



Robert Wood Johnson Foundation



WWW.HEALTHYAMERICANS.ORG

EXECUTIVE SUMMARY

JULY 2009

# F as in Fat:

## HOW OBESITY POLICIES ARE FAILING IN AMERICA



### Obesity Increases Nationwide, Straining Health Care and Country's Future

**T**he obesity epidemic is harming the health of millions of Americans, contributing significantly to skyrocketing health care costs and threatening the country's productivity. Two-thirds of adults are overweight or obese,<sup>1</sup> and nearly one third of children and adolescents are overweight or obese.<sup>2</sup> The current economic downturn is likely to push these numbers even higher as rising prices and constrained incomes make it more difficult for families to buy healthy foods.

The sixth annual edition of *F as in Fat* examines obesity trends in the United States. It 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. Finally, it suggests ways to accelerate those efforts given the challenges of the economy and the opportunities of health reform.

This executive summary provides an overview of the report's major findings, with data on obesity rates in all 50 states and the District of Columbia. It also highlights recommendations for addressing obesity within health reform and creating a *National Strategy to Combat Obesity*.

The full report is available at [www.healthymamericans.org](http://www.healthymamericans.org) and [www.rwjf.org](http://www.rwjf.org).

*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.healthymamericans.org](http://www.healthymamericans.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. For more information, visit [www.rwjf.org](http://www.rwjf.org).

1. Ogden CL, Carroll MD, McDowell MA, et al. "Obesity among adults in the United States— no change since 2003–2004." Hyattsville, MD: National Center for Health Statistics, May 2007.

2. Ogden CL, Carroll MD, Flegal KM. "High Body Mass Index for Age Among US Children and Adolescents, 2003-2006." *Journal of the American Medical Association*, 299(20):2401-2405, 2008

## 2009: MAJOR FINDINGS

### Adult Obesity Rates and Trends

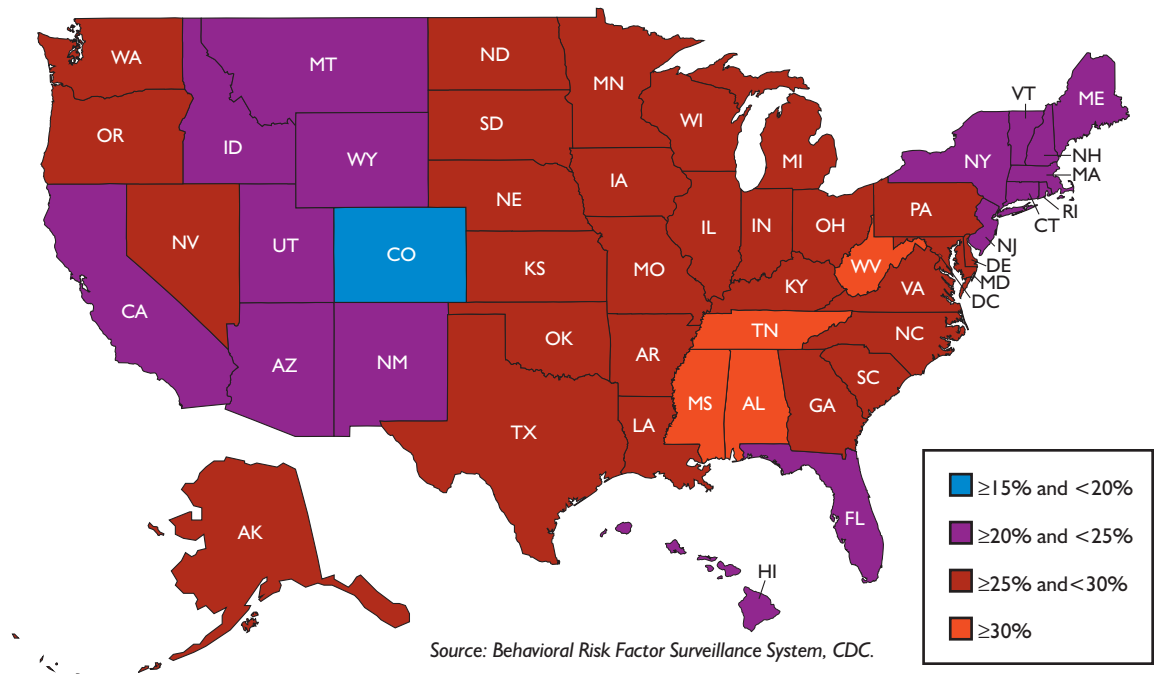
- Adult obesity rates continued to rise in 23 states. Rates did not decrease in any state.
- Thirty-one states have adult obesity rates above 25 percent.
- Four states have rates above 30 percent—Mississippi, Alabama, West Virginia and Tennessee. In 1991, no state had an obesity rate above 20 percent. In 1980, the national average of obese adults was 15 percent—compared with more than 33 percent today.<sup>3</sup>
- Adult obesity rates rose for a second consecutive year in 16 states and for a third consecutive year in 11 states. Mississippi had the highest rate of obese adults at 32.5 percent, marking the fifth year in a row that state topped the list. Colorado had the lowest rate at 18.9 percent and is the only state with a rate below 20 percent.
- Obesity and obesity-related diseases, such as diabetes and hypertension, continue to remain highest in Southern states. Eight of the 10 most obese states are in the South.

