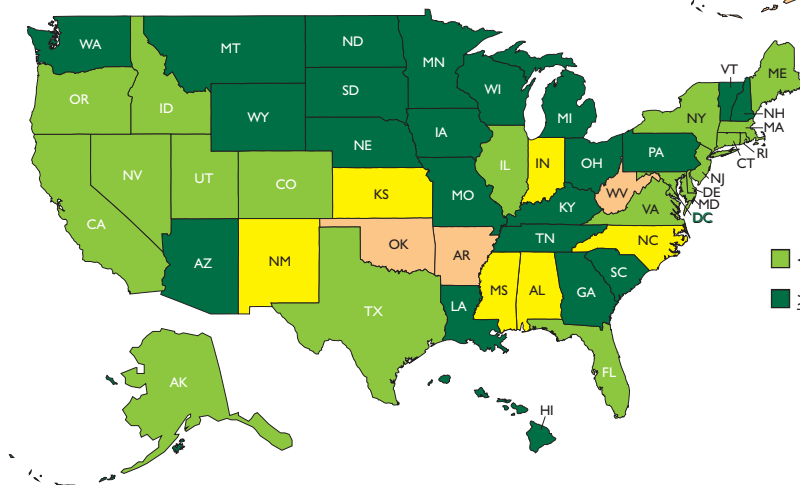
Obesity Rates for Baby Boomers (45-to 64-year-olds)



Obesity Rates for Seniors (65+ year-olds)



Obesity Rates for Young Adults (18- to 25-year-olds)



STATES WITH THE HIGHEST OBESITY RATES

Rank	State	Percentage of Obesity (Based on 2012 Data, Including Confidence Intervals)
1	Louisiana	34.7% (+/- 1.6)
2	Mississippi	34.6% (+/- 1.6)
3	Arkansas	34.5% (+/- 1.9)
4	West Virginia	33.8% (+/- 1.6)
5	Alabama	33.0% (+/- 1.5)
6	Oklahoma	32.2% (+/- 1.4)
7	South Carolina	31.6% (+/- 1.2)
8	Indiana	31.4% (+/- 1.3)
9	Kentucky	31.3% (+/- 1.4)
10 (tie)	Tennessee	31.1% (+/- 1.6)
10 (tie)	Michigan	31.1% (+/- 1.3)

Note: For rankings, 1 = Highest rate of obesity.

STATES WITH THE LOWEST OBESITY RATES

Rank	State	Percentage of Obesity (Based on 2012 Data, Including Confidence Intervals)
51	Colorado	20.5% (+/- 1.0)
50	D.C.	21.9% (+/- 2.1)
49	Massachusetts	22.9% (+/- 0.9)
47 (tie)	Hawaii	23.6% (+/- 1.6)
47 (tie)	New York	23.6% (+/- 1.5)
46	Vermont	23.7% (+/- 1.4)
44 (tie)	Montana	24.3% (+/- 1.2)
44 (tie)	Utah	24.3% (+/- 1.0)
42 (tie)	New Jersey	24.6% (+/- 1.0)
42 (tie)	Wyoming	24.6% (+/- 1.8)

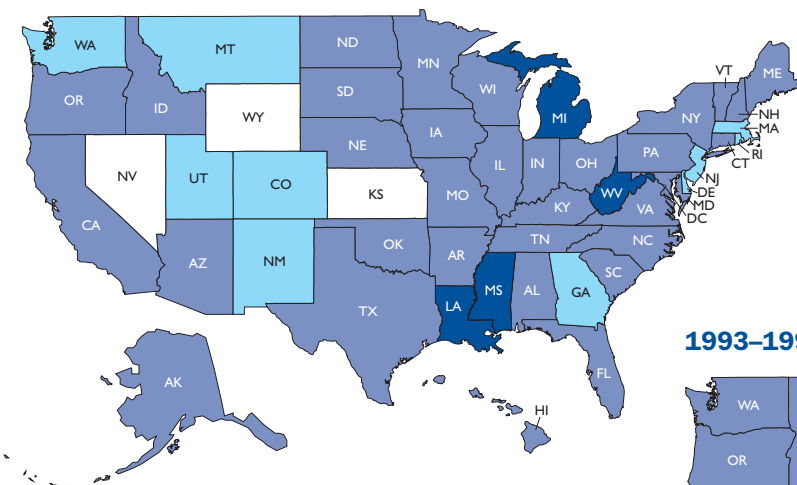
Note: For rankings, 51 = Lowest rate of obesity.

1991

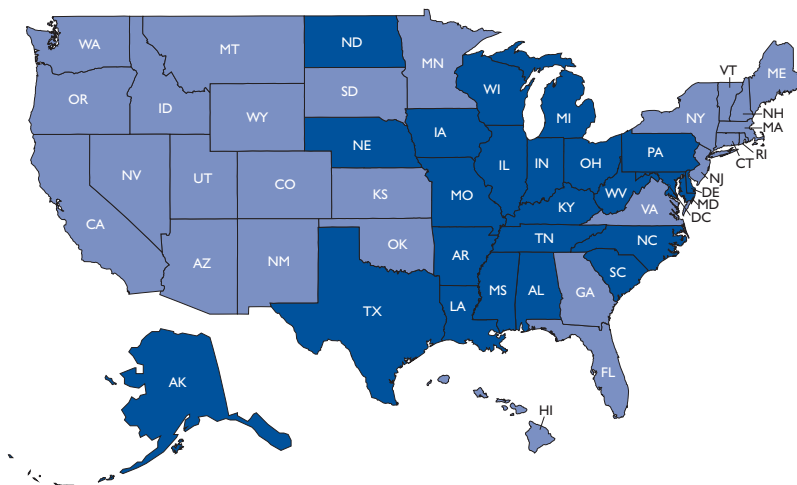
PAST OBESITY TRENDS AMONG U.S. ADULTS

BRFSS: 1991, 1993 to 1995, 1998 to 2000, and 2005 to 2007 Combined Data

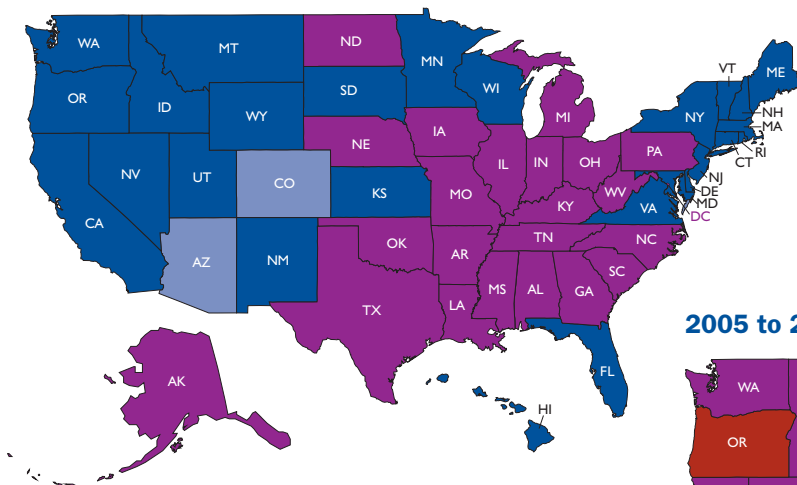
(BMI >30, or about 30lbs overweight for 5'4" person)



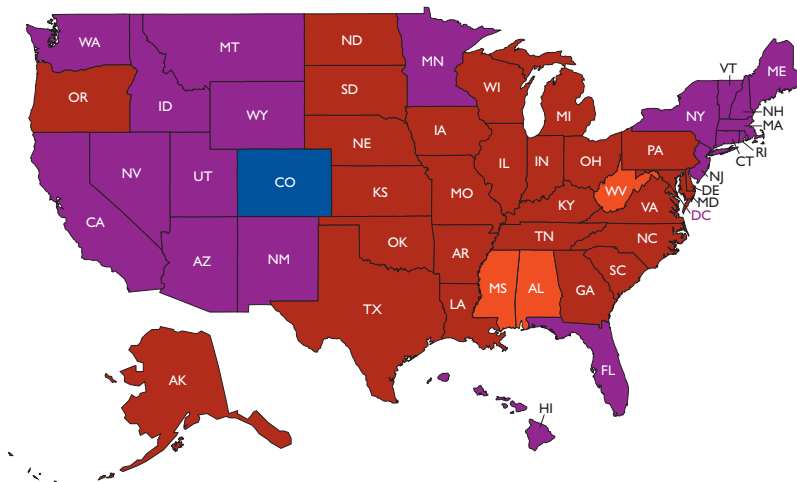
1993–1995 Combined Data



1998 to 2000 Combined Data



2005 to 2007 Combined Data



□ No Data
 <10%
 ≥10% & <15%
 ≥15% & <20%

≥20% <25%
 ≥25% <30%
 ≥30%

RATES AND RANKINGS METHODOLOGY¹³

The analysis of adult obesity rates in *F as in Fat* compares data from the Behavioral Risk Factor Surveillance System (BRFSS).

BRFSS is the largest ongoing telephone health survey in the world. It is a state-based system of health surveys established by CDC in 1984. BRFSS completes more than 400,000 adult interviews each year. For most states, BRFSS is the only source of population-based health behavior data about chronic disease prevalence and behavioral risk factors.

BRFSS surveys a sample of adults in each state to get information on health risks and behaviors, health practices for preventing disease, and healthcare access linked mostly to chronic disease and injury. The sample is representative of the population of each state.

Washington, D.C., is included in the rankings because CDC provides funds to the city to conduct a survey in an equivalent way to the states.

The data are based on telephone surveys by state health departments, with assistance from the CDC. Surveys ask people to report their weight and height, which is used to calculate body mass index. Experts say rates of overweight and obesity are probably slightly higher than shown by the data because people tend to underreport their weight and exaggerate their height.¹⁴

BRFSS made two changes in methodology for its dataset starting in 2011 to make the data more representative of the total

population. The changes included making survey calls to cell-phone numbers and adopting a new weighting method:

- The first change is including and then growing the number of interview calls made to cell phone numbers. Estimates today are that three in 10 U.S. households have only cell phones.
- The second is a statistical measurement change, which involves the way the data are weighted to better match the demographics of the population in the state.

The new methodology means the BRFSS data will better represent lower-income and racial and ethnic minorities, as well as populations with lower levels of formal education. Although generalizing is difficult because of these variables, it is likely that the changes in methods will result in somewhat higher estimates for the occurrence of behaviors that are more common among younger adults and to certain racial and ethnic groups.

The change in methodology makes direct comparisons to data collected prior to 2011 difficult.

In prior years, this report has included racial, ethnic and gender breakdowns by state. However, because there is only one year of data available using the new methodology, the sample sizes for some states are too small to reliably provide these breakdowns in this year's report.

More information on the methodology is available in Appendix B.

DEFINITIONS OF OBESITY AND OVERWEIGHT

Obesity is defined as an excessively high amount of body fat or adipose tissue in relation to lean body mass.^{15,16} Overweight refers to increased body weight in relation to height, which is then compared to a standard of acceptable weight.¹⁷ Body mass index, or BMI, is a common measure expressing the relationship (or ratio) of weight to height. The equation is:

the 95th percentile were defined as “overweight,” while children at or above the 85th percentile but below the 95th percentile were defined as “at risk of overweight.” However, in 2007, an expert committee recommended using the same cut points but changing the terminology by replacing “overweight” with “obese” and “at risk of overweight” with “overweight.”

$$\text{BMI} = \left(\frac{\text{Weight in pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \right) \times 703$$

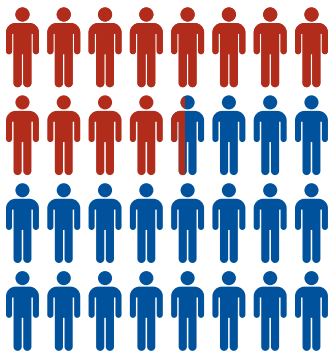
Adults with a BMI of 25 to 29.9 are considered overweight, while individuals with a BMI of 30 or more are considered obese. The National Institutes of Health (NIH) adopted a lower optimal weight threshold in June 1998. Previously, the federal government defined overweight as a BMI of 28 for men and 27 for women.

On the basis of CDC growth charts from 2000, children and youth at or above

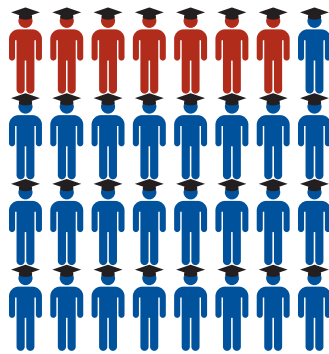
The committee also added an additional cut point — BMI at or above the 99th percentile — to define “severe obesity.”¹⁸

BMI is considered an important measure for understanding population trends. For individuals, it is one of many factors that should be considered in evaluating healthy weight, along with waist size, waist-to-hip ratio, blood pressure, cholesterol level and blood sugar.¹⁹

SOCIOECONOMICS AND OBESITY



35.3% of adults with
no high school diploma
are obese



22.1% of adults who
graduated college or
technical college are obese

An analysis of the 2012 BRFSS data looking at income, level of schooling completed and obesity finds strong correlations between obesity and income, and between obesity and education:

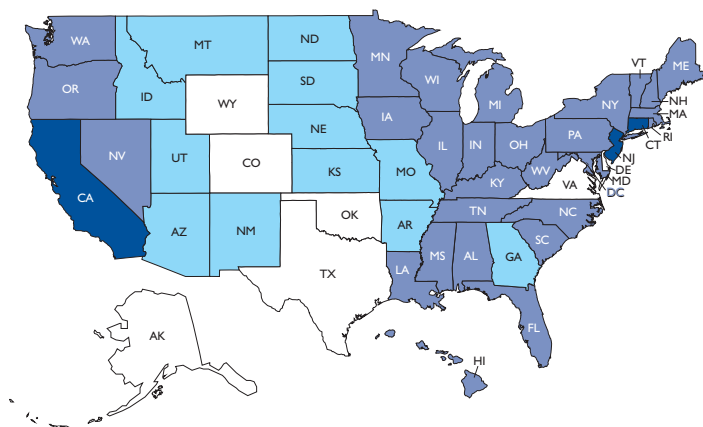
- Over 35 percent of adults age 26 and older who did not graduate high school were obese, compared with 22.1 percent of those who graduated from college or technical college.
- Thirty-three percent of adults who earn less than \$15,000 per year were obese, compared with 25.4 percent of those who earned at least \$50,000 per year.²⁰

B. CHILDHOOD AND YOUTH OBESITY AND OVERWEIGHT RATES

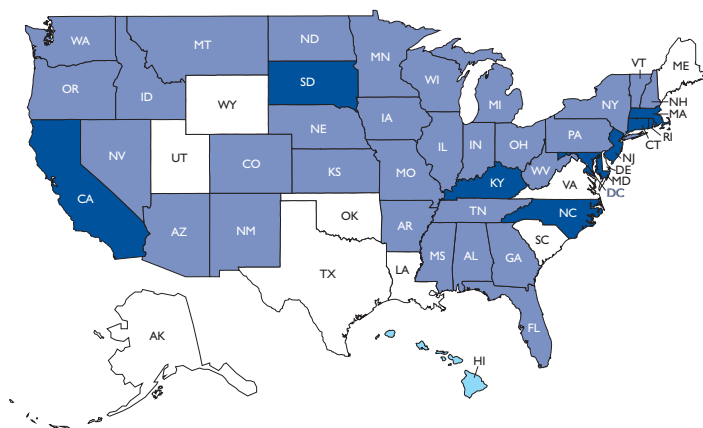
1. STUDY OF CHILDREN FROM LOW-INCOME FAMILIES (2011)

The Pediatric Nutrition Surveillance Survey (PedNSS), which examines children from the ages of 2 to 4 from low-income families, found that 14.4 percent of this group is obese, compared with 12.1 percent of all U.S. children of a similar age.²¹ The data for PedNSS is based on actual measurements rather than self-reported data. The prevalence of obesity among children from low-income families increased from 12.7 percent in 1999 to 14.4 percent in 2011. However, during 2008 to 2011, 18 states and the U.S. Virgin Islands had a statistically significant decrease and only three states increased during this time.

PedNSS 1998²²

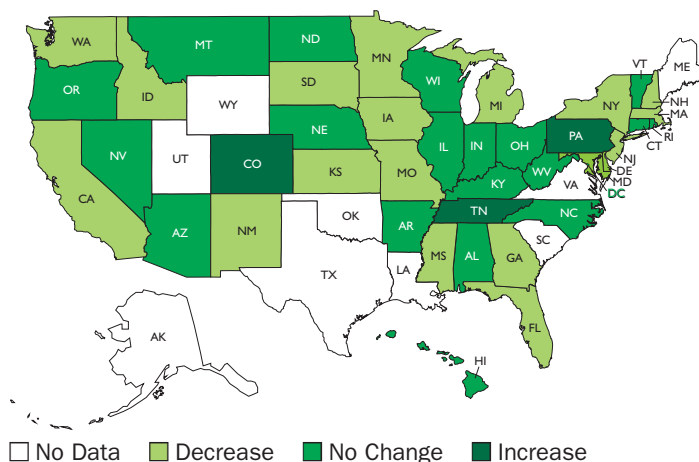


PedNSS 2011



□ No Data □ <10% □ ≥10% & <15% ■ ≥15%

Decreases and Increases in Obesity—PedNSS, 2008-2011



□ No Data □ Decrease □ No Change ■ Increase

The most recent data for childhood statistics on a state-by-state level are from the 2011 National Survey of Children's Health (NSCH).²³ According to the study, obesity rates for children ages 10 to 17, defined as BMI greater than the 95th percentile for age group, ranged from a low of 9.9 percent in Oregon to a high of 21.7 percent in Mississippi.

The NSCH study is based on a survey of parents in each state. The data are derived from parental reports, so they are not as reliable as measured data, such as NHANES and PedNSS, but they are the only source of comparative state-by-state data for children.

Legend:

- No Data
- <10%
- ≥10% & <15%
- ≥15% & <20%
- ≥20% <25%
- ≥25% <30%
- ≥30%

16

STATES WITH THE HIGHEST RATES OF OBESE 10- TO 17-YEAR-OLDS		
Rank	States	Percentage of Obese 10- to 17-year-olds (95 percent Confidence Intervals)
1	Mississippi	21.7% (+/- 4.4)
2	South Carolina	21.5% (+/- 4.9)
3	D.C.	21.4% (+/- 5.5)
4	Louisiana	21.1% (+/- 4.0)
5	Tennessee	20.5% (+/- 4.2)
6	Arkansas	20.0% (+/- 4.2)
7	Arizona	19.8% (+/- 4.6)
8	Kentucky	19.7% (+/- 3.9)
9	Illinois	19.3% (+/- 3.9)
10	Texas	19.1% (+/- 4.5)

Note: For rankings, 1 = Highest rate of obesity.

STATES WITH THE LOWEST RATES OF OBESE 10- TO 17-YEAR-OLDS		
Rank	States	Percentage of Obese 10- to 17-year-olds (95 percent Confidence Intervals)
51	Oregon	9.9% (+/- 2.8)
50	New Jersey	10.0% (+/- 2.9)
49	Idaho	10.6% (+/- 3.4)
48	Wyoming	10.7% (+/- 4.2)
47	Colorado	10.9% (+/- 3.6)
46	Washington	11.0% (+/- 3.1)
45	Vermont	11.3% (+/- 2.7)
44	Hawaii	11.5% (+/- 2.6)
43	Utah	11.6% (+/- 3.3)
42	Maine	12.5% (+/- 3.0)

Note: For rankings, 51 = Lowest rate of obesity.

Seven of the states with the lowest rates of obese 10- to 17-year-olds are in the West.



The Youth Risk Behavior Surveillance System (YRBSS) includes both national and state surveys that provide data on adolescent obesity and overweight rates, most recently in 2011.²⁴ The information from YRBSS is self-reported.

The latest state surveys also found a range of obesity levels: a low of 7.3 percent in Colorado to a high of 17.0 percent in Alabama, with a median prevalence of 12.0 percent. Overweight prevalence among high school students ranged from a low of 10.7 percent in Colorado to a high of 19.5 percent in Louisiana, with a median prevalence of 14.7 percent.



PERCENTAGE OF OBESE AND OVERWEIGHT U.S. HIGH SCHOOL STUDENTS BY SEX

	Obese	Overweight
Female	9.8%	15.4%
Male	16.1%	15.1%
Total	13.0%	15.2%

PERCENTAGE OF OBESE AND OVERWEIGHT U.S. HIGH SCHOOL STUDENTS BY RACE/ETHNICITY

	Obese	Overweight
White*	11.5%	14.2%
Black*	18.2%	16.2%
Hispanic	14.1%	17.4%
Total**	13.0%	15.2%

Notes: *Non-Hispanic. **Other race/ethnicities are included in the total but are not presented separately.

PERCENTAGE OF OBESE AND OVERWEIGHT U.S. HIGH SCHOOL STUDENTS BY SEX AND RACE/ETHNICITY

	Obese		Overweight	
	Female	Male	Female	Male
White*	7.7%	15.0%	13.8%	14.7%
Black*	18.6%	17.7%	19.6%	12.8%
Hispanic	8.6%	19.2%	18.0%	16.9%
Total**	9.8%	16.1%	15.4%	15.1%

Notes: *Non-Hispanic. **Other race/ethnicities are included in the total but are not presented separately.

C. ADDITIONAL TRENDS

Nine of the 10 states with the highest rates of type 2 diabetes are in the South.

All of the 10 states with the highest rates of hypertension are also in the South.

