

# Why Safe Routes to School Matters

Safety, Health & Transportation



# The Good, the Bad, and the Ugly



# Fewer kids are biking and walking More parents are driving



1969

42% walked

15% driven

2001

16% walked

50% driven

*(U.S. DOT, 2008)*

# Parents driving



Parents driving their children to school account for 20%-25% of morning rush hour traffic.

*(Parisi Associates; Melbourne Department of Infrastructure)*

# The consequences of *this*...



...instead of *this* can be alarming.



Today's children may be the first generation to have a shorter life expectancy than their parents have.



# Promoting safe walking and bicycling is an ideal strategy to increase physical activity



# Safe Routes to School programs

- Make walking and bicycling safe ways to get to school
- Encourage more children to walk and bike to school



# History of Safe Routes to School

- Many child pedestrian fatalities in Denmark, 1970s
- Odense reduced the number of injured school children by 30% to 40%
- Spread to the UK and Canada in the 1990's; Bronx, NY in 1997



# Benefits of SRTS programs

- Reduce the number of children hit by cars
- Reduce congestion around schools
- Improve children's health
- Reduce air pollution
- Can lead to cost savings for schools (reduce need for "hazard" busing)
- Others: increase child's sense of freedom, help establish lifetime habits, teach pedestrian skills

# The Ugly:

Today's barriers to walking and bicycling



# How did we get here?

- School siting issues
- Individual barriers to walking to school
- Community issues



# 1. School siting issues: A generation ago

- Small (average of 127 students)\*
- Located in community centers
- 42% of kids walked or biked to school\*\*

*(\*EPA, 2003; \*\*1969 Nationwide Personal Transportation Survey)*



# 1. School siting issues: Today



- Mega-schools (average 538 students)
- 44% of secondary schools have 1500+ students
- Schools located on 10 to 30+ acres fringe land
- Lowest-cost construction

*(U.S. Department of Education, 2005-2006)*

# School consolidation has lengthened the trip between home and school

In 2001,  
16% of students  
walked  
50% were  
driven to school

*(U.S. DOT 2008)*



# It's not just distance

Private vehicles account for half of all school trips between  $\frac{1}{4}$  and  $\frac{1}{2}$  mile.

*(FHWA, 2001)*



## 2. Individual barriers to walking and bicycling to school

- Long distances 62%
- Traffic danger 30%
- Adverse weather 19%
- Fear of crime danger 12%

*(CDC, 2005)*

# Traffic danger



# Community conditions make it hard to walk or bike



# Adverse weather



Is this barrier reflective of changed social norms?

# Fear of crime danger

- Identify perceptions and realities—both are important to address
- Some low probability events provoke the greatest fears
- Communities are finding ways to safeguard against these fears

# 3. Difficult community issues

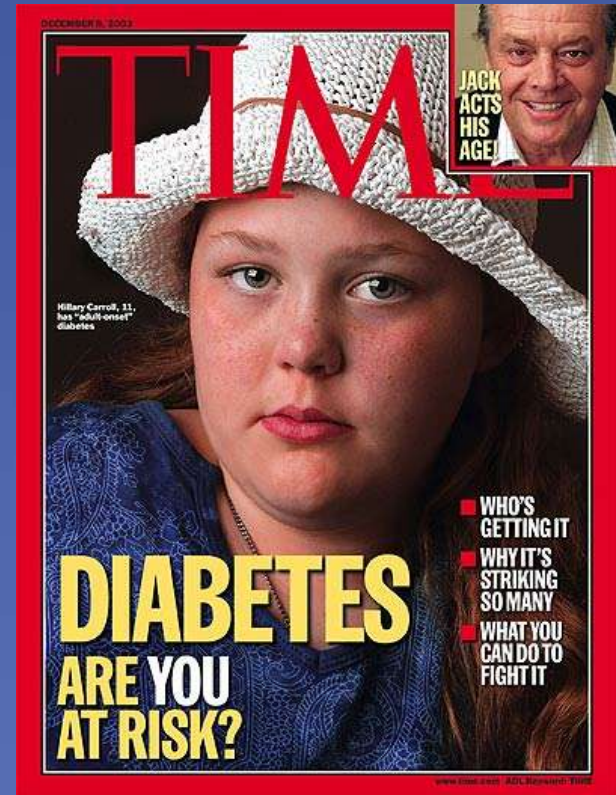
- Traffic flow problems
- Abandoned buildings
- Illegal behaviors



# The Bad:

Unintended consequences of less walking and bicycling

- to the environment
- to our health



# 1996 Summer Olympic Games banned single occupant cars in downtown Atlanta



# Results of the ban

- Morning traffic – ↓ 23%
- Peak ozone – ↓ 28%
- Asthma-related events for kids – ↓ 42%

