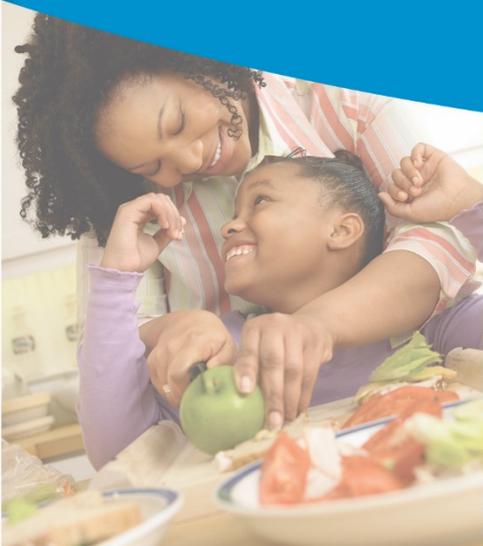


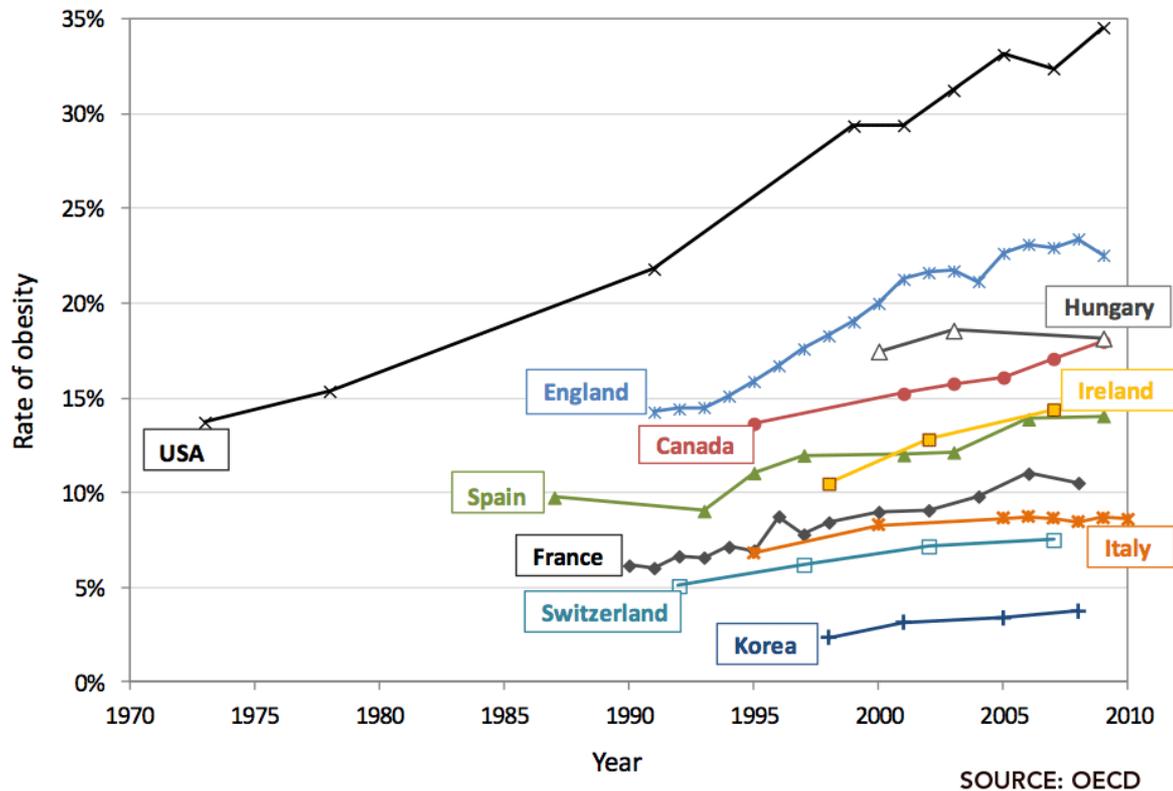
A close-up, shallow depth-of-field photograph of a silver stethoscope resting on a white surface, likely a doctor's coat. The chest piece is in sharp focus, while the tubing and ear pieces are blurred.

# **A VISION OF CHANGE: HEALTH CARE PROVIDERS & THE OBESITY EPIDEMIC**



# Obesity: The Global Epidemic

## Obesity Rates



# Obesity: The Global Epidemic

Other maps available

[Socioeconomic Status](#)

[Age](#)

[Education](#)

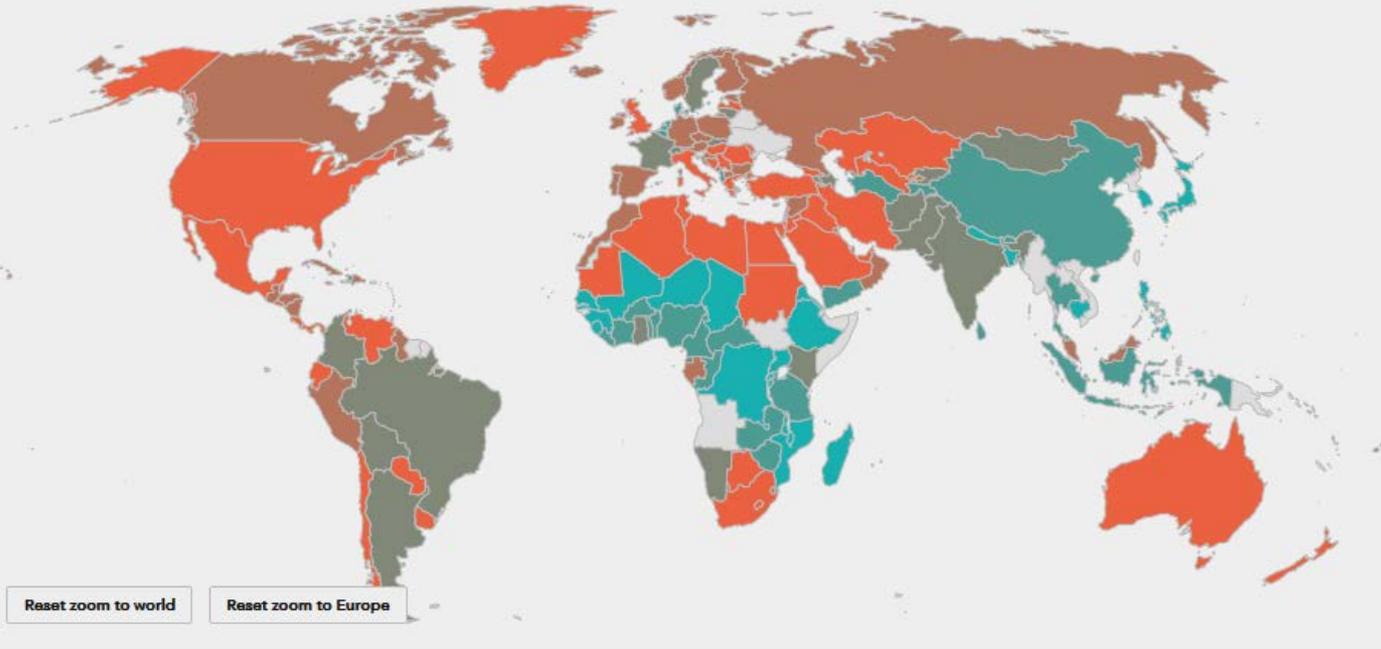
[Region](#)

[Trend](#)

[Policy & Interventions](#)

Obesity prevalence worldwide - Women

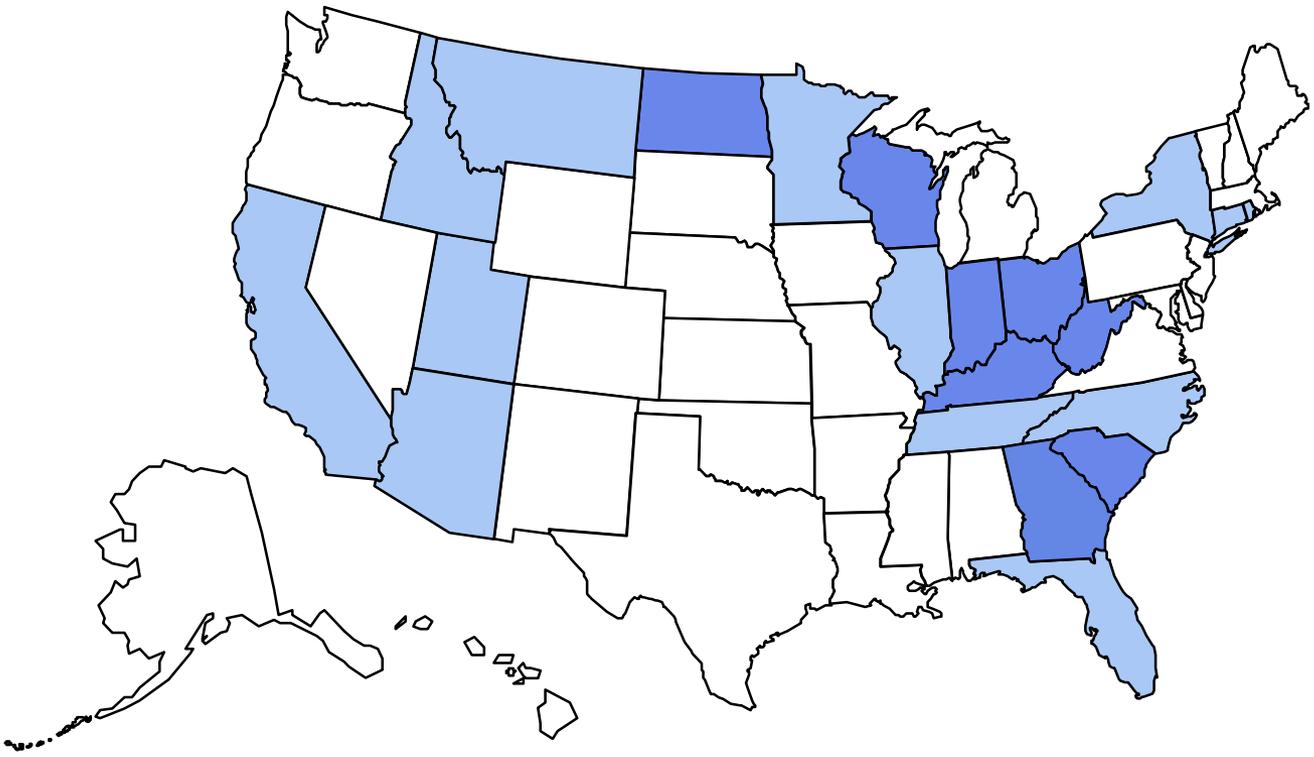
[women](#) [men](#) [girls](#) [boys](#)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1985

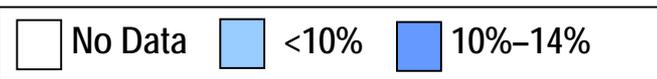
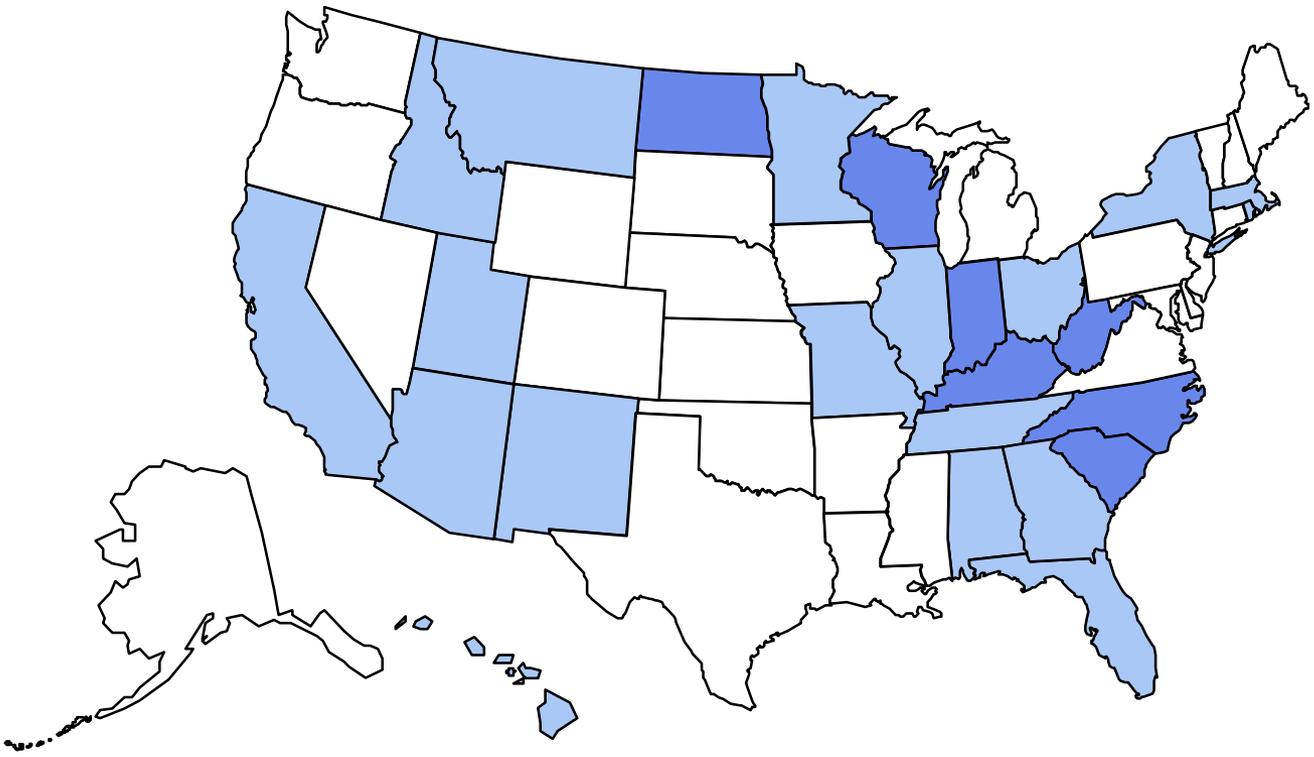
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1986

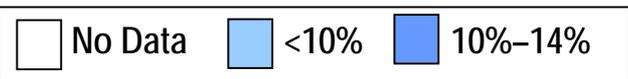
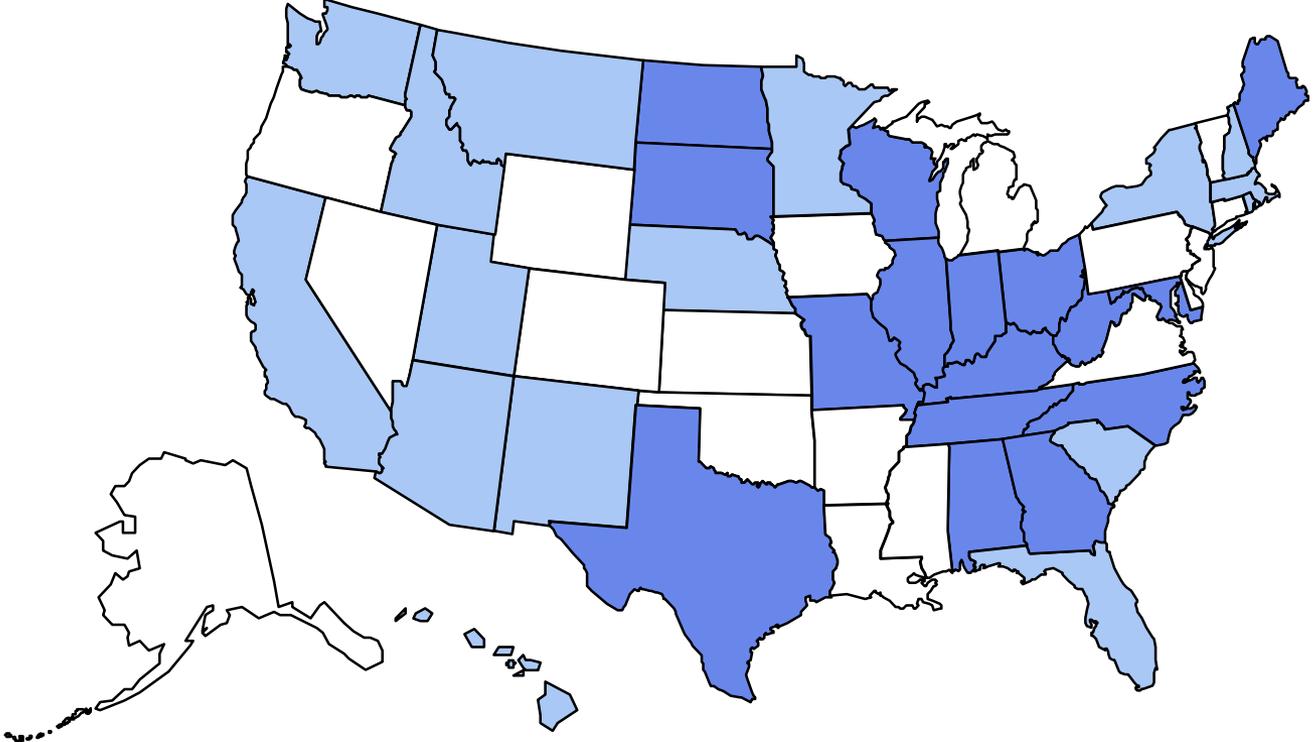
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1987

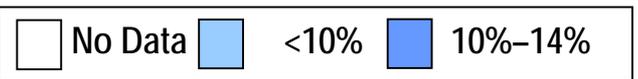
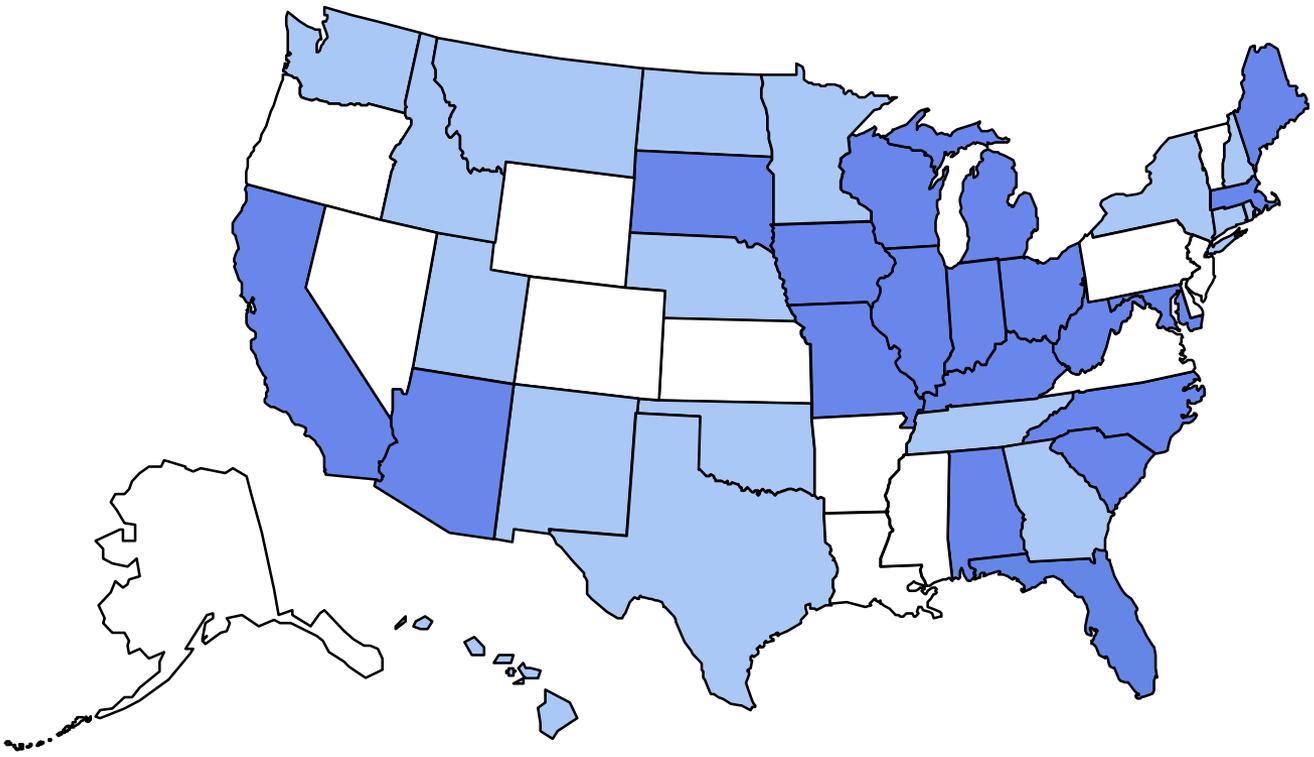
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1988

