

Nursing 2010

Building Healthier Communities



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The Current Situation

- ❑ The United States has the highest GNP in the world
- ❑ The US spends nearly half of all health care dollars spent in the world
- ❑ Life expectancy in the US is one of the lowest of industrialized countries, behind Jordan and Slovenia
- ❑ Infant mortality?
 - ❑ We are 31st!
 - ❑ Cuba, Slovenia and Estonia do better!

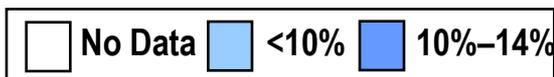
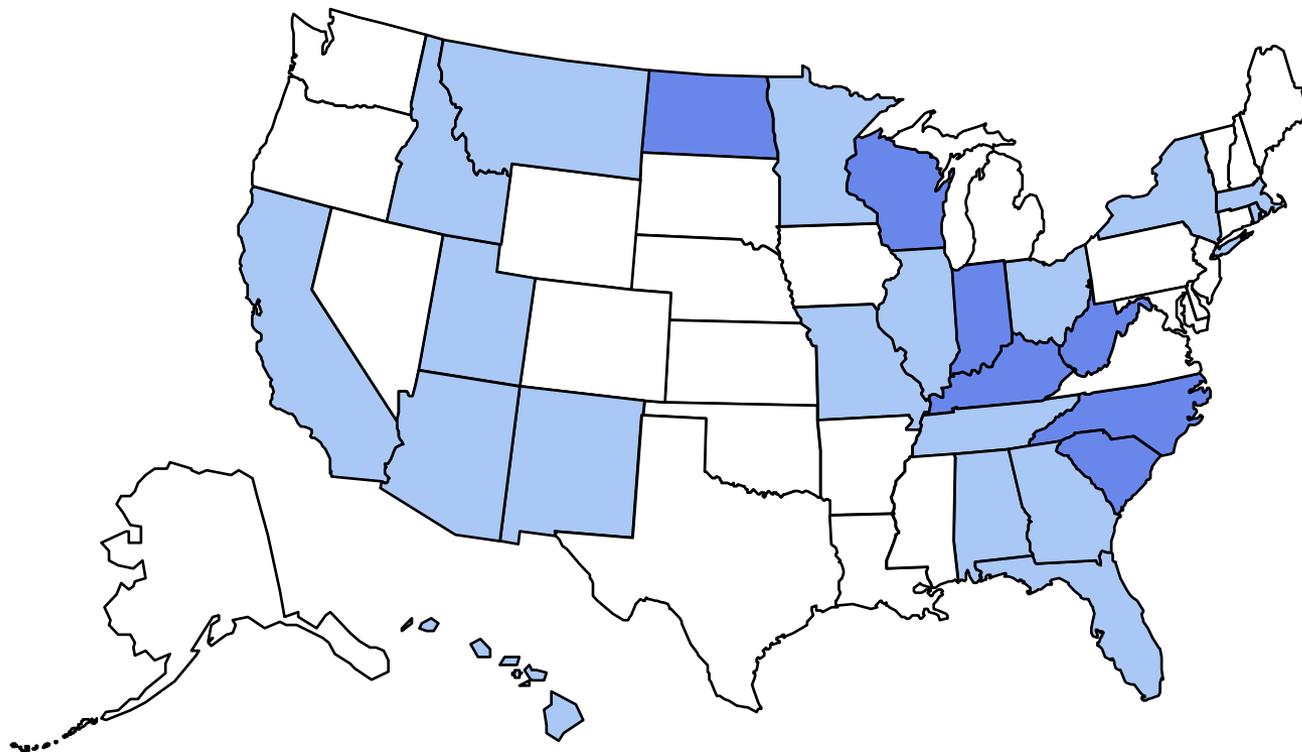
The Current Situation

Physical activity, nutrition, and **smoking** are the three most important areas to target to improve the health of our nation.

Obesity Trends* Among U.S. Adults

BRFSS, 1986

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

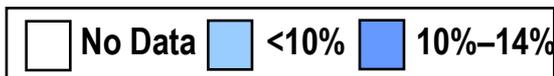
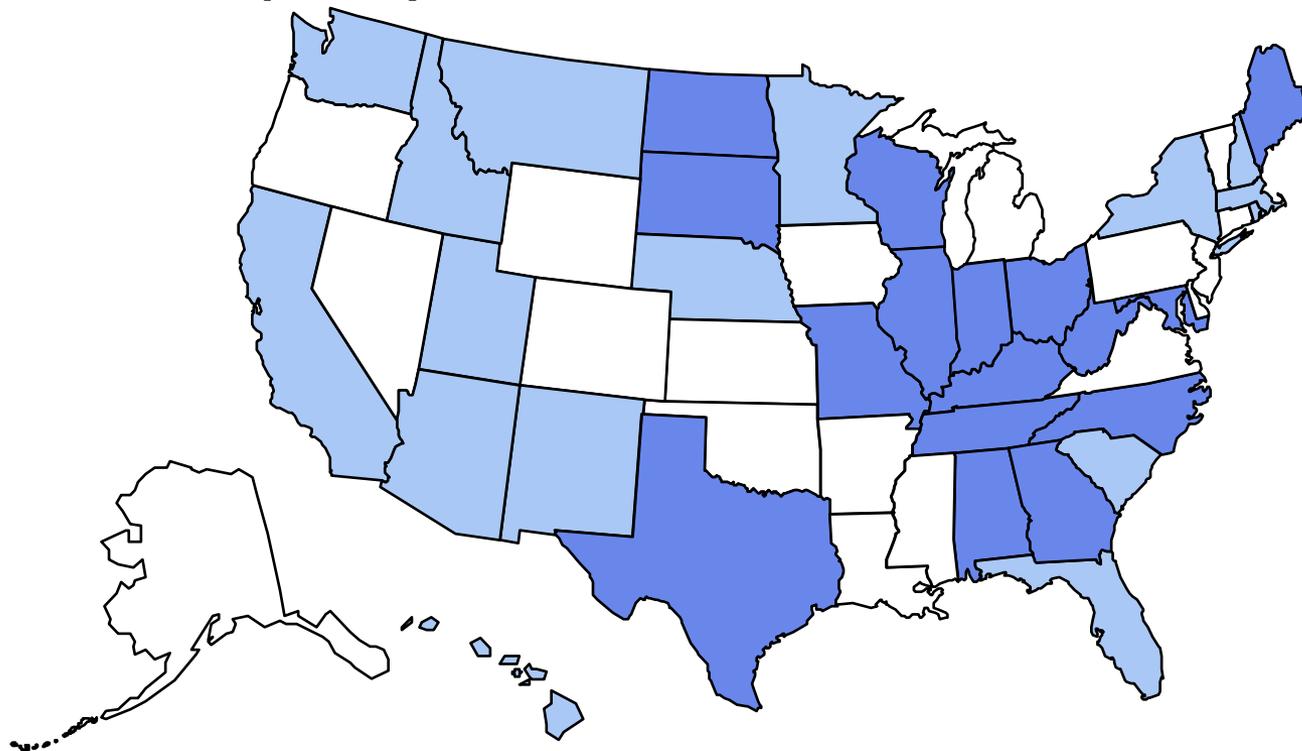


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1987

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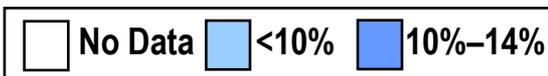
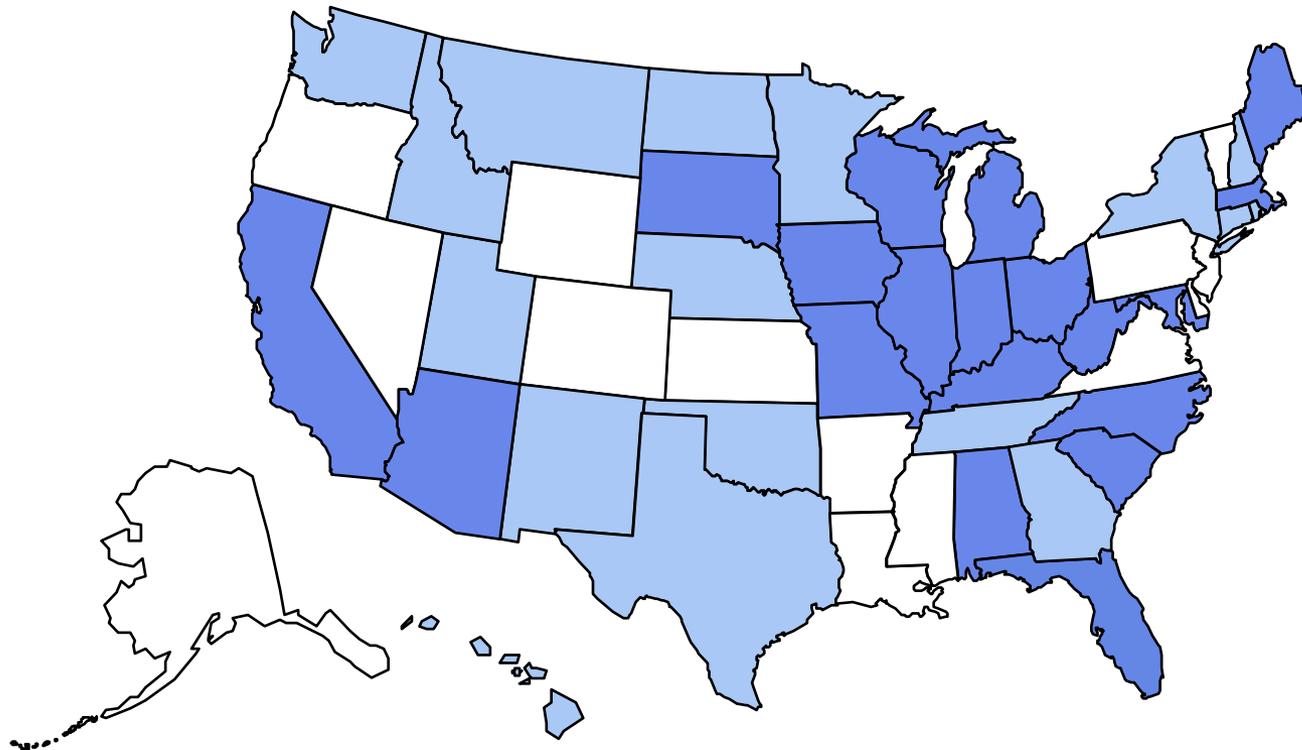


