

# Safe Routes to School

## Background and Goals of SRTS

Oklahoma Kick-off  
May 4, 2011



# The Good, the Bad, and the Ugly



# Fewer kids are biking and walking More parents are driving



1969

48% walked or biked  
12% driven

(U.S. DOT, 2009)

2009

13% walked or biked  
44% driven

# Parents driving



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

*(Parisi Associates, 2003; Morris, 2001)*

# The consequences of *this...*



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



# 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 during the 1970s
- Odense reduced the number of injured school children by 30% - 40%
- Spread to the UK and Canada in the 1990s; Bronx, NY in 1997



# Benefits of SRTS programs

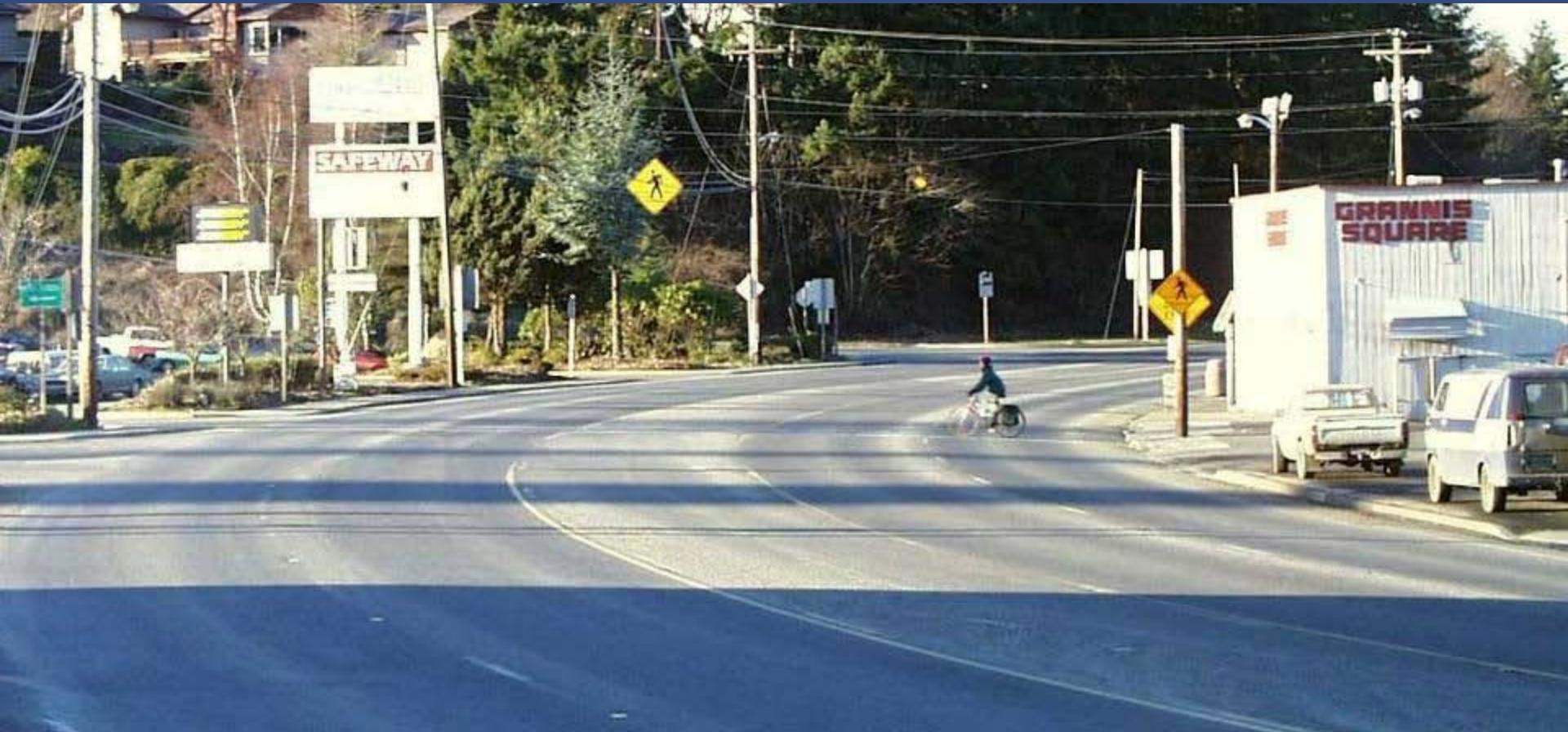
- Improve safety for pedestrians and bicyclists
- Reduce traffic congestion around schools
- Reduce emissions
- Improve children's health

# Other benefits of SRTS programs

- Cost savings for schools  
(reduce need for “hazard” busing)
- Teach fundamental safety skills
- Benefit local economy
- Strengthen family bonds
- Increase child’s sense of freedom and responsibility
- Provide more transportation options for everyone

# The Ugly:

## Today's barriers to walking and bicycling



# How did we get here?

1. School siting issues
2. Individual barriers to walking to school
3. Community issues



# 1. School siting issues: A generation ago

- Small (average of 127 students)
- Located in community centers
- 48% of kids walked or biked to school

(U.S. EPA, 2003)



# School siting issues: Today



- Mega-schools (average 521 students)
- Schools located on 10 to 30+ acres fringe land
- Lowest-cost construction

*(National Center for Education Statistics, 2008)*

# School consolidation has lengthened the trip between home and school

Students living within 1 mile of school:

1969 – 41%  
2009 – 31%

(U.S. DOT, 2009)



# It's not just distance

Students living  
within one mile  
or less who walk  
or bike to  
school:

1969 – 88%

2009 – 38%

(U.S. DOT, 2009)



## 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

- Range of concerns is broad, often not unique to walking and bicycling to school
- Both reality and perceptions need to be addressed
- SRTS can be a part of a larger, community-wide response

# 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%

*(Friedman, 2001)*

# Air quality

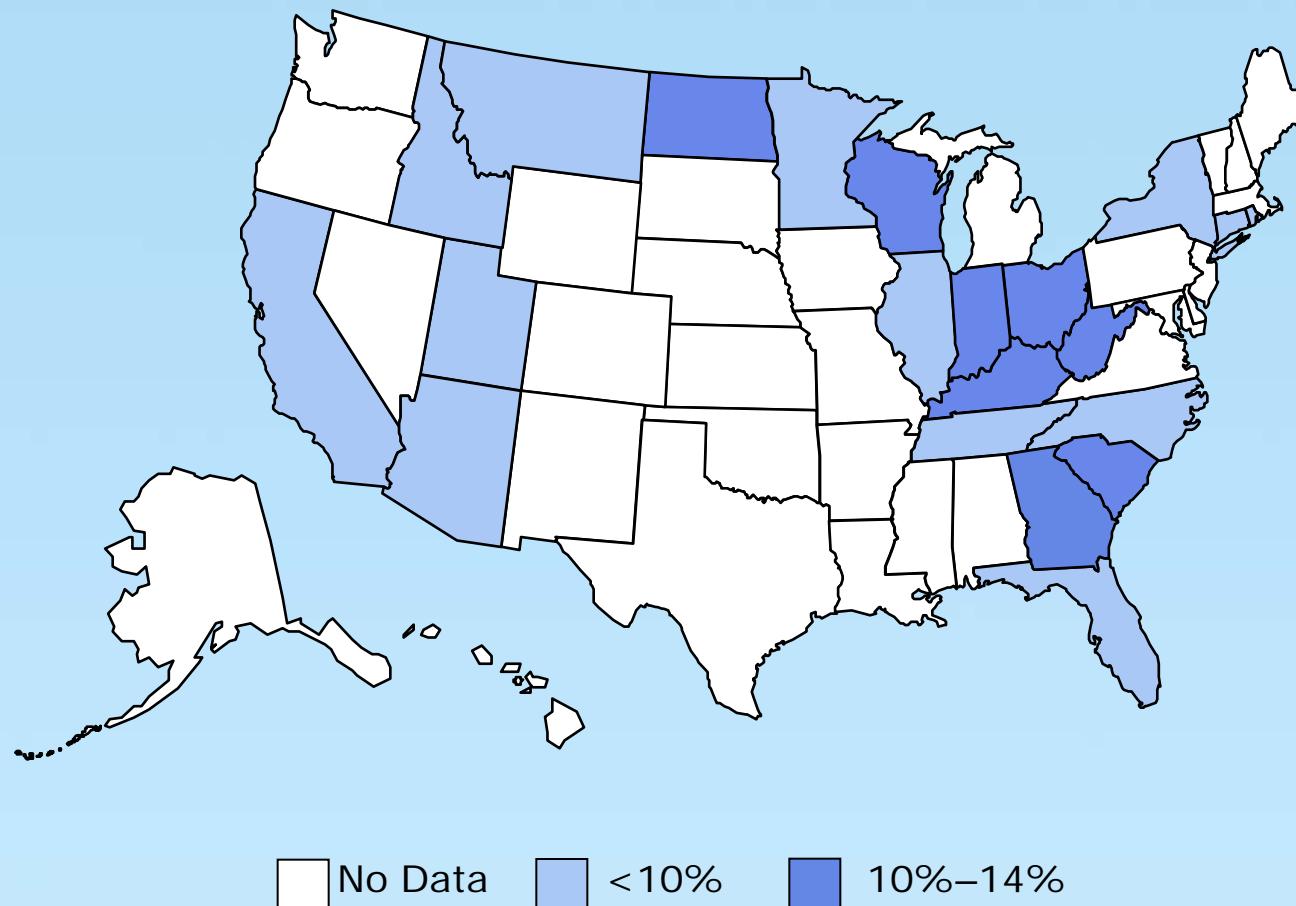
Measurably better  
around schools  
with more walkers  
and cyclists