States with the Highest Obesity Rates		
Rank	State	Percentage of Adult Obesity (Based on 2006-2008 Combined Data, Including Confidence Intervals)
1	Mississippi	32.5% (+/-0.9)
2	Alabama	31.2% (+/-1.1)
3	West Virginia	31.1% (+/-1.0)
4	Tennessee	30.2% (+/-1.3)
5	South Carolina	29.7% (+/-0.8)
6	Oklahoma	29.5% (+/-0.8)
7	Kentucky	29.0% (+/-1.0)
8	Louisiana	28.9% (+/-0.9)
9	Michigan	28.8% (+/-0.9)
10 (tie)	Arkansas	28.6% (+/-0.9)
10 (tie)	Ohio	28.6% (+/-1.0)

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

### OBESITY TRENDS\* AMONG U.S. ADULTS (2006 – 2008)

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



3. Ogden CL, Carroll MD, McDowell MA, et al. "Obesity among adults in the United States— no change since 2003–2004." Hyattsville, MD: National Center for Health Statistics, May 2007.

## Child and Adolescent Overweight and Obesity Rates and Trends

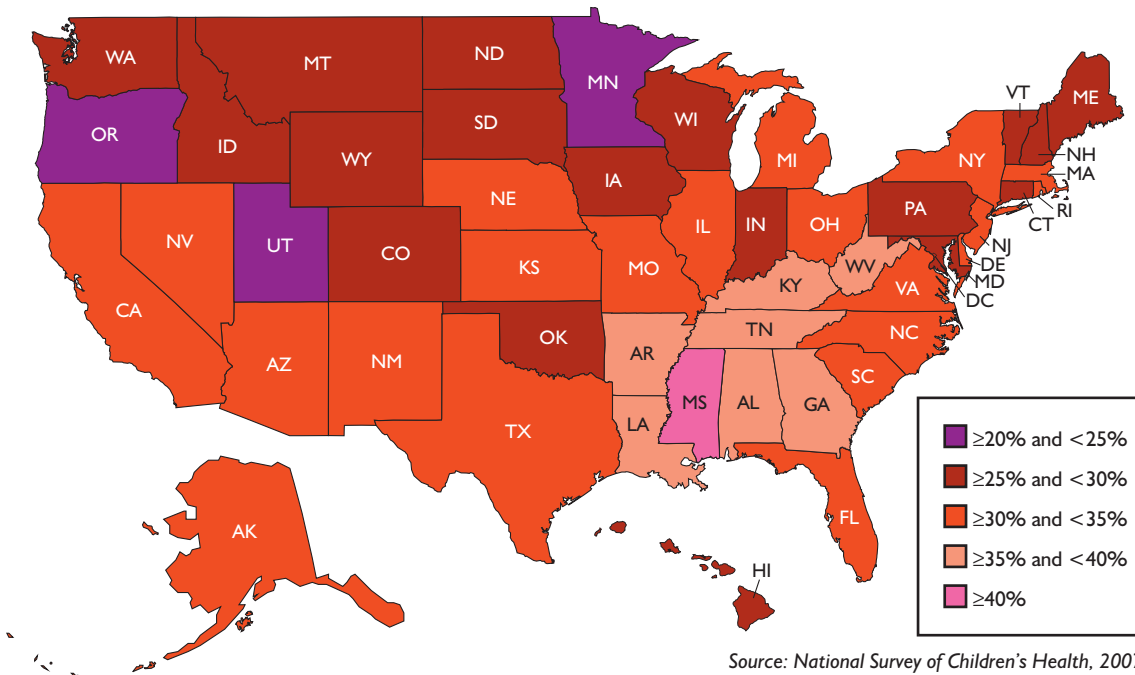
- The percentage of obese and overweight children is at or above 30 percent in 30 states.
- Mississippi had the highest rate of obese and overweight children at 44.4 percent. Minnesota and Utah had the lowest rate at 23.1 percent.
- Eight of the 10 states with the highest rates of obese and overweight children are in the South, as are nine of the 10 states with the highest rates of poverty.