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1988

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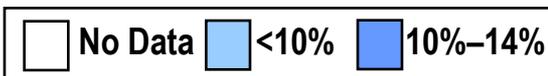
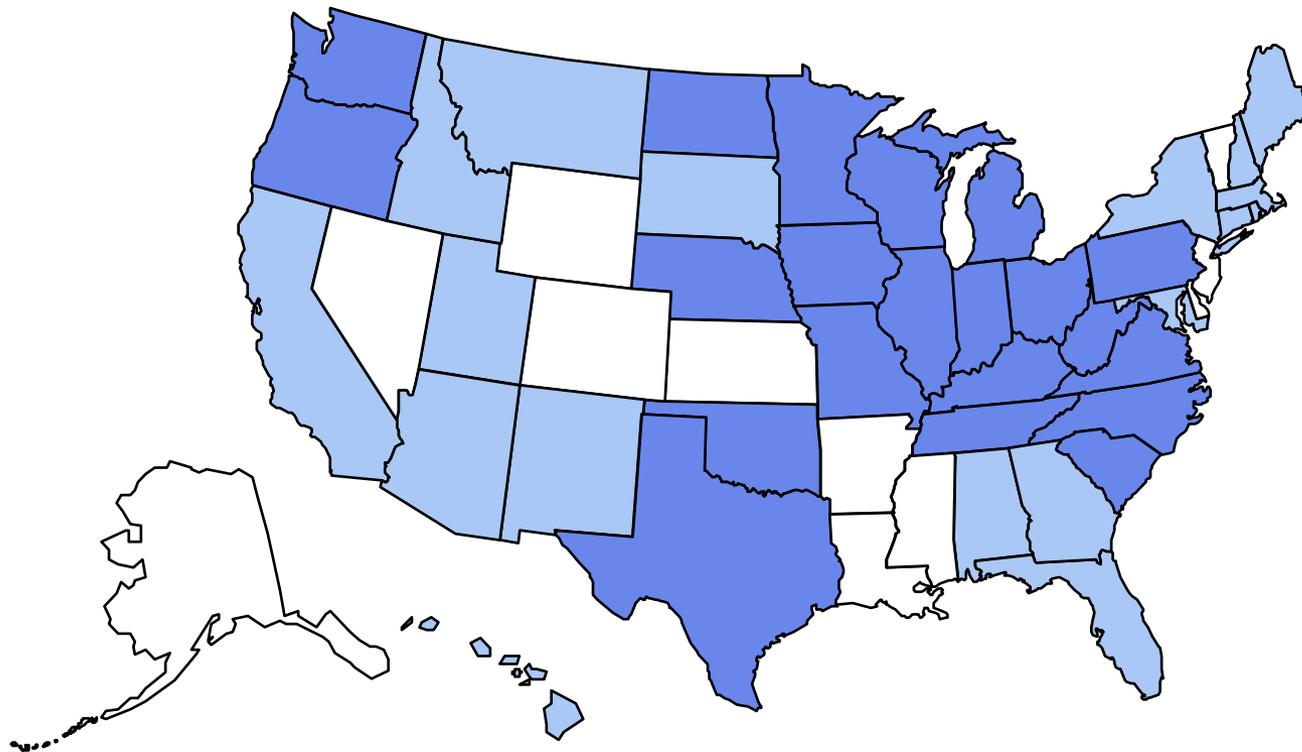


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1989

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

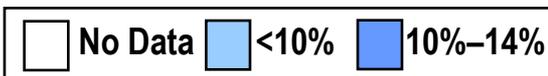
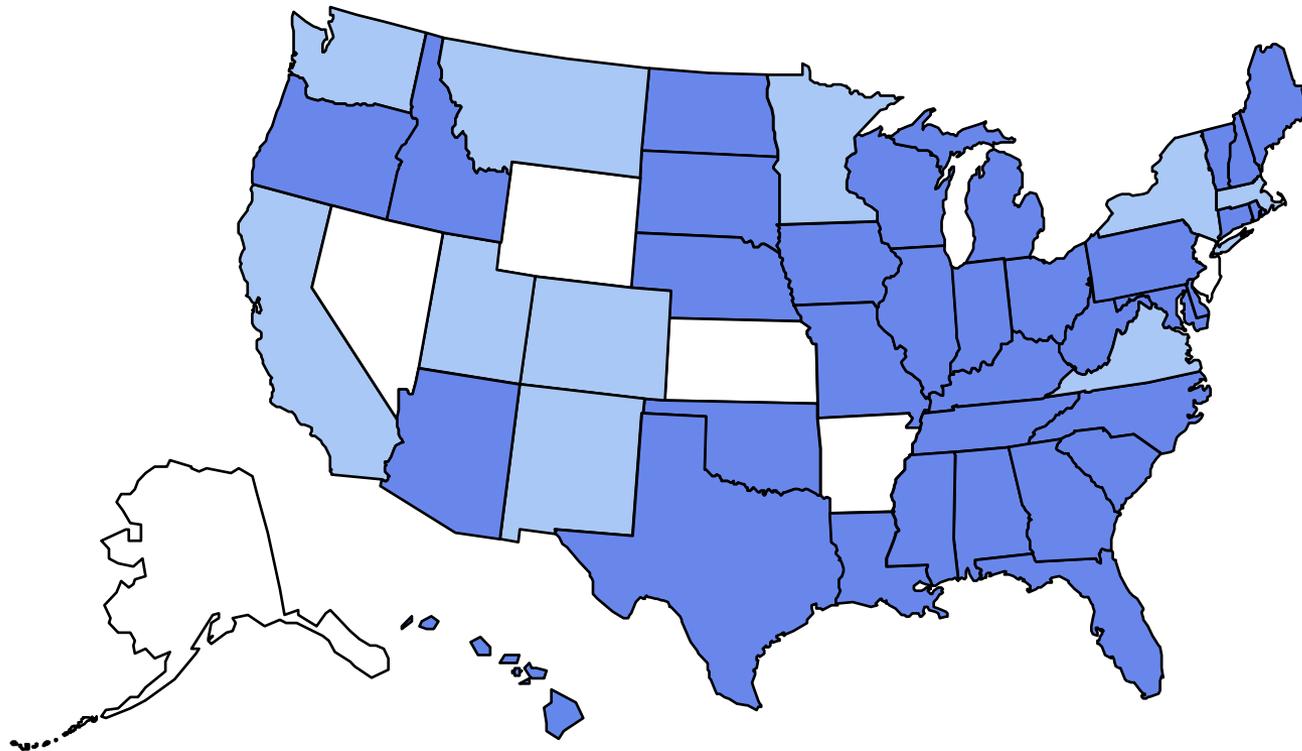


Source: CDC Behavioral Risk Factor Surveillance System.

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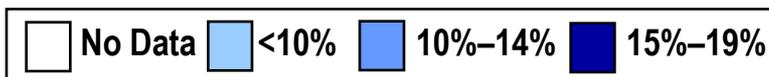
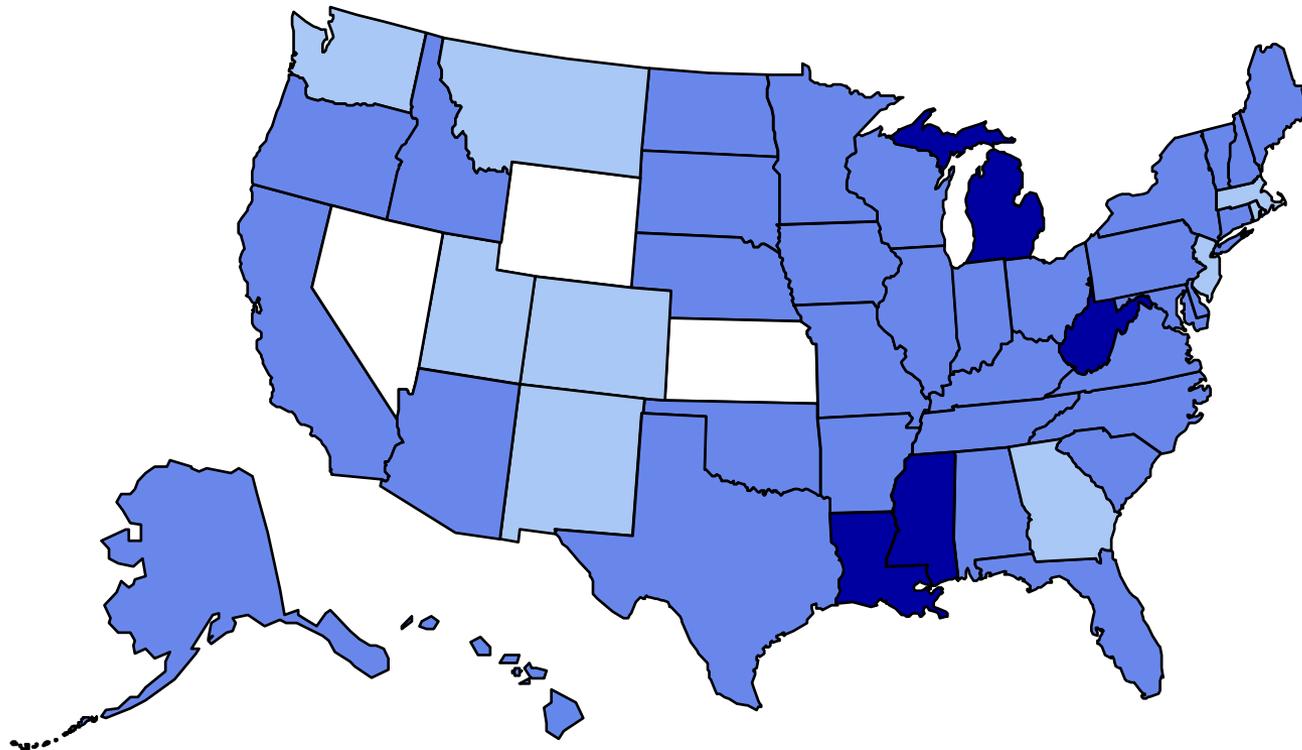


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1991

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

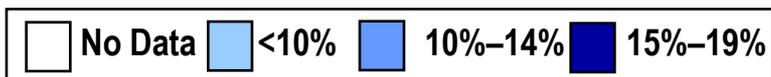
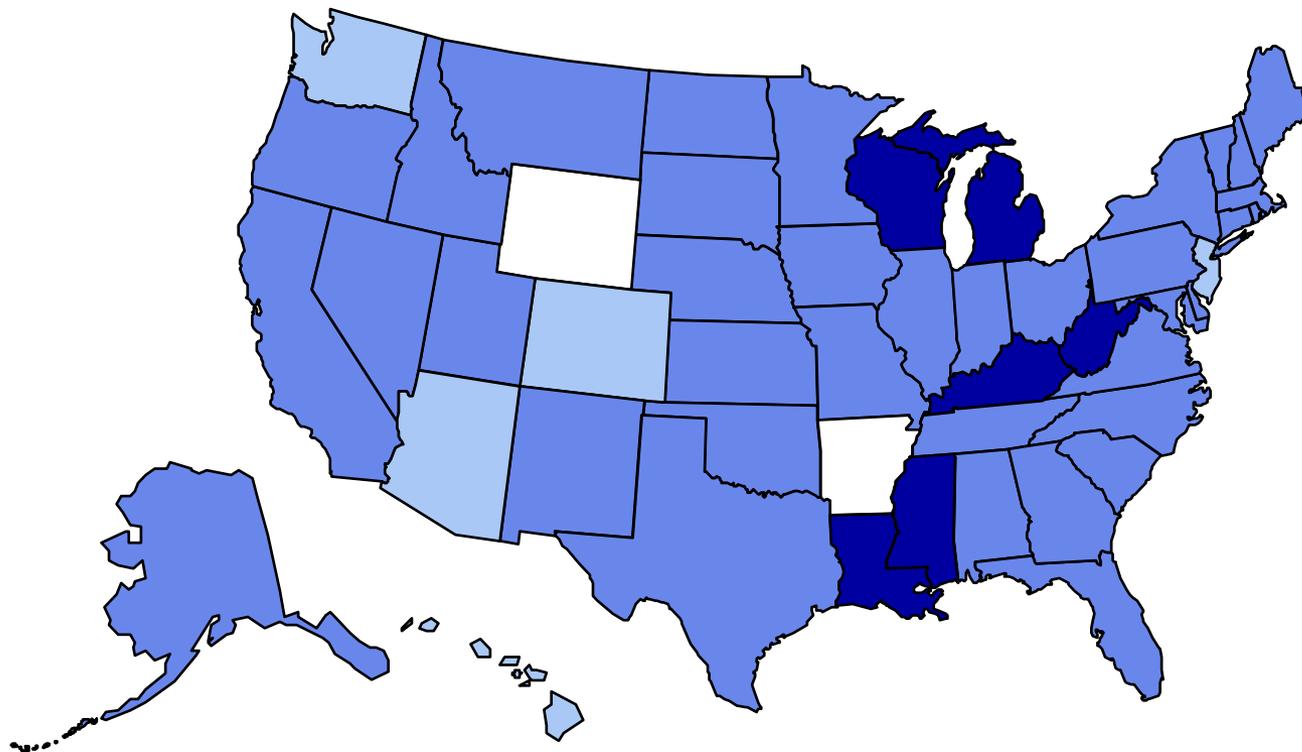