(U.S. EPA, 2003)



# Obesity trends among U.S. adults: 1985

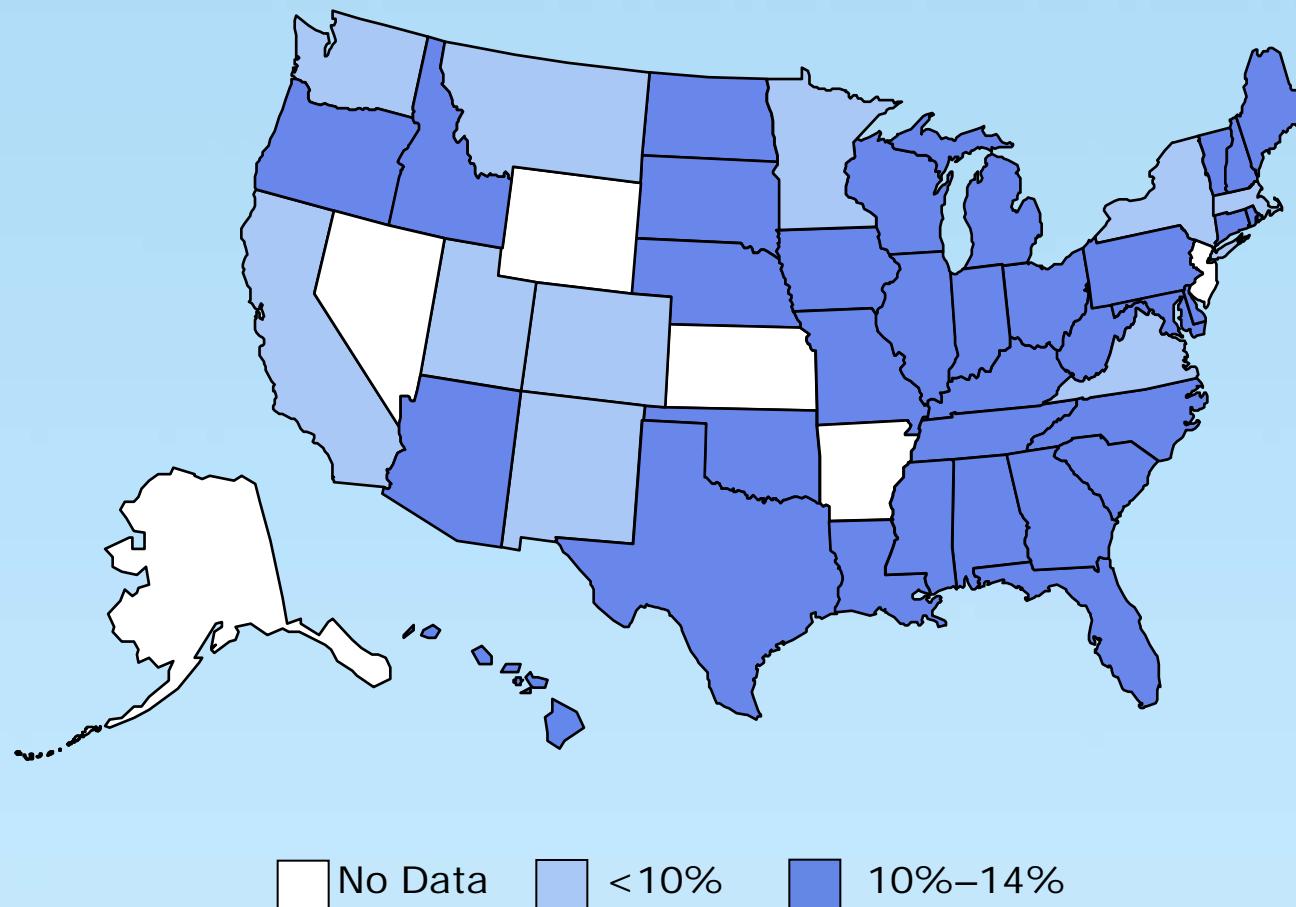
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 1990

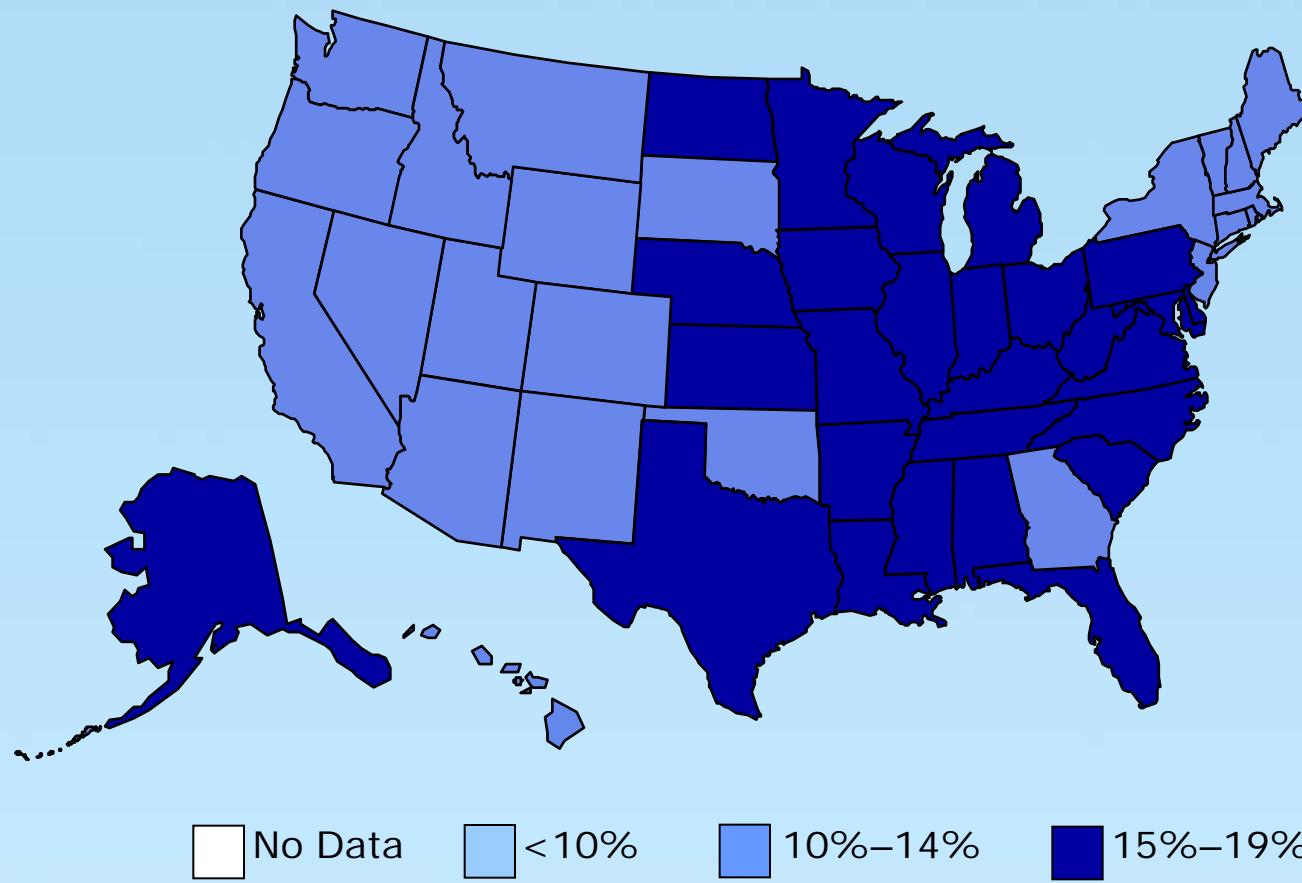
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 1995