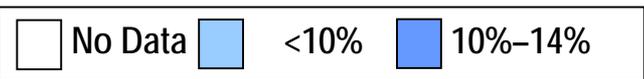
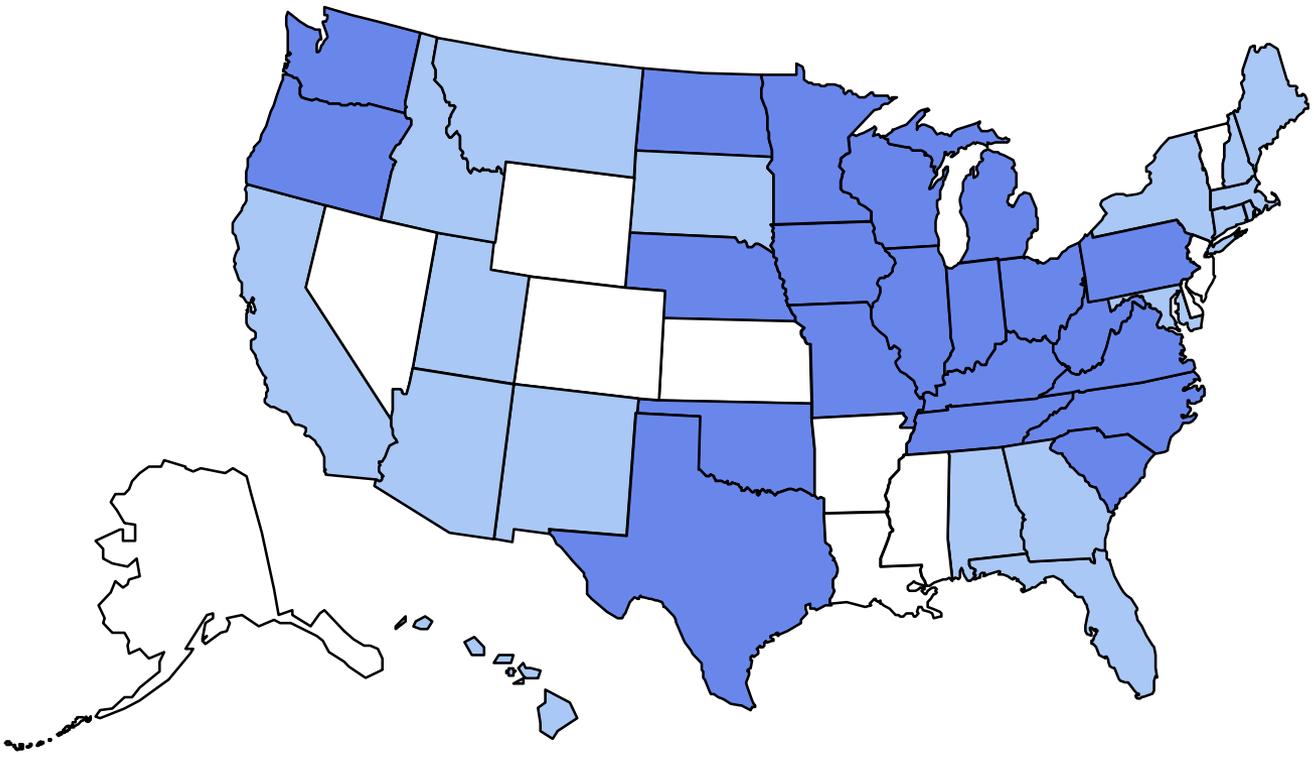
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1989

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

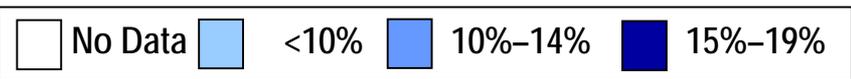
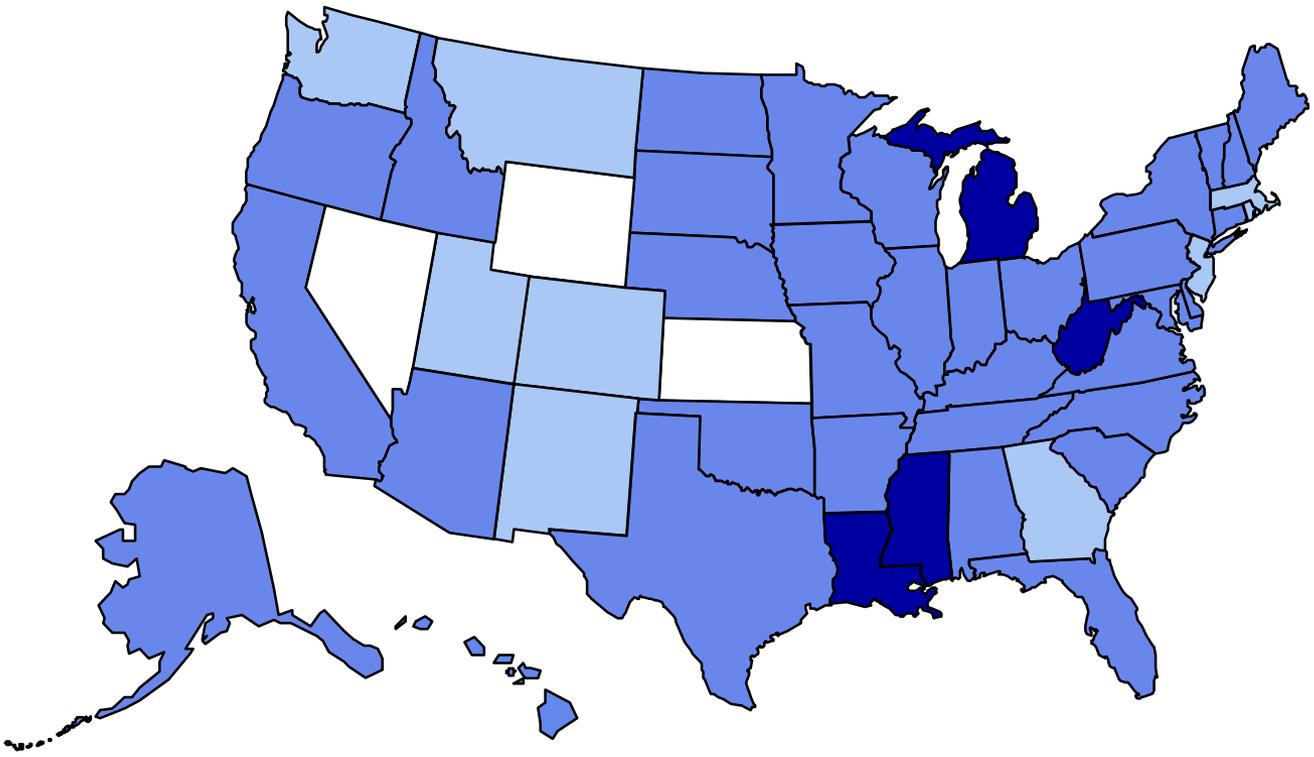




# Obesity Trends\* Among U.S. Adults

BRFSS, 1991

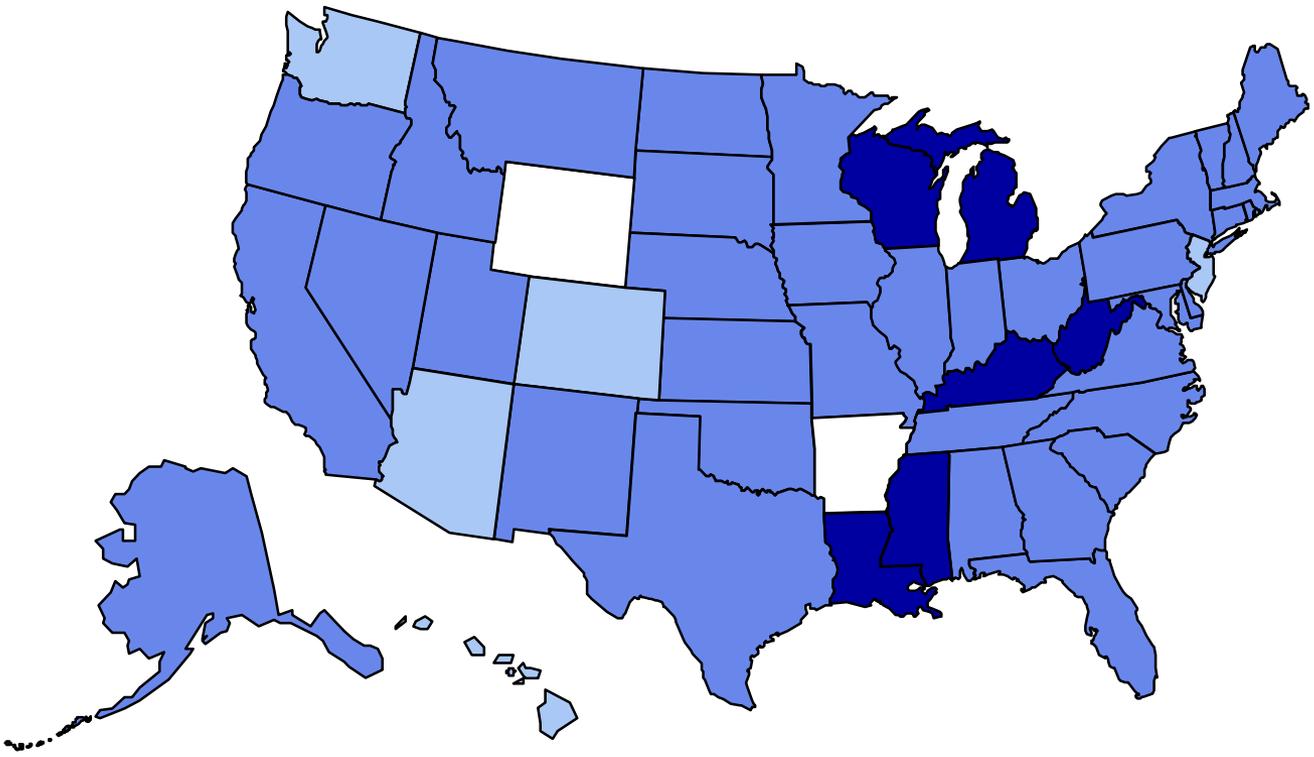
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1992

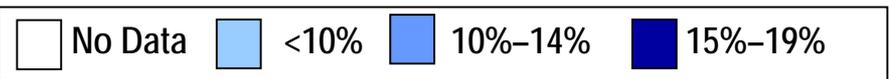
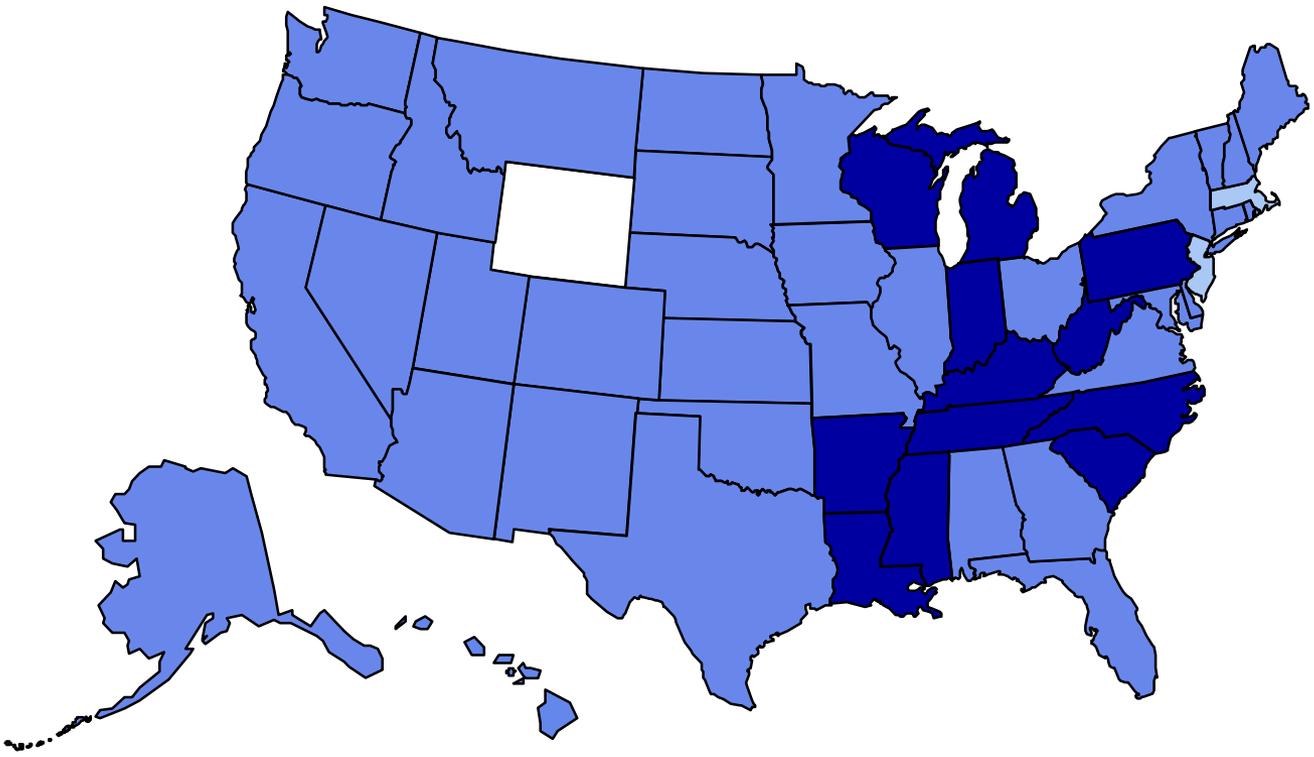
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1993

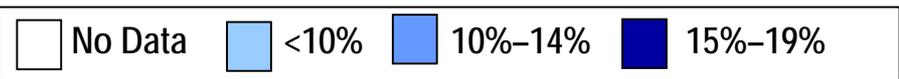
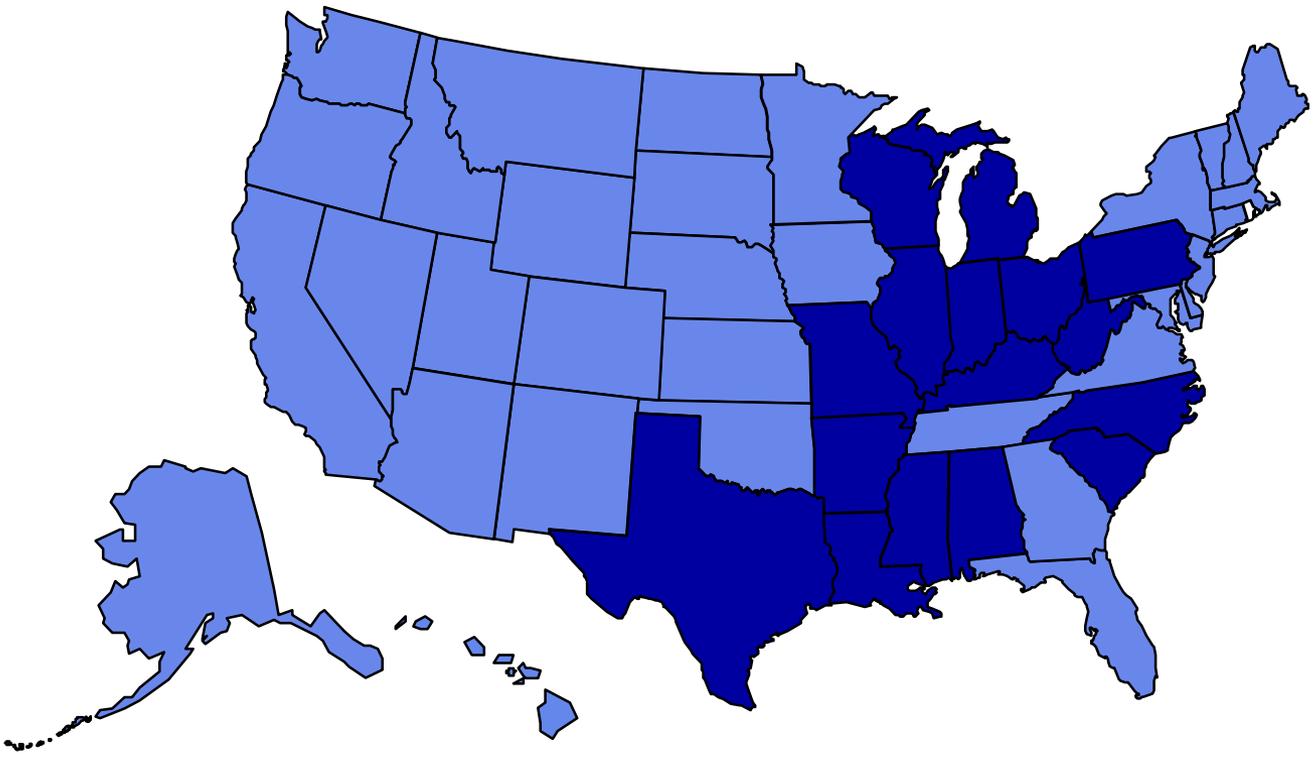
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1994