*(Journal of the American Medical Association [JAMA], 2001)*

# Air quality

Measurably better  
around schools  
with more walkers  
and cyclists

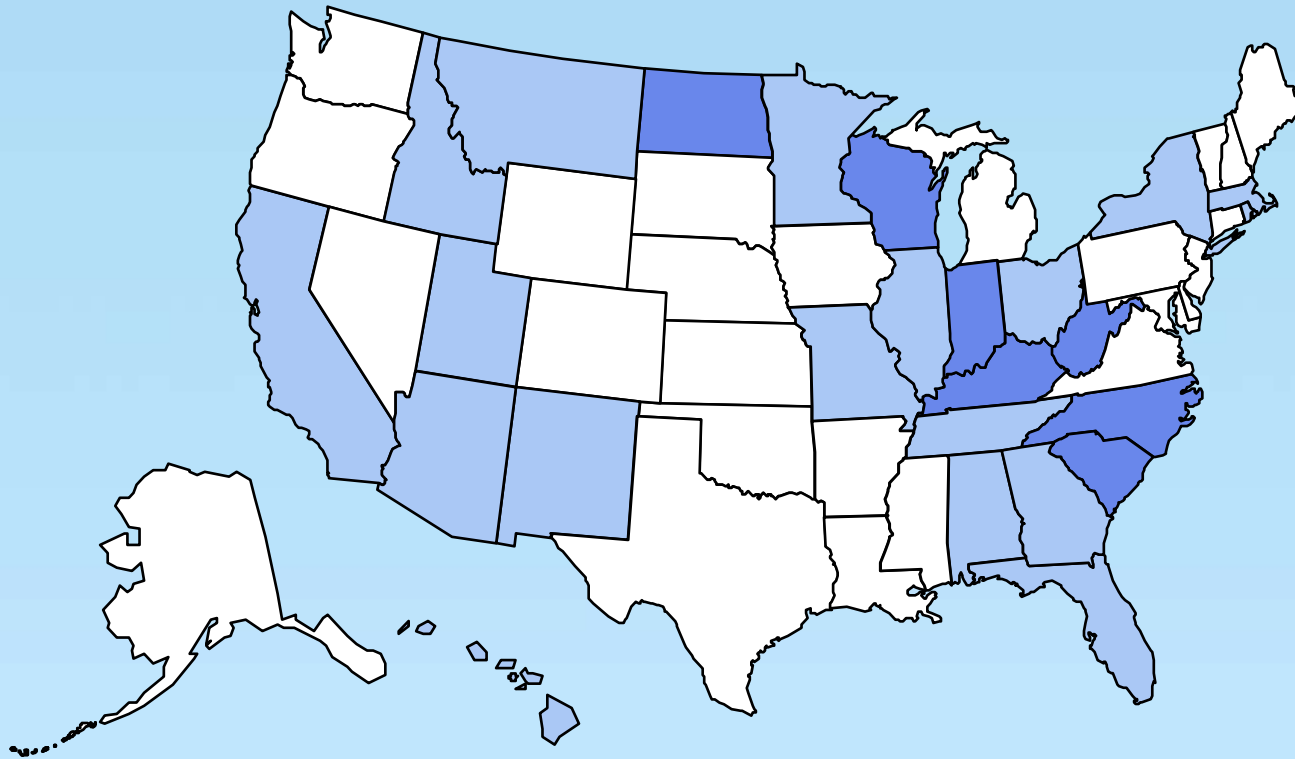
*(EPA, 2003)*





# Obesity trends among U.S. adults: 1986

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



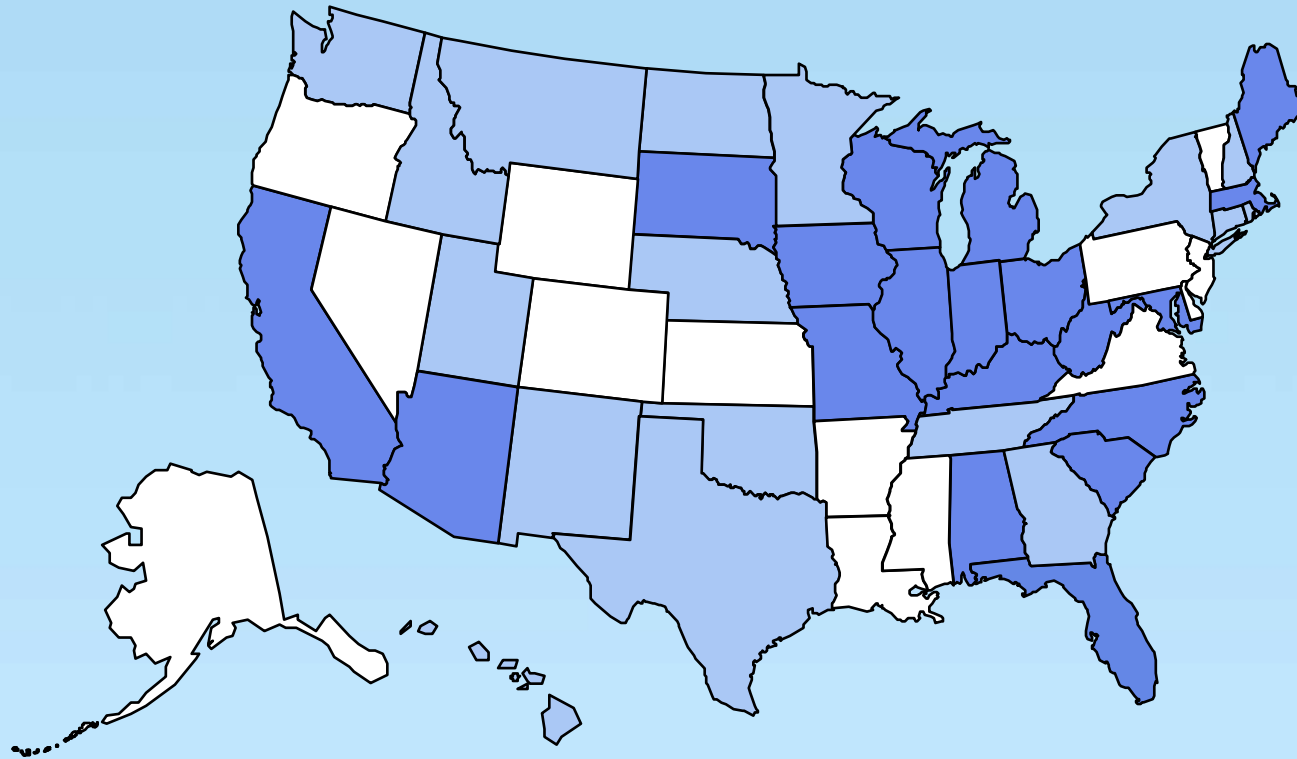
□ No Data    □ <10%    □ 10%–14%

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*



# Obesity trends among U.S. adults: 1988

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

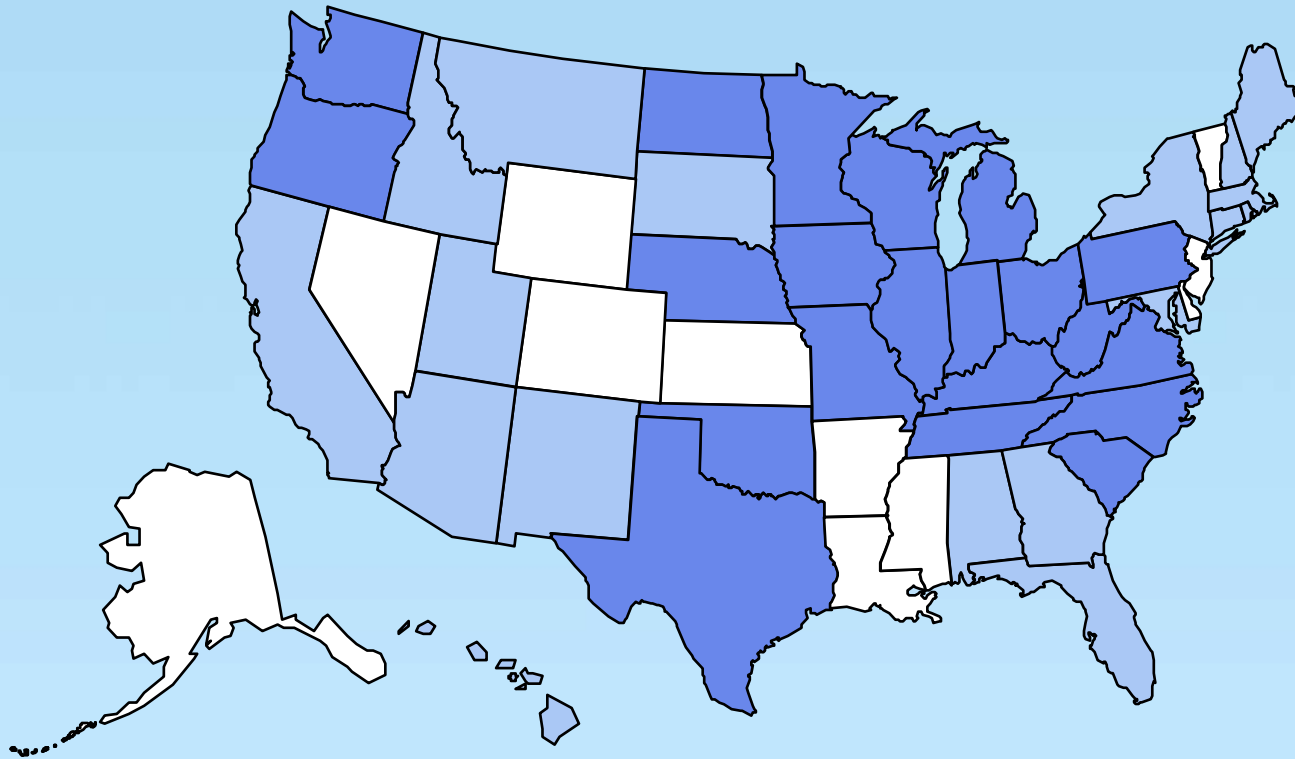


□ No Data    □ <10%    ■ 10%-14%

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 1989

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

