



Healthy Communities: What Local Governments Can Do To Reduce and Prevent Obesity

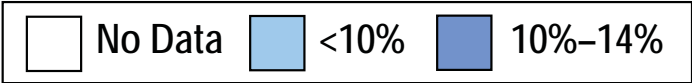
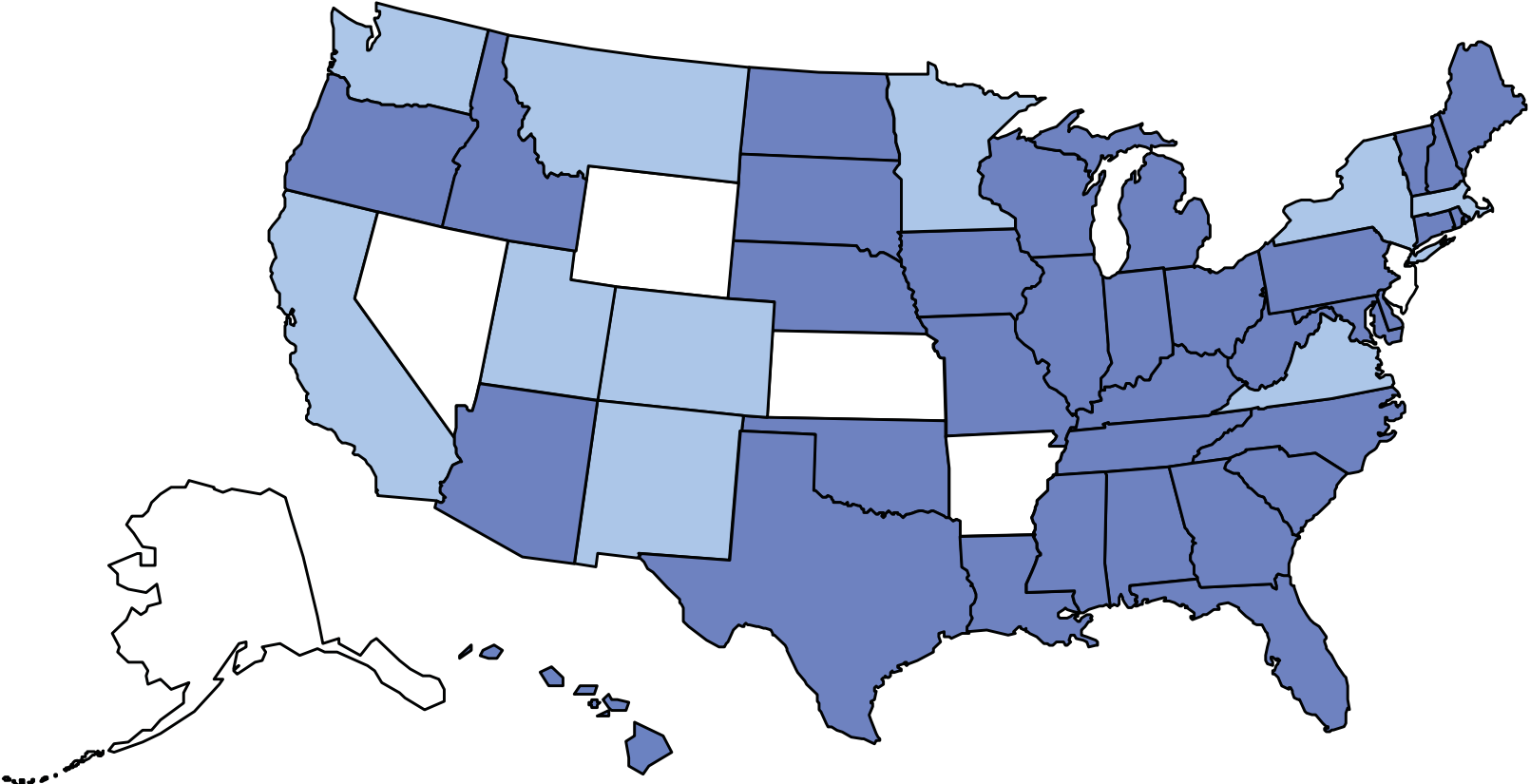


Presentation Overview

1. Overview of the Obesity Epidemic
2. How Did We Get Here?
3. Why Should Local Governments Care?
4. Policy & Environmental Change to Address Obesity
5. CDC Recommended Community Strategies and Measurements to Prevent Obesity

Obesity Trends* Among U.S. Adults, BRFSS 1990 (1)

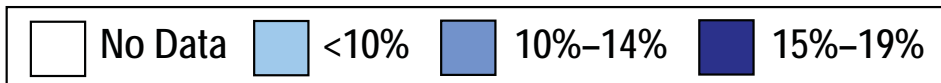
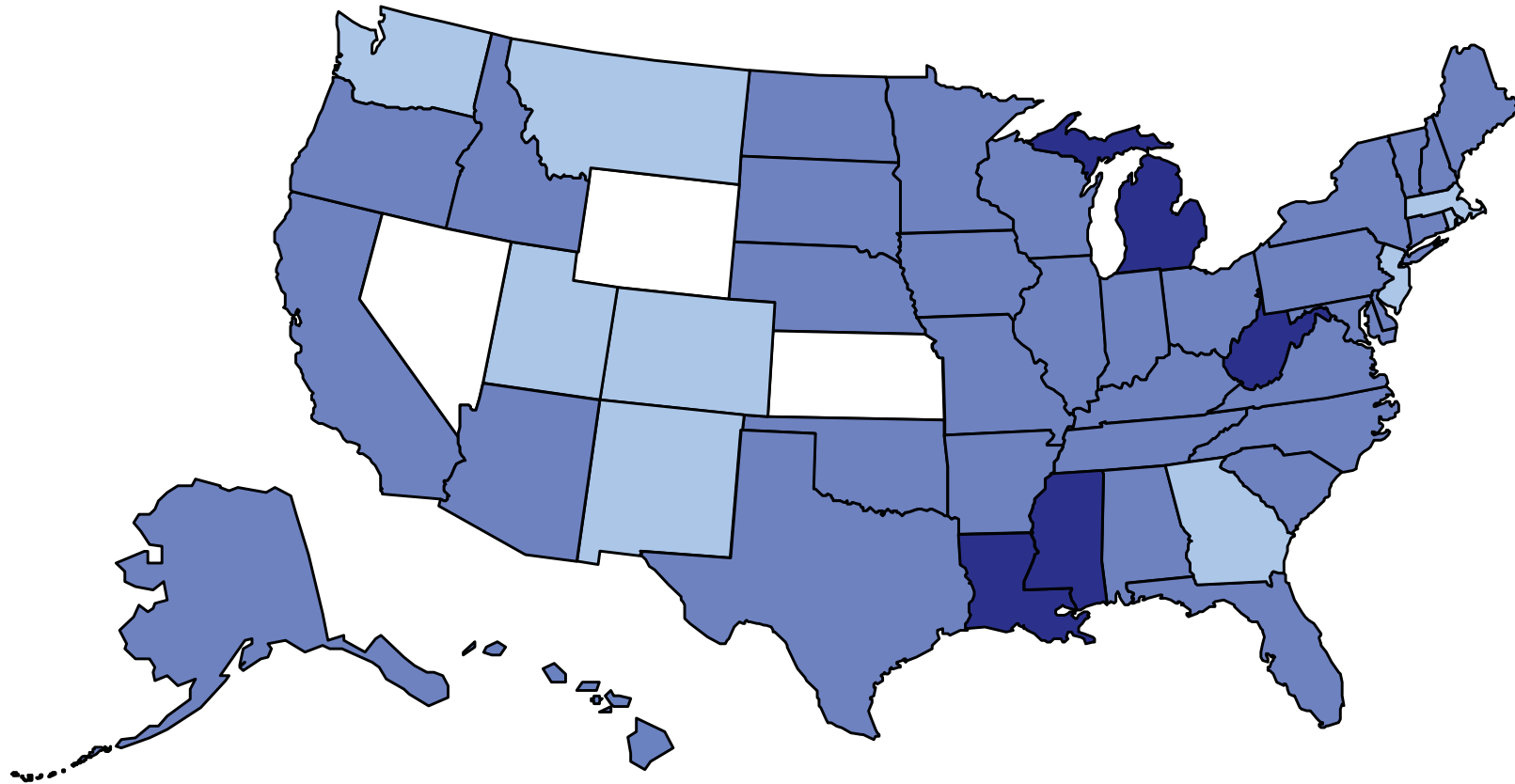
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 1991