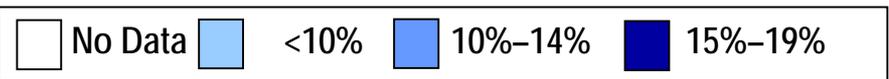
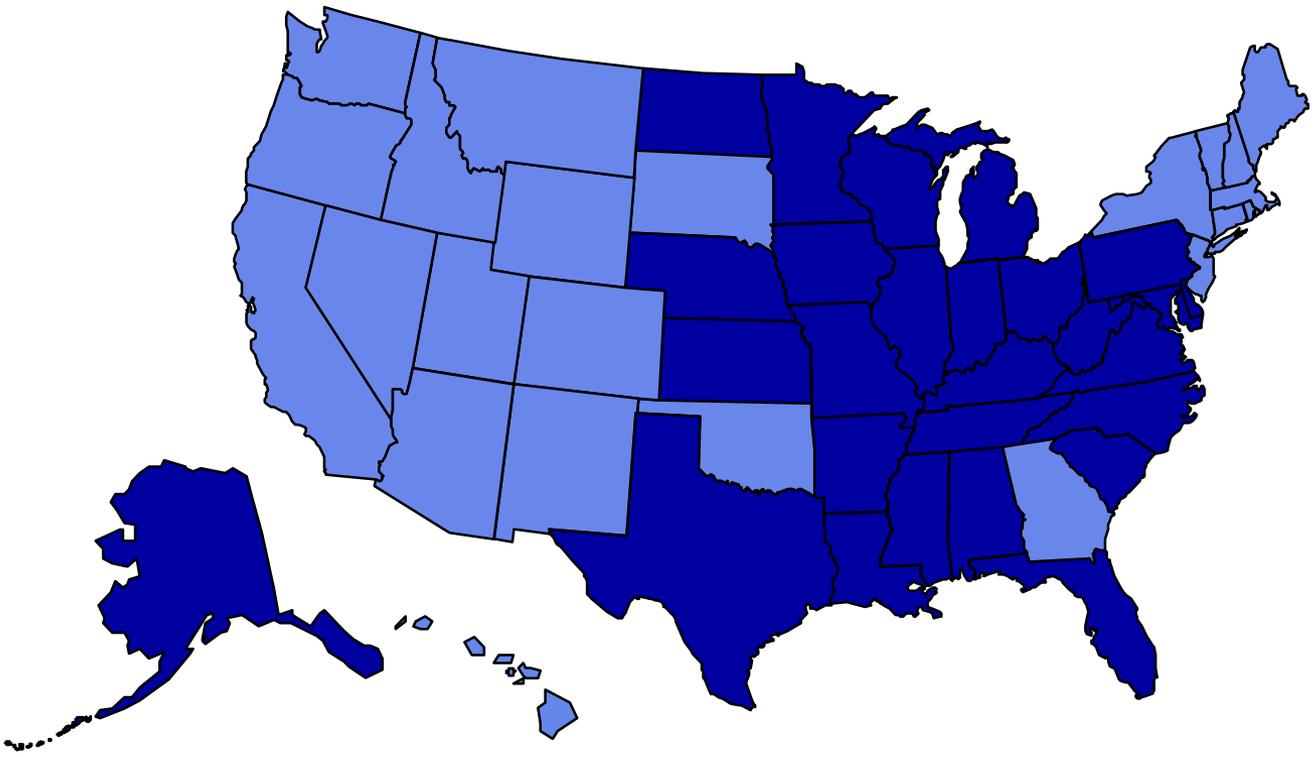
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1995

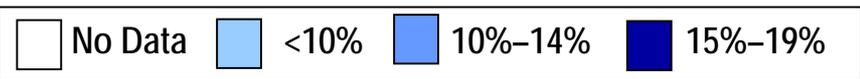
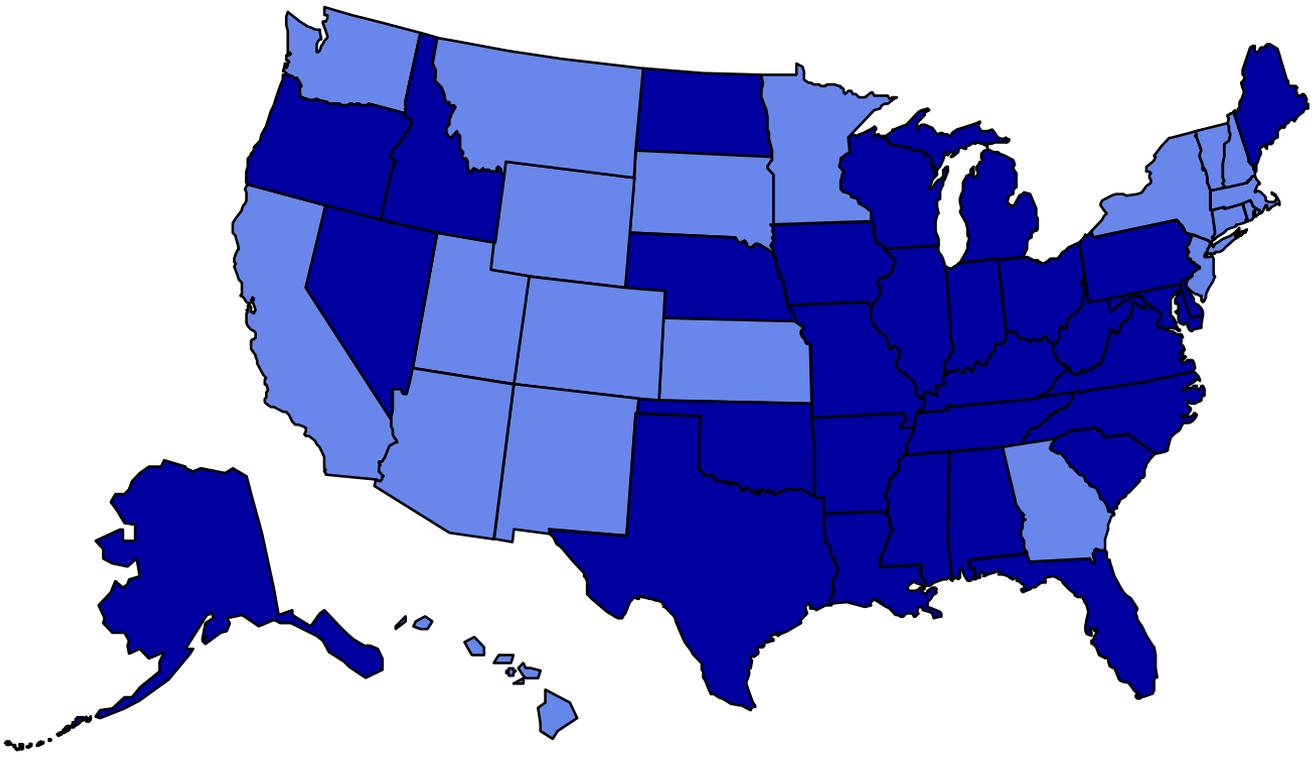
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1996

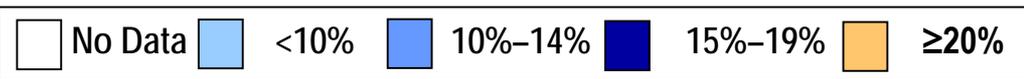
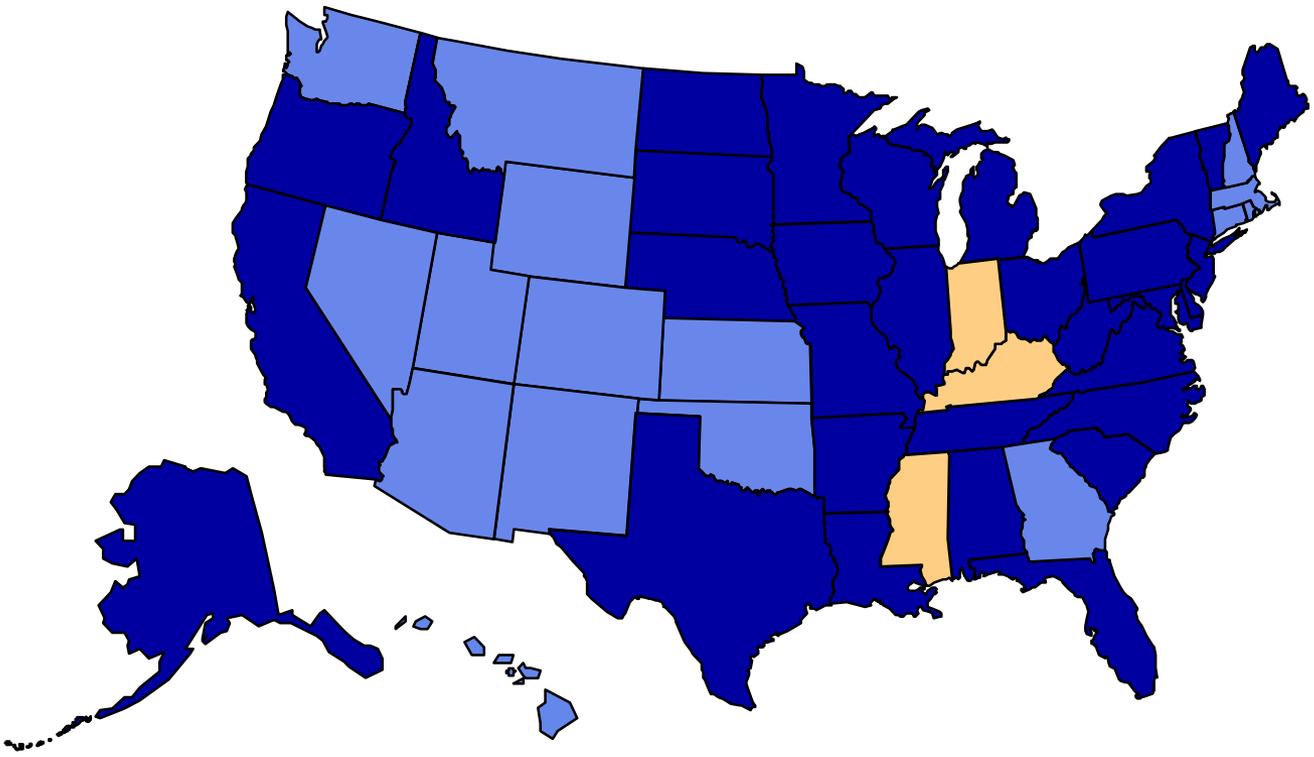
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1997

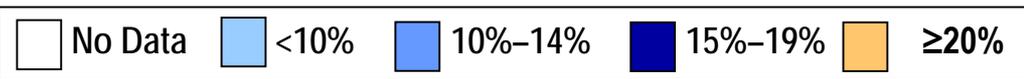
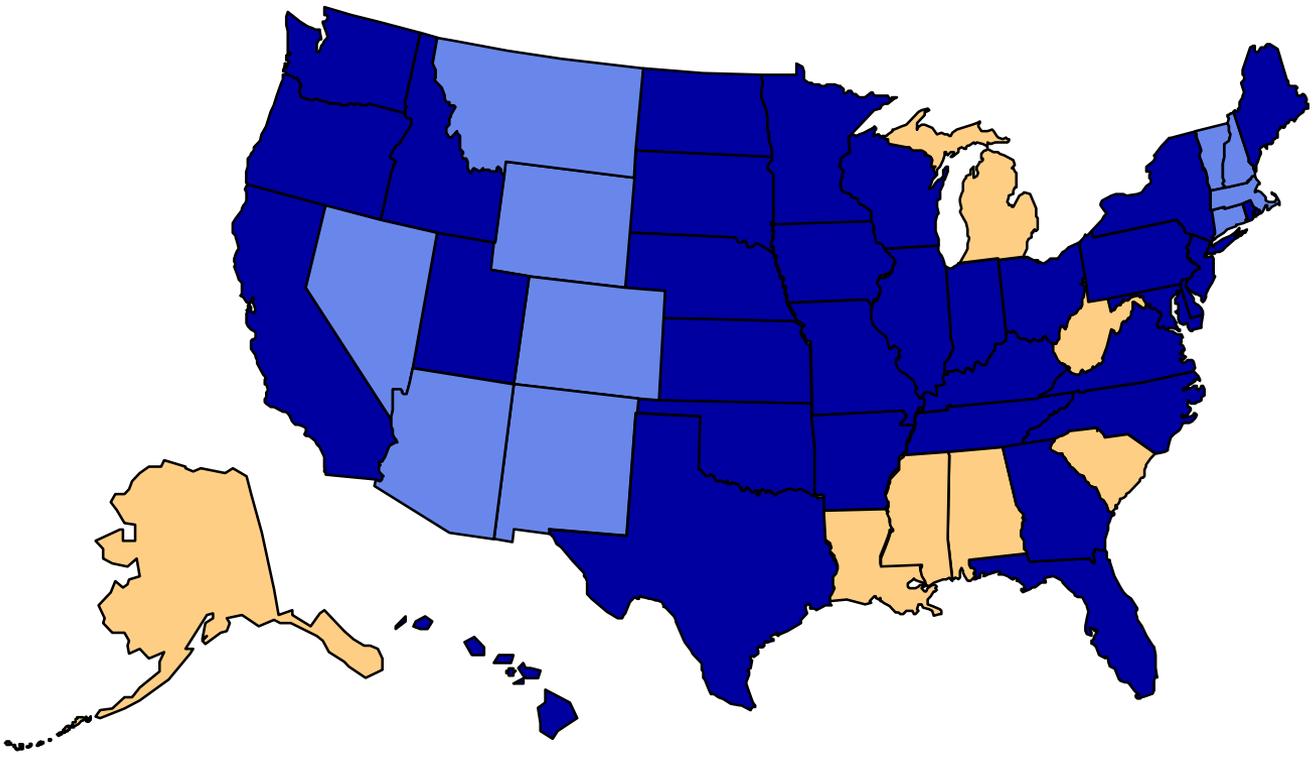
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 1998

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

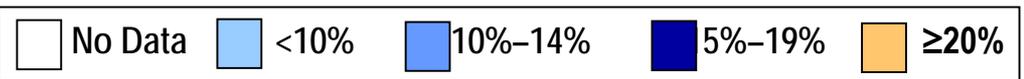
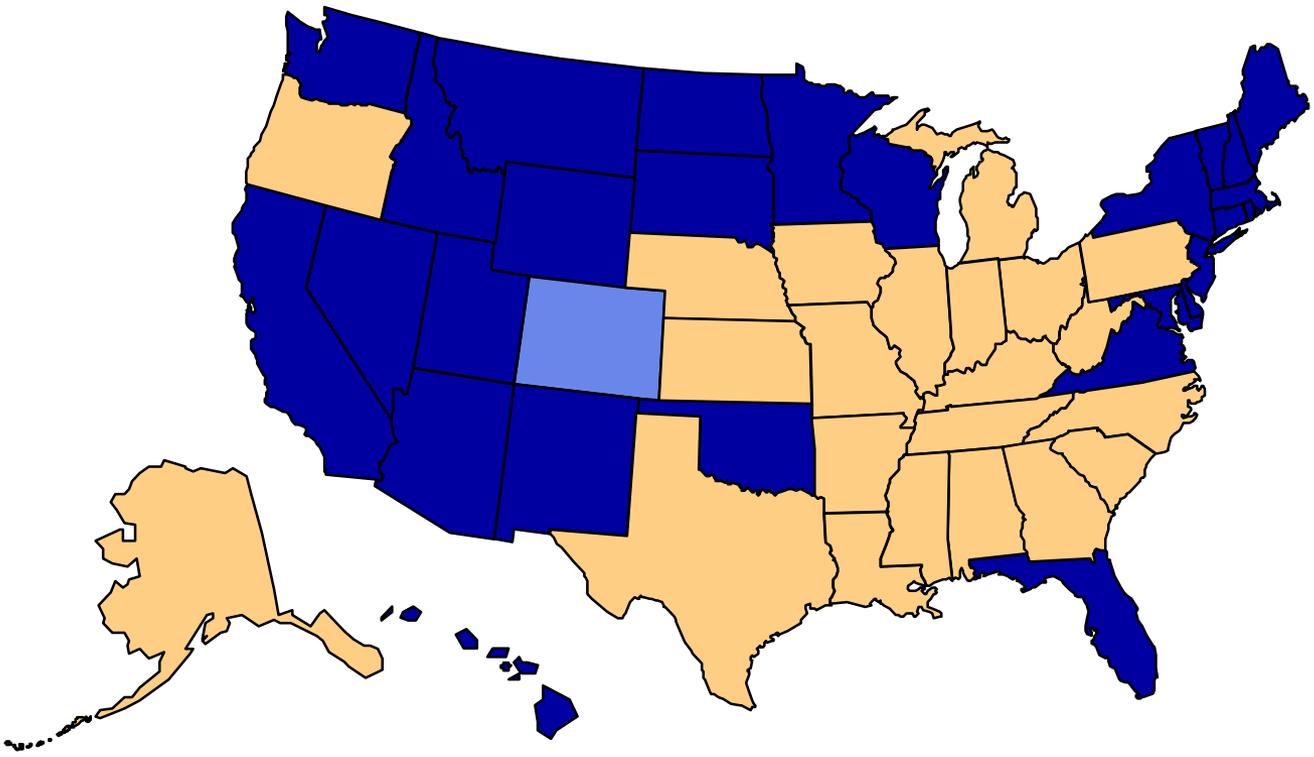




# Obesity Trends\* Among U.S. Adults

BRFSS, 2000

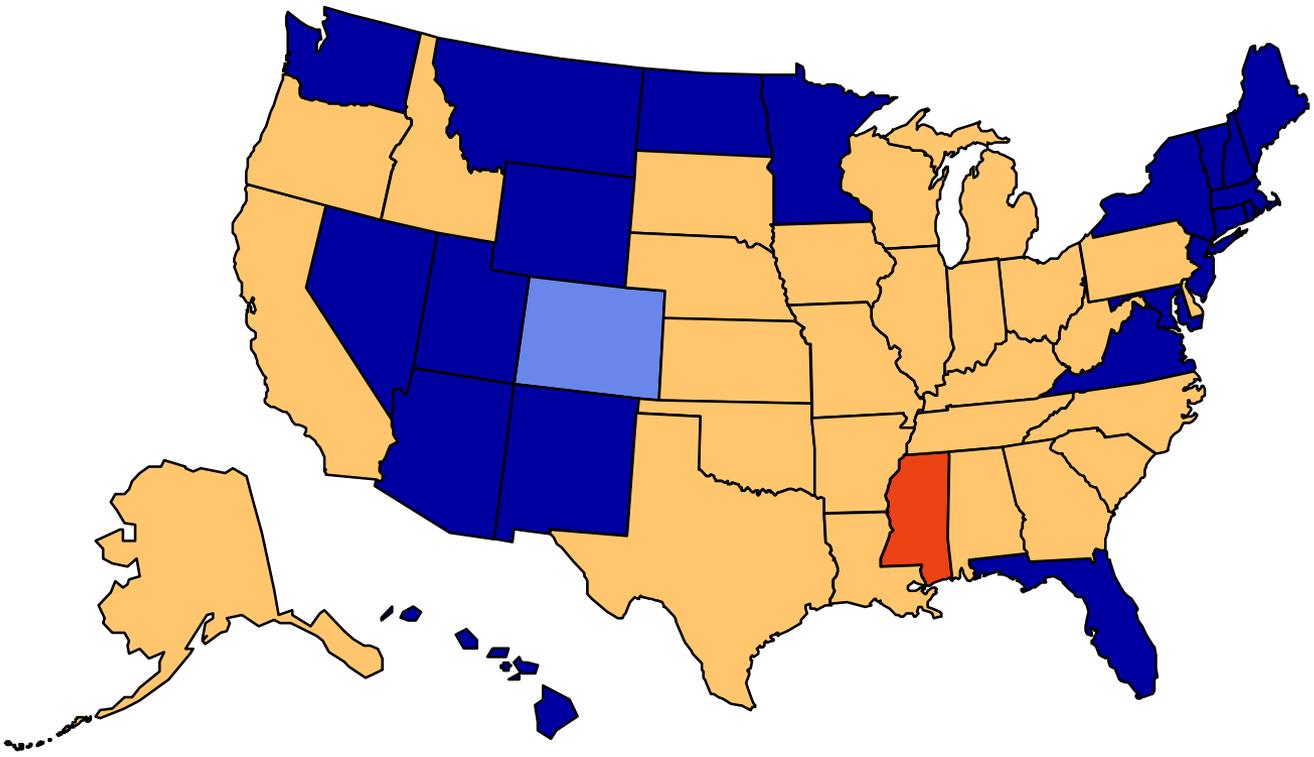
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 2001

