

“Health, Healthy Eating, Improved Relationship with Food”

Roni Neff, PhD MS Rneff@jhsph.edu


Research Director, Center for a Livable Future

Johns Hopkins Bloomberg School of Public Health

DVRPC

March 19, 2010





*"Let food be thy medicine
and medicine be thy food."*

Hippocrates

Flavor Environment Time

Nutrition

Longterm
food supply

Status

Family

Food
Safety



Money

Guilt

Culture

Religion

Comfort

Local
Economy

Rebellion

What we Eat

- > 1/10 Americans meet US dietary guidelines for fruits/vegetables (9)
 - Most eat 3 servings
- Average caloric intake up 300 cals 1985-2000
- Almost 1/3 of average grocery bill: “other food at home”
- 12 tsp/day HFCS

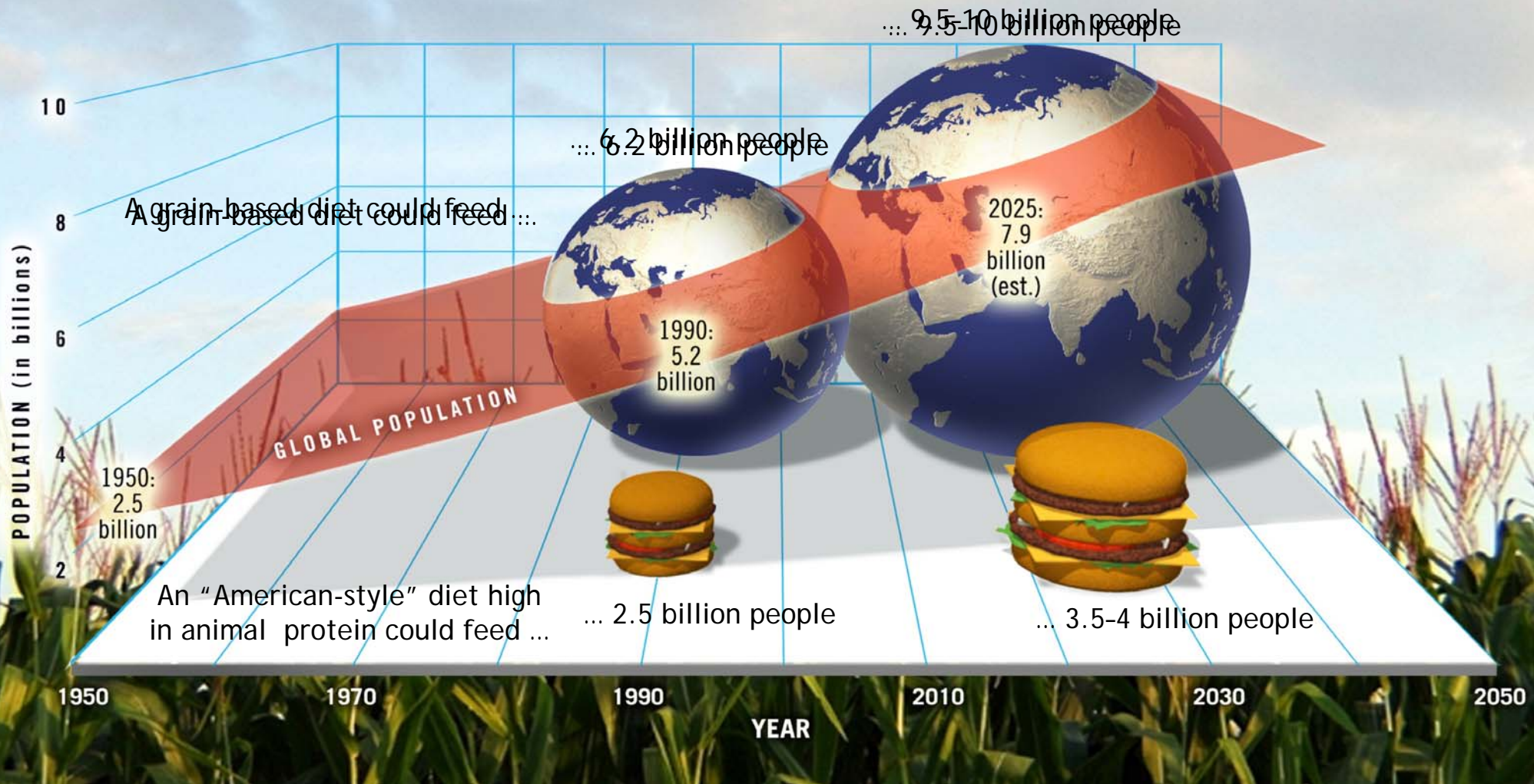
Food & Health

Vegetables, Fruits & Grains



Linked to:
Americans Eat
more than
Recommended
& DisDA RDA
Diabetes
Obesity

Plant-Based Diets vs. Diets with Animal Protein



Height of each world = Number of people that could be fed on a plant-based diet in 1990 and 2020
 Height of each hamburger = Number of people that could be fed on a diet with 30% of calories from animal protein
 Height of red line = actual world population to 2004, then estimated to 2050

Nutritional Quality

- Declines in key nutrients, many foods, since 1950
 - Methods to increase crop yield
 - Soil depletion
- Loss of vitamins over transport, storage time
- Corn/soy animal feeds reduce Omega 3 fatty acids

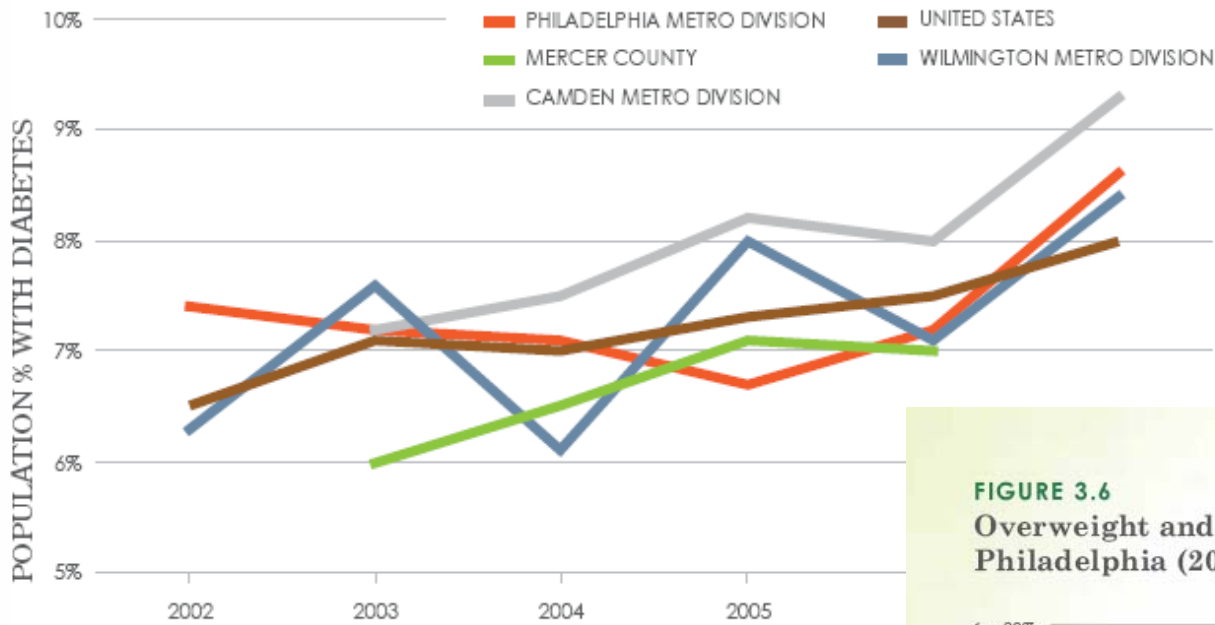
Note on Local Foods and Health

- No direct evidence of public health benefit from local food
- Nutrition benefit if motivated to eat more
- Food security – rising gas prices, peak oil, terror
- Possible benefit if fresher
- Food safety
- Strengthening local economy, social capital- indirect effects on health



FIGURE 3.5

Adults with Diabetes in Greater Philadelphia

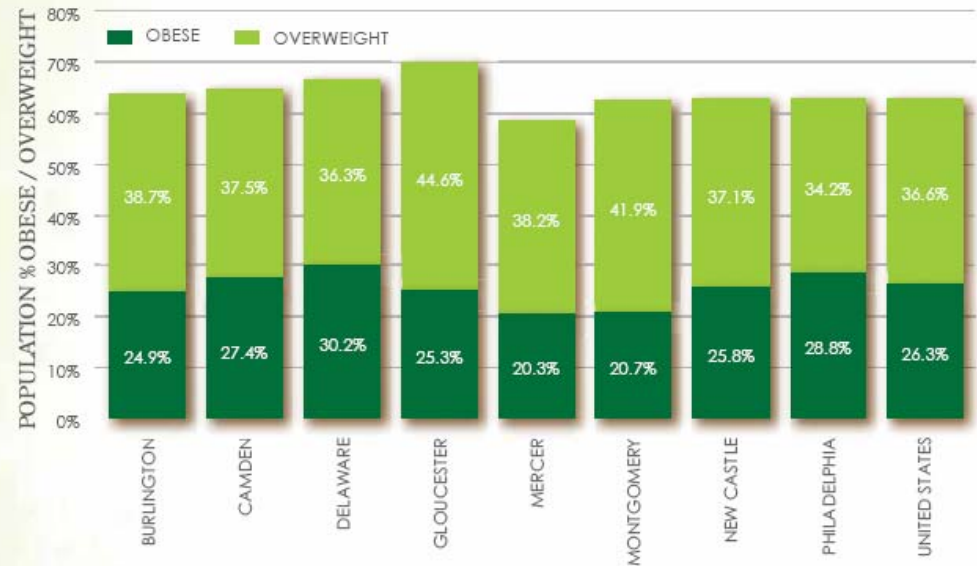


Note: Data set incomplete for Camden Metro Division and Mercer County.
Source: CDC 2008, DVRPC 2009