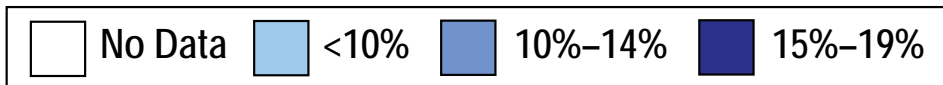
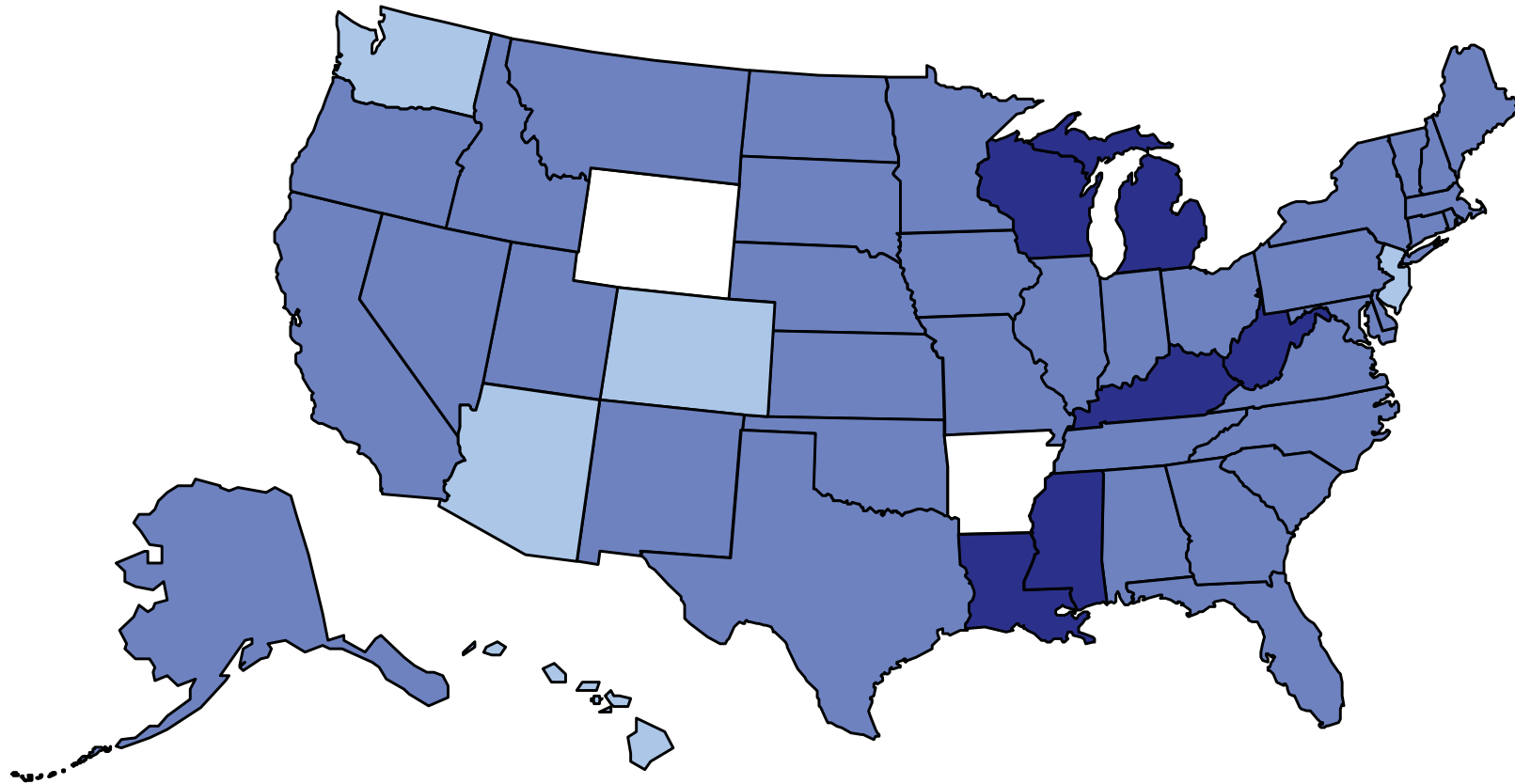
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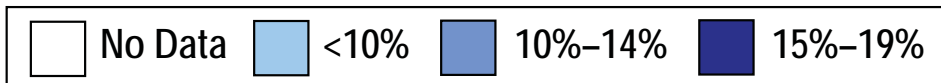
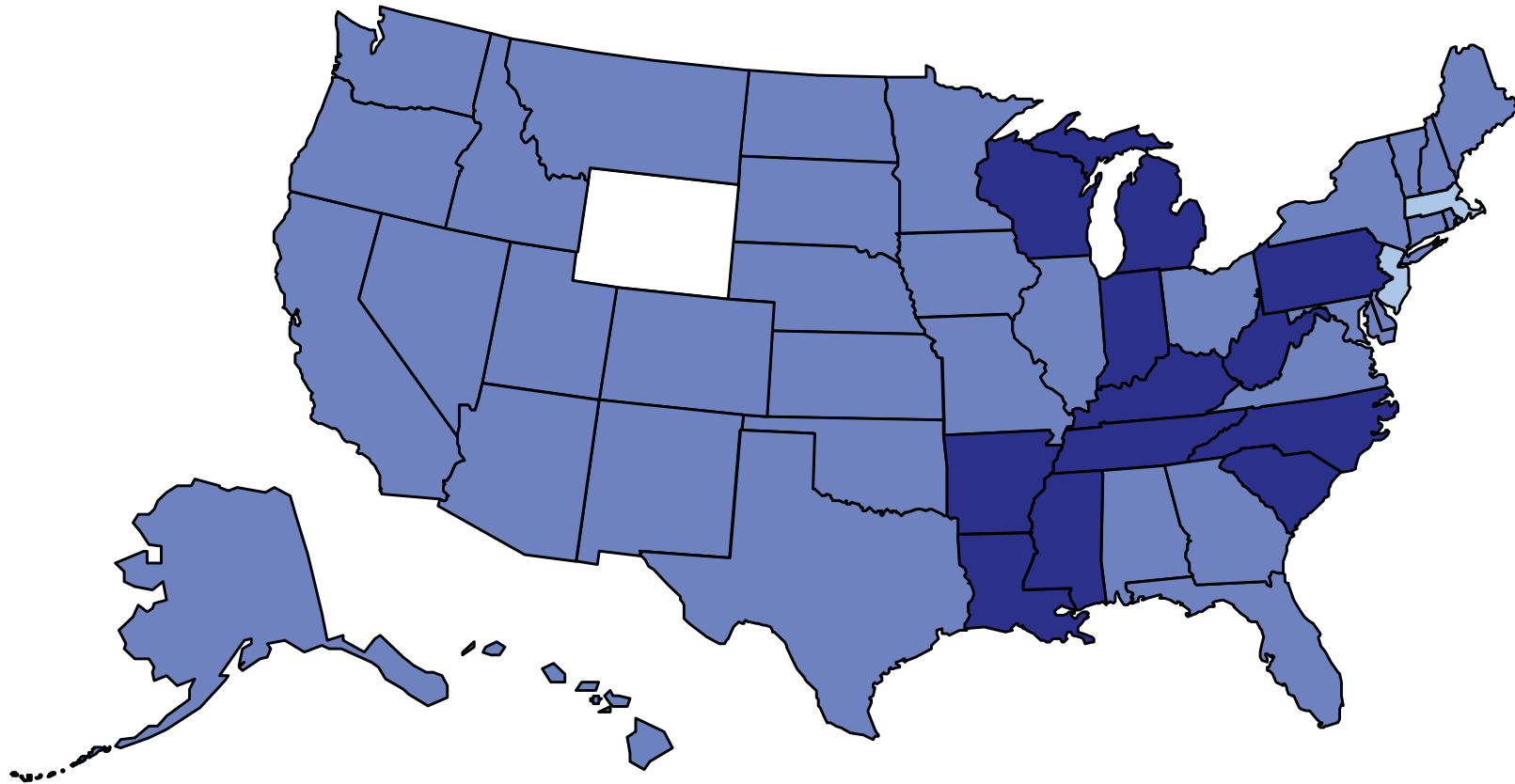
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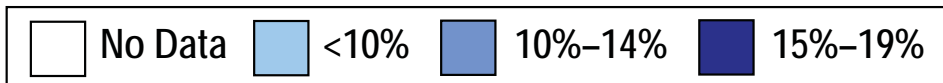
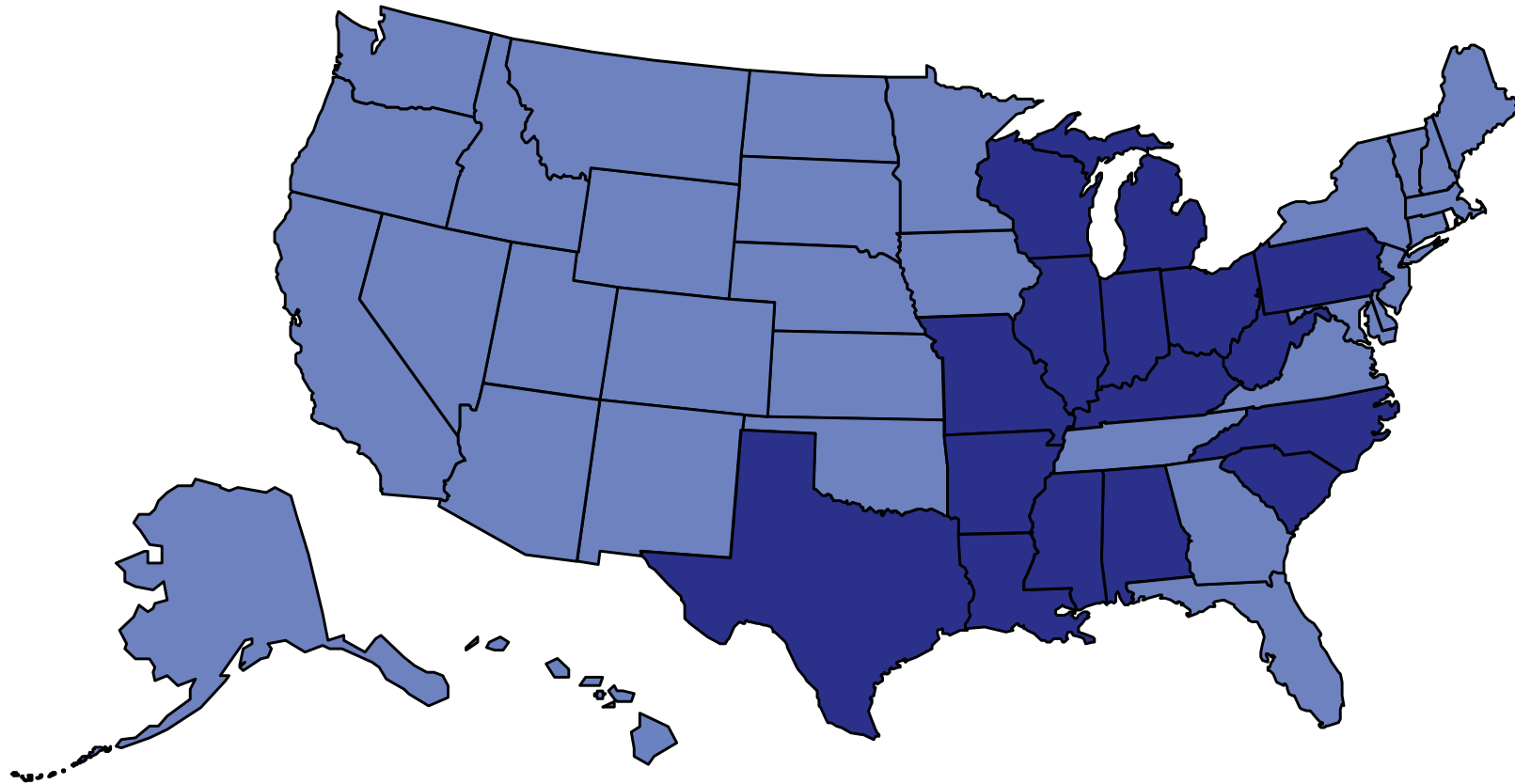
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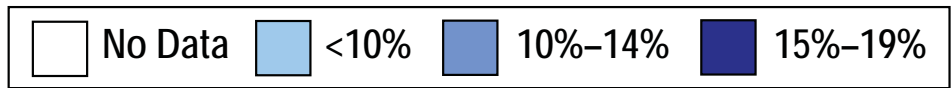
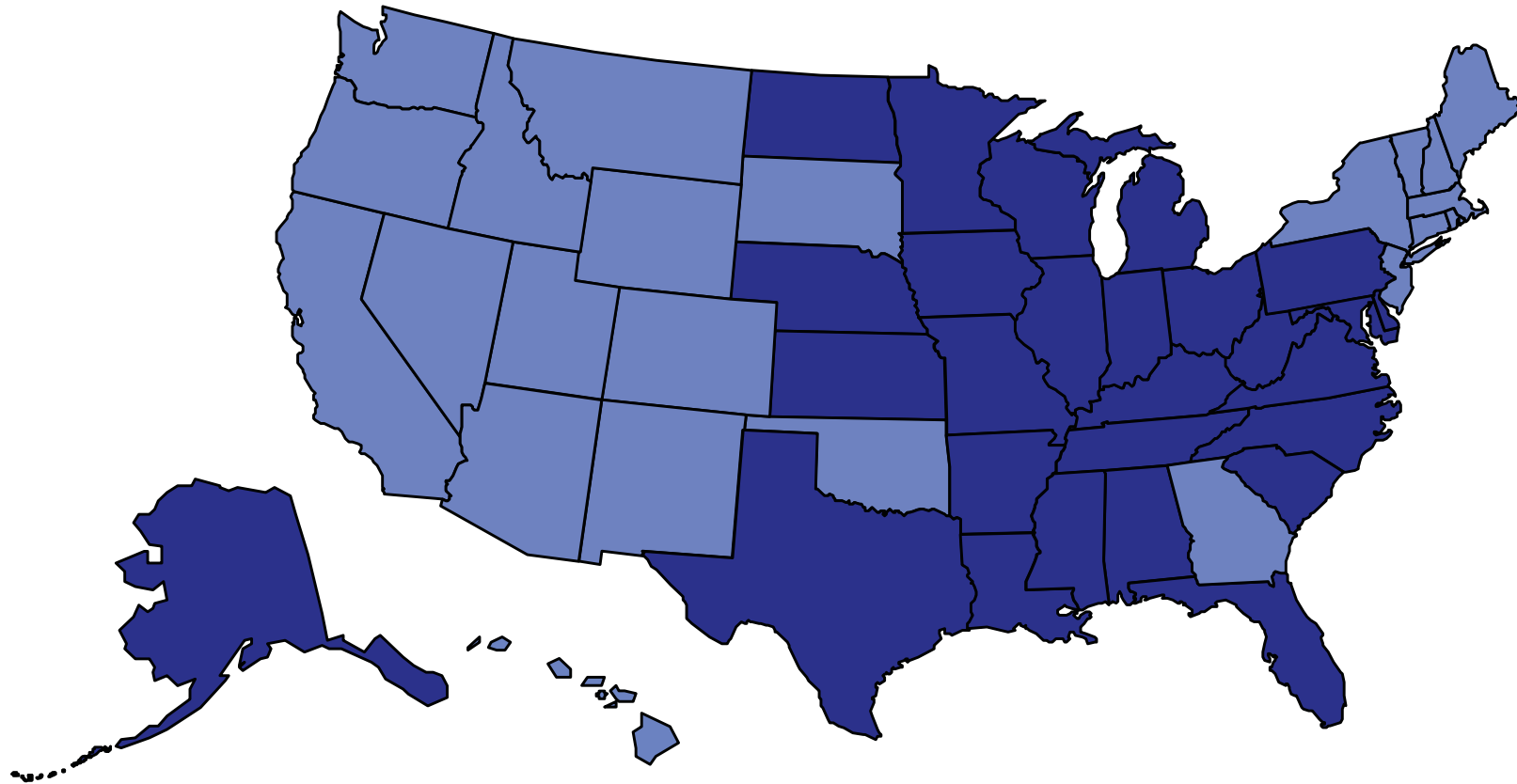
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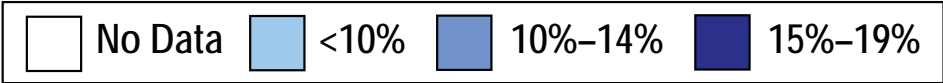
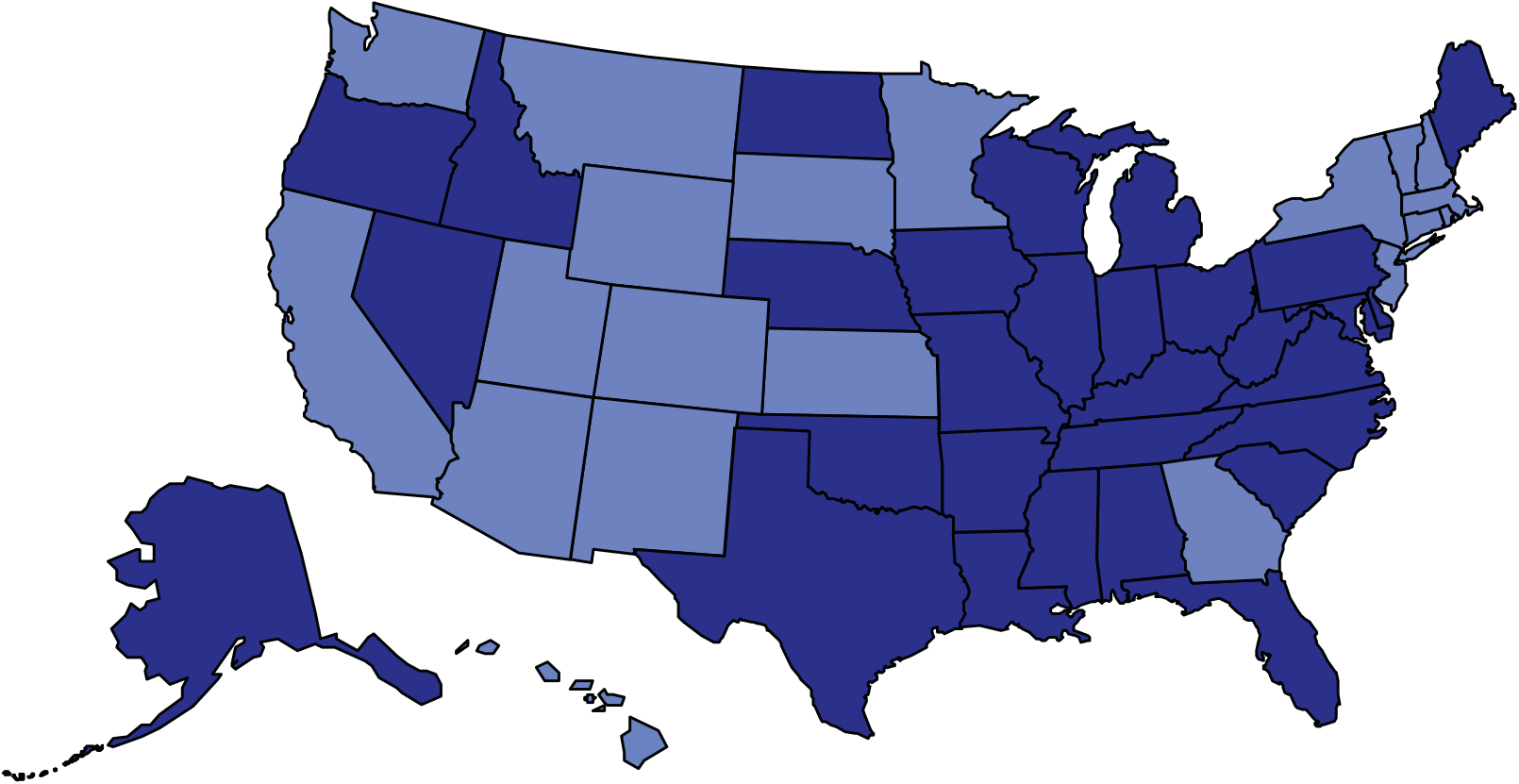
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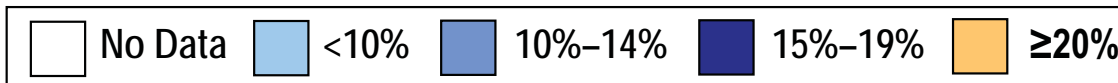
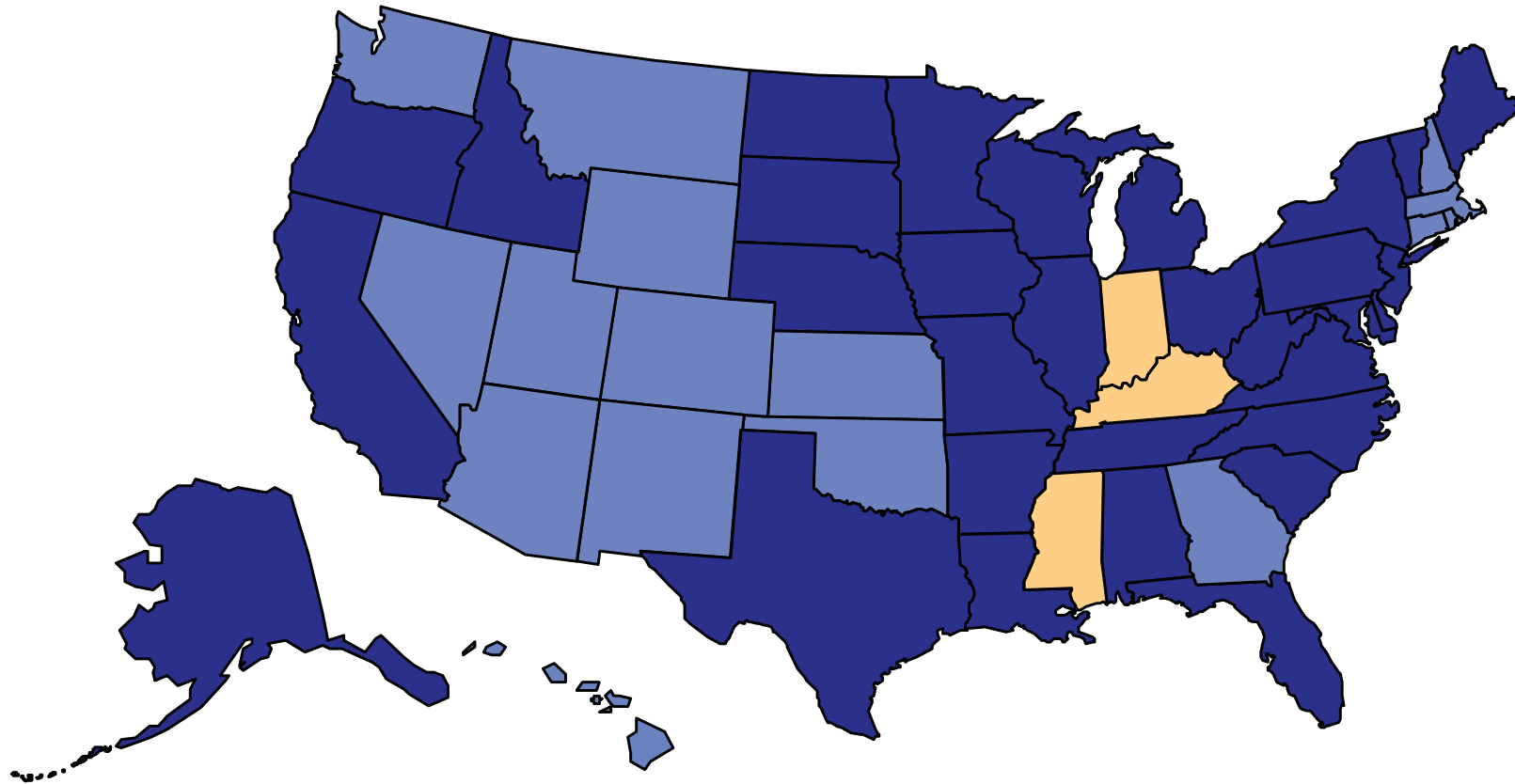
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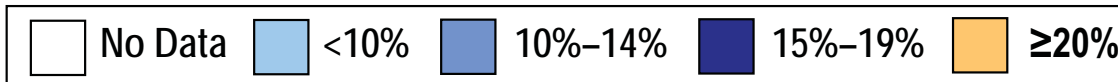
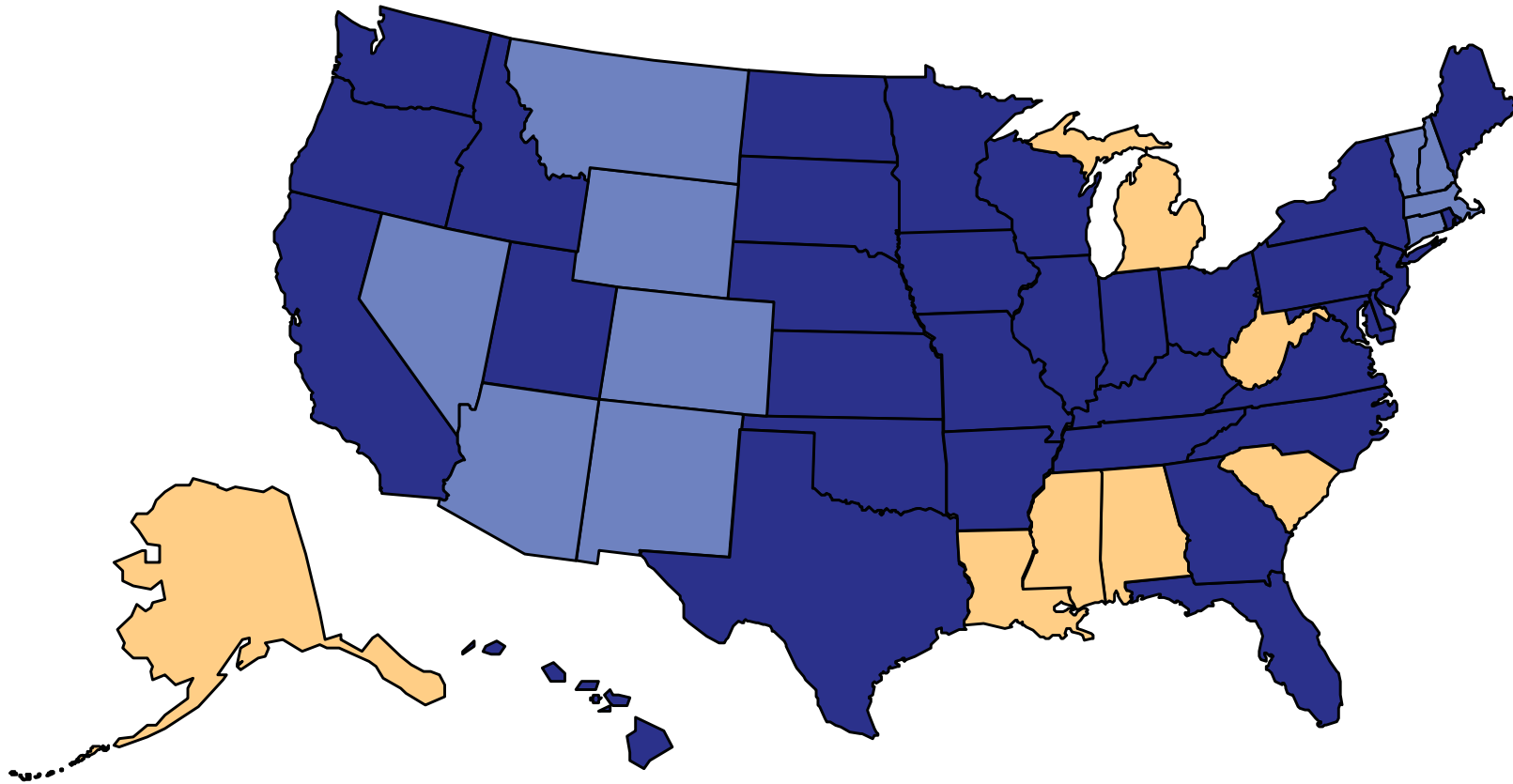
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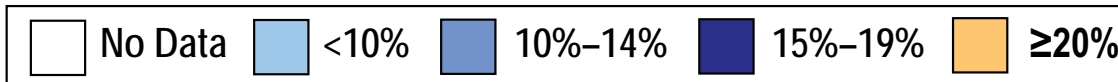
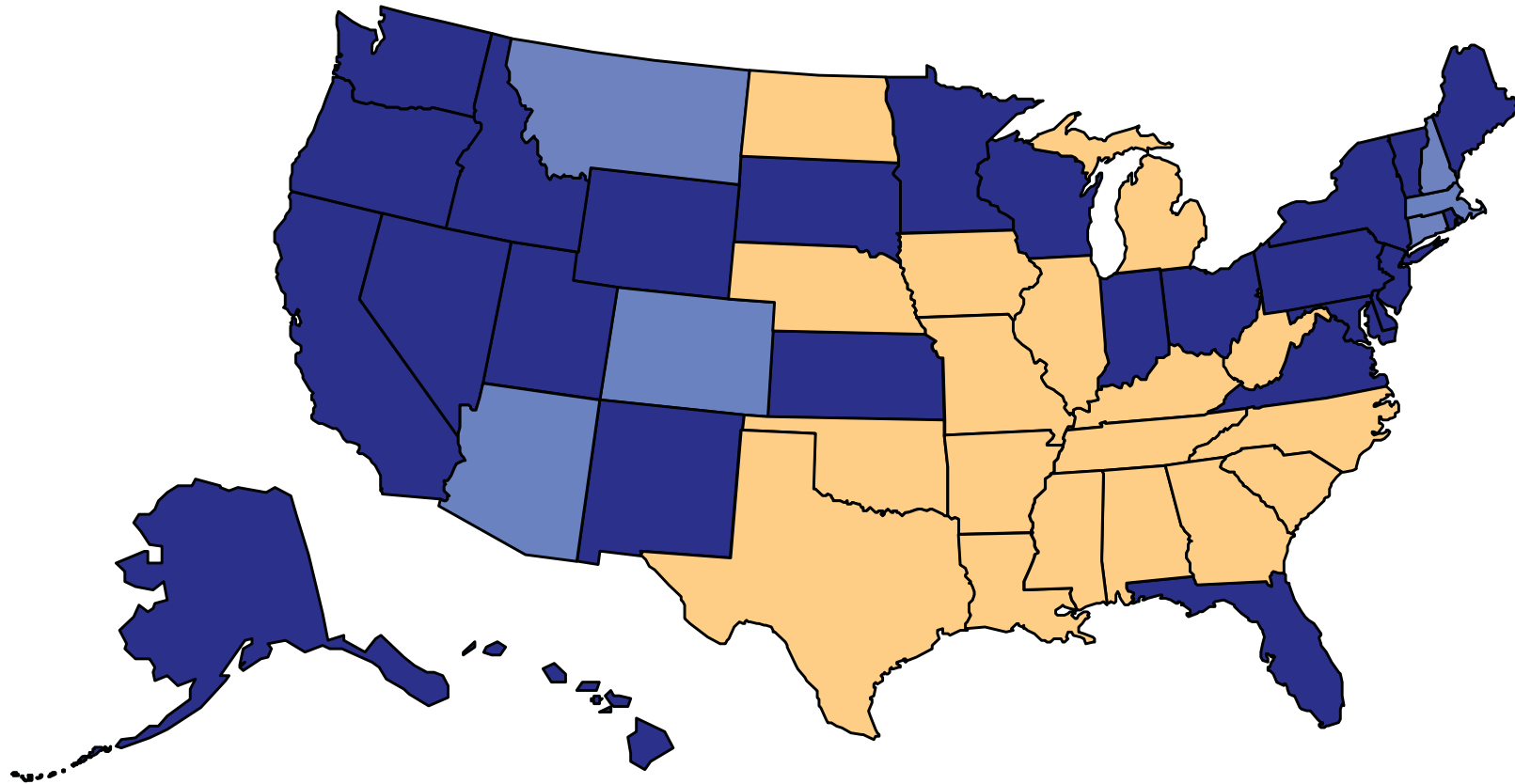
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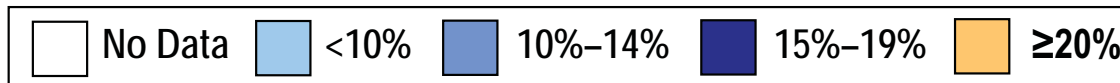
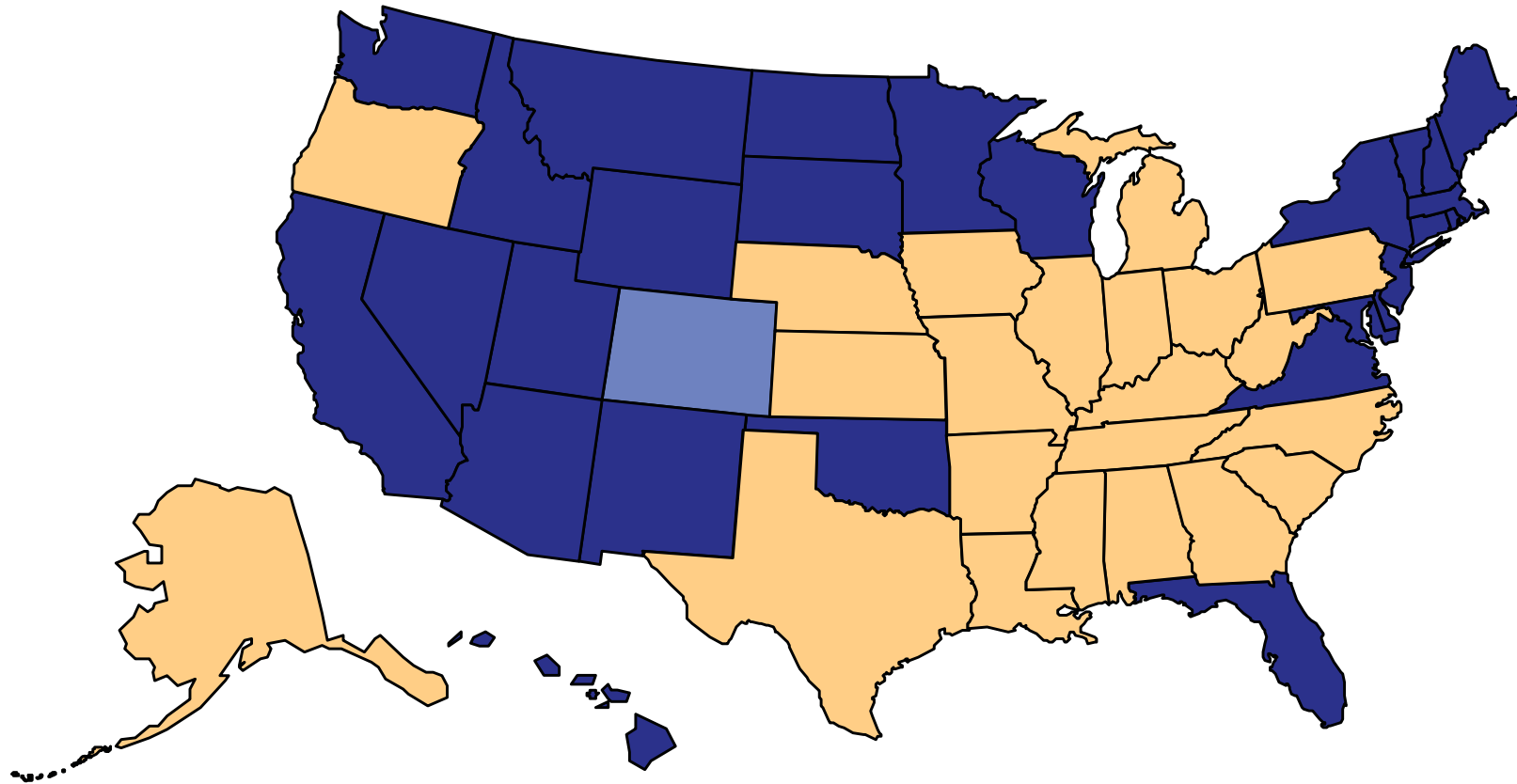
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2000