1. TYPE 2 DIABETES

STATES WITH THE HIGHEST RATES OF ADULTS WITH TYPE 2 DIABETES, 2012

Rank	State	Percentage of Adult Diabetes (Based on 2012 Data, Including Confidence Intervals)	Obesity Ranking
1	West Virginia	13.0% (+/- 1.0)	4
2	Mississippi	12.5% (+/- 0.9)	2
3 (tie)	Alabama	12.3% (+/- 0.9)	5
3 (tie)	Louisiana	12.3% (+/- 1.0)	1
5	Tennessee	11.9% (+/- 1.0)	10
6	Ohio	11.7% (+/- 0.7)	13
7	South Carolina	11.6% (+/- 0.8)	7
8	Oklahoma	11.5% (+/- 0.8)	6
9	Florida	11.4% (+/- 1.1)	40
10	Arkansas	11.3% (+/- 1.0)	3

*Note: For rankings, 1 = Highest rate of type 2 diabetes

2. HYPERTENSION

STATES WITH THE HIGHEST RATES OF ADULTS HYPERTENSION, 2011

Rank	State	Percentage of Adult Hypertension (Based on 2011 Data, Including Confidence Intervals)	Obesity Ranking
1	Alabama	40.0% (+/- 1.6)	5
2	Mississippi	39.2% (+/- 1.4)	2
3	Tennessee	38.6% (+/- 2.6)	10 (tie)
4	Louisiana	38.3% (+/- 1.4)	1
5	Kentucky	37.9% (+/- 1.5)	9
6	West Virginia	37.1% (+/- 1.6)	4
7	South Carolina	36.4% (+/- 1.3)	7
8	Arkansas	35.7% (+/- 2.1)	3
9	Oklahoma	35.5% (+/- 1.4)	6
10	Delaware	34.6% (+/- 1.9)	31

*Note: For rankings, 1 = Highest rate of hypertension.

3. PHYSICAL INACTIVITY IN ADULTS

Physical inactivity in adults reflects the number of survey respondents who reported not engaging in physical activity or exercise during the previous 30 days other than doing their regular jobs.

STATES WITH THE HIGHEST PHYSICAL INACTIVITY RATES, 2012			
Rank	State	Percentage of Adult Physical Inactivity (Based on 2012 Data, Including Confidence Intervals)	Obesity Ranking
1	Arkansas	31.5% (+/- 1.8)	3
2	West Virginia	31.0% (+/- 1.5)	4
3	Mississippi	30.8% (+/- 1.5)	2
4	Louisiana	29.9% (+/- 1.5)	1
5	Kentucky	29.7% (+/- 1.3)	9
6	Tennessee	28.6% (+/- 1.5)	10
7	Oklahoma	28.3% (+/- 1.3)	6
8 (tie)	Alabama	27.2% (+/- 1.4)	5
8 (tie)	Texas	27.2% (+/- 1.3)	19
10	Indiana	25.9% (+/- 1.2)	8

*Note: For rankings, 1 = Highest rate of physical inactivity.

STATES WITH THE LOWEST PHYSICAL INACTIVITY RATES, 2012			
Rank	State	Percentage of Adult Physical Inactivity (Based on 2012 Data, Including Confidence Intervals)	Obesity Ranking
51	Oregon	16.3% (+/- 1.3)	28
50	Utah	16.6% (+/- 0.9)	44
49	Colorado	17.0% (+/- 1.0)	51
48	Vermont	17.2% (+/- 1.2)	46
47	D.C.	17.4% (+/- 1.8)	50
46	Minnesota	17.6% (+/- 0.9)	36
45	Alaska	18.5% (+/- 1.6)	36
44	Hawaii	18.7% (+/- 1.4)	47
43	Washington	19.0% (+/- 0.9)	32
42	California	19.2% (+/- 1.0)	41

*Note: For rankings, 51 = Lowest rate of physical inactivity.

The top four states with the highest rates of obesity also had the highest reported percentage of inactivity among adults.

Oregon had the lowest reported rate of physical inactivity at 16.3 percent.

D. ADULT FRUIT AND VEGETABLE CONSUMPTION, 2011²⁷

Nationally, 37.7 percent of adults consume fruits less than one time a day, and 22.6 consume vegetables less than one time a day. Consumption of fruits ranged from a low of 30.3 percent of adults consuming fruits less than once a day in New Hampshire to a high of 50.8 percent consuming fruits less than once a day in Mississippi. Oregon had the best rates of vegetable consumption with a low of 15.3 percent of adults consuming vegetables less than once a day, compared with 32.5 percent in Louisiana consuming vegetables less than once a day.



Cost Containment and Obesity Prevention

CURRENT STATUS:

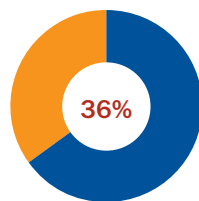
Obesity is one of the biggest drivers of preventable chronic diseases and healthcare costs in the United States. Currently, estimates for these costs range from \$147 billion to nearly \$210 billion per year.²⁸ In addition, job absenteeism related to obesity costs \$4.3 billion annually.²⁹

The 2012 edition of *F as in Fat* featured a modeling study projecting adult obesity prevalence in 2030 if rates continued on their historical trajectory. This analysis predicted that by 2030, the U.S. adult obesity rate would reach 50 percent, that medical costs associated with treating preventable obesity-related diseases would increase by between \$48 billion and \$66 billion per year, and that the loss in economic productivity could be between \$390 billion and \$580 billion annually.³⁰

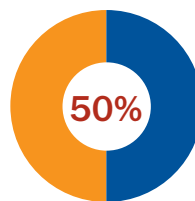
As obesity rates rise, the risk of developing obesity-related health problems — type 2 diabetes, coronary heart disease and stroke, hypertension, arthritis and obesity-related cancer —

increases exponentially.³¹ Twenty years ago, only 7.8 million Americans had been diagnosed with diabetes, and today, approximately 25.8 million Americans have diabetes.³² More than 75 percent of hypertension cases can be attributed to obesity.³³ And, approximately one-third of cancer deaths are linked to obesity or lack of physical activity.³⁴

Obesity in
America 2010

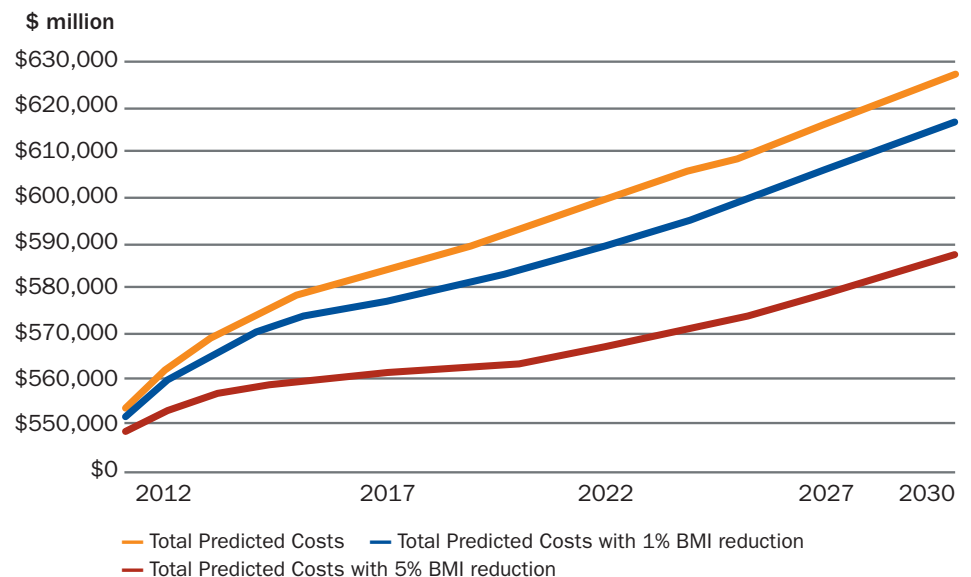


Predicted Obesity
in America 2030



However, if obesity trends were lowered by reducing the average adult BMI by only 5 percent, millions of Americans could be spared from serious health problems and preventable diseases, and the country could save \$29.8 billion in five years, \$158 billion in 10 years and \$611.7 billion in 20 years.³⁵

PROJECTED OBESITY-RELATED HEALTH CARE COSTS 2010 TO 2030



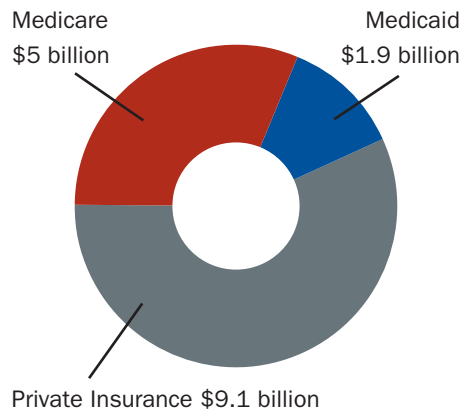
Reducing obesity and improving health can help lower costs through fewer trips to the doctor's office, fewer tests, fewer prescription drugs, fewer sick days, fewer emergency room visits, fewer readmissions to the hospital and lower risk for a wide range of diseases.

To date, there has not been a sustained, strong national focus on prevention to deliver the potential results. A growing number of studies

are demonstrating the positive returns that many strategies and programs can deliver for improving health, lowering healthcare costs and improving productivity.³⁶ For instance, a 2008 study by the Urban Institute, The New York Academy of Medicine (NYAM) and TFAH found that an investment of \$10 per person in proven community-based programs to increase physical activity, improve

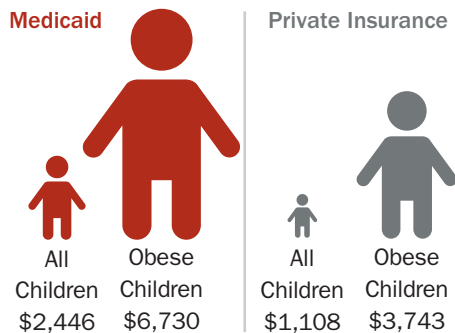
nutrition, and prevent smoking and other tobacco use could save the country more than \$16 billion annually within five years. That's a return of \$5.60 for every \$1 invested.³⁷ Out of the \$16 billion, Medicare could save more than \$5 billion, and Medicaid could save more than \$1.9 billion. Expanding the use of prevention programs would better inform the most effective, strategic public and private investments to yield the strongest results.

FIVE-YEAR ROI ON \$10 PER PERSON COMMUNITY-BASED INVESTMENT

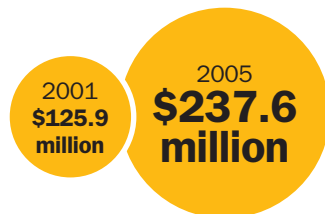


WHY CONTAINING OBESITY-RELATED HEALTHCARE COSTS MATTERS:

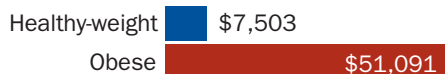
Total Annual Child Health Care Expenses



Obesity-related Hospitalization Costs for Children and Youths



Annual Medical Claims per 100 Full-time Employees



Obesity has a major impact on direct and indirect health spending:

- Obese adults spend 42 percent more on healthcare costs than healthy-weight people.³⁸
- Annual medical claims costs per 100 full-time employees is \$7,503 for healthy-weight workers and \$51,091 for obese workers.
- Obese children had \$194 higher outpatient visit expenditures, \$114 higher prescription drug expenditures, and \$25 higher emergency room expenditures, based on a two-year Medical Expenditure Panel Survey.³⁹ Overweight and obesity in childhood is associated with \$14.1 billion in additional prescription drug, emergency room, and outpatient visit costs annually.
- The average total health cost for a child treated for obesity under Medicaid is \$6,730 annually, while the average health cost for all children covered by Medicaid is \$2,446.⁴⁰ The average total health cost for a child treated for obesity under private insurance is \$3,743, while the average health cost for all children covered by private insurance is \$1,108.⁴¹
- Hospitalizations of children and youths with a diagnosis of obesity nearly doubled between 1999 and 2005, while total costs for children and youths with obesity-related hospitalizations increased from \$125.9 million in 2001 to \$237.6 million in 2005, measured in 2005 dollars.⁴²
- Obesity-related job absenteeism costs \$4.3 billion annually.⁴³
- Obesity is associated with lower productivity while at work (presenteeism), which costs employers \$506 per obese worker per year.⁴⁴
- As a person's BMI increases, so do the number of sick days, medical claims and healthcare costs associated with that person.⁴⁵
- A number of studies have shown obese workers have higher workers' compensation claims.^{46, 47, 48, 49, 50, 51}

Policy Recommendations:

- Preventing obesity and its related chronic diseases should be a major focus of healthcare cost-containment efforts.
- Funding for obesity-prevention programs will be important to achieve results in improving health and reducing healthcare costs. Programs and policies should include a wide range of partners to ensure success, including businesses, schools, community- and faith-based organizations, economic and community developers, and health providers.
- Because community-based obesity- and disease-prevention programs can significantly cut healthcare costs for communities, funding for evidence-based programs at all levels of government will continue to be important.
- Community-based programs must include the ability to evaluate effectiveness and cost savings, and demonstrate how savings can be shared among partners, including businesses and the healthcare system, and reinvested to continue to support prevention activities.

ADDITIONAL RESOURCES:

Bending the Obesity Cost Curve. Trust for America's Health. February 2012.

<http://healthyamericans.org/assets/files/TFAH%202012ObesityBrief06.pdf>

Return on Investments in Public Health. The Robert Wood Johnson Foundation.

April 2013. http://rwjf.org/content/dam/farm/reports/issue_briefs/2013/rwjf72446

Accessing the Economics of Obesity and Obesity Interventions. M.J. O'Grady and J.C. Capretta.

Campaign to End Obesity. March 2012. <http://www.rwjf.org/en/about-rwjf/newsroom/newsroom-content/2012/03/new-report-shows-importance-of-calculating-full-cost-savings-of-.html>

COMMENTARY FROM
BIPARTISAN POLICY CENTER

BY LISEL LOY, JD, Director, and
LAURA ZATZ, MPH, Senior Policy Analyst,
Nutrition and Physical Activity Initiative,
Bipartisan Policy Center



The Value of Prevention in Improving Health Outcomes and Cutting Costs: Continuing to Build the Case

Our nation is in crisis. This is not just a health crisis, resulting from escalating rates of obesity and related chronic diseases, but also a budget crisis, with public and private stakeholders searching for ways to rein in spending in a tight fiscal environment. These crises are inextricably linked, given that rising health care costs are a primary driver of our national debt.

THE STATUS QUO IS UNSUSTAINABLE.

We must change the way we approach both health and health care, and the ways we pay for both. Doing so will require us first to identify the key

drivers of this crisis, and the existing barriers to fixing it. The situation is complex, and involves many stakeholders across multiple sectors.

CHANGE IS HARD. CHANGE THAT INVOLVES ENTRENCHED SYSTEMS AND INDIVIDUAL BEHAVIOR IS PARTICULARLY COMPLICATED.

From our perspective, this means looking for big levers — those that will result in the greatest progress toward our twin goals of improving health and cutting costs. The good news is there are many leaders and much activity in this space: community-based organizations creating innovative partnerships to deliver healthier food options and

more opportunities for physical activity; mayors and state governments leading the way on diabetes-prevention efforts, and cutting costs for state employees by improving health; and, at the national level, a greater focus on prevention designed to shift our energy and resources toward less disease and lower health care spending.

In addition, many chronic diseases, unlike certain acute conditions, are responsive to changes in diet and physical activity levels. Changing what we eat and how much we move

is not necessarily easy, and it usually requires a combination of individual and environmental change. But the opportunity is there.

TAKING US FROM HERE TO THE NEXT STEP — BIGGER-SCALE CHANGES SUFFICIENT TO MEET THE SCOPE OF THE PROBLEM — WILL REQUIRE AT LEAST THREE THINGS:

1 Increasing investment in prevention — combined with continued learning from existing efforts about what is working best to improve health and cut costs.

While many existing initiatives are relatively young and small-scale, they reflect important leadership from all levels of government, non-profit organizations and the private sector. These efforts represent laboratories of innovation and contribute to our

ongoing collective learning about what works. We need to continue to understand, share and promote these stories and their data so that a broader range of stakeholders understands the work being done and its impact.

2 Increasing investment in robust data collection with longer follow-up, including analyzing and disseminating information about what is learned.

Uncertainty about which strategies or policies yield the biggest bang for the buck chills investment in prevention. Government and private decision-makers need more information before making big investments that change the status

quo. We need to wisely invest existing resources, and leverage additional ones where possible, to build the evidence base and deliver that information to the decision-makers who need it.

3 Identifying areas of common ground and building partnerships among the full range of stakeholders.

Obesity and chronic disease are not just health issues. They are economic and national security issues. They affect our kids and their performance in school. They affect the health of our businesses and the strength of our families and communities. Everyone,

from employers and insurers to doctors and community health workers to governors and mayors to food retailers and manufacturers, has a role to play and a stake in the outcomes — improving health and cutting health care costs are essential to all of us.

What **Makes** Us Healthy



Source: Bipartisan Policy Center

What We **Spend** On Being Healthy



At the Bipartisan Policy Center, we tried this integrated approach. Our Health Care Cost Containment Initiative brought together leaders from the worlds of health and budget policy to develop consensus recommendations. The report, “A Bipartisan Rx for Patient-Centered Care and System-wide Cost Containment,” recommended strategies to contain health care cost

growth, while enhancing health care quality and value.ⁱ While much of the report focused on ways to improve quality and care in Medicare, the authors recognized that reducing the prevalence of chronic disease was essential to controlling costs. The recommendations focus on building the evidence base and support for prevention as a tool in the larger cost containment strategy.

We must continue to build success stories and test new prevention strategies. Bringing together data on health outcomes and economic outcomes will help convince key decision-makers across sectors that prevention is a worthwhile investment—especially in a time of constrained resources. A successful national prevention strategy requires strong leadership and a broad, multi-faceted approach involving all sectors. We must continue working together to identify what will stem both our chronic disease crisis and our health care cost crisis.

THE BIPARTISAN POLICY CENTER (BPC) launched its Nutrition and Physical Activity Initiative to reduce obesity and chronic disease and their associated health care costs through constructive engagement with the public, non-profit, and private sectors. Led by a bipartisan group of former U.S. Cabinet Secretaries Dan Glickman, Mike Leavitt, Donna Shalala, and Ann M. Veneman, the initiative released “Lots to Lose: How America’s Health and Obesity Crisis Threatens our Economic Future” in June 2012. It featured 26 consensus recommendations to improve America's health and fiscal crisis.

ⁱ *A Bipartisan Rx for Patient-Centered Care and System-wide Cost Containment*. Tom Daschle, Pete Domenici, Bill Frist and Alice Rivlin. <http://bipartisanpolicy.org/library/report/health-care-cost-containment>

F as in Fat: *Obesity Policy* *Series*



Physical Activity In and Out of School

CURRENT STATUS:

National recommendations call for children and adolescents to get at least 60 minutes of physical activity per day, most of which should be moderate or vigorous in intensity.⁵² Currently, fewer than 30 percent of high school students were physically active at least 60 minutes per day on all seven days before a survey.⁵³

Efforts to provide physical education and physical activity often focus on schools because that is where school-age children spend more than half of their waking hours.⁵⁴ The Carol M. White Physical Education Program (PEP), the only federal funding stream for physical education programs, provides federal grants to school districts and community organizations that implement comprehensive

physical fitness and nutrition programs designed to help students reach state physical education standards. Authorized by the Elementary and Secondary Education Act, (ESEA) \$74.6 million was appropriated for PEP in FY 2013.⁵⁵ While all 50 states have enacted physical education standards or requirements, the scope of these laws and degree to which they are funded and enforced varies significantly.

On the physical activity front, only 20 percent of school districts nationwide had a wellness policy that required daily recess, and children who are at the highest risk of obesity are the least likely to attend schools that do offer it.⁵⁶

To address physical activity outside of school, the U.S. Department of Transportation (DOT) provides grants to states and localities to fund walking and biking projects. More than half of states have adopted complete streets policies,⁵⁷ which help ensure that roads accommodate all users by incorporating features such as sidewalks and bike lanes. A growing number of states also have enacted legislation to facilitate joint-use agreements,⁵⁸ which provide members of a community with increased access to facilities like school athletic fields and playgrounds.

ESEA was last reauthorized in 2002 for five years; since 2007, Congress has enacted temporary extensions of the current law. In the interim, proposals that would make in-school physical education and physical activity a higher federal priority have included increasing resources for PEP, providing funding for schools to hire additional physical education teachers, and requiring school boards to collect and publish data on the extent to which they have made progress in meeting national physical education and physical activity standards. Should Congress attempt to reauthorize ESEA in 2013, they may consider these and other proposals.

The new surface transportation law that Congress reauthorized in 2012—known as Moving Ahead for Progress in the 21st Century (MAP-21)—continues to fund walking and biking projects. However, overall funding levels were cut, and a set of active transportation programs, including Safe Routes to School, was reorganized. MAP-21 is authorized through the end of FY 2014, and Congress is likely to begin debating reauthorization of the law in 2013 or 2014. Advocates are expected to press for the revival of such programs at higher funding levels.

What Works to Get Kids Active

Schools and communities can help kids get the 60 minutes of physical activity they need each day



Source: Active Living Research

WHY PHYSICAL ACTIVITY IN AND OUT OF SCHOOL MATTERS:

- Physical activity provides a wide variety of health benefits for young people. Research has shown that physical activity can strengthen muscles and bones, help young people maintain a healthy weight, and reduce the likelihood of high blood pressure, cholesterol and type 2 diabetes.⁵⁹
- Well-structured physical education programs can result in children who are more active.⁶¹ In addition, providing short activity breaks during the school day can increase physical activity in students and improve some measures of health, such as muscle strength, endurance and flexibility.⁶²
- Cooperation between schools and communities also can help. When young people have access to school recreational facilities outside of school hours, they tend to be more active.⁶³

Research shows that physically active and fit children tend to have enhanced academic achievement and links physical activity breaks during the school day with better academic focus and better behavior in the classroom.⁶⁰

Policy Recommendations:

- School districts, with support from federal, state and local governments, should provide regular physical activity opportunities in schools and communities to help children and adolescents be active for at least 60 minutes per day.
- Schools should conduct body mass index or other weight-related screenings to help assess rates of childhood obesity and evaluate the extent to which physical education and/or physical activity programs help students maintain or achieve a healthy weight.
- Schools and communities nationwide should prioritize joint-use agreements to provide access to school facilities for recreational use outside of school hours.

