



Robert Wood Johnson Foundation



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EXECUTIVE SUMMARY

JUNE 2010

# F as in Fat: 2010

## HOW OBESITY THREATENS AMERICA'S FUTURE



### ACKNOWLEDGMENTS

*Trust for America's Health* is a non-profit, non-partisan organization dedicated to saving lives by protecting the health of every community and working to make disease prevention a national priority.  
[www.healthyamericans.org](http://www.healthyamericans.org)

*The Robert Wood Johnson Foundation* focuses on the pressing health and health care issues facing our country. As the nation's largest philanthropy devoted exclusively to improving the health and health care of all Americans, the Foundation works with a diverse group of organizations and individuals to identify solutions and achieve comprehensive, meaningful and timely change.  
[www.rwjf.org](http://www.rwjf.org)

### Obesity Increases Nationwide, Racial and Ethnic Disparities Persist

Since 2001, efforts to address skyrocketing obesity rates and obesity-related diseases have grown slowly across the country, ranging from school districts trying to improve the nutritional quality of school lunches to communities building new sidewalks to make walking safer and more accessible. In the past two years, however, programs and policies to prevent obesity have increased exponentially in number, strength and breadth. So has support for them. A new poll shows that 80 percent of Americans recognize that childhood obesity is a serious problem.<sup>1</sup> Furthermore, 50 percent of Americans believe childhood obesity is such an important issue that we need to invest more to prevent it immediately.

Despite important progress, obesity indeed remains one of the most significant public health challenges the country has ever faced. Troubling disparities remain among racial and ethnic groups, and our response as a nation has yet to fully match the magnitude of the problem.

*F as in Fat: How Obesity Threatens America's Future 2010*, a report by Trust for America's Health and the Robert Wood Johnson Founda-

tion, examines obesity trends in the United States. This seventh annual report assesses state and federal policies aimed at preventing or reducing obesity in children and adults and chronicles actions the federal government, states and communities nationwide are taking to address this critical health issue. For the first time, the report features commentaries from guest authors on a variety of relevant subjects, including reauthorization of the Child Nutrition Act, communities' access to affordable healthy foods, and steps food manufacturers are taking to improve the nutritional quality of their products. Finally, it suggests ways to ensure that the disease-prevention measures in the new health reform law are implemented in smart, strategic ways to help prevent and reduce obesity.

This executive summary provides an overview of the report's major findings with data on state obesity rates and recommendations for addressing the obesity epidemic.

**The full report is available at <http://healthyamericans.org/>**

1. Quinlan A, Lieberman D, and Ferguson G. *American Voters Support Investment in Preventing Childhood Obesity*. Washington, D.C.: Greenberg Quinlan Rosner Research and American Viewpoint, 2010.