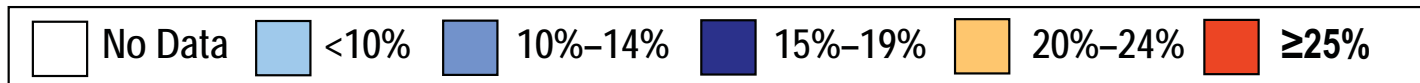
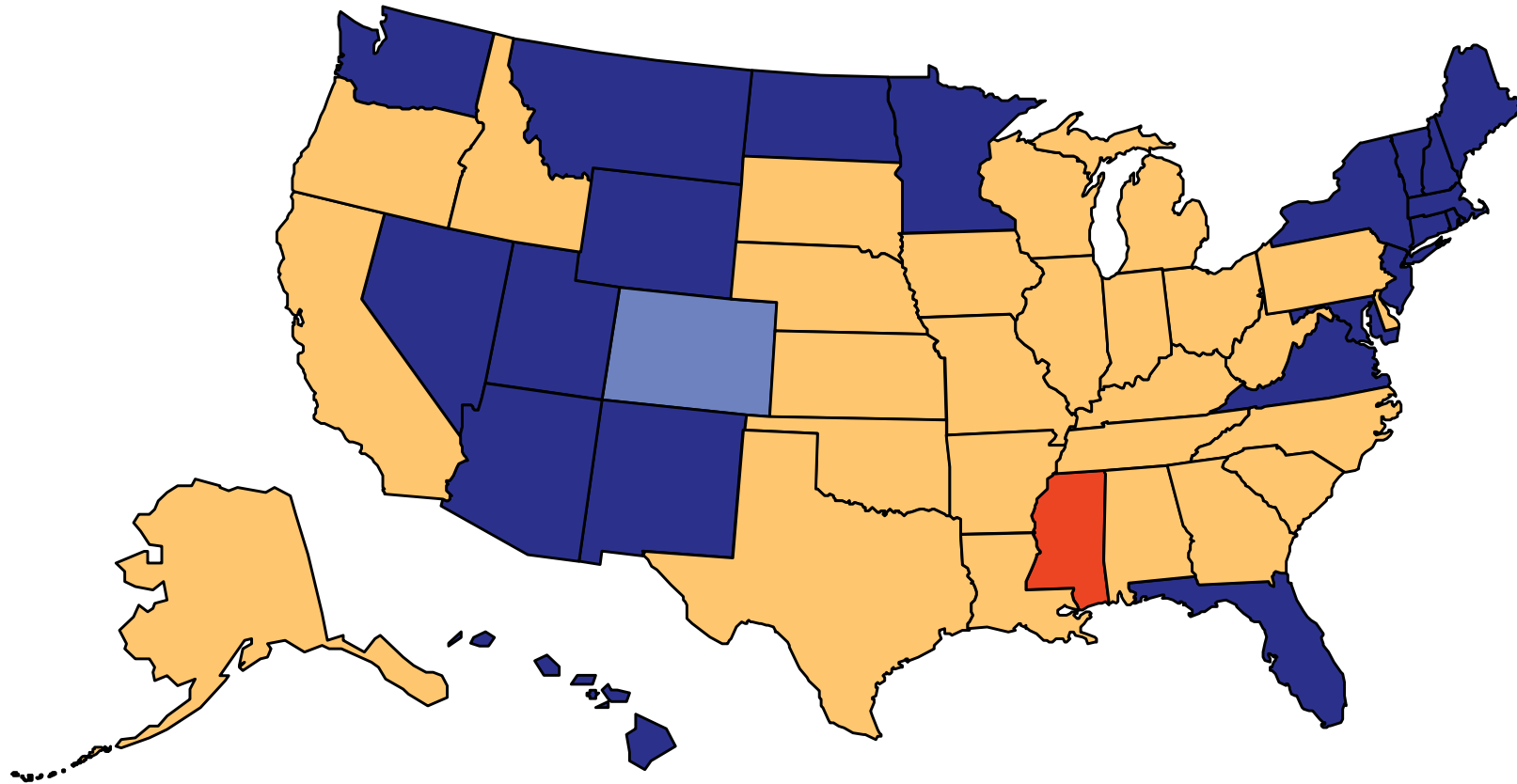
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2001