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

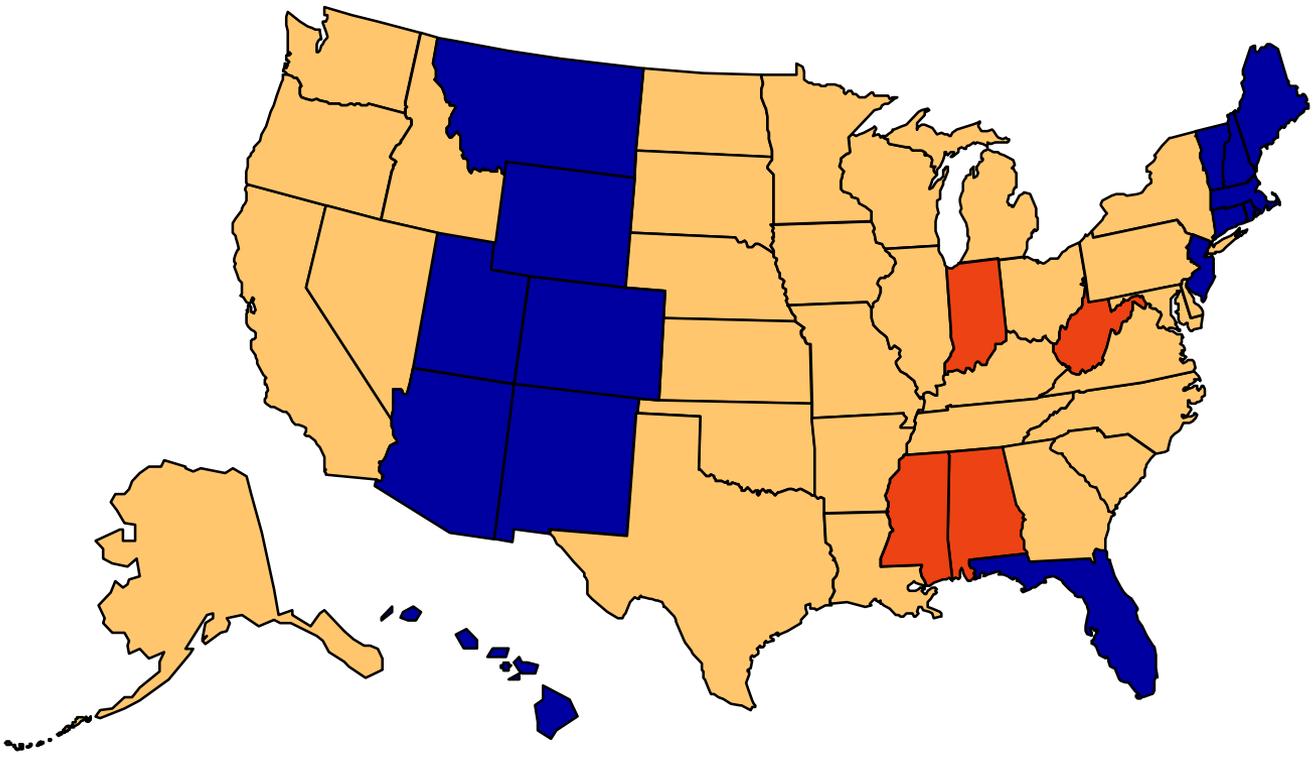




# Obesity Trends\* Among U.S. Adults

BRFSS, 2003

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





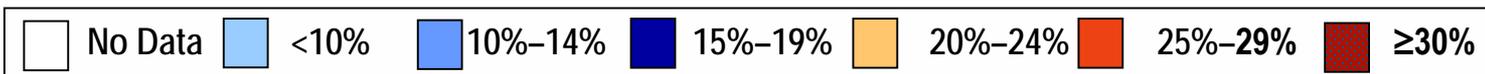
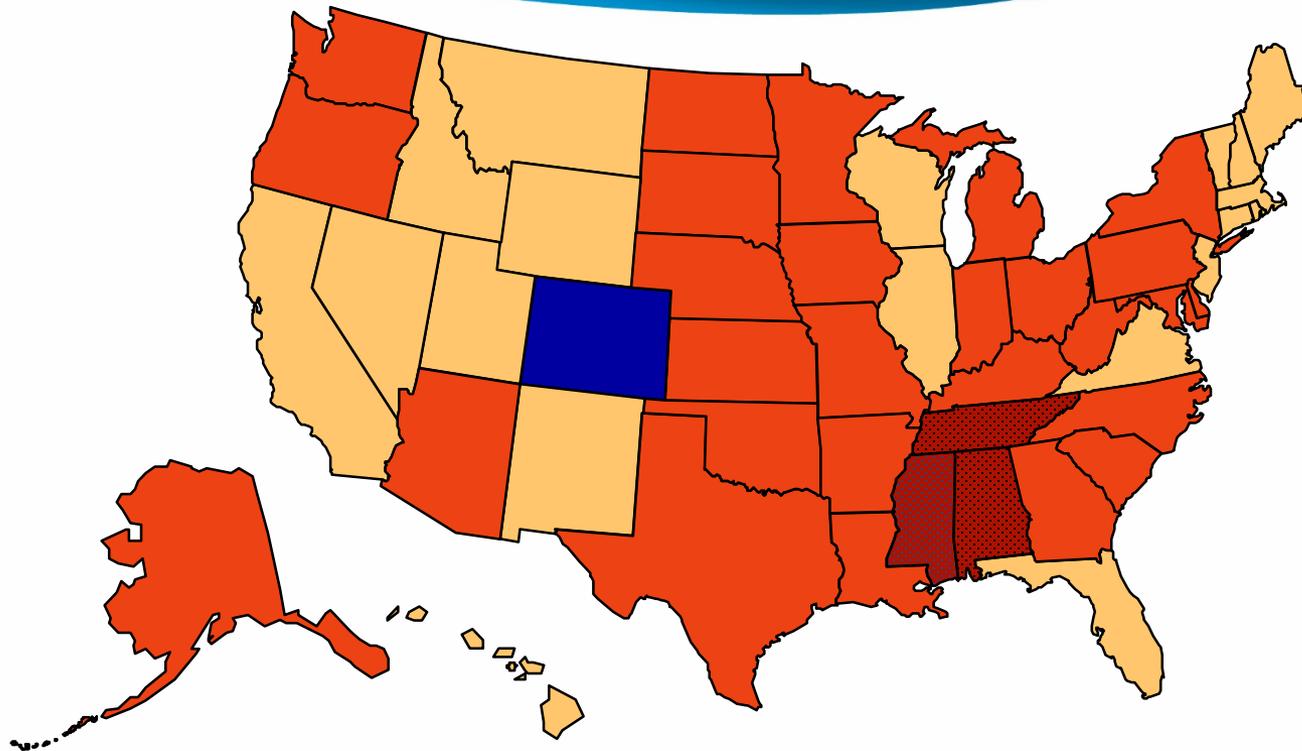




# Obesity Trends\* Among U.S. Adults

BRFSS, 2007

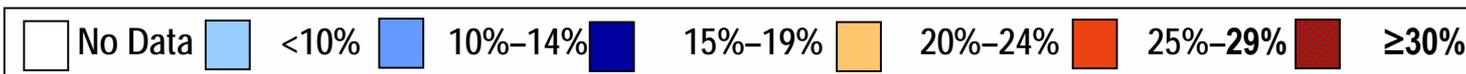
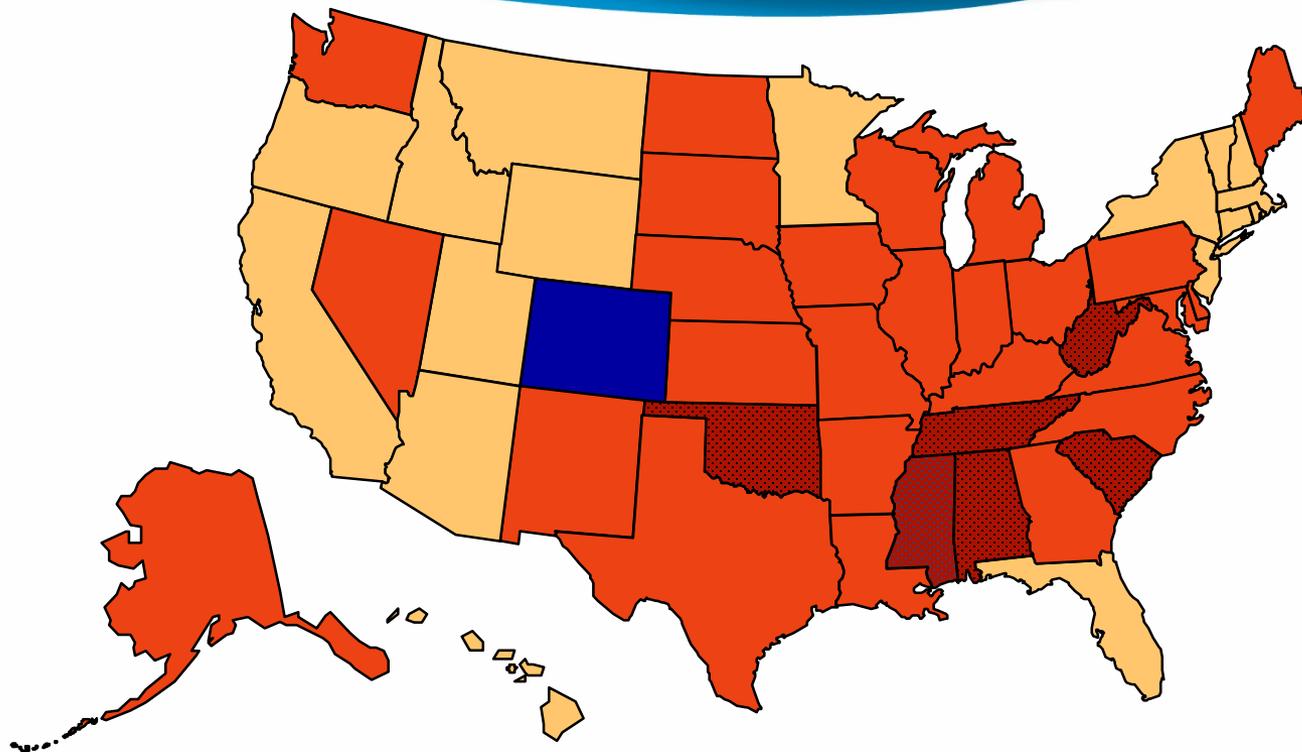
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 2008

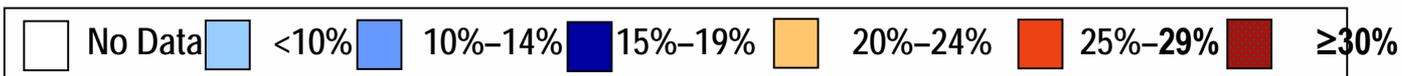
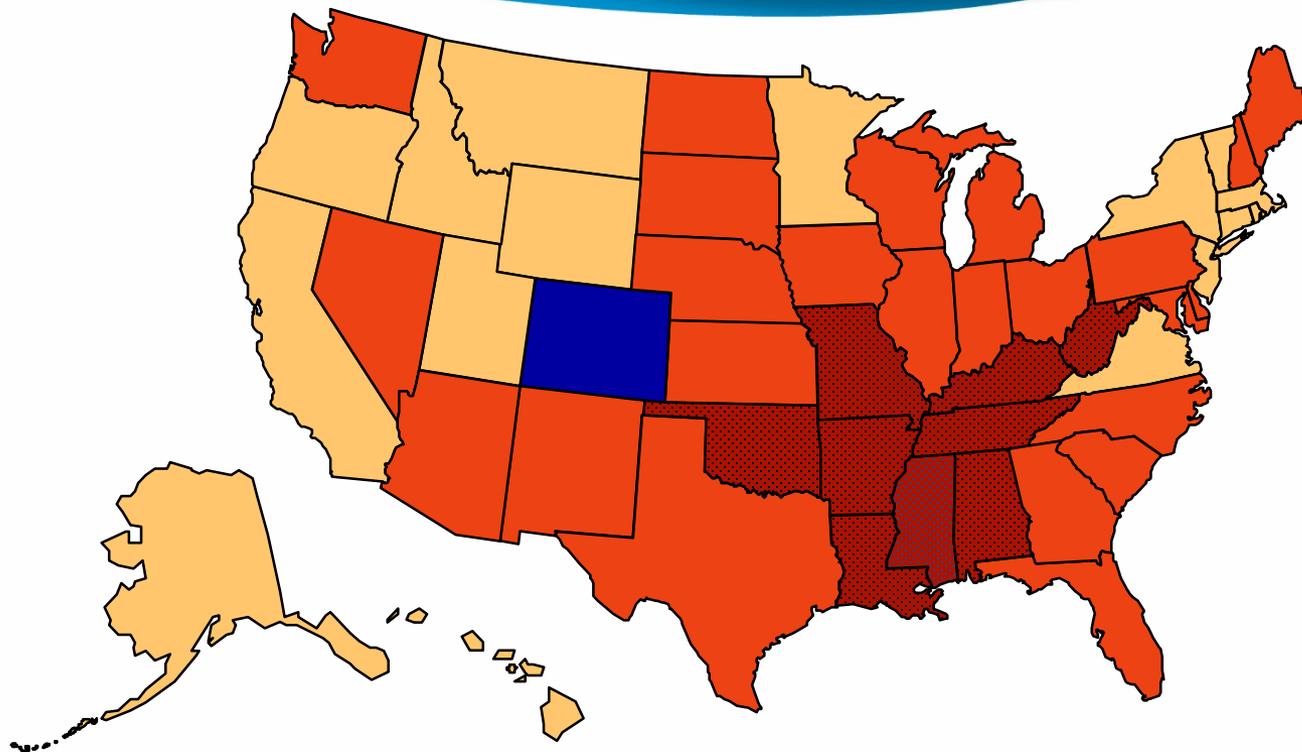
(\*BMI  $\geq 30$ , or  $\sim 30$  lbs. overweight for 5' 4" person)



# Obesity Trends\* Among U.S. Adults

BRFSS, 2009

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

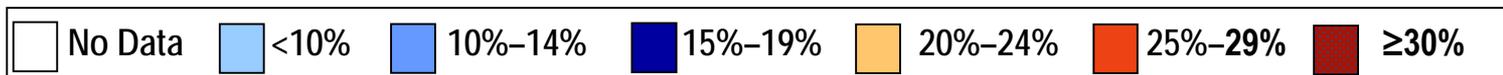
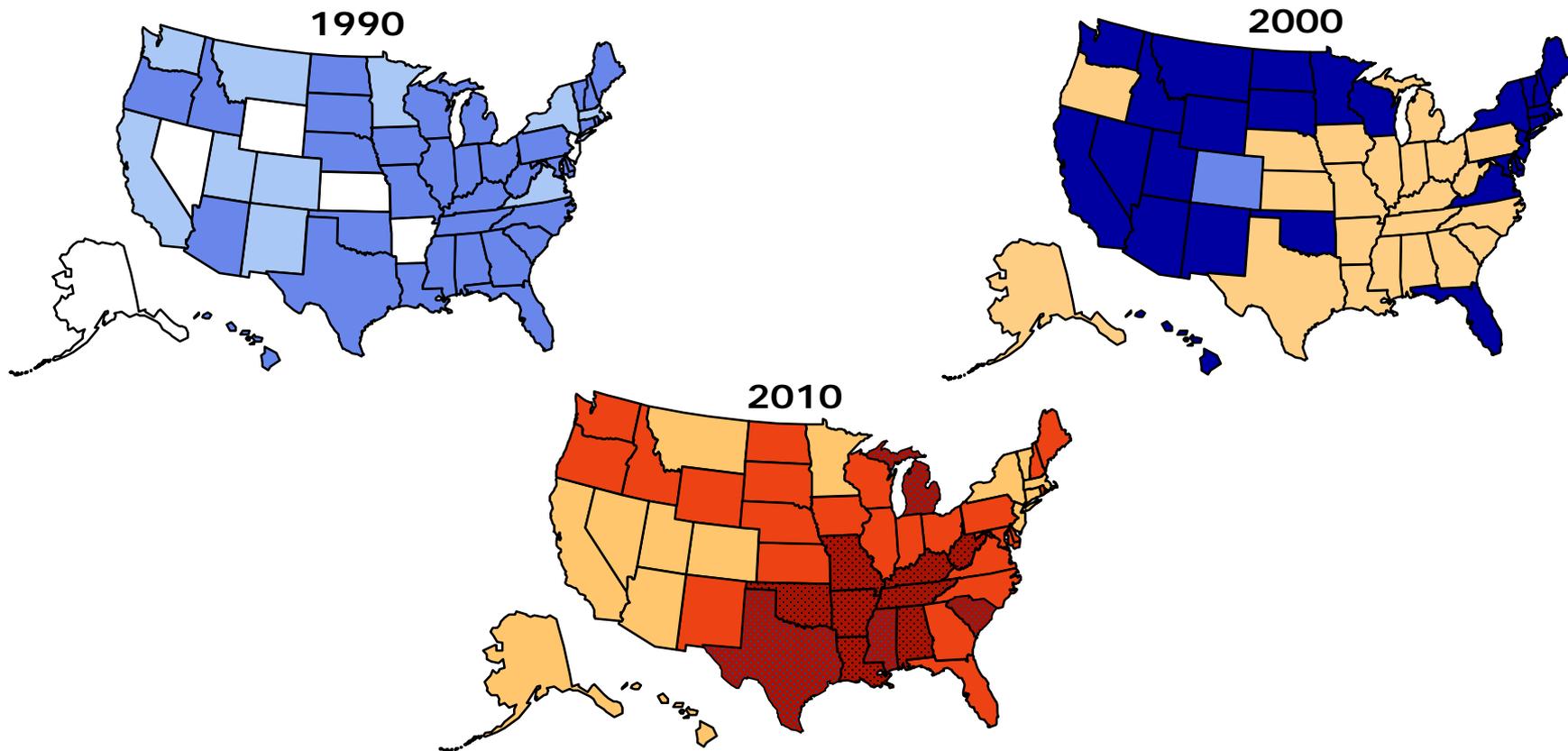