### States With Highest Rates of Overweight and Obese 10- to 17-year-olds

Ranking	States	Percentage of Overweight and Obese 10- to 17-year-olds (95% CIs)
1	Mississippi	44.4% (+/- 4.3)
2	Arkansas	37.5% (+/- 4.2)
3	Georgia	37.3% (+/- 5.6)
4	Kentucky	37.1% (+/- 4.1)
5	Tennessee	36.5% (+/- 4.3)
6	Alabama	36.1% (+/- 4.6)
7	Louisiana	35.9% (+/- 4.6)
8	West Virginia	35.5% (+/- 3.9)
9	District of Columbia	35.4% (+/- 4.8)
10	Illinois	34.9% (+/- 4.1)

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

### PROPORTION OF CHILDREN AGES 10-17 CLASSIFIED AS OVERWEIGHT OR OBESE, BY STATE



Source: National Survey of Children's Health, 2007.

### 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 are considered obese, and children with a BMI at or above the 85th percentile but below the 95th percentile are considered overweight.

## State Legislation Trends

- Nineteen states have nutritional standards for school lunches, breakfasts and snacks that are stricter than U.S. Department of Agriculture (USDA) requirements. Five years ago, only four states had legislation requiring these stricter standards.
- Twenty-seven states have nutritional standards for competitive foods sold in schools à la

carte, in vending machines, in school stores or in bake sales. Five years ago, only six states had such standards for competitive foods.

- Twenty states have passed requirements for BMI screenings of children and adolescents or legislation requiring other forms of weight-related assessments in schools. Five years ago, only four states had screening requirements.

### OBESITY RELATED STANDARDS IN SCHOOLS -- 2009

	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				✓	✓		✓	
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	19	27	29	50 + D.C.	20	2	48 + D.C.	19

Please Note: Checkmarks in chart above that are in red type represent new laws passed in 2008 or 2009.

# Recommendations

**T**he current economic crisis could exacerbate the obesity epidemic. Food prices are expected to rise, particularly for more nutritious foods, making it more difficult for families to eat healthy foods. At the same time, safety-net programs and services are becoming increasingly overextended as the numbers of unemployed, uninsured and underinsured Americans continue to grow. For many people, too, worries over the recession are triggering increased depression, anxiety and stress, which often can be linked to obesity.

Obesity prevention and reduction must become a national priority. Some changes will be harder to make than others, but change is necessary. It is the role of government — at the federal, state, and local levels — to provide the leadership needed to identify and remove obstacles, motivate communities and galvanize change.

The 2009 *F as in Fat* report offers a series of recommendations to make preventing and reducing obesity a central objective of health reform, and it also calls for a *National Strategy to Combat Obesity*.

## A. MAKE OBESITY PREVENTION AND CONTROL A HIGH PRIORITY OF HEALTH REFORM

Key recommendations for addressing obesity within health reform include:

1. Ensuring every adult and child has access to coverage for preventive medical services, including nutrition and obesity counseling and screening for obesity-related diseases, such as type 2 diabetes;
2. Establishing a Public Health and Wellness Trust Fund to increase the number of programs in communities, schools, and child-care settings that help make nutritious foods more affordable and accessible and provide safe places for people to engage in physical activity; and
3. Reducing Medicare expenditures by promoting proven programs that improve nutrition and increase physical activity among adults ages 55 to 64.



## B. LAUNCH A NATIONAL STRATEGY TO COMBAT OBESITY



The *National Strategy to Combat Obesity* would define roles and responsibilities for federal, state and local governments and promote collaboration among businesses, communities, schools and families. The recommendations for government include:

### Federal

- The Administration and Congress should conduct a detailed review of federal policies to determine how they impact physical activity, nutrition and obesity.
- The federal government should develop clear and consistent recommendations for the public about nutrition and physical activity, and it should make this information widely available.
- An official in each Cabinet-level agency should be designated to focus on obesity-related policies, and sufficient resources must be allocated to implement and evaluate these policies.
- USDA should accelerate the process to revise school nutrition guidelines to meet the 2005 Dietary Guidelines for Americans. Congress should consider expanding the agency's authority to set nutrition standards for competitive foods in schools.
- The Department of Education, Department of Health and Human Services, and the President's Council on Physical Fitness should set national standards for physical education and physical activity in schools.

- Medicare, Medicaid and the Children's Health Insurance Program (CHIP) should update and increase obesity-related coverage.
- The federal government should work with industry to eliminate junk food advertising to children.
- The federal government should require retail food outlets to provide menu labeling.
- The federal government should re-examine subsidies for growing fruits and vegetables.

### State

- Every state should develop an obesity plan.
- Programs and policies across state agencies should be evaluated for their impact on nutrition, physical activity, and obesity.
- States should dedicate revenue to implementing obesity-prevention and obesity-control programs.
- States should update and increase obesity-related coverage in their Medicaid and CHIP programs.
- States should leverage purchasing power by requiring a greater emphasis on nutritional value as a priority in bidding processes for food purchases.
- States should evaluate current snack taxes.
- States should require menu labeling.