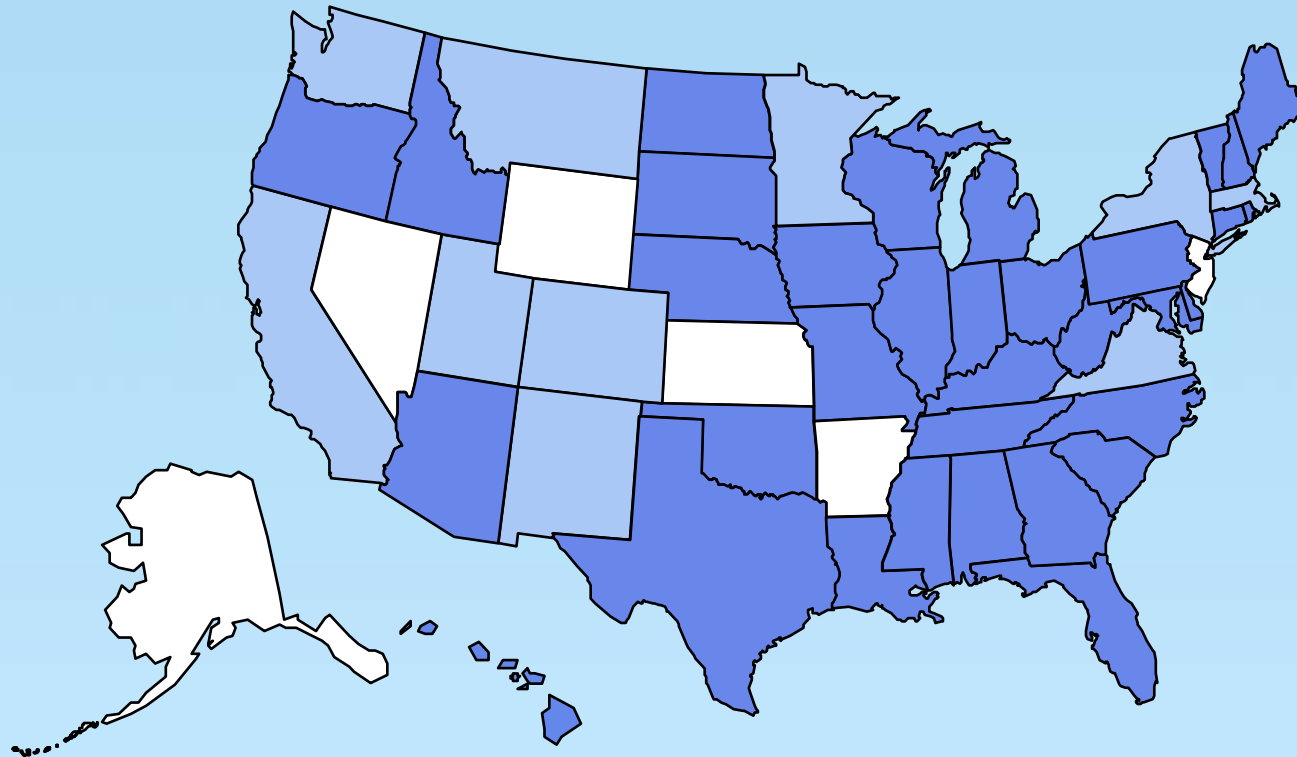


□ No Data    □ <10%    □ 10%–14%

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 1990

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

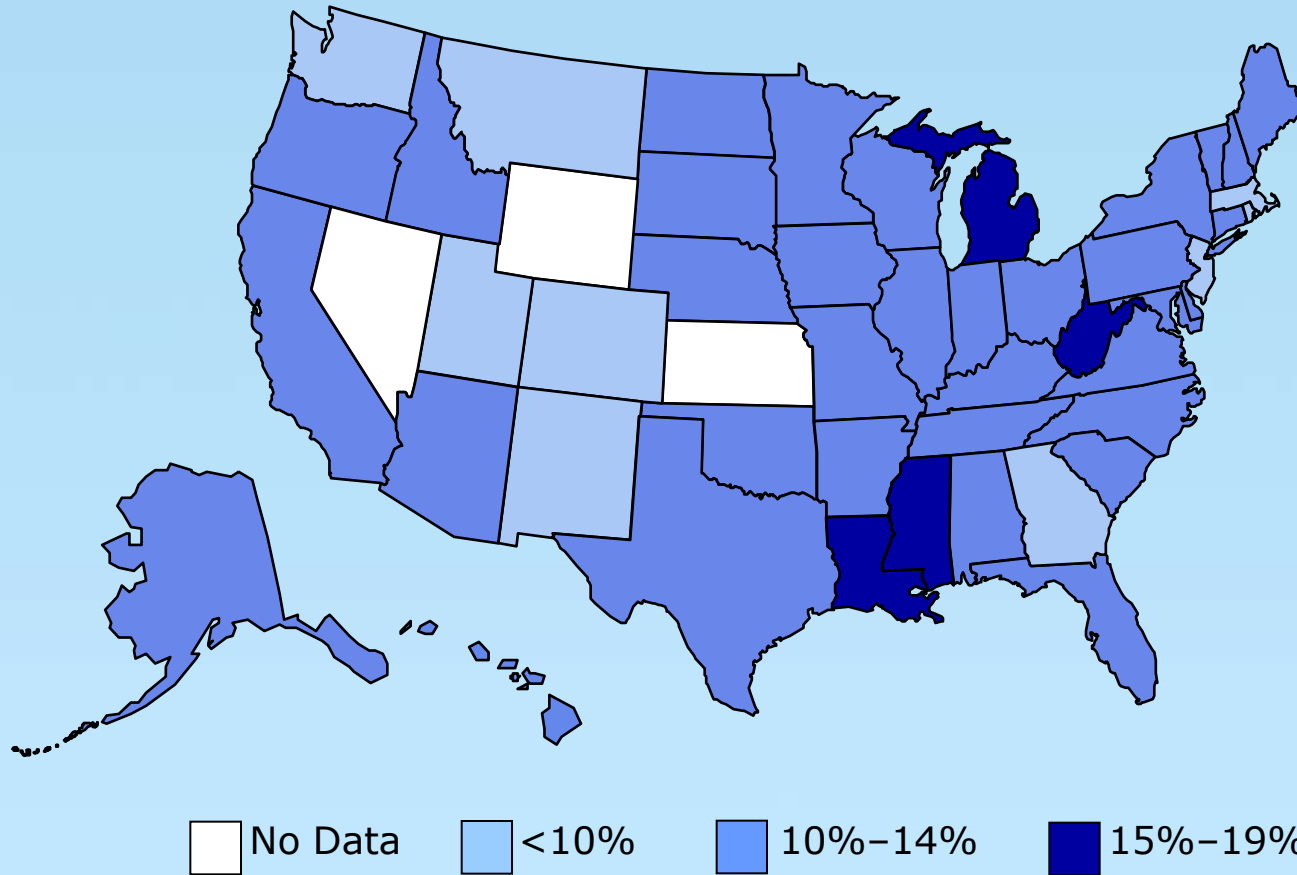


□ No Data    □ <10%    □ 10%–14%

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 1991

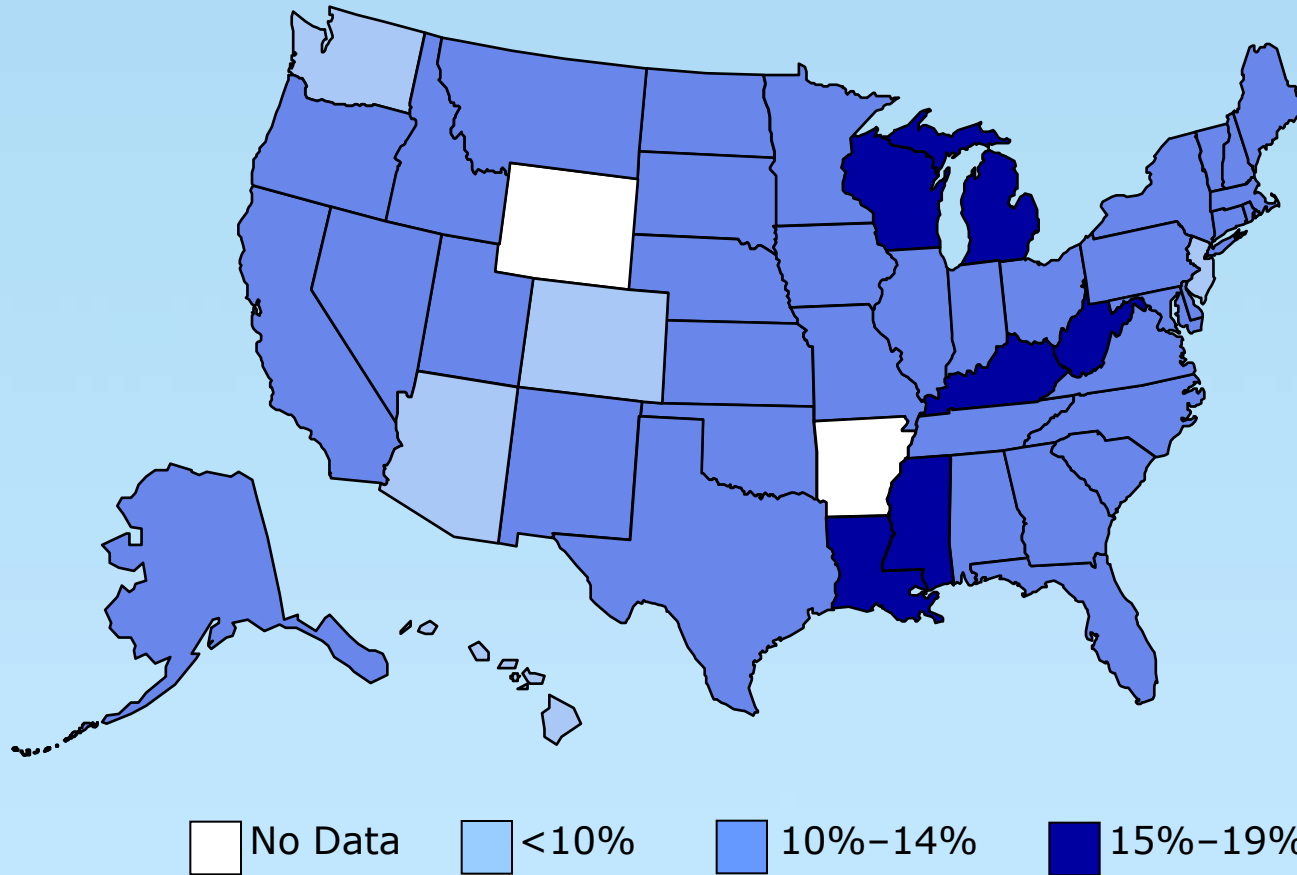
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2007)

# Obesity trends among U.S. adults: 1992

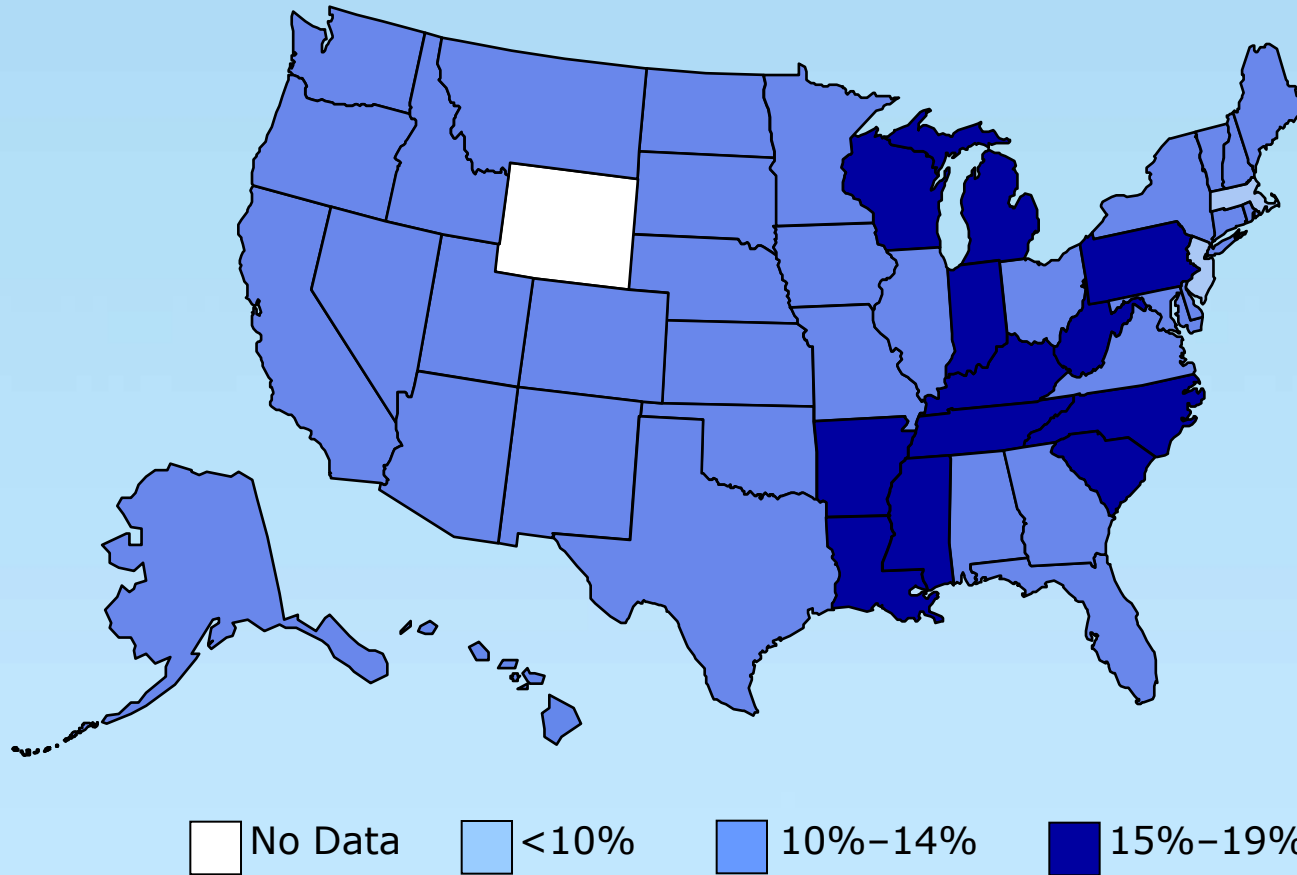
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2007)

# Obesity trends among U.S. adults: 1993

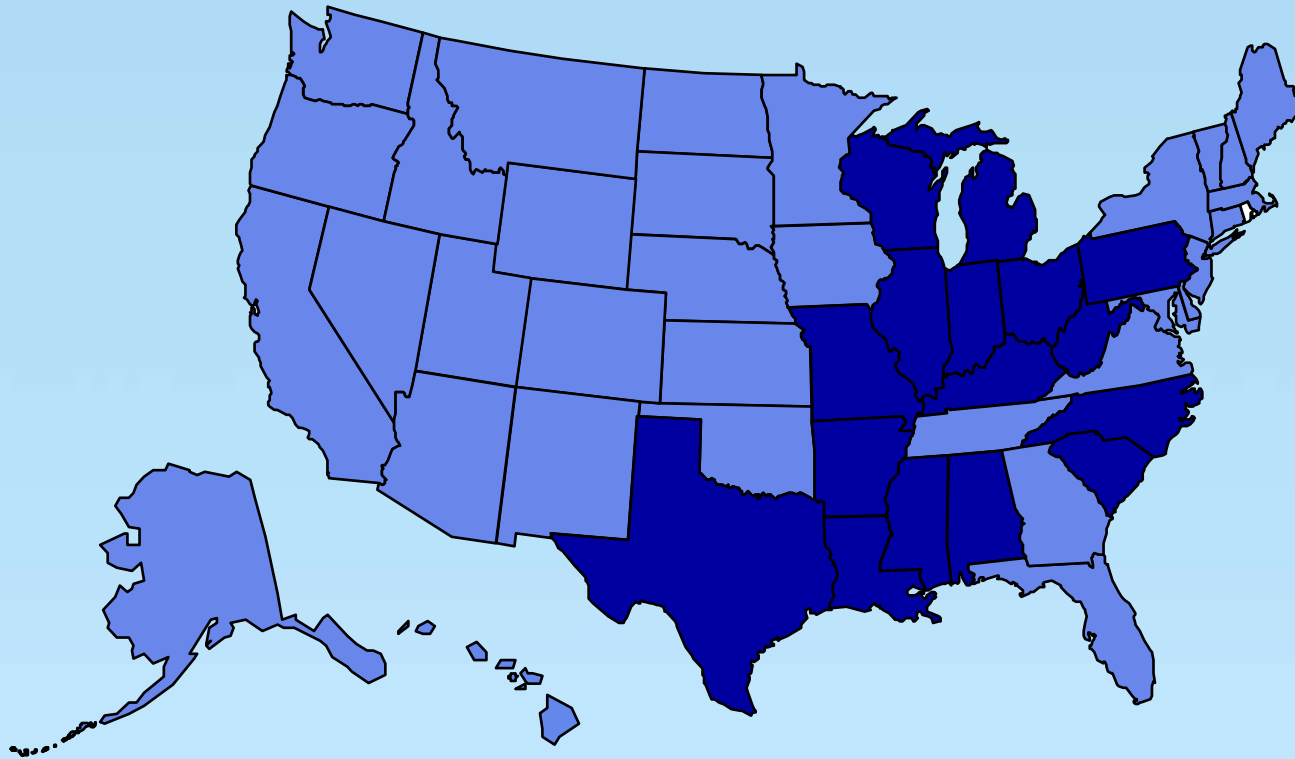
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 1994