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1992

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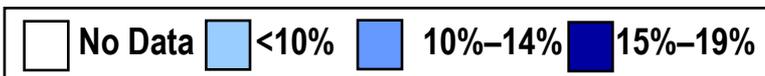
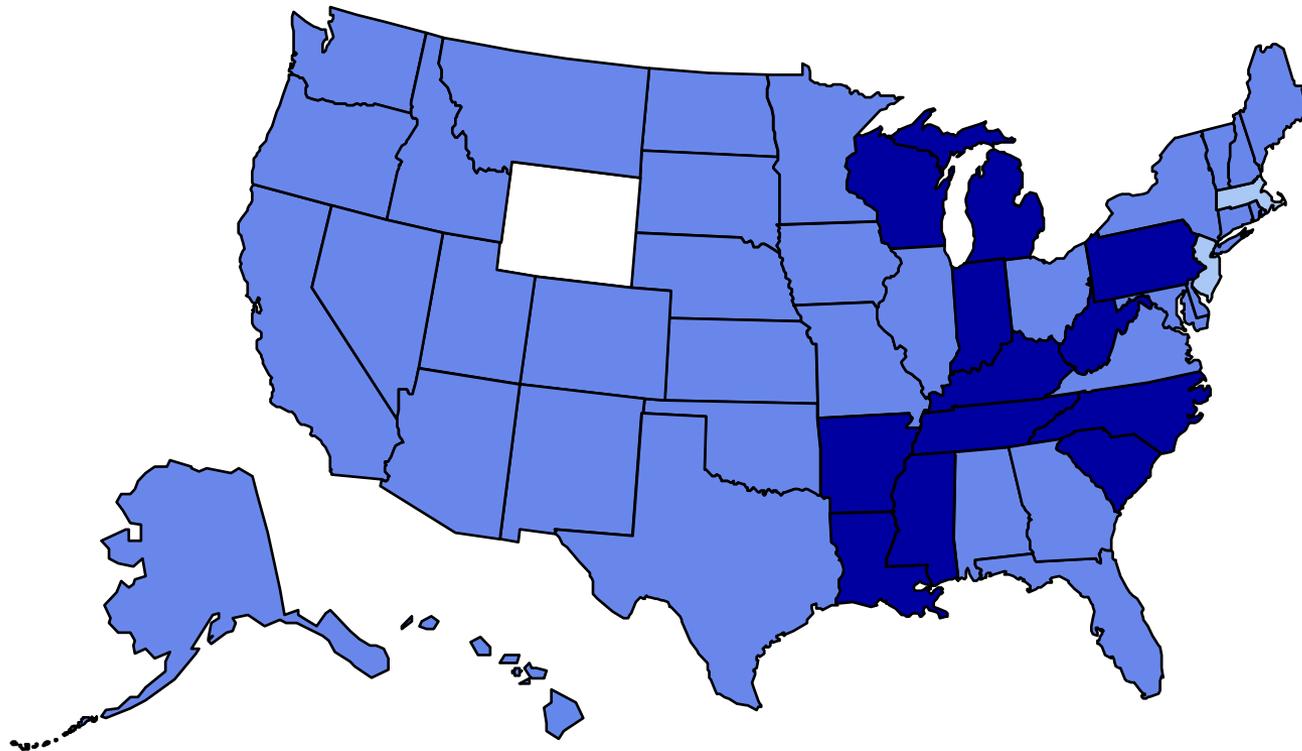


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1993

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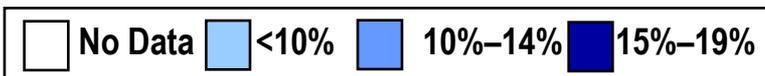
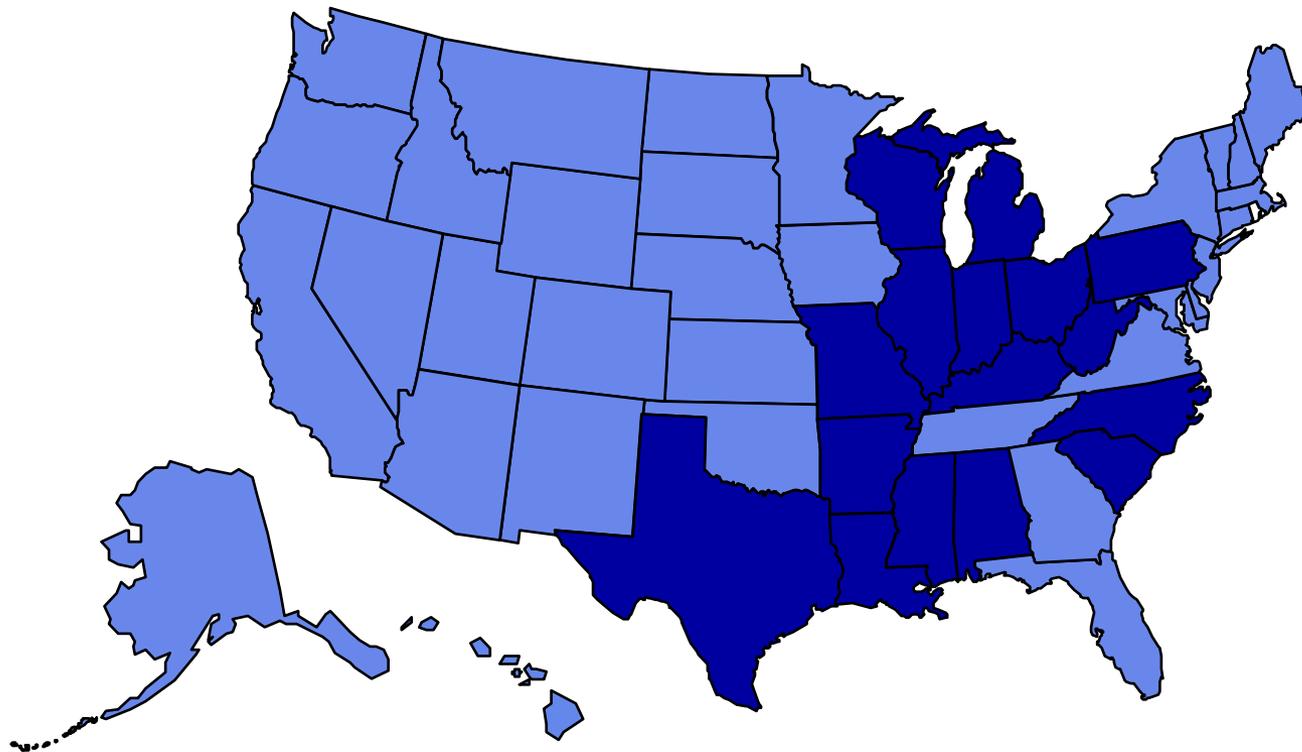


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1994

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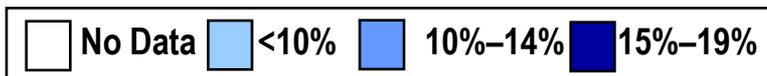
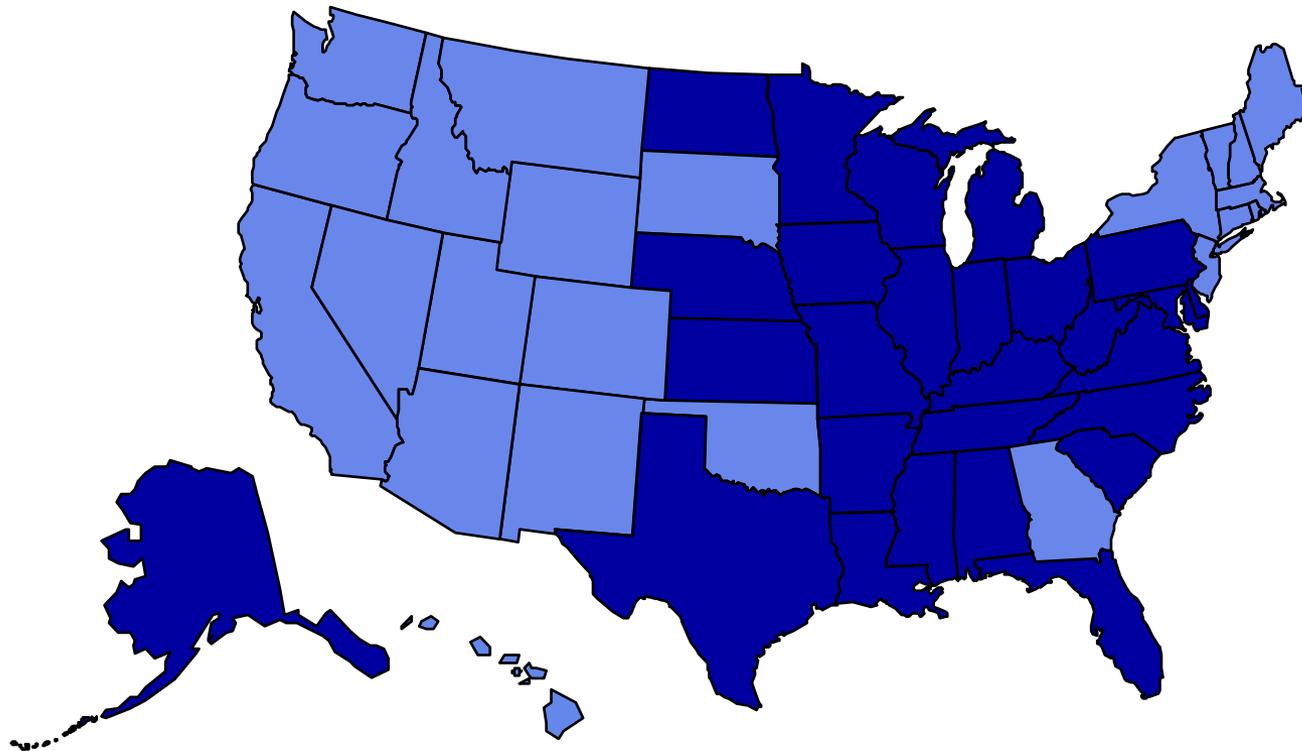