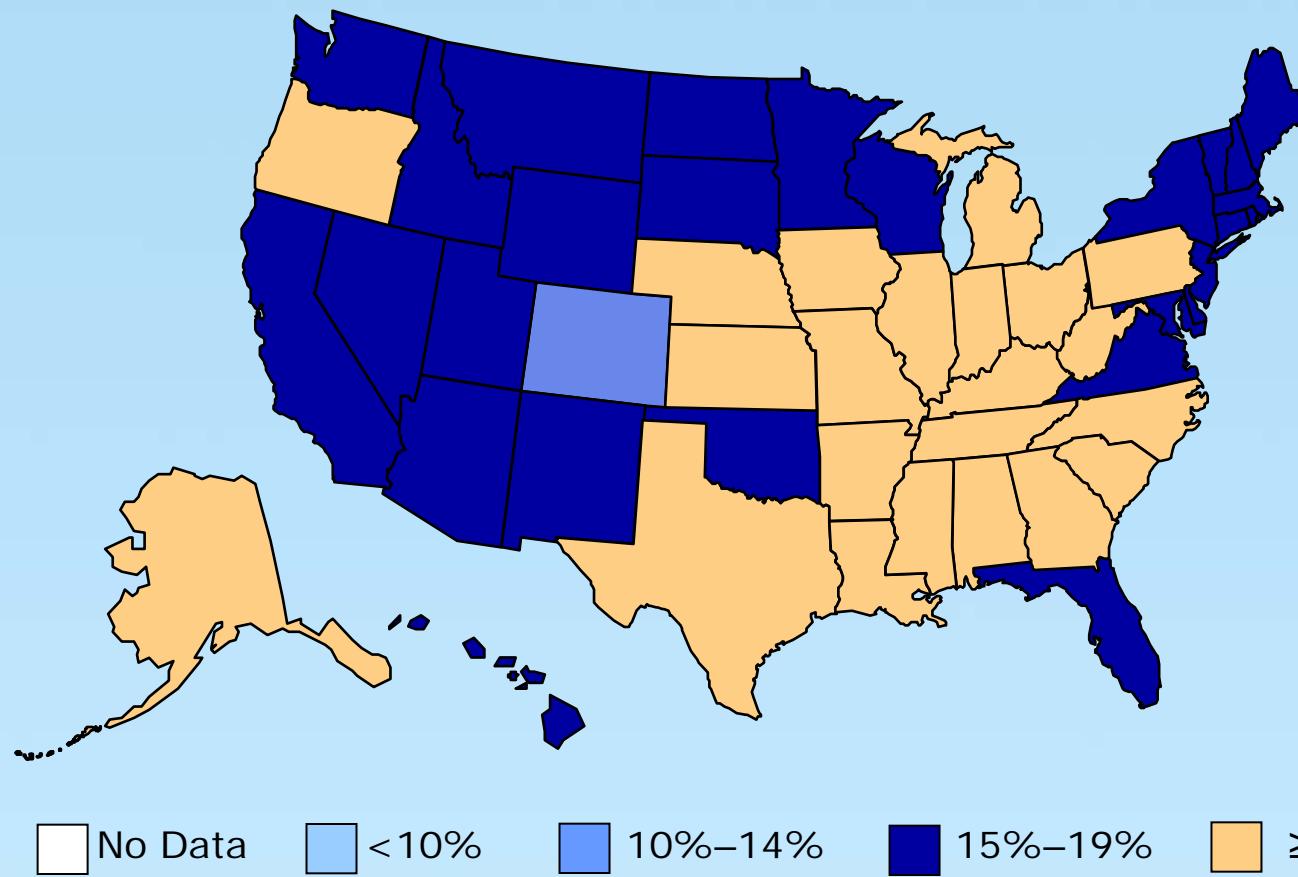
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2000

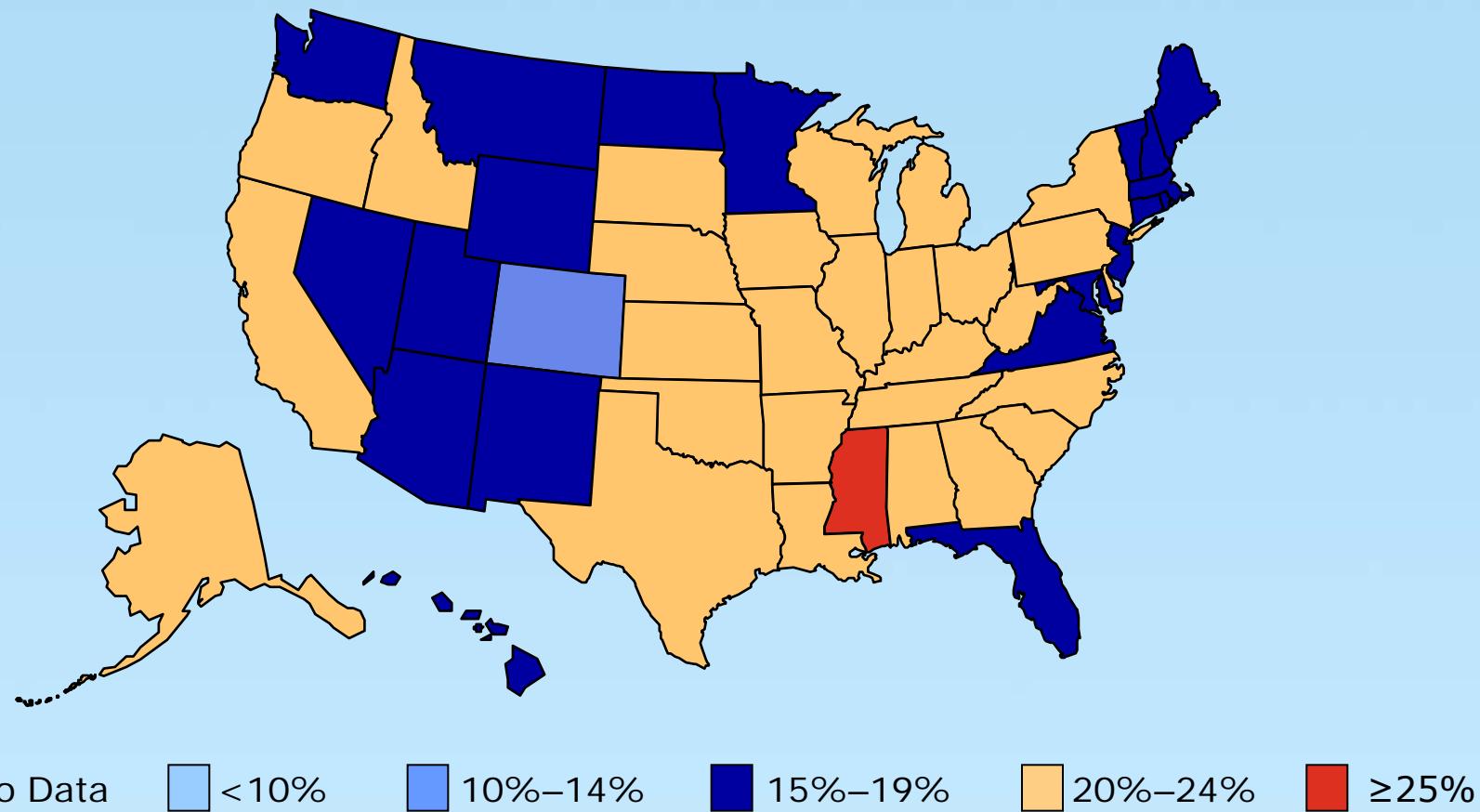
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2001