### Local

- Local governments should use zoning laws to encourage healthy food providers to locate in underserved neighborhoods and to maintain a ratio requirement for fast-food restaurants to grocers and farmers' markets.
- Local governments should require menu labeling.
- Local governments should encourage mixed-use commercial and residential areas, walkable neighborhoods and green-space development. They also should examine the health impact of new construction.
- Local governments should encourage the use of transportation funds for mass transit and highway alternatives.
- Local school-site construction requirements should be modernized so that schools can be within walking or biking distance for children.

# CHART ON OBESITY AND OVERWEIGHT RATES AND RELATED HEALTH INDICATORS IN THE STATES

## ADULTS

States	Obesity			Overweight & Obesity	Diabetes			Physical Inactivity		Hypertension		Poverty
	2006-2008 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	Percentage Point Change 2005-2007 to 2006-2008	2006-2008 3 Yr. Ave. Percentage (95% Conf Interval)	2006-2008 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	2006-2008 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	2003-2007 3 Yr. Ave. Percentage (95% Conf Interval)	Ranking	2005-2007 3 Yr. Ave. Percentage (90% Conf Interval)	
Alabama	31.2% (+/-1.1)*	2	1.1	66.5% (+/-1.2)*	10.5% (+/-0.6)**	4	29.5% (+/-1.0)	6	33.5% (+/- 1.0)	2	15.2% (+/- 1.5)	
Alaska	27.2% (+/-1.6)	18	-0.1	65.0% (+/-1.8)	6.2% (+/-0.8)**	48	21.8% (+/-1.5)	36	23.9% (+/- 1.4)*	48	8.8% (+/- 1.3)	
Arizona	24.8% (+/-1.5)**	33	1.5	61.2% (+/-1.7)**	8.2% (+/-0.8)	22	22.6% (+/-1.4)	32	24.2% (+/- 1.2)	46	14.7% (+/- 1.4)	
Arkansas	28.6% (+/-0.9)	10	0.5	65.1% (+/-1.1)	9.0% (+/-0.5)**	12	28.8% (+/-0.9)	7	31.5% (+/- 0.9)*	5	15.1% (+/- 1.6)	
California	23.6% (+/-0.8)	41	0.5	59.7% (+/-1.0)	8.1% (+/-0.5)*	24	23.1% (+/-0.8)	27	27.2% (+/- 0.9)**	24	12.7% (+/- 0.5)	
Colorado	18.9% (+/-0.6)	51	0.4	55.3% (+/-0.8)	5.5% (+/-0.3)**	51	17.9% (+/-0.6)*	49	21.7% (+/- 0.7)	50	10.3% (+/- 1.3)	
Connecticut	21.3% (+/-0.8)	49	0.5	59.2% (+/-1.0)	6.8% (+/-0.4)	41	20.7% (+/-0.8)	40	25.7% (+/- 0.8)**	35	8.7% (+/- 1.2)	
Delaware	27.3% (+/-1.2)**	17	1.4	64.2% (+/-1.3)	8.3% (+/-0.6)	20	22.6% (+/-1.1)	32	29.2% (+/- 1.1)*	13	9.3% (+/- 1.3)	
D.C.	22.3% (+/-1.0)	45	0.2	55.0% (+/-1.2)	8.0% (+/-0.6)	27	21.5% (+/-1.0)	37	27.9% (+/- 1.2)	20	19.2% (+/- 1.9)	
Florida	24.1% (+/-0.8)*	39	0.8	60.6% (+/-0.9)	8.9% (+/-0.5)	14	25.5% (+/-0.8)	14	29.3% (+/- 0.9)*	12	11.7% (+/- 0.7)	