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1995

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

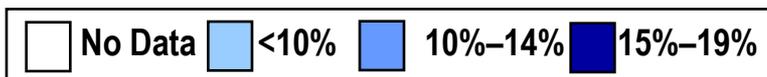
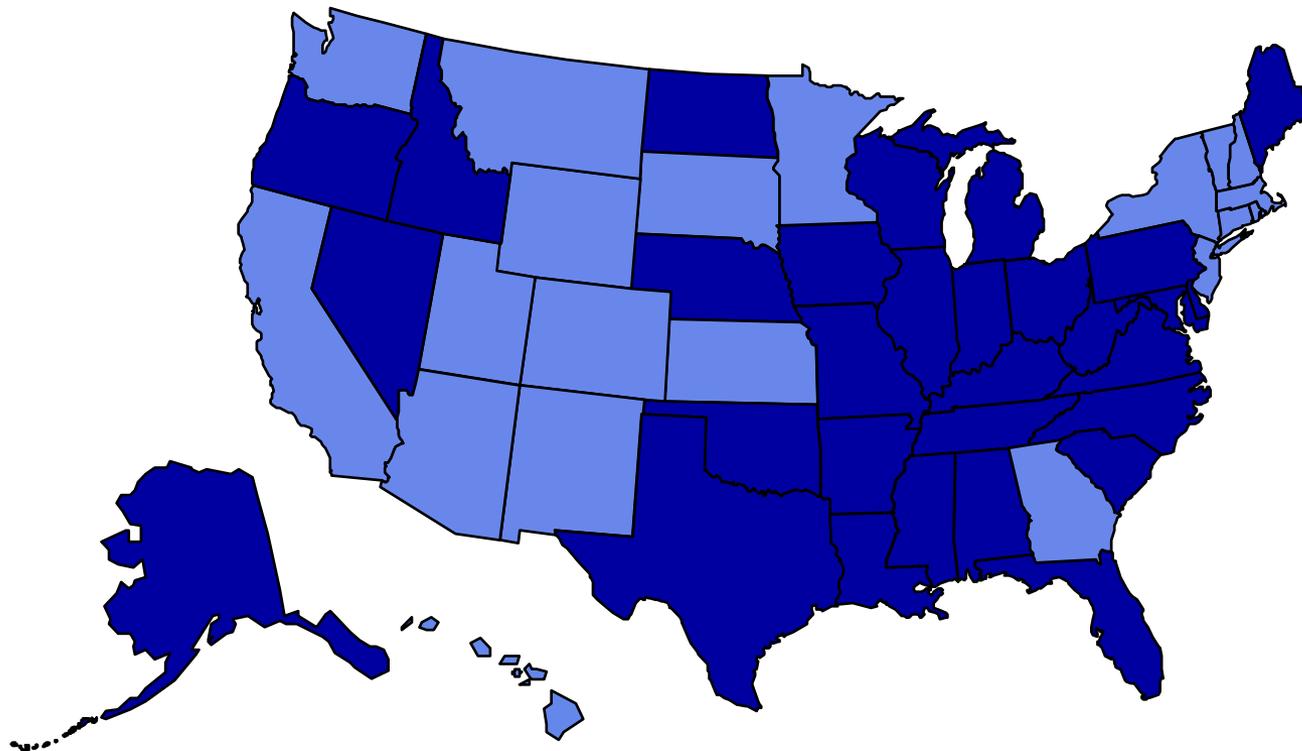


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1996

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

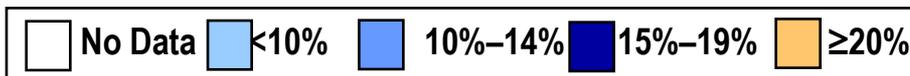
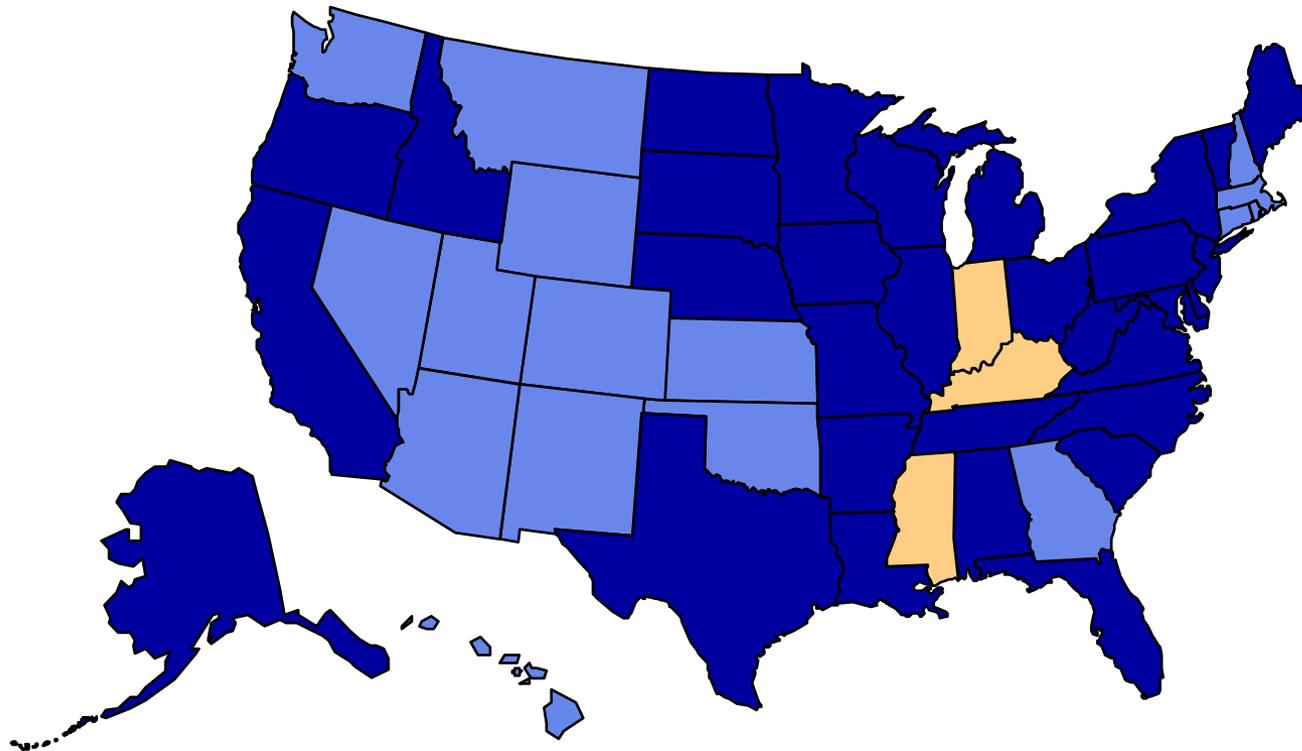


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1997

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

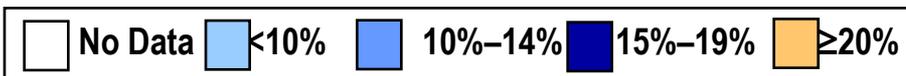
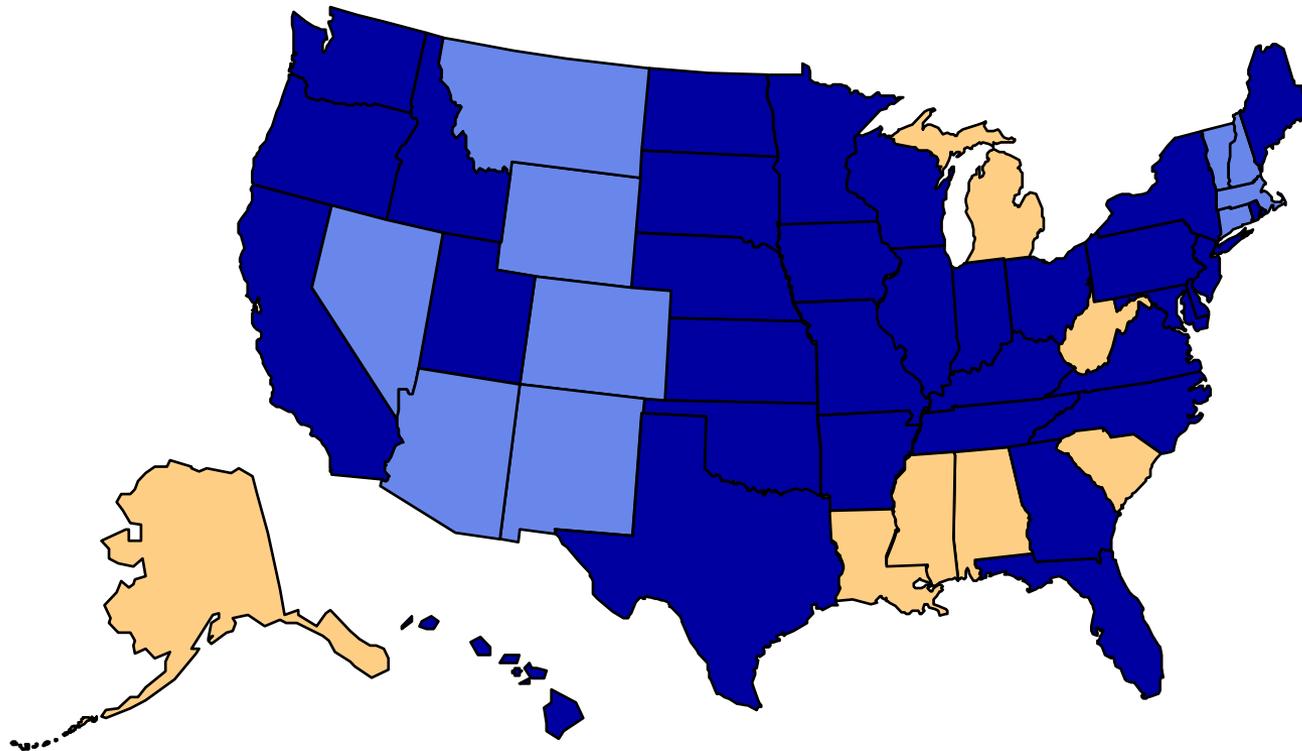


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1998

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

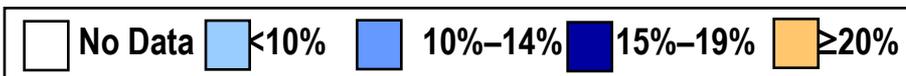
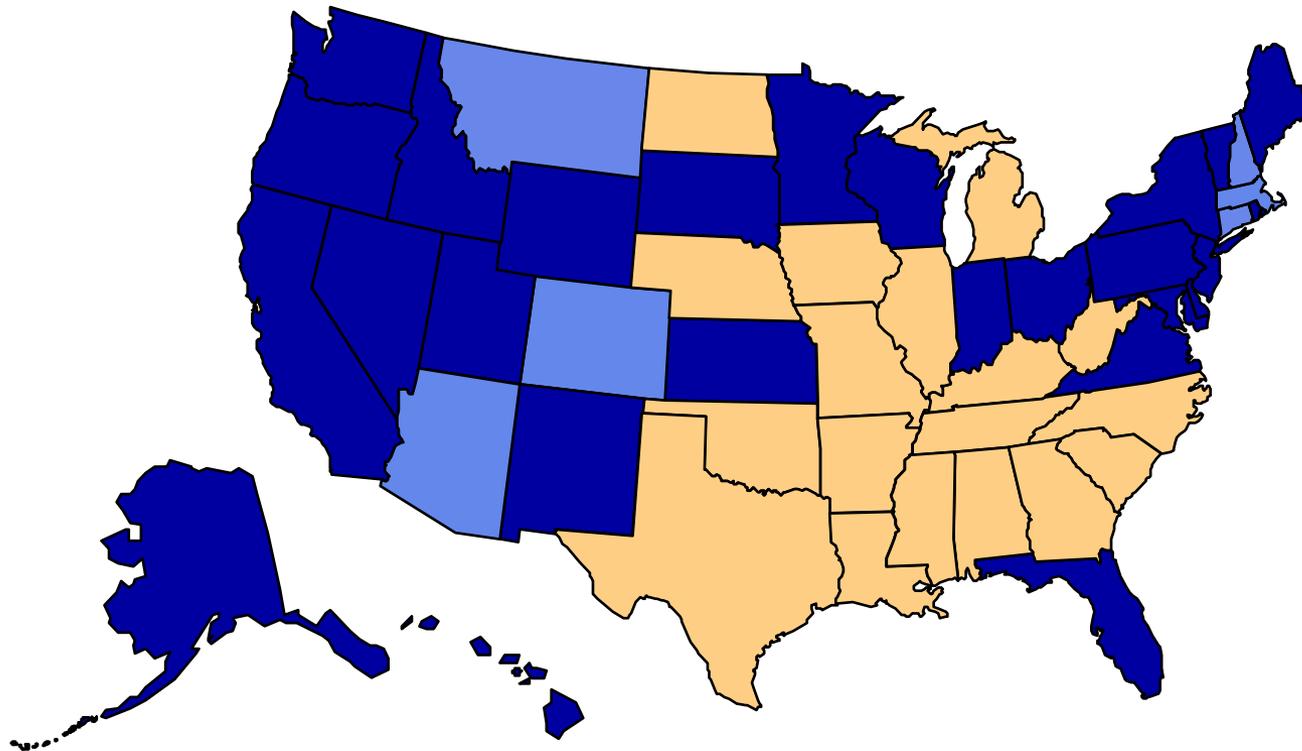