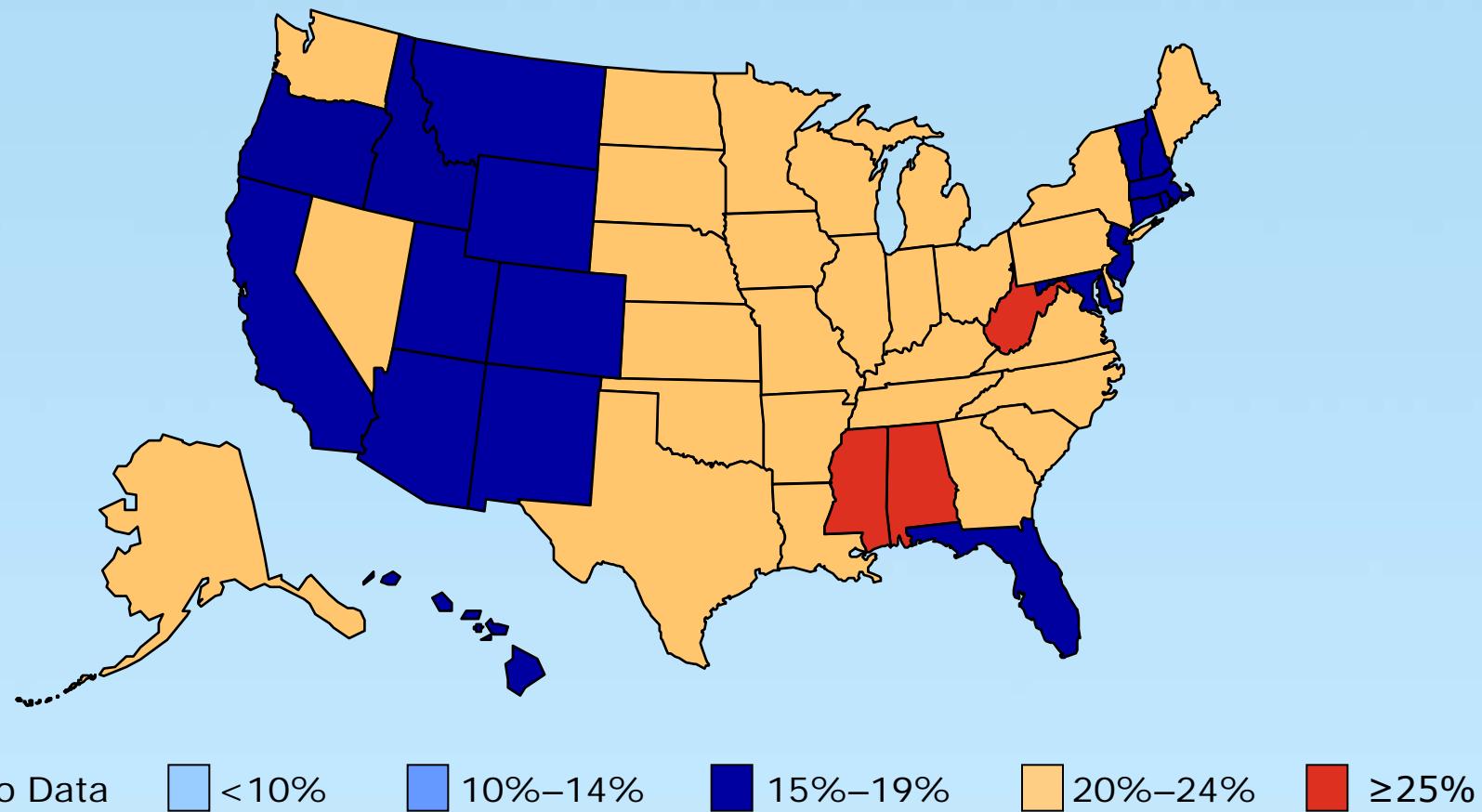
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(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2002

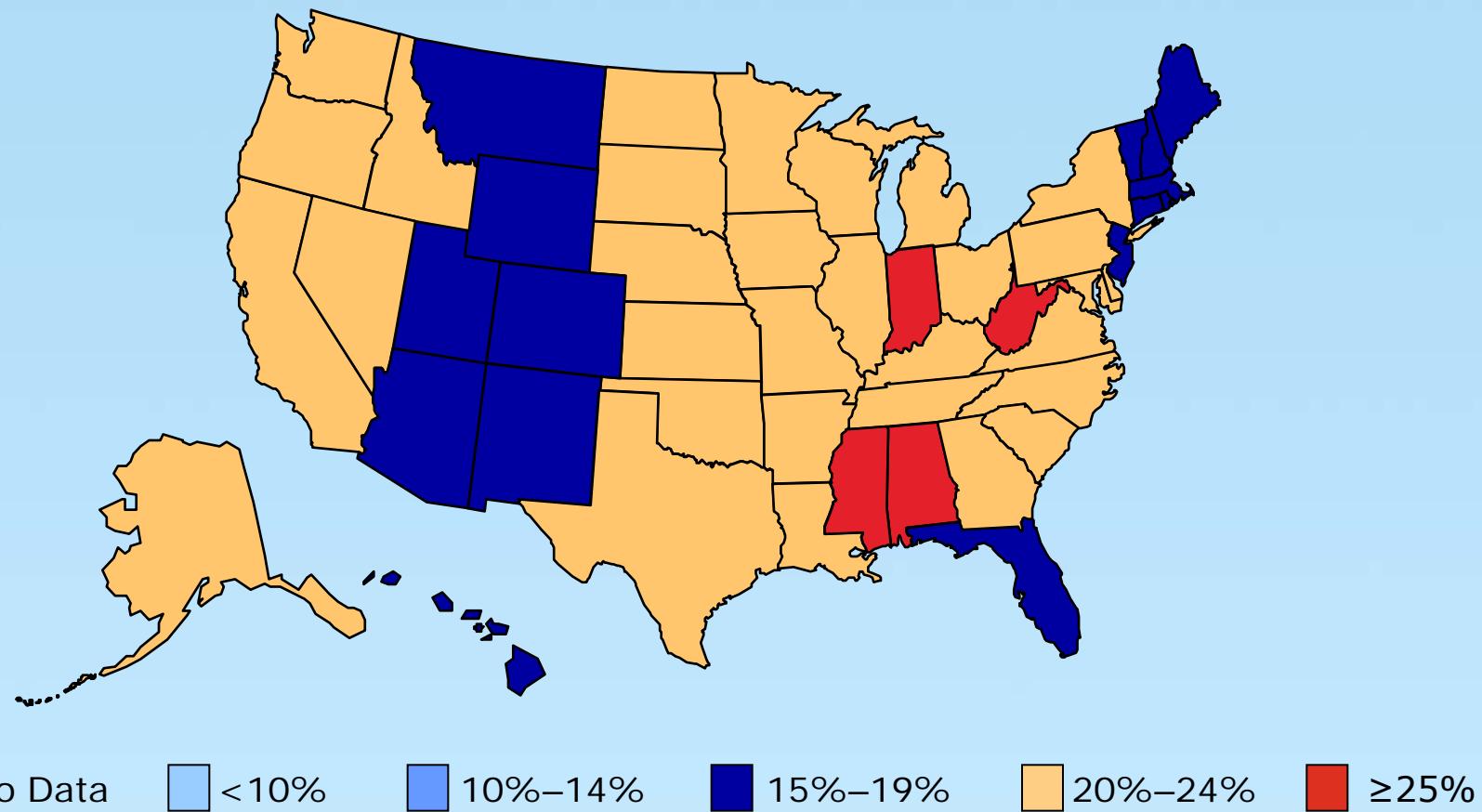
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(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2003

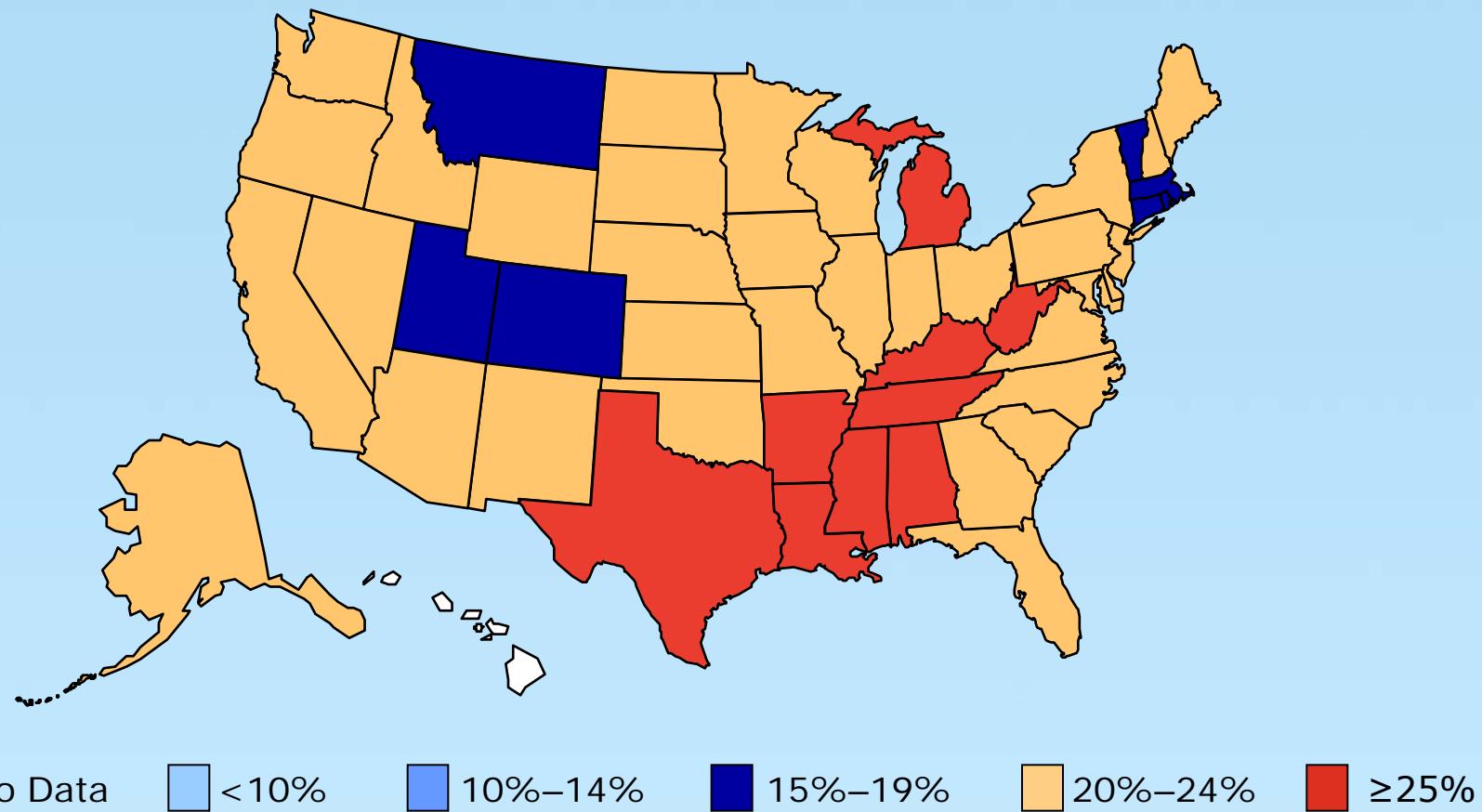
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(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2004