US Medical costs obesity: \$417 billion

FIGURE 3.6

Overweight and Obese Adults in Selected Counties of Greater Philadelphia (2007)

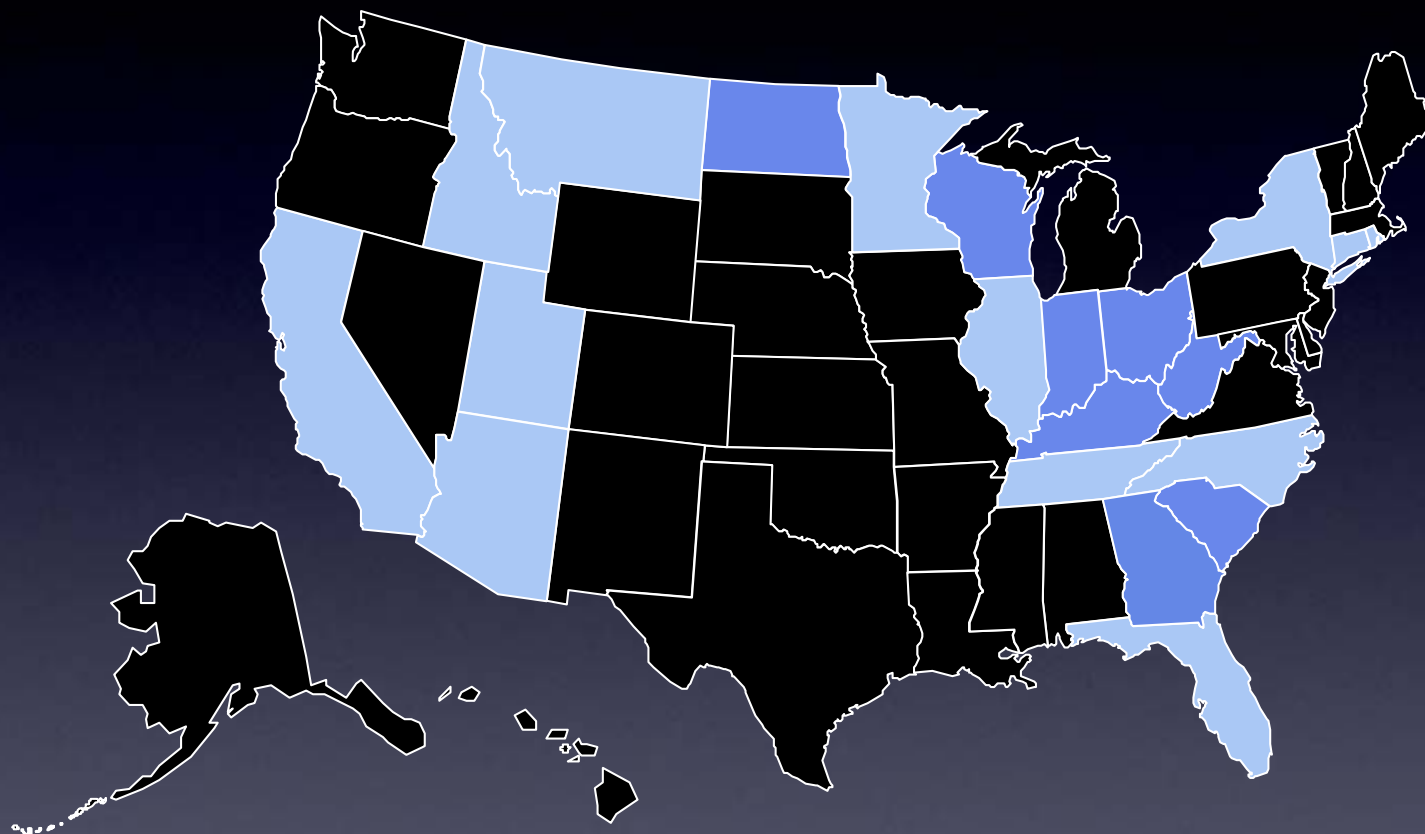


Source: CDC 2008, DVRPC 2009

Obesity Trends* Among U.S. Adults

BRFSS, 1985

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

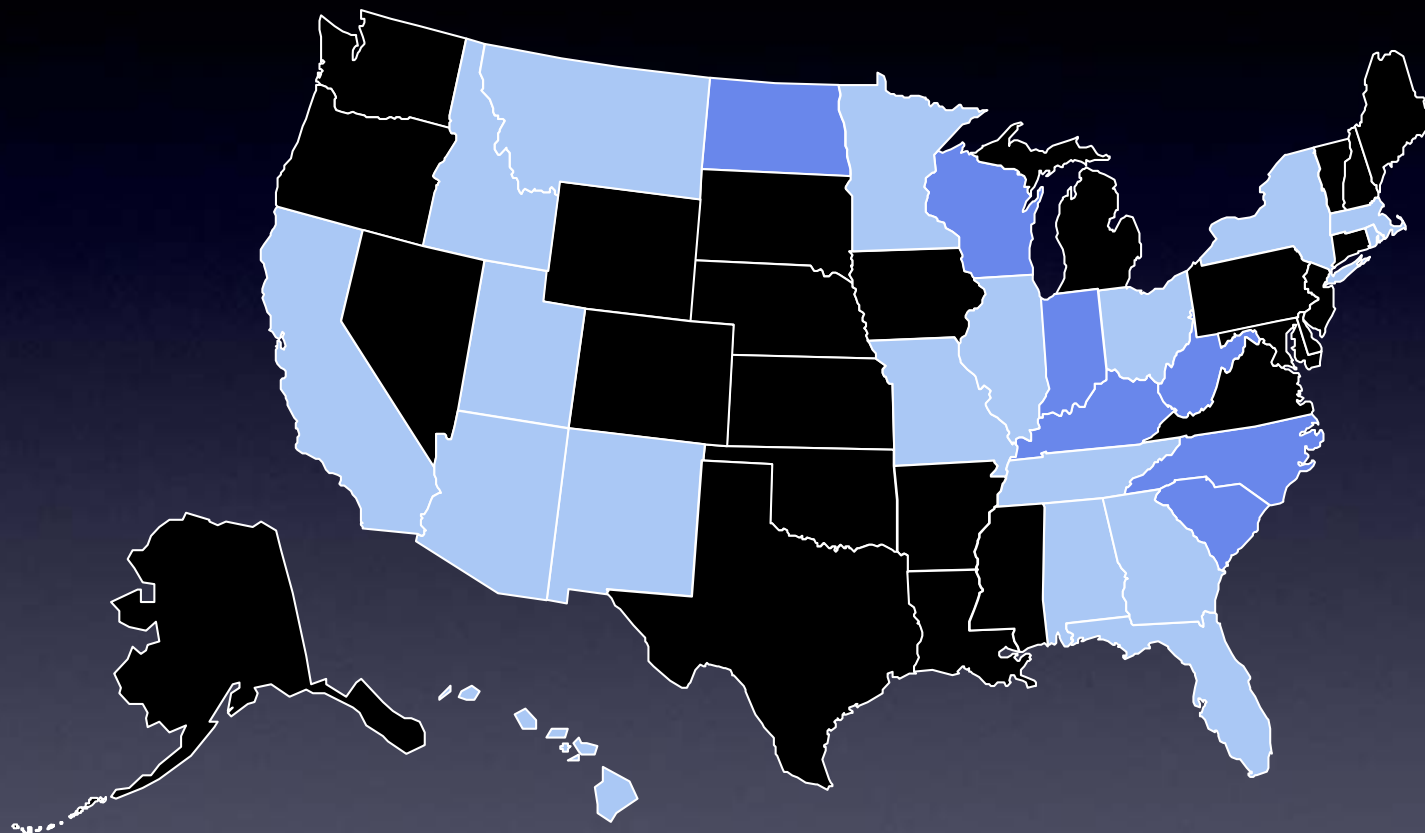


■ No Data ■ <10% ■ 10%–14%

Obesity Trends* Among U.S. Adults

BRFSS, 1986

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