ADDITIONAL RESOURCES:

Institute of Medicine: *Educating the Student Body: Taking Physical Activity and Physical Education to School.*

<http://www.iom.edu/Reports/2013/Educating-the-Student-Body-Taking-Physical-Activity-and-Physical-Education-to-School.aspx>

U.S. Department of Health and Human Services: *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth.* <http://www.health.gov/paguidelines/>

Active Living Research: *School Policies on Physical Education and Physical Activity.*

<http://www.activelivingresearch.org/schoolpolicy>

Active Living Research: *Active Education.* <http://www.activelivingresearch.org/activeeducation>

Active Living Research: *Policies and Standards for Promoting Physical Activity in After-School Programs.*

<http://www.activelivingresearch.org/afterschool>

STATE SCHOOL-BASED PHYSICAL ACTIVITY AND HEALTH-SCREENING LAWS

Physical Education and Activity

- Every state has some physical education requirements for students. However, these requirements are often limited or not enforced, and many programs are inadequate.⁶⁴
- Many states have started enacting laws requiring schools to provide a certain number of minutes and/or a specified difficulty level of physical activity. Twelve specifically require schools to provide physical activity or recess during the school day: Arizona, Colorado, Connecticut, Illinois, Indiana, Kentucky, Louisiana, Maine, North Carolina, North Dakota, Ohio and Tennessee.

Shared Use Agreements

- 22 states currently have laws supporting shared use of facilities, including: Alabama, Arkansas, California, Delaware, Georgia, Indiana, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, Utah, Washington and Wisconsin.

Many communities do not have enough safe and accessible places for people to be physically active, indoors and out. Schools often have gymnasiums, playgrounds, tracks and fields, but they

are not accessible to the community. Many schools keep their facilities closed after school hours for fears of liability in the event of an injury, vandalism, and the cost of maintenance and security. Some states and communities have laws encouraging or requiring schools to make facilities available for use by the community through shared or joint use agreements.⁶⁵ These agreements allow school districts, local governments and community-based organizations to overcome common concerns, costs and responsibilities that come along with opening school property to the public after hours.



HEALTH ASSESSMENT AND HEALTH EDUCATION

Physical activity, nutrition and other factors affect the overall health of students. A number of states have instituted legislation to conduct health assessments to help parents, schools and communities help understand the health of children and teens, and nearly every state requires some form of health education classes for students.

Health Assessments

21 states currently have legislation that requires BMI screening or weight-related assessments other than BMI.

- States with BMI screening requirements: Arkansas, California*, Florida, Illinois, Maine, Missouri, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Vermont and West Virginia.
- States with other weight-related screening requirements: Delaware, Iowa, Louisiana, Massachusetts, Nevada, South Carolina and Texas.

*As of July 2010, statewide distribution of diabetes risk information to school children, California Education Code § 49452.7, replaced individual BMI reporting, California Education Code § 49452.6.

BMI and other health assessments are intended to help schools and communities assess rates of childhood obesity, educate parents and students, and serve as a means to evaluate obesity-prevention and -control programs in that school and community. The American Academy of Pediatrics (AAP) recommends that BMI should be calculated and plotted annually for all youths as part of normal health supervision within the child's medical home, and the Institute of Medicine (IOM) recommends annual school-based BMI screenings.^{66, 67}

Health Education

Only two states — Colorado and Oklahoma — do not require schools to provide health education.

Health education curricula often include community health, consumer health, environmental health, family life, mental and emotional health, injury prevention and safety, nutrition, personal health, prevention and control of disease, and substance use and abuse. The goal of school health education is to prevent premature deaths and disabilities by improving the health literacy of students.⁶⁸

According to a 2006 CDC study, health education standards and curricula vary greatly from school to school.⁶⁹

- The percentage of states that require districts or schools to follow national or state health education standards increased from 60.8 percent in 2000 to almost 75 percent in 2006; the percentage of districts that required this of their schools increased from 68.8 percent to 79.3 percent.
- Nearly 14 percent of states and 42.6 percent of districts required each school to have a school health education coordinator.

EXPERT COMMENTARY

BY JOHN P. HEARD III Superintendent,
Perry County School District



For our obesity-prevention efforts, we received Silver National Recognition Awards in 2010 from the Alliance for a Healthier Generation.

A Healthy Future for Students, One Step at a Time

The Perry County School District in Marion, Alabama, has a simple philosophy: we strive to prepare lifelong learners who will shape the future. However, in order for them to shape the future, our children need a healthy start.

Since 2002, I have served as superintendent of the Perry County Schools. I am proud to call this area my home, but the statistics in my state and county are dire. Alabama has the 11th-highest rate of childhood obesity in the country. This problem doesn't end with childhood, it extends into adulthood: according to the 2013 County Health

Rankings, more than 40 percent of adults here in Perry County are obese, with more than one-third reporting that they do not engage in physical activity.

As superintendent, I consider the 1,700 students in our district to be my own, and I am determined to provide each one of them with a better, healthier future.

Getting our children moving during the school day has been critical to our success.

In our school system, we place a high priority on physical education. We require a minimum of 30 minutes of physical education every day for all of our elementary school students, while our high school students are required to take one year of physical education to meet graduation requirements. Our next goal is to make physical education a yearly requirement for our high school students.

Being active during the school day extends beyond the gymnasium. Therefore, we've built new playgrounds for recess. Students take

part in a "Jammin' Minute" to get some quick physical activity breaks during class time—our teachers report that getting some excess energy out makes students more attentive and on-task once instruction resumes. We host walks for students, complete with music and marching bands, in which parents and the community participate. These events raise the entire community's awareness of the importance of our children and adults being physically active. All of this helps make the school day more enjoyable and helps our children be better learners.

IN MY VIEW, THE SCHOOL DAY EXTENDS BEYOND THE OPENING AND FINAL BELLS

We have a responsibility to make sure that students get to school safely each morning and return home safely each afternoon. We've received two Safe Routes to School grants to fix sidewalks, install new bike racks and replace old signage around our buildings. These improvements will encourage students to walk and bike to school, allowing them to start and end their day school day in a healthier way.

I believe that schools can also play a big role in helping communities be active all year round. That is why we've signed joint-use agreements with the Perry County government to keep our

facilities open after hours and on the weekends for all to enjoy. And it's not just during the school year—we keep our gymnasiums open for several weeks during the summer months as well.

In all of these instances, we've made certain to communicate openly and directly with students, parents, faculty and staff. We've established school health committees that meet regularly to provide feedback on current initiatives and propose new ones.

We've made significant changes to the nutrition content of the food we serve to complement our physical activities. We've also received full commitment

and buy-in from our local board of education members.

I have been an educator for more than three decades. It is mind-boggling to me when I read reports that—in large part due to the obesity epidemic—the current generation of young people may be the first in American history to live sicker and die younger than their parents' generation. So I refuse to sit idly by and watch this happen. We may not be the most well-known school district out there, but I firmly believe we can be a model for others to follow.

“Every child has the potential to change the world. We can help them get there, one healthier step at a time.”



F as in Fat: *Obesity Policy* Series



School Foods and Beverages

CURRENT STATUS:

The Healthy, Hunger-Free Kids Act, enacted in December 2010, authorized the first update to nutrition standards for school meals in more than a decade, and the first update to standards for school snacks and drinks in more than 30 years.

Today, schools across the country are serving healthier breakfasts and lunches because of the updated school meal nutrition standards that went into effect for the beginning of the 2012-13 school year. Meals now include more fruits, vegetables, whole grains and low-fat dairy products, and less sugar and unhealthy fats. Students now have access to free water at lunch, and over time meals will contain less sodium. To help schools implement these changes,

the law also increased the federal reimbursement for meals that meet the new standards by six cents.

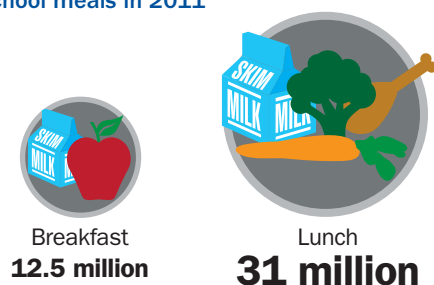
Schools also sell foods and drinks outside of breakfast and lunch in vending machines, school stores and a la carte lines. These items, sometimes called “competitive foods” because they compete with school meals for students’ spending, are often unhealthy and can include salty chips, candy and sugary drinks.

An analysis of data from the USDA found that schools are selling 400 billion calories from junk foods each year.⁷¹

On June 27, 2013, U.S. Department of Agriculture (USDA) issued an interim final rule updating nutrition standards for school snacks and drinks for schools that participate in the National School Lunch Program. The new standards, called “Smart Snacks in School,” call for healthier competitive foods with more fruits, vegetables, low-fat dairy, whole grains and lean proteins as main ingredients. They also set limits for sugar, fat and sodium in such items. The new standards apply to foods and beverages sold outside of the school meals program on the school campus at any time during the school day. More than 240,000 people commented on the proposed standards, with 97 percent in favor of a strong final rule. Competitive foods and beverages must meet the nutrition standards specified in the interim final rule by the beginning of the 2014-2015 school year.

WHY SCHOOL FOODS AND BEVERAGES MATTER:

Average daily number of children who ate school meals in 2011



Percentage of daily calories consumed at school



- Millions of children rely on the school meals program. For some children, the only meals they have are in school. During the average school day in 2011, more than 31 million children ate school lunch, and 12.5 million ate school breakfast.⁷³ Children and teens can consume up to half of their total daily calories at school.⁷⁴
- Strong school nutrition policies can have a positive impact on children’s health. Research shows that students who received free or reduced-price lunches—who tend to be from lower-income families—had higher obesity rates than those who did not participate in the lunch program, but the gap was much smaller in states with strong meal standards.⁷⁵
- Kids eat less of their lunch, consume more fat, take in fewer nutrients and gain weight when schools sell unhealthy snacks and drinks outside of meals.^{76,77,78,79,80,81,82} Children and teens in states with strong laws restricting the sale of unhealthy snack foods and beverages in school gained less weight over a three-year period than those living in states with no such policies.⁸³
- Healthier standards also can help schools’ budgets. A recent health impact assessment found that, when schools serve healthier snacks and drinks, they generally see their total food service revenues increase.⁸⁴

Policy Recommendations:

- The U.S. Department of Agriculture should continue to monitor state and local implementation of both updated school meal and snack food and beverage standards, and provide adequate training and technical assistance where needed to states, localities, industry and school nutrition organizations.
- Adequate funding is an important strategy to ensure schools have the tools and resources they need to provide healthy and appealing meals necessary to meet nutrition standards set by USDA.

ADDITIONAL RESOURCES:

Kids's Safe & Healthful Foods Project: *Health Impact Assessment: National Nutrition Standards for Snack and a la Carte Foods and Beverages Sold in Schools.*

http://www.pewhealth.org/uploadedFiles/PHG/Content_Level_Pages/Reports/KS_HIA_revised%20WEB%20FINAL%2073112.pdf

Robert Wood Johnson Foundation: *Competitive Foods Resources.*

<http://www.rwjf.org/en/topics/search-topics/C/competitive-foods.html>

Healthy Eating Research: *Influence of Competitive Food and Beverage Policies on Children's Diets and Childhood Obesity.*

<http://www.rwjf.org/en/research-publications/find-rwjf-research/2012/07/influence-of-competitive-food-and-beverage-policies-on-children-.html>

Institute of Medicine: *Nutrition Standards for Foods in Schools: Leading the Way toward Healthier Youth.*

<http://www.iom.edu/Reports/2007/Nutrition-Standards-for-Foods-in-Schools-Leading-the-Way-toward-Healthier-Youth.aspx>

2012 NATIONAL SCHOOL MEAL STANDARDS

The new requirements are being phased in over five years, starting during the 2012-2013 school year. States with standards that are stronger than the new national standards will be able to retain those standards.

FOOD GROUP	PAST REQUIREMENTS	NEW REQUIREMENTS
Fruits and Vegetables	½ to ¾ cup of fruit and vegetables combined per day	¾ to 1 cup of vegetables plus ½ to 1 cup of fruit per day
Vegetables	No specifications as to type of vegetable subgroup	Weekly requirements for: dark green, red/orange, beans/peas, starchy, others (as defined in 2010 Dietary Guidelines)
Meat/Meat Alternate	1.5- to 2-ounce equivalent (daily minimum) (ounce equivalent minimum)	Daily minimum and weekly ranges: Grades K-5: 1-ounce equivalent minimum daily (8 to 10 ounces weekly) Grades 6-8: 1-ounce equivalent minimum daily (9 to 10 ounces weekly) Grades 9-12: 2-ounce equivalent minimum daily (10 to 12 ounces weekly)
Grains	8 servings per week (minimum of 1 serving per day)	Daily minimum and weekly ranges: Grades K-5: 1-ounce equivalent minimum daily (8 to 9 ounces weekly) Grades 6-8: 1-ounce equivalent minimum daily (8 to 10 ounces weekly) Grades 9-12: 2-ounce equivalent minimum daily (10 to 12 ounces weekly)
Whole Grains	Encouraged	At least half of the grains must be whole grain-rich beginning July 1, 2012. Beginning July 1, 2014, all grains must be whole grain-rich.
Milk	1 cup; Variety of fat contents allowed; flavor not restricted	1 cup; Must be fat-free (unflavored/flavored) or 1% low-fat (unflavored)
Sodium	Reduce, no set standards	TARGET 1: SY 2014-15 Lunch ≤1230mg (K-5); ≤1360mg (6-8); ≤1420mg (9-12) Breakfast ≤540mg (K-5); ≤600mg (6-8); ≤640mg (9-12) TARGET 2: SY 2017-18 Lunch ≤935mg (K-5); ≤1035mg (6-8); ≤1080mg (9-12) Breakfast ≤485mg (K-5); ≤535mg (6-8); ≤570mg (9-12) TARGET 3: SY 2019-20 Lunch ≤640mg (K-5); ≤710mg (6-8); ≤740mg (9-12) Breakfast ≤430mg (K-5); ≤470mg (6-8); ≤500mg (9-12)
Water	No set standards	Schools participating in the National School Lunch Program are required to make potable water available to children at no charge in the place where lunches are served during the meal service.

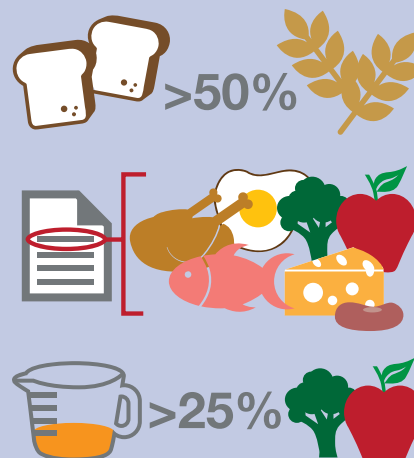
Source: Food and Nutrition Service, USDA. Ounce equivalent means the having the same nutritional value as in a standard ounce of that food group.

<http://www.fns.usda.gov/cnd/Governance/Legislation/comparison.pdf>

2013 COMPETITIVE FOOD STANDARDS

To be allowable, a competitive food must meet all of the competitive food nutrient standards and:

- Be a grain product that contains 50 percent or more whole grains by weight or have as the first ingredient a whole grain; or
- Have as the first ingredient one of the non-grain major food groups: fruits, vegetables, dairy or protein foods (meat, beans, poultry, seafood, eggs, nuts, seeds, etc.); or
- Be a combination food that contains $\frac{1}{4}$ cup of fruit and/or vegetable; or
- For the period through June 30, 2016, contain 10 percent of the Daily Value of a nutrient of public health concern based on the most recent Dietary Guidelines for Americans (i.e., calcium, potassium, vitamin D or dietary fiber). Effective July 1, 2016, this criterion is obsolete and may not be used to qualify as a competitive food; and
- If water is the first ingredient, the second ingredient must be one of the food items above.



STATE SCHOOL-BASED NUTRITION AND FOOD LAWS

Competitive Foods

The Healthy, Hunger-Free Kids Act of 2010 also required USDA to release new national standards for competitive foods in schools. The interim final rule for competitive foods was released in June 2013. The standards for foods and beverages are minimum standards that local educational agencies, school food authorities and schools are required to meet, but state agencies and/or local school districts have the discretion to establish their own standards for non-program foods sold to children, as long as those standards are consistent with the federal standards.

USDA defines competitive foods as any food or beverage served or sold at school that is not part of the USDA

school meals program.⁸⁶ These foods are sold in à la carte lines, in school vending machines, in school stores, or through bake sales.

- **35 states and Washington, D.C., have nutritional standards for competitive foods:** Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Mississippi, Nevada, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington and West Virginia.

- **29 states and Washington, D.C., have laws that limit when and where competitive foods may be sold that exceed federal requirements:** Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Mississippi, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Vermont and West Virginia.

An analysis by CDC researchers found that the content of these laws and policies varied dramatically by state and by grade level within a state.⁸⁷ More information about the specific laws in each state is available at <http://www.cdc.gov/healthyyouth/nutrition/standards.htm>.

STATE SCHOOL-BASED NUTRITION AND FOOD LAWS

Water Availability

- **Only two states — Massachusetts and West Virginia — currently have regulations to support water availability in schools.**

Research shows that children are not drinking recommended levels of water during the school day.⁸⁸ Research suggests that children who drink more water consume less of other beverages and less sugar.⁸⁹ Although water fountains have been available in most schools for decades, there are issues that discourage students from drinking water at school. For example, many schools do not have enough water fountains to supply all of the students, and most schools do not make cups available to encourage students to take more water from the fountains. The cost of providing cups may be a barrier in some schools.⁹⁰ The Healthy, Hunger-Free Kids Act of 2010 requires schools to provide easily accessible, clean water to students at no cost.

Farm-to-School Programs

- **31 states and Washington, D.C., currently have established farm-to-school programs:** Alabama, Alaska, California, Colorado, Connecticut, Florida, Illinois, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nevada, New Jersey, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas,



Vermont, Virginia, Washington, West Virginia and Wisconsin. Many of these programs cover only select students or schools in these states rather than all.

Farm-to-school programs have shown results in improving students' nutritional intake.⁹¹ For example, a study by researchers at the University of California, Davis found that farm-to-school programs not only increase consumption of fruits and vegetables, but actually change eating habits, causing students to choose healthier options at lunch.⁹² A recent health impact assessment examining the Oregon farm-to-school reimbursement law found that the law would create and maintain jobs for Oregonians, increase student participation in the school meals program, improve household food security and strengthen connections within Oregon's food economy.⁹³

EXPERT COMMENTARY

BY JESSICA DONZE BLACK, RD, MPH

Director, Kids' Safe & Healthful Foods Project



Taking Nutrition from the Clinic to the Classroom

As I discussed the profile of a young clinic patient with a colleague, my colleague said, “If I didn’t know better, I’d say she has type 2 diabetes. But she’s 15, and we all know that 15-year-olds don’t get type 2.”

Or do we?

I still remember the day in clinic when I saw my first patient with type 2 diabetes. That, in itself, was not noteworthy; I was a dietitian and well acquainted with the condition. But this case was exceptional because I worked in pediatrics. Until then, everything I saw in practice confirmed what the textbooks on the subject said: type 1 diabetes happened to children, and type 2 diabetes happened to adults. But on that day in 1999, the rules changed.

Clinics were the first to see what we now understand is a childhood obesity crisis. Children and teens were coming in, struggling with their weight and presenting with obesity-related diseases such as high cholesterol, high blood pressure and type 2 diabetes — illnesses that were historically seen almost exclusively in adults. As I worked with these families and learned about their lives,

it was clear that the epidemic was expanding. Yet outside of the clinic, few seemed to notice, which only made the problem worse.

As I worked in weight-management and endocrinology clinics, I sat with families and tried to help them. But their journey was difficult.

Between trying to gain access to more nutritious food options, finding time to prepare meals, and navigating the numerous snack and fast-food venues that surrounded them, their path to a healthier life was an uphill struggle.

But one obstacle stood out from the rest: the place to which these parents entrusted their children every day. In this environment, children were a captive audience; there was a wide range of less-healthy foods and a large number of adults consuming those options, offering them as rewards, and selling them alongside more-balanced meals.



Schools

Schools are supposed to be safe places that nurture students' minds and bodies. But somewhere along the way we lost sight of encouraging and offering healthy food. Finding new ways to balance budgets left too many convenient snack foods and beverages with little nutritional value available. And thus the lessons being taught—even if unintentionally—were moving us in the wrong direction.

Kids were learning to eat snacks and drink sugar-sweetened beverages from vending machines because they were quick and easy. Doughnuts were sold for breakfast to pay for uniforms, and candy to cover the cost of a class trip. These kinds of “treats” were even offered as rewards because — it was believed — that is what successful children deserved.

Day after day I'd sit with children who were struggling to make healthy decisions in a sea of less-healthy options and think about how much better their lives would be if we could just make wholesome choices common and easy. If we could just change from offering hungry students cookies to offering them an apple or a pear, we would set them up to make good decisions no matter what they picked.

These children inspired me to get involved in the policy arena and continue to motivate me to make

sure that all foods sold in schools are safe and healthy. Kids spend more time in school than any place other than home. They deserve schools that help them reach their full potential — academically, socially, emotionally and physically.

The good news is that the pendulum is swinging back. Thousands of schools are improving their nutrition environment and demonstrating that they can serve healthy food while keeping their budgets solvent. Some are inviting kids to be the taste testers of healthy options. Some have leveraged their local farms to get fresh fruits and vegetables at a reduced cost. Some are filling their vending machines with lower-fat and lower-sodium foods, while others have stopped selling snack foods and beverages in schools completely.

As the parent of four young children, I know how challenging it can be to

serve nutritious meals and convince my kids to eat them. For the people who prepare school lunches each day for millions of American children, the task is far more difficult. But I encourage schools to remain committed to serving nutritious options and to keep finding ways to make food taste good. School districts all across the country are already doing so, and research shows that these changes are helping students maintain a healthy weight. We also know that healthier kids do better in school.

Today children consume up to half of their daily calories at school. If schools and those of us who want healthy food for our children can work together to ensure, at a minimum, that the foods kids consume there are healthy, perhaps in a not-too-distant future clinics reporting large numbers of adolescents with type 2 diabetes will only be a memory.