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 1999

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

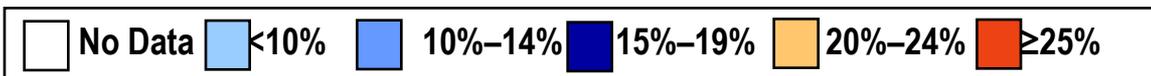
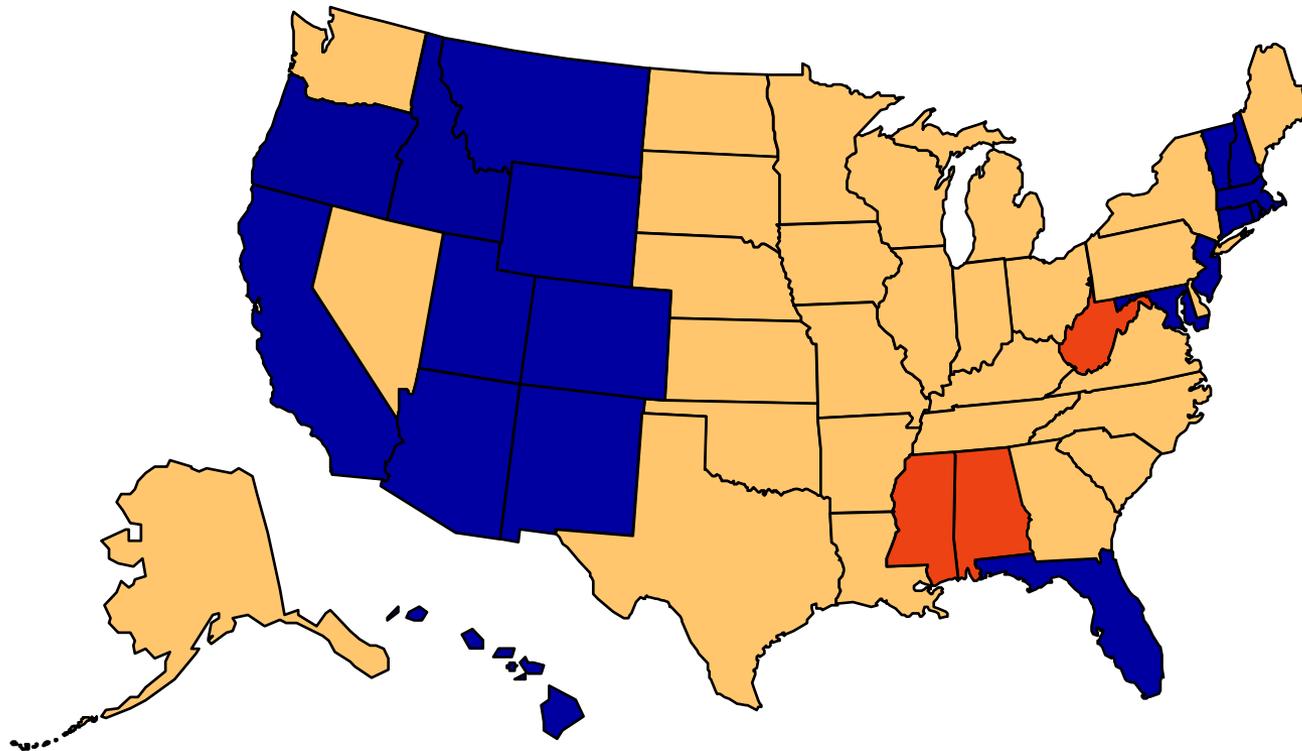


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 2002

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

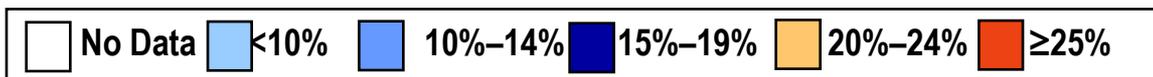
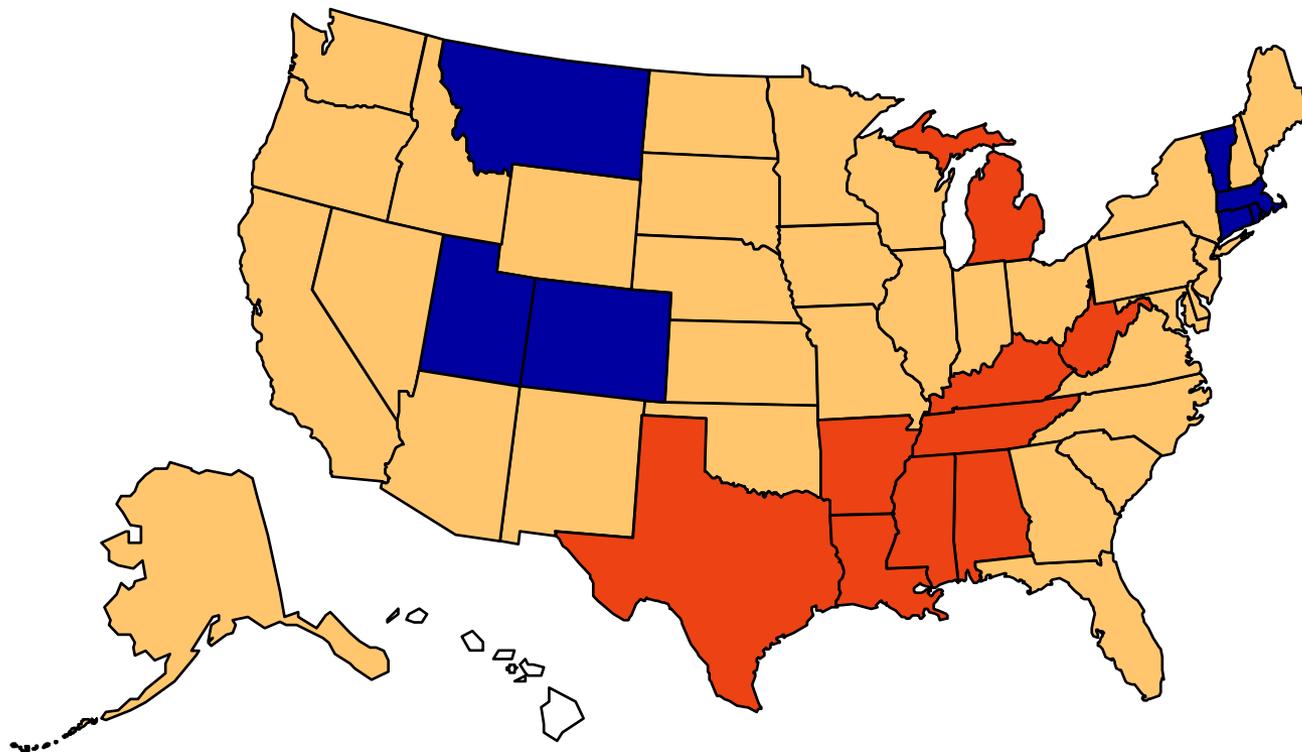


Source: CDC Behavioral Risk Factor Surveillance System.

Obesity Trends* Among U.S. Adults

BRFSS, 2004

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

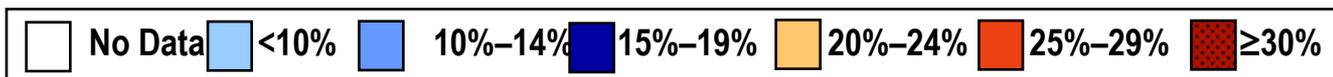
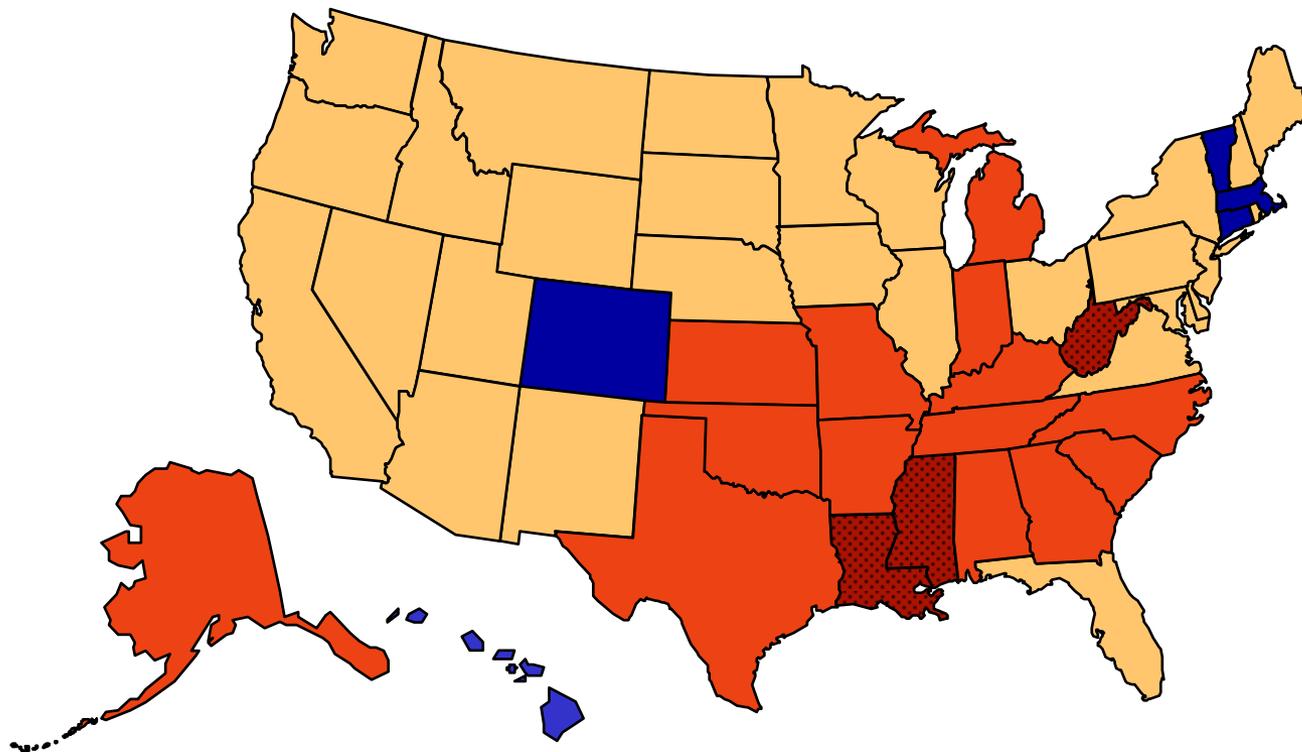


Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults

BRFSS, 2005

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

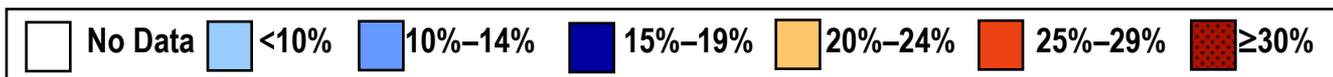
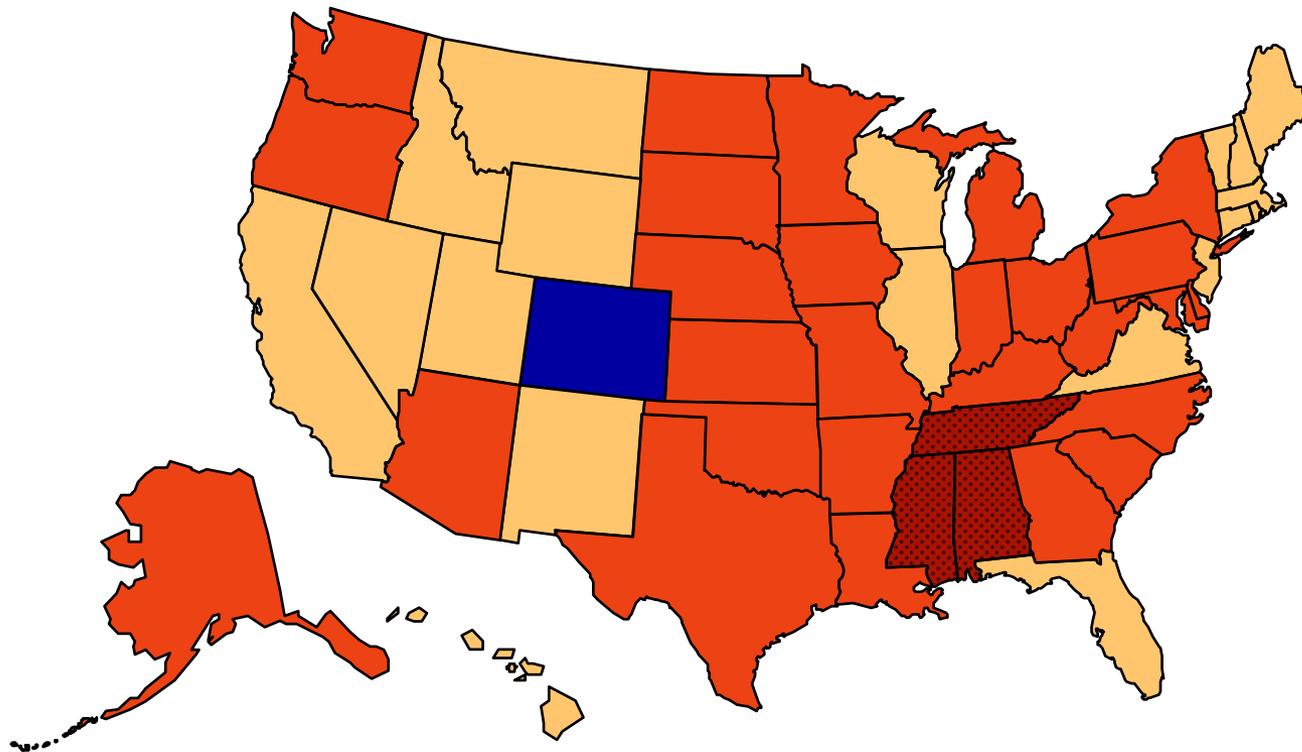


Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults

BRFSS, 2007

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

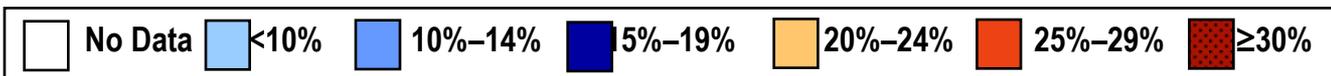
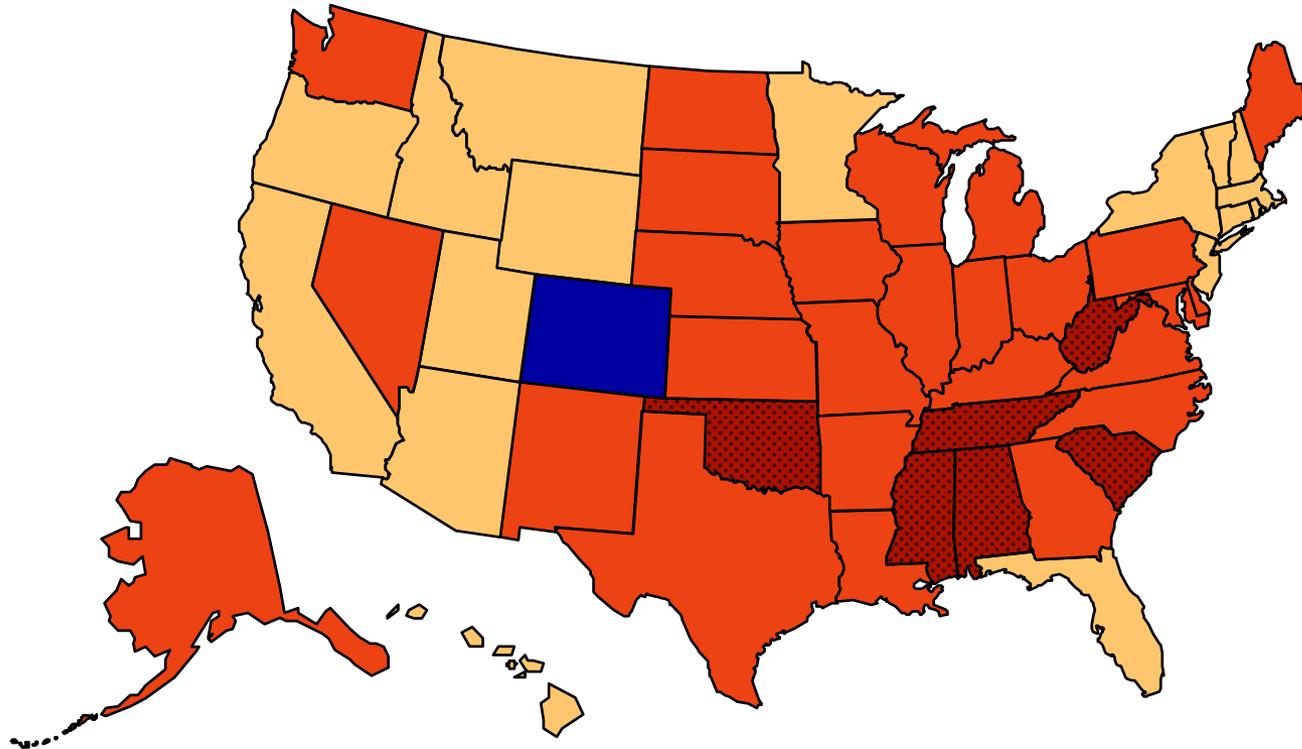


Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults

BRFSS, 2008

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

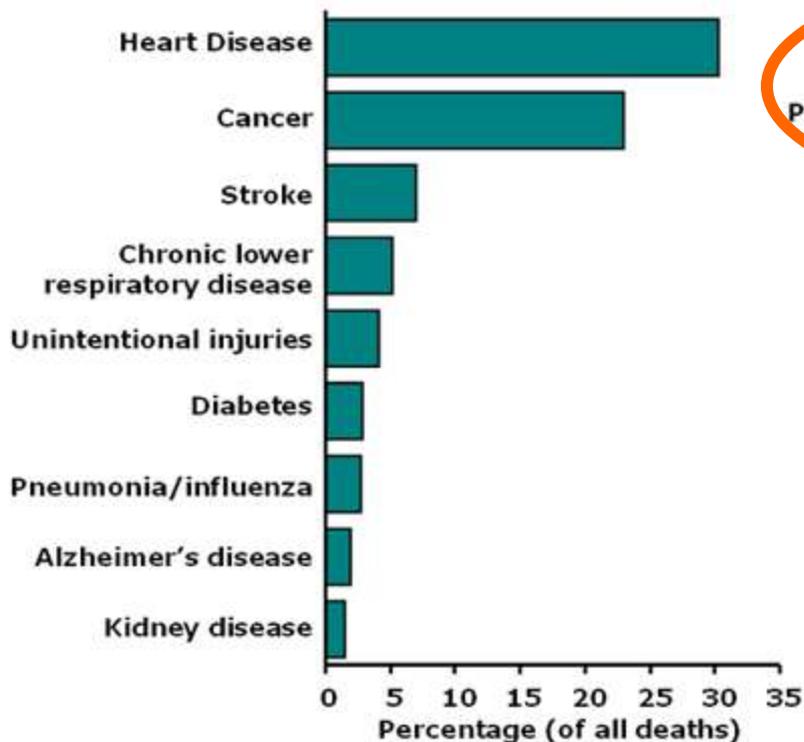


Source: Behavioral Risk Factor Surveillance System, CDC.

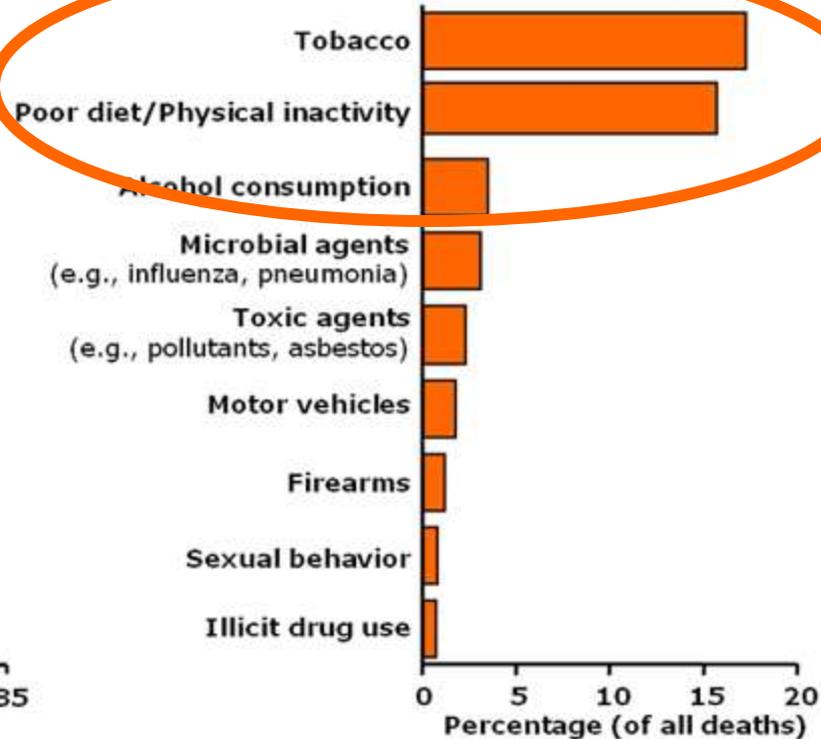
The Current Situation

- The Washington Post reports that the width of a standard movie seat used to be 19 inches....
 - It is now 23 inches..
- Journal of Pediatrics, 2006, reported that 1 percent of all American infants and children – more than 283,000 children – are too big to fit in a car seat....