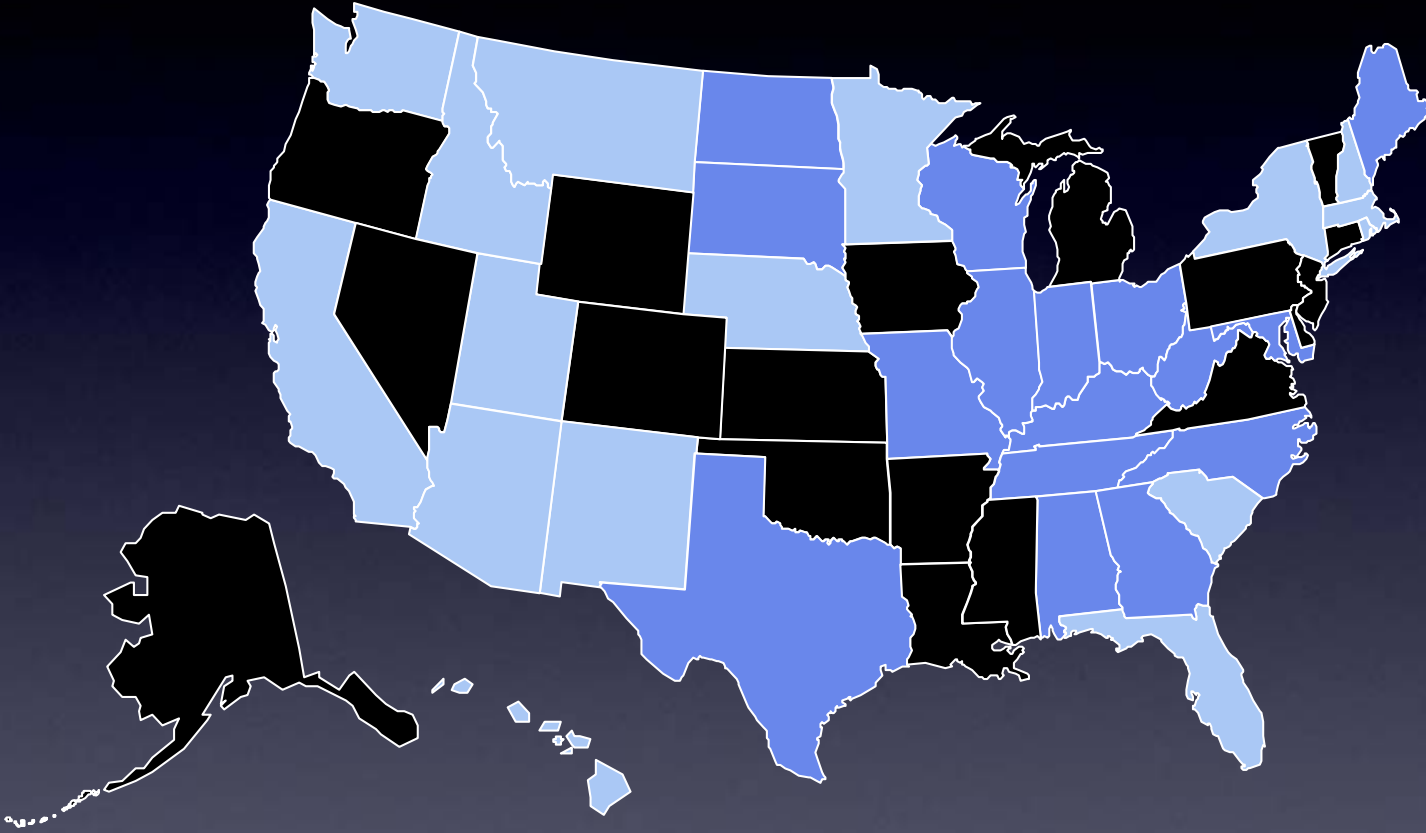


No Data <10% 10%-14%

Obesity Trends* Among U.S. Adults

BRFSS, 1987

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

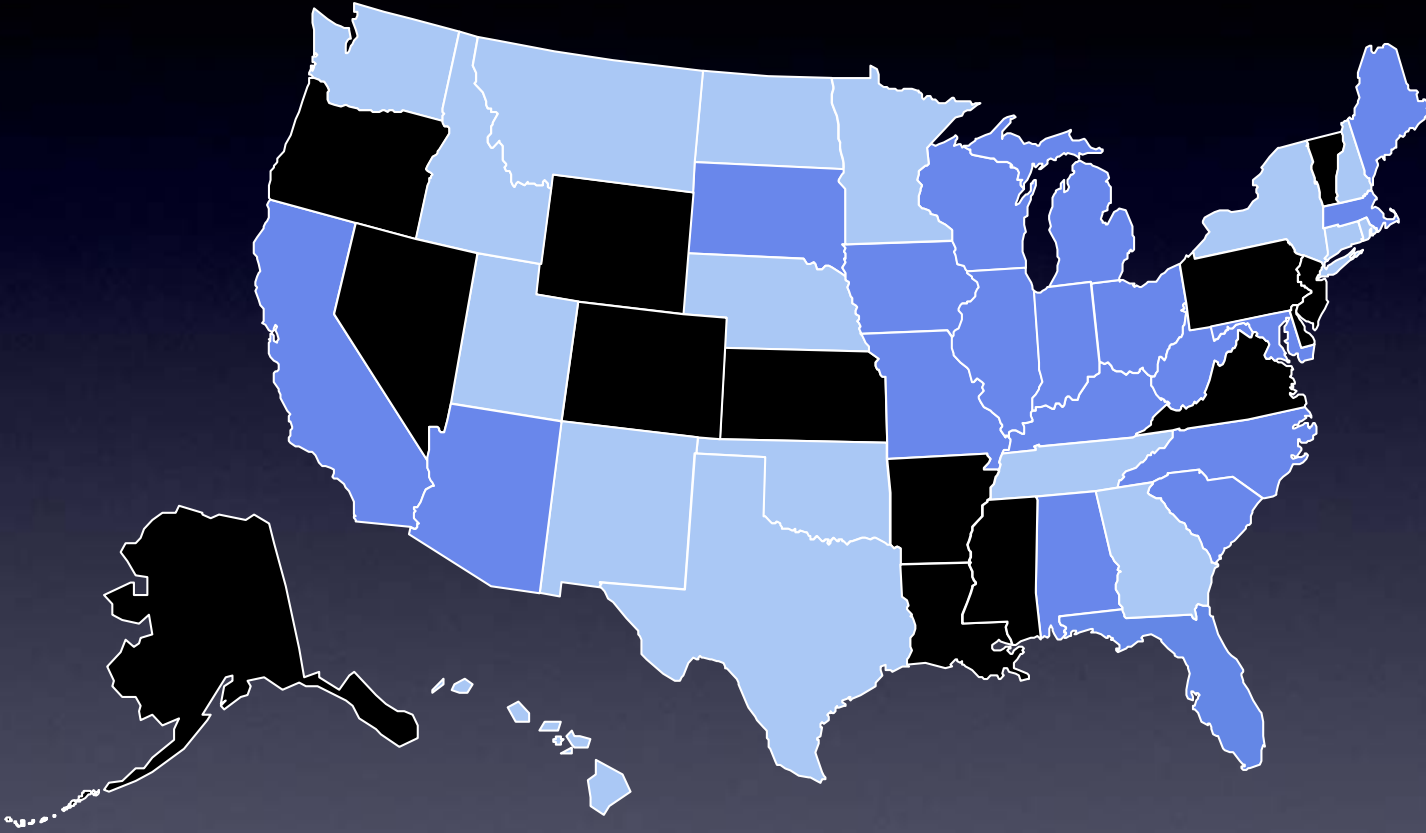


No Data <10% 10%-14%

Obesity Trends* Among U.S. Adults

BRFSS, 1988

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

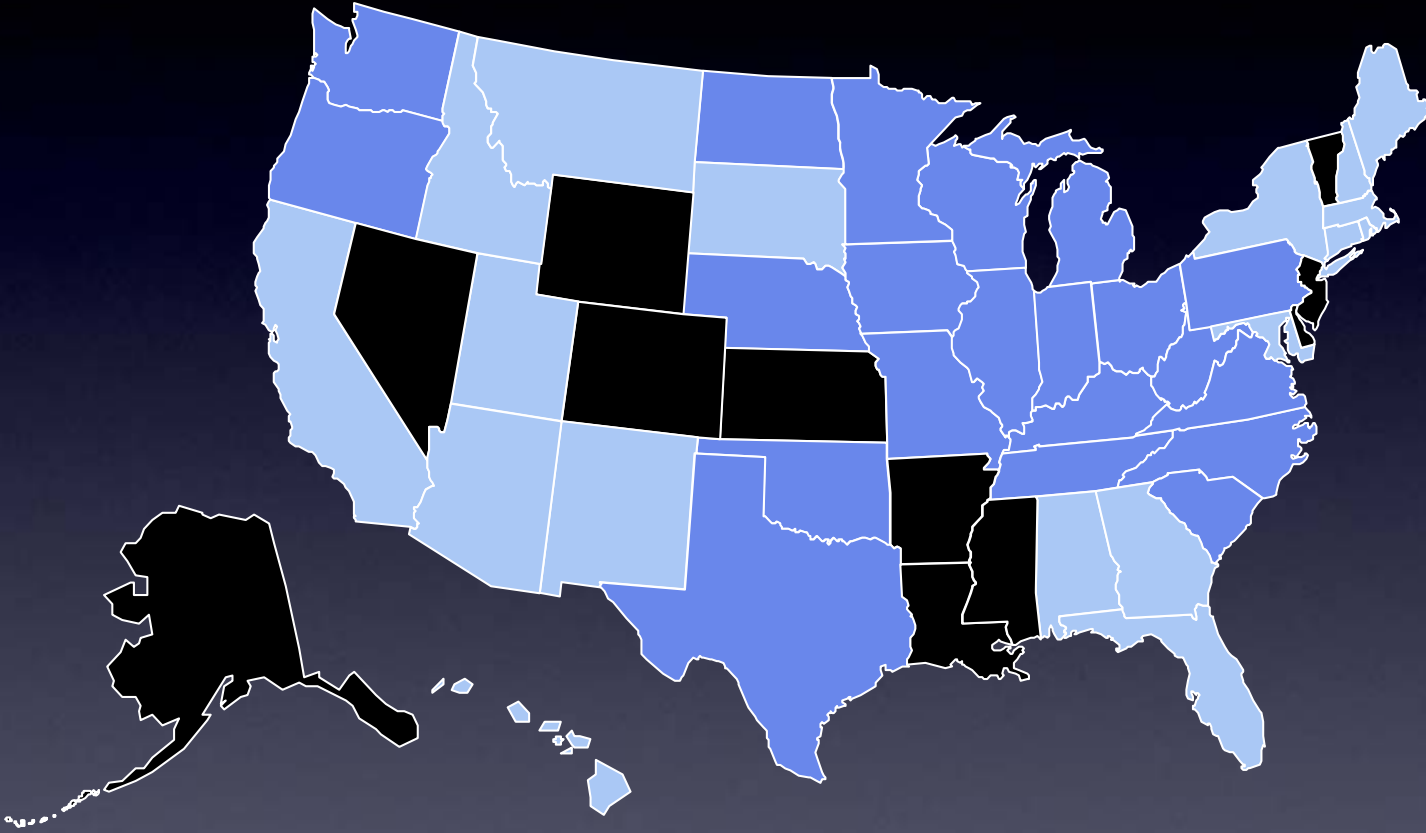


No Data <10% 10%-14%

Obesity Trends* Among U.S. Adults

BRFSS, 1989