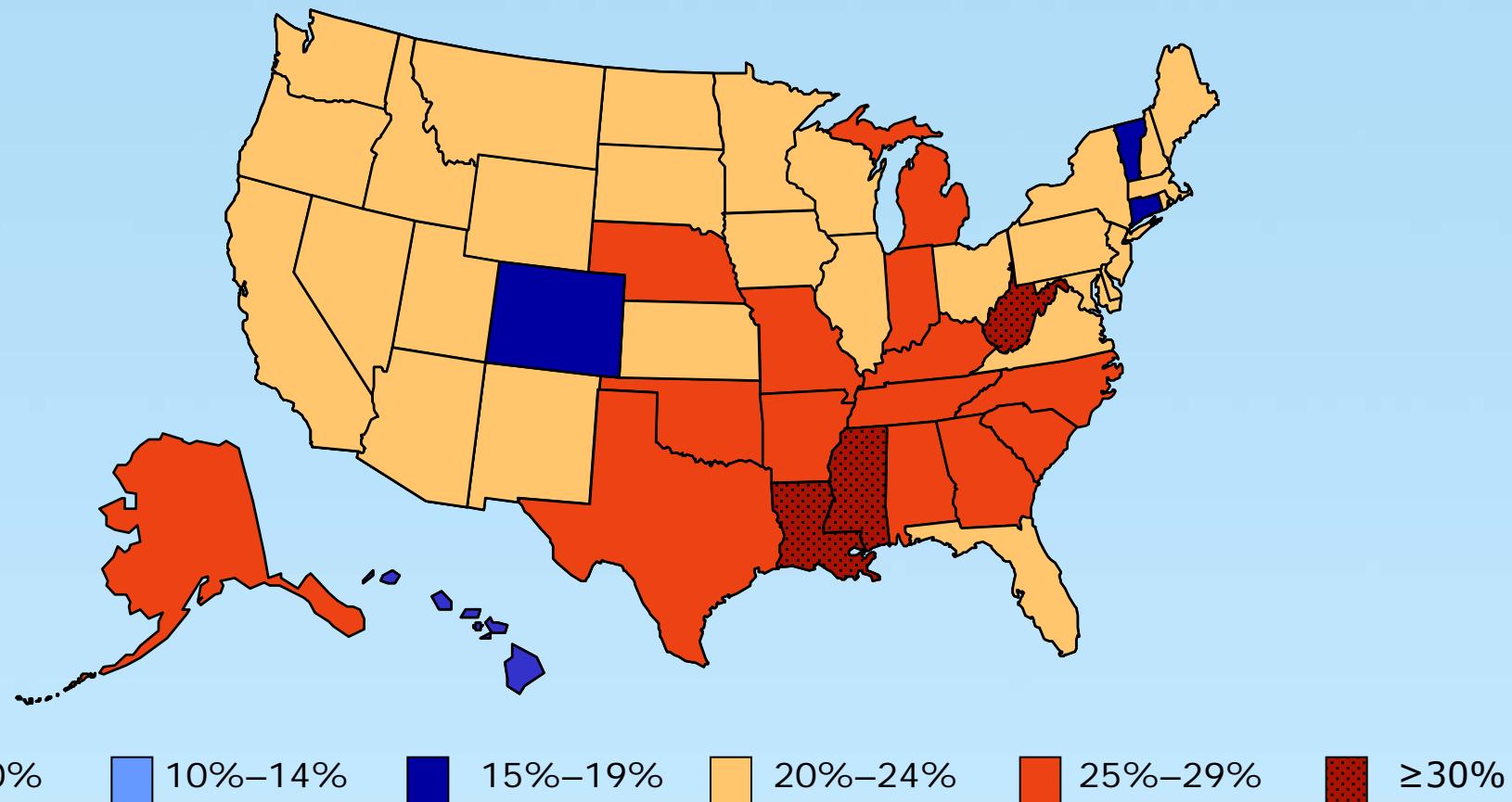
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(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2005

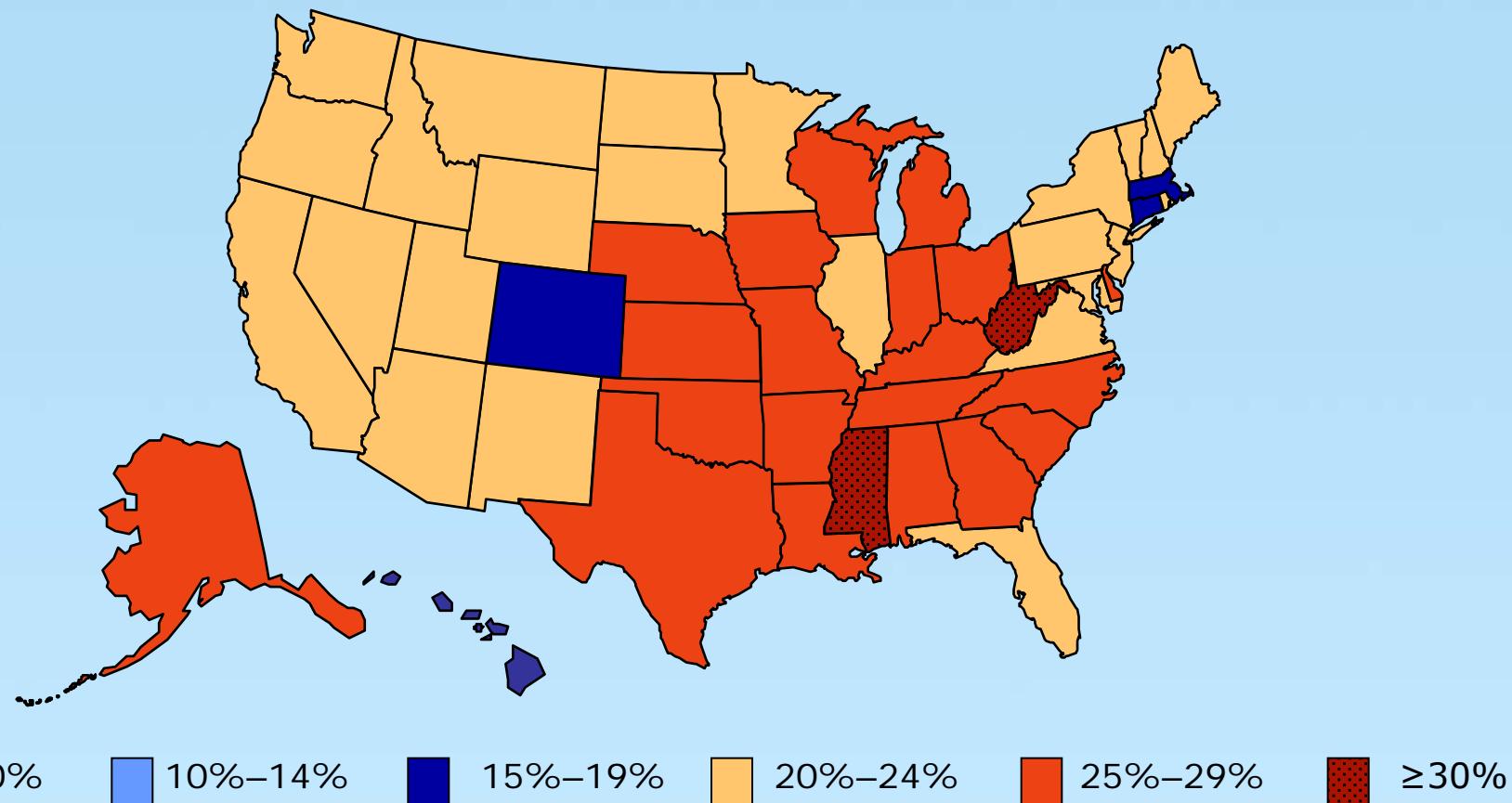
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(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2006