F as in Fat: *Obesity Policy Series*



National Prevention Strategy, Prevention and Public Health Fund, and Community Transformation Grants

CURRENT STATUS:

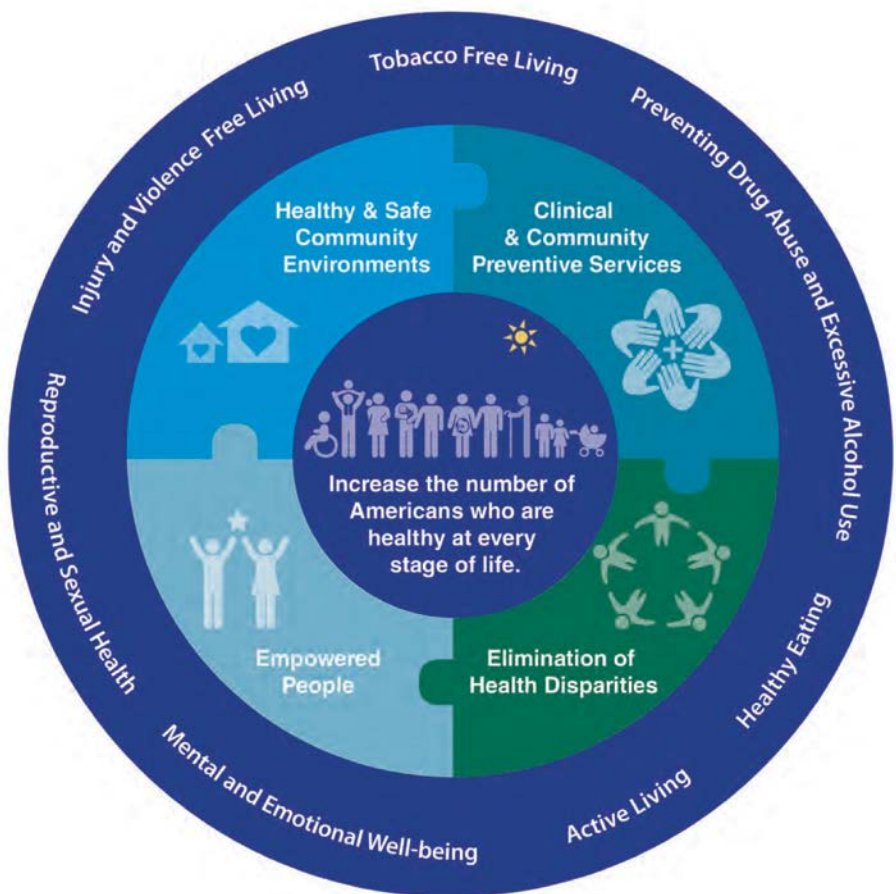
According to CDC, more than half of Americans live with a chronic disease, many of which are related to obesity, poor nutrition and/or physical inactivity, and a majority of these diseases could be prevented.⁹⁴

A wide range of evidence-based studies have found that effective disease-prevention programs in communities can reduce obesity rates, improve nutrition and increase physical activity among residents. This research has informed the creation of three major components of the Affordable Care Act (ACA) that focus on obesity prevention: the National Prevention Strategy (NPS) and Action Plan, the Prevention and Public Health Fund (PPHF) and Community Transformation Grants (CTG).

The National Prevention, Health Promotion and Public Health Council brought 17 executive departments and agencies together for the first time to prioritize and coordinate policies to help improve the health of Americans. They released the NPS in 2011 as a guide for the most effective ways agencies across all levels of government and the private sector can help to improve the health and well-being of Americans. The National Prevention Council Action Plan, a follow-up report released in 2012,

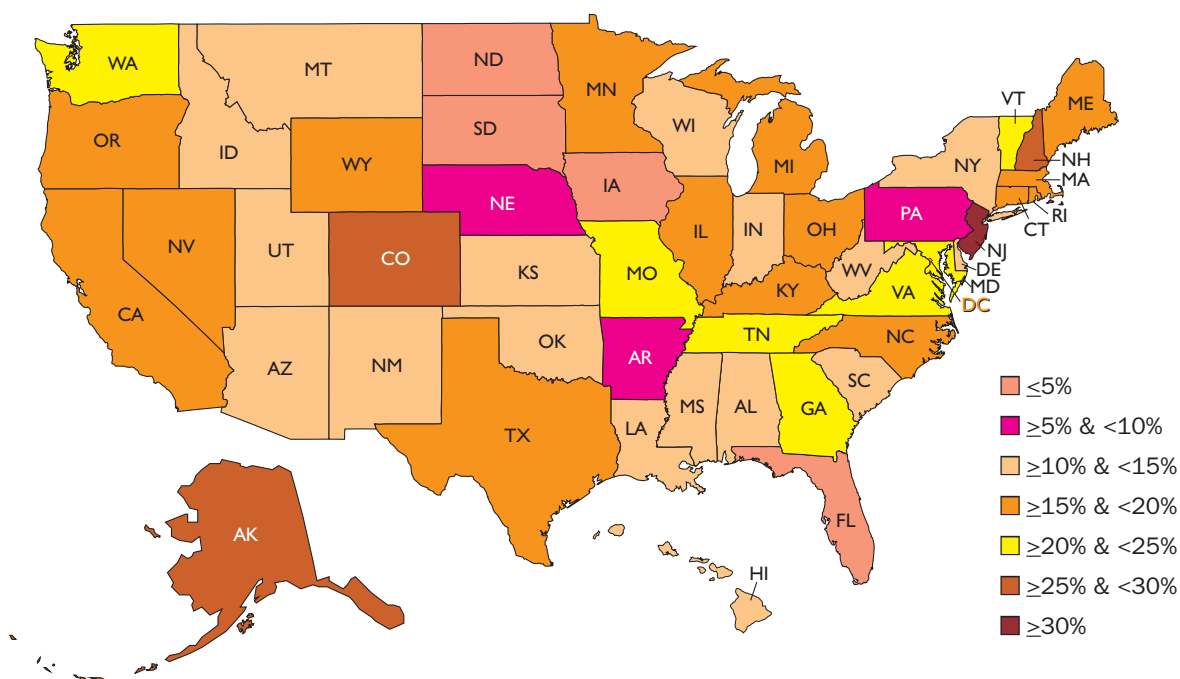
includes specific actions each agency is taking, including opportunities to consider prevention and health and increasing access to healthy and affordable food. For example:

- The U.S. Department of Health and Human Services, the U.S. Department of Defense (DOD), U.S. Department of Veteran Affairs (VA) and the U.S. Department of Agriculture are working to ensure that foods purchased, distributed or served in federal programs and facilities meet standards consistent with the *Dietary Guidelines for Americans*.
- DOD is improving nutrition standards across the military by updating menu standards at all base dining facilities and providing nutrition education and obesity counseling to all military retirees.
- USDA is working to better align agriculture policies with the nutrition goals of the *Dietary Guidelines for Americans*.
- The Federal Trade Commission is monitoring and analyzing food and beverage marketing practices aimed at children to provide the latest trends data and inform future policy discussions.



Source: National Prevention Council Action Plan

POTENTIAL PERCENT GROWTH IN OBESITY-RELATED HEALTHCARE COSTS BY 2030 IF THE CURRENT TRAJECTORY CONTINUES (BY PERCENT)



The PPHF was created in 2010 as part of the ACA to provide increased support for prevention. It supports programs, medical screenings, and research that are aligned with the goals of the NPS. More than \$2 billion has been appropriated through the PPHF since Fiscal Year (FY) 2010, with a total of \$14.5 billion scheduled to be allocated through FY 2022.

One of the primary parts of PPHF is the funding for CTGs, and CTGs were intended to address the leading causes of chronic disease to improve

Americans' health and reduce long-term healthcare costs. CDC scientists have identified many of the top evidence-based approaches to preventing diseases, including ways to reduce obesity rates. Communities receiving CTGs are required to base their efforts on one or more of these proven approaches and meet measurable, achievable outcomes. Fund-supported CTG initiatives are required to incorporate Healthy People 2020 goals in program plans and strategies.

Five-year measurable performance goals for the program are to: reduce death and disability due to tobacco use by 5 percent; reduce the rate of obesity through nutrition and physical activity interventions by 5 percent; and reduce death/disability due to heart disease and stroke by 5 percent.⁹⁵

CTGs allow local communities to tailor their approaches to local needs and to work with partners from a range of sectors to design strategies based on the most pressing needs of their populations. More than 70 percent of awardees are focusing their strategies on addressing nutrition through a variety of activities.⁹⁶ In 2011, \$103 million was awarded to 61 communities in 36 states, serving approximately 120 million Americans. In 2012, \$70 million was awarded to 40 communities, directly impacting about 9.2 million Americans. Twenty percent of all programs are in rural or frontier areas.⁹⁷ According to CDC, at current funding levels, CTGs impact 130 million people — more than four out of 10 Americans. For example:⁹⁸

- Austin/Travis County, Texas—approximately 16 percent of school-age children are obese in Texas. In an effort to reduce childhood obesity, the county will use its CTG to establish a Healthy Food Zone initiative in order to decrease access to unhealthy foods and beverages near schools. The initiative will reach almost 100,000 school-age children in the county.

Approximately 16 percent of school-age children are obese in Texas



- Maryland—just over one-third of high school students in Maryland engage in the recommended levels of physical activity. The state will use its CTG to collaborate with school districts to improve physical education, encourage walking and biking to school, and coordinate physical activity breaks and other physical activity clubs. The Maryland plan to increase access to physical activity opportunities will reach more than 700,000 people by 2016.

Two-thirds of high school students in Maryland do not engage in the recommended levels of physical activity



WHY NATIONAL PREVENTION EFFORTS MATTER:

Seven out of 10 deaths are caused by chronic diseases



Three-quarters of every dollar spent on medical costs is used to treat obesity-related chronic diseases



- In the United States, seven out of 10 deaths are caused by chronic diseases, and three-quarters of every dollar spent on medical costs is used to treat chronic diseases and associated risk factors.⁹⁹ CTGs focus on creating healthier communities to reduce chronic disease burdens through a range of community interventions.¹⁰⁰
- A range of factors beyond the healthcare system — including housing, education, transportation, the availability of affordable healthy food, and conditions in the workplace and the environment — impact Americans' health and risk

for obesity. Working across agencies to identify and develop reforms can have a major impact on the health of all Americans.^{101, 102} If every federal agency prioritizes obesity prevention, the American people will see the benefits.

- Two resources — CDC's *The Guide to Community Preventive Services* and The New York Academy of Medicine's *Compendium of Proven Community-Based Prevention Programs* — have identified specific programs with proven results in reducing obesity and related diseases, including heart disease, hypertension, diabetes and some forms of cancer.^{103, 104}

Policy Recommendations:

- The National Prevention Strategy recommendations should be fully implemented across all of the participating agencies. Each agency should highlight how their programs can directly or indirectly affect physical activity and nutrition opportunities for the Americans they serve.
- All levels of government should also encourage public-private partnerships in their prevention strategies and activities.
- Continued funding of prevention programs, such as the Community Transformation Grants, will be an important strategy going forward.

ADDITIONAL RESOURCES:

National Prevention Strategy: America's Plan for Better Health and Wellness. National Prevention, Health Promotion and Public Health Council. June 2011. <http://www.surgeongeneral.gov/initiatives/prevention/strategy/report.pdf>

Community Transformation Grants. Centers for Disease Control and Prevention. <http://www.cdc.gov/communitytransformation/>

County Health Rankings and Roadmaps. Robert Wood Johnson Foundation and University of Wisconsin Population Health Institute. <http://www.countyhealthrankings.org/>

Place Matters Initiative. Joint Center for Political and Economic Studies. <http://www.jointcenter.org/hpi/pages/place-matters>

FEDERAL FUNDING FOR OBESITY PREVENTION

Public health programs are funded through a combination of federal, state and local dollars. Analyses from a number of organizations, including the Institute of Medicine, The New York Academy of Medicine, CDC and a range of other experts have found that public health has been severely underfunded for decades and does not receive sufficient support to carry out many core functions, including programs to prevent disease and obesity.¹⁰⁵

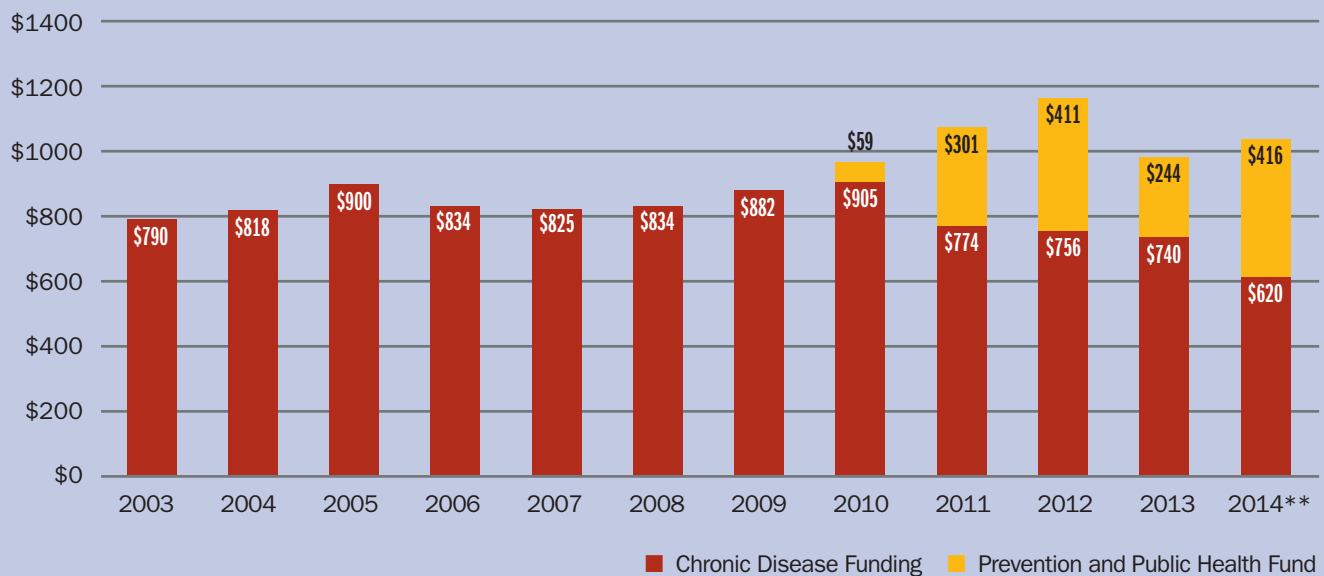
Much of the federal support for obesity prevention is through grants to states

distributed through CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). The Prevention and Public Health Fund was created to supplement, not supplant, support for prevention programs. The Prevention Fund includes many measures aimed at obesity prevention, such as through the National Prevention Strategy and as one of the key goals of the CTGs. However, discretionary funding for chronic disease prevention has been cut for the past four years. In addition, the Fund also has experienced cuts from the originally intended allocation levels.

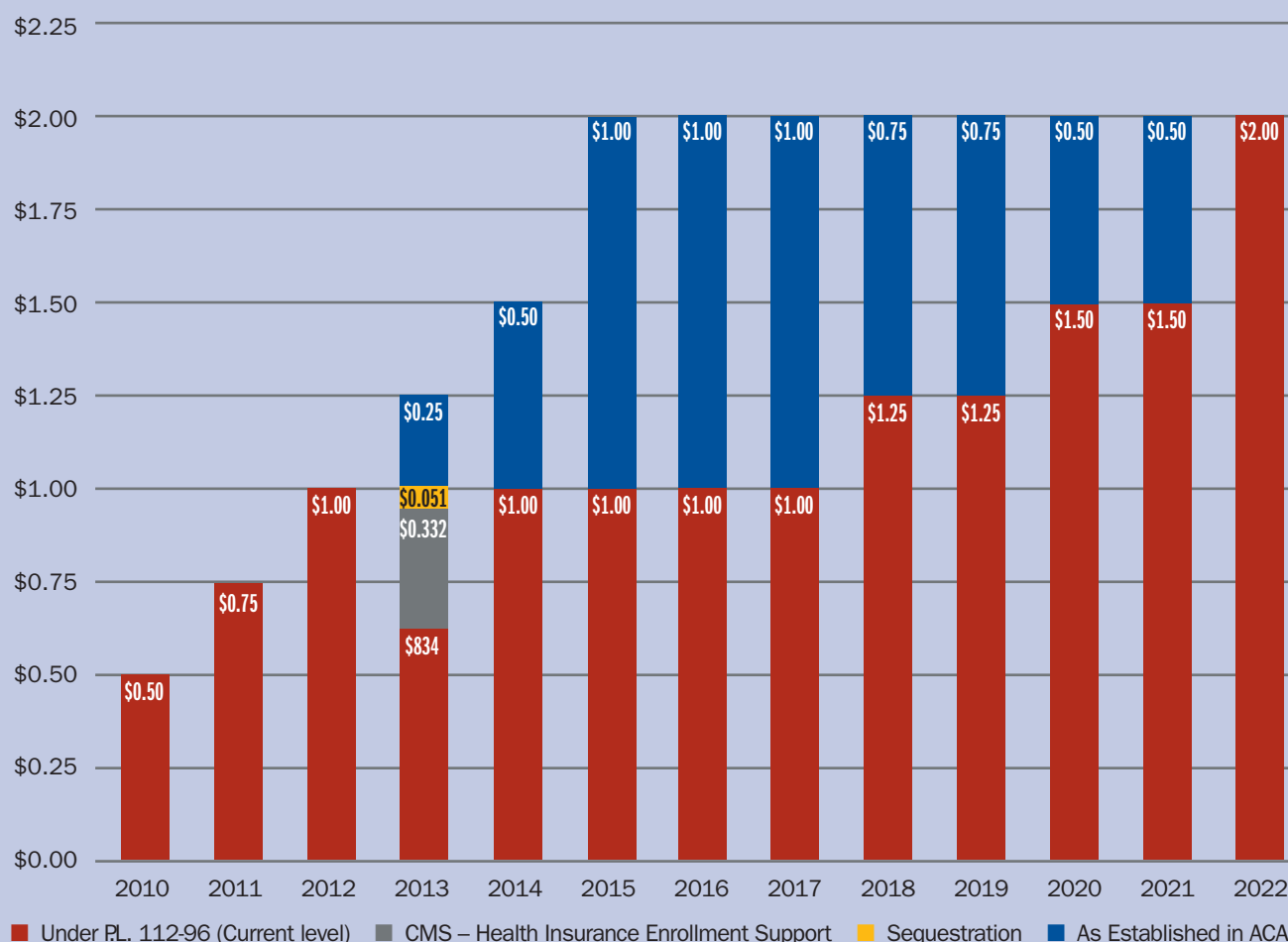
So while federal chronic disease prevention funding reached an all-time high of \$1.13 billion in FY 2012, cuts to discretionary programs and the Prevention Fund caused total funding for chronic disease prevention to decrease by 17 percent in FY 2013.

The ACA originally allocated \$21 billion for the Prevention Fund from FY 2010 to FY 2022. The Fund already has experienced cuts or reallocations of nearly one-third, dropping it to \$14.5 billion, nearly a 32.3 percent cut.

CDC CHRONIC DISEASE FUNDING FROM FY 2003 TO FY 2014 (\$ IN MILLIONS)



**PREVENTION AND PUBLIC HEALTH FUND ALLOCATIONS (FY 2010 TO 2022):
(CURRENT FUNDING UNDER HR 3630 VS. FUNDING ESTABLISHED BY ACA) (\$ IN BILLIONS, FY 2010 TO 2022)**



CUTS TO STATE PUBLIC HEALTH FUNDING

In addition to the funding cuts at the national level, state-level public health funding also has experienced significant cuts, with median per capita spending decreasing from \$33.71 in FY 2008 to \$27.40 in FY 2012. This represents a cut of more than \$1.15 billion, based on the total states' budgets from those years, which would be \$1.9 billion adjusted for inflation.¹⁰⁶ Budget cuts have led state and local health departments to cut more than 45,700 jobs across the country since 2008.¹⁰⁷

Dwindling funding has meant decreased and inconsistent support for the various categorical disease-prevention and health-promotion programs. For example, in FY 2012, while all 50 states and D.C. received some funding to work on diabetes, only 25 states received federal funding to focus specifically on nutrition, physical activity and obesity. In FY 2013, CDC/NCCDPHP released a funding opportunity announcement (FOA) that brings together four programs that were previously standalone programs: heart disease and stroke; nutrition, physical activity and

obesity; school health; and diabetes. The FOA, entitled *State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health*, aims to efficiently implement cross-cutting strategies in a variety of settings that improve multiple chronic diseases and conditions, while maintaining categorical appropriation funding levels and performance targets. Coordination could improve the impact of efforts to prevent obesity and conditions related to obesity, such as diabetes and heart disease.

STATE GRANTS CHART

CDC funds many state and local efforts to prevent and control obesity and related diseases. The table below provides a summary of these grants.

	Nutrition, Physical Activity & Obesity Grants	Coordinated School Health Grants ¹	REACH ^{2, 3}	Community Transformation Grants ⁴
Alabama			✓	
Alaska				
Arizona		✓	✓	
Arkansas	✓	✓		
California	✓	✓	✓	✓
Colorado	✓	✓	✓	✓
Connecticut		✓	✓	✓
Delaware				✓
D.C.				✓
Florida			✓	✓
Georgia	✓		✓	✓
Hawaii	✓		✓	
Idaho		✓		
Illinois			✓	✓
Indiana	✓		✓	✓
Iowa	✓			✓
Kansas			✓	✓
Kentucky		✓	✓	✓
Louisiana			✓	✓
Maine		✓		✓
Maryland			✓	✓
Massachusetts	✓	✓	✓	✓
Michigan	✓	✓	✓	✓
Minnesota	✓	✓		✓
Mississippi		✓		✓
Missouri				✓
Montana	✓			✓
Nebraska	✓			✓
Nevada				✓
New Hampshire	✓			
New Jersey	✓	✓	✓	✓
New Mexico	✓		✓	✓
New York	✓	✓	✓	✓
North Carolina	✓	✓	✓	✓
North Dakota		✓		✓
Ohio		✓	✓	✓
Oklahoma				✓
Oregon			✓	✓
Pennsylvania			✓	✓
Rhode Island	✓			
South Carolina	✓	✓	✓	✓
South Dakota		✓		✓
Tennessee	✓		✓	
Texas	✓		✓	✓
Utah	✓		✓	✓
Vermont				✓
Virginia			✓	✓
Washington	✓	✓	✓	✓
West Virginia	✓	✓		✓
Wisconsin	✓	✓	✓	✓
Wyoming				
# of States	25	22	30	40 states and D.C.