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

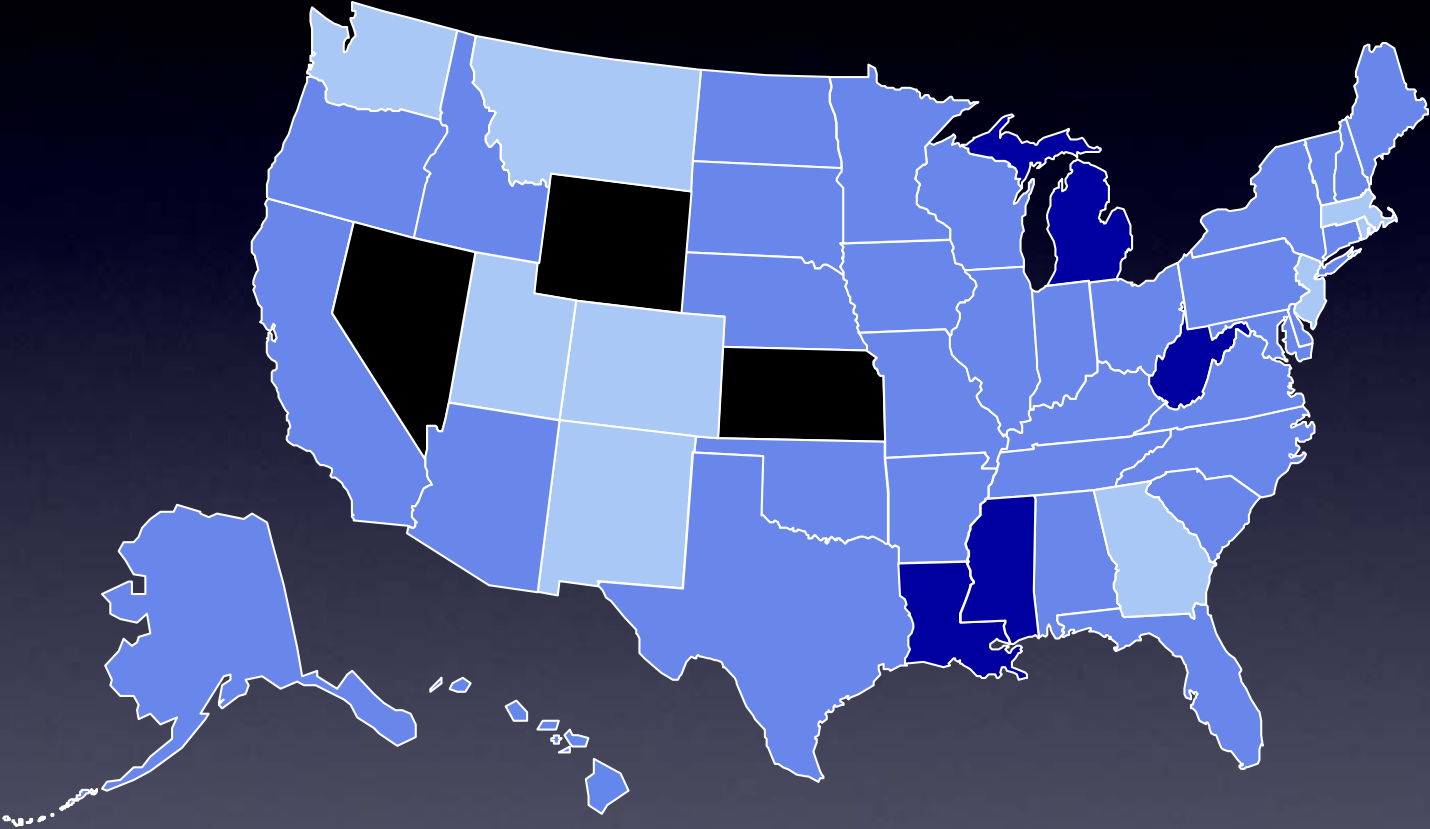


No Data <10% 10%-14%

Obesity Trends* Among U.S. Adults

BRFSS, 1991

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

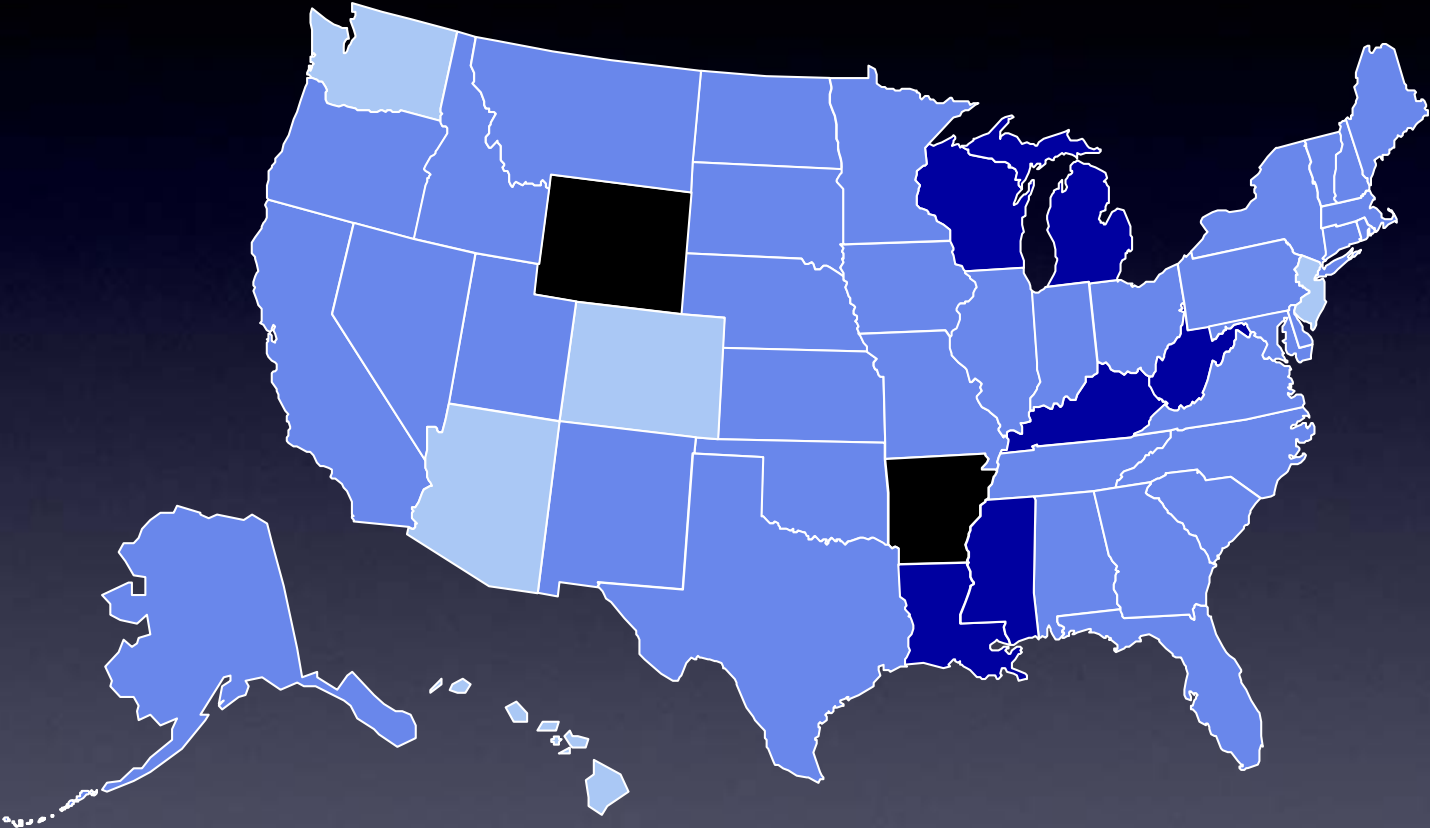


No Data <10% 10%–14% 15%–19%

Obesity Trends* Among U.S. Adults

BRFSS, 1992

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

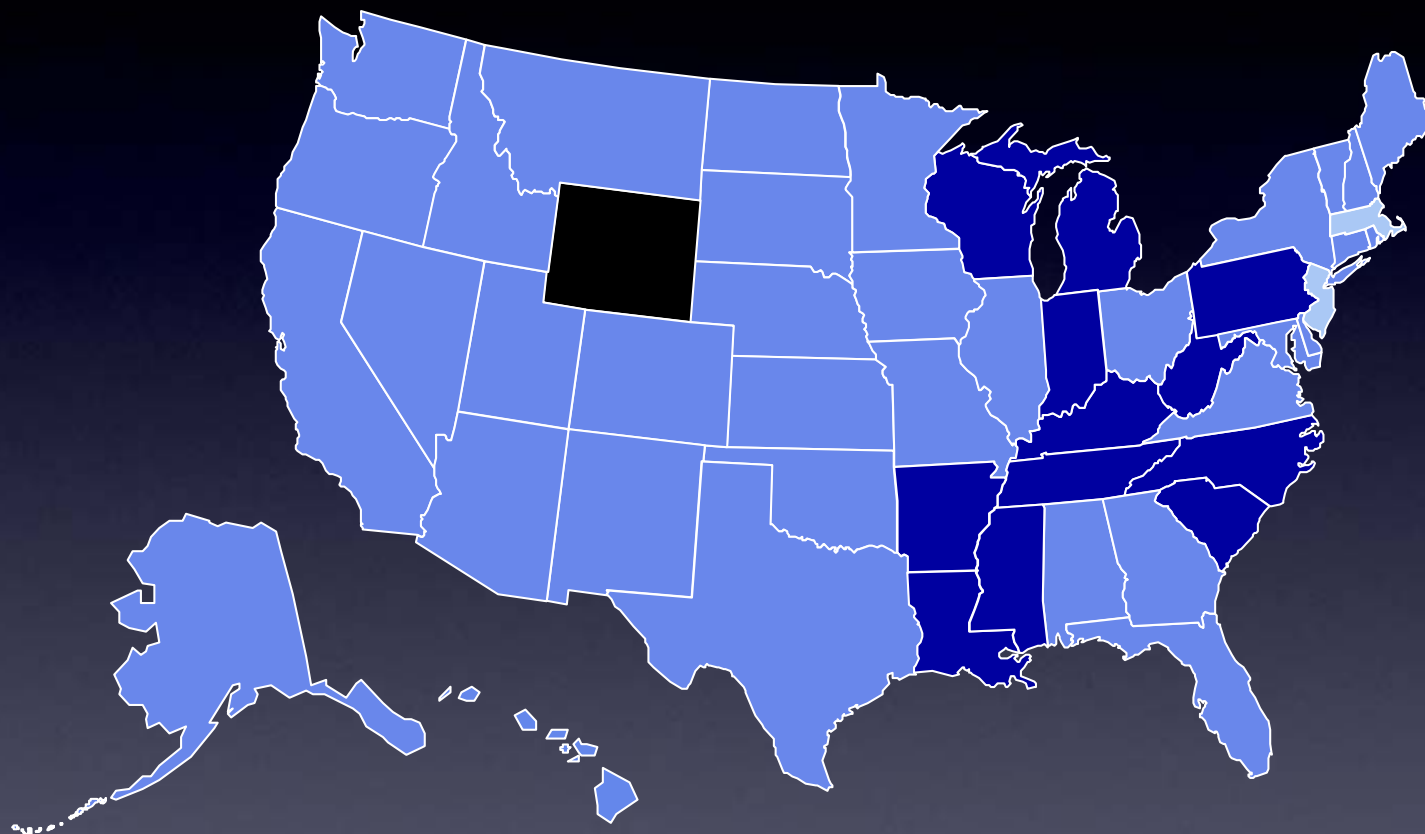


No Data <10% 10%–14% 15%–19%

Obesity Trends* Among U.S. Adults