## 2010: MAJOR FINDINGS

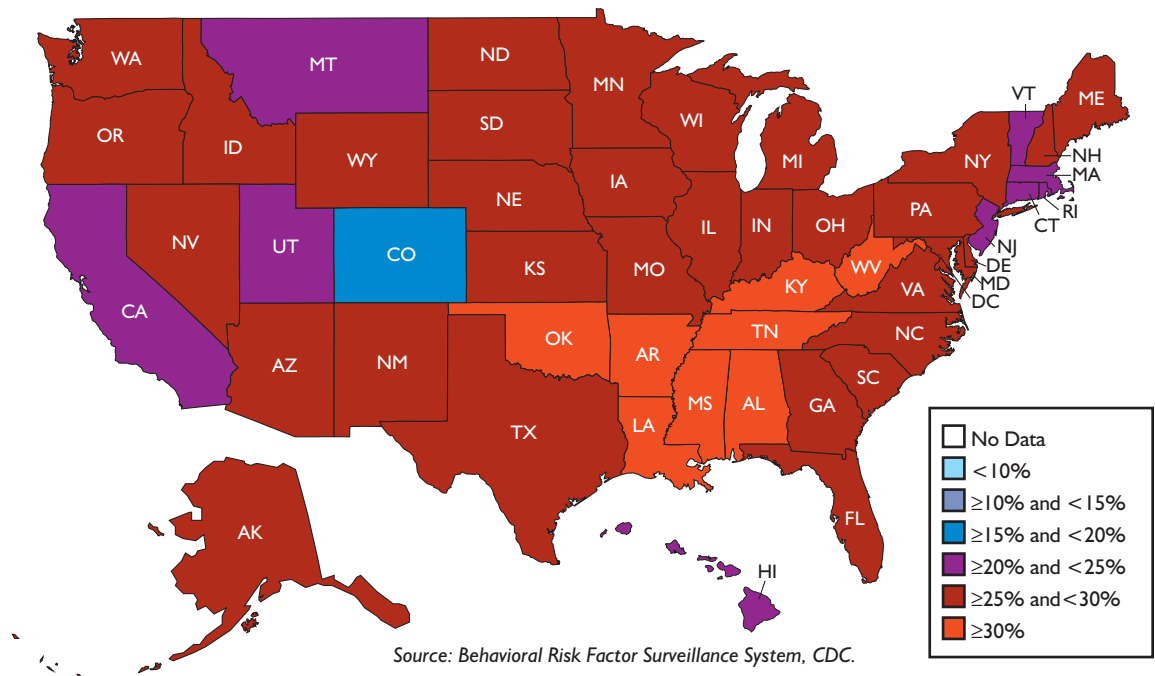
### Adult Obesity Rates and Trends

- Adult obesity rates rose in 28 states over the past year. Only the District of Columbia experienced a decline in adult obesity rates.
- More than two-thirds of states (38) now have adult obesity rates above 25 percent.
- Eight states have rates above 30 percent: Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee and West Virginia. In 1991, no state had an obesity rate above 20 percent.
- Adult obesity rates rose for a second consecutive year in 15 states and rose for a third consecutive year in 11 states. Mississippi had the highest rate of obese adults at 33.8 percent. Colorado had the lowest rate at 19.1 percent and is the only state with a rate below 20 percent.

States with the Highest Obesity Rates		
Rank	State	Percentage of Adult Obesity (Based on 2007-2009 Combined Data, Including Confidence Intervals)
1	Mississippi	33.8% (+/- 0.9)
2 (tie)	Alabama	31.6% (+/- 1.0)
2 (tie)	Tennessee	31.6% (+/- 1.2)
4	West Virginia	31.3% (+/- 1.0)
5	Louisiana	31.2% (+/- 0.9)
6	Oklahoma	30.6% (+/- 0.8)
7	Kentucky	30.5% (+/- 1.0)
8	Arkansas	30.1% (+/- 1.1)
9	South Carolina	29.9% (+/- 0.9)
10 (tie)	North Carolina	29.4% (+/- 0.8)
10 (tie)	Michigan	29.4% (+/- 0.8)

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

### OBESITY TRENDS AMONG U.S. ADULTS (2007-2009)



## Adult Obesity Rates by Race and Ethnicity

- Adult obesity rates for Blacks and Latinos are higher than those for Whites in at least 40 states and the District of Columbia.
- Adult obesity rates for Blacks are greater than or equal to 30 percent in 43 states and the District of Columbia. In nine states, the rates exceed 40 percent.
- Adult obesity rates for Latinos are greater than or equal to 30 percent in 19 states.
- Only one state—West Virginia—has an adult obesity rate for Whites greater than 30 percent.

### States with the Highest Obesity Rates for Blacks

Rank	State	Percentage of Adult Obesity (Based on 2007-2009 Combined Data, Including Confidence Intervals)
1	Wisconsin	44.0% (+/- 5.9)
2	Mississippi	42.9% (+/- 1.8)
3	Kentucky	42.6% (+/- 5.8)
4	Kansas	41.9% (+/- 4.3)
5	Alabama	41.7% (+/- 2.4)
6 (tie)	Tennessee	41.1% (+/- 3.9)
6(tie)	North Carolina	41.1% (+/- 2.0)
8	Ohio	40.9% (+/- 3.0)
9	Delaware	40.6% (+/- 4.0)
10	Arkansas	39.8% (+/- 4.0)

\*Note: For rankings, 1 = Highest Rate of Childhood Overweight and Obesity.

### States with the Highest Obesity Rates for Latinos

Rank	State	Percentage of Adult Obesity (Based on 2007-2009 Combined Data, Including Confidence Intervals)
1	Tennessee	39.5% (+/- 16.4)
2	North Dakota	37.4% (+/- 11.3)
3 (Tie)	Missouri	34.0% (+/- 8.8)
3 (Tie)	Texas	34.0% (+/- 1.8)
5 (Tie)	Michigan	33.4% (+/- 6.3)
5 (Tie)	Arizona	33.4% (+/- 4.4)
7	Pennsylvania	33.3% (+/- 6.1)
8	Alabama	33.2% (+/- 8.7)
9	Kansas	32.8% (+/- 3.6)
10 (Tie)	Ohio	32.5% (+/- 6.5)
10 (Tie)	Alaska	32.5% (+/- 10.4)

\*Note: For rankings, 1 = Highest Rate of Childhood Overweight and Obesity.

## 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. Overweight refers to increased body weight in relation to height, which is then compared to a standard of acceptable weight. Body mass index (BMI) is a common measure expressing the relationship (or ratio) of weight to height.

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

Adults with a BMI of 25 to 29.9 are considered overweight, while those with a BMI of 30 or more are considered obese. Children with a BMI at or above the 95th percentile for their age and gender are considered obese, and children with a BMI at the 85th percentile to 94th percentile are considered overweight.

## Child and Adolescent Obesity Rates and Trends\*

- State-specific obesity rates ranged from a low of 9.6 percent in Oregon to a high of 21.9 percent in Mississippi.
- Eight states, plus the District of Columbia, have childhood obesity rates greater than 20 percent: Arkansas, Georgia, Illinois, Kentucky, Louisiana, Mississippi, Tennessee and Texas.
- Nine of the 10 states with the highest rates of obese children are in the South, as are nine out of the 10 states with the highest rates of poverty.