# Obesity Trends\* Among U.S. Adults

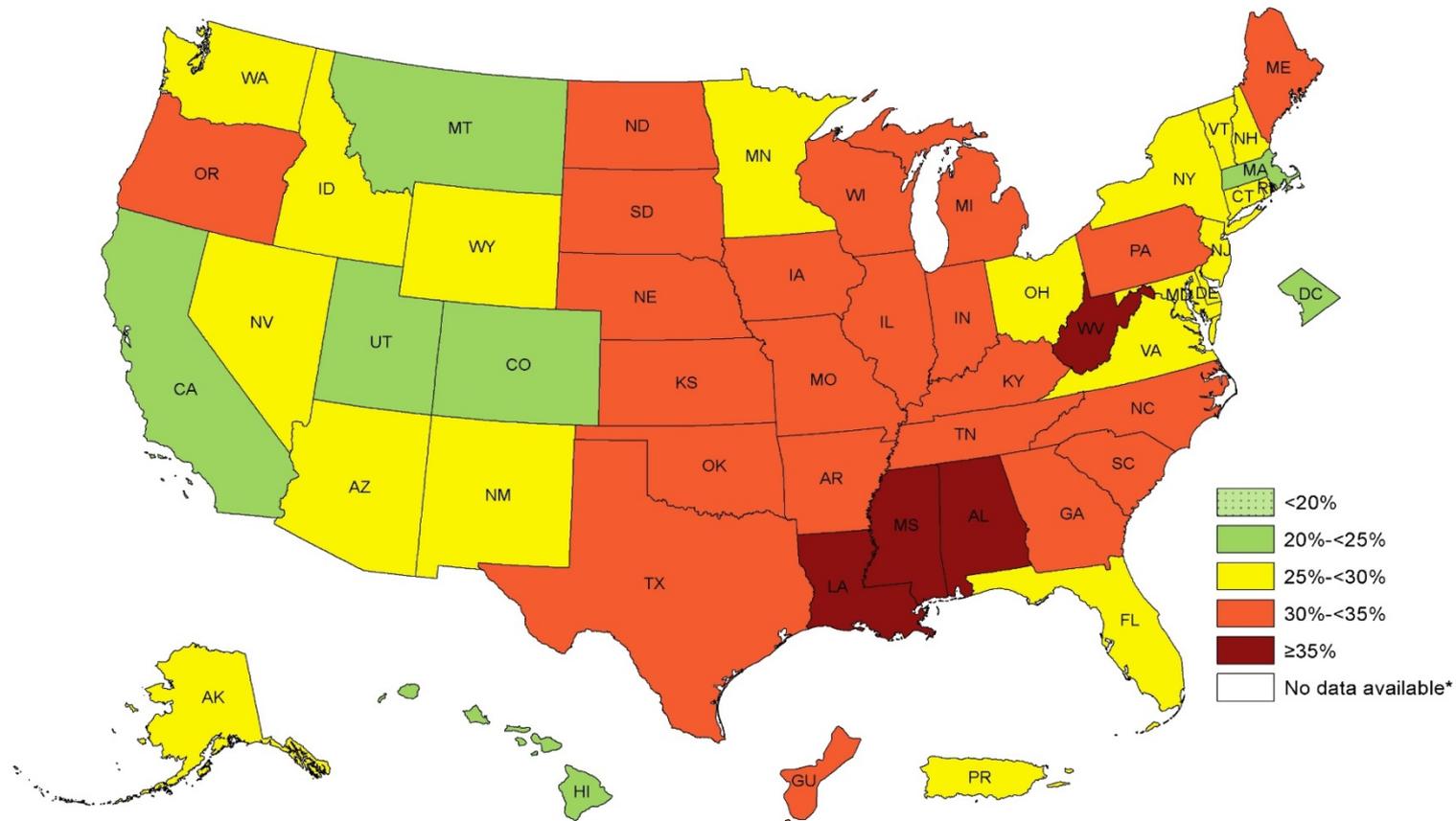
## BRFSS, 1990, 2000, 2010

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



# Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2015

† Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.



\*Sample size <50 or the relative standard error (dividing the standard error by the prevalence) ≥ 30%.

# PLACE Matters



# Place Matters

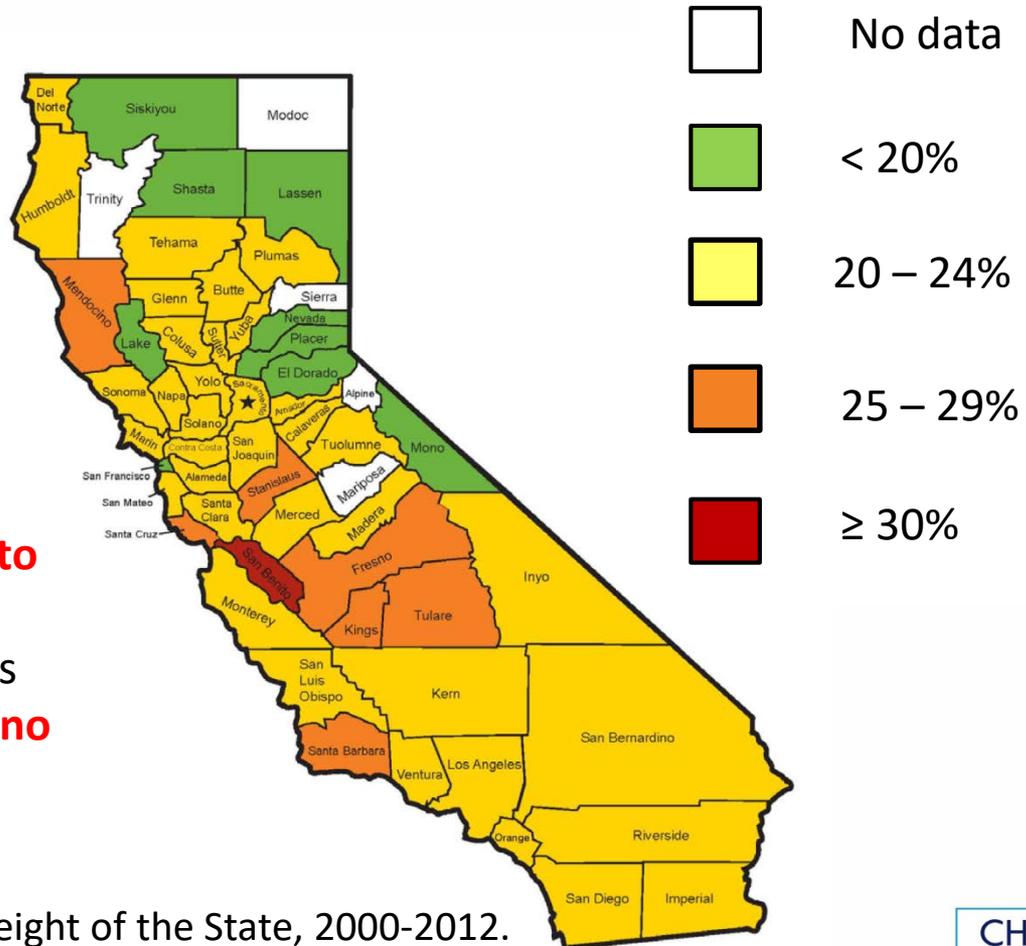
## Percentage of Low Income School-Age Children (5 – 19 years) Who are Obese (BMI ≥ 95<sup>th</sup> percentile) by County, 2010 PedNSS

### Lowest

1. Nevada
2. Mono
3. Lassen
4. Placer
5. Siskiyou

### Highest

1. **San Benito**
2. **Tulare**
3. Stanislaus
4. **Mendocino**
5. **Kings & Fresno**



Source: Obesity in California: The Weight of the State, 2000-2012. CDPH-NEOPB. 2014

# Place Matters

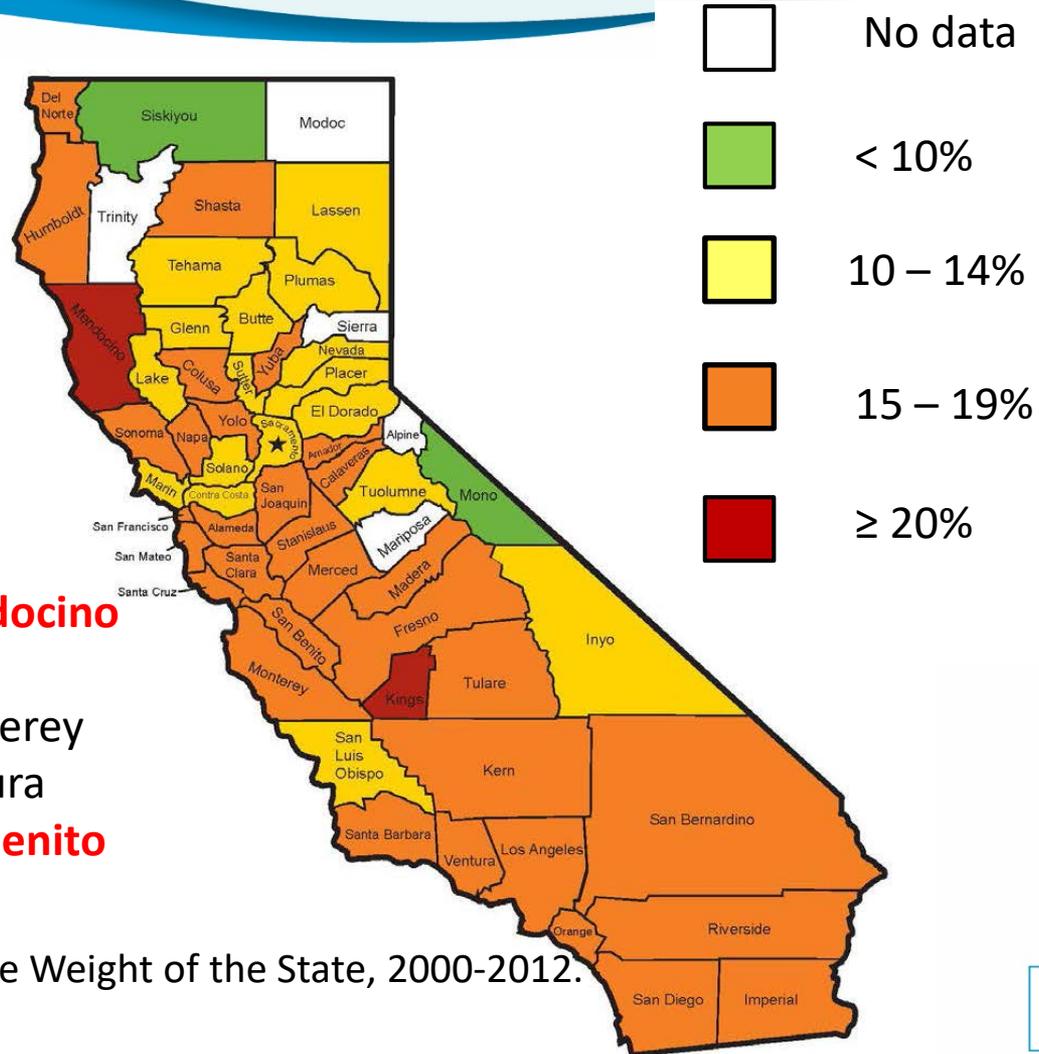
**Percentage of Low Income  
Preschool Children (2 – 4  
years) who are Obese (BMI  
≥ 95<sup>th</sup> percentile) by  
County, 2010 PedNSS**

## Lowest

1. Mono
2. Siskiyou
3. Nevada
4. Tuolumne
5. El Dorado

## Highest

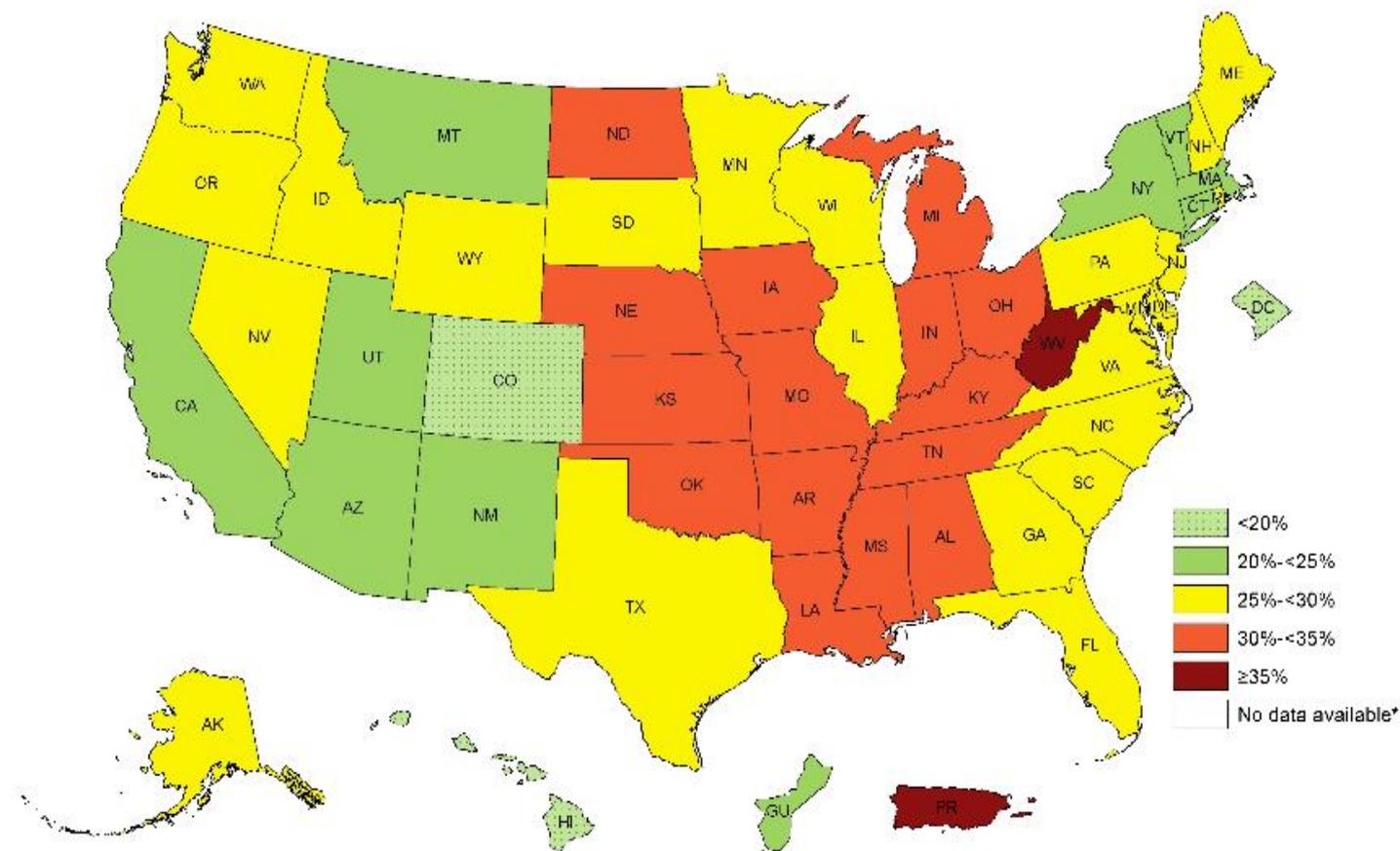
1. **Mendocino**
2. **Kings**
3. Monterey
4. Ventura
5. **San Benito**



Source: Obesity in California: The Weight of the State, 2000-2012.  
CDPH-NEOPB. 2014

**RACE Matters**

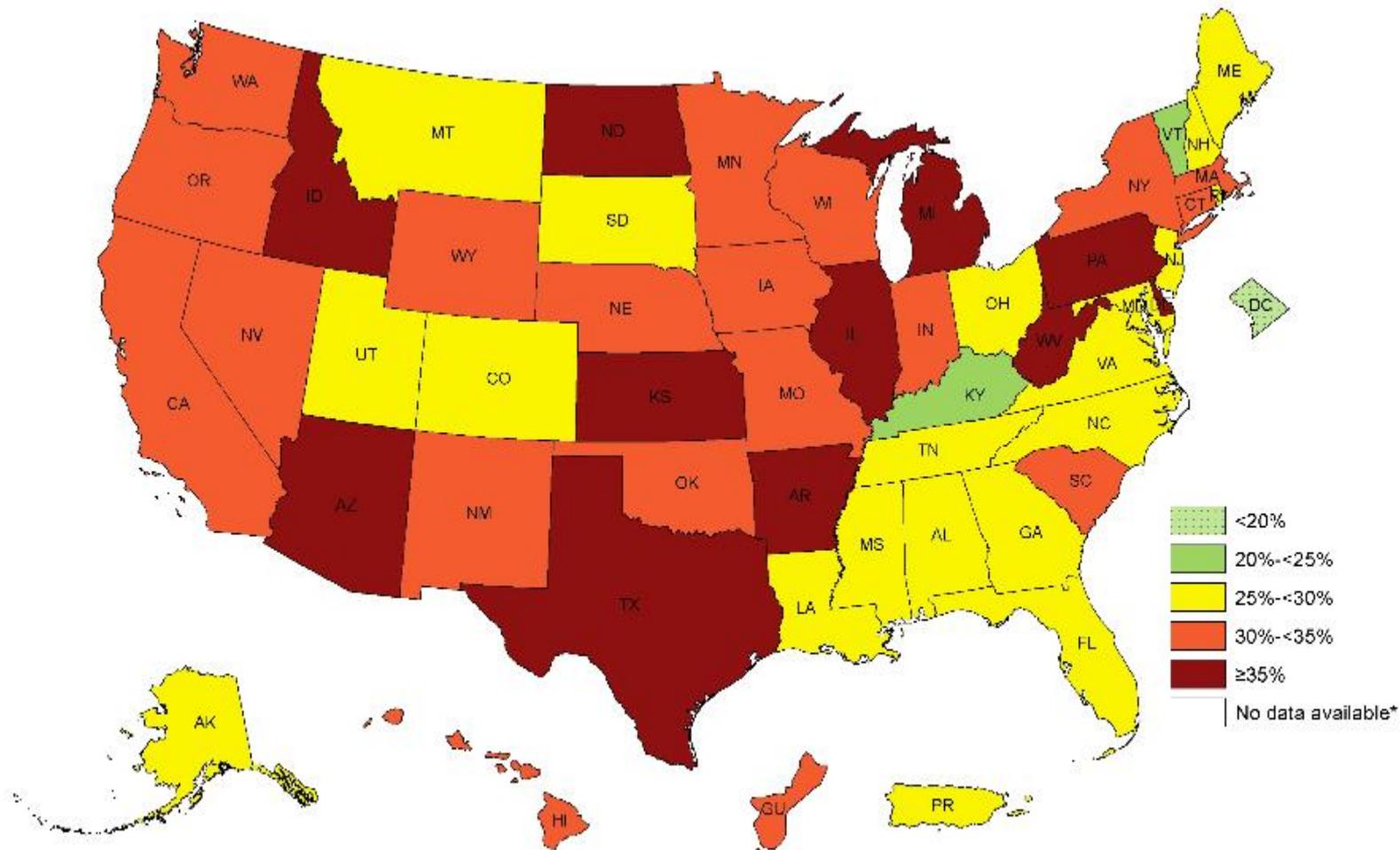
# Prevalence of Self-Reported Obesity Among Non-Hispanic White Adults, by State and Territory, BRFSS, 2013-2015



\*Sample size <50 or the relative standard error (dividing the standard error by the prevalence) ≥ 30%.