Georgia	27.9% (+/-0.9)	14	0.4	63.9% (+/-1.0)	9.7% (+/-0.5)**	9	24.2% (+/-0.9)^	20	29.4% (+/- 0.8)*	11	13.5% (+/- 1.0)	
Hawaii	21.8% (+/-0.9)*	47	1.1	56.8% (+/-1.0)**	8.0% (+/-0.5)	27	19.0% (+/-0.8)	46	26.1% (+/- 0.9)*	30	8.4% (+/- 1.2)	
Idaho	24.8% (+/-0.9)	33	0.2	61.7% (+/-1.1)	7.2% (+/-0.5)	36	20.5% (+/-0.8)	42	25.4% (+/- 0.9)*	39	9.8% (+/- 1.3)	
Illinois	25.9% (+/-1.0)	27	0.6	62.7% (+/-1.1)	8.4% (+/-0.5)	18	24.5% (+/-0.9)*	18	26.7% (+/- 0.9)*	28	10.7% (+/- 0.8)	
Indiana	27.4% (+/-0.9)	16	-0.1	63.2% (+/-1.1)	8.7% (+/-0.5)	15	25.8% (+/-1.0)	12	28.1% (+/-0.8)*	19	11.7% (+/- 1.2)	
Iowa	26.7% (+/-0.9)	22	0.4	64.0% (+/-1.0)	7.0% (+/-0.4)	37	23.1% (+/-0.8)	27	26.3% (+/- 0.8)	29	10.2% (+/- 1.4)	
Kansas	27.2% (+/-0.7)**	18	1.4	63.9% (+/-0.8)**	7.6% (+/-0.4)**	32	23.7% (+/-0.7)	24	25.6% (+/- 0.7)**	36	12.3% (+/- 1.5)	
Kentucky	29.0% (+/-1.0)	7	0.6	67.4% (+/-1.1)	9.9% (+/-0.5)	7	30.4% (+/-1.0)	2	30.1% (+/- 0.9)	9	15.7% (+/- 1.6)	
Louisiana	28.9% (+/-0.9)	8	-0.6	64.0% (+/-1.0)	10.0% (+/-0.5)**	6	30.3% (+/-0.9)^	3	30.9% (+/- 1.0)**	7	17.1% (+/- 1.7)	
Maine	24.7% (+/-0.9)*	35	1.1	61.5% (+/-1.0)	7.7% (+/-0.5)	30	21.3% (+/-0.8)	39	27.6% (+/- 1.0)*	22	11.2% (+/- 1.5)	
Maryland	26.0% (+/-0.8)**	25	0.7	62.2% (+/-0.9)**	8.3% (+/-0.4)**	20	23.3% (+/-0.8)	25	27.7% (+/- 0.8)*	21	9.0% (+/- 1.1)	
Massachusetts	21.2% (+/-0.6)	50	0.3	57.5% (+/-0.7)**	7.0% (+/-0.3)**	37	21.4% (+/-0.6)	38	25.8% (+/- 0.6)**	33	11.1% (+/- 1.1)	
Michigan	28.8% (+/-0.9)**	9	1.1	64.6% (+/-0.9)**	9.0% (+/-0.5)**	12	22.9% (+/-0.8)*	29	28.7% (+/- 0.8)**	16	12.0% (+/- 0.9)	
Minnesota	25.3% (+/-1.0)	31	0.5	62.5% (+/-1.1)	5.8% (+/-0.4)	50	16.3% (+/-0.9)	51	22.6% (+/- 0.9)	49	8.5% (+/- 1.1)	
Mississippi	32.5% (+/-0.9)**	1	0.8	67.4% (+/-1.0)	11.1% (+/-0.5)**	2	31.8% (+/-0.9)	1	34.5% (+/- 0.9)*	1	21.1% (+/- 1.8)	
Missouri	28.1% (+/-1.1)	13	0.7	63.9% (+/-1.3)	8.2% (+/-0.6)*	22	25.5% (+/-1.0)	14	29.1% (+/- 1.1)**	15	11.9% (+/- 1.2)	
Montana	22.7% (+/-0.9)**	43	1	60.9% (+/-1.1)**	6.5% (+/-0.4)	46	20.7% (+/-0.8)	40	24.5% (+/- 0.9)	45	13.4% (+/- 1.5)	
Nebraska	26.9% (+/-0.9)	20	0.4	64.2% (+/-1.1)	7.4% (+/-0.4)	33	22.6% (+/-0.8)	32	25.5% (+/- 0.8)**	37	9.9% (+/- 1.3)	
Nevada	25.1% (+/-1.2)*	32	1.4	63.1% (+/-1.4)*	8.1% (+/-0.7)	24	26.4% (+/-1.2)	11	26.0% (+/- 1.2)	31	10.0% (+/- 1.3)	
New Hampshire	24.1% (+/-0.8)	39	0.6	61.9% (+/-1.0)**	7.3% (+/-0.4)	34	20.1% (+/-0.7)	44	24.9% (+/- 0.7)*	43	5.6% (+/- 1.0)	
New Jersey	23.4% (+/-0.8)	42	0.5	61.4% (+/-0.9)**	8.4% (+/-0.4)	18	26.7% (+/-0.8)^	10	27.2% (+/- 0.7)*	24	8.1% (+/- 0.9)	