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

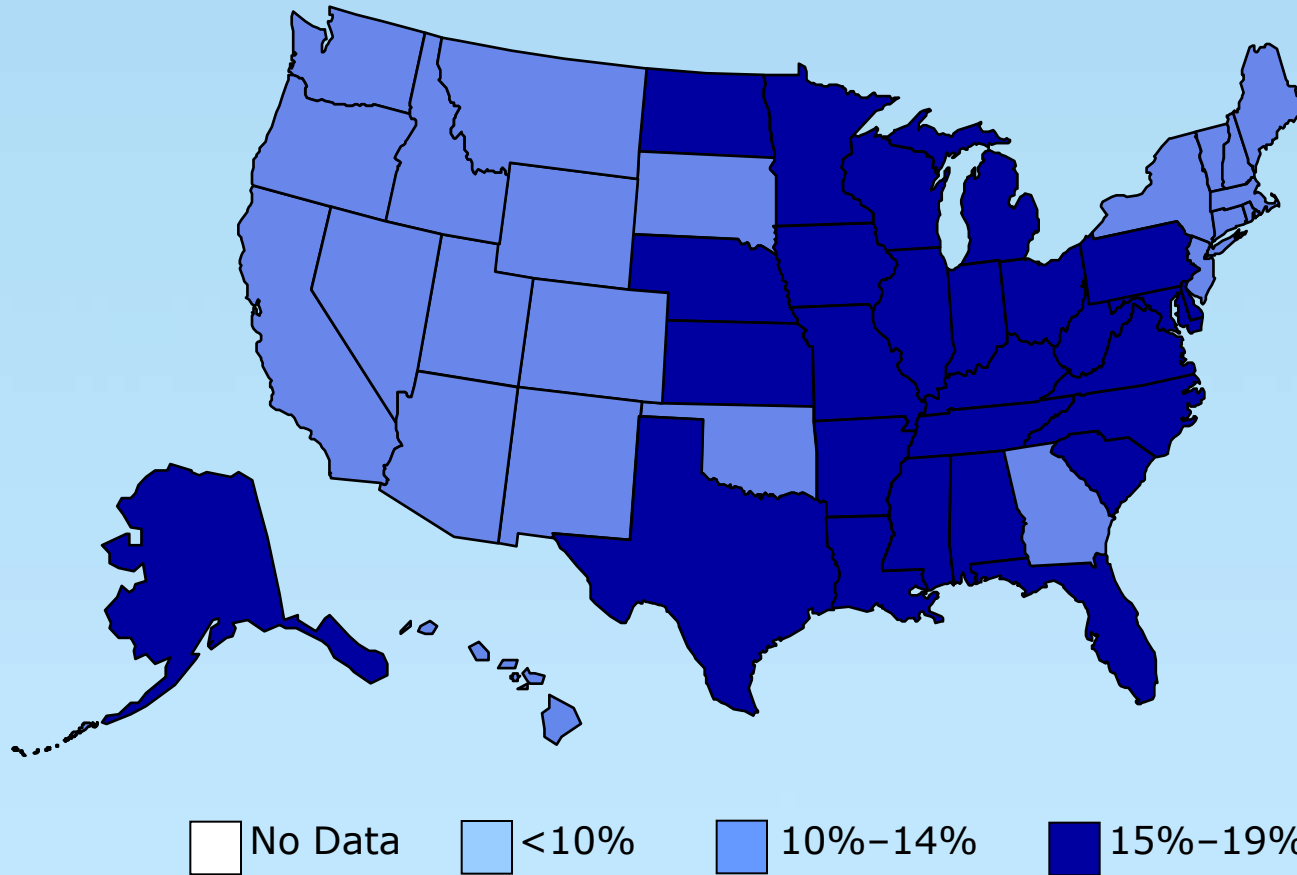


□ No Data    □ <10%    □ 10%–14%    □ 15%–19%

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 1995

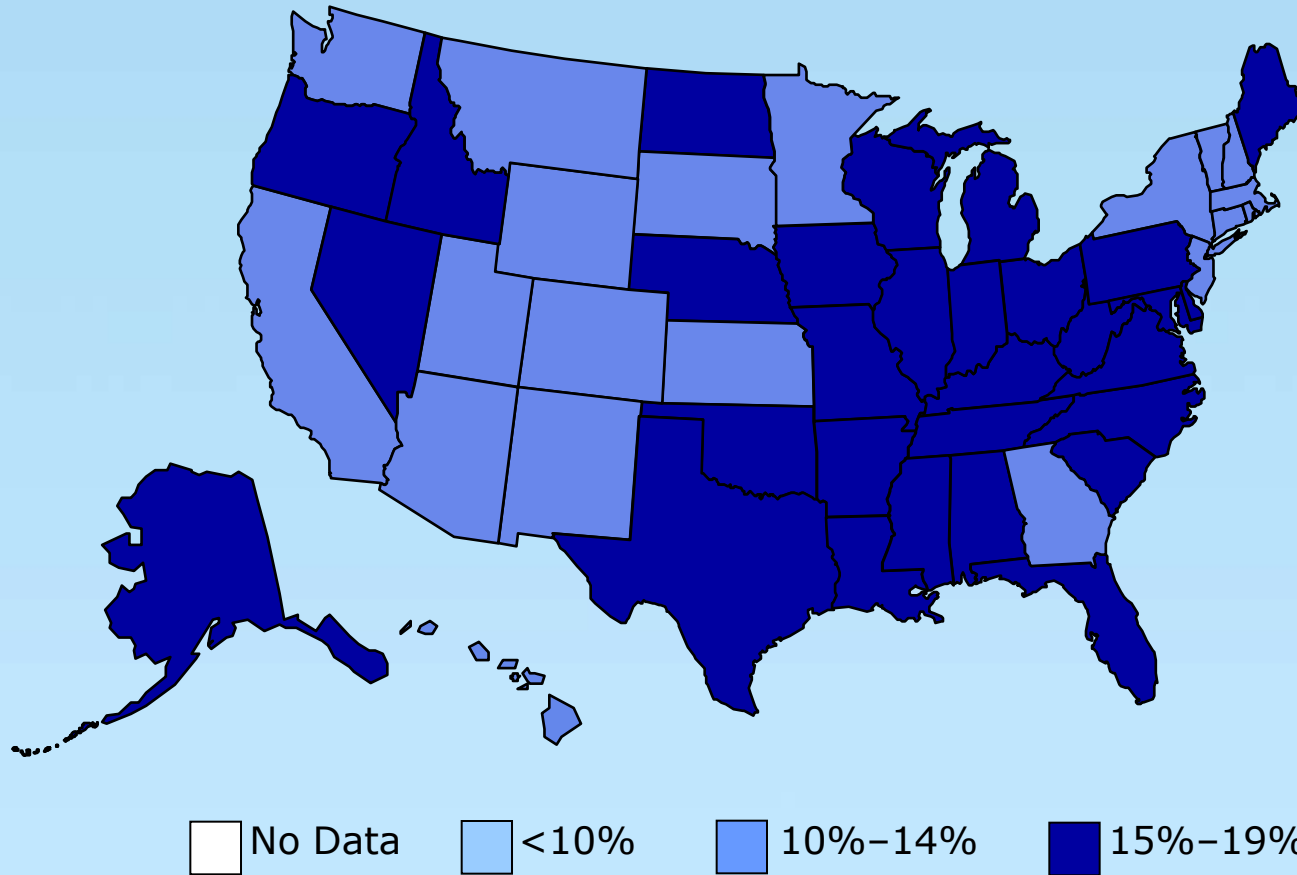
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 1996

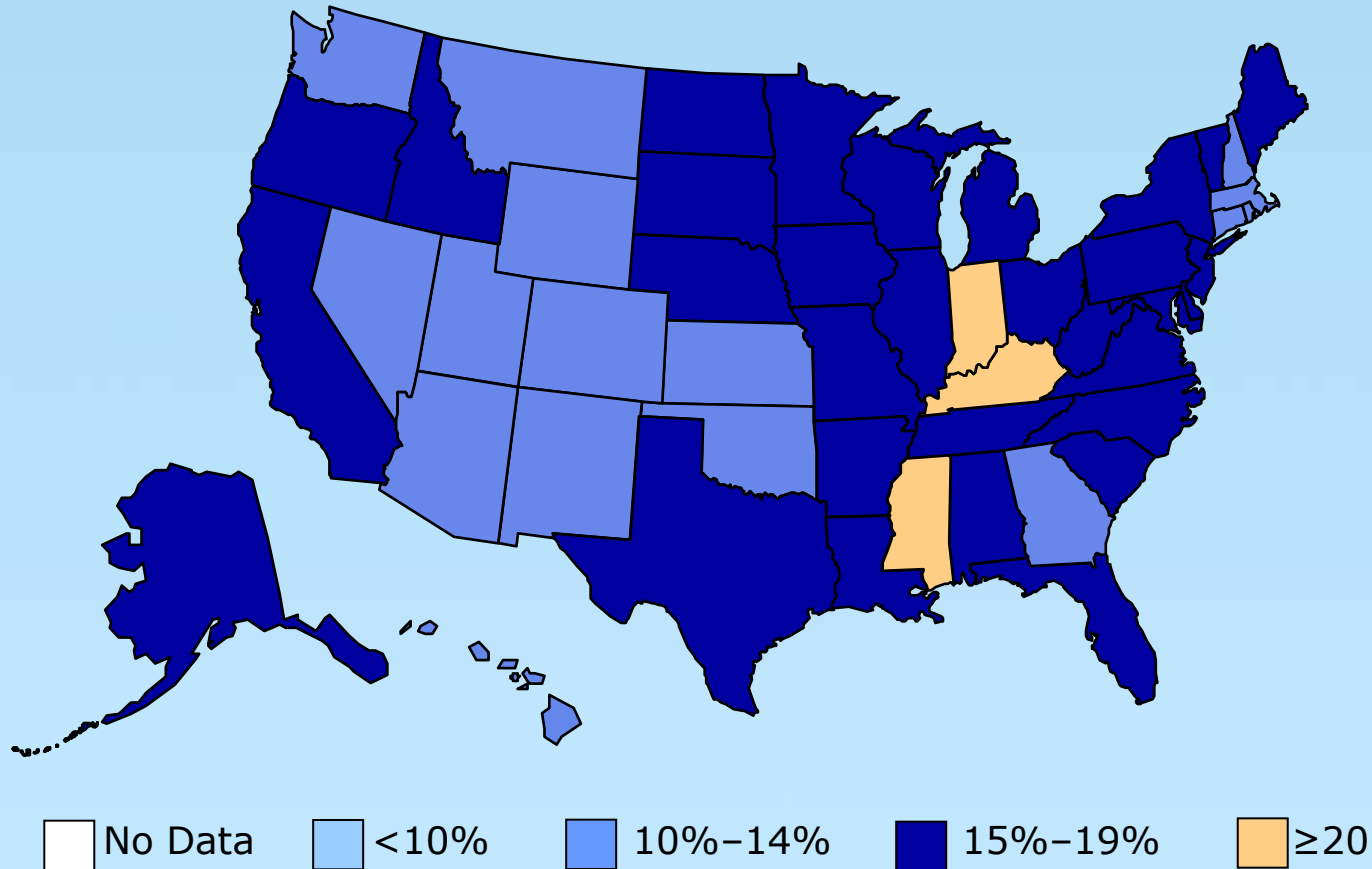
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 1997