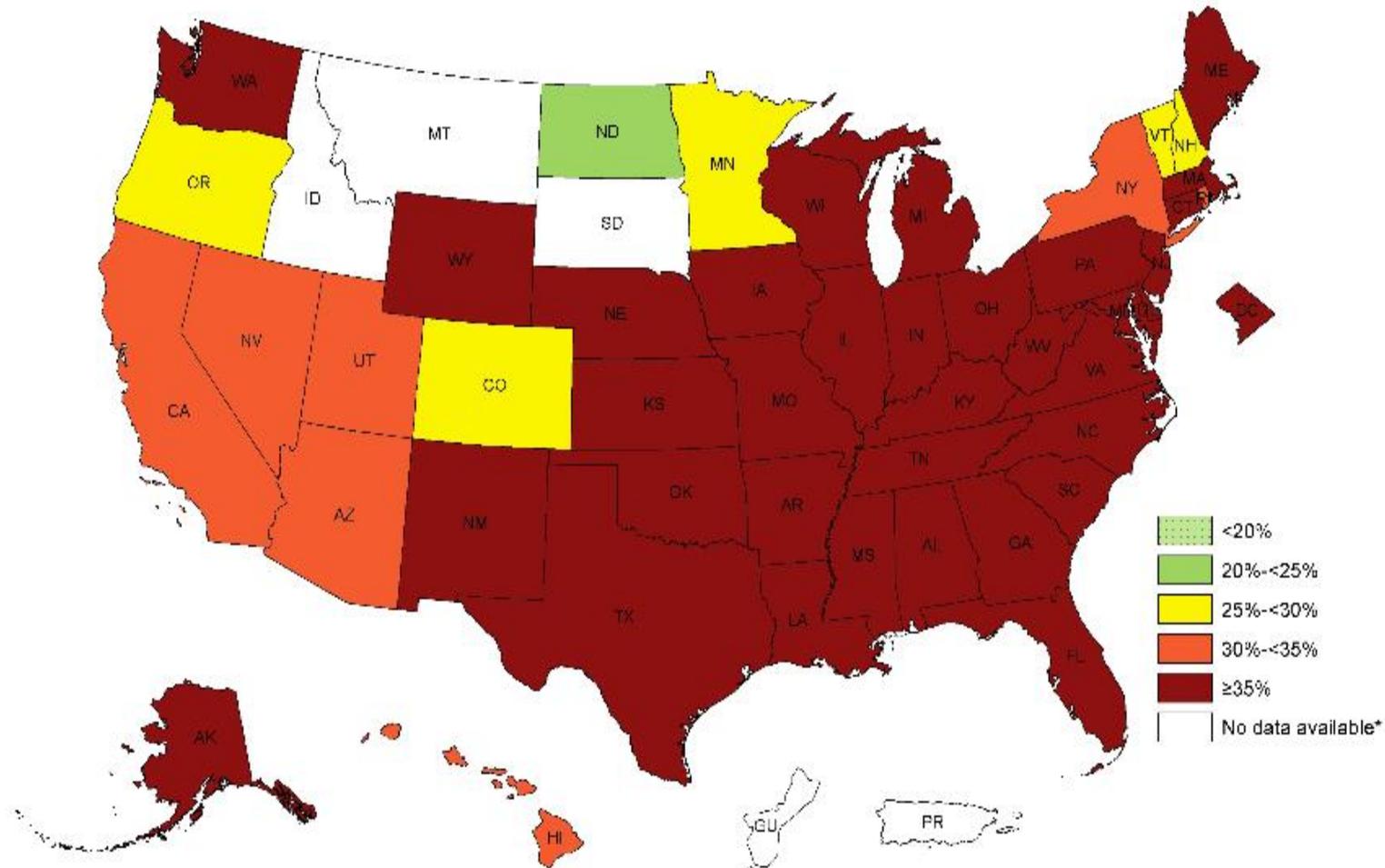
# Prevalence of Self-Reported Obesity Among Hispanic Adults, by State and Territory, BRFSS, 2013-2015



\*Sample size <50 or the relative standard error (dividing the standard error by the prevalence) ≥ 30%.



# Prevalence of Self-Reported Obesity Among Non-Hispanic Black Adults, by State and Territory, BRFSS, 2013-2015

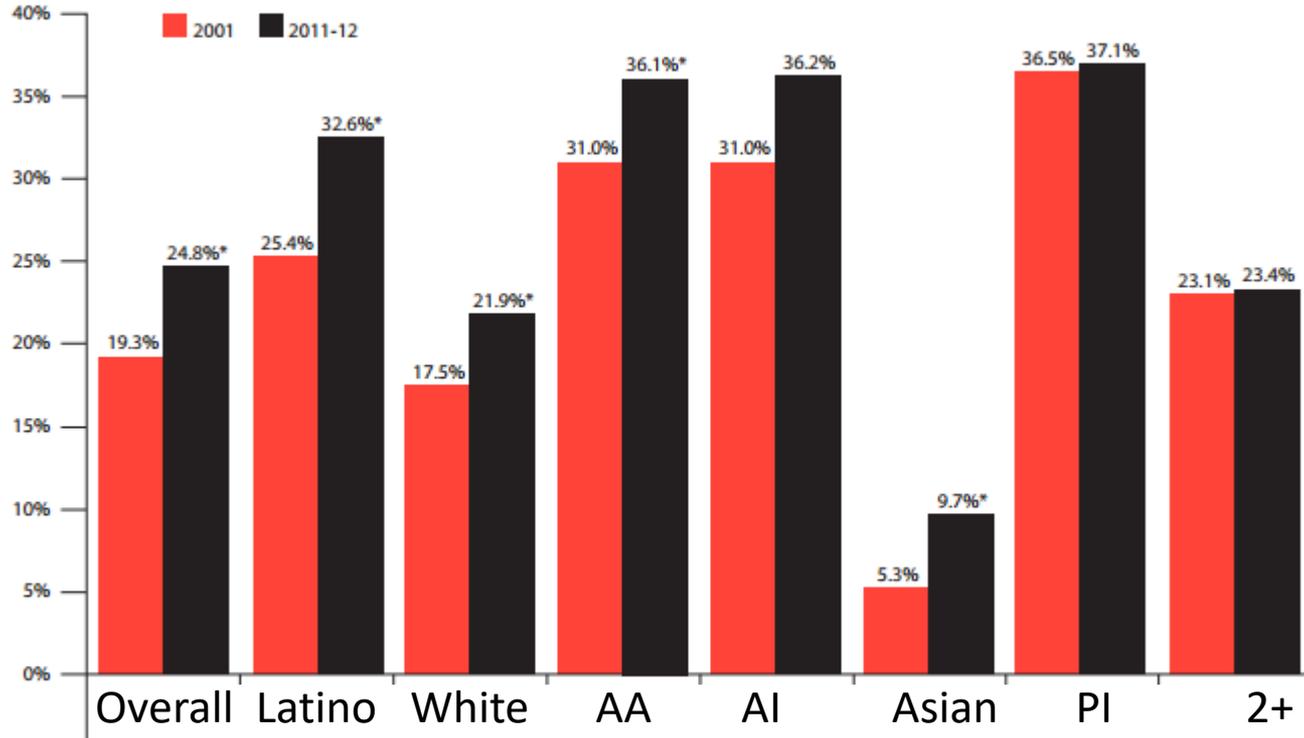


\*Sample size <50 or the relative standard error (dividing the standard error by the prevalence)  $\geq 30\%$ .



**Exhibit 6.**

**Obesity Prevalence by Race/Ethnicity, Adults 18 Years and Over, California, 2001 and 2011-12**



Source: 2001 and 2011-12 California Health Interview Surveys

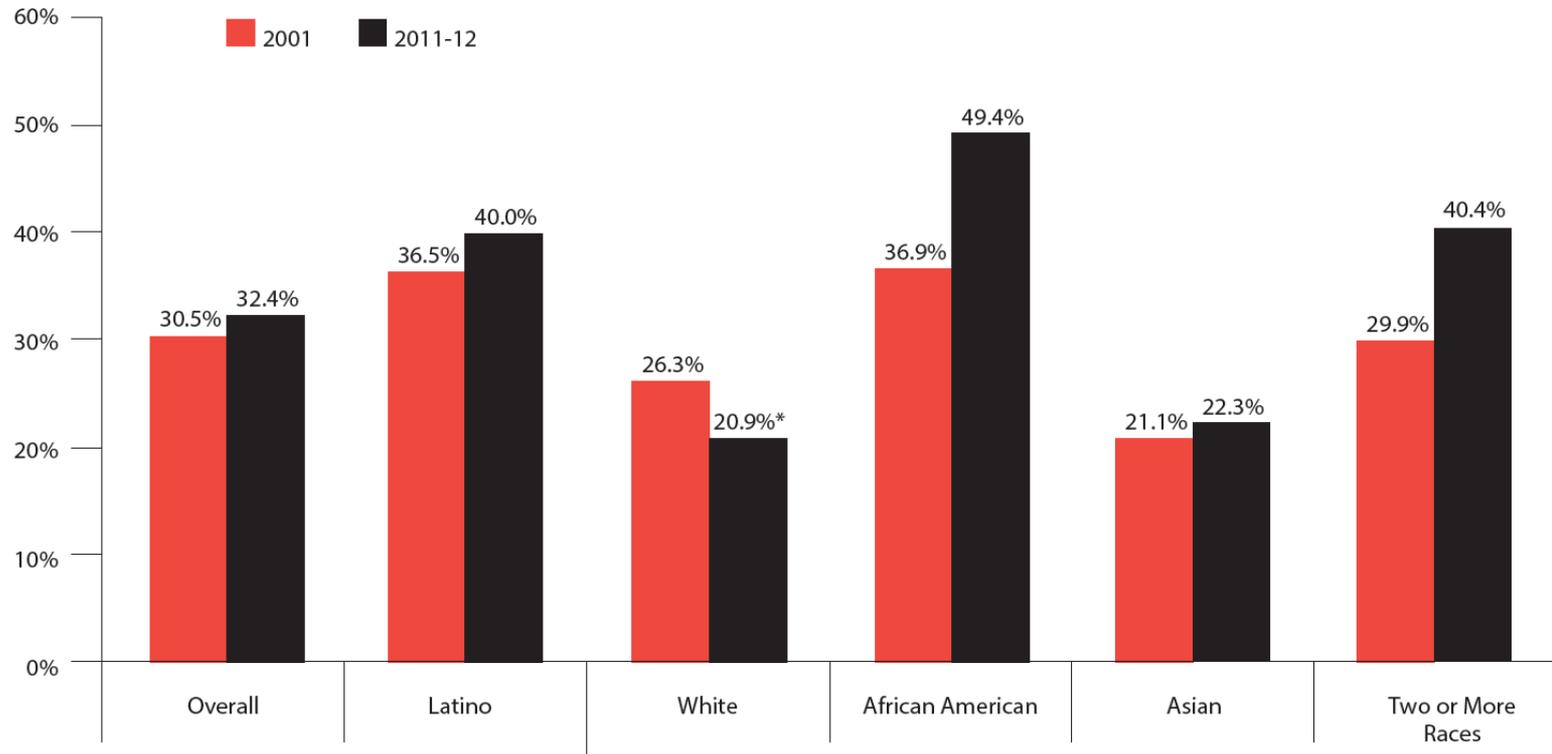
\* Indicates significant difference from 2001;  $p < 0.05$ .

Changes from 2001 to 2011-12 may not be statistically significant in some groups due to small sample size.

Wolstein, Bavey and Diamant. Obesity in California, Los Angeles, CA. UCLA Center for Health Policy Research, 2015.

### Exhibit 10.

### Overweight/Obesity Prevalence by Race/Ethnicity, Adolescents Ages 12 -17, California, 2001 and 2011-12



Source: 2001 and 2011-12 California Health Interview Surveys

\* Indicates significant difference from 2001;  $p < 0.05$ .

# Health Consequences in California

55%

(15.5 million Californians)

Of all adults have  
pre-diabetes or  
diabetes

Babey, Wolstein, Diamant, Goldstein. Prediabetes in California: Nearly Half of California Adults on Path to Diabetes. Los Angeles, CA: UCLA Center for Health Policy Research and California Center for Public Health Advocacy, 2016.

# Health Consequences in California

33%

Of all young adults  
(18 – 39) have  
pre-diabetes

Babey, Wolstein, Diamant, Goldstein. Prediabetes in California: Nearly Half of California Adults on Path to Diabetes. Los Angeles, CA: UCLA Center for Health Policy Research and California Center for Public Health Advocacy, 2016.

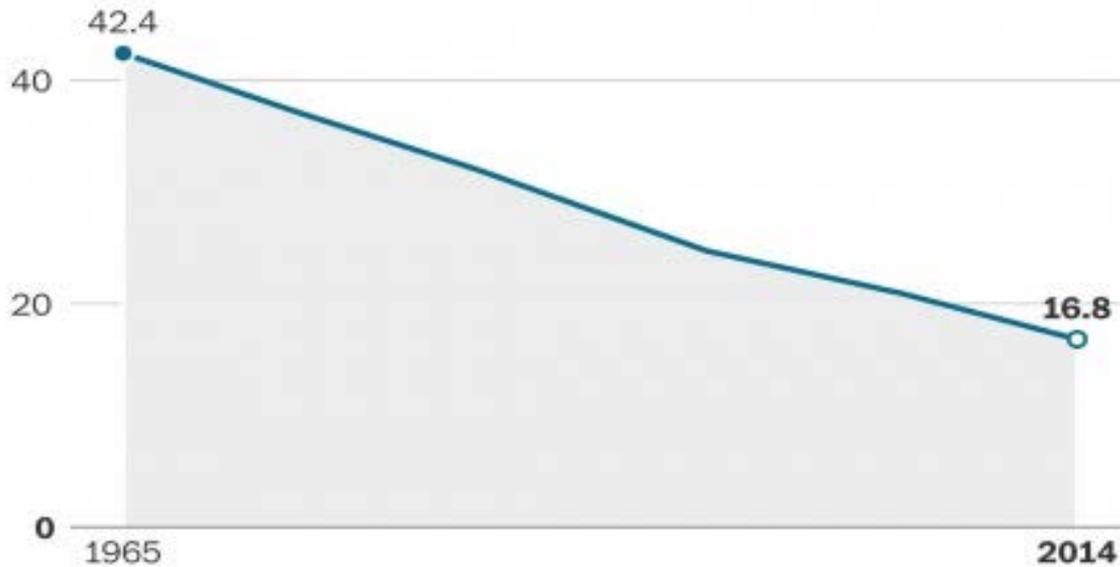
# Overall Impact of Diabetes in the Healthcare System

- The total estimated cost of diagnosed diabetes in 2012 was **\$245 billion**. The breakdown of this cost includes: **\$176 billion** in direct medical costs, which included hospital inpatient care (43% of the total medical cost). Prescription medications to treat the complications of diabetes (18%).

**What is to be Done?**

# Progress Happens

Smoking rate of U.S. adults

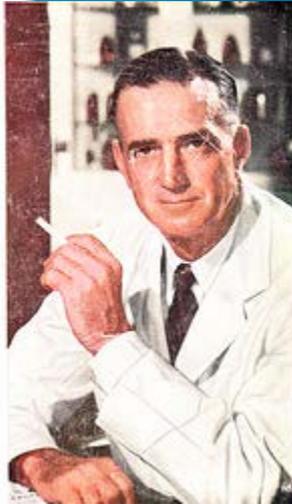


Source: CDC  
THE WASHINGTON POST

# Norms Change...

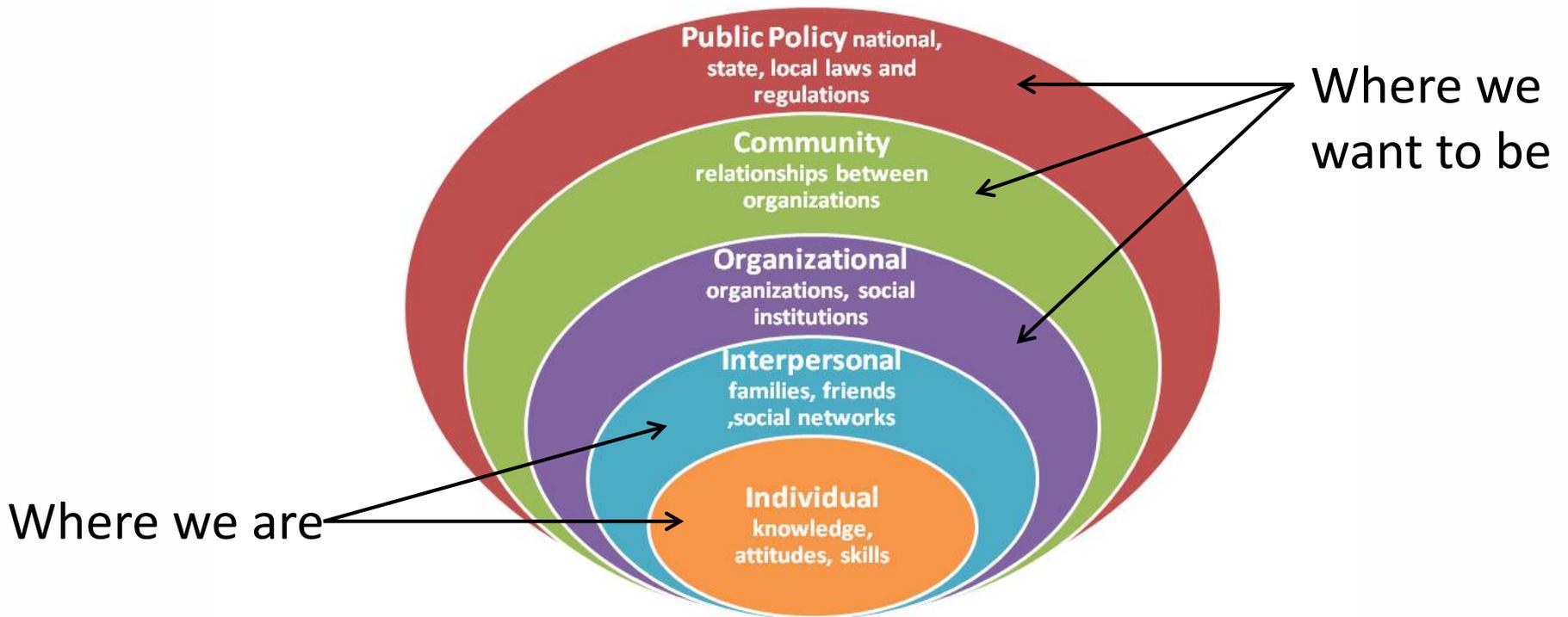
*According to repeated nationwide surveys,*