New Mexico	24.6% (+/-0.9)**	36	1.3	60.2% (+/-1.1)	7.7% (+/-0.5)	30	22.7% (+/-0.9)	30	24.0% (+/- 0.8)**	47	16.3% (+/- 1.8)	
New York	24.5% (+/-0.8)**	37	1	60.2% (+/-1.0)	8.1% (+/-0.5)	24	25.6% (+/-0.9)	13	27.0% (+/- 0.8)	26	14.4% (+/- 0.8)	
North Carolina	28.3% (+/-0.6)**	12	1.2	64.4% (+/-0.7)**	9.2% (+/-0.3)*	11	24.2% (+/-0.6)	20	29.8% (+/- 0.7)**	10	14.1% (+/- 1.1)	
North Dakota	26.7% (+/-1.0)*	22	0.8	65.6% (+/-1.1)*	6.8% (+/-0.5)	41	23.3% (+/-0.9)*	25	25.1% (+/- 0.9)*	42	10.6% (+/- 1.4)	
Ohio	28.6% (+/-1.0)*	10	1.6	63.6% (+/-1.1)	8.7% (+/-0.4)**	15	25.0% (+/-0.9)	17	28.2% (+/- 0.9)*	17	12.4% (+/- 0.9)	
Oklahoma	29.5% (+/-0.8)**	6	1.4	65.5% (+/-0.9)**	10.1% (+/-0.4)**	5	30.3% (+/-0.8)	3	30.7% (+/- 0.7)**	8	14.7% (+/- 1.6)	
Oregon	25.4% (+/-1.0)	28	0.4	61.5% (+/-1.1)	6.8% (+/-0.5)	41	17.6% (+/-0.8)	50	25.5% (+/- 0.8)*	37	12.2% (+/- 1.5)	
Pennsylvania	26.7% (+/-0.8)**	22	1	62.8% (+/-1.0)*	8.7% (+/-0.5)	15	24.0% (+/-0.8)	23	28.2% (+/- 0.8)	17	11.0% (+/- 0.8)	
Rhode Island	21.7% (+/-0.9)	48	0.3	60.6% (+/-1.2)	7.3% (+/-0.5)	34	24.1% (+/-1.0)	22	29.2% (+/- 1.0)**	13	10.7% (+/- 1.4)	
South Carolina	29.7% (+/-0.8)	5	0.5	65.5% (+/-0.9)	9.8% (+/-0.5)	8	25.5% (+/-0.8)	14	31.3% (+/- 0.7)**	6	13.4% (+/- 1.5)	
South Dakota	26.9% (+/-0.9)**	20	0.9	64.9% (+/-1.0)	6.6% (+/-0.4)	44	24.5% (+/-0.9)**	18	25.8% (+/- 0.7)*	33	10.7% (+/- 1.3)	
Tennessee	30.2% (+/-1.3)**	4	1.3	66.9% (+/-1.2)**	11.0% (+/-0.7)	3	29.8% (+/-1.2)^	5	32.1% (+/- 1.1)*	4	14.8% (+/- 1.3)	
Texas	27.9% (+/-0.9)	14	0.6	64.8% (+/-1.0)	9.3% (+/-0.5)**	10	28.4% (+/-0.9)	8	26.9% (+/- 0.7)*	27	16.4% (+/- 0.8)	
Utah	22.5% (+/-0.9)	44	0.6	57.0% (+/-1.2)	5.9% (+/-0.4)	49	19.5% (+/-0.9)	45	20.3% (+/- 0.8)	51	9.4% (+/- 1.2)	
Vermont	22.1% (+/-0.7)**	46	1	57.8% (+/-0.9)**	6.4% (+/-0.4)	47	18.5% (+/-0.7)	47	24.6% (+/- 0.8)**	44	8.4% (+/- 1.3)	
Virginia	25.4% (+/-1.2)	28	0.2	61.7% (+/-1.4)	7.8% (+/-0.6)	29	22.3% (+/-1.1)	35	27.3% (+/- 1.0)**	23	8.8% (+/- 0.9)	
Washington	25.4% (+/-0.5)**	28	0.9	61.5% (+/-0.6)**	7.0% (+/-0.2)**	37	18.1% (+/-0.4)*	48	25.4% (+/- 0.4)*	39	9.4% (+/- 1.1)	
West Virginia	31.1% (+/-1.0)	3	0.4	67.9% (+/-1.1)**	11.6% (+/-0.6)*	1	28.3% (+/-1.0)**	9	33.2% (+/- 1.0)	3	15.2% (+/- 1.5)	
Wisconsin	26.0% (+/-1.0)	25	0.6	63.1% (+/-1.1)	6.6% (+/-0.5)	44	20.3% (+/-0.9)*	43	25.9% (+/- 0.9)*	32	10.4% (+/- 1.2)	
Wyoming	24.3% (+/-0.8)	38	0.4	61.9% (+/-0.9)	6.9% (+/-0.4)	40	22.7% (+/-0.8)*	30	25.2% (+/- 0.8)*	41	10.5% (+/- 1.4)	