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

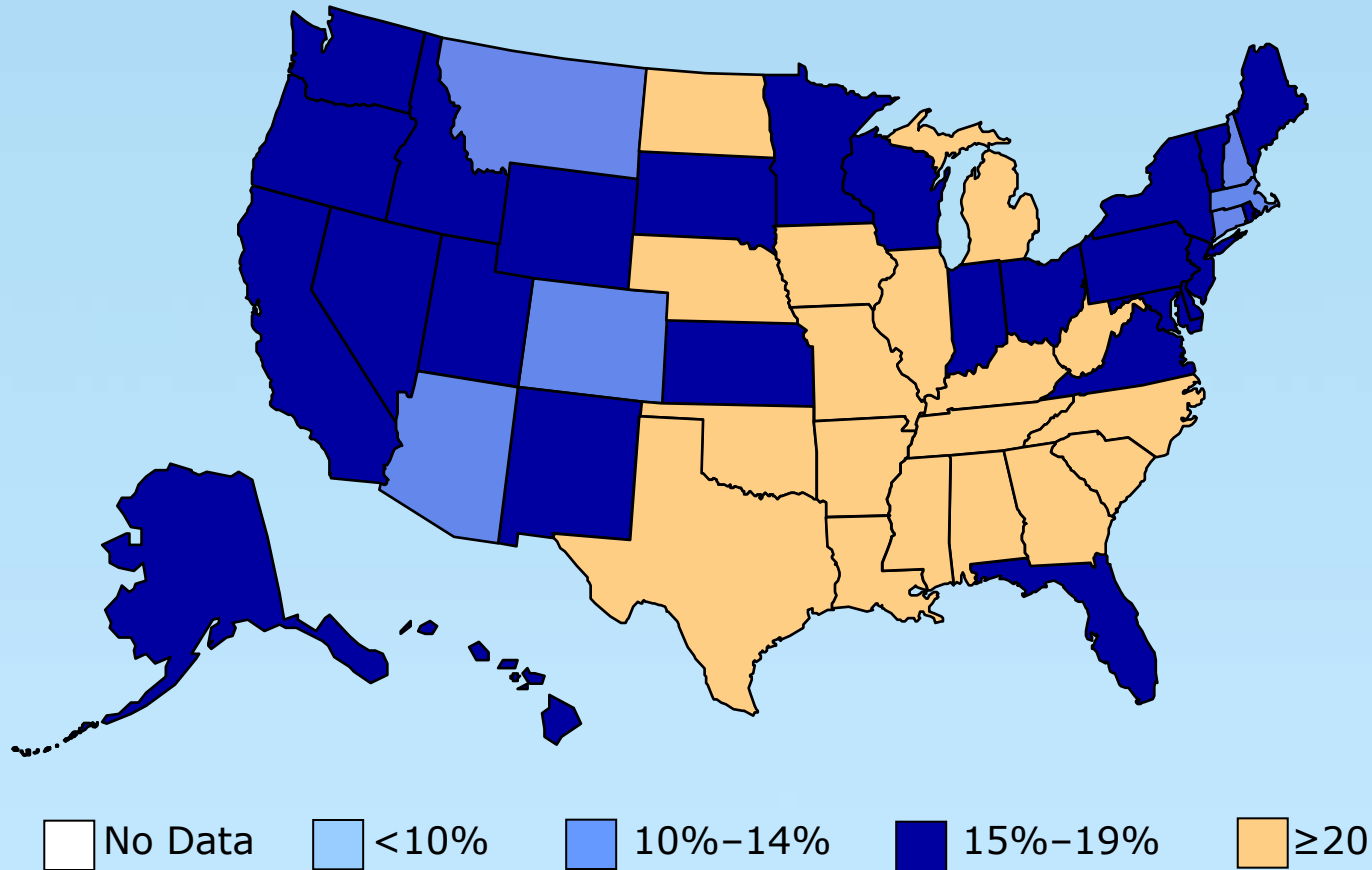


(Behavioral Risk Factor Surveillance System, CDC, 2007)



# Obesity trends among U.S. adults: 1999

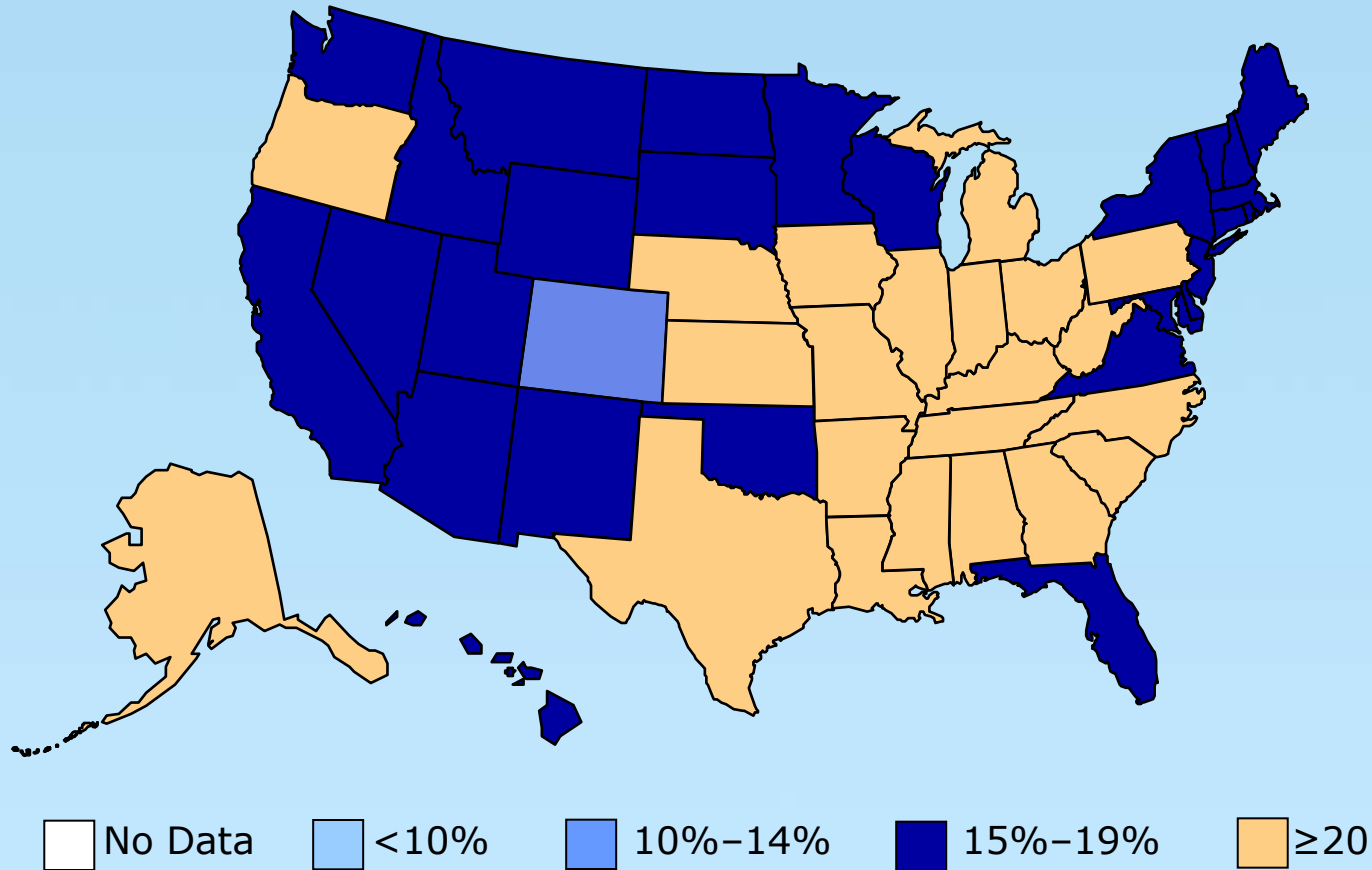
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2007)

# Obesity trends among U.S. adults: 2000

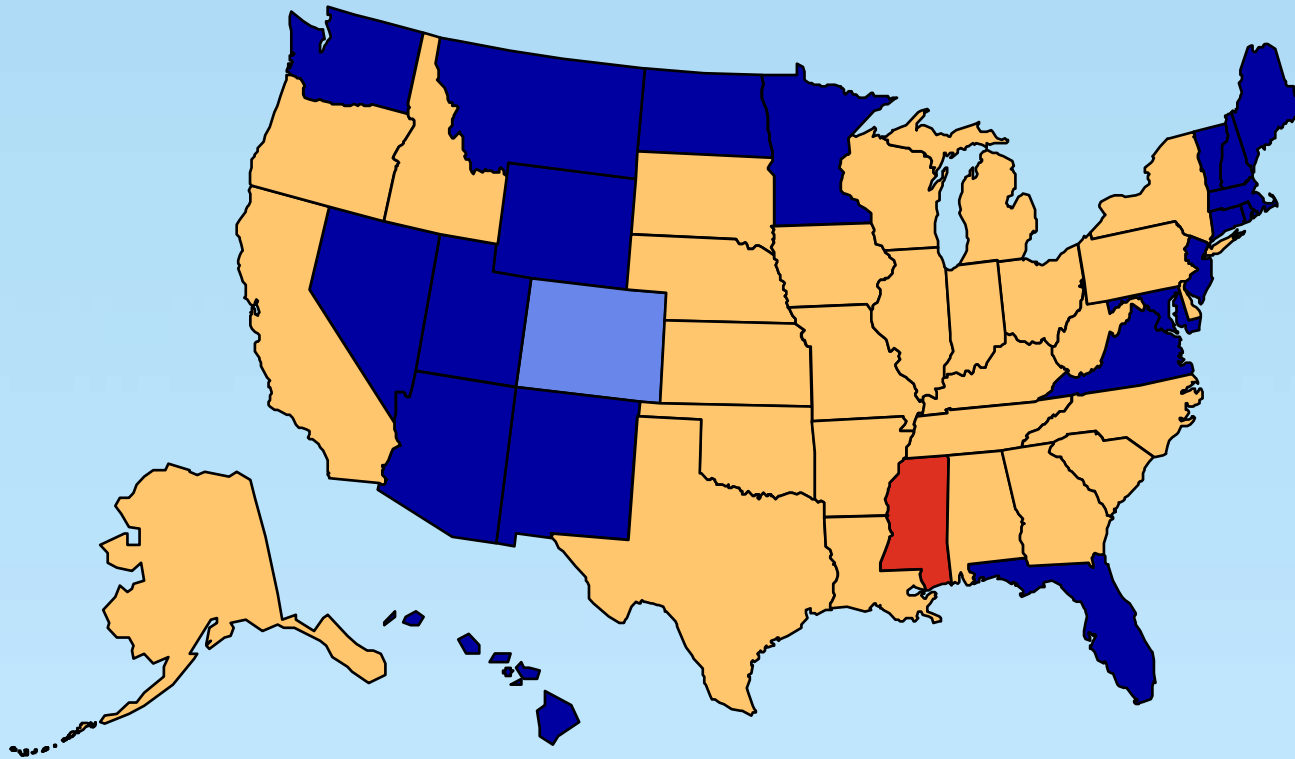
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2007)