*\*Note: TFAH first reported on the 2007 National Survey of Children's Health results in *F as in Fat 2009*. Data collection for the next NSCH will begin in 2011, and the data are likely to be available in 2013.*

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	21.9% (+/- 3.5)
2	Georgia	21.3% (+/- 5.1)
3	Kentucky	21.0% (+/- 3.5)
4 (tie)	Illinois	20.7% (+/- 3.6)
4 (tie)	Louisiana	20.7% (+/- 4.0)
6	Tennessee	20.6% (+/- 3.7)
7 (tie)	Arkansas	20.4% (+/- 3.6)
7 (tie)	Texas	20.4% (+/- 5.0)
9	D.C.	20.1% (+/- 3.9)
10	West Virginia	18.9% (+/- 3.2)

\*Note: For rankings, 1 = Highest rate of childhood obesity.  
Source: National Survey of Children's Health, 2007.

## Childhood Obesity Seen as a Serious and Urgent Problem, But Voters Are Optimistic About the Future

A recent survey commissioned by RWJF and TFAH finds that eight in 10 American voters believe childhood obesity is a serious problem and that this viewpoint transcends all demographic boundaries.<sup>2</sup> A vast majority of people in every group identified—regardless of political party, ideology, geographic location, gender, age, education, income, race or ethnicity—agree that childhood obesity is a serious problem.

Central to the issue of reversing the childhood obesity epidemic is a tension regarding the balance between personal responsibility and government involvement. While voters clearly hold individuals and parents responsible for keeping themselves and their children at a healthy weight, they also acknowledge a role for communities in providing information and resources to help people make healthy choices and in ensuring that children have access to physical education programs.

Key findings from the survey include:

- Seventy-three percent of voters say preventing childhood obesity is an important priority for government to focus on, with 58 percent citing it as a very important priority.
- A majority (56 percent) says that a comprehensive program to combat childhood obesity is worth the financial investment, even if it would increase government spending by billions of dollars a year (and this during a difficult economic period in which many voters have been hesitant to support more government spending).
- Voters recognize that preventing childhood obesity carries a real return on investment, with 56 percent believing it will save taxpayers money. What's more, six in 10 support investing in childhood-obesity prevention—regardless of whether it will save money.

<sup>2</sup> Analysis is based on a national survey conducted jointly by Greenberg Quinlan Rosner Research and American Viewpoint. The survey of 1,200 registered voters included 20 percent cell phone interviews and was conducted April 22nd – May 2nd, 2010. The margin of error is +/- 2.8 percentage points at the 95 percent confidence level.

## State Legislation Trends

- Twenty states have nutritional standards for school lunches, breakfasts and snacks that are stricter than U.S. Department of Agriculture requirements. Five years ago, only four states had legislation requiring stricter standards.
- Twenty-eight states have nutritional standards for competitive foods sold in schools through

à la carte lines, vending machines, school stores or fundraisers. Five years ago, only six states had standards for competitive foods.

- Every state has some form of physical education requirement for schools, but these requirements are often limited, not enforced or do not meet adequate quality standards.

### OBESITY RELATED STANDARDS IN SCHOOLS -- 2010

	Nutritional Standards for School Meals	Nutritional Standards for Competitive Foods	Limited Access to Competitive Foods	Physical Education Requirements	BMI or Health Information Collected	Non-Invasive Screening for Diabetes	Health Education Requirements	Farm-to-School Program
Alabama	✓	✓	✓	✓			✓	
Alaska				✓			✓	✓
Arizona	✓	✓	✓	✓			✓	
Arkansas	✓	✓	✓	✓	✓		✓	
California	✓	✓	✓	✓	✓	✓	✓	✓
Colorado	✓	✓	✓	✓				✓
Connecticut	✓	✓	✓	✓			✓	✓
Delaware				✓	✓		✓	
DC	✓	✓	✓	✓			✓	✓
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				✓			✓	
<b># of States</b>	<b>20 + D.C.</b>	<b>28 + D.C.</b>	<b>29 + D.C.</b>	<b>50 + D.C.</b>	<b>20</b>	<b>2</b>	<b>48 + D.C.</b>	<b>23 + D.C.</b>

Please note: Checkmarks in the chart above that are in red type represent new laws passed in 2009 or 2010.

# Main Recommendations

This year's *F as in Fat* report offers ample evidence that individuals, families, government, the business community, educators, health care providers, and many other sectors of American society are increasingly willing to invest time, energy and resources to solve the obesity crisis. To help the nation maximize the momentum the report recommends the following strategies:

- Support obesity- and disease-prevention programs through the new health reform law's Prevention and Public Health Fund, which provides \$15 billion in mandatory appropriations for public health and prevention programs over the next 10 years.
- Make certain that the National Prevention, Health Promotion and Public Health Council, which includes departmental secretaries across the federal government, adopts a "Health-in-All-Policies" approach during strategy development and implementation. This type of approach requires thinking about health not only as a product of the health system, but also as a product of our agricultural, transportation, land-use, environmental, educational, energy and economic policies.
- Expand the commitment to community-based prevention programs initiated under the American Recovery and Reinvestment Act of 2009 through new provisions in the health reform law, such as Community Transformation grants and the National Diabetes Prevention Program.
- Align health care coverage and access provisions in the health reform law with obesity prevention and control to ensure that every American has access to the most effective practices for preventing, controlling and treating obesity and obesity-related conditions. Policies also should be put in place to encourage the development and incorporation of emerging and innovative practices.
- Align federal policies and legislation with the goals of the National Prevention and Health Promotion Strategy. Opportunities to do this can be found through key pieces of federal legislation that are up for reauthorization in the next few years, including the Child Nutrition and WIC Reauthorization Act; the Elementary and Secondary Education Act; and the Surface Transportation Authorization Act.
- Continue to invest in research and evaluation on nutrition, physical activity, obesity, and obesity-related health outcomes and associated interventions.