BRFSS, 1993

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

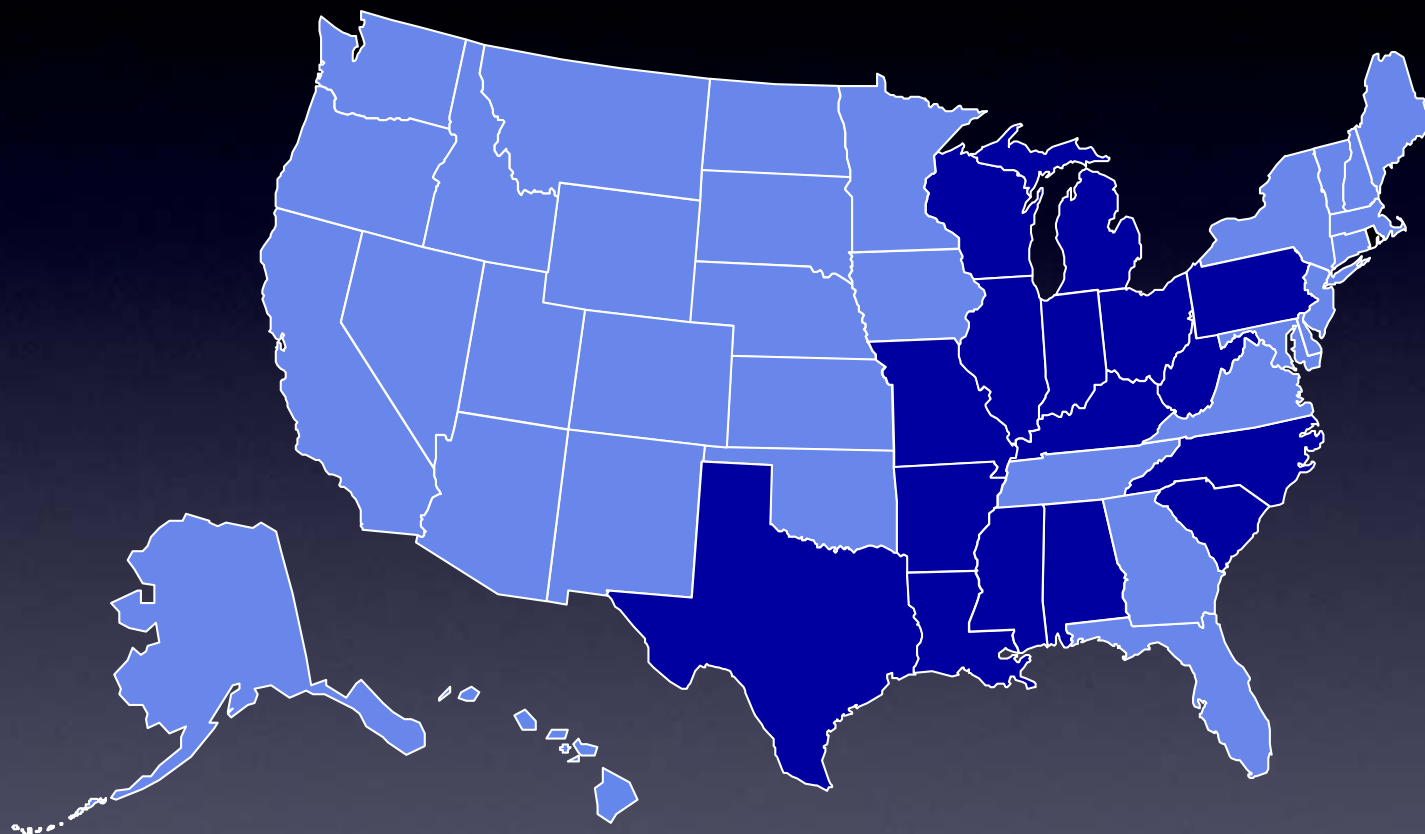


No Data <10% 10%–14% 15%–19%

Obesity Trends* Among U.S. Adults

BRFSS, 1994

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

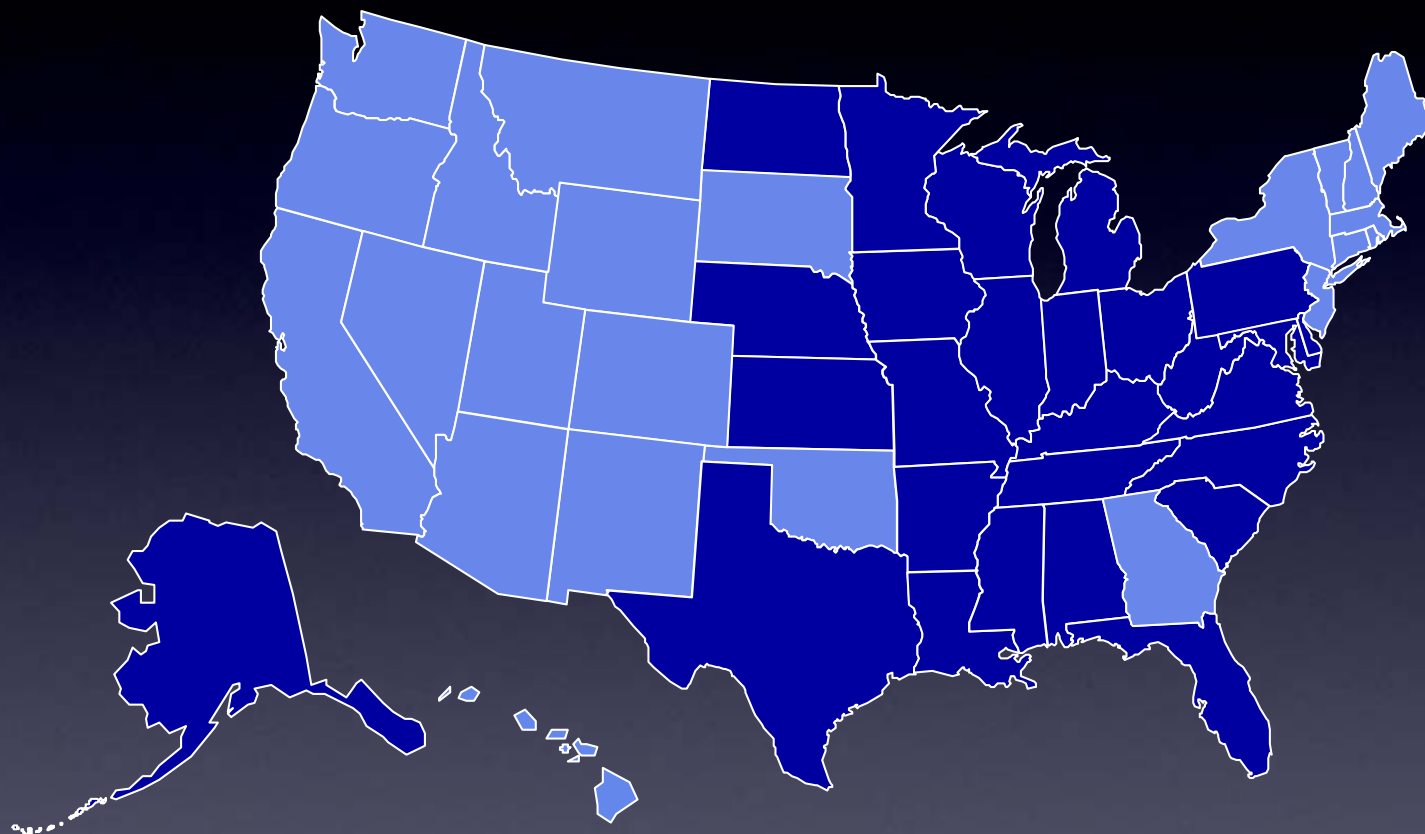


No Data <10% 10%–14% 15%–19%

Obesity Trends* Among U.S. Adults

BRFSS, 1995

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

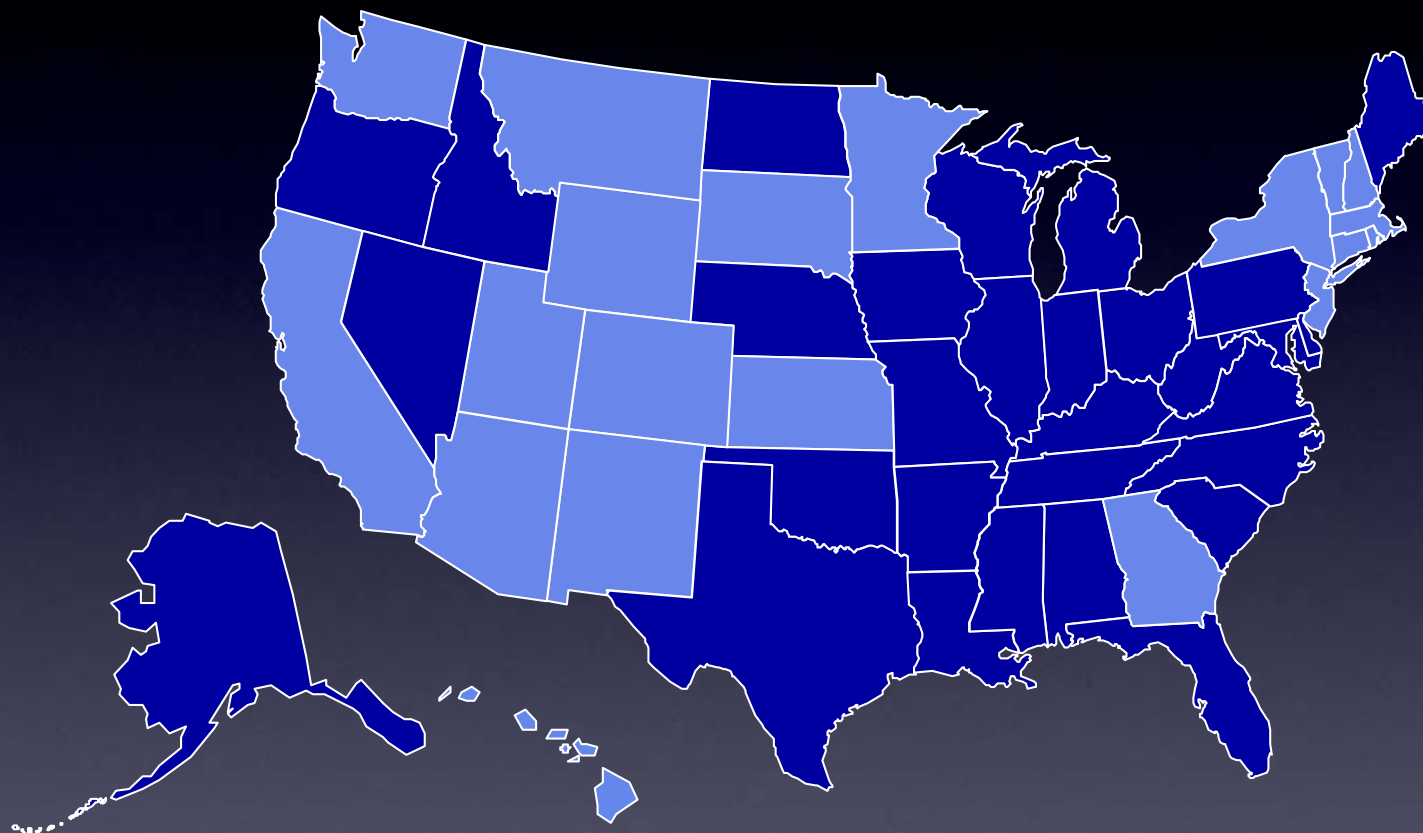