1 While all 50 states receive some funding through the CPPW State and Territorial Initiative, 39 communities in 28 states receive CPPW Community funding for obesity.

2 Nez Perce Tribe also receives Coordinated School Health funding.

3 REACH U.S. grants are not directed to States, but are instead directed to tribes, local public health departments, and community-based organizations. The states listed here are those have at least one grantee funded by these programs. Five

other states *AL, AZ, GA, IN, WY) have REACH U.S. grantees whose work does not directly relate to prevention and control of obesity-related diseases.

4 Most Healthy Communities grants are not directed to States, but are instead directed to tribes, local public health departments, and community-based organizations. The states listed here have at least one grantee funded by these programs. Healthy Communities funds all States through the Collaborative Funding Opportunity Announcement, but at a minimal level.

EXPERT COMMENTARY

BY MICHAEL DE LUCCA, MHM, President & CEO; TEINA M. PHILLIPS, MPA, TOUCH Program Director; JOANNE G. RICHTER, MS, TOUCH Special Advisor; Broward Regional Health Planning Council



Transforming Our Community's Health: Working Together to Reduce Childhood Obesity for a Healthier Broward County, Florida

CHILDHOOD OBESITY DOES NOT ORIGINATE FROM A SINGLE CAUSE, NOR CAN IT BE ADDRESSED BY A SINGLE SOLUTION. CHILDHOOD OBESITY IS MULTIFACETED AND ADDRESSING IT REQUIRES SOLUTIONS THAT ENCOMPASS THE FAMILIAL, ENVIRONMENTAL AND SOCIETAL ISSUES SURROUNDING IT.

The Community Transformation Grant awarded to Broward Regional Health Planning Council's Transforming Our Community's Health (TOUCH) initiative serves the 1.7 million residents of Broward County, Florida. TOUCH, through the activities of its dedicated partners, focuses attention on policies and evidence-based interventions over the continuum of a child's life, beginning at birth. Our initiatives include:

Giving Children a Healthy First Start — Baby-Friendly Hospital Initiative (TOUCH Partners: Foundation for a Breastfeeding Culture and South Florida Hospital, Research and Education Foundation):

Recognizing that many studies have discussed the short- and long-term benefits of breastfeeding for mothers and children, TOUCH partners are working to remove

barriers to and promote acceptance of breastfeeding by collaborating with the county's hospitals' and birthing centers' administrators, nurses and mothers. When hospitals have policies that advance breastfeeding, staff who encourage it, and parents who understand it is the best way to begin feeding their babies, the first baby steps to ending childhood obesity are taken.

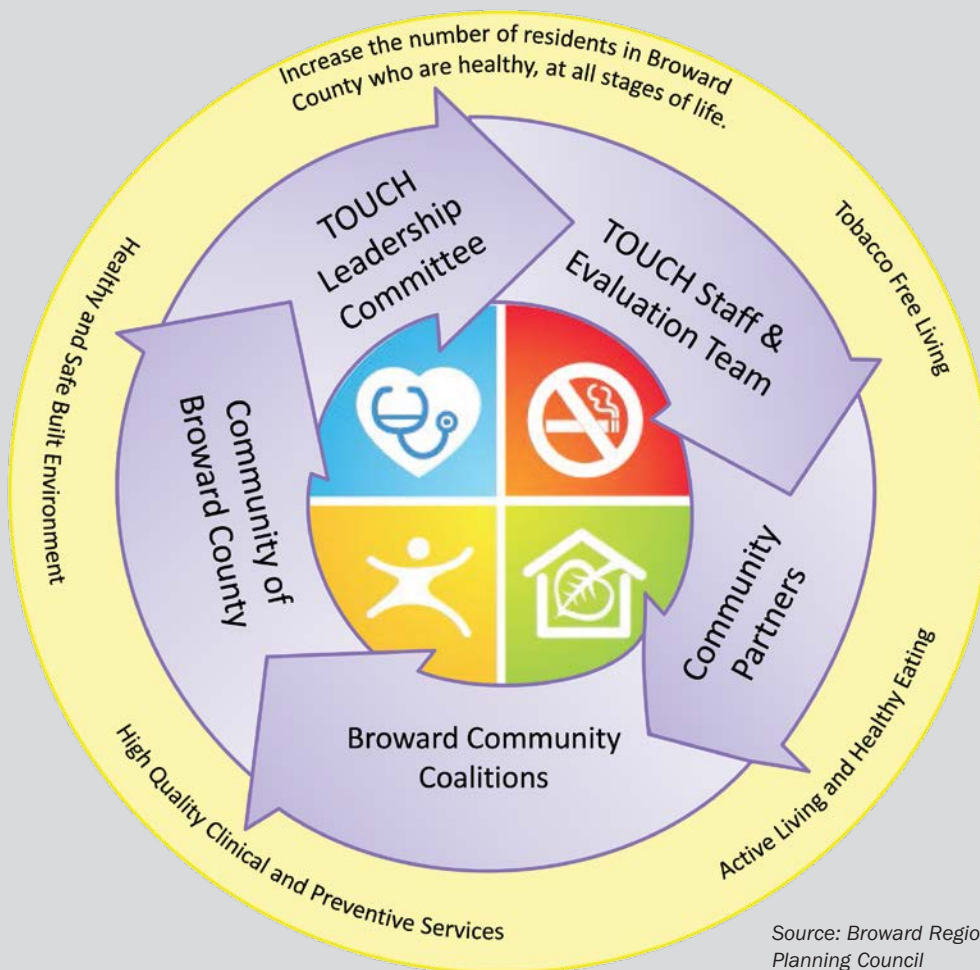
**Healthy Toddlers and Pre-Schoolers —
Early Learning Environment** (TOUCH
Partners: Early Learning Coalition,
Family Central, Florida Introduces
Physical Activity and Nutrition to Youth
(FLIPANY), Consulting Registered
Dietitians, Ruby Natale, PhD, PsyD):

Creating early learning environments that build on the benefits gained from breastfeeding, TOUCH Partners educate children, parents, teachers, administrators and decision makers on the importance of proper nutrition, limited screen time and increased active play in early learning and childcare settings. Through group trainings and individualized menu planning, the multidisciplinary TOUCH team has demonstrated to center administrators and key personnel that adding opportunities for physical activity and

improving nutrition do not require additional staff nor lead to greater costs.

In addition, due to the collective impact and collaborative work of TOUCH Partners, the Broward County's Child Care Licensing and Enforcement section has recognized the importance of the "Caring for Our Children" standards in reducing childhood obesity. Future efforts will involve incorporating these standards county-wide for the licensing of all childcare centers to ensure children stay healthy and are ready for school. These system changes are demonstrating how making healthy choices in foods, play and physical activity can be done with the same personnel at the same budget while improving the children's health and learning outcomes.





Source: Broward Regional Health Planning Council

Healthy Schools: In-School and After-School Nutrition and Physical Activity (TOUCH Partners: Broward County Public Schools, Alliance for a Healthier Generation, Children’s Services Council and YMCA of Broward County):

Continuing the momentum for adoption of healthier ways of living, TOUCH Partners have been educating the community on the links between improved nutrition and increased opportunities for physical activity with children’s well-being and higher

academic performance. The Alliance for a Healthier Generation’s Healthy School’s Program has been instrumental in coordinating the efforts at the Broward County Public Schools’ district level with that of individual elementary, middle and high schools in the areas of nutrition and physical activity.

In addition, the Children’s Services Council in partnership with the YMCA of Broward, has been influential in institutionalizing the evidence-based SPARK

(Sports, Play, and Active Recreation for Kids) curriculum in all after-school programs throughout the County.

As one parent shared, “We sometimes get so concerned with test scores that we forget important contributing factors to student success: eating well, feeling safe and playing hard. The Healthy Schools Program helps my kids’ schools make healthier food choices, and the Y-Fit/ SPARK program gives them a safe place to play with fun, fast-paced exercise.”



Childhood obesity is complex and not easily addressed by any one approach. TOUCH has brought together community-based organizations, multidisciplinary strategies and diverse communities to address the most recognizable factors contributing to childhood obesity. It is anticipated that these system, environmental and policy enhancements will positively impact the health, well-being and longevity of children living in Broward County, Florida.

Healthy & Safe Places to Walk, Bike and Play (TOUCH Partners: Broward Metropolitan Planning Organization, Urban Health Partnerships, Smart Growth Partnership, and YMCA of Broward):

Communities benefit in innumerable ways by giving children and families the opportunity to be active in their neighborhoods. Reductions in crime, increased community pride and improved health have been noted as a result of safer sidewalks, dedicated bike lanes and green areas that encourage walking, biking and outdoor play. TOUCH Partners have successfully joined with the County and municipalities to endorse Complete Streets Guidelines, Smart Growth Standards and Joint Usage Agreements to address the structural and environmental barriers to being physically active and create more walkable, bikeable and transit-friendly roadways.

Healthy Patients from Birth to Adulthood (Broward Community and Family Health Center, Broward Health, Holy Cross Hospital, Memorial Hospital, Health Foundation of South Florida):

TOUCH Partners have engaged primary care providers through the Federally Qualified Health Center, major hospitals, Broward County Medical Association and Broward County Pediatric Society to reduce childhood obesity through the promotion of breastfeeding and by offering suggestions on ways to begin honest yet sensitive dialogue with parents about their child's weight. Through implementation of Patient Centered Medical Homes, TOUCH Partners are working to reduce the incidences of childhood obesity and lessen the healthcare costs, emotional damage, and long-term diseases and disabilities associated with obesity.

F as in Fat: *Obesity Policy Series*



Healthy Affordable Foods

CURRENT STATUS:

More than 29 million Americans lack access to healthy affordable foods. They live in “food deserts,” meaning they do not have a supermarket or supercenter within a mile of their home if they live in an urban area, or within 10 miles of their home if they live in a rural area.¹⁰⁸

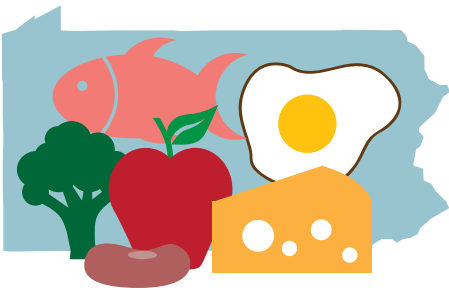
Families living in lower-income neighborhoods and in communities of color are particularly hard hit: ZIP codes with the highest concentration of Blacks have about half the number of chain supermarkets compared with ZIP codes with the highest concentration of Whites and ZIP codes with the highest concentrations of Latinos have only a third as many.¹⁰⁹ Many of these same neighborhoods also are struggling with high rates

of obesity, unemployment and depressed economies.

Increasing access to healthy foods has become a priority for policy-makers across the country. One strategy is the use of Healthy Food Financing Initiatives (HFFI), which operate at the federal, state and local level and provide grants and loans to full-service supermarkets or farmers’ markets in return for locating in lower-income urban or rural communities.

For example, 17 states and the District of Columbia are pursuing HFFIs in a variety of different forms. California has established a public-private partnership to fund the California FreshWorks Fund, which has raised \$272 million to bring grocery stores, fresh produce markets, and other healthy food retail stores to communities that do not have them.¹¹⁰ In New Orleans, the

City Council has prioritized healthy food retail as a strategy in rebuilding after Hurricane Katrina. Following recommendations from its Food Policy Advisory Committee, the city created the Fresh Food Retailer Initiative to provide direct financial assistance to retail businesses by awarding forgivable and/or low-interest loans to supermarkets and other fresh food retailers.¹¹¹



The most successful program to date is the Pennsylvania Fresh Food Financing Initiative (FFFI), which since 2004 has financed supermarkets and other fresh food outlets in 78 urban and rural areas serving 500,000 city residents.¹¹² In the process, FFFI also has created or retained 4,860 jobs in underserved neighborhoods and increased local tax revenues.

Direct food assistance programs are another strategy to increase access to healthy foods. Nutrition assistance programs comprise more than two-thirds of the federal Farm Bill. The largest is the Supplemental Nutrition Assistance Program (SNAP), which provided \$74.6 billion in benefits to 46.6 million Americans in Fiscal Year 2012.¹¹³ In addition to providing

monthly benefits, SNAP's nutrition education component provides federal grants to states for efforts to help participants get the most out of their benefits by encouraging smart shopping and healthy eating habits.¹¹⁴ SNAP also licenses eligible farmers' markets so participants can use their benefits at those locations.

The federal government funds SNAP entirely through the Department of Agriculture; the national HFFI is funded through the Departments of Treasury, Health and Human Services, and Agriculture. More than \$31 billion in SNAP funding has been allocated to date in Fiscal Year 2013; in addition, as of 2012, \$77 million in federal grants and loans has been awarded to community development organizations to support a myriad of food access projects in underserved communities.¹¹⁵

WHY ACCESS TO HEALTHY AFFORDABLE FOOD MATTERS:

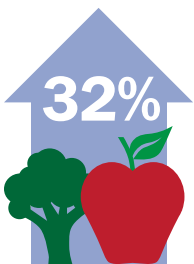


23.5 million

Americans don't have access to a supermarket within a mile of their home



Is the distance **70 percent** of Mississippi food stamp-eligible families live from the closest large grocery store

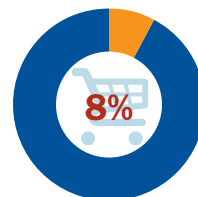


Increase in fruit and vegetable consumption for Blacks with each new supermarket in their neighborhood

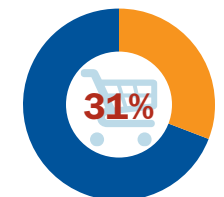
Source: PolicyLink, The Grocery Gap

- Supermarkets and supercenters provide the most reliable access to a variety of healthy, high-quality products at the lowest cost, and shoppers generally prefer these stores to smaller grocery stores and convenience stores.¹¹⁶
- Adults living in neighborhoods with supermarkets or with supermarkets and grocery stores have the lowest rates of obesity (21 percent) and those living in neighborhoods with no supermarkets and access to only convenience stores, smaller grocery stores, or both had the highest rates (32 percent to 40 percent obesity).¹¹⁷
- Blacks living in a census tract with a supermarket are more likely to meet dietary guidelines for fruits and vegetables, and for every additional supermarket in a tract, produce consumption rose 32 percent. Among Whites, each additional supermarket corresponded with an 11 percent increase in produce consumption.¹¹⁸
- Adults with no supermarkets within a mile of their homes are 25 percent to 46 percent less likely to have a healthy diet than those with the most supermarkets near their homes.¹¹⁹
- New and improved grocery stores can catalyze commercial revitalization in a community. An analysis of the economic impacts of five new stores that opened with HFFI assistance found that, for four of the stores, total employment surrounding the supermarket increased at a faster rate than citywide trends.¹²⁰

Percent of African Americans who live in a census tract with a supermarket



Percent of Whites who live in a census tract with a supermarket





Policy Recommendations:

- The federal government, states and cities should continue to prioritize and fund Healthy Food Financing Initiatives as a health and economic strategy.
- Food assistance programs should encourage and incentivize the purchase of healthy foods.

ADDITIONAL RESOURCES:

Do All Americans Have Access to Healthy Affordable Foods? Robert Wood Johnson Foundation. December 2012.
<http://www.rwjf.org/en/research-publications/find-rwjf-research/2012/12/do-all-americans-have-equal-access-to-healthy-foods-.html>

Healthy Food Access Portal <http://www.healthyfoodaccess.org/>

The Grocery Gap: Who Has Access to Healthy Food and Why it Matters Policy Link and The Food Trust.
http://www.policylink.org/site/c.lkIXLbMNJrE/b.5860321/k.A5BD/The_Grocery_Gap.htm

Bringing Healthy Foods Home: Examining Inequalities in Access to Food Stores Healthy Eating Research. June 2008.
http://www.healthyeatingresearch.org/images/stories/her_research_briefs/her%20bringing%20healthy%20foods%20home_7-2008.pdf

FEDERAL POLICY SPOTLIGHT: FARM BILL REAUTHORIZATION

The Farm Bill authorizes funding for most federal farm and food policies in the United States. Nutrition assistance programs comprise more than two-thirds of Farm Bill funding.

Two main vehicles provide financial support for millions of low-income individuals and families to purchase food: the Supplemental Nutrition Assistance Program provided \$74.6 billion in benefits to 47.7 million Americans in Fiscal Year 2012, and \$308 million was appropriated for The Emergency Food Assistance Program (TEFAP) to support low-income and elderly Americans in Fiscal Year 2012.

Nearly half of SNAP participants are under 18 years old. In addition to providing benefits for all eligible food items, many states and cities have established public-private partnerships to increase the value of SNAP dollars for the purchase of healthy foods.

SNAP also contains a nutrition education component, which provides federal grants to states for efforts to help participants get the most out of their benefits by encouraging smart shopping and healthy eating habits.¹²¹ The Farm Bill also authorizes the Fresh Fruit and Vegetables Program and community-based nutrition programs, such as farmers' markets.

STATE SUGAR-SWEETENED BEVERAGE TAXES

• **34 states and Washington, D.C., currently include soda among items for which they charge sales tax:** Alabama, Arkansas, California, Colorado, Connecticut, Florida, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Minnesota, Mississippi, Missouri, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia and Wisconsin.¹²²

A number of studies have shown that relative food prices of foods and beverages can lead to changes in how much people consume them.^{123, 124, 125} Several studies have estimated that

a 10 percent increase in the price of sugar-sweetened beverages could reduce consumption of them by 8 percent to 11 percent.^{126, 127, 128} As of 2012, the tax rate for every state with a soda tax is 7 percent or below, and of those with a soda tax, 14 have a tax rate of 5 percent or less.¹²⁹

Researchers at Yale University estimated that, if a national soda tax of a penny per 12 ounces were instituted, it would generate \$1.5 billion a year, and the Congressional Budget Office estimated that a federal excise tax of three cents per 12 ounces of sugar-sweetened beverage could have generated an estimated \$24 billion between 2009 and 2013.^{130, 131}



SUGAR-SWEETENED BEVERAGES: CONSUMPTION AND IMPACT

- **Sugar-sweetened beverage**

consumption: Consumption of sugar-sweetened beverages rose significantly from the 1970s until 1999.¹³² From 1999 to 2010, consumption has begun to decline (a decrease of 63 calories for youths and 45 calories for adults).¹³⁴ According to studies through the mid-2000's, 90 percent of children ages 6 to 11 drank a sugar-sweetened beverage daily, and sugar-sweetened beverages were the top calorie source for teens.^{134, 135} Nearly half of 2- to 3-year olds consume a sugar-sweetened beverage daily, and a quarter to a third consume whole rather than low-fat or nonfat milk.^{136, 137, 138, 139} Children ages 2 to 5 are estimated to consume 124 calories per day — 7 percent of total daily energy — from sugar-sweetened beverages.¹⁴⁰

- **Increased health risks related to sugar-sweetened beverage**

consumption: A number of studies have shown a significant link between sugar-sweetened beverage consumption and weight gain in children.¹⁴¹ Adults who drink a soda or more per day are 27 percent more likely to be overweight than those who do not drink sodas, regardless of income or ethnicity. They also have a 26 percent higher risk for developing type 2 diabetes and a 20 percent higher risk for a heart attack.^{142, 143, 144}

- **Improved health from lowering sugar-sweetened beverage**

consumption: Children who reduced their consumption of added sugar by the equivalent of one can of soda per day had improved glucose and insulin levels. Eliminating one can of soda per day, regardless of any other diet or exercise change, can reduce a child's risk for type 2 diabetes.¹⁴⁵

EXPERT COMMENTARY

BY: Yael Lehmann, Executive Director,
The Food Trust



Access to Healthy Food is About More Than Just Health—It's About Community

People of New Orleans love to tell me stories about Circle Food Store. The grocery store was more than a source of fresh, affordable, high-quality produce in a city where too many neighborhoods lacked access to healthy foods. For nearly 70 years, the red-roofed Circle Food Store was a community gathering spot, a point of pride, almost a tradition. That was before Hurricane Katrina.

"I've had people calling me," Circle Food Store owner Dwayne Boudreaux will say, "telling me it won't feel like the community is back until Circle Foods is back."

In the aftermath of the storm, the store and the working-class 7th Ward neighborhood surrounding it were flooded chest-deep. So much was destroyed by the water, including the community's anchor supermarket. Across a city that already had inadequate healthy food access, more than half of the supermarkets shuttered post-Katrina. That was nearly eight years ago.

The story of Circle Food Store is a devastating one. But so are the numerous tales of communities across the country that lack access to healthy, affordable food. They are part of a long-term trend of supermarkets leaving urban and rural areas for the suburbs, forcing parents to travel long

distances to feed their families or to shop at small corner stores, where offerings are often more expensive and less nutritious.

In the 7th Ward and elsewhere, the dangers of a lack of access to affordable, healthy food are the same, leading to an increased risk for obesity and other diet-related diseases.

When I talk about lack of access, which affects more than 30 million Americans, and obesity — afflicting more than one-third of all adults and 12.5 million children — I worry that the problem can seem overwhelming, even unsolvable. But lessons we've learned in Philadelphia over the past 20 years show that a solution is possible.

A study recently published in *Preventing Chronic Disease* shows that the city has significantly reduced the rate of obesity among Philadelphia schoolchildren – by 5 percent between 2006 and 2010. It shows even larger declines in obesity rates among African American boys and Hispanic girls, the largest documented to date, and a critical finding, as African Americans and Hispanics are more at risk to become obese.

Here's the important thing for me: the study doesn't credit one program or policy as the hero of this success story. Instead, it suggests that Philadelphia's comprehensive approach to obesity prevention — a combination of increased access to healthy food, nutrition education and exercise — may be responsible for reversing the obesity trend.

One program that's been a piece of the puzzle is Pennsylvania's Fresh Food

Financing Initiative, which The Food Trust advocated for and co-managed with The Reinvestment Fund. Created by State Rep. Dwight Evans in 2004, the program made financing available to grocers willing to open their doors in lower-income neighborhoods.