# OBESITY AND OVERWEIGHT RATES AND RELATED HEALTH INDICATORS BY STATE

## ADULTS

States	Obesity			Overweight & Obesity	Diabetes			Physical Inactivity		Hypertension		Poverty
	2007-2009 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	Percentage Point Change 2006-2008 to 2007-2009	2007-2009 3 Yr. Ave. Percentage (95% Conf Interval)	2007-2009 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	2007-2009 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	2005-2009 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	2006-2008 3 Yr. Ave. Percentage (90% Conf Interval)	
Alabama	31.6% (+/- 1.0)	2	0.4	67.6% (+/- 1.1)	11.3% (+/- 0.6)	3	30.1% (+/- 1.0)	5	33.9% (+/- 1.0)	3	14.4% (+/- 1.5)	
Alaska	26.9% (+/- 1.5)	24	-0.3	64.6% (+/- 1.8)	6.2% (+/- 0.8)	48	22.2% (+/- 1.5)	35	24.3% (+/- 1.4)	48	8.2% (+/- 1.2)	
Arizona	25.8% (+/- 1.5)	29	1.0	62.7% (+/- 1.7)	8.2% (+/- 0.7)	25	21.5% (+/- 1.3)	37	24.7% (+/- 1.2)	47	15.6% (+/- 1.4)	
Arkansas	30.1% (+/- 1.1)*	8	1.5	66.0% (+/- 1.2)	9.6% (+/- 0.6)	12	29.2% (+/- 1.0)	8	31.6% (+/- 1.0)	7	15.6% (+/- 1.6)	
California	24.4% (+/- 0.7)*	41	0.7	60.6% (+/- 0.9)	8.4% (+/- 0.4)	21	22.8% (+/- 0.7)	30	25.5% (+/- 0.7)	41	13.2% (+/- 0.5)	
Colorado	19.1% (+/- 0.6)	51	0.2	55.6% (+/- 0.8)	5.7% (+/- 0.3)	51	18.0% (+/- 0.6)	49	21.2% (+/- 0.6)	50	10.2% (+/- 1.3)	
Connecticut	21.4% (+/- 0.8)	50	0.2	59.3% (+/- 1.1)	6.9% (+/- 0.4)	44	21.2% (+/- 0.8)	40	25.7% (+/- 0.8)	38	8.3% (+/- 1.2)	
Delaware	27.9% (+/- 1.2)	20	0.5	64.2% (+/- 1.4)	8.4% (+/- 0.6)	21	22.7% (+/- 1.1)	32	29.4% (+/- 1.1)	12	9.4% (+/- 1.3)	
D.C.	21.5% (+/- 1.0) ^	49	-0.8	54.0% (+/- 1.3)	7.9% (+/- 0.6)	32	20.7% (+/- 1.0)	42	27.3% (+/- 1.1)	24	17.6% (+/- 1.9)	
Florida	25.1% (+/- 0.9)**	36	0.9	61.6% (+/- 1.0)	9.4% (+/- 0.5)	13	25.0% (+/- 0.8)	18	29.0% (+/- 0.8)	15	12.4% (+/- 0.7)	
Georgia	28.1% (+/- 1.0)	17	0.2	65.0% (+/- 1.1)	9.8% (+/- 0.6)	9	24.0% (+/- 0.9)	24	29.5% (+/- 1.0)	11	13.9% (+/- 1.0)	
Hawaii	22.6% (+/- 0.9)**	47	0.8	57.3% (+/- 1.0)	8.1% (+/- 0.5)	27	19.1% (+/- 0.8)	46	27.8% (+/- 0.9)	22	8.9% (+/- 1.2)	
Idaho	25.1% (+/- 1.0)	36	0.3	62.2% (+/- 1.1)	7.6% (+/- 0.5)	33	20.6% (+/- 0.9)	43	25.2% (+/- 0.9)	43	10.6% (+/- 1.3)	
Illinois	26.6% (+/- 1.0)*	26	0.8	63.6% (+/- 1.0)	8.4% (+/- 0.5)	21	24.9% (+/- 0.9)	19	27.5% (+/- 0.9)	23	11.0% (+/- 0.8)	