**More Doctors  
Smoke CAMELS  
than any other  
cigarette!**



# The Parable of the River

# Social Ecological Model



# Many Strategies...

## WHO Framework Convention on Tobacco Control: Demand Reduction Measures

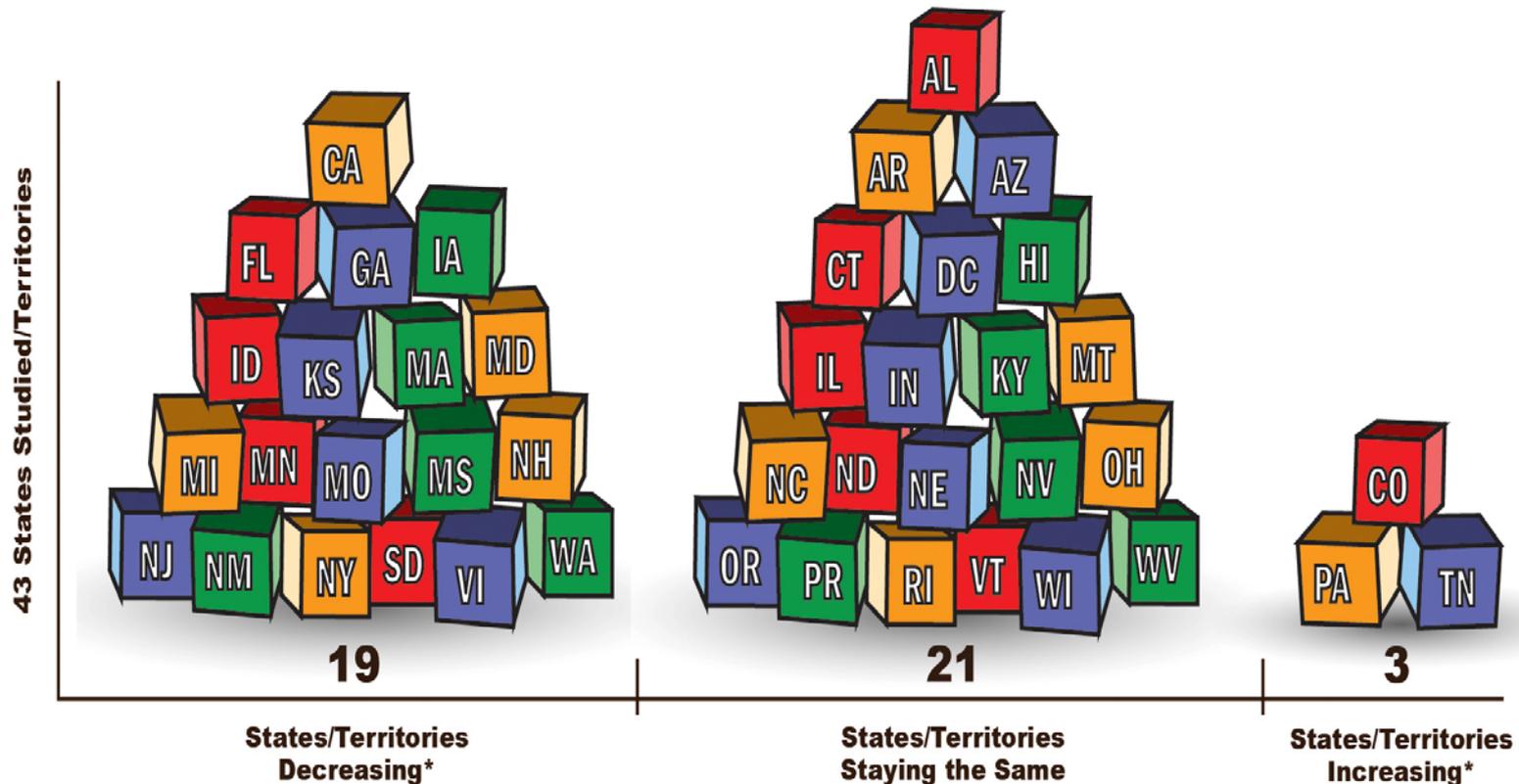
Taxation (article 6)	Smoke-free policies (article 8)	Warning labels (article 11)	Bans on advertising, promotion, and sponsorship (article 13)	Cessation programmes (article 14)
<p>Taxes comprise at least 75% of retail price of the most popular brands of cigarettes</p>	<p>All public places completely smoke-free:</p> <ul style="list-style-type: none"> <li>• Health-care facilities</li> <li>• Educational facilities</li> <li>• Universities</li> <li>• Government facilities</li> <li>• Indoor offices</li> <li>• Hospitality venues (restaurants, bars, pubs, etc)</li> <li>• Public transportation</li> </ul>	<p>Large warnings covering an average of at least 50% of the front and back of the package* with all appropriate characteristics:</p> <ul style="list-style-type: none"> <li>• Specific warnings are mandated and rotated</li> <li>• Describing the harmful effects of tobacco use on health</li> <li>• Located on individual packs and any outside packaging used in retail sale</li> <li>• Large, clear, visible, and legible</li> <li>• Written in (all) principal language(s) of the country</li> <li>• Including pictures or pictograms (photographic or graphic)</li> </ul>	<p>A ban on all forms of direct and indirect advertising:</p> <ul style="list-style-type: none"> <li>• National television and radio</li> <li>• Local magazines and newspaper</li> <li>• Billboards (and all other outdoor advertising)</li> <li>• Point-of-sale advertising</li> <li>• Free distribution by mail or other means</li> <li>• Promotional discounts</li> <li>• Non-tobacco goods and services identified with brand names</li> <li>• Brand name of non-tobacco goods and services used for tobacco products</li> <li>• Appearance of tobacco brands or products in television and films</li> <li>• Sponsored events</li> </ul>	<p>A national toll-free quit line, and both nicotine replacement treatment and some or all cessation services partially or fully cost-covered</p>

Gravely, et al. Implementation of key demand-reduction measures of the WHO Framework Convention on Tobacco Control and change in smoking prevalence in 126 countries: an association study. *The Lancet Public Health*. March 2017

# Why PSE?

- Make the right choice the easy choice
- Make the easy choice the right choice
  
- Focus on individual behavior
  - Highly resource intensive
    - Requires intense motivation
    - Difficult to sustain
  
- Focus on invisible hand that shapes behaviors
  - Impacts primary prevention
  - Can address needs of social sectors with less education
  - Does not require intense motivation

# Obesity rates among low-income preschoolers decreased in many states

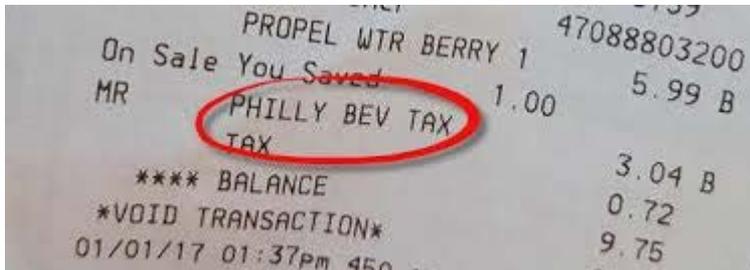


SOURCE: CDC Vital Signs, August, 2013. [www.cdc.gov/vitalsigns](http://www.cdc.gov/vitalsigns). Pediatric Nutrition Surveillance System, 2008-2011. \*Represents statistically significant annual decrease or increase in obesity. To learn more about how childhood obesity is measured, see <http://www.cdc.gov/obesity/childhood/basics.html>.



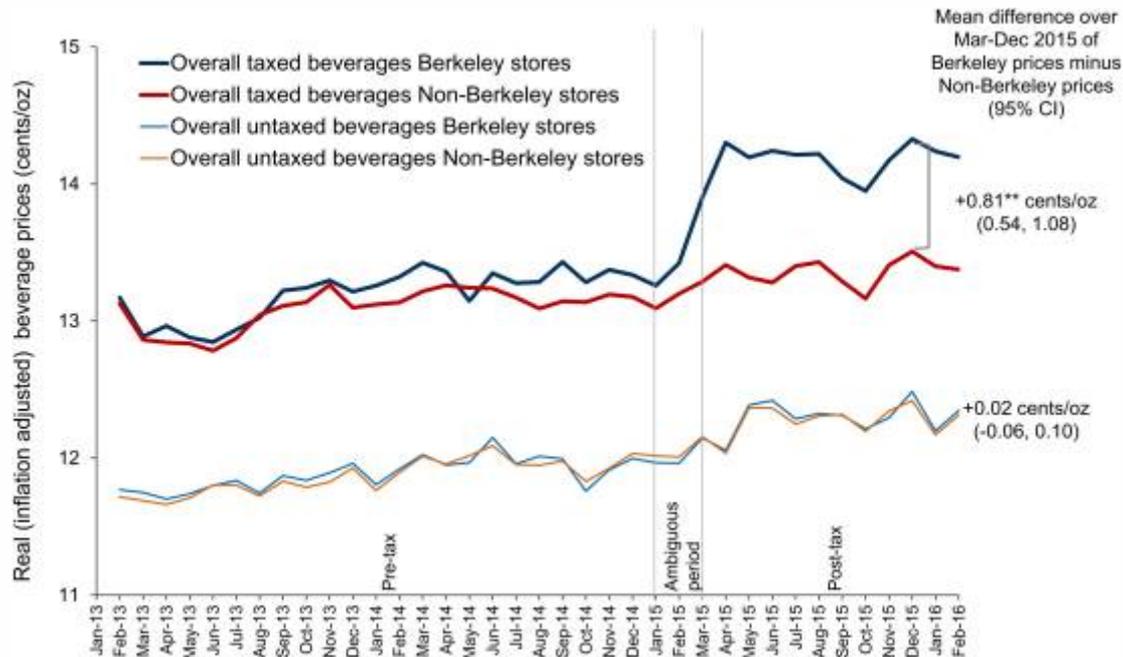
# **Policy, Systems and Environmental Change Examples from across the Globe**

# Soda Taxes



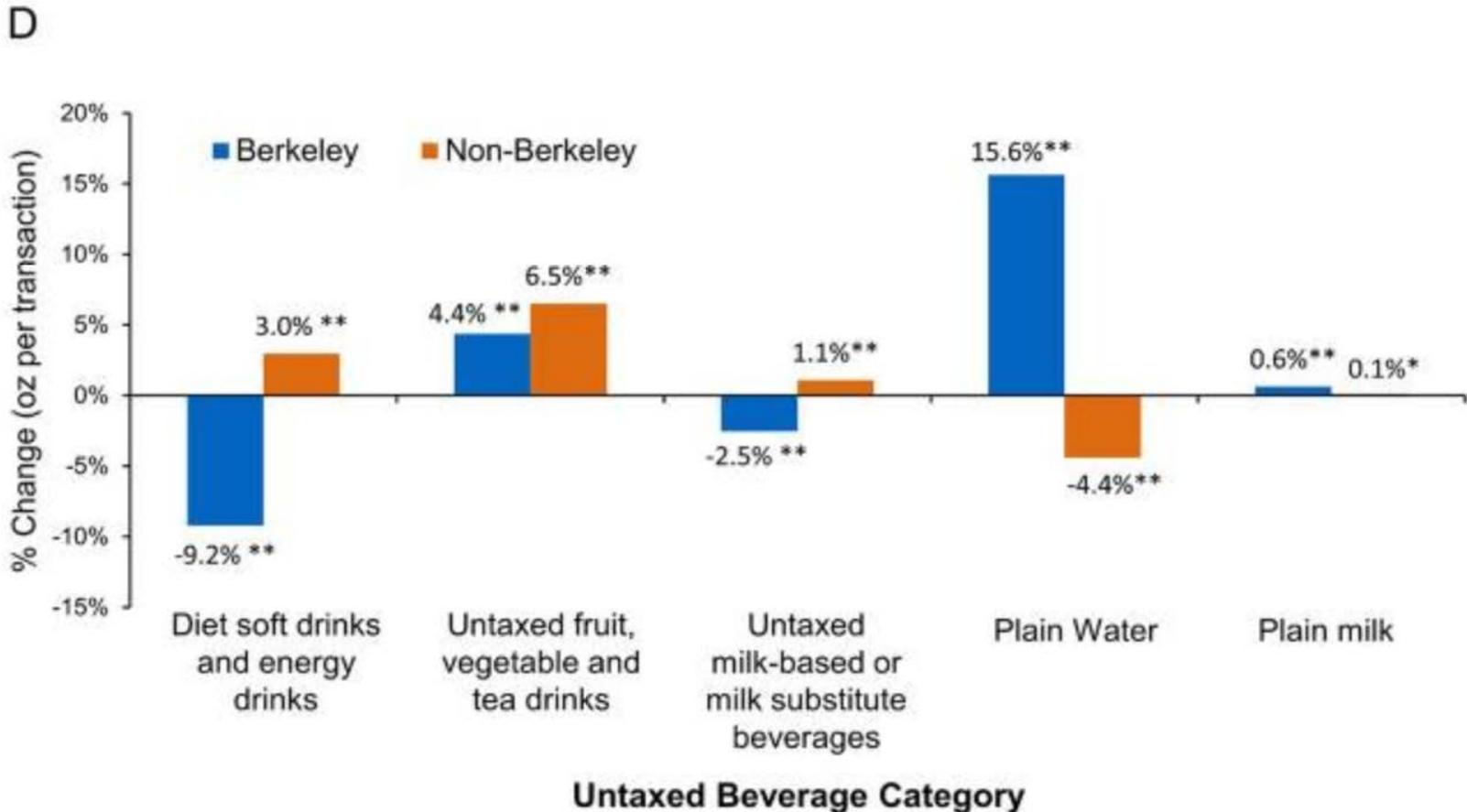
- Mexico
- France
- Hungary
- Ireland
- United Kingdom
- Spain
  
- California x4
- Illinois x 1
- Pennsylvania x1
- Colorado x 1

# Prices increased with SSB tax

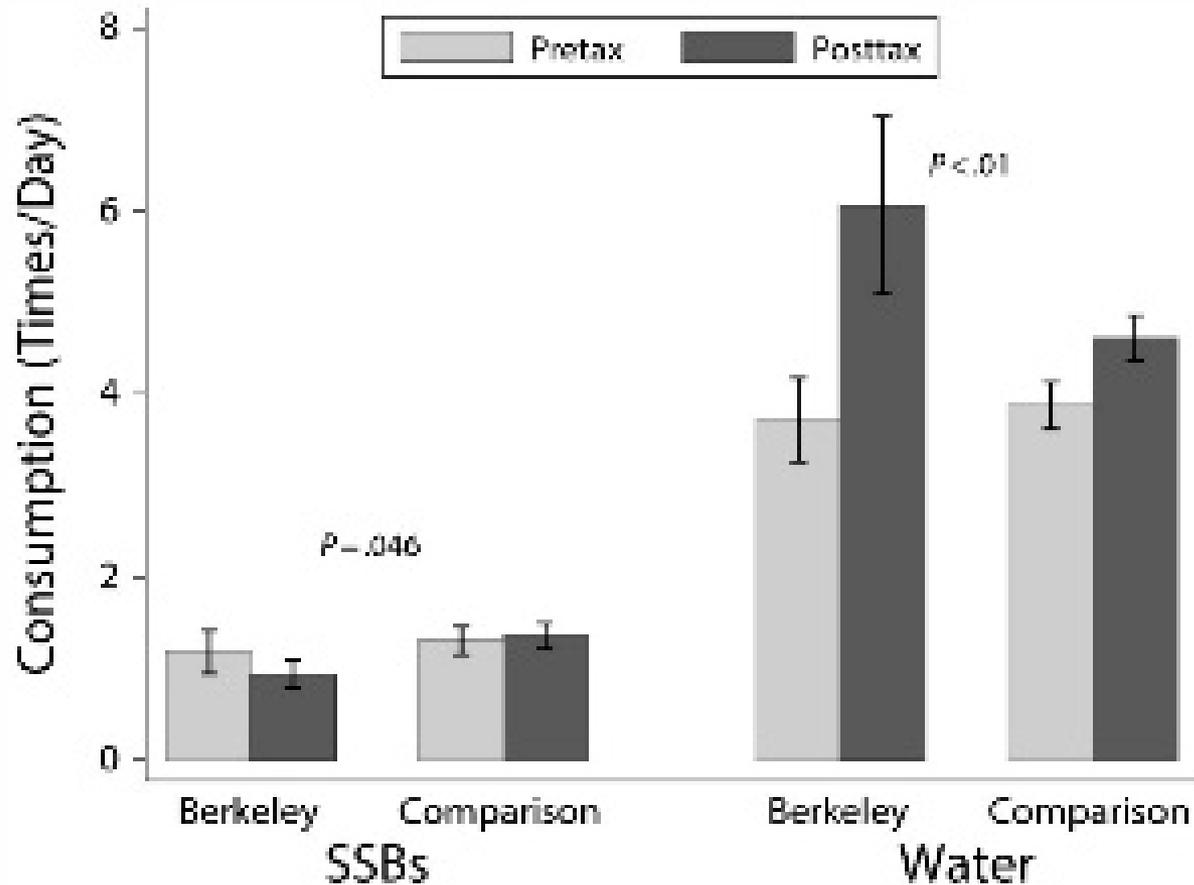


[Silver L; PLoS Med. 2017 Apr; 14\(4\): e1002283](#)

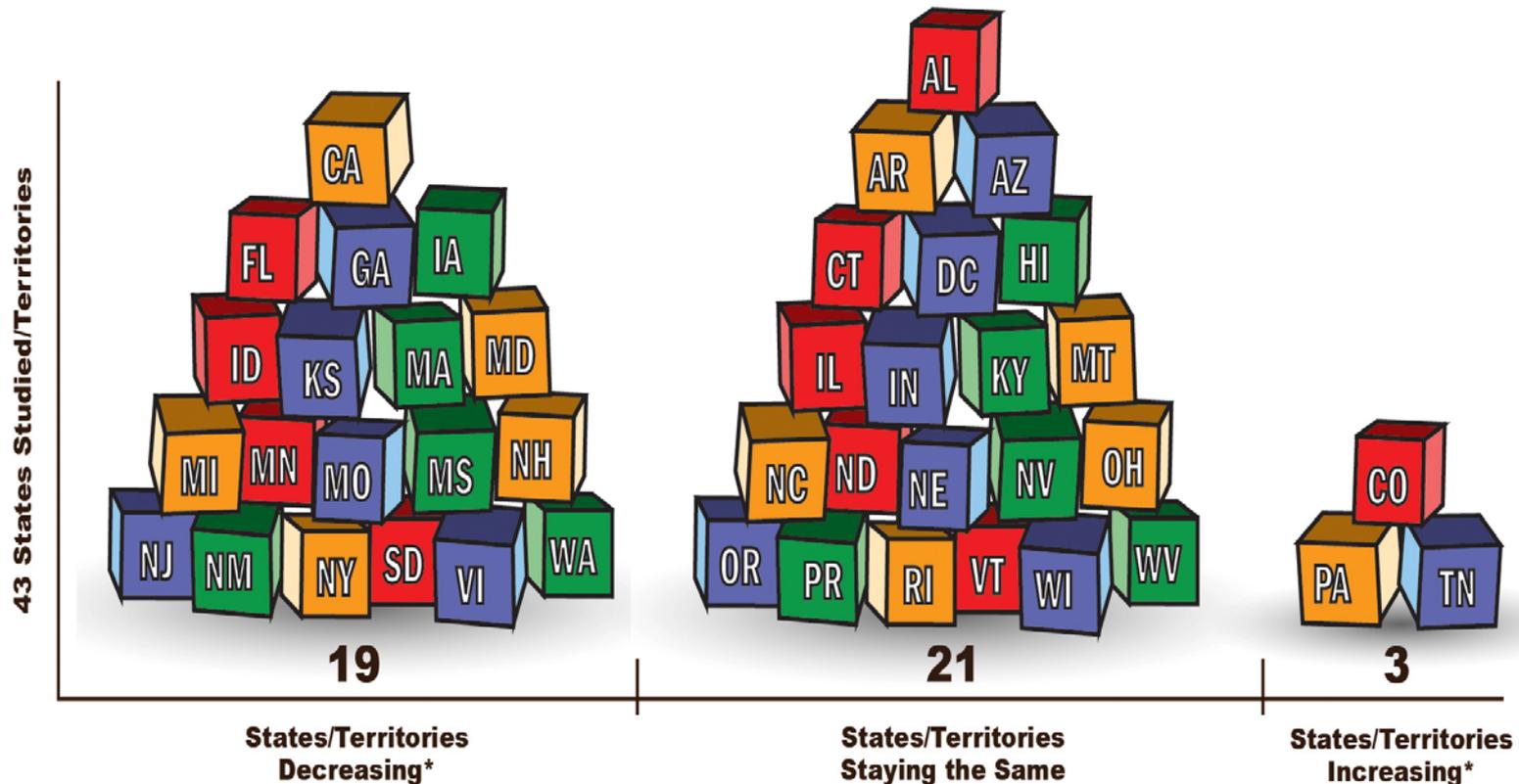
# Changes in Consumption One Year Post Tax



# Decreased Consumption of SSB in Berkeley



# Obesity rates among low-income preschoolers decreased in many states



SOURCE: CDC Vital Signs, August, 2013. [www.cdc.gov/vitalsigns](http://www.cdc.gov/vitalsigns). Pediatric Nutrition Surveillance System, 2008-2011. \*Represents statistically significant annual decrease or increase in obesity. To learn more about how childhood obesity is measured, see <http://www.cdc.gov/obesity/childhood/basics.html>.