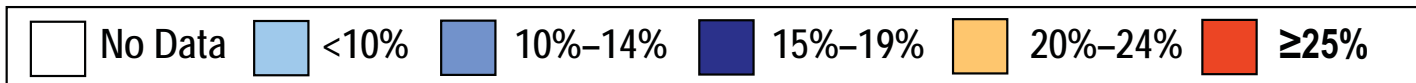
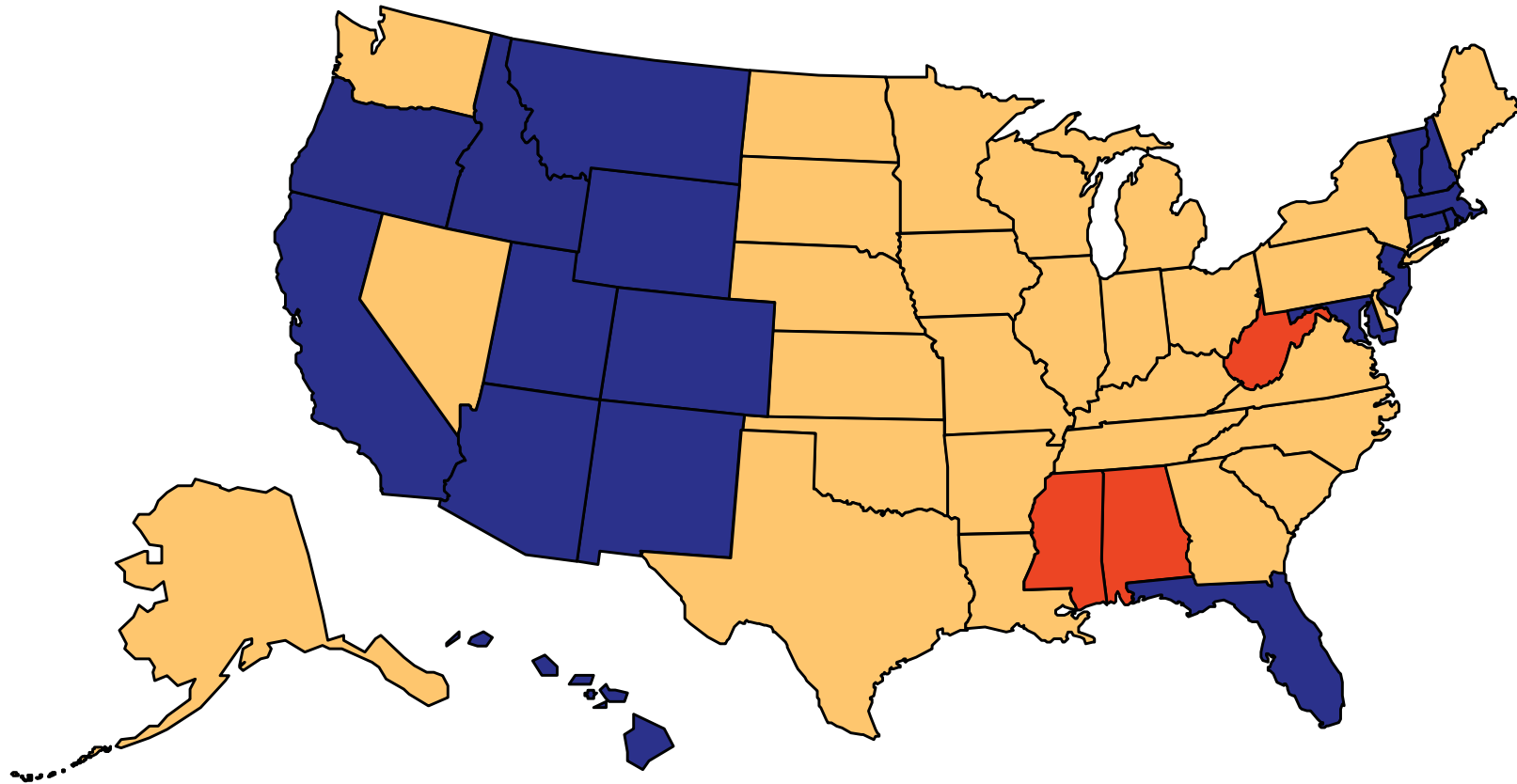
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2002