Indiana	28.1% (+/- 1.0)*	17	0.8	64.0% (+/- 1.1)	9.1% (+/- 0.5)	15	26.4% (+/- 0.9)	11	28.5% (+/- 0.8)	18	12.3% (+/- 1.2)	
Iowa	27.6% (+/- 0.9)*	22	0.9	65.4% (+/- 1.0)	7.1% (+/- 0.4)	41	23.8% (+/- 0.8)	26	26.5% (+/- 0.8)	31	9.6% (+/- 1.3)	
Kansas	28.2% (+/- 0.7)**	16	1.0	64.7% (+/- 0.8)	8.0% (+/- 0.3)	30	23.9% (+/- 0.6)	25	26.6% (+/- 0.6)	30	12.4% (+/- 1.5)	
Kentucky	30.5% (+/- 1.0)*	7	1.4	67.6% (+/- 1.1)	10.4% (+/- 0.6)	6	30.1% (+/- 1.0)	5	31.6% (+/- 1.0)	7	16.5% (+/- 1.6)	
Louisiana	31.2% (+/- 0.9)*	5	2.3	65.5% (+/- 1.0)	10.6% (+/- 0.5)	5	29.5% (+/- 0.9)	7	32.5% (+/- 0.9)	4	17.1% (+/- 1.6)	
Maine	25.8% (+/- 0.8)**	29	1.1	63.0% (+/- 0.9)	8.1% (+/- 0.5)	27	21.4% (+/- 0.7)	38	28.1% (+/- 0.8)	21	11.0% (+/- 1.5)	
Maryland	26.6% (+/- 0.8)	26	0.6	63.0% (+/- 0.9)	8.8% (+/- 0.4)	18	23.6% (+/- 0.8)	28	28.2% (+/- 0.8)	20	8.6% (+/- 1.1)	
Massachusetts	21.7% (+/- 0.6)*	48	0.5	58.2% (+/- 0.8)	7.5% (+/- 0.3)	34	21.3% (+/- 0.6)	39	25.6% (+/- 0.6)	40	11.5% (+/- 1.1)	
Michigan	29.4% (+/- 0.8)	10	0.5	64.9% (+/- 0.9)	9.1% (+/- 0.4)	15	23.2% (+/- 0.7)	29	28.7% (+/- 0.7)	17	12.4% (+/- 0.9)	
Minnesota	25.5% (+/- 1.0)	32	0.2	62.7% (+/- 1.1)	6.0% (+/- 0.4)	49	16.9% (+/- 0.9)	51	21.6% (+/- 0.8)	49	9.1% (+/- 1.1)	
Mississippi	33.8% (+/- 0.9)**	1	1.3	68.6% (+/- 0.9)	11.4% (+/- 0.5)	2	32.2% (+/- 0.9)	1	34.8% (+/- 0.8)	1	20.5% (+/- 1.7)	
Missouri	29.3% (+/- 1.1)*	12	1.1	64.8% (+/- 1.2)	8.4% (+/- 0.6)	21	26.6% (+/- 1.0)	10	29.1% (+/- 1.1)	13	12.5% (+/- 1.3)	
Montana	23.5% (+/- 0.9)**	43	0.8	61.9% (+/- 1.1)	6.6% (+/- 0.4)	46	21.6% (+/- 0.8)	36	25.7% (+/- 0.8)	38	13.1% (+/- 1.5)	
Nebraska	27.3% (+/- 0.9)	23	0.4	64.6% (+/- 1.1)	7.4% (+/- 0.5)	35	23.7% (+/- 0.8)	27	26.1% (+/- 0.8)	34	10.2% (+/- 1.4)	
Nevada	25.6% (+/- 1.3)	31	0.5	62.9% (+/- 1.4)	8.2% (+/- 0.7)	25	25.5% (+/- 1.3)	16	26.3% (+/- 1.3)	33	10.0% (+/- 1.3)	
New Hampshire	25.4% (+/- 0.9)*	35	1.3	62.6% (+/- 1.0)	7.2% (+/- 0.4)	38	20.6% (+/- 0.8)	43	26.1% (+/- 0.8)	34	6.1% (+/- 1.1)	
New Jersey	23.9% (+/- 0.8)	42	0.4	62.1% (+/- 0.9)	8.8% (+/- 0.4)	18	26.4% (+/- 0.8)	11	27.2% (+/- 0.7)	25	8.9% (+/- 0.9)	
New Mexico	25.5% (+/- 0.9)**	32	0.9	60.9% (+/- 1.1)	8.1% (+/- 0.5)	27	22.7% (+/- 0.9)	32	25.0% (+/- 0.8)	45	16.7% (+/- 1.1)	
New York	25.1% (+/- 0.9)	36	0.5	60.8% (+/- 1.0)	8.5% (+/- 0.5)	20	25.7% (+/- 0.8)	14	27.1% (+/- 0.8)	28	14.2% (+/- 0.8)	