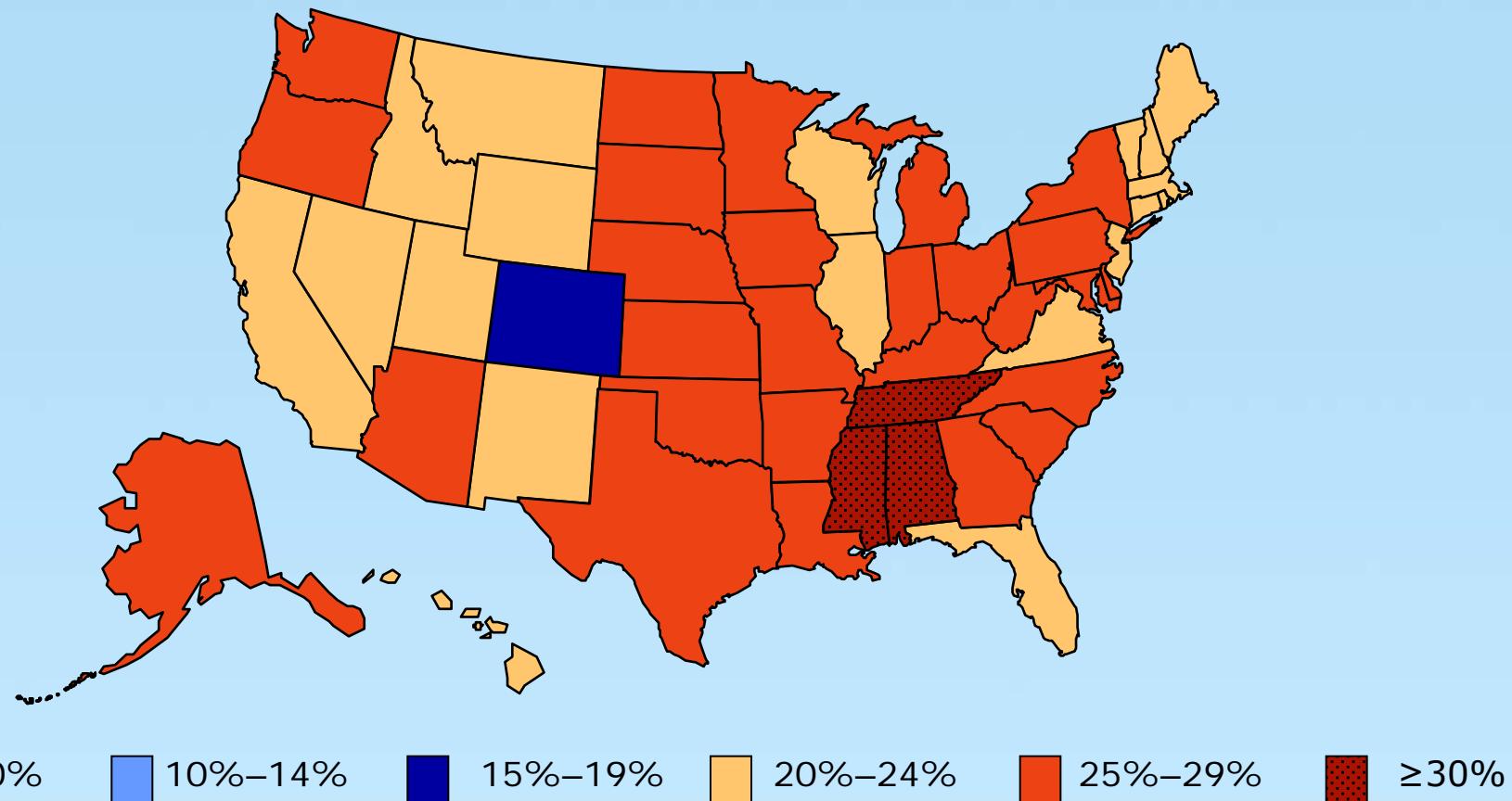
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(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2007

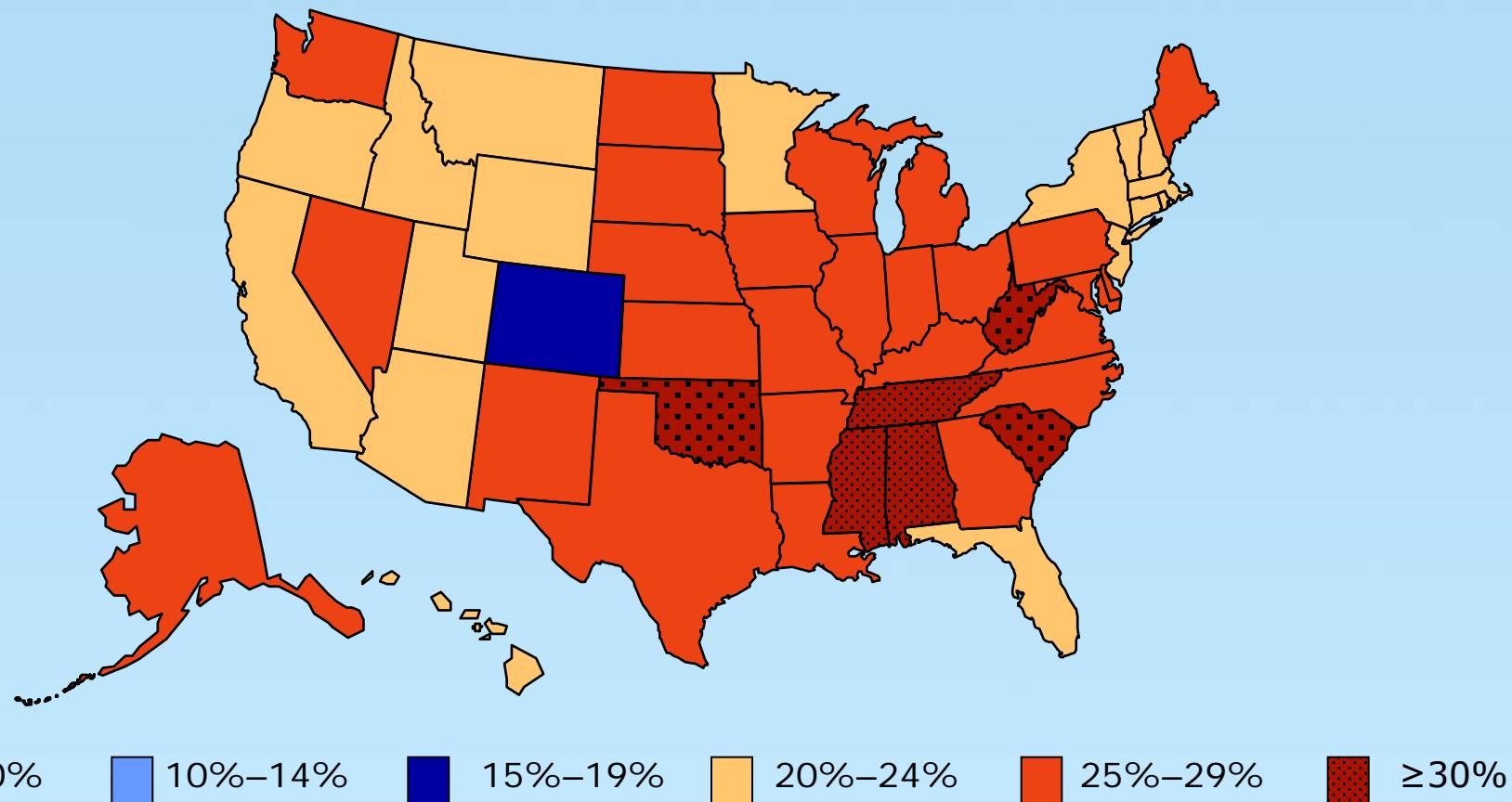
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2010)