# Obesity trends among U.S. adults: 2001

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

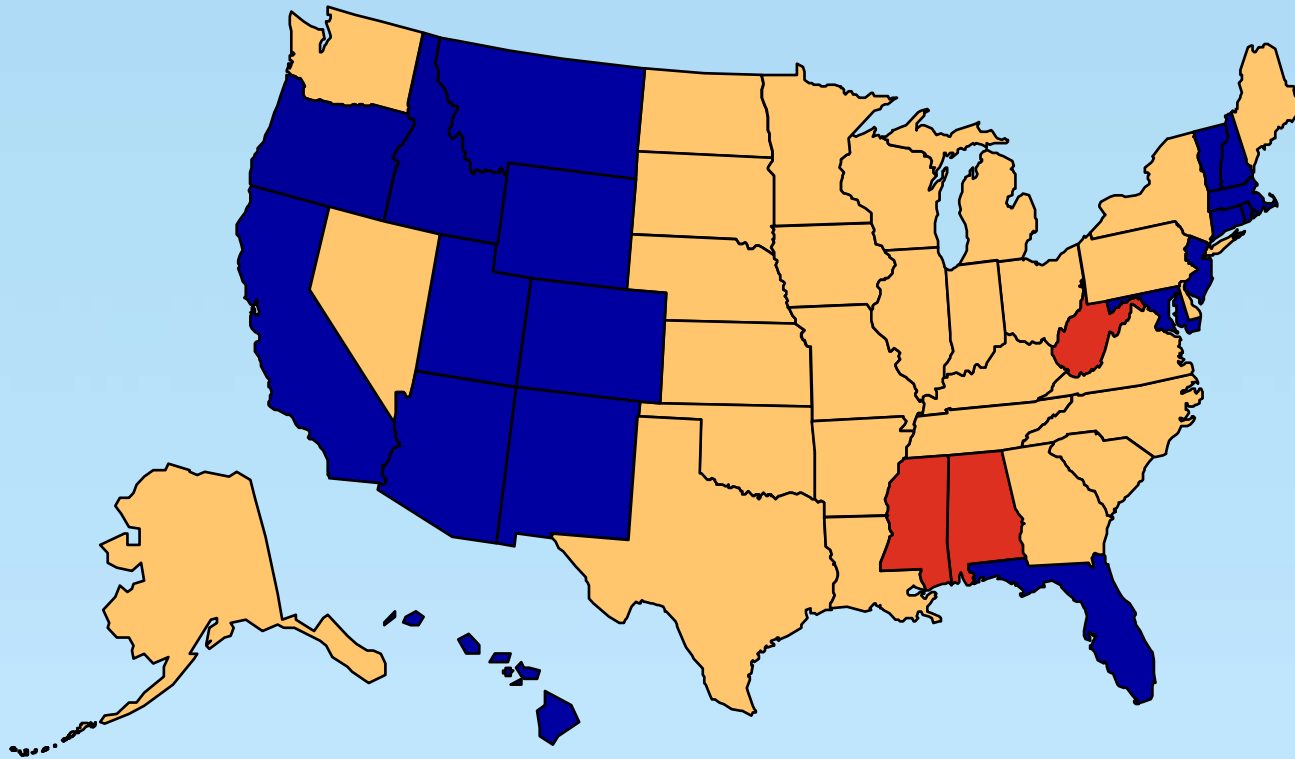


□ No Data   □ <10%   □ 10%–14%   □ 15%–19%   □ 20%–24%   □  $\geq 25\%$

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 2002

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



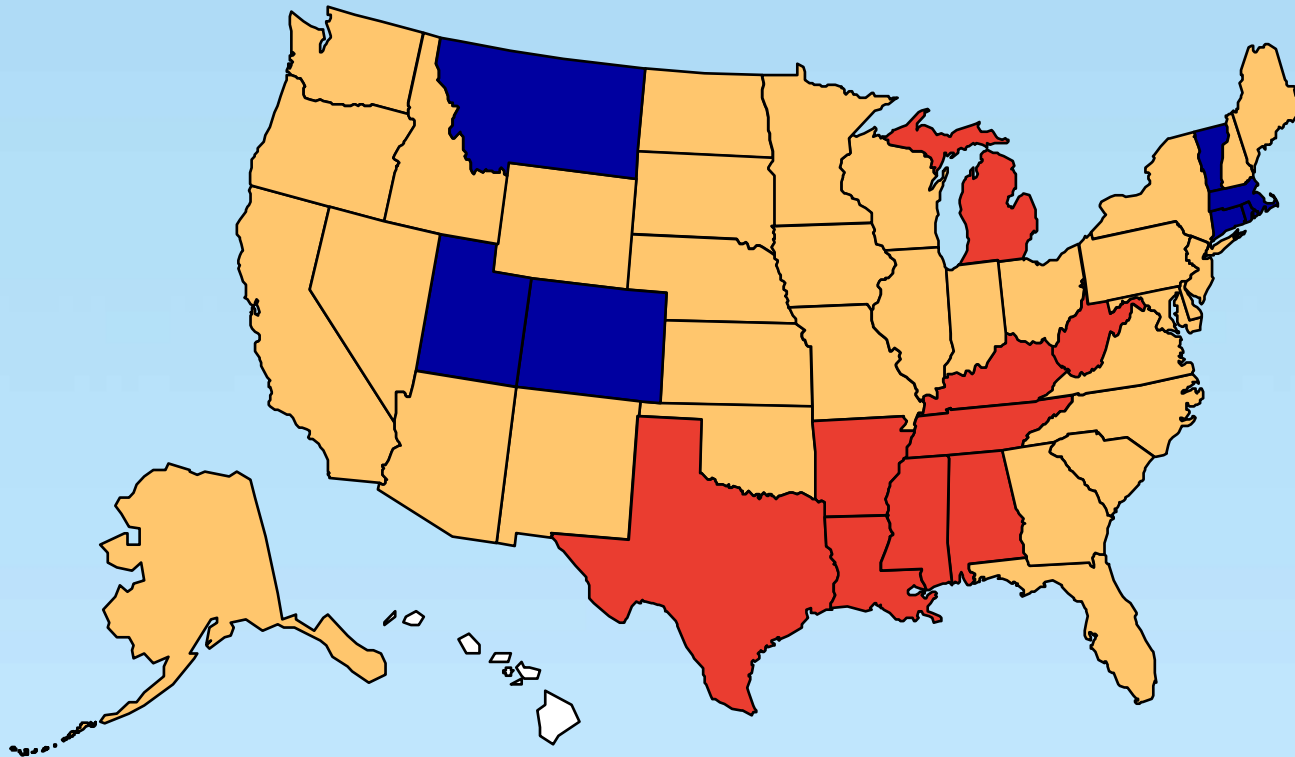
□ No Data   □ <10%   □ 10%–14%   □ 15%–19%   □ 20%–24%   □  $\geq 25\%$

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*



# Obesity trends among U.S. adults: 2004

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

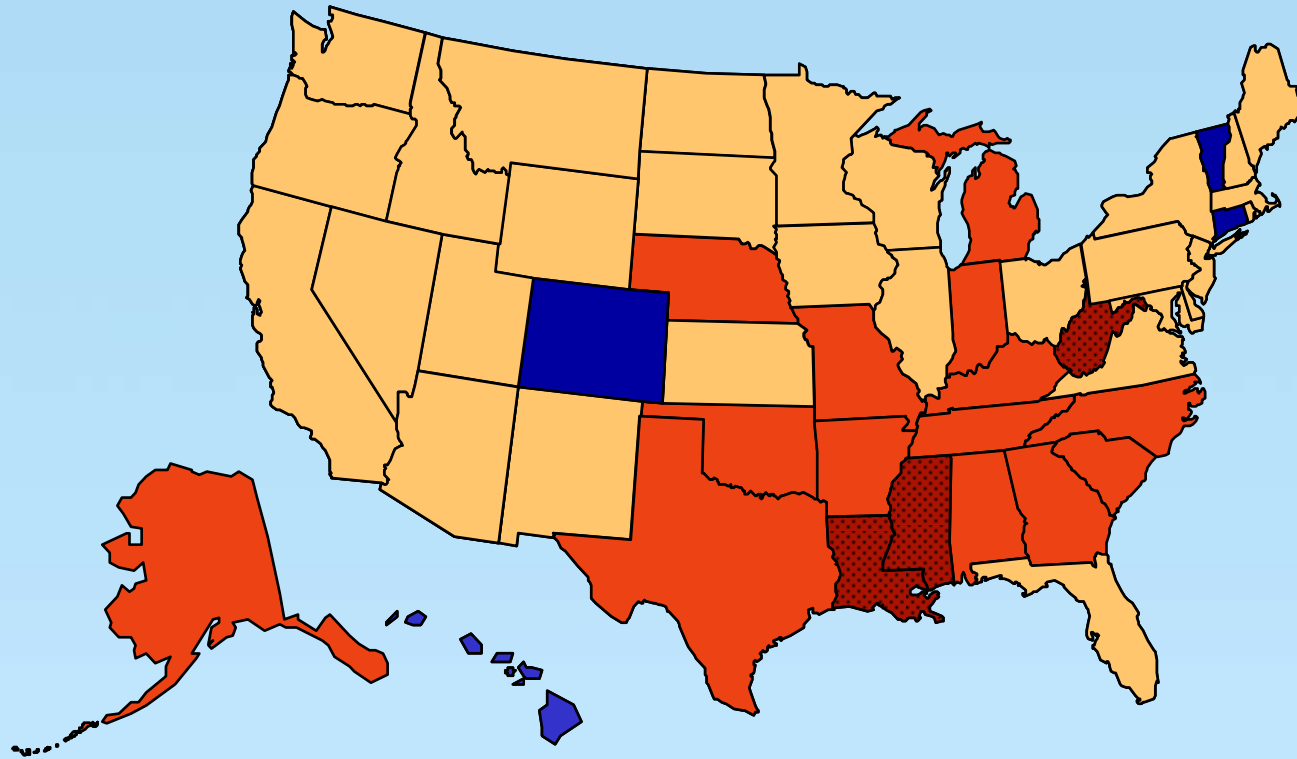


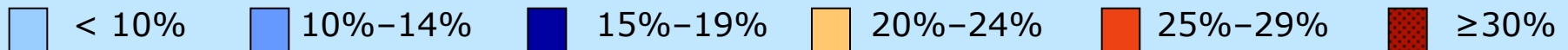
□ No Data   □ <10%   □ 10%–14%   □ 15%–19%   □ 20%–24%   □  $\geq 25\%$