Source: Behavioral 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 indicates a statistically significant change (P < 0.05) from 2005-2007 to 2006-2008 (for Hypertension figures - only collected every two years - from 2001-2005 to 2003-2007). \*\*State increased significantly in the past two years. \*\*\*State increased significantly in the past three years. ^ and Blue indicates a statistically significant decrease.

Source: U.S. Census Bureau, Percentage of People in Poverty by State Using 2- and 3-Year Averages: 2004-2005 and 2006-2007.

www.census.gov/hhes/www/poverty/poverty07/state.html

# CHART ON OBESITY AND OVERWEIGHT RATES AND RELATED HEALTH INDICATORS IN THE STATES

## CHILDREN AND ADOLESCENTS

States	2007 YRBS			2007 PedNSS	2007 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 Not Meeting Recommended Physical Activity Level	Percentage of Obese Low-Income Children Ages 2-5	Percentage of Overweight and Obese Children Ages 10-17	Ranking	Percentage Participating in Vigorous Physical Activity Every Day Ages 6-17
Alabama	N/A	N/A	N/A	13.8%	36.1% (+/- 4.6)	6	36.5% (+/- 4.0)
Alaska	11.1% (+/- 2.2)	16.2% (+/- 2.7)	57.5%	N/A	33.9% (+/- 4.4)	12	30.4% (+/- 3.7)
Arizona	11.7% (+/- 2.5)	14.2% (+/- 2.3)	68.0%	14.4%	30.6% (+/- 4.9)	26	28.5% (+/- 3.8)
Arkansas	13.9% (+/- 2.5)	15.8% (+/- 2.3)	58.0%	14.2%	37.5% (+/- 4.2)	2	30.7% (+/- 3.3)
California	N/A	N/A	N/A	17.4%	30.5% (+/- 6.4)	28	30.0% (+/- 4.9)
Colorado	N/A	N/A	N/A	9.7%	27.2% (+/- 5.1)	42	27.6% (+/- 3.9)
Connecticut	12.3% (+/- 1.6)	13.3% (+/- 1.9)	54.9%	16.2%	25.7% (+/- 3.7)	45	22.1% (+/- 2.7)
Delaware	13.3% (+/- 1.6)	17.5% (+/- 1.7)	59.6%	N/A	33.2% (+/- 4.1)	16	31.1% (+/- 3.5)
D.C.	17.7% (+/- 2.0)	17.8% (+/- 2.1)	69.8%	14.6%	35.4% (+/- 4.8)	9	26.3% (+/- 3.4)
Florida	11.2% (+/- 1.4)	15.2% (+/- 1.3)	61.6%	14.3%	33.1% (+/- 6.1)	17	34.1% (+/- 5.0)
Georgia	13.8% (+/- 2.0)	18.2% (+/- 2.1)	56.2%	14.6%	37.3% (+/- 5.6)	3	29.4% (+/- 4.1)
Hawaii	15.6% (+/- 2.9)	14.3% (+/- 2.7)	65.7%	9.2%	28.5% (+/- 4.1)	37	28.0% (+/- 3.3)
Idaho	11.1% (+/- 1.7)	11.7% (+/- 2.6)	53.2%	12.2%	27.5% (+/- 3.9)	41	25.0% (+/- 3.3)
Illinois	12.9% (+/- 2.1)	15.7% (+/- 2.0)	56.5%	14.5%	34.9% (+/- 4.1)	10	26.1% (+/- 3.1)
Indiana	13.8% (+/- 2.0)	15.3% (+/- 1.8)	56.3%	14.1%	29.9% (+/- 4.3)	31	31.3% (+/- 3.8)
Iowa	11.3% (+/- 3.1)	13.5% (+/- 2.2)	50.1%	14.9%	26.5% (+/- 4.3)	44	27.8% (+/- 3.6)
Kansas	11.1% (+/- 2.0)	14.4% (+/- 2.2)	54.9%	13.6%	31.1% (+/- 4.2)	22	25.2% (+/- 3.1)
Kentucky	15.6% (+/- 1.7)	16.4% (+/- 1.6)	67.1%	15.6%	37.1% (+/- 4.1)	4	25.9% (+/- 3.0)
Louisiana	N/A	N/A	N/A	13.8%	35.9% (+/- 4.6)	7	34.0% (+/- 3.8)
Maine	12.8% (+/- 2.7)	13.1% (+/- 2.4)	56.9%	N/A	28.2% (+/- 3.8)	39	32.7% (+/- 3.4)
Maryland	10.9% (+/- 2.4)	15.2% (+/- 2.8)	69.4%	15.4%	28.8% (+/- 4.2)	36	30.7% (+/- 3.6)
Massachusetts	11.1% (+/- 1.6)	14.6% (+/- 2.0)	59.0%	16.8%	30.0% (+/- 4.6)	30	26.6% (+/- 3.3)
Michigan	12.4% (+/- 2.0)	16.5% (+/- 2.0)	56.0%	13.7%	30.6% (+/- 4.3)	26	33.1% (+/- 3.9)
Minnesota	N/A	N/A	N/A	13.3%	23.1% (+/- 4.0)	50	34.8% (+/- 3.8)
Mississippi	17.9% (+/- 2.5)	17.9% (+/- 1.9)	63.9%	15.0%	44.4% (+/- 4.3)*	1	29.0% (+/- 3.2)