# Obesity trends among U.S. adults: 2008

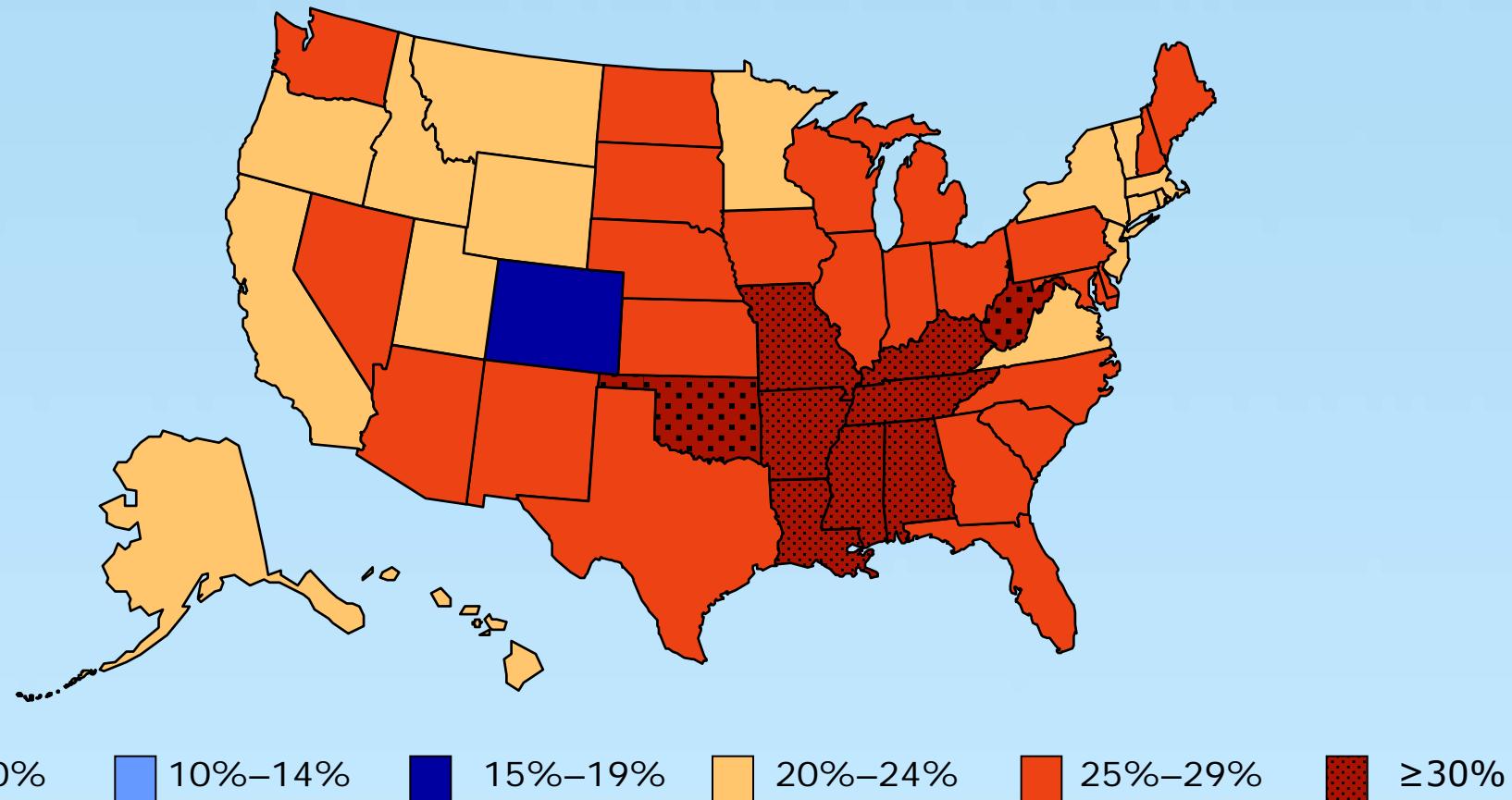
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" woman)



(Behavioral Risk Factor Surveillance System, CDC, 2010)

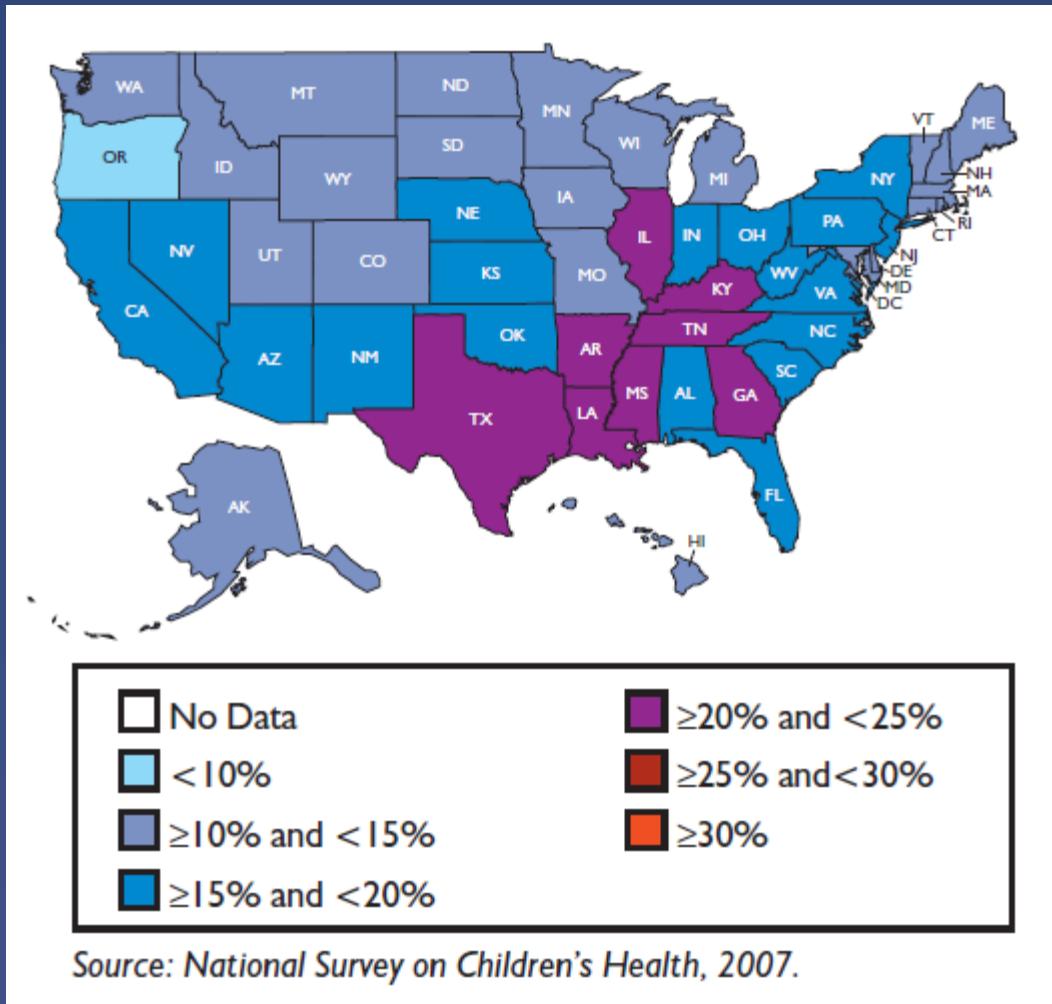
# Obesity trends among U.S. adults: 2009

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



(Behavioral Risk Factor Surveillance System, CDC, 2010)

# U.S. youth obesity rates



(Trust for America's Health and Robert Wood Johnson Foundation, 2010)

# 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

(Ogden, 2010; CDC, 2009)

# Physical activity

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



(Surgeon General, 2007; Trust for America's Health and Robert Wood Johnson, 2010)

# Physical activity recommendation for children and adolescents:

At least 60 minutes  
of physical activity  
daily.