North Carolina	29.4% (+/- 0.8)**	10	1.1	65.2% (+/- 0.8)	9.3% (+/- 0.4)	14	25.1% (+/- 0.7)	17	29.9% (+/- 0.6)	10	14.4% (+/- 1.1)	
North Dakota	27.7% (+/- 1.0)**	21	1.0	66.2% (+/- 1.2)	7.1% (+/- 0.5)	41	24.9% (+/- 1.0)	19	25.4% (+/- 0.9)	42	10.8% (+/- 1.4)	
Ohio	29.0% (+/- 0.8)	13	0.5	64.5% (+/- 0.8)	9.8% (+/- 0.4)	9	25.6% (+/- 0.7)	15	29.1% (+/- 0.8)	13	12.9% (+/- 0.9)	
Oklahoma	30.6% (+/- 0.8)**	6	1.1	66.4% (+/- 0.9)	10.4% (+/- 0.5)	6	30.8% (+/- 0.8)	2	31.9% (+/- 0.8)	6	14.1% (+/- 1.5)	
Oregon	25.0% (+/- 1.0)	39	-0.4	61.4% (+/- 1.2)	7.4% (+/- 0.5)	35	18.0% (+/- 0.8)	49	25.8% (+/- 0.8)	37	11.7% (+/- 1.5)	
Pennsylvania	28.1% (+/- 0.8)**	17	1.3	63.7% (+/- 0.9)	8.9% (+/- 0.5)	17	24.9% (+/- 0.8)	19	28.9% (+/- 0.7)	16	10.9% (+/- 0.8)	
Rhode Island	22.9% (+/- 0.9)*	45	1.2	60.8% (+/- 1.2)	7.2% (+/- 0.5)	38	24.2% (+/- 1.0)	23	28.3% (+/- 0.9)	19	10.9% (+/- 1.4)	
South Carolina	29.9% (+/- 0.9)	9	0.2	65.7% (+/- 1.0)	10.0% (+/- 0.5)	8	26.1% (+/- 0.8)	13	31.5% (+/- 0.8)	9	13.1% (+/- 1.5)	
South Dakota	28.5% (+/- 1.0)**	15	1.6	65.9% (+/- 1.1)	6.9% (+/- 0.4)	44	24.7% (+/- 0.9)	22	26.9% (+/- 0.8)	29	11.1% (+/- 1.3)	
Tennessee	31.6% (+/- 1.2)**	2	1.4	68.2% (+/- 1.2)	10.8% (+/- 0.7)	4	30.5% (+/- 1.2)	4	32.2% (+/- 1.1)	5	14.9% (+/- 1.3)	
Texas	29.0% (+/- 0.8)*	13	1.1	66.2% (+/- 0.9)	9.8% (+/- 0.5)	9	28.0% (+/- 0.8)	9	27.2% (+/- 0.7)	25	16.3% (+/- 0.7)	
Utah	23.2% (+/- 0.8)*	44	0.7	58.0% (+/- 1.1)	6.0% (+/- 0.4)	49	19.0% (+/- 0.8)	47	20.5% (+/- 0.7)	51	8.8% (+/- 1.1)	
Vermont	22.8% (+/- 0.8)**	46	0.7	58.5% (+/- 0.9)	6.5% (+/- 0.4)	47	19.3% (+/- 0.7)	45	25.2% (+/- 0.7)	43	8.9% (+/- 1.4)	
Virginia	25.5% (+/- 1.2)	32	0.1	61.3% (+/- 1.5)	8.0% (+/- 0.5)	30	22.4% (+/- 1.1)	34	27.2% (+/- 1.0)	25	9.2% (+/- 0.9)	
Washington	26.3% (+/- 0.5)**	28	0.9	62.1% (+/- 0.6)	7.2% (+/- 0.3)	38	18.8% (+/- 0.7)	48	25.9% (+/- 0.5)	36	9.5% (+/- 1.1)	
West Virginia	31.3% (+/- 1.0)	4	0.2	68.1% (+/- 1.1)	11.7% (+/- 0.6)	1	30.8% (+/- 1.0)	2	34.1% (+/- 1.0)	2	14.9% (+/- 1.4)	
Wisconsin	26.9% (+/- 1.1)	24	0.9	63.8% (+/- 1.3)	7.3% (+/- 0.5)	37	21.2% (+/- 1.0)	40	26.4% (+/- 1.0)	32	10.3% (+/- 1.2)	
Wyoming	25.0% (+/- 0.8)	39	0.7	62.2% (+/- 1.0)	7.1% (+/- 0.4)	41	22.8% (+/- 0.8)	30	24.9% (+/- 0.8)	46	10.3% (+/- 1.4)	