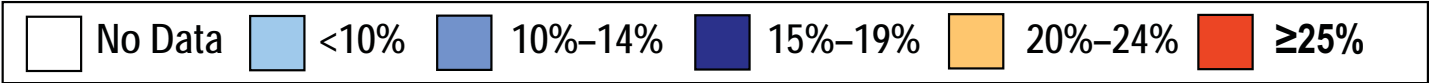
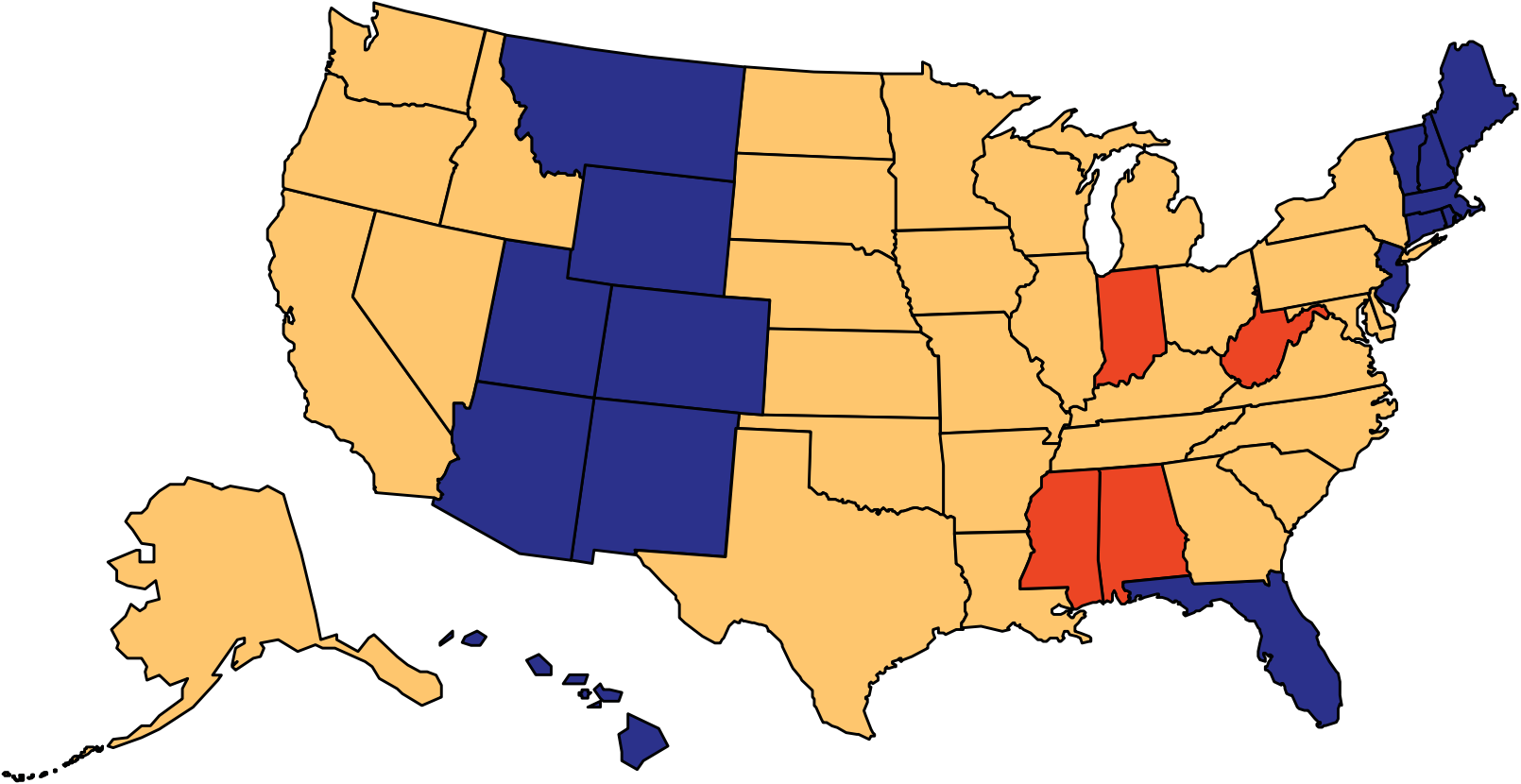
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2003

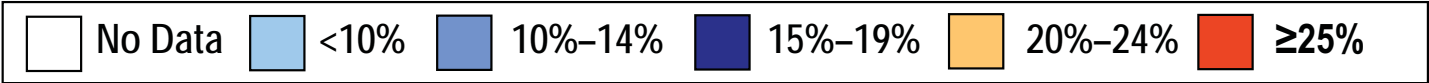
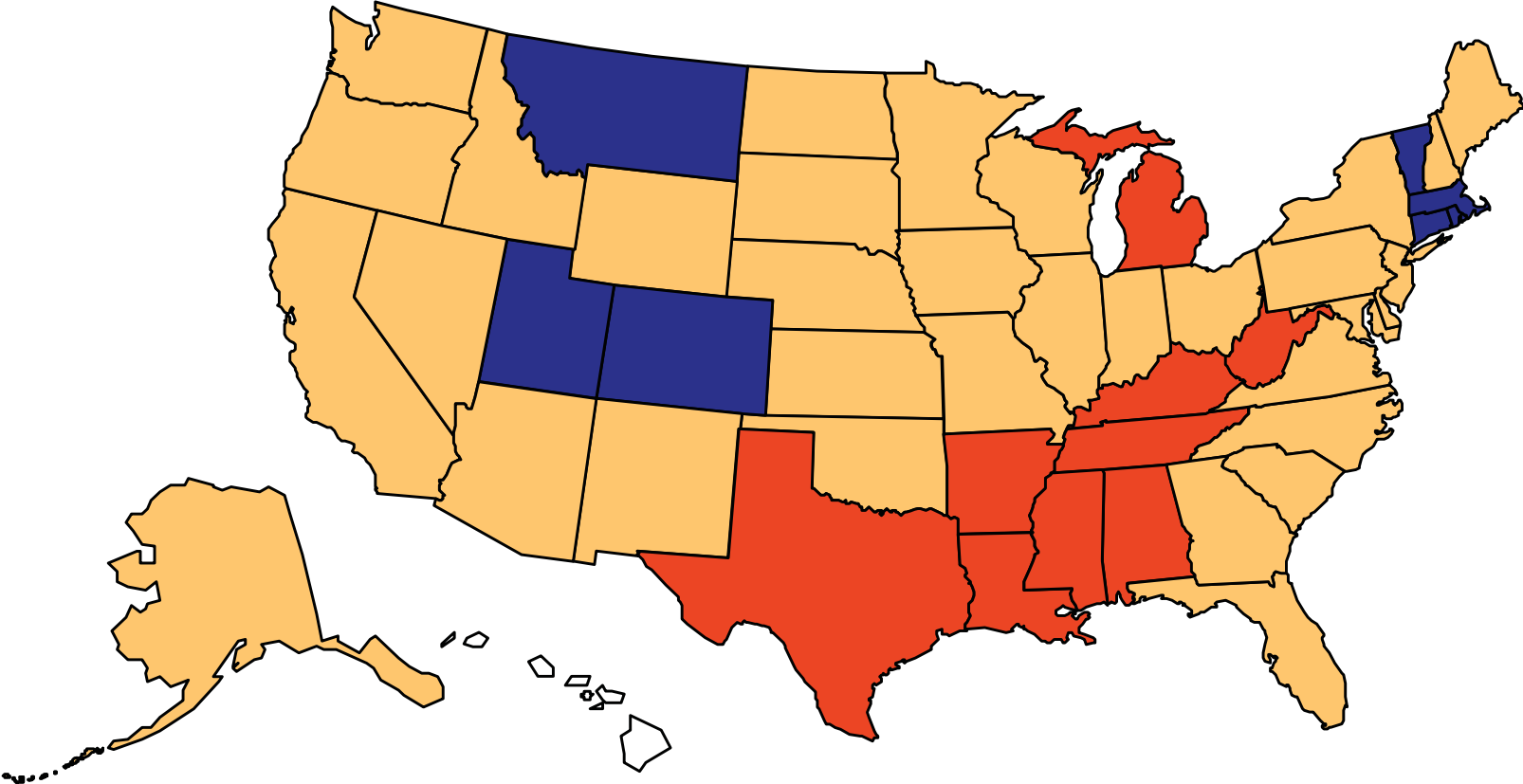
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2004

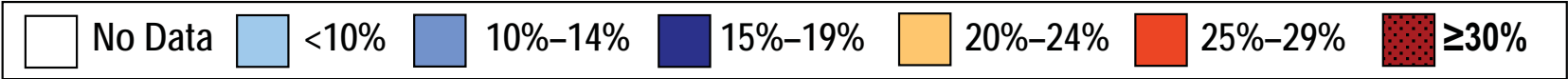
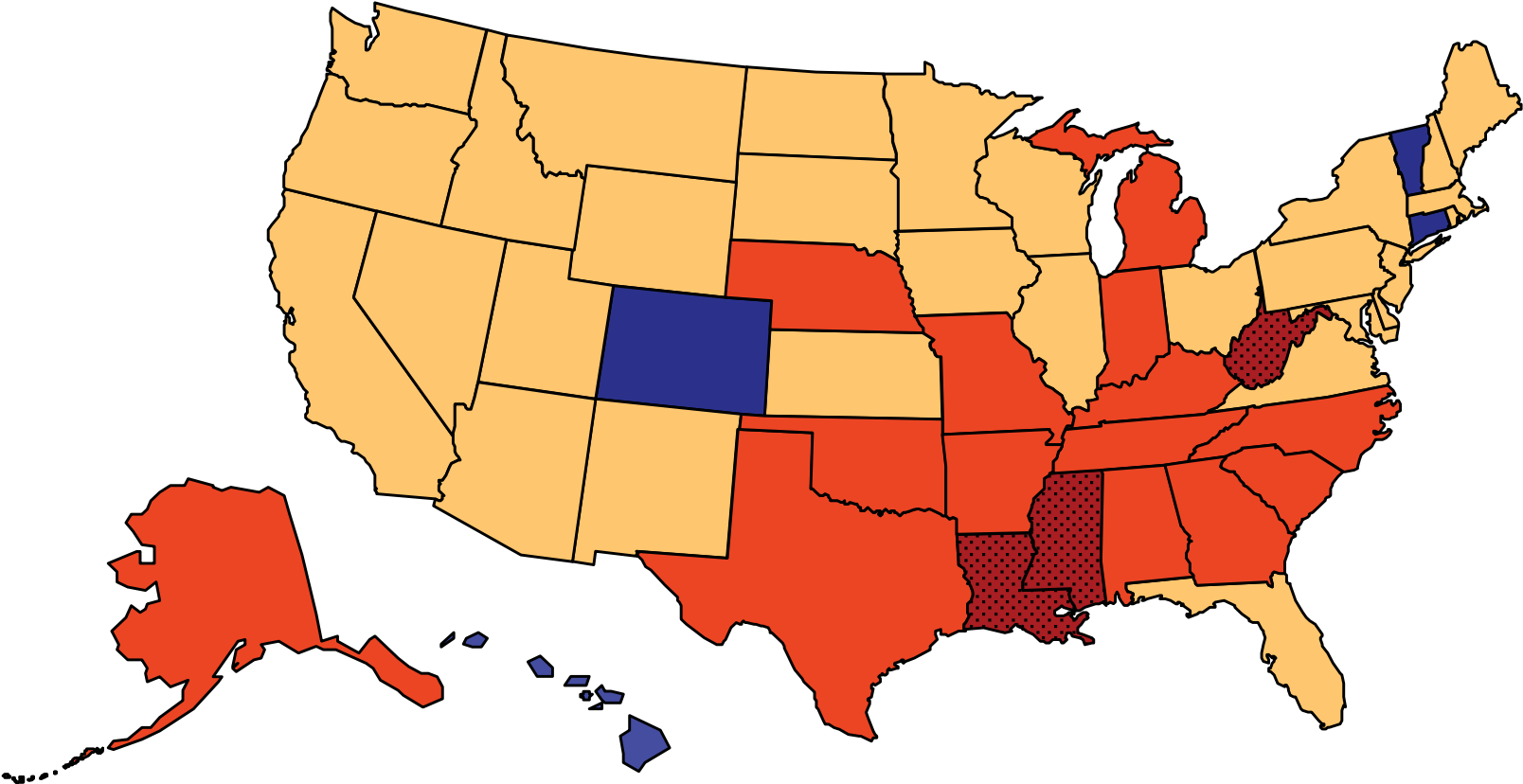
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Source: Behavioral Risk Factor Surveillance System, CDC.