Leading Causes of Death* United States, 2000



Actual Causes of Death† United States, 2000



* Miniño AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: final data for 2000. National Vital Statistics Reports 2002; 50(15):1-120.

† Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291(10):1238-1246.

The Current Situation

Table 2. Actual Causes of Death in the United States in 1990 and 2000

Actual Cause	No. (%) in 1990*	No. (%) in 2000
Tobacco	400 000 (19)	435 000 (18.1)
Poor diet and physical inactivity	300 000 (14)	400 000 (16.6)
Alcohol consumption	100 000 (5)	85 000 (3.5)
Microbial agents	90 000 (4)	75 000 (3.1)
Toxic agents	60 000 (3)	55 000 (2.3)
Motor vehicle	25 000 (1)	43 000 (1.8)
Firearms	35 000 (2)	29 000 (1.2)
Sexual behavior	30 000 (1)	20 000 (0.8)
Illicit drug use	20 000 (<1)	17 000 (0.7)
Total	1 060 000 (50)	1 159 000 (48.2)

*Data are from McGinnis and Foege.¹ The percentages are for all deaths.

The Current Situation

- Since 1970, the prevalence of obesity has doubled for preschool children
 - And tripled for school-aged children
- Currently, 37% of school aged children are obese or overweight.

Strauss RS, Pollack HA. JAMA, 2001;286:2845-8

Ogden et al JAMA 2006;295:1549-55

Margellos-Anast et al; Public Health Reports. 123;117-125

The Current Situation

- With a focus on obesity alone, 19% of school aged children are obese.
- Disproportionate numbers nationally:
 - African Americans 22%
 - Mexican Americans 23%
 - Non-Hispanic white 18%

Ogden et al JAMA 2006;295:1549-55

Margellos-Anast et al; Public Health Reports. 123;117-125

The Social Ecological Model

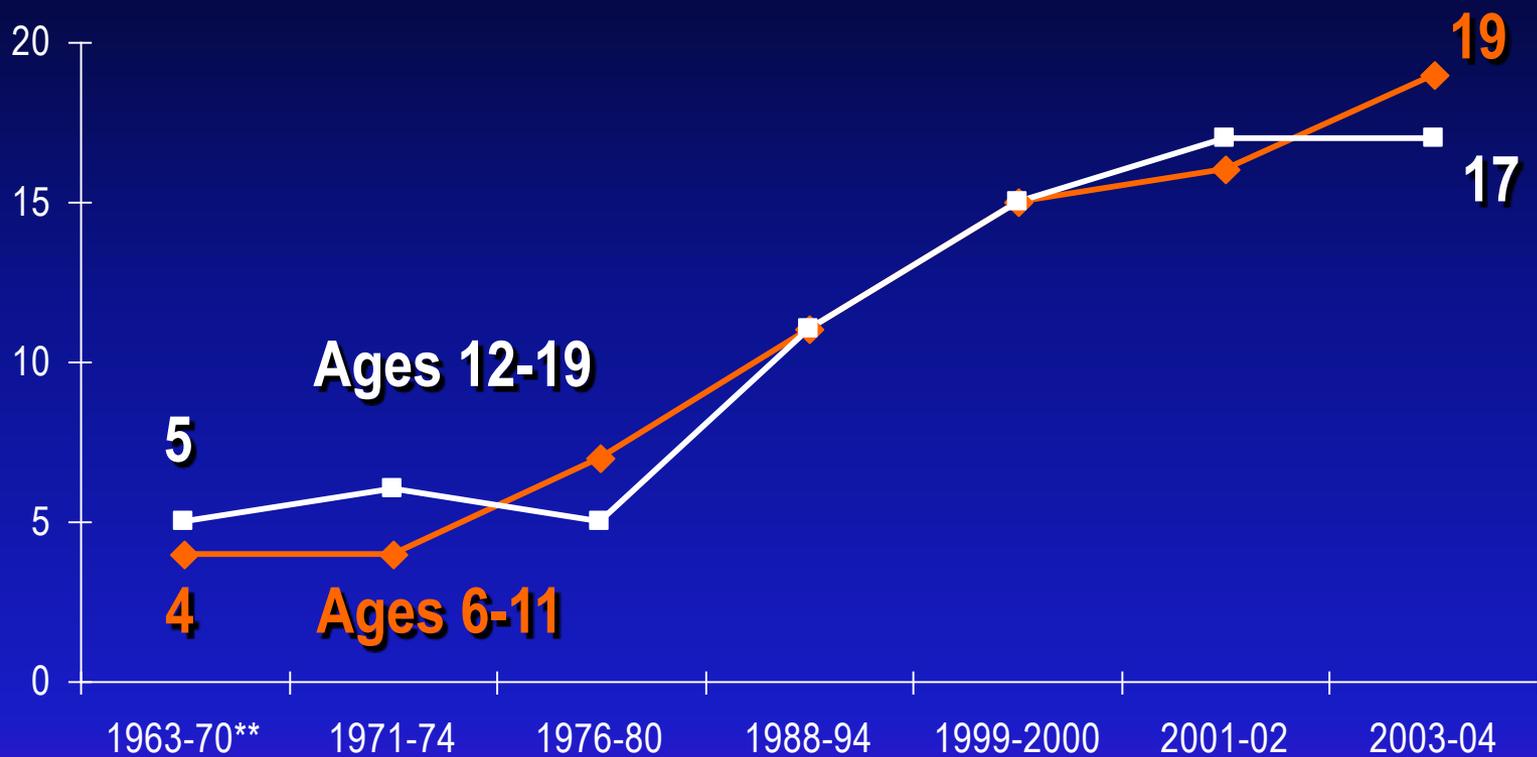
- School aged kids (age 8 – 18)
 - Total 6 hours a day of media
 - 3 hours daily TV
- Young Children (6 months to 6 years)
 - 1/3 have TV in their room

Impact of Media Exposure on Children's Health

- Average weekly time spent:
 - With parents: 17 hours
 - At school: 30 hours
 - With media: 45 hours

- Media exposure directly and causally associated with negative health outcomes

Overweight Children and Adolescents*

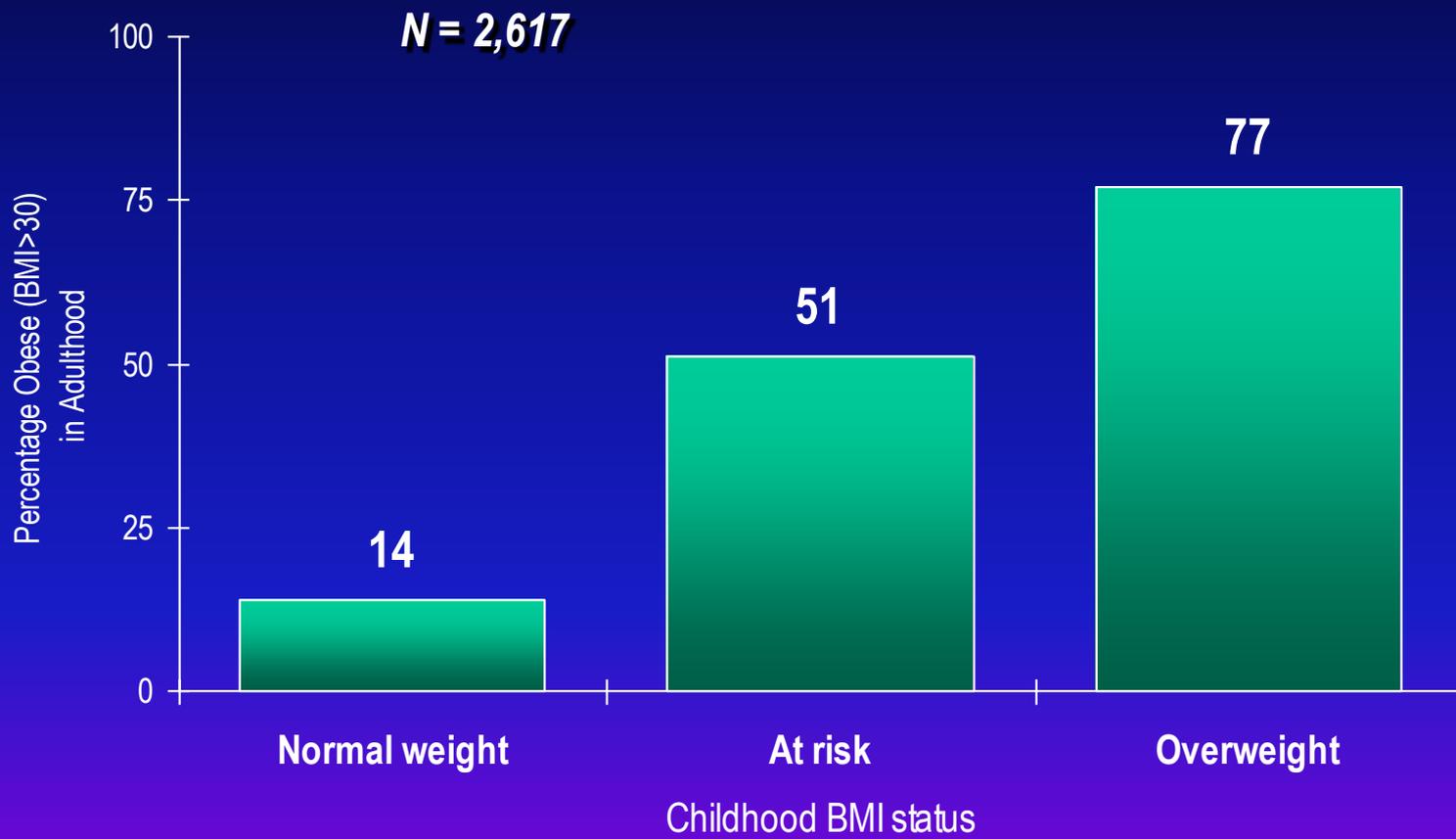


* \geq 95th percentile for BMI by age and sex based on 2000 CDC BMI-for-age growth charts.

**1963-1970 data are from 1963-1965 for children 6-11 years of age and from 1966-1970 for adolescents 12-17 years of age.

National Center for Health Statistics.