No Data <10% 10-14% 15-19%

Obesity Trends* Among U.S. Adults

BRFSS, 1996

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

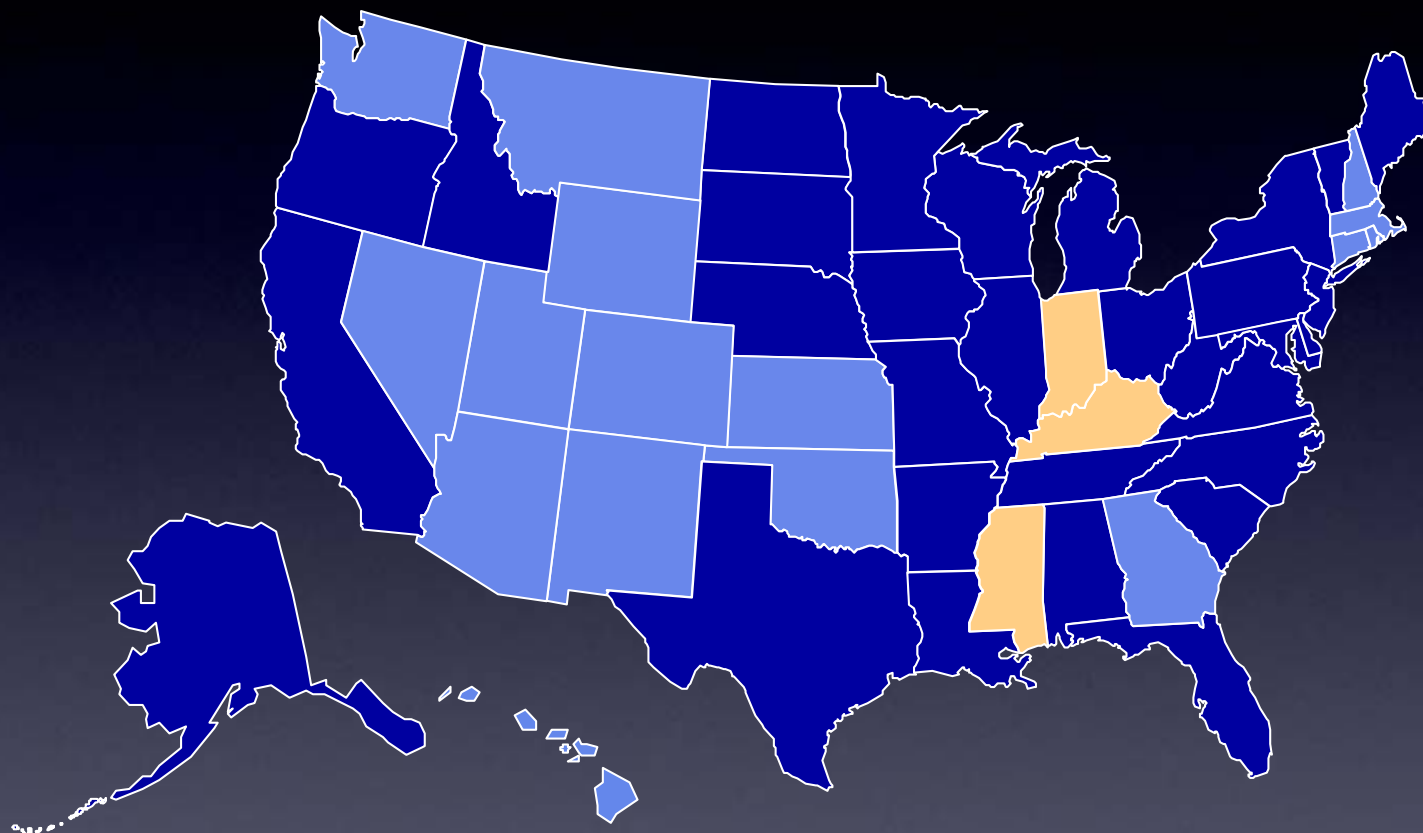


No Data <10% 10%–14% 15%–19%

Obesity Trends* Among U.S. Adults

BRFSS, 1997

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

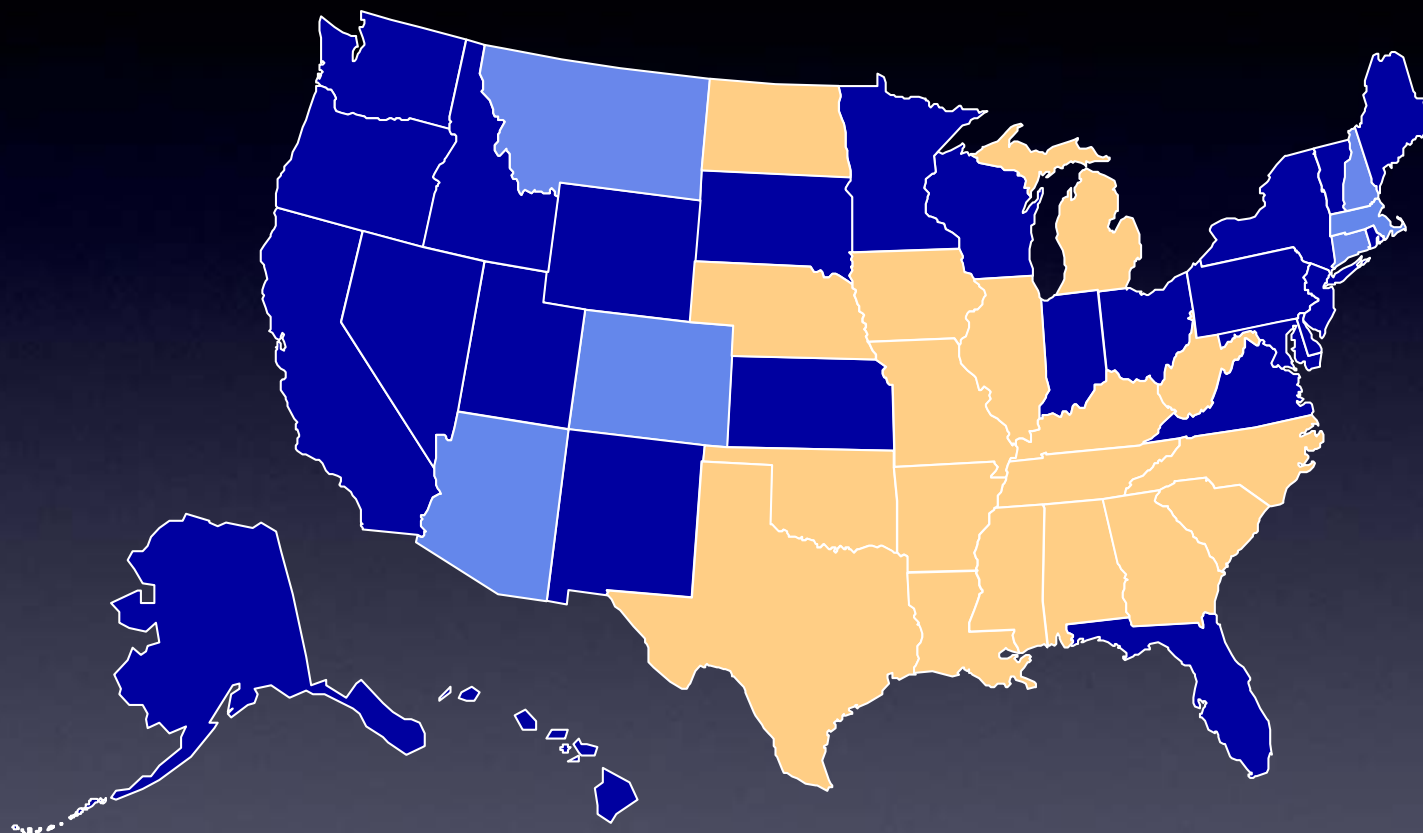


No Data <10% 10%–14% 15%–19% ≥20%

Obesity Trends* Among U.S. Adults

BRFSS, 1999

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