Source: Behavior Risk Factor Surveillance System (BRFSS), CDC. To stabilize BRFSS data in order to rank states, TFAH combined three years of data (See Appendix A for more information on the methodology used for the rankings.). Red and\* indicates a statistically significant change (P<0.05) from 2006-2008 to 2007-2009 (for Hypertension figures - only collected every two years - from 2003-2005-2007 to 2005-2007-2009). Red and\*\* state increased significantly in the past two years. Green and ^ indicates a statistically significant decrease. Note: In the 2008 and 2009 F as in Fat reports, the analysis and comparison of hypertension rates for 2001-2007 included pregnant women diagnosed with gestational hypertension (GH). Beginning in 2003, the BRFSS questionnaire included this option in the answers. This year's analysis only looks at data from 2003 to 2009 and because GH is different from regular hypertension we now able to exclude this category from the overall hypertension rate. Therefore, the rates from this year's calculations are lower than the rates calculated in 2008 for the same 2003/2005/2007 time period. When we compare the hypertension rates that exclude GH from 2003-2007 to 2005-2009 we see a statistically significant change in 47 states.

Source: U.S. Census Bureau, Percentage of People in Poverty by State Using 2- and 3-Year Averages: 2005-2006 and 2007-2008 . [www.census.gov/hhes/www/poverty/poverty08/state.pdf](http://www.census.gov/hhes/www/poverty/poverty08/state.pdf)

# OBESITY AND OVERWEIGHT RATES AND RELATED HEALTH INDICATORS BY STATE

## CHILDREN AND ADOLESCENTS

States	2009 YRBS			2008 PedNSS	2007 National Survey of & Obesity Children's Health		
	Percentage of Obese High School Students (90% Conf Interval)	Percentage of Overweight High School Students (95% Conf Interval)	Percentage of High School Students Who Were Physically Active at Least (95% Conf Interval)	Percentage of Obese Low-Income Children Ages 2-5 60 Minutes on All 7 Days	Percentage of Obese Children Ages 10-17	Ranking	Percentage Participating in Vigorous Physical Activity Every Day Ages 6-17
Alabama	13.5% (+/- 2.4)	17.5% (+/- 2.4)	19.4% (+/- 2.6)	13.8%	17.9% (+/- 3.6)	14	36.5%
Alaska	11.8% (+/- 2.0)	14.4% (+/- 2.2)	20.2% (+/- 3.0)	N/A	14.1% (+/- 3.1)	30	30.4%
Arizona	13.1% (+/- 1.9)	14.6% (+/- 1.6)	25.7% (+/- 2.8)	14.6%	17.8% (+/- 4.3)	15	28.5%
Arkansas	14.4% (+/- 2.6)	15.7% (+/- 2.7)	24.3% (+/- 2.4)	13.9%	20.4% (+/- 3.7)	7	30.7%
California	N/A	N/A	N/A	17.3%	15.0% (+/- 5.1)	25	30.0%
Colorado	7.1% (+/- 2.2)	11.1% (+/- 1.6)	26.9% (+/- 3.2)	9.4%	14.2% (+/- 4.5)	29	27.6%
Connecticut	10.4% (+/- 2.2)	14.5% (+/- 1.6)	24.6% (+/- 2.4)	15.5%	12.5% (+/- 2.9)	40	22.1%
Delaware	13.7% (+/- 1.5)	15.8% (+/- 1.7)	23.8% (+/- 2.0)	N/A	13.3% (+/- 3.1)	33	31.1%
D.C.	N/A	N/A	N/A	13.3%	20.1% (+/- 4.0)	9	26.3%
Florida	10.3% (+/- 1.1)	14.7% (+/- 1.0)	24.7% (+/- 1.3)	14.1%	18.3% (+/- 5.1)	13	34.1%
Georgia	12.4% (+/- 2.2)	14.8% (+/- 2.7)	23.7% (+/- 2.8)	14.8%	21.3% (+/- 5.1)	2	29.4%
Hawaii	14.5% (+/- 3.5)	14.0% (+/- 2.7)	18.1% (+/- 4.4)	9.3%	11.2% (+/- 2.8)	46	28.0%
Idaho	8.8% (+/- 1.5)	12.0% (+/- 1.7)	27.6% (+/- 2.4)	12.3%	11.8% (+/- 2.7)	42	25.0%
Illinois	11.9% (+/- 2.2)	15.5% (+/- 2.0)	24.1% (+/- 3.2)	14.7%	20.7% (+/- 3.7)	4	26.1%
Indiana	12.8% (+/- 2.5)	15.9% (+/- 1.8)	23.4% (+/- 2.5)	14.5%	14.6% (+/- 3.2)	27	31.3%
Iowa	N/A	N/A	N/A	15.1%	11.2% (+/- 2.8)	46	27.8%
Kansas	12.4% (+/- 2.2)	13.1% (+/- 2.0)	27.8% (+/- 2.4)	13.3%	16.2% (+/- 3.8)	18	25.2%
Kentucky	17.6% (+/- 2.7)	15.6% (+/- 2.0)	21.4% (+/- 2.3)	15.7%	21.0% (+/- 3.6)	3	25.9%