MORE THAN 80 STORES RECEIVED FUNDING THROUGH THE PROGRAM, PROVIDING BETTER ACCESS TO HEALTHY FOODS FOR MORE THAN 400,000 STATE RESIDENTS, MANY IN PHILADELPHIA.

I've watched this approach spread through other states — New York, California and New Jersey — and reach the federal level, with the national Healthy Food Financing Initiative providing resources to organizations working to improve healthy food access nationwide.

At the local level, the New Orleans Food Policy Advisory Committee and the leadership of Mayor Mitch Landrieu led to the establishment of the Fresh Food Retailer Initiative. Modeled on the successful Pennsylvania program and co-managed by the city of New Orleans, the Community Development Finance Institution Hope Enterprise and The Food Trust, the Fresh Food Retailer Initiative is bringing grocery stores back to New Orleans.

After eight years, when Dwayne Boudreaux answers the phone he can tell people: Circle Food Store is coming back. The community is coming back. In January 2013, amid cheers and tears from neighbors, Boudreaux broke ground on the store's renovations. It is expected to reopen in the summer of 2013. I'll be there in line with Circle Foods' dedicated customers for the store's farm-fresh bell peppers, five for a \$1.



Circle Foods Owner Dwayne Boudreaux stands in front of his grocery store that was flooded by Hurricane Katrina in 2005. Store renovations began in January 2013, and the store is expected to reopen this summer.

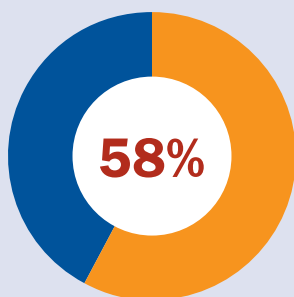


EXPERT COMMENTARY

BY HANK CARDELLO, Senior Fellow at the Hudson Institute and director of the Institute's Obesity Solutions Initiative



Percentage of Patrons Who Consider "Healthy Menu Items" in Choosing Where To Dine



Better-for-you Foods: It's Just Good Business

Obesity is the foremost public health problem facing our nation today, and it's clear that the packaged food and restaurant industries must be part of the solution.

Many companies are already embracing the challenge and are introducing healthier, lower-calorie versions of popular foods and beverages. Several corporations have also pledged substantial voluntary commitments through initiatives, such as the Healthy Weight Commitment Foundation (HWCF), the Kids LiveWell program launched by the National Restaurant Association, and the Partnership for a Healthier America, with First Lady Michelle Obama serving as Honorary Chair.

All of this is good news not only for consumers, but also for the companies themselves and their shareholders. The reason? A growing number of food, beverage and restaurant companies have found that selling

lower-calorie, "better-for-you" products is also good for business. Their success should inspire risk-averse companies that worry about whether customers will accept healthier new products and menu items.

Traditional high-calorie, supersized fare no longer serves the needs of the growing number of grocery shoppers and restaurant patrons who want smaller portions, more wholesome products and lighter versions of traditional favorites. Studies by the Natural Marketing Institute have shown that at least a third of America's consumers are committed to healthier eating; a Harris poll has found that 58 percent of restaurant patrons now consider "healthy menu items" in choosing where to dine.



COMPANIES THAT CAN FILL AMERICA'S GROWING DESIRE TO EAT BETTER ARE ALREADY BENEFITING.

Three rigorous studies conducted by the Hudson Institute over the past two years have established a clear link between healthier, lower-calorie foods and healthier food company financials. Hudson's 2011 study of the consumer packaged goods (CPG) industry, *Better-for-You Foods: It's Just Good Business*, found that between 2006 and 2011, 15 leading food and beverage companies that grew their lower-calorie/"better-for-you" products enjoyed superior sales growth, operating margins and operating profit growth. Products with no/low/reduced calories, whole grains or other ingredients, generally recognized as healthier or in calorie-controlled packaging, accounted for over 70 percent of their U.S. dollar sales growth.

A follow-up study, commissioned by the HWCF, analyzed United States product and sales data for 16 member companies — some of the biggest food and beverage corporations in the country — covering the same period. It found that lower-calorie product sales grew more than \$1.25 billion and accounted for 82

percent of the combined sales growth over that period, increasing at more than four times the rate of higher-calorie fare. HWCF reported that the higher sales of lower-calorie items helped the member companies achieve a public commitment to reduce 1.5 trillion calories in food sold in the United States, three years ahead of schedule. An independent evaluation, which is supported by the Robert Wood Johnson Foundation, will examine whether that goal has been met and will be published later this year.

A 2013 Hudson Institute study of the restaurant industry, *Lower-Calorie Foods: It's Just Good Business*, found that restaurant chains that increased their lower-calorie servings from 2006 to 2011 outperformed those that served fewer lower-calorie menu items.

Chains that increased their lower-calorie servings saw a 5.5 percent increase in same-store sales, while those that did not suffered a 5.5 percent decline.

More pointedly, while servings of lower-calorie foods increased by almost a half billion over the five years, servings of higher-calorie foods declined sharply by 1.3 billion.

These study results show that companies can do well by doing good and no longer need to choose between satisfying investors and helping address the nation's most urgent public health crisis. Healthier, lower-calorie foods are selling well and an increasing number of Americans are demanding them. The companies that are already filling this need are demonstrating a commitment not only to public health, but also to the well-being of their consumers and their bottom lines.

Those companies that ignore this sea change will be missing out on the biggest business opportunity in decades.

Hank Cardello is the author of "Stuffed: An Insider's Look at Who's (Really) Making America Fat."

F as in Fat: *Obesity Policy Series*



Food Marketing

CURRENT STATUS:

The food and beverage industry spends nearly \$2 billion annually marketing mostly unhealthy products to children and adolescents in America.¹⁴⁶ Research shows that food and beverage marketing influences the diets of young people. Studies also link the marketing of energy-dense and nutrient-poor products to overweight and obesity.¹⁴⁷

Black and Latino children and adolescents, who experience higher rates of overweight, obesity, and diet-related chronic diseases, such as type 2 diabetes, are exposed to higher levels of marketing for unhealthy food and beverage products.^{148, 149}

Despite some progress to improve the nutritional quality of foods marketed to children at home, in schools and in restaurants, America's youths continue to grow up in environments that promote unhealthy foods and beverages.¹⁵⁰

In 2005, the Institute of Medicine recommended the food, beverage, and restaurant industries improve the health of their products and shift their advertising and marketing emphasis to healthier child- and youth-oriented foods and beverages.¹⁵¹ The IOM has since reaffirmed the need for stronger standards to improve food marketing practices that target young people.¹⁵²

In 2006, food and beverage companies created the Children's Food and Beverage Advertising Initiative (CFBAI), a self-regulatory program administered by the Council of Better Business Bureaus to limit unhealthy marketing aimed at children under 12. While the CFBAI has led to some reductions in unhealthy food marketing aimed at children, several studies show that the vast majority of marketed products remain unhealthy.



Through narrow marketing definitions, loopholes in marketing types, and significant gaps in nutrition standards, the CFBAI nutrition criteria allow companies to continue to market foods and beverages high in calories, sodium, saturated fat and/or added sugars.¹⁵³

Television advertising remains the dominant form of marketing to children and adolescents. However companies employ a variety of highly effective techniques to reach young people. These include new digital and online media, such as online games, mobile apps and ads that can be shared via text messages, and social networks. A 2012 report by the Federal Trade Commission showed that industry spending on digital media, such as online and viral marketing, increased 50 percent (or \$45.9 million) from 2006 to 2009.¹⁵⁴

Concern about the ineffectiveness of industry self-regulation led Congress in 2009 to direct the formation of an Interagency Working Group on Food Marketed to Children (IWG). The group, composed of nutrition, health and marketing experts from the Federal Trade Commission, the Food and Drug Administration, the Centers for Disease Control and Prevention, and the U.S. Department of Agriculture, released a set of voluntary principles in 2011 to improve the nutritional profile of foods marketed directly to children.

Following the conclusion of a public comment period, Congress requested IWG to conduct a cost-benefit analysis of the proposed voluntary guidelines in 2012; to date, that analysis has not been completed, and no further progress has been made to implement the IWG proposal.¹⁵⁵

In an effort to address continued public health concern and scrutiny about food marketing, CFBAI unveiled a set of uniform standards in 2011 that are slated to be in place by January 1, 2014. The uniform standards build on existing company-specific criteria, but do not go as far as the IWG proposal.

WHY FOOD MARKETING MATTERS:

Number of ads on children's websites for food and beverage in 2009



Black children's exposure to advertising for regular soda compared to their White peers



- The food and beverage industry spent \$1.79 billion dollars in 2009 to advertise their products to American children and adolescents.
- America's youths view 12 to 16 food and beverage ads every day.¹⁵⁶
- More than 2 billion ads for foods and beverages appeared on children's websites in 2009, primarily for sugary cereals and fast-food restaurants.¹⁵⁷
- The vast majority of child-directed ads promote unhealthy foods and beverages, such as candy, sugary cereals, fries and sodas. Ads for healthy foods, such

as fruits and vegetables, are extremely rare, accounting for just 1 percent or less of all ads.¹⁵⁸

- Black children saw more than twice the number of television ads for energy and sports drinks, and 93 percent more for regular soda compared with their White counterparts. Between 2008 and 2010, Hispanic children saw 49 percent more television ads and teens saw 99 percent more ads on Spanish-language television for sugary drinks and energy drinks compared with their White counterparts.¹⁵⁹

Policy Recommendations:

- The Interagency Working Group on Food Marketed to Children should finalize its guidelines.
- The Children's Food and Beverage Advertising Initiative should strengthen and expand its self-regulatory program to cover all forms of marketing to all children, including product packaging, in-store promotions and all marketing in schools.
- Media and entertainment companies should jointly adopt meaningful, uniform nutrition standards for marketing food and beverages to children.
- Government agencies, researchers and independent groups should continue to monitor and evaluate food marketing expenditures and practices, as well as children's exposure to marketing and advertising for unhealthy foods and beverages and the effectiveness of industry's voluntary actions.

ADDITIONAL RESOURCES:

Food and beverage marketing to children and adolescents: Limited progress by 2012, recommendations for the future — full report.

Berkeley Media Studies Group, Robert Wood Johnson Foundation <http://www.bmsg.org/resources/publications/food-and-beverage-marketing-to-children-and-adolescents-limited-progress-by-2012-full-report>

Marketing food to children and adolescents: A review of industry expenditures, activities and self-regulation. Federal Trade

Commission. Authors William E. Kovacic, Pamela Jones Harbour, Jon Leibowitz and J. Thomas Rosch.
<http://www.ftc.gov/os/2008/07/P064504foodmktngreportappendices.pdf>

Youth-Focused Food Marketing: Examining the Spending Trends.

The Yale Rudd Center for Food Policy & Obesity, Bridging the Gap, and the Robert Wood Johnson Foundation.
http://www.rwjf.org/content/dam/farm/articles/journal_articles/2013/rwjf407402/subassets/rwjf407402_1



EXPERT COMMENTARY

BY LORI DORFMAN, DrPH, Director,
Berkeley Media Studies Group, Co-Chair,
Food Marketing Work Group

MARGO G. WOOTAN, DSc, Director,
Nutrition Policy, Center for Science in
the Public Interest, Co-Chair,
Food Marketing Work Group

Corporate Irresponsibility: Junk Food Marketing to Children

In a single day, a child may be given a soda-branded school assignment, pass multiple fast-food billboards on the way home, watch a commercial for a sugary cereal, and then play a computer game featuring his or her favorite candy.



That child's revered older brother might rush through dinner to get to a concert sponsored by a fast-food company, wearing a t-shirt emblazoned with a soda logo. No matter how loud it might be, mom's or dad's voice is inevitably drowned out by the \$1.8 billion food companies spend each year to saturate children's worlds with enticements for junk food and sugary drinks.

The inundation of marketing seems normal not only because it's everywhere but because children hear few objections

to it during the course of the day. If adults aren't questioning food marketing practices, why should children?

Right now, the children and youth who suffer most from food-related problems, African American and Latino kids, also get the biggest dose of marketing—a double dose. Why? Because in addition to being exposed to the same food marketing reaching the general public, they are pummeled with marketing targeted directly to them.

Targeted campaigns use the “4 P’s” of marketing to entice children of color:

Products designed especially for them, at Prices they can afford, in Places close to them, and Promoted in a way that speaks kids’ language with icons, images and cultural

connections they can relate to. Companies use the 4 P’s to build brand loyalty at an early age—as young as two, according to some executives—and they are succeeding.

EACH DAY, AFRICAN-AMERICAN CHILDREN SEE TWICE AS MANY CALORIES ADVERTISED IN FAST-FOOD COMMERCIALS AS WHITE CHILDREN. THE MOST FREQUENTLY PROMOTED AND MOST ACCESSIBLE PRODUCTS TO AFRICAN-AMERICANS ARE HIGH-CALORIE AND LOW-NUTRITION FOODS AND BEVERAGES.

On Spanish-language television, more than 84 percent of all foods and beverages advertised on children’s shows are unhealthy. Even among companies that pledged to reform their child-directed advertising practices to encourage healthier choices, 78 percent of their ads for children on Spanish-language television are for unhealthy foods or drinks.

Food and beverage companies also use sponsorship to expand the places they reach into communities of color. In addition to blanketing neighborhoods with billboards and signs outside corner stores, food marketers brand places like athletic fields and sporting events, festivals, concerts and awards shows. These tactics integrate food companies and their products into the cultural and social fabric of people’s lives.

In fact, soda and fast-food companies have been especially aggressive, sponsoring cultural events and including people of color in employment and in advertising before other companies ventured into those markets.

This might be why research shows youth of color are more interested in, positive toward, and influenced by marketing than their white peers.

How can parents compete in an environment where the marketing campaign for a single candy bar exceeds the entire annual budget for Centers for Disease Control and Prevention’s Division of Nutrition, Physical Activity and Obesity? Food companies have the resources to reach every demographic with great frequency and specificity.

Kids today face an overall message environment that primarily promotes unhealthy foods and beverages combined with sophisticated marketing strategies that disproportionately target them.

And these tactics are accelerating thanks to the onslaught of digital marketing especially potent for targeting kids of color who are more avid users of mobile devices. These days, kids are in front of more than one screen at a time, bombarded constantly with messages promoting unhealthy foods and beverages. Even their friends become “brand ambassadors,” delivering content marketing through emails, texts and social networks.

What can be done? Responsibility begins with the food industry, which must strengthen its nutrition and marketing standards, including expanding the standards to cover all forms of marketing such as on packaging, sponsorships and toy giveaways.



Entertainment companies should do their part by implementing nutrition standards for advertising permitted during children's programming as was done by the Walt Disney Company.

In public health, we must continue to monitor the latest forms of marketing and examine its effects on kids. We need more research on the effects of brand advertising and content marketing on children and youth, especially youth of color, and we have to help parents better understand the harms of targeted advertising and the susceptibility of their children.

And we have to share what we learn with the Federal Trade Commission and other government agencies that need to be equipped with the best science so they can take steps that protect children's health. Only then can we have any assurance that our kids — especially kids of color — can grow up in an environment that fosters healthy choices, not one that pits the good intentions of parents and advocates against the power and money of advertisers.



F as in Fat: *Obesity Policy Series*



Menu Labeling

CURRENT STATUS:

Americans consume approximately one-third of their total calories and spend half of their food budget eating away from home.^{160, 161} Few restaurants, however, display calorie information on menus or menu boards or make a complete set of nutrition information about their food and beverage options readily available to customers.

Over the past few years, some states and local communities have started to require larger chain food establishments to begin menu labeling. In addition, many leading health organizations, including the American Medical Association (AMA) and the American Heart Association, support menu labeling as an important health education tool to allow consumers to make informed choices.¹⁶² The AMA recommends providing consumers with nutrition information that is easy to understand and includes

information about the total calories, fat, saturated fat, trans fat and sodium content of food items.¹⁶³

According to the National Restaurant Association, “Menu labeling has the potential to improve our nation’s health by allowing guests to make informed choices about the foods that are appropriate for their diet. This could ultimately contribute to the prevention and control of obesity, heart disease, cancer, diabetes and other nutrition-related conditions.”¹⁶⁴

The Affordable Care Act, enacted in 2010, included a national requirement for all food establishments with 20 or more locations, including chain restaurants, bakeries, grocery stores, convenience stores and coffee chains, to clearly post the calorie information for each standard item on their menus. Companies with 20 or more food or beverage vending machines would have similar requirements.

In April 2011, the Food and Drug Administration (FDA) issued proposed rules and held a public

comment period on new requirements for chain restaurants, similar retail food establishments and vending machines to include calorie counts on menu boards and to have additional nutrition information available upon request. The federal rules would preempt any existing state or local menu labeling regulations.

The proposed rules provided specific guidance for chain restaurants; however, FDA exempted movie theaters, airplanes, bowling alleys, stadiums and hotels, stating that their

primary business is not to sell food. Nutrition labeling for alcohol also was exempted in the proposed rule. More than 80 national, state and local health organizations and experts called on the FDA to strengthen the final rule and adhere to the language in the ACA by including outlets that sell food beyond chain restaurants, and to require labeling of alcoholic beverages listed on menus.

As of July 20, 2013, the rule has not been finalized.

WHY MENU LABELING MATTERS:

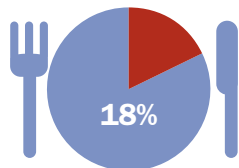
Meal at Home



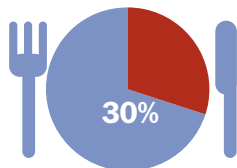
Restaurant Meal



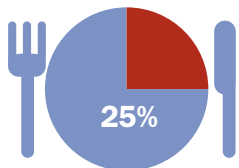
% of Calories Eating Out 1977-78



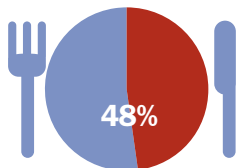
% of Calories Eating Out 2013



% of Income Eating Out 1970



% of Income Eating Out 2013



- Eating out has increased dramatically over the past 40 years. From 1977 to 78, Americans consumed about 18 percent of their calories eating out; now they consume approximately 30 percent of their daily calories outside of their homes.¹⁶⁵ In 1970, families spent around 25 percent of their food budget at restaurants (\$42.6 billion), now they spend around 48 percent of their food budget at restaurants (\$631.8 billion).¹⁶⁶
- Research has shown that food eaten away from home is higher in fat and sodium, consumers routinely underestimate calories and fat when eating out, and children eat nearly double the number of calories when they eat out versus eating at home.^{167, 168, 169, 170, 171}
- Menu labeling can influence consumer purchasing decisions, and market research by weight-management groups has shown some segments of the population are highly influenced by this information.^{172, 173}
- Menu labeling has prompted some restaurants to offer more healthful options or reformulate their current offerings.¹⁷⁴
- Researchers looking at the impact of menu labeling in Washington's King County found that U.S. adults and teens who used calorie information posted on menus purchased up to 143 fewer calories than those who did not see the calories.¹⁷⁵



Policy Recommendations:

- The Food and Drug Administration should issue final regulations for menu labeling for food establishments and vending machines.
- In its final regulations, the Food and Drug Administration should meet the original intent of the Affordable Care Act and not exempt calorie labeling for alcoholic beverages, and should not exclude movie theaters, airplanes, bowling alleys and other businesses whose primary business is not to serve food, as they are places where millions of Americans regularly consume food and beverages.

ADDITIONAL RESOURCES:

Consumers' Estimation of Calorie Content at Fast Food Restaurants. *BMJ (British Medical Association Journal)*. May 2013.
<http://www.rwjf.org/en/research-publications/find-rwjf-research/2013/05/underestimation-of-calorie-content-at-fast-food-restaurants.html>

Impact of Menu Labeling on Consumer Behavior: A 2008–2012 Update. *Healthy Eating Research*. June 2013. <http://www.healthy-eatingresearch.org/publications-mainmenu-111/research-briefs-and-syntheses-mainmenu-114/2887>

How Food Away from Home Affects Children's Diet Quality. U.S. Department of Agriculture (USDA). October 2010.
<http://www.ers.usda.gov/publications/err-economic-research-report/err104.aspx#.Uai8YEC1FZs>

The Impact of Food Away from Home on Adult Diet Quality. U.S. Department of Agriculture (USDA). February 2010.
<http://www.ers.usda.gov/publications/err-economic-research-report/err90.aspx#.Uai8LOC1FZs>

COMMENTARY FROM NATIONAL
RESTAURANT ASSOCIATION

BY JOAN MCGLOCKTON Vice President,
Industry Affairs and Food Policy, National
Restaurant Association



Tens of millions of Americans who eat in chain restaurants every day will soon have access to some of the same nutrition information available on prepackaged foods.

Menu Labeling is Key to Empowering Consumers to Make Healthy Choices

Nutrition information can be found on nearly every prepackaged food and beverage. The information on those ubiquitous labels is important for Americans, and more consumers are getting used to having access to nutrition information that can help them make informed decisions about what they eat and drink.

The new menu labeling law sets a consistent, national standard for restaurants and similar retail food establishments, requiring these operations to provide certain nutrition information on menus and more information to those who request it.

The law covers restaurants and similar retail food establishments that are part of a chain of 20 or more locations operating under one brand. That means that about 250,000 restaurants across the country will be required to provide information about calorie counts, sodium, cholesterol and other information.

The national standard comes after several states and cities moved to require chain restaurants to provide varying nutrition information. This presented a challenge for restaurant

operators who operated in multiple states and had to comply with different regulations. It was also confusing for consumers, who would visit a favorite restaurant in one state only to find the nutrition data presented differently in another state or city.

The federal standard provides uniform nutrition information that restaurants operating in multiple states can implement nationwide. The new standard will override state and local laws that differ from the new federal standard. A national standard will ensure that diners from Portland, Ore., to Portland, Maine, have access to the same information — and it spares restaurant companies that operate across multiple states the cost of producing separate menus or menu boards to comply with different state and local laws.

Many restaurants already post nutrition information about their meals online, and about 25 percent of adults report having looked up that online information, according to National Restaurant Association research.