Missouri	12.0% (+/- 3.0)	14.3% (+/- 1.5)	56.5%	13.7%	31.0% (+/- 4.1)	23	29.6% (+/- 3.4)
Montana	10.1% (+/- 1.1)	13.3% (+/- 1.3)	55.1%	12.1%	25.6% (+/- 3.7)	48	31.5% (+/- 3.2)
Nebraska	N/A	N/A	N/A	13.5%	31.5% (+/- 4.6)	21	26.2% (+/- 3.5)
Nevada	11.0% (+/- 2.3)	14.5% (+/- 1.9)	53.8%	12.6%	34.2% (+/- 5.4)*	11	24.4% (+/- 3.7)
New Hampshire	11.7% (+/- 2.0)	14.4% (+/- 2.0)	53.1%	15.8%	29.4% (+/- 3.9)	35	29.0% (+/- 3.2)
New Jersey	N/A	N/A	N/A	18.0%	31.0% (+/- 4.5)	23	29.1% (+/- 3.7)
New Mexico	10.9% (+/- 2.0)	13.5% (+/- 2.1)	56.4%	12.0%	32.7% (+/- 5.0)	19	27.0% (+/- 3.7)
New York	10.9% (+/- 1.1)	16.3% (+/- 1.3)	62.0%	14.6%	32.9% (+/- 4.4)	18	27.6% (+/- 3.4)
North Carolina	12.8% (+/- 2.4)	17.1% (+/- 1.9)	55.7%	15.3%	33.5% (+/- 4.5)	14	38.5% (+/- 4.0)
North Dakota	10.0% (+/- 1.9)	13.7% (+/- 3.3)	52.2%	13.4%	25.7% (+/- 3.3)	45	27.1% (+/- 3.0)
Ohio	12.4% (+/- 2.2)	15.0% (+/- 3.3)	55.3%	12.1%	33.3% (+/- 4.7)	15	32.1% (+/- 3.8)
Oklahoma	14.7% (+/- 1.9)	15.2% (+/- 1.9)	50.4%	N/A	29.5% (+/- 4.1)	33	29.6% (+/- 3.4)
Oregon	N/A	N/A	N/A	14.5%	24.3% (+/- 3.9)	49	27.9% (+/- 3.5)
Pennsylvania	N/A	N/A	N/A	10.9%	29.7% (+/- 4.8)	32	35.4% (+/- 4.4)
Rhode Island	10.7% (+/- 2.2)	16.2% (+/- 1.8)	58.1%	17.0%	30.1% (+/- 4.2)	29	27.6% (+/- 3.5)
South Carolina	14.4% (+/- 2.9)	17.1% (+/- 2.3)	62.0%	N/A	33.7% (+/- 4.2)	13	31.2% (+/- 3.4)
South Dakota	9.1% (+/- 2.6)	14.5% (+/- 2.1)	56.0%	15.2%	28.4% (+/- 3.9)	38	25.3% (+/- 3.2)
Tennessee	16.9% (+/- 2.0)	18.1% (+/- 2.1)	58.0%	13.5%	36.5% (+/- 4.3)	5	29.8% (+/- 3.5)
Texas	15.9% (+/- 2.1)	15.6% (+/- 2.0)	54.8%	15.9%	32.2% (+/- 5.6)	20	28.9% (+/- 4.4)
Utah	8.7% (+/- 3.8)	11.7% (+/- 2.5)	52.5%	N/A	23.1% (+/- 4.2)	50	17.6% (+/- 3.1)
Vermont	11.8% (+/- 3.3)	14.5% (+/- 2.8)	52.0%	13.5%	26.7% (+/- 4.5)	43	36.6% (+/- 3.9)
Virginia	N/A	N/A	N/A	17.4%	31.0% (+/- 4.2)	23	26.2% (+/- 3.3)
Washington	N/A	N/A	N/A	14.3%	29.5% (+/- 5.0)	33	27.6% (+/- 4.0)
West Virginia	14.7% (+/- 2.4)	17.0% (+/- 3.2)	57.2%	13.1%	35.5% (+/- 3.9)	8	33.2% (+/- 3.2)
Wisconsin	11.1% (+/- 1.6)	14.0% (+/- 1.4)	61.7%	13.1%	27.9% (+/- 3.8)	40	28.5% (+/- 3.1)
Wyoming	9.3% (+/- 1.5)	11.4% (+/- 1.4)	51.8%	N/A	25.7% (+/- 4.0)	45	29.8% (+/- 3.5)

Source: Youth Risk Behavior Survey (YRBS) 2007, 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/yrebs/index.htm](http://www.cdc.gov/HealthyYouth/yrebs/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. Students not meeting recommended levels of physical activity is the difference between 100 percent and the percentage of students who met recommended levels of physical activity.

Source: Pediatric Nutrition Surveillance 2007 Report, Table 1. Available at [www.cdc.gov/pednss/pdfs/PedNSS\\_2007.pdf](http://www.cdc.gov/pednss/pdfs/PedNSS_2007.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. Over the same time period, AZ and IL had statistically significant increases ( $p < 0.05$ ) in obesity rates, while OR saw a significant decrease. Meanwhile, NM and NV experienced significant increases in rates of overweight children between 2003 and 2007, while AZ had a decrease.