Louisiana	14.7% (+/- 2.8)	18.0% (+/- 2.3)	23.0% (+/- 3.9)	N/A	20.7% (+/- 4.0)	4	34.0%
Maine	12.5% (+/- 0.8)	15.1% (+/- 0.9)	17.9% (+/- 0.9)	N/A	12.9% (+/- 2.8)	37	32.7%
Maryland	12.2% (+/- 2.5)	15.6% (+/- 2.2)	20.8% (+/- 3.1)	15.7%	13.6% (+/- 3.3)	31	30.7%
Massachusetts	10.9% (+/- 1.8)	14.3% (+/- 1.9)	17.0% (+/- 1.6)	16.7%	13.3% (+/- 3.6)	33	26.6%
Michigan	11.9% (+/- 1.5)	14.2% (+/- 1.7)	25.3% (+/- 2.2)	13.9%	12.4% (+/- 3.1)	41	33.1%
Minnesota	N/A	N/A	N/A	13.4%	11.1% (+/- 3.1)	48	34.8%
Mississippi	18.3% (+/- 2.6)	16.5% (+/- 2.4)	23.0% (+/- 2.1)	14.6%	21.9% (+/- 3.5)	1	29.0%
Missouri	14.4% (+/- 2.2)	14.4% (+/- 2.0)	26.7% (+/- 2.5)	13.9%	13.6% (+/- 3.1)	31	29.6%
Montana	10.4% (+/- 2.2)	11.9% (+/- 1.8)	21.1% (+/- 2.9)	12.4%	11.8% (+/- 2.8)	42	31.5%
Nebraska	N/A	N/A	N/A	13.9%	15.8% (+/- 3.7)	20	26.2%
Nevada	11.0% (+/- 1.9)	13.4% (+/- 1.7)	24.9% (+/- 2.4)	12.9%	15.2% (+/- 4.5)	23	24.4%
New Hampshire	12.4% (+/- 2.7)	13.3% (+/- 2.2)	23.3% (+/- 2.8)	15.5%	12.8% (+/- 2.9)	39	29.0%
New Jersey	10.3% (+/- 2.0)	14.2% (+/- 2.3)	21.3% (+/- 2.5)	17.9%	15.4% (+/- 3.6)	21	29.1%
New Mexico	13.5% (+/- 2.6)	14.6% (+/- 1.5)	23.4% (+/- 2.6)	12.0%	16.0% (+/- 4.2)	19	27.0%
New York	11.0% (+/- 1.7)	15.6% (+/- 1.8)	23.1% (+/- 2.3)	14.6%	17.1% (+/- 3.7)	16	27.6%
North Carolina	13.4% (+/- 2.5)	14.6% (+/- 2.3)	24.1% (+/- 1.9)	15.7%	18.6% (+/- 3.9)	11	38.5%
North Dakota	11.0% (+/- 1.6)	13.5% (+/- 2.0)	22.3% (+/- 2.2)	13.8%	11.4% (+/- 2.5)	44	27.1%
Ohio	N/A	N/A	N/A	12.2%	18.5% (+/- 4.1)	12	32.1%
Oklahoma	14.1% (+/- 2.9)	16.4% (+/- 2.8)	27.5% (+/- 3.3)	N/A	16.4% (+/- 3.5)	17	29.6%
Oregon	N/A	N/A	N/A	14.7%	9.6% (+/- 2.7)	51	27.9%
Pennsylvania	11.8% (+/- 1.5)	15.9% (+/- 1.8)	27.7% (+/- 2.6)	11.5%	15.0% (+/- 4.0)	25	35.4%
Rhode Island	10.4% (+/- 2.1)	16.7% (+/- 1.5)	23.8% (+/- 2.8)	16.2%	14.4% (+/- 3.2)	28	27.6%
South Carolina	16.7% (+/- 4.5)	15.0% (+/- 2.7)	17.1% (+/- 2.6)	13.3%	15.3% (+/- 3.1)	22	31.2%
South Dakota	9.6% (+/- 2.1)	12.6% (+/- 1.4)	26.4% (+/- 2.6)	16.2%	13.2% (+/- 3.2)	35	25.3%
Tennessee	15.8% (+/- 2.1)	16.1% (+/- 1.7)	24.2% (+/- 2.2)	13.8%	20.6% (+/- 3.7)	6	29.8%
Texas	13.6% (+/- 1.8)	15.6% (+/- 2.5)	27.2% (+/- 2.8)	16.2%	20.4% (+/- 5.1)	7	28.9%
Utah	6.4% (+/- 1.9)	10.5% (+/- 1.8)	17.3% (+/- 2.3)	N/A	11.4% (+/- 3.6)	44	17.6%
Vermont	12.2% (+/- 1.5)	13.6% (+/- 0.9)	23.7% (+/- 2.5)	13.3%	12.9% (+/- 3.4)	37	36.6%
Virginia	N/A	N/A	N/A	19.0%	15.2% (+/- 3.2)	23	26.2%
Washington	N/A	N/A	N/A	14.4%	11.1% (+/- 3.5)	48	27.6%
West Virginia	14.2% (+/- 2.4)	14.4% (+/- 1.7)	22.6% (+/- 2.4)	13.5%	18.9% (+/- 3.2)	10	33.2%
Wisconsin	9.3% (+/- 1.4)	14.0% (+/- 2.2)	23.8% (+/- 2.4)	13.6%	13.1% (+/- 2.5)	36	28.5%
Wyoming	9.8% (+/- 1.3)	12.6% (+/- 1.4)	25.6% (+/- 2.0)	N/A	10.2% (+/- 2.7)	50	29.8%

Source: Youth Risk Behavior Survey (YRBS) 2009, CDC. YRBS data are collected every 2 years. Percentages are as reported on the CDC website and can be found at [www.cdc.gov/HealthyYouth/yrbbs/index.htm](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 least 60 minutes per day on each of the 7 days before the survey.

Source: Pediatric Nutrition Surveillance 2008 Report, Table 2. Available at [www.cdc.gov/pednss/pdfs/PedNSS\\_2008.pdf](http://www.cdc.gov/pednss/pdfs/PedNSS_2008.pdf)

Source: National Survey of Children's Health, 2007. Overweight and Physical Activity Among Children: A Portrait of States and the Nation 2009, Health Resources and Services Administration, Maternal and Child Health Bureau. Red indicates a statistically significant increase ( $p < 0.05$ ) from 2003 to 2007. Green indicates a statistically significant decrease.