So what will the new menu labeling look like in an actual restaurant? While the restaurant industry is still awaiting the release of the final standards by the U.S. Food and Drug Administration (FDA), the draft standards released in 2011 gave some idea. Calorie counts will be available on menus, menu boards and drive-thru displays, and restaurants will be required to provide other nutrition information on request.

While the menu-labeling standard will no doubt present some challenges for restaurant operators, it also presents opportunities. A survey last year by the Association showed that 75 percent of adults considered the availability of healthy menu items when choosing a quick-service or fast-food restaurant. Nearly three-quarters of adults reported that they were trying to eat more healthfully than they did two years before.



Throughout the creation of the menu labeling standard, the National Restaurant Association has worked with Congress and now regulators to ensure that the new standards are flexible for restaurants, and that information is presented to

consumers in a manner that is useful to them. The foodservice industry is extraordinarily diverse, and a one-size-fits-all approach to labeling will present challenges for the industry and consumers.

FOR BOTH RESTAURANTS AND CONSUMERS, THE FDA WILL HAVE TO MAKE ANOTHER IMPORTANT DECISION: WHETHER THE STANDARDS COVER CONVENIENCE STORES AND GROCERY STORES THAT ARE RAPIDLY EXPANDING INTO RESTAURANT FOOD SALES.

Grocery stores and convenience stores are large and rapidly growing components of the away-from-home foodservice market in the United States. According to the U.S. Census Bureau's Economic Census, there are more than 114,000 grocery stores, convenience stores and gas stations offering freshly prepared food and beverages, with annual sales in excess of \$20 billion. Taken together, these foodservice segments are nearly one-quarter the size of the total number of full-service and limited-service restaurants in the United States.

The intent of the new law is to cover restaurant-type food. Excluding a significant portion of the foodservice

industry — just because the locations that sell restaurant-type foods get the majority of their sales from fuel or packaged goods — will significantly limit the effectiveness of the law.

Over the past several years, consumers have shown an increased interest in healthful options at restaurants and restaurants have responded. Healthful children's meals, locally grown produce and lower-calorie items are among the top restaurant trends this year.

The menu-labeling law is the next step in empowering Americans to make choices that help them achieve their personal and health-related goals.



F as in Fat: *Obesity Policy Series*

MAP-21: Active Federal Transportation Policy and Obesity Prevention

CURRENT STATUS:

Half of adults and nearly 72 percent of high school students in the United States do not meet the Centers for Disease Control and Prevention's recommendations for physical activity, and American adults walk less than in any other industrialized country.^{176, 177, 178}

Federal, state and local transportation policy impacts how all Americans move and has the potential to provide more opportunities for Americans to walk, bike and be more physically active.

Research has shown that children and families are more active when they live in neighborhoods that have sidewalks, parks, bicycle lanes and safe streets.¹⁷⁹

States and communities across the country are implementing policies to promote active transportation. For instance, 488 communities now have Complete Streets programs to support safe, accessible walking, biking, use of public transportation and recreation spaces.

In July 2012, President Obama signed a two-year extension of the federal surface transportation authorization, called the Moving Ahead for Progress in the 21st Century Act, or MAP-21 (P.L. 112-141).

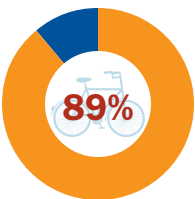
MAP-21 reorganized Safe Routes to School, Recreational Trails and the Transportation Enhancement Program into a new entity called the Transportation Alternatives Program. Rather than a dedicated funding stream for each separate program, a single allocation will be divided for such purposes, and states now also

may use a portion of these funds to support some road uses, such as basic repairs or maintenance projects.

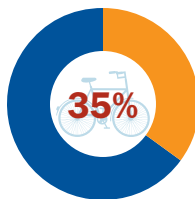
Funding for the Transportation Alternatives Program was authorized at \$800 million annually, which represents a 33 percent cut from the \$1.2 billion previously appropriated to the three individual programs. Interim guidance released by the U.S. Department of Transportation in October 2012 requires a new 20 percent state or local match for any new Transportation Alternative Program projects.

WHY ACTIVE TRANSPORTATION MATTERS:

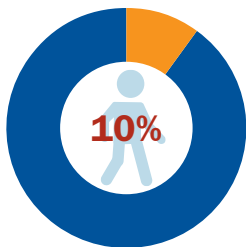
Percentage of K-8 students who walk or bike to school
1969



Percentage of K-8 students who walk or bike to school
2009



Percentage of trips in the United States made by walking



- According to the National Academy of Sciences, a healthy built environment — which includes having safe, accessible places to walk, bike or engage in other physical activity — can facilitate physical activity. They concluded a range of studies show the built environment can be structured to give people more opportunities and choices to be physically active.¹⁸⁰
- Children and teens living in neighborhoods with more green space, such as parks, playing fields, trails and schoolyards, are less likely to be overweight than their counterparts who live in neighborhoods with less green space.¹⁸¹ In general, states with the highest levels of bicycling and walking have the lowest levels of obesity, high blood pressure and diabetes, and have the greatest percentage of adults who meet the recommended 30 minutes or more a day of physical activity.¹⁸²
- In 1969, 89 percent of kindergarten through 8th grade students who lived within one mile of school usually walked or biked to school. By 2009, only 35 percent of kindergarten through 8th grade students who lived within a mile of school usually walked or biked to school even once a week.¹⁸³ Bridging the Gap, a nationally recognized research program funded by the Robert Wood Johnson Foundation, found that laws requiring sidewalks, crossing guards and traffic safety measures increased the number of children walking or biking to school, and that certain laws, such as busing requirements for particularly short distances, decreased biking and walking rates.¹⁸⁴
- According to the most recent National Household Travel Survey, just over 10 percent of all daily trips in the United States are made by walking.¹⁸⁵



Policy Recommendations:

- Federal, state and local resources should be sustained and expanded to promote active transportation.
- Every community should build and support local Complete Streets programs and Safe Routes to School and other programs that make it easier and safer for children and adults to be active.
- State and regional transportation planning, monitoring, and evaluation should incorporate health into all decision-making, and federal transportation dollars should be tied to measurable health-improvement metrics and goals.

ADDITIONAL RESOURCES:

Moving Ahead for Progress in the 21st Century Act (MAP-21), U.S. Department of Transportation. <http://www.dot.gov/map21>

How Does Transportation Impact Health? Robert Wood Johnson Foundation. October, 2012.

http://rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf402311

STATE ACTIVE TRANSPORTATION LAWS

Safe Routes to Schools

- **Safe Routes to School (SRTS) programs operate in all 50 states and Washington, D.C., benefiting 13,000 schools. Every state and Washington, D.C., has an SRTS coordinator.**

SRTS was created by the U.S. Department of Transportation (DOT) to promote walking and biking to school. The program supports improving sidewalks, bike paths and safe street crossings; reducing speeds in school zones and neighborhoods; addressing distracted driving; and educating people about pedestrian and bike safety. The program includes a range of partners, such as educators, parents, students, government officials, city planners, business and community leaders, health officials and members of the community. Early studies of the program have shown a positive effect on active travel among children and a reduction in crashes involving

pedestrians.^{186, 187, 188} While every state currently participates in some form of SRTS activities, implementation and funding support varies.

Complete Streets Programs

- **Twenty-eight states and D.C. have adopted Complete Streets programs:** California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia and Wisconsin.

Complete Streets programs encourage physical activity and green transportation, walking and cycling, and building or protecting urban transport systems that are fuel-efficient, space-saving and promote healthy lifestyles.



EXPERT COMMENTARY

BY JAMES CORLESS, Director,
Transportation for America



Bold Reforms Needed for Federal Transportation Policy

Over the last decade or so, research has continually demonstrated how the “built environment” — the layout and design of buildings, streets, sidewalks and other infrastructure — affects health. Since the 1950s, we have built most of our neighborhoods and cities in a way that accommodates increasing levels of traffic at the cost of discouraging physical activity.

Studies have correlated time spent in traffic with extra weight gain and lower physical activity, while the rapid transformation of the built environment has posed an increasing danger to pedestrians. Two-thirds of pedestrian fatalities occur on bigger

“arterial” roads, the wide, multi-lane thoroughfares lined with shopping centers, apartment complexes and office parks. Many of the victims are seniors, recent immigrants or people struggling to make ends meet.



DESPITE THE OBSTACLES OF A BUILT ENVIRONMENT THAT — INTENTIONALLY OR NOT — INHIBITS PHYSICAL ACTIVITY, OVER THE LAST DECADE WE HAVE SEEN A TREMENDOUS UPSURGE IN AMERICANS’ DESIRE TO WALK AND BICYCLE, WHETHER FOR COMMUTING OR RECREATION.

Communities of all sizes, in all regions of the country, have built new sidewalks, multi-use trails and bike lanes, many as part of a “complete streets” policy that calls for safely accommodating all users of urban and suburban roads. Developers have found that residents are flocking to new neighborhoods designed to be walkable, and new real estate tools such as WalkScore.com, which rates

neighborhood walkability, have arisen to help people find them. Bike-share systems providing short-term, point-to-point bicycle rentals are operating or planned in more than a dozen major cities, and growing numbers of people are walking or biking to public transportation. In short, if you build infrastructure that is safe and inviting, many people will use it, and they will be more active and healthier.

In the summer of 2012 Congress reauthorized the surface transportation law now known as Moving Ahead for Progress in the 21st century, or MAP-21, which included some notable changes to federal transportation programs:

- MAP-21 consolidated Safe Routes to Schools, Recreational Trails and Transportation Enhancements into one Transportation Alternatives Program. There is no longer dedicated funding for each separate program, but a single allocation to divide among all three, with a third less funding overall. In addition, states can now use a portion of these funds to support some road uses, leaving even less funding for the projects that support active transportation.
- While state DOTs previously controlled the funding for active transportation, a new provision gives more local control to communities to make their streets safer for walking or biking. About half the funding in the Transportation Alternatives Program will be given directly to metropolitan areas, with the remainder used at state discretion. Local leaders interested in creating more walkable neighborhoods and better infrastructure for public transportation need to secure matching grants from a federal partner to get their projects funded.
- A new grant program will fund community-led planning for neighborhood revitalization around transit lines. Research has shown that making mass transit more accessible promotes physical activity, as people generally walk to and from the subway or bus lines.
- The law provides a new framework for measuring and improving transportation performance. Accountability under this structure will largely need to come from the public to ensure that the U.S. Department of Transportation sets the right performance measures and that states, metro regions and transit authorities all set aggressive targets that guide investment decisions.

What should the future of federal transportation policy look like?
With federal gas tax revenues declining, the U.S. population growing and the existing system showing its age, it is clear that bolder reforms and additional funding will be necessary within the next few years.

Other factors also argue for a more forward-looking approach: Gas prices are trending ever upward, and demand for public transportation is booming like never before. Demographic shifts show a more diverse America with fewer young people driving and huge increases in demand for more walkable towns and suburbs. More and more people are clamoring for safer streets and healthier communities.

States and localities should be encouraged to ensure transportation funding that is forward-looking and reflects the priorities of rapidly changing demographics — such as seniors trying to get to the doctor, millennials looking for more vibrant neighborhoods and transportation options, low-income workers trying to get to jobs, and kids simply trying to cross the street to get to school or to a park to play.

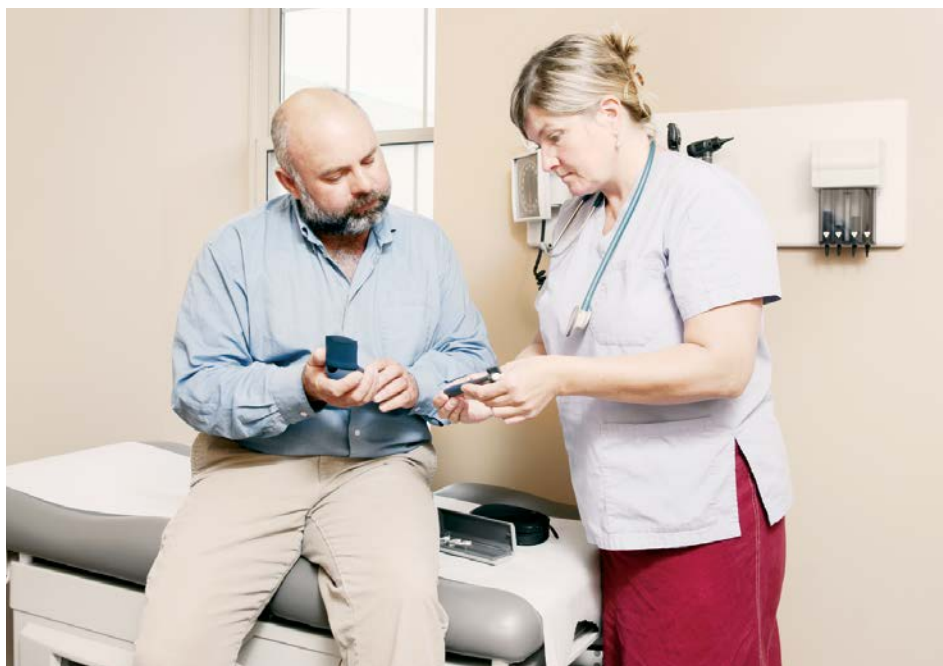
The goals of federal transportation policy must be to guarantee the nation's freedom to move — however we choose — and to lead to a stronger economy, greater energy security, a cleaner environment and a healthier America.

People have shown, repeatedly, that they want well-maintained infrastructure and access to a variety of transportation options and safe

places to walk and exercise in their communities. Federal, state and local policies should reflect and support these desires.



F as in Fat: *Obesity Policy Series*



Obesity Prevention Inside and Outside the Doctor's Office

CURRENT STATUS:

Traditionally, care inside the doctor's office and support to help people follow their doctors' advice in their daily lives have operated separately. And, public and private insurers have typically focused on reimbursing activities that happen directly within a healthcare setting.

However, there is growing evidence that Americans cannot achieve health goals and effectively follow their doctors' advice without support in their daily lives — in neighborhoods, workplaces and schools.

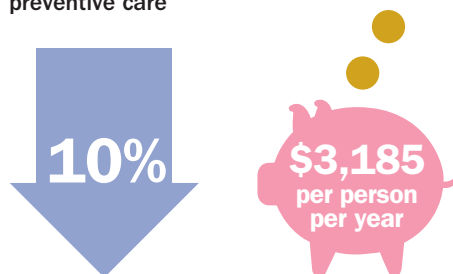
The Affordable Care Act calls for increased attention to obesity prevention and control at the doctor's office and provides new opportunities for insurers to expand coverage for proven community-based programs outside the clinical setting.

- The ACA requires new plans from private and self-insurers and Medicare to cover the most beneficial and cost-effective prevention services without co-payments. This gives doctors increased ability to provide obesity screening and counseling to patients. Incentives are provided to encourage state Medicaid programs to cover more preventive services. However, nearly half of all Americans currently do not access many commonly recommended preventive services.¹⁸⁹
- Outdated regulations and billing systems have constrained insurers from paying for programs that are not directly delivered by doctors

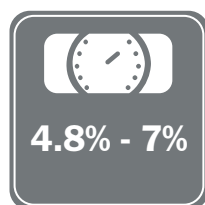
and licensed medical providers, or that help support the health of an entire neighborhood rather than focusing on a specific individual who is tied to a specific billing code. Recently, a few private insurers have begun covering some evidence-based community prevention programs, but these efforts are limited. In addition, in 2013, the Centers for Medicare and Medicaid Services (CMS) took a first step with a proposed rule that would give states greater flexibility in what kinds of prevention programs they cover, such as for obesity education and counseling activities. CMS has not finalized this rule or provided best practices or specific examples to states.

WHY BETTER INTEGRATION OF MEDICAL CARE AND SUPPORT WHERE PEOPLE LIVE, LEARN, WORK AND PLAY MATTERS:

Average monthly savings that individuals with type 2 diabetes achieve with preventive care



Average body weight loss of YMCA's DPP participants



- To maximize effectiveness, providers and insurers, including state Medicaid programs, can take an integrated approach to include community-based prevention and public health to provide support for patients to be able to follow doctors' advice in their daily lives. For instance, a new model that created an Affordable Care Community (ACC) in Akron, Ohio, involves a coordinated clinical-community prevention approach and has reduced the average cost per month of care for individuals with type 2 diabetes by more than 10 percent per month over 18 months. A second project, a diabetes self-management program, resulted in estimated program savings of \$3,185 per person per year. This initiative also led to a decrease in diabetes-related emergency department visits.
- Efforts such as the National Diabetes Prevention Program (DPP) that help provide support to allow patients to follow doctors' advice in their daily lives, are showing results in improving health and bringing down costs. Participants in the YMCA's DPP lost an average of 4.8 percent of their body weight, with some participants losing up to 7 percent of body weight. NIH studies have shown this to be sufficient change to prevent the onset of diabetes.
- The American Heart Association published a review of more than 200 studies and concluded that most cardiovascular disease could be prevented or at least delayed until old age through a combination of direct medical care and community-based prevention programs and policies.¹⁹⁰

Policy Recommendations:

- New health system approaches, including Accountable Care Organizations and other approaches to organizing and financing healthcare, must incorporate community obesity-prevention programs to be successful in reaching goals to improve health and lower costs. Accountable Care Organizations are groups of health care providers that prioritize coordinated care and quality goals to achieve overall health for their patients while reducing health care costs.
- Government and private insurers should implement policies and programs to increase the use of preventive services, particularly among communities where services are underutilized.
- Medicaid should expand coverage of community prevention programs, including moving forward on regulations to allow states to reimburse a broader array of health providers and entities and pay for additional services.
- Medicaid should identify and disseminate community prevention best practices by Medicaid programs.
- Private insurance coverage should incentivize coordinated clinical and community care, and expand coverage of community prevention programs.

ADDITIONAL RESOURCES:

Transforming Health By Developing an Accountable Care Community. J. Janosky. **Austen BioInnovation Institute in Akron.**
http://healthyamericans.org/health-issues/prevention_story/transforming-health-by-developing-an-accountable-care-community

Total Health: Public Health and Health Care in Action Case Study. T. Norris. **Kaiser Permanente.**
http://healthyamericans.org/health-issues/prevention_story/total-health-public-health-and-health-care-in-action

EXPERT COMMENTARY

BY KALA SHIPLEY, Executive Officer,
Health Promotion – Division of Health
Promotion and Chronic Disease
Prevention, Iowa Department of Health



“Obesity is already taking a serious health and economic toll on the state.”

Connecting Care Inside and Outside the Doctor’s Office in Iowa

Right now, 30.4 percent of adults and 13.6 percent of children in Iowa are obese. According to the 2012 *F as in Fat* report, if things continue on their current course, the state’s obesity rates could climb to 54.4 percent by 2030.

Currently, nearly 30 percent of Iowa adults have hypertension and 9.7 percent have diabetes. If we don’t take action, in the next 20 years, we could see the number of new cases of type 2 diabetes, heart disease and stroke, hypertension, arthritis, obesity-related cancer and other diseases continue to rise, and obesity-related healthcare costs could grow by 3.7 percent.ⁱ

We’ve decided it’s time to do things differently. One thing that has never made sense is the disconnect between the care patients receive in the doctor’s office and the lack of support there is in communities to be able to follow the doctor’s advice in daily life.

This is particularly important for obesity and related health conditions. For instance, a doctor finds a patient has prediabetes. Unfortunately, there is no special pill to prescribe as a cure, but, rather, the prescription is making better decisions about nutrition and being more physically active. To make the connection between the clinical setting and daily life, Iowa’s local Community Transformation Grant (CTG) projects are making it easier for people who want to follow the doctor’s orders to do so in their community by creating environments that support access to healthy foods and physical activity.

TO HELP CONNECT INDIVIDUALS WITH COMMUNITY RESOURCES, WE LAUNCHED THE IOWA COMMUNITY REFERRAL PROJECT SO IOWANS WILL STAY HEALTHIER LONGER AND DELAY OR AVOID SERIOUS NEGATIVE HEALTH OUTCOMES.

We've partnered the Iowa Primary Care Association (IPCA) and Local Boards of Health so that doctors will now have access and information about programs in communities, and will be able to refer and match their patients to those resources. As part of our CTG, we are bringing together partners, including medical providers, local departments

of public health, community groups and others to identify evidence-based programs and efforts.

Now, doctors in many counties will have the information they need to connect their patients with effective programs. In essence, the prediabetic patient will be able to receive a referral from their doctor to programs in their

community that can help them get healthier and potentially avoid developing diabetes. The Community Referral Project connects individuals to the entire spectrum of care — providing patients with better opportunities to follow their doctor's advice, whether it be healthy eating, increased physical activity or something else.

EXAMPLES OF SOME TYPES OF PROGRAMS INCLUDE:

- The Black Hawk County Board of Health has built a referral system that connects members of the community with healthy choices and better chronic disease self-management. The evidence-based Stanford Chronic Disease Self-Management Program helps manage chronic conditions such as diabetes or prediabetes by empowering individuals to set personalized goals for health improvement. At the Aging and Disability Resource Center serving Iowans in Black Hawk County and the Hawkeye Valley Area, counselors help seniors find practical ways to self-manage their condition, starting with understanding the health, mobility and physical activity levels of individuals and making referrals to community programs such as the Stanford Chronic Disease Self-Management classes, exercise classes, farmer's markets and disability resources.
- As part of the recently upgraded electronic medical record system in Decatur County, physicians can now give patients an "exercise prescription," which can include information about ways to increase physical activity and connect people with fitness centers and exercise programs.
- In Polk County, medical clinics, the YMCA Health Living Center and the county health department are working together to connect patients with the Stanford Chronic Disease Self-Management Program. Physicians at Mercy Medical Centers refer patients with chronic health conditions, such as high blood pressure or high cholesterol, to health coaches at the hospital and wellness coaches at the YMCA who work with individuals and hold workshops to improve their health.
- In Dallas County, the county health department has built a referral system with county Mercy Medical clinics that participate in the Iowa Medicaid Enterprise (IME) Health Home program. The clinics now regularly refer patients to a Health Navigation program run by the county health department, which connects them with local services including housing assistance, food assistance, enrolling in public programs, medication assistance, behavioral health, wellness options and other programs.