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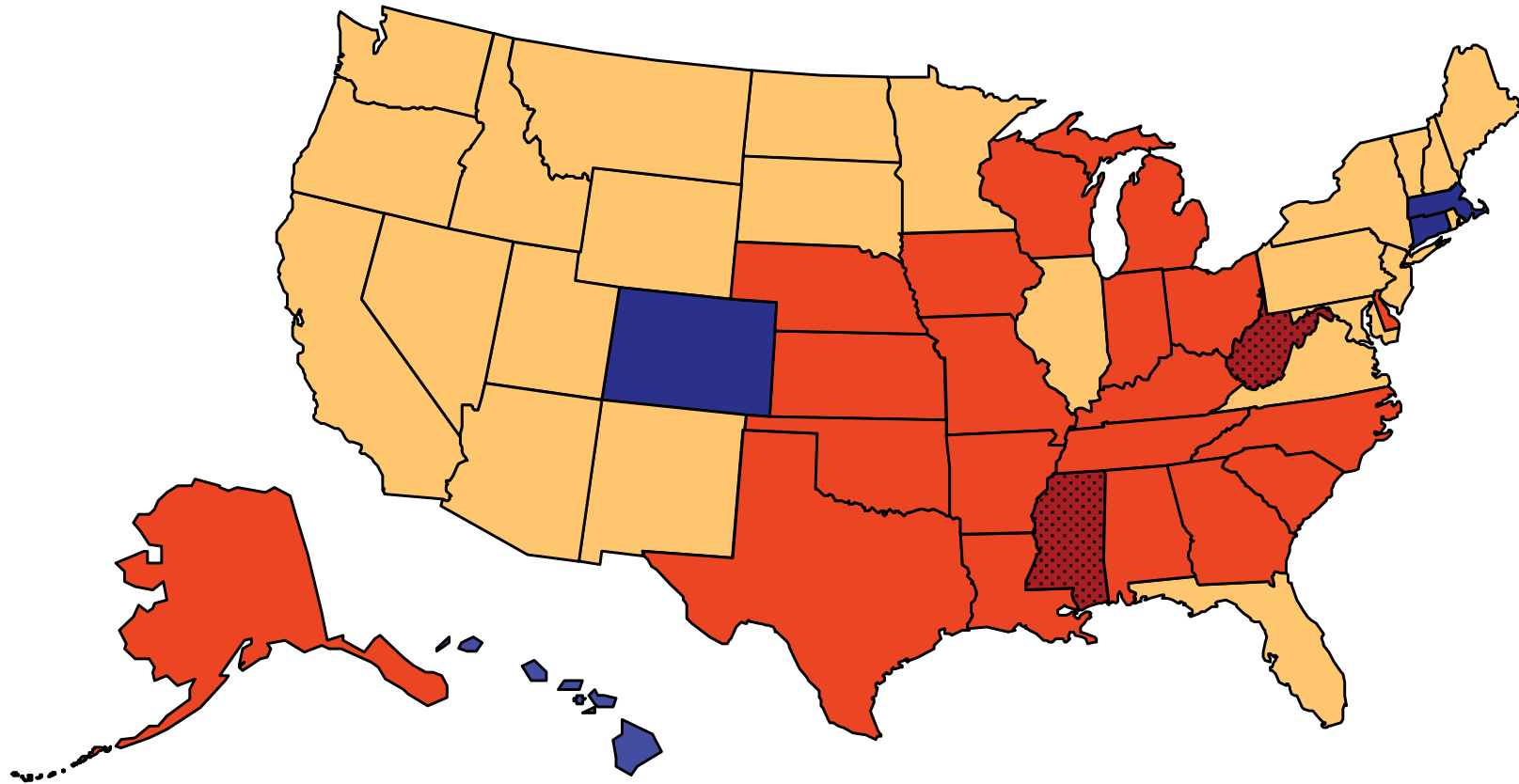
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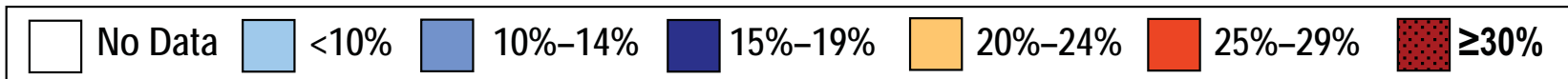
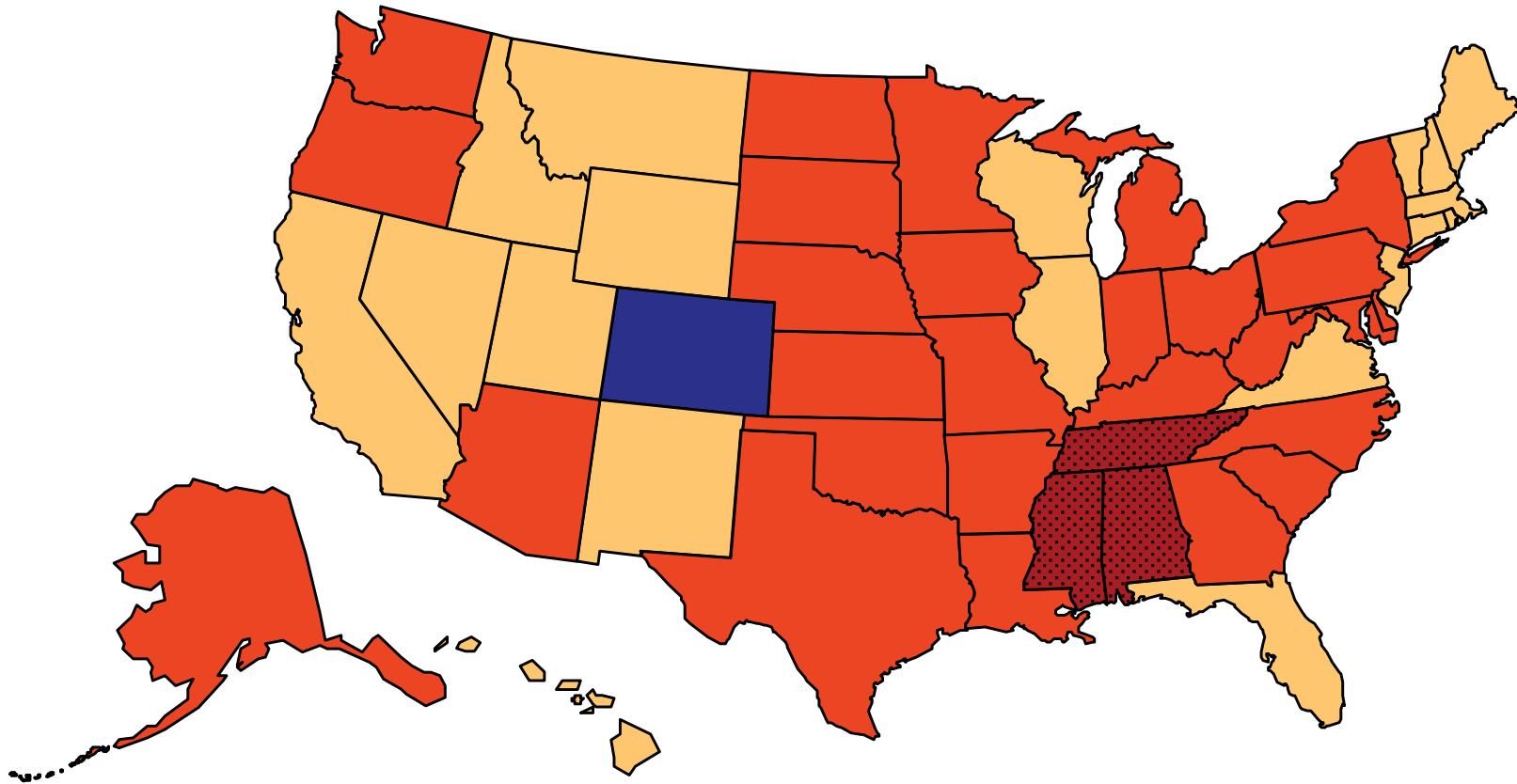
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2007

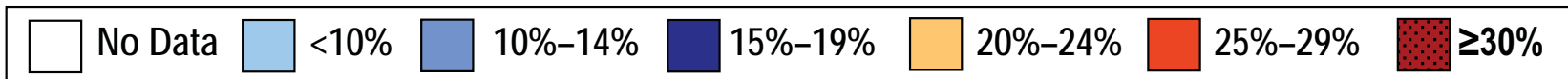
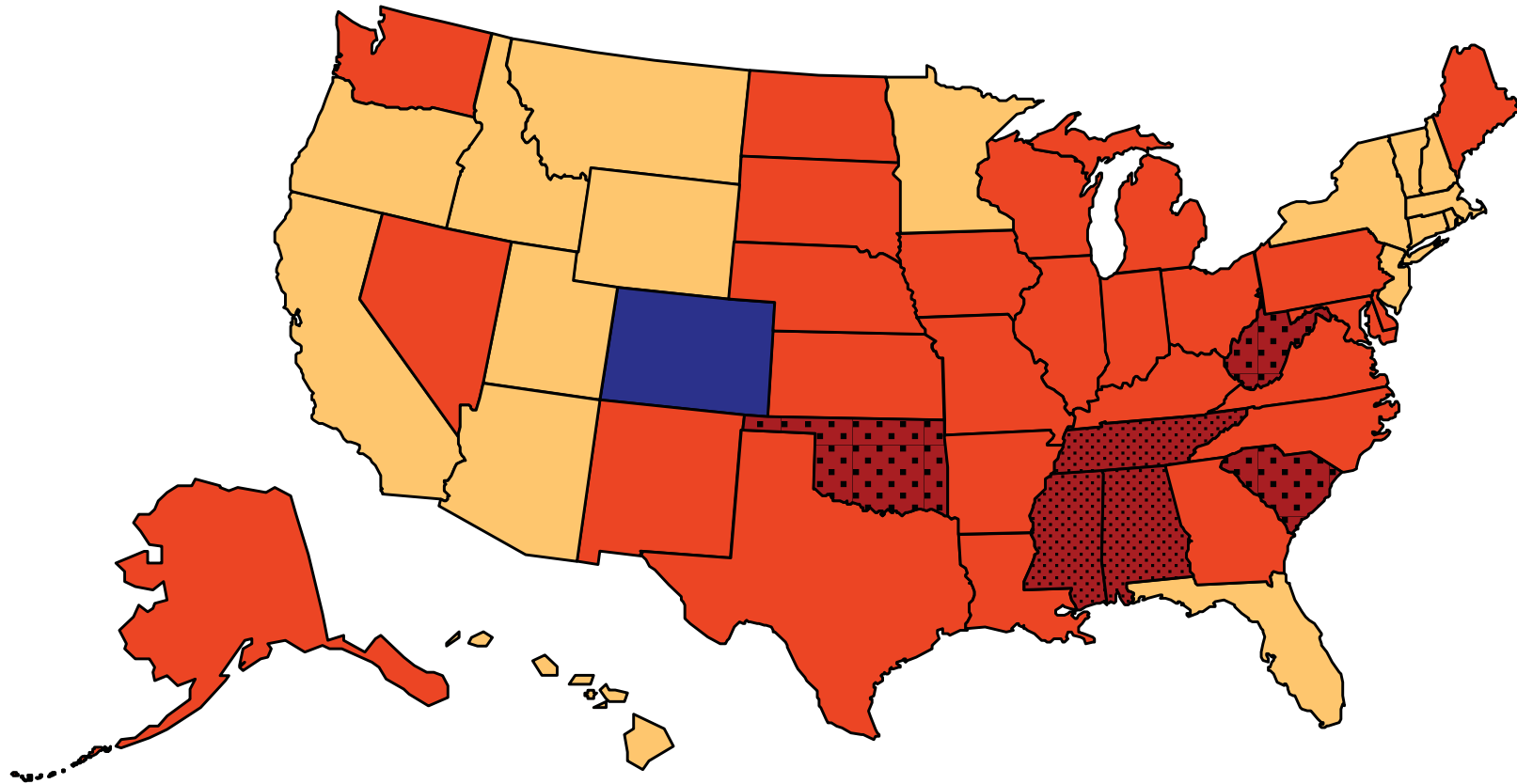
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2008

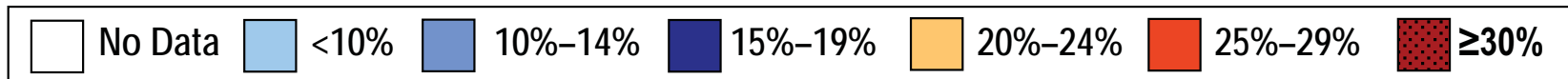
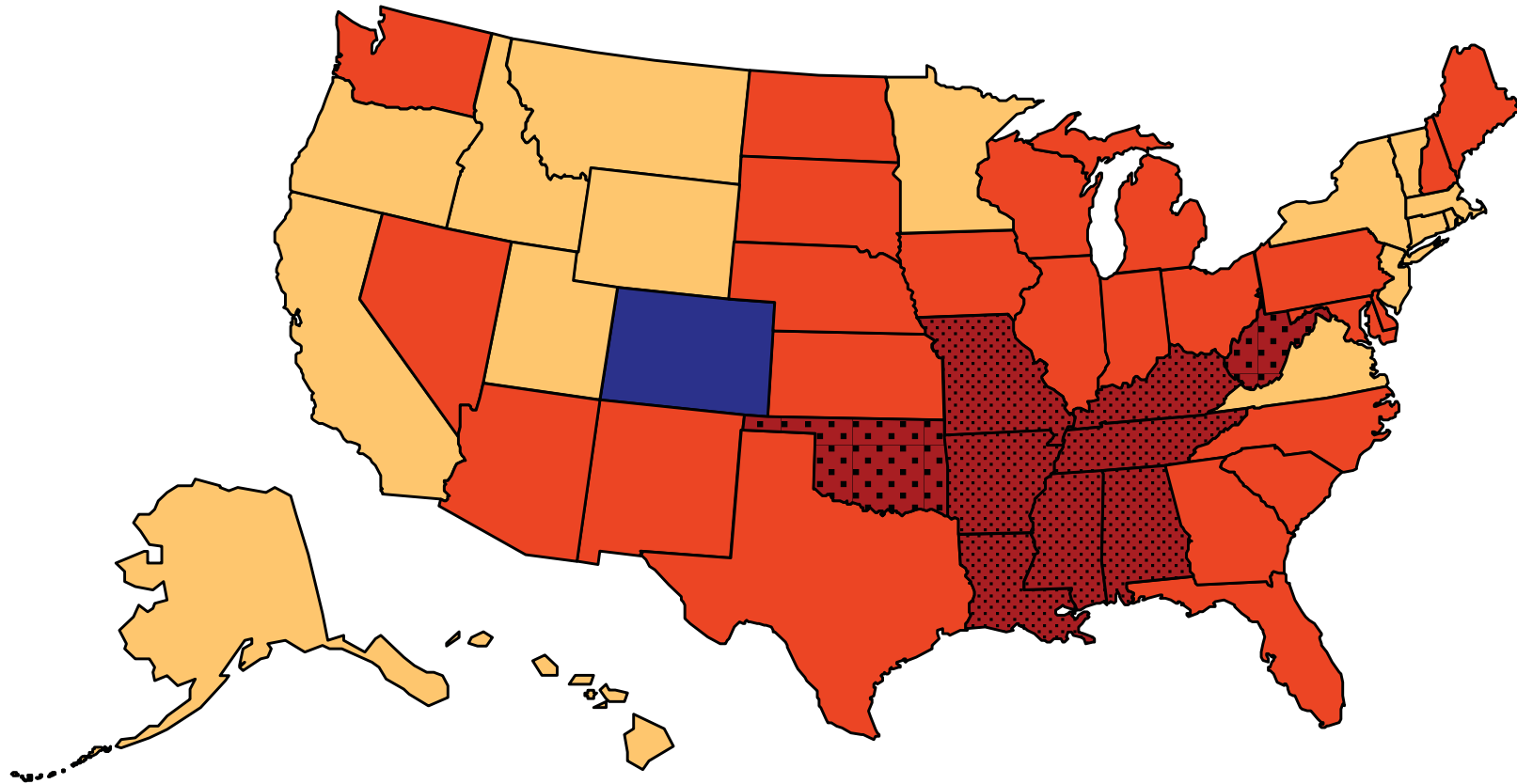
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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Trends* Among U.S. Adults, BRFSS 2009

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Source: Behavioral Risk Factor Surveillance System, CDC.