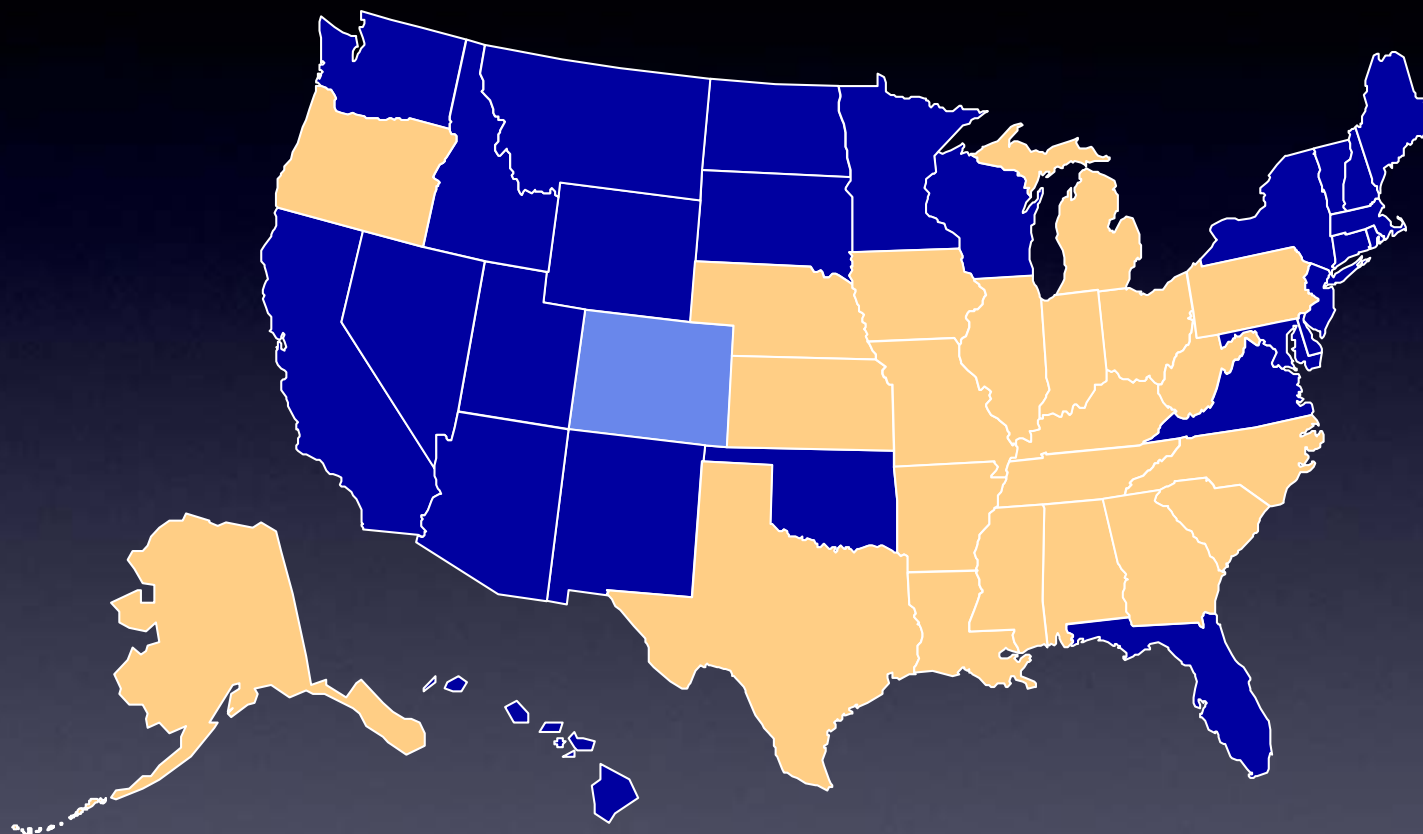


No Data <10% 10-14% 15-19% ≥20%

Obesity Trends* Among U.S. Adults

BRFSS, 2000

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

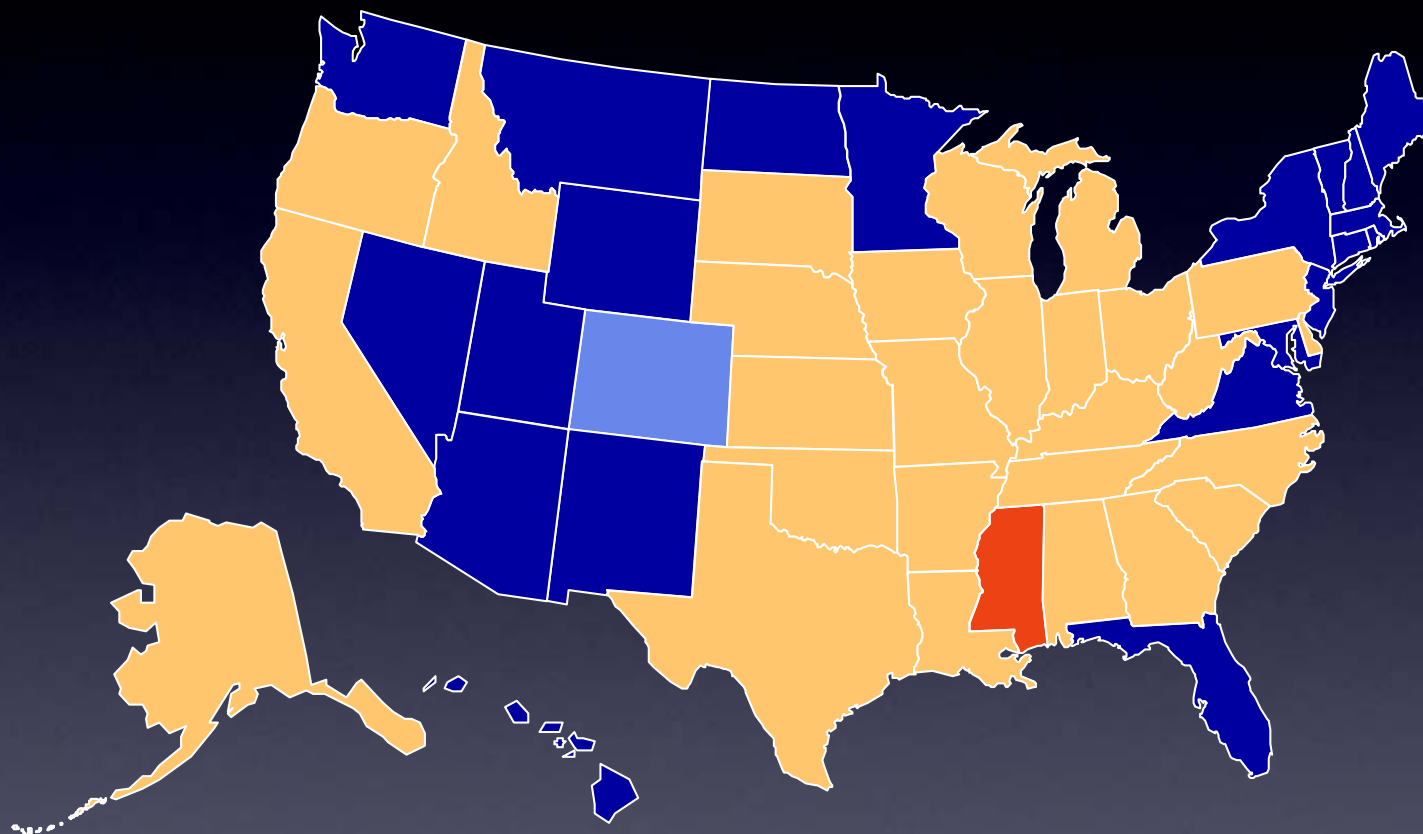


No Data <10% 10%–14% 15%–19% $\geq 20\%$

Obesity Trends* Among U.S. Adults

BRFSS, 2001

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

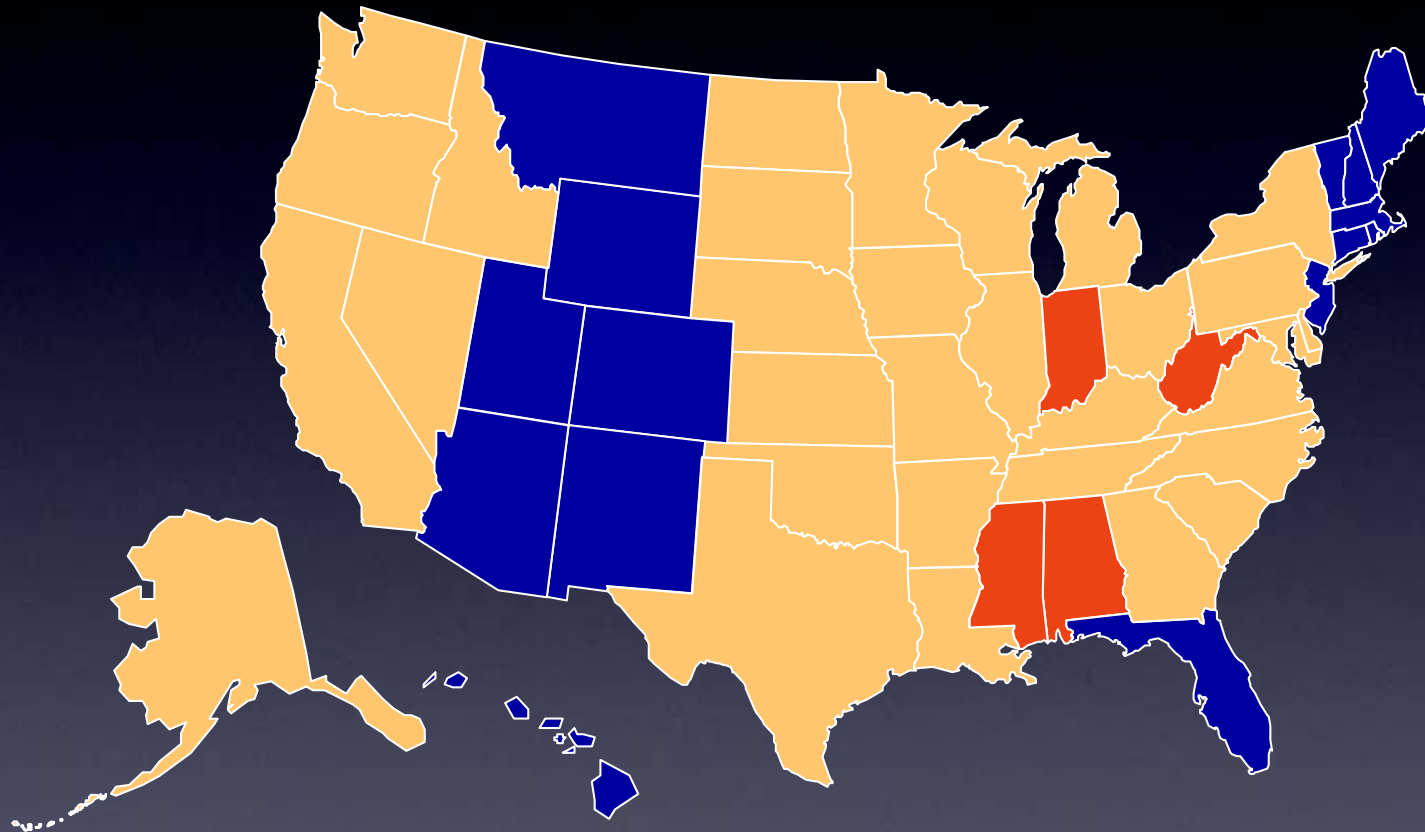


No Data <10% 10%–14% 15%–19% 20%–24% $\geq 25\%$