# Front of Package Nutrition Labels

- Chile implemented warning labels. Impact on consumer knowledge seen
- Bolivia, Ecuador (traffic lights).
- Venezuela regulating SSB labels Prompted Chilean companies to reformulate products



# Systems Change: Enrollment in state/national nutrition programs

Qualifying schools sign up for *Let's Move! Salad Bars to School* or *Let's Move! Active Schools* program



Salad Bars to Schools  
www.saladbartoschools.org

WHY support salad bars  
GET a salad bar in your school  
DONATE to the program  
ABOUT US  
THE MIX news, tips, & stories  
OUR SPONSORS

Search the Site

SIGN UP FOR OUR NEWSLETTER

Salad Bars + Schools = More Fruits & Vegetables For Children

\$12,962,429 RAISED SO FAR  
388 SCHOOLS WAITING FOR A SALAD BAR  
2,491,500 KIDS SERVED  
4,983 SALAD BARS GRANTED

We donate salad bars to schools so that every child across our nation has daily access to fresh fruits and vegetables.

GET A SALAD BAR IN YOUR SCHOOL

Let's Move. Active Schools

THE MOVEMENT

SCHOOL CHAMPIONS

PARENTS

RESOURCES & GRANTS

LATEST STORIES

LOG IN

SIGN UP



Go from #0to60 with Active Schools

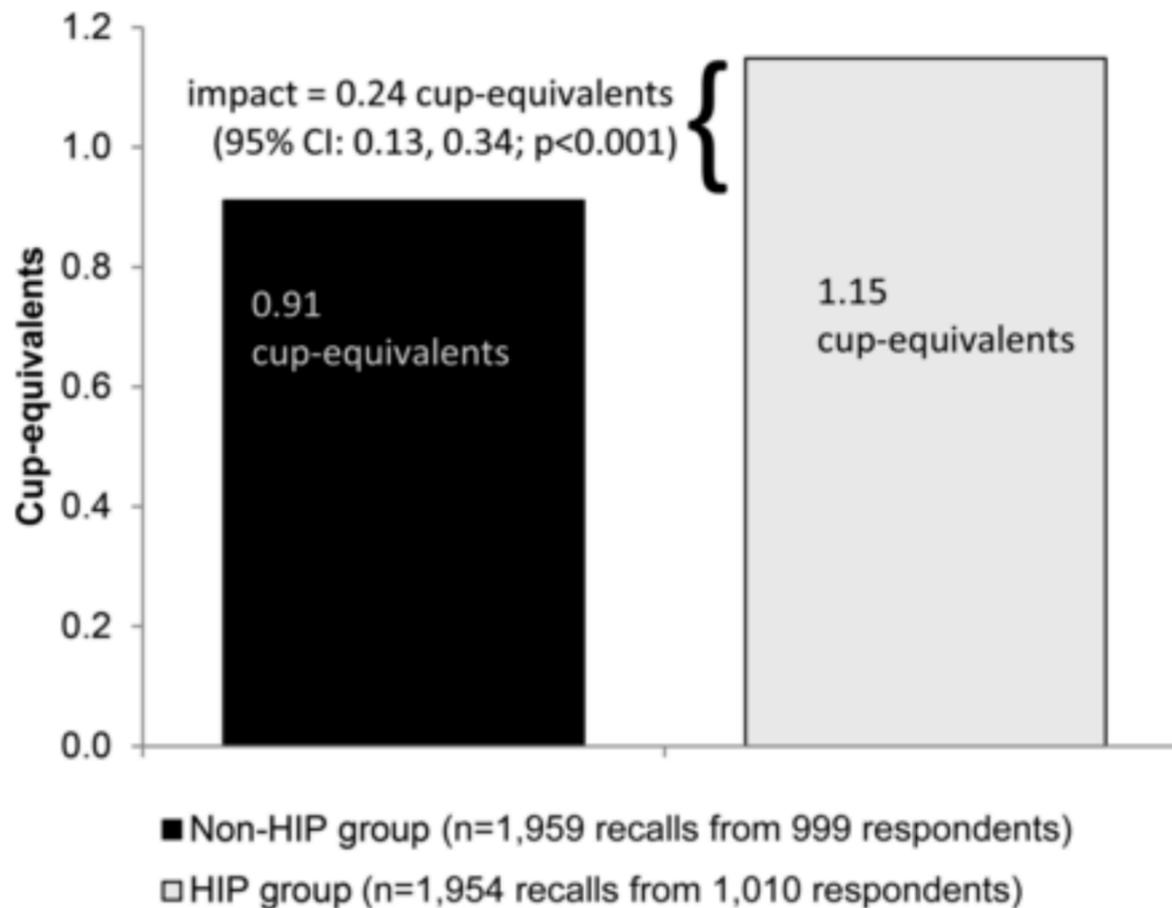
Join the movement to increase physical education and physical activity in our nation's schools.

JOIN THE MOVEMENT

CHAMPION PROVIDER FELLOWSHIP

# Subsidies for Purchase of Healthy Foods

- Cost of F&V in US is a contributing factor to low consumption
- RCT of financial incentives increased F&V among SNAP participants
- Other RCTs ongoing in US
- Increased focus on food insecurity in health systems



From: Financial incentives increase fruit and vegetable intake among Supplemental Nutrition Assistance Program participants: a randomized controlled trial of the USDA Healthy Incentives Pilot

Am J Clin Nutr. 2016;104(2):423-435. doi:10.3945/ajcn.115.129320

Am J Clin Nutr | © 2016 American Society for Nutrition

# Healthcare and Food

## HEALTHCARE FINANCE

REIMBURSEMENT | REVENUE CYCLE MANAGEMENT | STRATEGIC PLANNING

MAY 16, 2017 MORE ON PATIENT ENGAGEMENT

### Major hospitals, doctors prioritize food insecurity in patient care

Patients with a near-bare cupboard might buy unhealthful food or skimp on prescriptions or avoid going hungry.



## Boston Medical Center's Preventive Food Pantry Merges Nutrition and Healthcare

Patients get referred to the pantry by their primary care physician.

by JAMIE DUCHARME • 9/25/2014, 10:44 a.m.



Inside the Preventive Food Pantry. Photos provided to bostonmagazine.com

MPRnews

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### Hospital hands out food to patients in need

Julie Siple • Minneapolis • Feb 4, 2011

Issues



LISTEN Doctor launches food shelf at HCMC  
3min 41sec



Shanelle Milo, Diana Cutts MPR Photo/Julie Siple

Every time Dr. Diana Cutts walks into the pediatric clinic at Hennepin County Medical Center in Minneapolis, she knows there's a nearly one in three chance she'll find a family struggling with hunger.

With such research in mind -- and the knowledge that poor nutrition affects a child's physical and cognitive development -- Cutts pays close attention to whether families consistently have nutritious food at home.

When she meets parents like Shanelle Milo, a mother who recently brought in her eight-month-old daughter Saraiya for an exam, the conversation can quickly shift to food. That's what happened when Milo mentioned that she had run out of baby formula.

Milo, who lives in a shelter, told Cutts she has trouble affording enough nutritious food to feed her three children.

Cutts makes sure Milo receives benefits from the federal Women, Infants and Children (WIC) program.

Thx to Alice Chen, MD

# Environment: Complete Streets



- \$2 million allocated to the Bicycle Transportation Plan
- Wider bike lanes
  - Physical separations between bike lanes and cars
  - Citywide bicycling corridor

# Systems Change: Healthy Beverage Initiative

University of California San Francisco

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## UCSF Launches Healthy Beverage Initiative

Health Sciences Campus Will Focus Sales on Zero-Calorie and Nutritious Drinks

By Kristen Bole on May 29, 2015

UCSF Healthy Beverage Initiative



### Most Popular



Surprising New Role for Lungs: Making Blood



New Multiple Sclerosis Drug, Backed by 40 Years of Research, Could Halt Disease



Inspired by Work with Dalai Lama, Eve Ekman Creates App to Map Emotions

# Summary of Policy Initiatives Happening Across the Globe

- SSB Taxes
- Front of Packaging labeling
- Subsidies for FV for low income people
- Restriction of marketing of unhealthy food to children
- Environmental changes in schools, government buildings, hospitals, kid areas
- Campaigns to promote healthy diet

**What will it take?**

# Theory of Change

- Key role of civil society
  - Schools, community agencies, businesses, civic groups, unions, sports teams, etc. etc.
- Reflect norms; change norms
- Reflect structures; change structures
- Reflect laws; change norms

# Collective Impact Model

Table 1. Principles of Collective Impact and Evidence-to-Policy Population Health Translational Science, San Francisco Health Improvement Partnership, 2010–2016

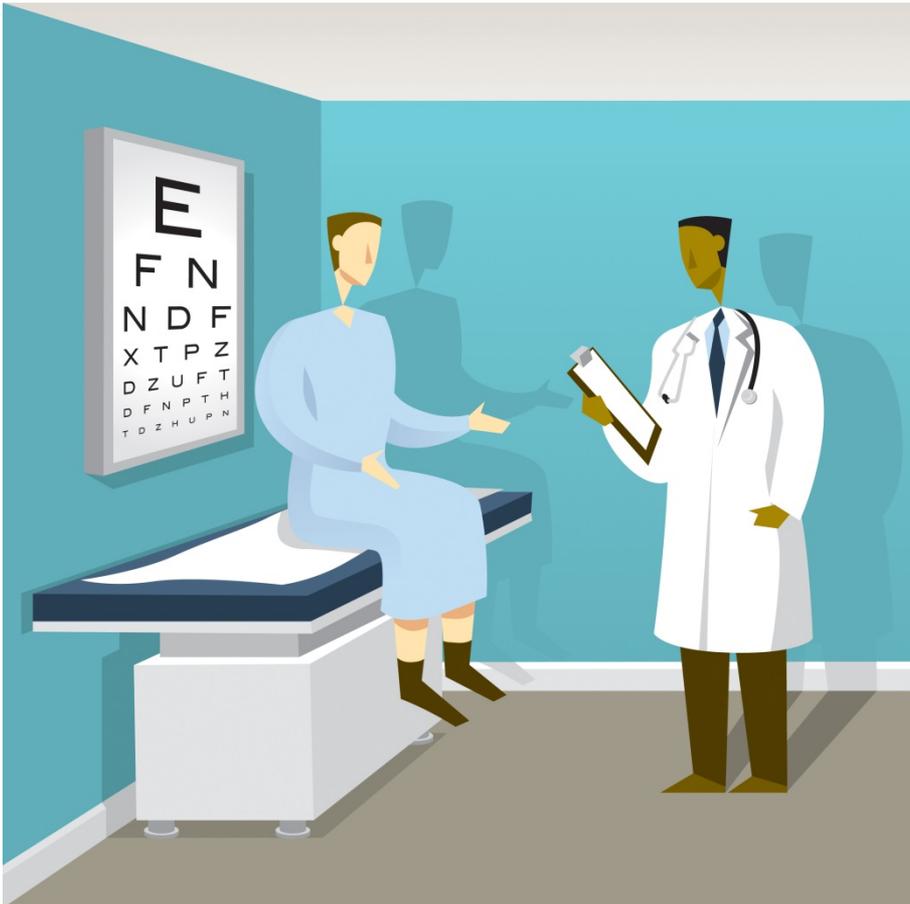
Principle	Component
Core elements of collective impact <sup>a</sup>	Common agenda
	Shared measurement strategy
	Mutually reinforcing activities
	Continuous communication
	“Backbone” support from organizations that provide staff and financial resources
Key ingredients of population health translational science <sup>b</sup>	Research responsive to user needs
	Understanding of the decision-making environment
	Effective stakeholder engagement
	Strategic communication
Health equity <sup>c</sup>	Achievement of social justice in health, measured by elimination of health disparities

<sup>a</sup> Source: Hanleybrown, et al (1).

<sup>b</sup> Source: Woolf, et al (3).

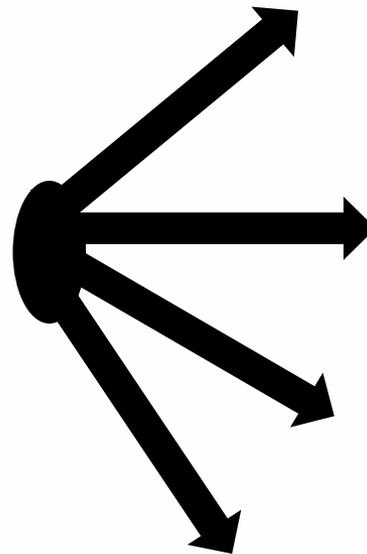
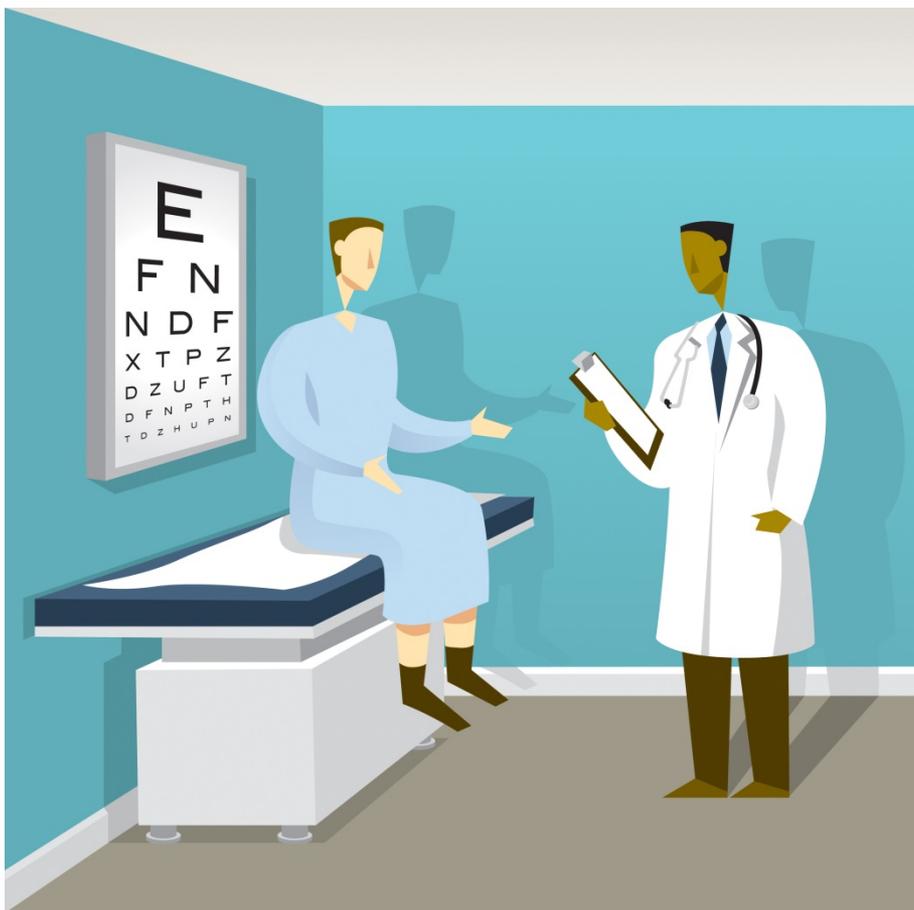
<sup>c</sup> Source: Braveman (5).

# Old Model



- Patient Care
- Medical Knowledge
- Interpersonal and Communication Skills
- Professionalism
- Practice-Based Learning and Improvement
- Systems-Based Practice

# New Model = Old Model *Plus*



# New Roles, New (ish) Skills

- Working in partnerships
- Public writing, speaking
- Educating decision makers
- Leading broad based groups
- Persuasion across interest groups
- Resilience to setbacks, delays, attacks

# Summary

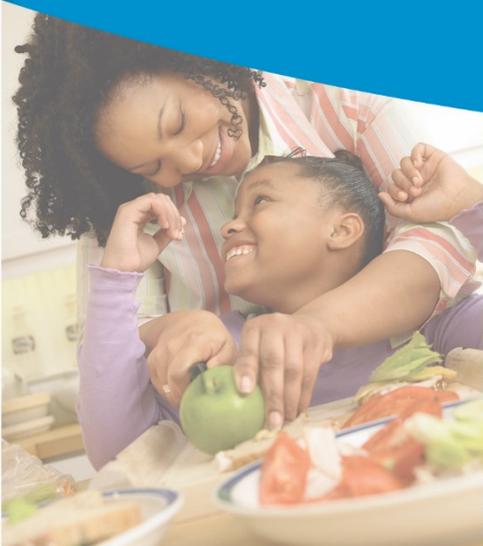
- Policy interventions: make the easy choice the right choice; make the right choice the easy choice
- Multi-level, multicomponent interventions led by community coalitions can create sustained change
- Much work is needed!

# Concluding thoughts

- Champion providers will be agents of change at the level of civil society by championing policy, system and environmental actions to prevent obesity
- Si se puede!

A close-up photograph of a silver stethoscope resting on a white surface, likely a doctor's coat or a table. The binaurals and chest piece are visible, with the tubing extending towards the right.

# QUESTIONS & DISCUSSION



# THANK YOU GRACIAS