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 2005

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

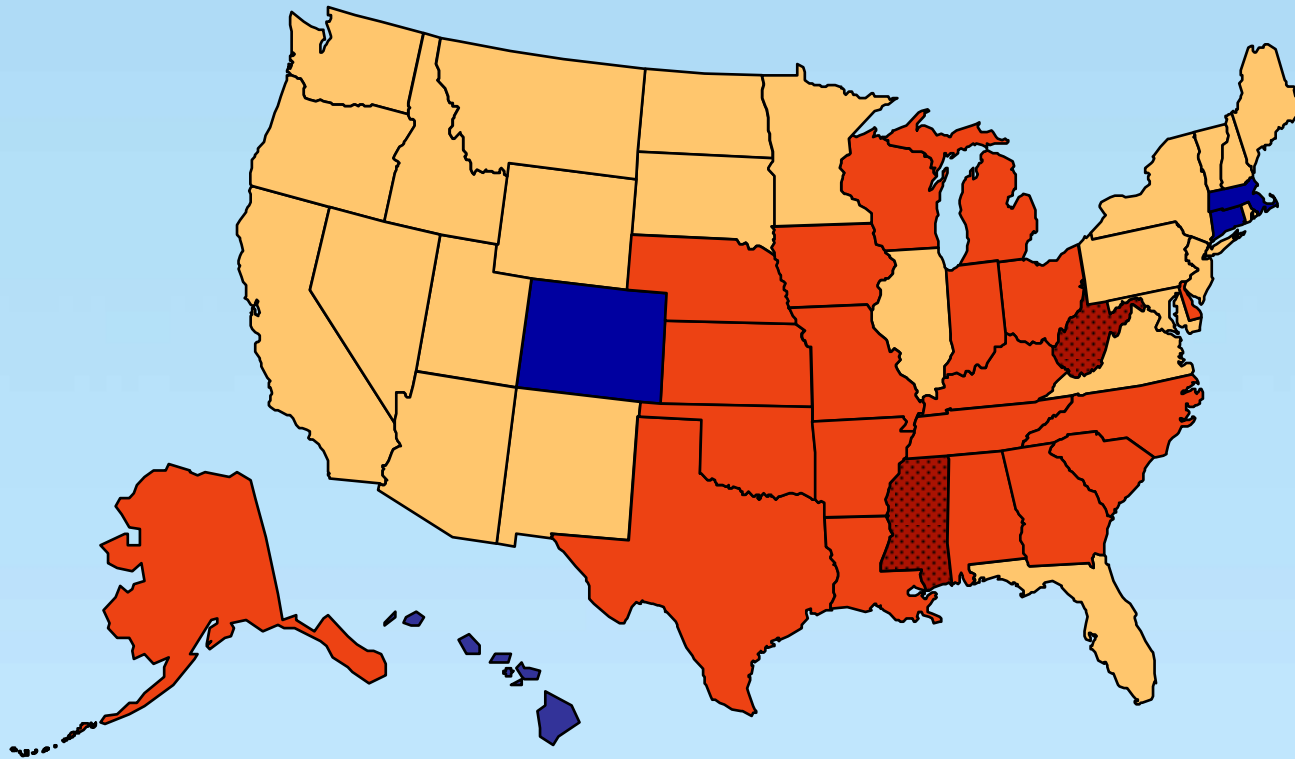


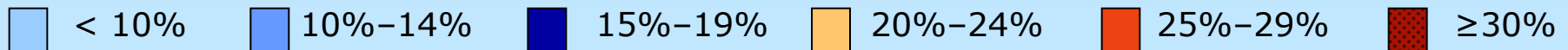
 < 10% 10%–14% 15%–19% 20%–24% 25%–29%  $\geq 30\%$

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

# Obesity trends among U.S. adults: 2006

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)

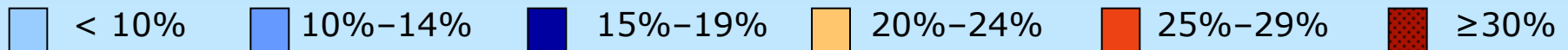
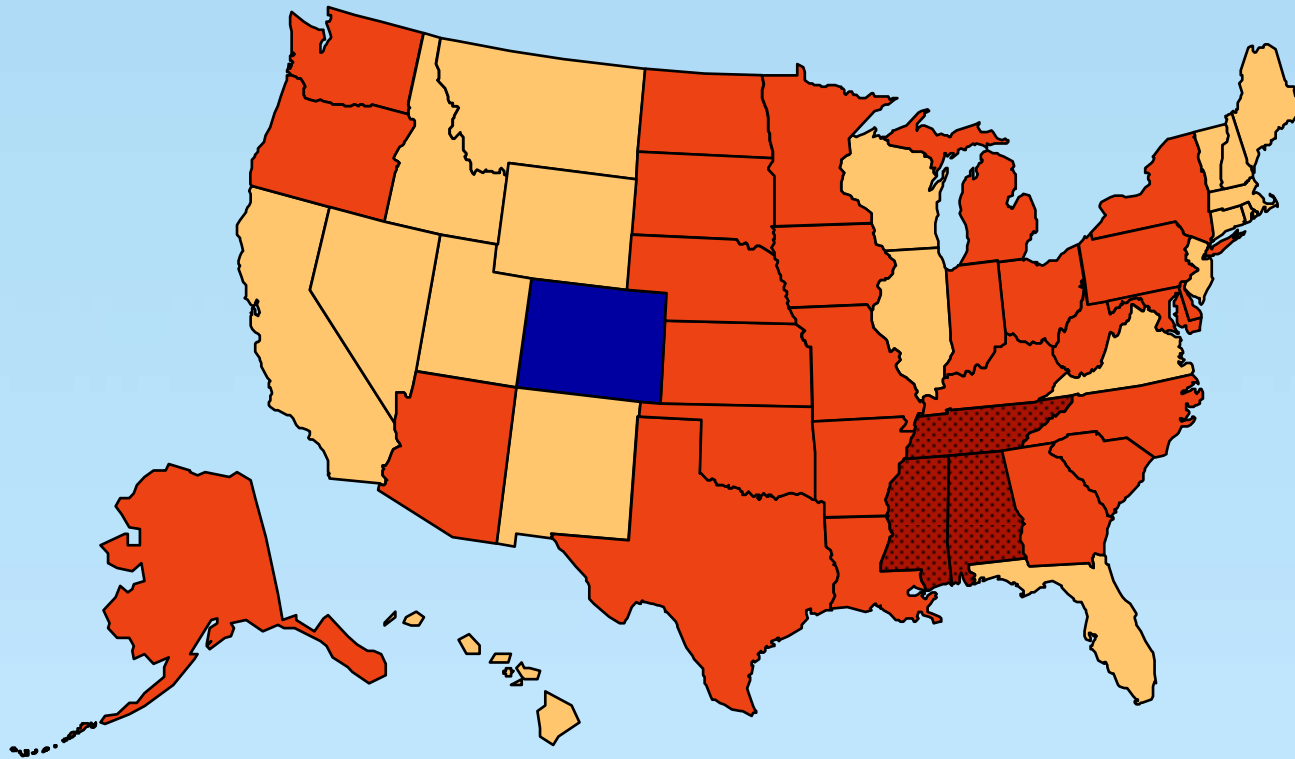


 < 10% 10%–14% 15%–19% 20%–24% 25%–29%  $\geq 30\%$

*(Behavioral Risk Factor Surveillance System, CDC, 2007)*

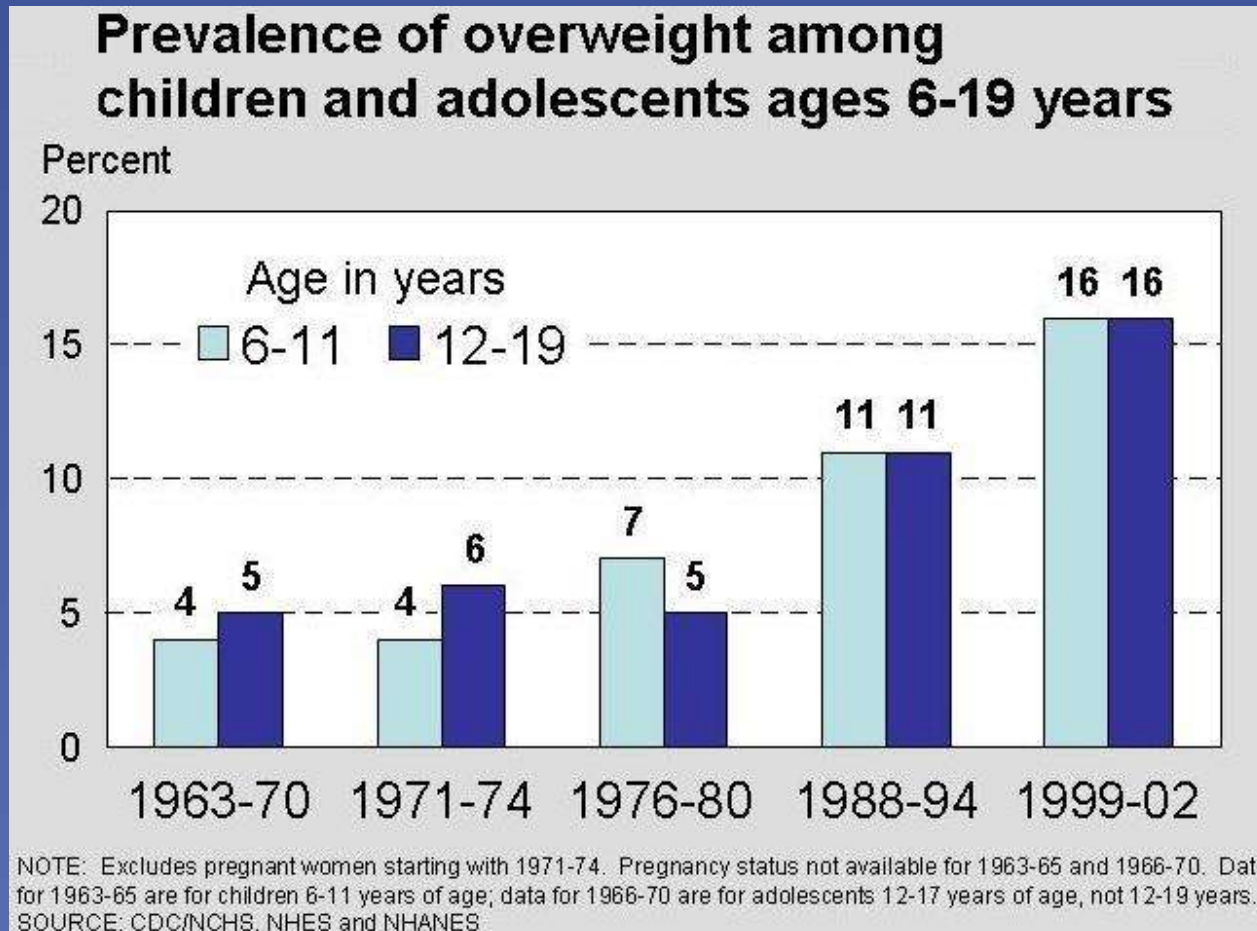
# Obesity trends among U.S. adults: 2007

(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2007)

# U.S. youth overweight rates



*(National Center for Health Statistics)*

# Overweight children have an increased risk of...

- Type 2 Diabetes
- Low self esteem
- Aggravated existing asthma
- Sleep apnea
- Decreased physical functioning
- Many other negative emotional & physical effects

*(Institute of Medicine, 2005)*

# Physical activity

Most kids aren't getting the physical activity they need.