*(US Dept. of Health and  
Human Services, 2008)*



# Physical activity and academic performance

## The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance



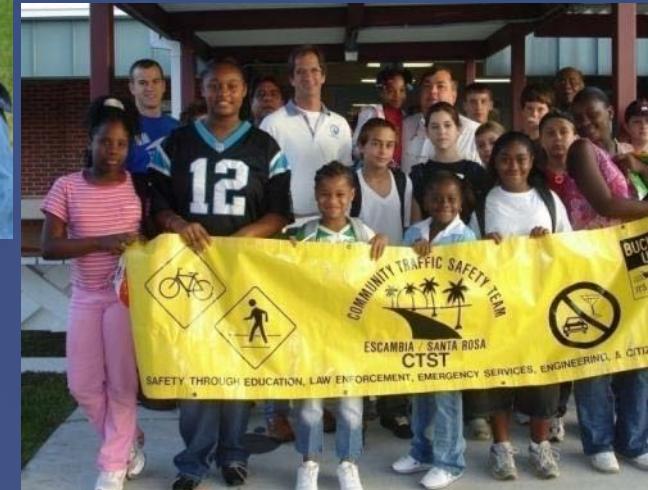
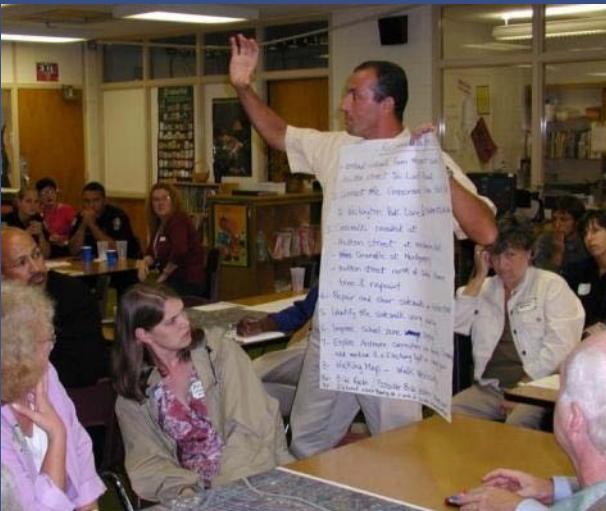
U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention  
National Center for Chronic Disease Prevention and Health Promotion  
Division of Adolescent and School Health  
[www.cdc.gov/HealthyYouth](http://www.cdc.gov/HealthyYouth)

Revised Version — July 2010  
(Replaces April 2010 Early Release)



# 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, more accessible settings for walking and biking
- Can influence the way people behave



# Evaluation

**Parent Survey About Walking and Biking to School**

**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 5 - 10 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!**

**+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY**

School Name: [REDACTED]

1. What is the grade of the child who brought home this survey? [REDACTED] Grade (PK,K,1,2,3...) [REDACTED]

2. Is the child who brought home this survey male or female? [REDACTED] Male [REDACTED] Female

3. How many children do you have in Kindergarten through 8<sup>th</sup> grade? [REDACTED]

4. What is the street intersection nearest your home? (Provide the names of two intersecting streets)  
 and [REDACTED]

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

5. How far does your child live from school?  
 Less than  $\frac{1}{4}$  mile   $\frac{1}{2}$  mile up to 1 mile  More than 2 miles  
  $\frac{1}{4}$  mile up to  $\frac{1}{2}$  mile  1 mile up to 2 miles  Don't know

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X)

<b>Arrive at school</b>	<b>Leave from school</b>
<input type="checkbox"/> Walk	<input type="checkbox"/> Walk
<input type="checkbox"/> Bike	<input type="checkbox"/> Bike
<input type="checkbox"/> School Bus	<input type="checkbox"/> School Bus
<input type="checkbox"/> Family vehicle (only children in your family)	<input type="checkbox"/> Family vehicle (only children in your family)
<input type="checkbox"/> Carpool (Children from other families)	<input type="checkbox"/> Carpool (Children from other families)
<input type="checkbox"/> Transit (city bus, subway, etc.)	<input type="checkbox"/> Transit (city bus, subway, etc.)
<input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)	<input type="checkbox"/> Other (skateboard, scooter, inline skates, etc.)

+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X)

<b>Travel time to school</b>	<b>Travel time from school</b>
<input type="checkbox"/> Less than 5 minutes	<input type="checkbox"/> Less than 5 minutes
<input type="checkbox"/> 5 – 10 minutes	<input type="checkbox"/> 5 – 10 minutes
<input type="checkbox"/> 11 – 20 minutes	<input type="checkbox"/> 11 – 20 minutes
<input type="checkbox"/> More than 20 minutes	<input type="checkbox"/> More than 20 minutes
<input type="checkbox"/> Don't know / Not sure	<input type="checkbox"/> Don't know / Not sure

+ [REDACTED]

**Safe Routes to School Students Arrival and Departure Tally Sheet**

**+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY**

School Name: [REDACTED] Teacher's First Name: [REDACTED] Teacher's Last Name: [REDACTED]

Grade: (PK,K,1,2,3...) Monday's Date (Week count was conducted) Number of Students Enrolled in Class: [REDACTED]

0	2	M	H	D	Y	Y	Y	I	S
---	---	---	---	---	---	---	---	---	---

\* Please conduct these counts on two of the following three days Tuesday, Wednesday, or Thursday. (Three days would provide better data if counted)  
 • Please do not conduct these counts on Mondays or Fridays.  
 • Before asking your students to raise their hands, please read through all possible answer choices so they will know their choices. Each Student may only answer once.  
 • Ask your students as a group the question "How did you arrive at school today?"  
 • Then, read each answer choice and record the number of students that raised their hands for each. Place just one character or number in each box.  
 • Follow the same procedure for the question "How do you plan to leave for home after school?"  
 • You can conduct the counts once per day but during the count please ask students both the school arrival and departure questions.  
 • 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 each class

**Step 2.**  
 AM = "How did you arrive at school today?" Record the number of hands for each answer.  
 PM = "How do you plan to leave for home after school?" Record the number of hands for each answer.

Key	Weather	Student Tally	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
			S= sunny R= rainy O= overcast SN=snow	Number in class when count made	-	-	-	Only with Children from your family	Riding with Children from other families
Sample AM	S N	2 0	2	3	8	3	3	3	1
Sample PM	R	1 9	3	3	8	1	2	2	
Tues. AM									
Tues. PM									
Wed. AM									
Wed. PM									
Thurs. AM									
Thurs. PM									

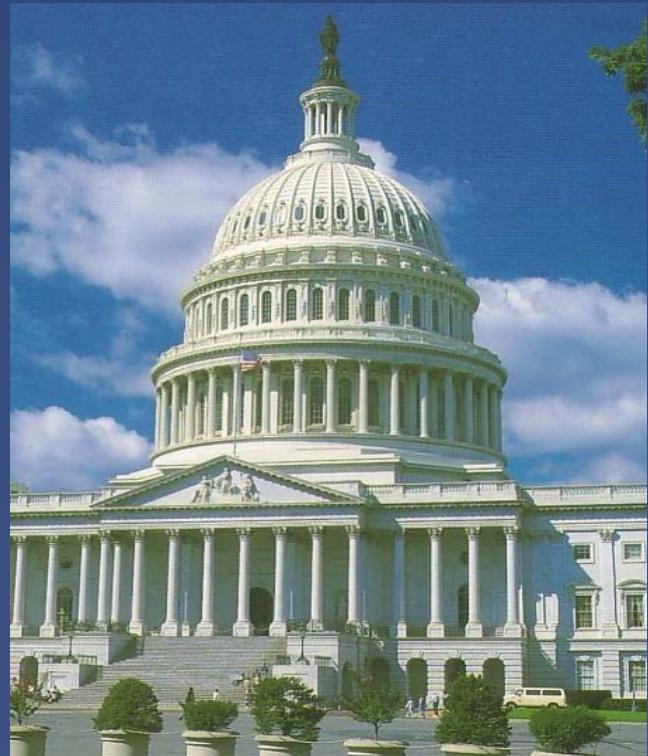
Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally.

+ [REDACTED]

Is the program making a difference?

# Federal Safe Routes to School program

- \$800 million to States 2005-2010
- Funds infrastructure and non-infrastructure activities
- Requires State SRTS Coordinators
- Funds National Clearinghouse (National Center for SRTS)



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

# Oklahoma's SRTS Program

- Funding administered through ODOT
- Program Administrator Ernestine Mrbroh
- [www.okladot.state.ok.us/srts/](http://www.okladot.state.ok.us/srts/)
- Federal funding requires compliance with federal policies
- First round of projects currently under construction

# Success story: Columbia, SC

- Walk to School Day and Walking Fridays
- Safety messaging via flyers and announcements
- Reduced automobile speeds around school
- Increased parent driver awareness of walkers and bicyclists



# Success story: Garfield, NJ



- Students involved with identifying unsafe routes
- Integrated safety education into the classroom
- City created safe routes maps
- Received United Way funding for a new family exercise path

# Success story: Farmington, NH



- Small town without many sidewalks leading to school
- Using state grant funds, constructed the Tiger Trail
- Connects neighborhoods to local elementary schools
- Provide safety education, a walking school bus and evaluate the program
- Increased walking to school

# Success story: Alpine, UT

- 2010 Oberstar Safe Routes to School Award Recipient
- Increased the number of children who regularly walk and bicycle to school from 35% to 50%
- Used engaging, creative strategies to encourage families to shift habits to a less car-focused commute.



# Safe Routes to School goals

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