Obesity Statistics

- Between 1980–2008, obesity prevalence among U.S. adults doubled (2,3), and recent data indicate an estimated 34% of adults are obese (BMI \geq 30) (4) .
- More than one in six U.S. children is obese, three times the rate in the 1970's (BMI at or above the 95% percentile of the sex specific BMI for age growth charts) (5).
- According to 2006-2008 self reported data, Blacks had 51% higher prevalence of obesity, and Hispanics had 21% higher obesity prevalence compared with whites (6).



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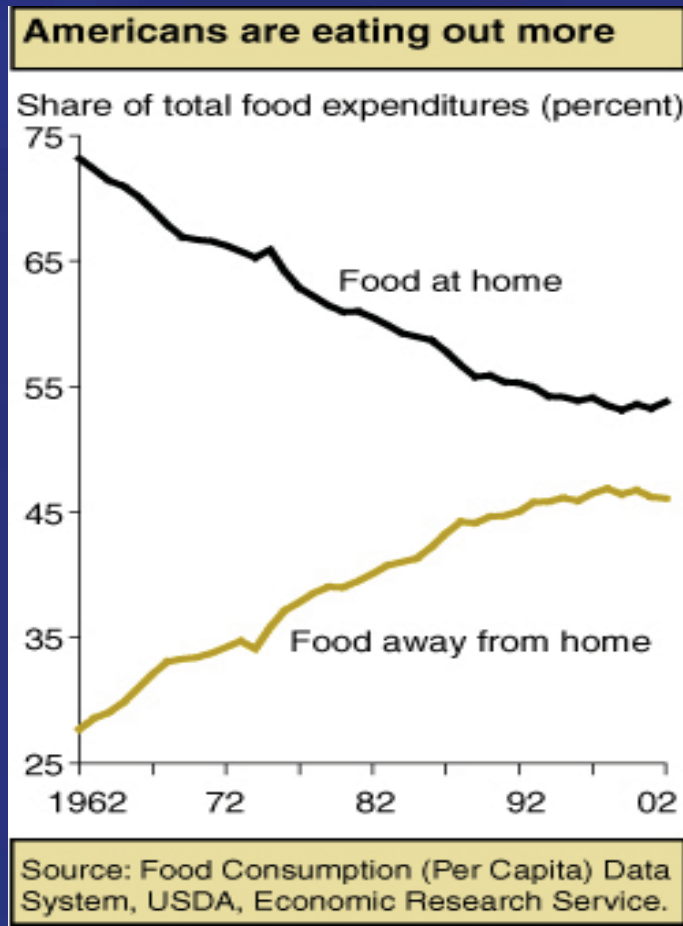
Dietary Behaviors

- Increased consumption of sugar sweetened beverages
- Continued low consumption of fruits and vegetables



Dietary Behaviors

- Increased frequency of meals eaten away from home



The Food Environment

- Increased number of fast food establishments in the U.S.
- Lack of access to full service grocery stores selling affordable healthful foods
- Less healthy food & beverage advertising aimed at children

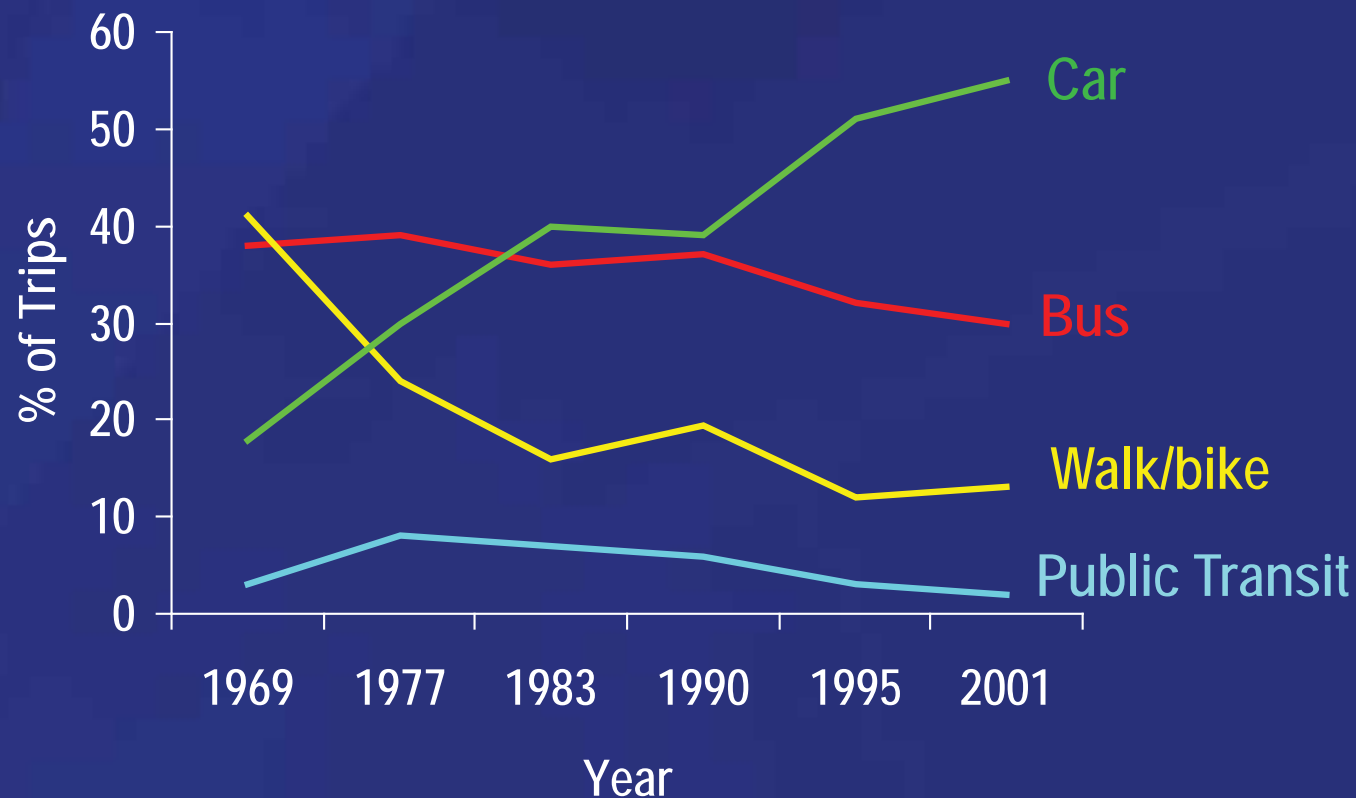


Physical Activity

- 35.5% of adults do not engage in recommended levels of physical activity for health benefits (21) and 25.4% of adults report no leisure-time activity (23)
- In 2009, 81.6% of high school students did not participate in 60 or more minutes of physical activity on any day of the previous 7 days (22).
- Only 30.3% of high school students, grades 9-12, have daily P.E. (23).

Community Design & the Built Environment

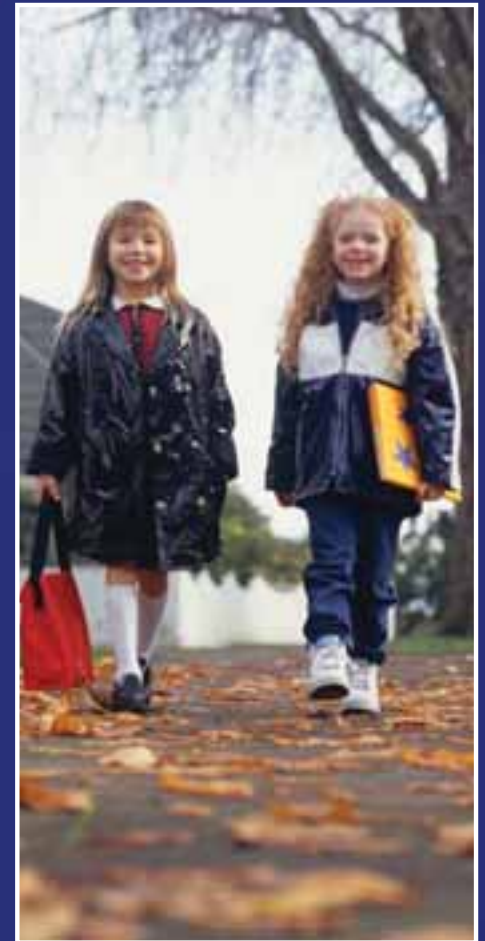
Standardized Share of Mode for Trips to School:
National Personal Transportation Survey



McDonald NC. Am J Prev Med 2007;32:509

Community Design & the Built Environment

- Environmental factors beyond the control of individuals contribute to increased obesity rates by reducing the likelihood of healthy eating and active living behaviors.
- Environmental factors that influence physical activity behavior (26, 27):
 - Lack of infrastructure supporting active modes of transportation, i.e. sidewalks & bike facilities
 - Access to safe places to play and be active
 - Access to public transit
 - Mixed use & Transit Oriented Developments





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Why Should Local Governments Care?

The Cost of Obesity is High:

- In 2008, the annual healthcare cost of obesity in the US was estimated to be as high as 147 billion dollars a year, double the amount a decade ago (28).
- Annual medical expenses for the obese are estimated to be 42 percent higher than for a person of a healthy weight (28).
 - Workplace obesity prevention programs may be an effective way for employers, including local governments, to reduce obesity, lower health care costs, lower absenteeism, and increase employee productivity.

Why Should Local Governments Care?

Local government officials are community leaders and can enact policies that support healthy community design

– For example, local zoning ordinances & economic incentives affect the presence and absence of:

- Parks and open spaces for recreation
- Bike facilities
- Mixed use developments
- Healthy food retailers & farmers markets



Local Government Can Be Part of the Solution

Policies and environments that affect peoples' health are determined by a variety of local government entities, including:

- City Councils/County Commissions
- Zoning Boards
- School Districts
- Transportation & Planning departments
- Parks & Recreation departments

Advantages of Policy & Environmental Change to Address Obesity:

- Potential for *systemic change* in a community's food and physical activity environment.
- *Broad Reach*: Opportunity to “*level the playing field*” for all members of a community, including disproportionately impacted populations.
- *Flexibility*: Consider the unique characteristics and needs of your community and implement obesity prevention initiatives to address them.

Advantages of Policy & Environmental Initiatives to Address Obesity:

- Policy-based strategies have proven *very effective* in other major public health battles, for example, the tobacco control movement.
 - **Local Policy Example:** After a decade with no decrease in smoking, New York City implemented a five point tobacco control program, which included two policy initiatives: aggressive increases in cigarette taxation (2002) and smoke free air legislation (2003). During 2002-2004, estimated adult smoking prevalence decreased from 21.5% to 18.4%, representing nearly 200,000 fewer smokers in New York city (29-31).