# Physical activity recommendation for children:

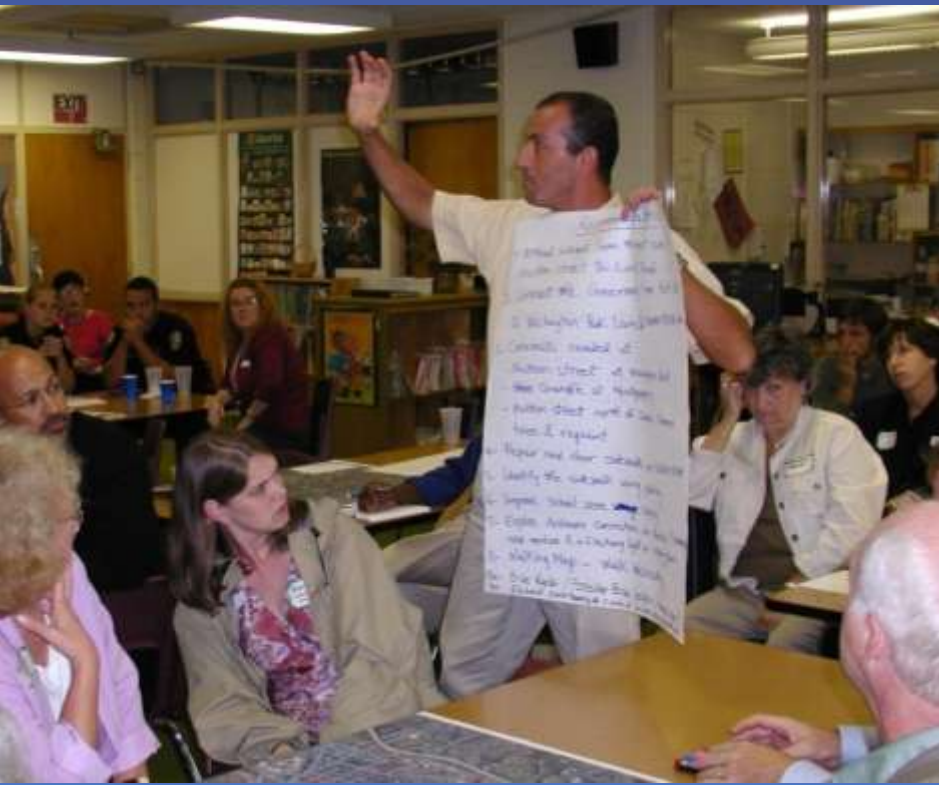
At least 60 minutes of physical activity on most, preferably all, days of the week.

*(US Depts. of Health and Human Services and Agriculture, 2005)*



# The Good:

Communities are taking action on behalf of their kids



# Safe Routes to School programs are part of the solution...

...to increase physical activity

...to improve unsafe walking and biking conditions

...to improve poor air quality by reducing vehicle emissions



# Every school faces a different challenge



# Steps in creating a SRTS program

- Bring together the right people
- Gather information and identify issues
- Find solutions
- Make a plan
- Get the plan funded
- Act on the plan
- Evaluate and make changes if needed

# Elements of Safe Routes to School programs

- Education
- Encouragement
- Enforcement
- Engineering
- Evaluation



# Education

- Teaches safety skills
- Creates safety awareness
- Fosters life-long safety habits
- Includes parents, neighbors and other drivers



# Encouragement

- Increases popularity of walking and biking
- Is an easy way to start SRTS programs
- Emphasizes fun of walking and biking



# Enforcement

- Increases awareness of pedestrians and bicyclists
- Improves driver behavior
- Helps children follow traffic rules
- Decreases parent perceptions of danger



# Engineering

- Creates safer settings for walking and biking
- Can influence the way people behave



# Evaluation

## SURVEY ABOUT WALKING AND BIKING TO SCHOOL - FOR PARENTS -

Dear Parent or Caregiver,

Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 10 - 15 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, please fill out the survey for the child with the next birthday from today's date.

After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results. Thank you for participating in this survey!

These first few questions gather some general and background information. Remember, all information will be confidential, and no identifying information will be released.

1. What is the grade of the child who brought home this survey? (K - 5) \_\_\_\_\_ grade
2. Is the child who brought home this survey male or female?  MALE  FEMALE
3. How many children do you have in Kindergarten through 6<sup>th</sup> grade? \_\_\_\_\_ children
4. What is your ZIP Code? (please provide ZIP + 4 if known) \_\_\_\_\_ ZIP code  
*(note: many utility bills will show your ZIP +4)*
5. How far does your child live from school? (choose one)
 

<input type="checkbox"/> a. less than 1/4 mile	<input type="checkbox"/> d. 1 mile up to 2 miles
<input type="checkbox"/> b. 1/4 mile up to 1/2 mile	<input type="checkbox"/> e. More than 2 miles
<input type="checkbox"/> c. 1/2 mile up to 1 mile	<input type="checkbox"/> f. Don't know

6. On most days, how does your child arrive at school and leave for home after school? (circle one choice per column)

Arrive at school	Leave for home
a. Walk	a. Walk
b. Bike	b. Bike
c. School Bus	c. School Bus
d. Family vehicle (only with children from your family)	d. Family vehicle (only with children from your family)
e. Carpool (riding with children from other families)	e. Carpool (riding with children from other families)
f. Transit (city bus, subway, etc.)	f. Transit (city bus, subway, etc.)
g. Other (skateboard, scooter, inline skates, etc.)	g. Other (skateboard, scooter, inline skates, etc.)

## SAFE ROUTES TO SCHOOL STUDENT ARRIVAL AND DEPARTURE TALLY SHEET

School Name: \_\_\_\_\_ Grade: \_\_\_\_\_ # of students enrolled in class \_\_\_\_\_

Teacher: \_\_\_\_\_ Monday's Date: \_\_\_\_\_

School's Zip Code \_\_\_\_\_ (used to identify weather conditions)

Teachers, here are simple instructions for using this form:

- Please conduct these counts each of the five days of the assigned week.
- Before asking your students to raise their hands to indicate the one answer that is correct for them, read through all potential answers so they will know what the choices are.
- Ask your students as a group the question "How did you arrive at school today?"
- Read each answer and record the number of students that raised their hands for each.
- Follow the same procedure for the question "How do you plan to leave for home after school?"
- Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Step 1. Fill in the weather conditions and number of students in class each day		Step 2. Ask students "How did you arrive at school today?" and "How do you plan to leave for home after school?" (record number of hands for each answer)								
Weather (Sunny Partly Or cloudy Or snow)	Number of Students (in class when count made)	Walk	Bike	School Bus	Family Vehicle (only with children from your family)	Carpool (riding with children from other families)	Transit (city bus, subway, etc.)	Other (skate- board, scooter, inline skates, etc.)		
Mon AM										
Mon PM										
Tues AM										
Tues PM										
Wed AM										
Wed PM										
Thur AM										
Thur PM										
Fri AM										
Fri PM										

Comments: (Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally.)

# Is the program making a difference?

# The time is right

- Growing enrollment
- Old existing facilities
- Demand for new and renovated facilities
- Opportunity to make important decisions for the future



*(Digest of Education Statistics, 2002)*

# Federal Safe Routes to School program

- \$612 million to States 2005-2009
- Funds infrastructure and non-infrastructure activities
- Requires State SRTS Coordinators



More Information:  
[www.saferoutesinfo.org](http://www.saferoutesinfo.org)

# State Programs

- *Dawn Foster*  
*California Safe Routes to School Coordinator*
- (916) 653-6920  
dawn.foster@dot.ca.gov



# The very good: Community success stories



# Success story: Columbia, SC



# Success story: Garfield, NJ



# Success story: Farmington, NH



# Safe Routes to School goals

- Where it's safe, get kids walking and biking
- Where it's not safe, make it safe





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Community leaders, parents and schools across the U.S. are using Safe Routes to School programs to encourage and enable more children to safely walk and bike to school. The National Center for Safe Routes to School aims to assist these communities in developing successful Safe Routes programs and strategies. The Center offers a centralized resource of information on how to start and sustain a Safe Routes to School program, case studies of successful programs as well as many other resources for training and technical assistance.

[click here](#)

**Featured Resource**  
[10 Tips for Getting Walk to School Event Media Coverage](#)  
This tip sheet outlines a few helpful tips for obtaining media coverage for a Walk to School event.

**SRTS in the News**  
[Kid bicyclists strap on helmets](#)  
Daytona Beach News-Journal  
08/31/2006

[Expert tests walking routes](#)  
Rome News-Tribune  
08/31/2006

[Signs near schools warn speeders to 'slow down'](#)  
The Honolulu Advertiser  
08/30/2006



This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the National Center for Safe Routes to School within the University of North Carolina Highway Safety Research Center in partnership with the American Association of State Highway and Transportation Officials, America Walks, the Governor's Highway Safety Association, the Institute of Transportation Engineers, and Toole Design Group.

The screenshot shows the website's header with the "SafeRoutes" logo, a search bar, and navigation links. The main content area is titled "NCSRTS Resources" and includes a sidebar with various menu items. The central content is organized into several blue boxes, each containing a category name and a list of resource links. A footer section contains a logo for the Federal SRTS Program and a paragraph of funding information.

**SafeRoutes**  
National Center for Safe Routes to School

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## NCSRTS Resources

The National Center for Safe Routes to School Resource Center is a centralized location of resources developed by the Center and the U.S. Department of Transportation. Please check back regularly for updates and additions.

For Safe Routes to School resources developed by other agencies and organizations, please search the [SRTS Online Library](#).

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  - [Tip sheets](#)
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  - [Flyers](#)
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  - [Proclamation](#)
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  - [FERSAFE](#)
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  - [Walkability Checklist](#)
  - [Bikeability Checklist](#)
- Evaluation**
  - [Student In-Class Travel Tally](#)
  - [Parent Survey](#)
  - [Form Descriptions](#)
  - [Instructions](#)
- Enforcement**
  - [Adult School Crossing Guard Guide](#)
- Encouragement**
  - [Walking School Bus Guide](#)
- Training**
  - [SRTS National Course Video](#)
- Program Development**
  - [Toolkits](#)
  - [Guides](#)
- Status Report**
  - [October 2005 \(PDF, 123 KB\)](#)

visit the **Federal SRTS Program site**

The site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the National Center for Safe Routes to School with the University of North Carolina Highway Safety Research Center in partnership with the American Association of State Highway and Transportation Officials, America Walks, the Governor's Highway Safety Association, the Institute of Transportation Engineers, and Tools Design Group.