One of the objectives of the CTG is to reduce obesity by 5 percent. We believe this project is one important piece in helping to reach that goal. By creating more overt and direct connections between care in the doctor's office with opportunities to be healthier in daily life, we can achieve better results.

Last year's *F as in Fat* report demonstrated the impact these types of changes can have. If we reduce the average body mass index (BMI) of adults in the state, we could reduce healthcare spending by more than \$2 billion in 10 years and \$5.7 billion in 20 years, while helping thousands of Iowans from developing preventable diseases.ⁱⁱ

By better coordinating care for those who have obesity-related illnesses, we

can prevent situations from getting worse — for instance, stopping people with pre-diabetes from developing type II diabetes — and save lives and money.

It's time we involve the whole healthcare system in preventing diseases and keeping us all healthier, rather than just treating conditions after they have already happened.

i Trust for America's Health and Robert Wood Johnson Foundation. *F as in Fat: How Obesity Threatens America's Future*. Washington, D.C.: Trust for America's Health, 2012. <http://healthyamericans.org/assets/files/TFAH2012FasInFatFnlRv.pdf>

ii Ibid

Fast Facts about Obesity

OBESITY AND HEALTH

Type 2 Diabetes

- More than 25 million adult Americans have diabetes.¹⁹¹
- Another 79 million Americans are pre-diabetic, which means they have prolonged or uncontrolled elevated blood sugar levels that can contribute to the development of diabetes.¹⁹² CDC projects that as many as one in three U.S. adults could have diabetes by 2050.¹⁹³
- Approximately 215,000 individuals under the age of 20 have diabetes and two million adolescents ages 12 to 19 have pre-diabetes.^{194, 195}
- Compared with non-Hispanic white adults, the risk of diagnosed diabetes is 18 percent higher among Asian Americans, 66 percent higher among Hispanics/Latinos, and 77 percent higher among non-Hispanic blacks.
- Diabetes is the seventh leading cause of death in the United States and accounts for \$245 billion in total U.S. healthcare costs annually.^{196, 197} Diabetes accounts for more than one in five U.S. healthcare dollars, and healthcare costs for individuals with diagnosed diabetes are approximately 2.3 times higher than costs for those without diabetes.
- More than 80 percent of people with diabetes are overweight.¹⁹⁸
- The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) found that a 7 percent weight loss together with moderate levels of physical activity (walking 30 minutes a day, five days a week) decreased the number

of new diabetes cases by 58 percent among people at risk for diabetes.¹⁹⁹

Heart Disease and Stroke

- One in four Americans has some form of cardiovascular disease.²⁰⁰
- One in three adults has high blood pressure, high blood pressure is the leading cause of stroke and more than 75 percent of cases of hypertension may be attributable to obesity.²⁰¹
- Heart disease is the leading cause of death in the United States, and stroke is the fourth leading cause.²⁰²
- People who are overweight are more likely to have high blood pressure, high levels of blood fats, and high LDL (bad cholesterol), which are all risk factors for heart disease and stroke.²⁰³
- Physically inactive people are twice as likely to develop coronary heart disease compared with regularly active people.²⁰⁴

Cancer

- Cancer is the second leading cause of death in the United States.²⁰⁵
- Approximately 20 percent of cancer cases among women and 15 percent of cancer cases among men is attributable to obesity.²⁰⁶
- Obesity increases risk for endometrial (uterine) cancer by 39 percent, esophageal cancer by 37 percent, kidney cancer by 25 percent, colon cancer by 11 percent and post-menopausal cancer by 9 percent.

F as in Fat: *Appendix A*

- Physical activity can reduce a person's risk for a number of types of cancer, including colon cancer by 30 percent to 40 percent, breast cancer by at least 20 percent, endometrial (uterine) cancer by 20 percent to 40 percent, and lung cancer by approximately 20 percent.²⁰⁷
- Increased physical activity could prevent nearly 100,000 cases of breast and colon cancer each year in the United States.²⁰⁸

Neurological and Psychiatric Diseases

- Both overweight and obesity at midlife independently increase the risk of dementia, Alzheimer's disease and vascular dementia.^{209, 210}
- An analysis of data from a health survey of more than 40,000 Americans found a correlation between depression and obesity. Obese adults were more likely to have depression, anxiety and other mental health conditions than healthy-weight adults.²¹¹ The odds of experiencing any mood disorder rose by 56 percent among obese individuals ($30 \leq \text{BMI} \leq 39.9$) and doubled among the extremely obese ($\text{BMI} \geq 40$).²¹²

Kidney Disease

- Obese individuals ($\text{BMI} \geq 30$) are 83 percent more likely to develop kidney disease than normal-weight individuals ($18.5 < \text{BMI} < 25$), while overweight individuals ($25 < \text{BMI} < 30$) are 40 percent more likely to develop kidney disease.²¹³
- In the United States, an estimated 24.2 percent of kidney disease cases among men and 33.9 percent of cases among women are related to overweight and obesity.²¹⁴

Liver Disease

- Obese individuals are at greater risk of nonalcoholic steatohepatitis (NASH), a liver disease which can lead to cirrhosis, in which the liver is permanently damaged and no longer able to work properly. NASH is one of the major causes of cirrhosis in America, behind only hepatitis C and alcoholic liver disease.²¹⁵

Arthritis

- Obesity is a known risk factor for the development and progression of osteoarthritis of the knee and possibly of other joints. Obese adults are up to four times more likely to develop osteoarthritis of the knee than healthy-weight adults.²¹⁶
- 68.8 percent of individuals diagnosed with arthritis are overweight or obese.²¹⁷
- For every pound of body weight lost, there is a 4 percent reduction in knee joint stress among overweight and obese people with osteoarthritis of the knee.²¹⁸
- Adults with arthritis are significantly less likely to participate in leisure time physical activity compared to those without arthritis.²¹⁹

HIV/AIDS

- Antiretroviral treatments are less effective for obese patients. One study found that obese individuals had significantly smaller gains in CD4 cell count after starting HIV treatment than both patients of normal weight and those who were overweight.²²⁰

Obesity and Children's Health

- More than one third of children and adolescents are overweight or obese.²²¹
- The number of fat cells a person has is determined by late adolescence; although overweight and obese children can lose weight, they do not lose the extra fat cells.²²²
- Obese adolescents are more likely to become obese adults. A retrospective study found that as BMI increased in adolescence the probability of obesity as an adult significantly increased as well—obese male youths were 18 times more likely to become obese adults and obese female youths were 49 times more likely to become obese adults.²²³ About 70 percent of obese youths have at least one additional risk factor for cardiovascular disease, such as elevated total cholesterol, triglycerides, insulin or blood pressure.²²⁴
 - ▲ Nearly 40 percent have two or more additional risk factors.²²⁵
- At least one out of every five U.S. teenagers has abnormal cholesterol levels, a major risk factor for heart disease.²²⁶
 - ▲ Among obese teenagers, the rate jumped to more than two out of five (43 percent).²²⁷
- Overweight and obesity are associated with a 52 percent increased risk of a new diagnosis of asthma among children and adolescents.²²⁸ The majority of studies included in a systematic review of the relationship between obesity and asthma from 1966 through 2011 support a positive association between obesity and asthma in children. The review found that gender was the most prominent effect modifier, with obese girls more likely to have asthma diagnoses than obese boys.²²⁹

- Children and adolescents with a BMI greater than 28 are four to five times more likely to experience sleep-disordered breathing than their peers with a lower BMI.²³⁰

Maternal Health and Obesity

- There is a growing body of evidence documenting the links between maternal health conditions, including obesity and chronic diseases, and increased risks before, during and after childbirth.²³¹
- Children born to obese mothers are twice as likely to be obese and to develop type 2 diabetes later in life.²³²
- Teenage mothers who are obese before pregnancy are four times more likely than their healthy-weight counterparts to develop gestational diabetes, a form of diabetes that arises during pregnancy and increases a woman's risk of developing type 2 diabetes later on.²³³
- CDC and the Kaiser Permanente Northwest Center for Health Research found that obesity during pregnancy is associated with an increased use of healthcare services and longer hospital stays.²³⁴ The study of more than 13,000 pregnancies found that obese women required more outpatient medications, were given more obstetrical ultrasounds, and were less likely to see nurse midwives or nurse practitioners in favor of physicians. Cesarean delivery rates were 45.2 percent for extremely obese women, compared with 21.3 percent for healthy-weight women.²³⁵ Cesarean deliveries have higher health risks and higher medical costs.

Economic Costs of Obesity

Healthcare Costs

- Obesity-related medical treatment costs between \$147 and \$210 billion a year, or nearly 10 percent of all annual medical spending (based on 2006 data). The majority of the spending is generated from treating obesity-related diseases such as diabetes.²³⁶
 - ▲ Of the \$147 billion, Medicare and Medicaid are responsible for \$61.8 billion. Medicare and Medicaid spending would be 8.5 percent and 11.8 percent lower, respectively, in the absence of obesity.²³⁷
 - ▲ Obese people spend 42 percent more on healthcare costs than healthy-weight people.²³⁸
- Childhood obesity alone is responsible for \$14.1 billion in direct costs.²³⁹
- Annually, the average total health expenses for a child treated for obesity under Medicaid is \$6,730, while the average health cost for all children covered by Medicaid is \$2,446. The average total health expenses for a child treated for obesity under private insurance is \$3,743, while the average health cost for all children covered by private insurance is \$1,108.²⁴⁰
- Hospitalizations of children and youths with a diagnosis of obesity nearly doubled between 1999 and 2005, while total costs for children and youths with obesity-related hospitalizations increased from \$125.9 million in 2001 to \$237.6 million in 2005, measured in 2005 dollars.²⁴¹
- In California alone, the economic costs of overweight, obesity and physical inactivity are estimated to cost \$41 billion a year.²⁴²

Decreased Worker Productivity and Increased Absenteeism

- Obesity-related job absenteeism costs \$4.3 billion annually.²⁴³
- Obesity is associated with lower productivity while at work (presenteeism), which costs employers \$506 per obese worker per year.²⁴⁴
- As a person's BMI increases, so do the number of sick days, medical claims and healthcare costs associated with that person.²⁴⁵

Higher Workers' Compensation Claims

- A number of studies have shown obese workers have higher workers' compensation claims.^{246, 247, 248, 249, 250, 251}

- Obese employees had \$51,091 in medical claims costs per 100 full-time employees, costs for medical claims for healthy-weight workers was \$7,503. And obese workers had \$59,178 in indemnity claims costs per 100 full-time employees; healthy-weight indemnity claims cost \$5,396.²⁵²

Health and Emergency Safety Costs

- Emergency responders and healthcare providers face unique challenges in transporting and treating the heaviest patients. According to one study, the number of severely obese (BMI $\geq$ 40) patients quadrupled between 1986 and 2000 from one in 200 to one in 50. The number of super-obese (BMI $\geq$ 50) patients grew by a factor of five, from one in 2,000 to one in 400.²⁵³
- A typical ambulance outfitted with equipment and two emergency medical technicians (EMTs) that can transport a 400-pound patient costs \$70,000. A specially outfitted bariatric ambulance that can transport patients weighing up to 1,000 pounds costs \$110,000.²⁵⁴
- A standard hospital bed can hold 500 pounds and costs \$1,000. A bariatric hospital bed that can hold up to 1,000 pounds costs \$4,000.²⁵⁵

MANY FACTORS INFLUENCE NUTRITION AND PHYSICAL ACTIVITY

Food Choices and Changes

- Prices for many less nutritious foods and content have declined significantly, and there is a much wider availability of less nutritious foods available.²⁵⁶
- Increases in caloric intake; adults consumed approximately 300 more calories daily in the past 30 years.²⁵⁷
- Limited access to supermarkets and nutritious, fresh foods in many urban, rural and lower-income neighborhoods.²⁵⁸
- “Portion distortion,” or the rise of bigger portions.
- “Value sizing” or placing a higher value on the amount of food versus the quality of food.²⁵⁹
- Less in-home cooking and more frequent reliance on takeout food and eating in restaurants.

Schools

- Marketing of unhealthy foods and beverages in schools.
- Increased availability of low-nutrition foods and beverages in à la carte lines, school stores, vending machines and at fundraisers and classroom parties.²⁶⁰
- Reduction in the amount of physical education (PE), recess and recreation time.
- Fewer safe routes to school that encourage kids to walk and bike.
- Limited opportunities for health education that includes health topics on nutrition and physical activity and fitness.

Community Design

- Communities designed to foster driving rather than walking or biking.
- Lack of public transportation options.

- No sidewalks or poor upkeep of sidewalk infrastructure.
- Walking areas often unsafe or inconvenient.
- Limited park and recreation space, including indoor facilities.
- Poor upkeep and security in local parks.
- Lack of affordable indoor physical activity options.
- Retail and employment centers separated from housing.
- Zoning codes prohibit many smart growth strategies that would create more opportunities for physical activity and increase access to healthy foods.

Marketing and Advertising

- More advertising and marketing of unhealthy foods, particularly to kids.
- Newer forms of marketing to kids, including online promotions and text messaging, which take place out of the view of parents.
- Marketing of extreme or fad weight loss programs.

Many Workplaces Not Conducive to Supporting Healthy Nutrition and Physical Activity

- Many desk jobs limit or discourage physical activity and become part of the sedentary lifestyle.
- Worksites typically not designed to foster movement.
- Limited opportunities for physical activity or recreation during the workday.
- Unhealthy options in cafeterias or work lunch sites.

- Lack of bike racks and/or shower facilities that discourage active transportation.
- Lack of support for breast-feeding mothers.

Economic Constraints

- Health insurance coverage for obesity-prevention services often has been limited or unavailable.
- Lack of either appropriate preventive services or follow-up care for people without health insurance.
- Expense, including taxes, of gym memberships, exercise classes, equipment, facility use and sports league fees.
- Fewer and smaller grocery stores in lower-income neighborhoods, which often means residents have less access to affordable fruits and vegetables in lower-income neighborhoods.

Family and Home Influences

- Influence of other family members’ habits on eating and exercise patterns.
- “Electronic culture” options for entertainment and free time, including TV, video games, and the Internet.
- More people working outside the home or far from home.
- Insufficient amount of sleep.

Limited Time

- Long work hours lead to more meals, many of them high in calories, eaten outside the home.
- Car time and commuting cut into free time that could be used for physical activity.

TRENDS IN PHYSICAL ACTIVITY

Adults

- The World Health Organization estimates that 1.9 million deaths worldwide are attributable to physical inactivity. Chronic diseases associated with physical inactivity include cancer, diabetes and coronary heart disease.²⁶¹
- Four out of five U.S. adults are not meeting both the aerobic and muscle strengthening components of the federal government's physical activity guidelines.²⁶²
- Sixty percent of adults are not sufficiently active to achieve health benefits.²⁶³
- A study of more than 30,000 healthy adult U.S. women found that middle-aged women need at least an hour of moderate activity a day to maintain a healthy weight without restricting calories.²⁶⁴
 - ▲ For those middle-aged women who are already overweight (which includes most American women), even more exercise is recommended to avoid gaining weight without eating less.²⁶⁵
- Physical activity is significantly associated with better survival and function among the very old (age ≥ 85 years).²⁶⁶
- Sedentary adults pay \$1,500 more per year in healthcare costs than physically active adults.²⁶⁷
- Studies suggest that moderate-to-high levels of physical activity substantially reduce, or even eliminate, the mortality risk of obesity.²⁶⁸
- Non-leisure time physical activity has decreased substantially in the past 20 to 30 years due to increasing mechanization at work and at home.²⁶⁹
 - ▲ “Non-leisure time physical activity” is defined as energy spent in a normal day outside of sports, exercise and recreation. This includes manual labor on the job, walking and biking to work and household chores.²⁷⁰
- A majority of U.S. adults ages 20 to 74 walk less than two to three hours per week and accumulate less than 5,000 steps per day.²⁷¹ U.S. physical activity guidelines call for adults to walk 10,000 steps daily.
- The automobile has significantly reduced physical activity by its frequent use for short trips for shopping, going to the cleaners and other errands, and taking children to school.²⁷²

Youths

- Current studies show that most youths do not meet physical activity guidelines which recommend engaging in 60 minutes or more of moderate-to-vigorous physical activity per day.^{273, 274}

- Only 42 percent of children ages 6 to 11 engage in 60 minutes or more of moderate-to-vigorous physical activity five or more days per week.²⁷⁵
 - ▲ That figure drops to 8 percent for adolescents ages 12 to 15 and to 7.6 percent for adolescents ages 16 to 19.²⁷⁶
- An analysis of accelerometer data for children and adults shows that the amount of time spent in moderate-to-vigorous physical activity plummets as children reach adolescence.²⁷⁷
- The number of children walking to and from school has declined dramatically over the past 40 years, from 47.7 percent of students in 1969 to 12.7 percent of students in 2009.²⁷⁸
- There is substantial evidence that physical activity has a positive effect on students' academic performance, including grades and standardized test scores, according to a review of 50 studies conducted by CDC.²⁷⁹
- Young children are generally not physically active while in early child education programs: an estimated 70 percent to 87 percent of children's time in early child education is spent being sedentary (sitting or lying down), and less than 3 percent may be spent engaging in moderate-to-vigorous physical activity.^{280, 281}

AMERICANS' EATING HABITS

The USDA reports that to meet the Dietary Guidelines for Americans, people would need to substantially lower their intake of added fats, refined grains, sodium, along with added sugars and sweeteners, and increase their consumption of fruits, vegetables, whole grains and low-fat milk and milk products.²⁸² Some American eating habits over the past few decades include:

More Calories

Americans' mean energy intake of calories increased from 1955 per day during 1971 to 1975 to 2269 per day in 2003 to 2004 — more than a 300 calorie increase. It then declined to 2195 calories per day during 2009 to 2010.²⁸³

- Children ages 2 to 18 consume almost three snacks a day, and snacking accounted for up to 27 percent of children's daily caloric intake.²⁸⁴
- Recently, however, caloric intake for all boys and girls began to decrease from 1999 to 2000 to 2009 to 2010. Boys aged 2 to 19 decreased from 2,258 to 2,100 and girls aged 2 to 19 decreased from 1,831 to 1,755.²⁸⁵

Bigger Portion Sizes

- From 1977 to 1998, portion sizes for selected popular food items and overall energy intake increased for foods purchased in restaurants or fast-food

establishments and for foods prepared at home. The increase ranged from 49 to 133 calories for all selected popular foods, such as salty snacks, hamburgers, soft drinks and french fries.²⁸⁶

More Sugar

- Sugar consumption has decreased from about 100g per day to 76.6 grams per day from 1999 to 2000 to 2007 to 2008, but consumption is still nearly two times the USDA recommended intake.²⁸⁷
- Sugar-sweetened beverages make up nearly 16 percent of children ages 12-19 total caloric consumption.²⁸⁸

More Dietary Fat

- Americans consumed an average of 640 calories worth of added fats per person per day in 2008.²⁸⁹

A Major Increase in Eating Out

- 63 percent of children ages 1 to 12 ate out at a restaurant one to three times per week.²⁹⁰
- Adults consume an average of 11.3 percent of their total daily calories from fast food. Obese adult consumed 13.2 percent of their calories from fast food, while overweight individuals consumed 11.2 percent and normal or underweight adults consumed 9.2 percent of calories from fast food.²⁹¹

Methodology for Behavioral Risk Factor Surveillance System for Obesity, Physical Activity, and Fruit and Vegetable Consumption Rates

Methodology for Obesity and Other Rates Using BRFSS

Annual Data

Data for this analysis was obtained from the Behavioral Risk Factor Surveillance System (BRFSS) dataset (publicly available on the web at www.cdc.gov/brfss). The data were reviewed and analyzed for TFAH and RWJF by Daniel Eisenberg, Ph.D., Associate Professor, Health Management and Policy at the University of Michigan School of Public Health.

BRFSS is an annual cross-sectional survey designed to measure behavioral risk factors in the adult population (18 years of age or older) living in households. Data are collected from a random sample of adults (one per household) through a telephone survey. The BRFSS currently includes data from 50 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

Variables of interest included BMI, physical inactivity and diabetes. BMI was calculated by dividing self-reported weight in kilograms by the square of self-reported height in meters. The variable 'obesity' is the percentage of all adults in a given state who were classified as obese (where obesity is defined as BMI greater than or equal to 30). Researchers also provide results broken down by age—researchers report results for 18

to 25 year olds, 26 to 44 year olds, 45 to 64 year olds and 65 and older – and gender. Another variable 'overweight' was created to capture the percentage of adults in a given state who were either overweight or obese. An overweight adult was defined as one with a BMI greater than or equal to 25 but less than 30. For the physical inactivity variable a binary indicator equal to one was created for adults who reported not engaging in physical activity or exercise during the previous thirty days other than their regular job. For diabetes, researchers created a binary variable equal to one if the respondent reported ever being told by a doctor that he/she had diabetes. Researchers excluded all cases of gestational and borderline diabetes as well as all cases where the individual was either unsure, or refused to answer.

To calculate prevalence rates for hypertension, researchers created a dummy variable equal to one if the respondent answered "Yes" to the following question: "Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure?" This definition excludes respondents classified as borderline hypertensive, and women who reported being diagnosed with hypertension while pregnant.

Endnotes

- 1 Fryar CD, Carroll MD and Ogden CL. *Prevalence of Overweight, Obesity, and Extreme Obesity Among Adults: United States, Trends 1960-1962 Through 2009-2010*. National Center for Health Statistics, September 2012. http://www.cdc.gov/nchs/data/hestat/obesity_adult_09_10/obesity_adult_09_10.htm (accessed May 2013).
- 2 Ogden CL. *Childhood Obesity in the United States: The Magnitude of the Problem*. Power Point. <http://www.cdc.gov/about/grandrounds/archives/2010/download/GR-062010.pdf> (accessed June 2013).
- 3 Flegal KM, Carroll MD, Ogden CL, Johnson CL. Prevalence and trends in obesity among US adults, 1999-2000. *JAMA*. 2002;288(14):1723-7.
- 4 Flegal KM, Carroll MD, Kit BK, Ogden CL. Prevalence of obesity and trends in the distribution of body mass index among US adults, 1999-2010. *JAMA*. 2012;307(5):491-7. doi: 10.1001/jama.2012.39.
- 5 Ibid.
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