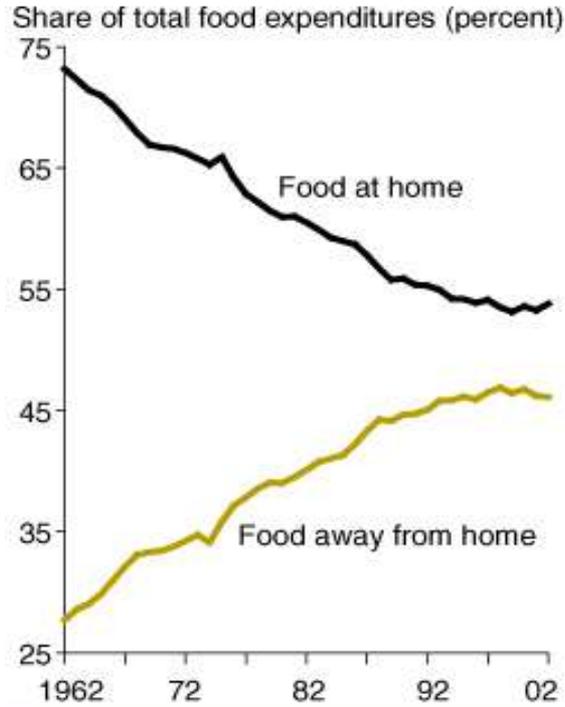
Association Between Body Mass Index (BMI) in Childhood and Adult Obesity



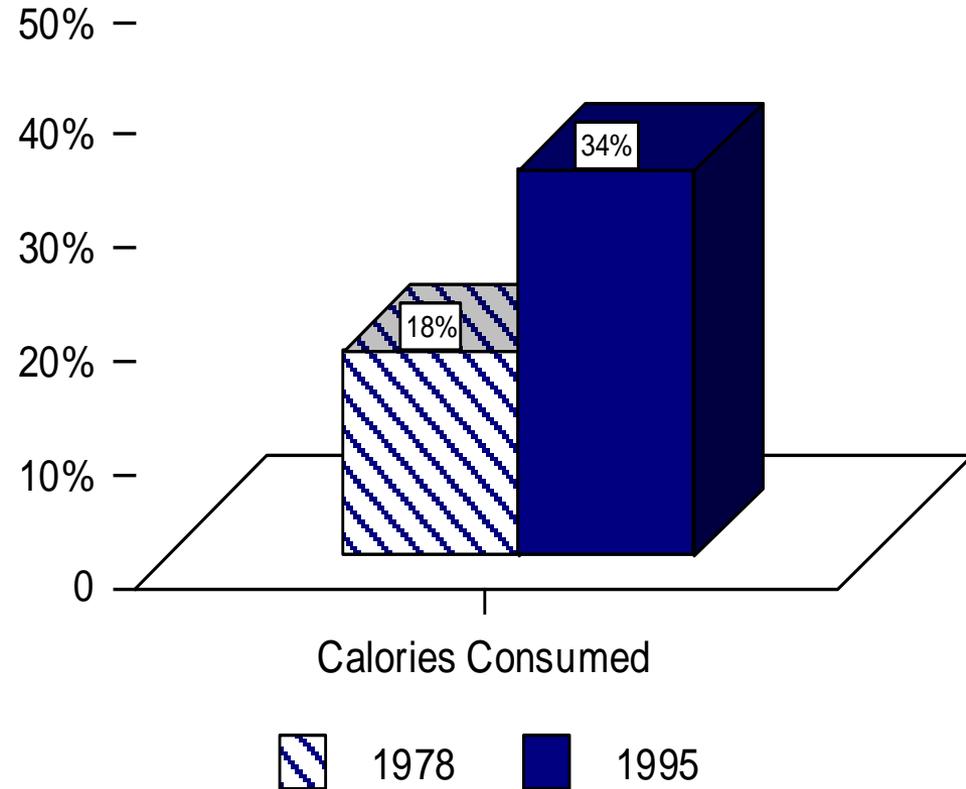
Sources: Freedman, D. S., et. al., *Pediatrics*, 2001; 108; 712-718.

Away-from-Home Food Consumption Has Doubled

Americans are eating out more



Source: Food Consumption (Per Capita) Data System, USDA, Economic Research Service.



Eating out linked to obesity



Increasing Calories in Fast Food

1977-1978



419



171



131

721

1994-1996



497



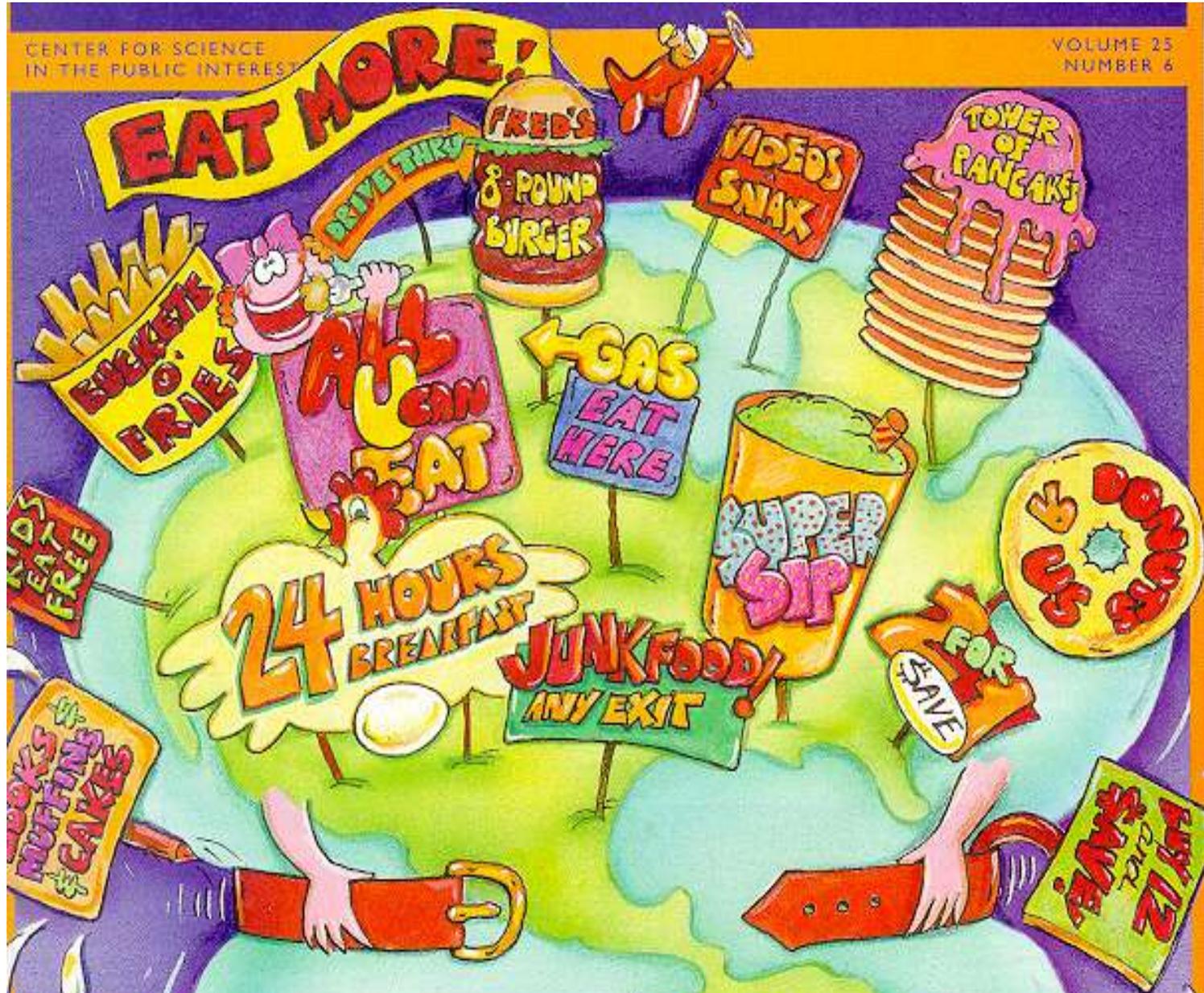
284



191

972

**Increase of 251
calories (35%)**



The PRESSURE to EAT



ALL AMERICAN FOOD™

**Hurry!
Limited time only!**



**Mushroom Onion
Melts**

THE DESSERT EQUIVALENT
TO PUNCHING THE
SURGEON GENERAL
RIGHT IN THE FACE.



“It is unreasonable to expect that people will change their behavior easily when so many forces in the social, cultural, and physical environment conspire against such change”

Institute of Medicine, 2003

The Social Ecological Model

“The aim must be to establish a health promoting environment in the social space in which persons make significant health decisions.

The struggle is for the relevant space that various forces, some unconcerned with health and some actually detrimental to it, have thus far too loosely preempted.

Social ecology for health means deliberately occupying more of that social space and using it in the interest of health.”

The Social Ecological Model

- The Social Ecological Model cuts across disciplinary lenses and integrates multiple perspectives and theories.
- This framework recognizes that behavior is affected by multiple levels of influence, including interpersonal factors, interpersonal processes, institutional factors, community factors, environmental factors, social factors and public policy.

Successful Interventions

- The Pawtucket (R.I.) Heart Health Program:
 - Community Programs and Mass Media Campaign
 - CVD Risks **decreased by 16%** in randomly selected intervention population
- Stanford Five-City Project targeted 122,800 people
 - Community Programs and Mass Media Campaign
 - **15% decrease** in CVD risk
 - **13% decrease** in smoking prevalence
 - **4% decrease** in BP
 - **2% decrease** in cholesterol

Successful Interventions

- Ohio State University intervention (60 women in their 40's for 12 weeks):
 - 1.0% decrease in BMI
 - 3.4% decrease in BP
 - 3.0 % decrease in cholesterol
 - 5.5% decrease in glucose

Successful Interventions

- The Shape Up Somerville (Mass.) Comprehensive effort in high-risk 1st thru 3rd grade students
 - improved school nutrition
 - school health curriculum
 - parent and community outreach
 - collaboration with community restaurants
 - school nurse education
 - safe routes to school program
- After one year, reduced weight by one pound per 8 months for an 8 year old child.
- Translates to large numbers of children moving out of overweight category.

Successful Interventions

- ❑ Physical Activity Intervention in Oslo, Norway
 - ❑ Counseling
 - ❑ walking groups
 - ❑ increased areas for safe recreation
 - ❑ mass media
 - ❑ After 3 years, intervention group had 8% in activity
 - ❑ 14% decrease in weight gain
 - ❑ 3% decline in those smoking

Jenum AK et al. Promoting physical activity in a low-income, multi-ethnic district: a community intervention *Diabetes Care* 2006 29(7):1605-12.

Successful Interventions

- WISEWOMAN (CDC funded)
 - provides low income, uninsured women aged 40 to 64 years
 - lifestyle interventions
 - risk screenings and referral services
 - 10 year risk of CHD decreased by 8.7%
 - 11.7% reduction in those who smoked
 - 15.8% reduction in numbers of HTN
 - 13.1% reduction in those with high cholesterol

Recommendations

- ❑ Make Obesity Prevention and Control a High Priority of Health Reform
 - ❑ Access to preventive medical services
 - ❑ Establish a Public Health and Wellness Trust Fund for community programs
 - ❑ Promote proven programs that improve nutrition and physical activity.

Recommendations

□ Federal

- Clear and consistent Federal recommendations and national standards for nutrition and physical activity
- Examine policies and programs for obesity impact
- Revise school nutrition guidelines
- Eliminate junk food advertising to children
- Require menu labeling
- Re-examine subsidies for fruits and vegetables

Recommendations

□ State

- State obesity plans
- Examine state policies and programs for obesity impact
- Dedicated revenue for obesity prevention and control
- Evaluate snack taxes
- Require menu labeling

Recommendations

□ Local

- Local governments should use zoning laws to encourage healthy food providers to locate in food deserts
- Require menu labeling
- Encourage walkable, mixed use neighborhoods
- Encourage the use of transportation funds for mass transit and highway alternatives
- Modernize school-site construction so that schools can be within walking or biking distance

Recommendations

- ALL

- Counter-marketing

- Use of social media

- Collaboration development