Call To Action

- What can local governments do right now to address obesity?
 - Enact policy and environmental initiatives that support healthy eating and active living
 - Partner with a variety of local agencies to leverage resources and achieve greater impact (i.e. Planning Dept, Economic Redevelopment Agency, Parks & Recreation Dept, Public Health Dept)
 - Set feasible short and long term goals to address the unique needs of your community
 - Measure your community's performance and adjust goals as necessary



Presentation Overview

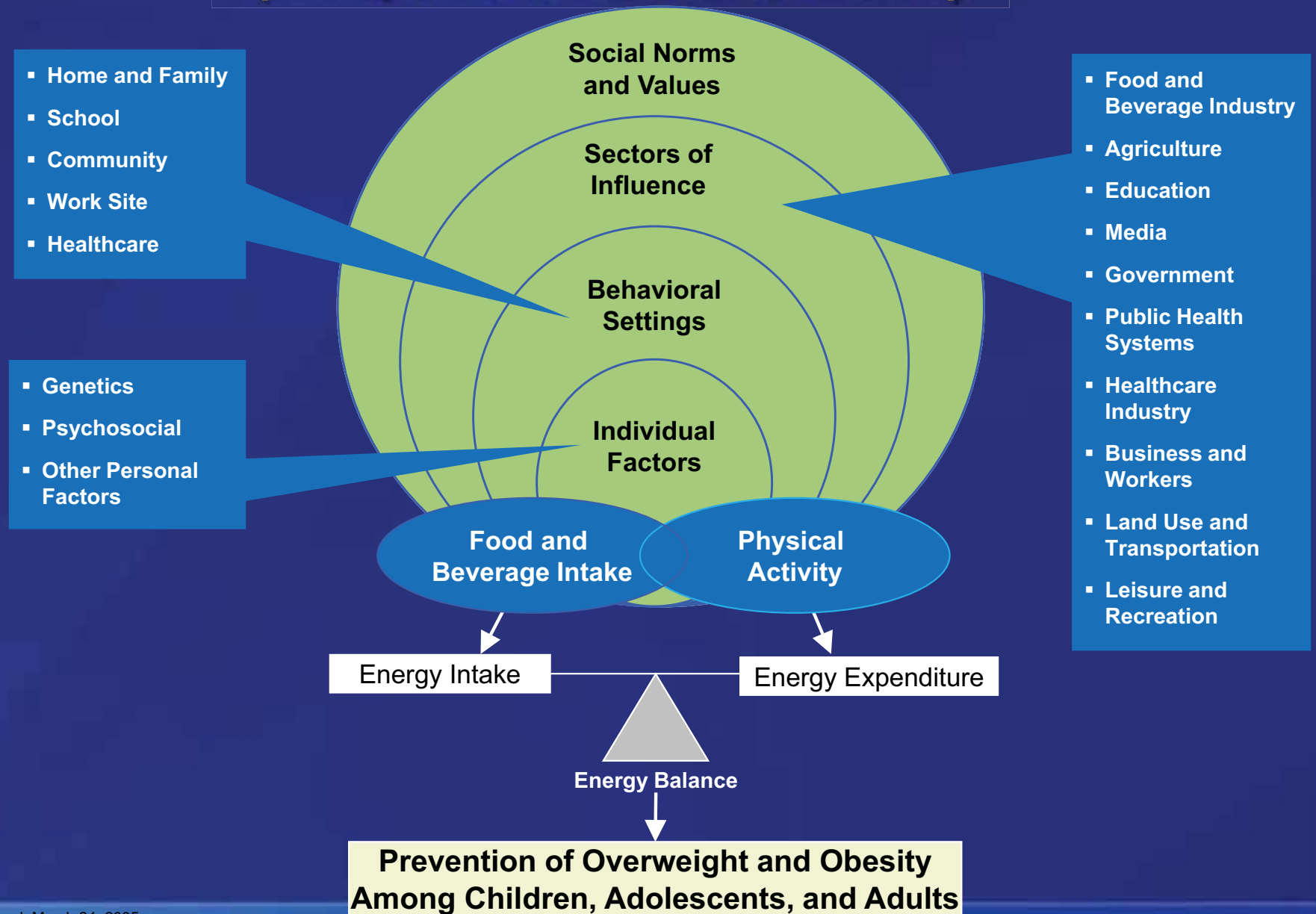
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Target Behaviors for Change

- CDC focuses on six target behaviors for the prevention of obesity and other chronic diseases
 1. Increase physical activity
 2. Increase consumption of fruits and vegetables
 3. Increase breastfeeding initiation, duration, and exclusivity
 4. Decrease consumption of sugar sweetened beverages
 5. Decrease consumption of high energy dense, nutrient poor, foods
 6. Decrease television viewing



CDC Framework for Preventing Obesity (adapted from IOM 2005)



Example: West Palm Beach, FL (32)

- **Goal:** Improve the street environment for non-motorized users; enhance aesthetics; affect driving behavior
- **Policy:** Enacted a downtown-wide traffic calming policy
- **Outcome:**
 - Enhanced traffic safety
 - Enhanced personal safety
 - Increased street connectivity
 - Increased mixed-use zoning



Example: West Palm Beach, FL

- Before:



Example: West Palm Beach, FL

- After
 - two-way traffic
 - wide shaded sidewalks



Example: West Palm Beach, FL

- **After:**
 - raised intersections
 - shortened pedestrian crosswalks
 - narrowed streets
 - on street parking



Example: West Palm Beach, FL

- **After**
 - Renovated abandoned buildings for mixed use development



Example: West Palm Beach, FL

- After



Example: Somerville, MA (33)

- Goal: Increase access to affordable healthier foods
- Environmental Change: Implemented a farmers market that was culturally and economically appropriate for the community.
- Outcome:
 - Created an incentive program for WIC & food stamp beneficiaries to shop at the market
 - Instructions for vendors on how to accept food stamps
 - Promotional materials produced in four languages
 - Increases in attendance, the percentage of foreign born and low income patrons, & the redemption rate of WIC Special Supplemental Nutrition Program vouchers



Example: City of Corning and Corning Union School District, CA ⁽³⁶⁾

- **Goal:** Increase community access to safe places for physical activity
- **Policy Change:** Established a Joint Use Agreement that opens up school recreation facilities and resources for public use.
 - Public use of school facilities during after-school hours, on weekends, and non-school days.
 - Shared recreation facilities include: gymnasiums, swimming pools, tennis courts, and athletic fields.
 - Shared responsibility for facility maintenance and repair costs.



Example: New York City ⁽³⁴⁾

- **Goal:** Decrease consumption of Sugar Sweetened Beverages among children age six and under.
- **Policy Change:** The NY City Board of Health amended its health code to prohibit serving beverages with added sweeteners and places limits on beverages served in licensed day care facilities.
 - Limits the serving size of 100% fruit juice to 6 oz per day for children 8 months and older
 - When milk is served, children 2 years of age and older must receive low-fat 1% or non fat milk
 - Water must be readily available throughout the day





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CDC Recommended Community Strategies and Measurements to Prevent Obesity

CDC's Goal:

To recommend a set of obesity prevention strategies and corresponding measurements, or indicators, that local governments can use to plan, implement, and monitor policy and environmental initiatives to prevent obesity.

CDC

MMWR

Morbidity and Mortality Weekly Report

www.cdc.gov/mmwr

Recommendations and Reports

July 24, 2009 / Vol. 58 / No. RR 7

**Recommended Community Strategies
and Measurements to Prevent Obesity
in the United States**

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION



**RECOMMENDED COMMUNITY STRATEGIES
AND MEASUREMENTS TO PREVENT
OBESITY IN THE UNITED STATES:
*Implementation and Measurement Guide***

July 2009



How can Local Governments use CDC Strategies and Measurements to Prevent Obesity?

1. Baseline Assessment

- Do the policies and environmental conditions in our community currently promote active living and healthy eating?
- How do we compare to other communities of similar size, type, and population?

2. Identify Priorities for Action

- What aspects of our environment are in greatest need of improvement to promote the health of our citizens?

3. Measure Change Over Time

- Are we making progress in changing policies and environmental conditions to promote active living and healthy eating?

CDC Recommended Community Strategies and Measurements to Prevent Obesity

Project Methodology

CDC Recommended Community Strategies and Measurements to Prevent Obesity

Project Approach:

- Recommended Strategies and Measurements are:
 - Grounded in existing evidence (systematic review of literature)
 - Grounded in expert opinion
 - Guided by principles of transparency, stakeholder involvement, and documentation.

CDC Recommended Community Strategies and Measurements to Prevent Obesity

Strategy Identification:

- The project team conducted a literature search in PubMed and reviewed additional “seminal documents” based on expert opinion.

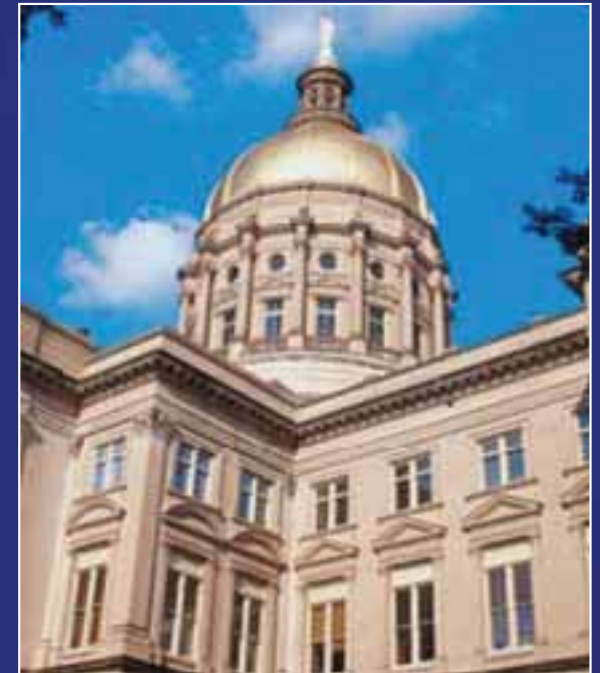
Search results yielded 94 articles for review:

- 791 potential obesity prevention strategies were identified
- Similar and overlapping strategies were collapsed, resulting in 179 environmental or policy-level strategies for obesity prevention.

CDC Recommended Community Strategies and Measurements to Prevent Obesity

Project Expertise

- 15 Academic Select Panelists
- 60 CDC Workgroup Members
- 20 Local Government Experts
- 6 Measurement Experts



Strategy Rating & Selection

Select panelists rated each strategy using the following criteria and identified the most promising strategies:

Criterion	Definition
Reach	The strategy is likely to affect a large percentage of the target population
Mutability	The strategy is in the realm of the community's control
Transferability	The strategy can be implemented in communities that differ in size, resources, and demographics
Effect Size	The potential magnitude of the health effect for the strategy is meaningful
Sustainability of health impact	The health effect of the strategy will endure over time.

Measurement Nomination & Selection

- Three Content Area Experts were assigned to each strategy according to area of expertise
- Assigned experts reviewed the evidence base for each strategy and nominated up to three measures
- Through a voting process the top 2 measures were selected for each strategy

Measurement Expert Review

Selected measures were reviewed and rated by measurement experts using rating criteria

Criterion	Definition
Utility	The measure serves the information needs of communities for planning and monitoring community-level programs and strategies.
Feasibility	The measure can be collected and used by local government (e.g. cities, counties, towns) without the need for surveys, access to proprietary data, specialized equipment, complex analytical techniques and expertise, or unrealistic resource expenditure.
Construct Validity	The measure accurately assesses the environmental strategy or policy that it is intended to measure

Local Government Pilot Test

- Twenty local government representatives pilot tested the measures:
 - Local Government representatives included City Managers, Urban Planners, and Budget Analysts
 - Each community pilot tested a subset of the measures
 - They provided feedback on their ability to report on each measurement, the level of effort required to gather the necessary data, and the perceived utility of each measurement.

CDC Recommended Community Strategies and Measurements to Prevent Obesity

Outcome:

- CDC recommended 24 policy and environmental change strategies to promote healthy eating and active living and reduce the prevalence of obesity in the U.S.
- CDC also identified a suggested measurement for each strategy that communities can use to assess implementation and track progress over time.

CDC's Recommended Strategies to Prevent Obesity

Strategies to Promote the Availability of Affordable Healthy Food & Beverages

1. Increase availability of healthier food and beverage choices in public service venues
2. Improve availability of affordable healthier food and beverage choices in public service venues
3. Improve geographic availability of supermarkets in underserved areas
4. Provide incentives to food retailers to locate in and/or offer healthier food and beverage choices in underserved areas
5. Improve availability of mechanisms for purchasing foods from farms
6. Provide incentives for the production, distribution, and procurement of foods from local farms

CDC's Recommended Strategies to Prevent Obesity

Strategies to Support Healthy Food and Beverage Choices

7. Restrict availability of less healthy foods and beverages in public service venues
8. Institute smaller portion size options in public service venues
9. Limit advertisements of less healthy foods and beverages
10. Discourage consumption of sugar-sweetened beverages



CDC's Recommended Strategies to Prevent Obesity

Strategy to Encourage Breastfeeding

11. Increase support for breastfeeding



Strategies to Encourage Physical Activity or Limit Sedentary Activity Among Children and Youth

12. Require Physical Education in schools
13. Increase the amount of physical activity in PE programs in schools
14. Increase opportunities for extracurricular physical activity
15. Reduce screen time in public service venues



CDC's Recommended Strategies to Prevent Obesity

Strategies to Create Safe Communities That Support Physical Activity

16. Improve access to outdoor recreational facilities
17. Enhance infrastructure supporting bicycling
18. Enhance infrastructure supporting walking
19. Support locating schools in residential neighborhoods
20. Improve access to transportation
21. Zone for mixed-use development
22. Enhance personal safety where people are or could be physically active
23. Enhance traffic safety in areas where persons are or could be physically active

Strategy to Encourage Communities to Organize for Change

24. Participate in community coalitions or partnerships to address obesity

Resources for Implementing Strategies and Measures and Monitoring Performance

- Published in CDC's MMWR Recommendations and Reports supplement, July, 2009:
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5807a1.htm>
- A detailed Implementation and Measurement Guide was developed to assist local governments, states, and policy makers in implementing the CDC recommended strategies and reporting on the associated measurements:
http://www.cdc.gov/obesity/downloads/community_strategies_guide.pdf
- Measures were incorporated into ICMA's Center for Performance Measurement system: <http://www.icma.org/performance>

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