Obesity Trends* Among U.S. Adults

BRFSS, 2003

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

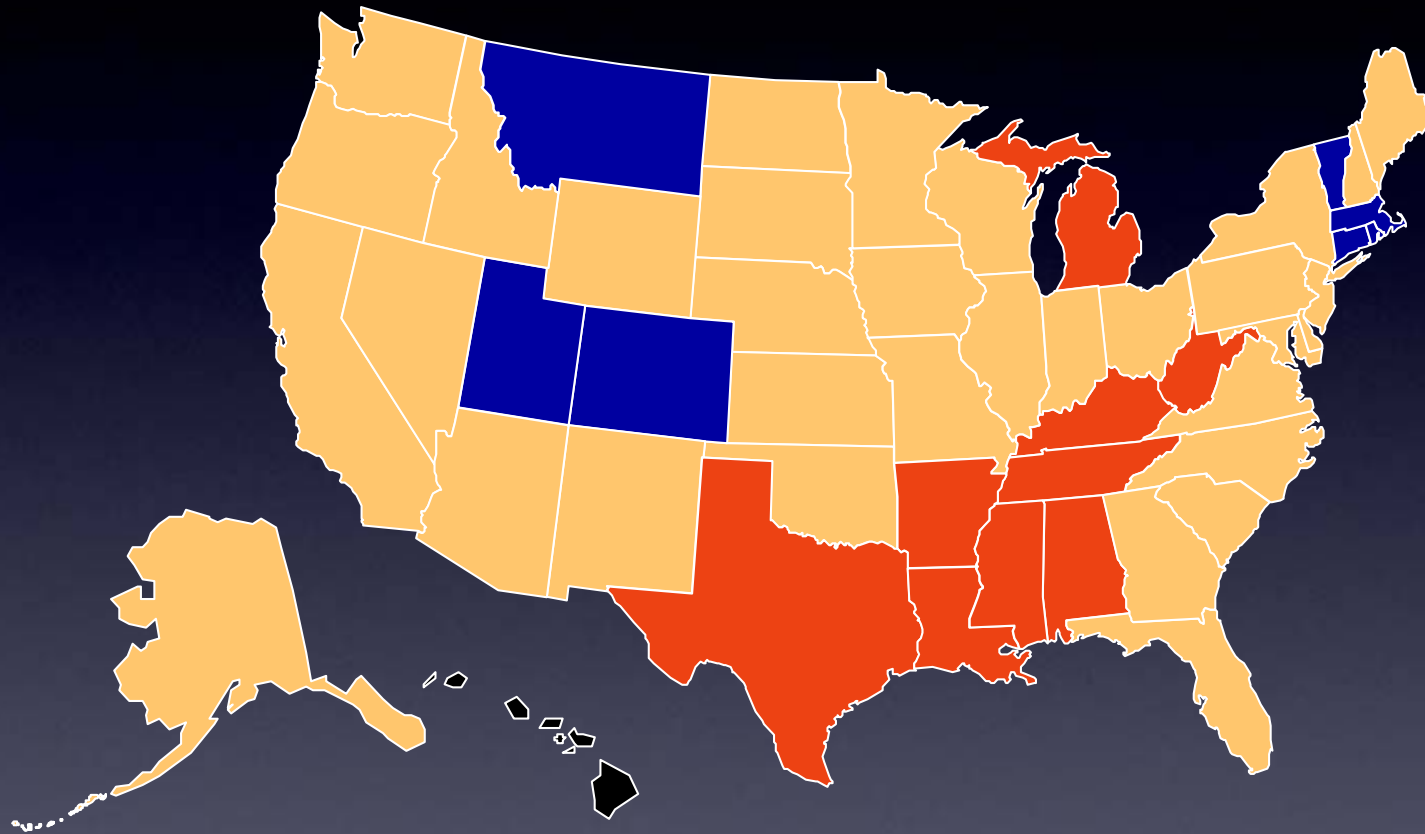


No Data <10% 10%–14% 15%–19% 20%–24% $\geq 25\%$

Obesity Trends* Among U.S. Adults

BRFSS, 2004

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

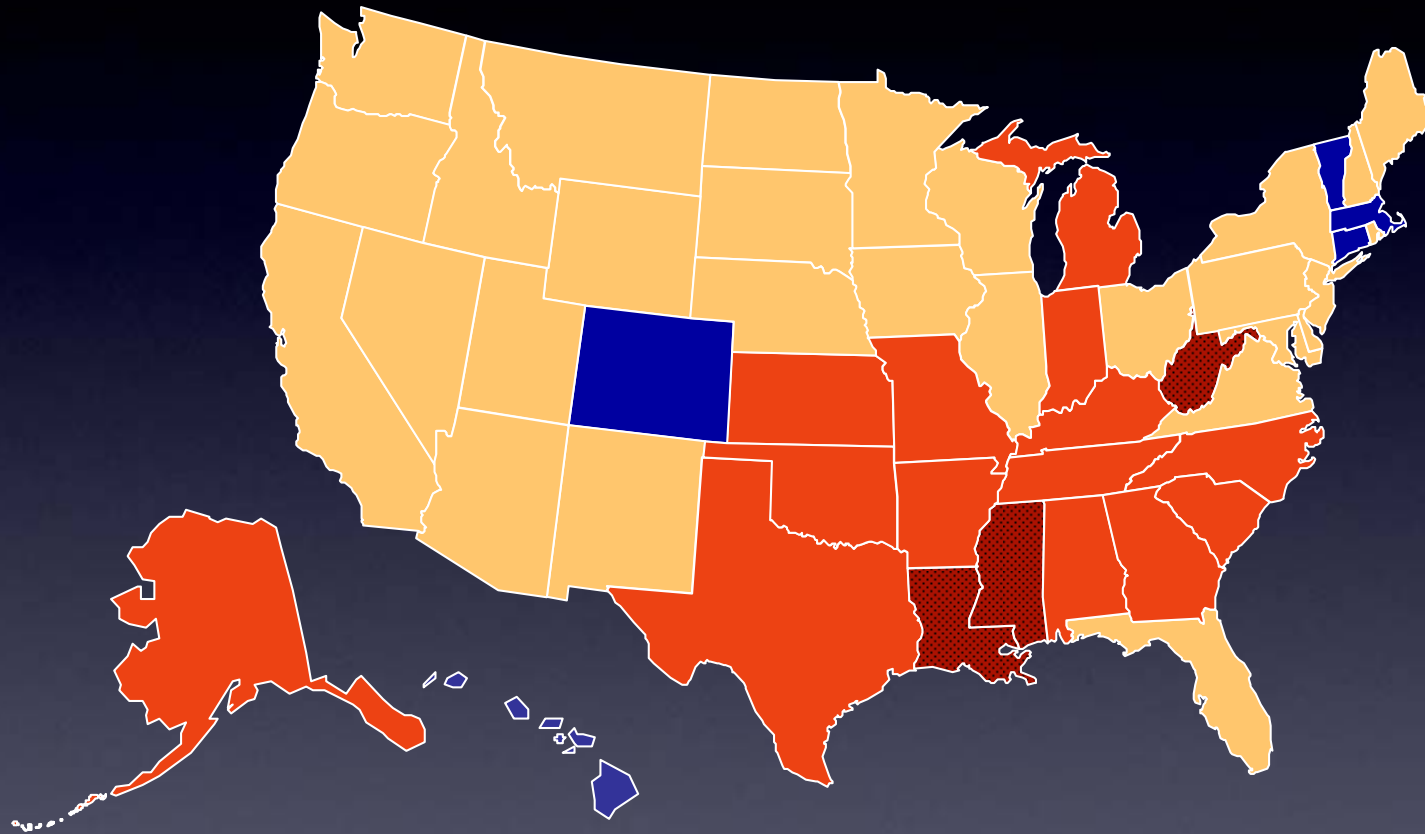


No Data <10% 10%–14% 15%–19% 20%–24% $\geq 25\%$

Obesity Trends* Among U.S. Adults

BRFSS, 2005

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

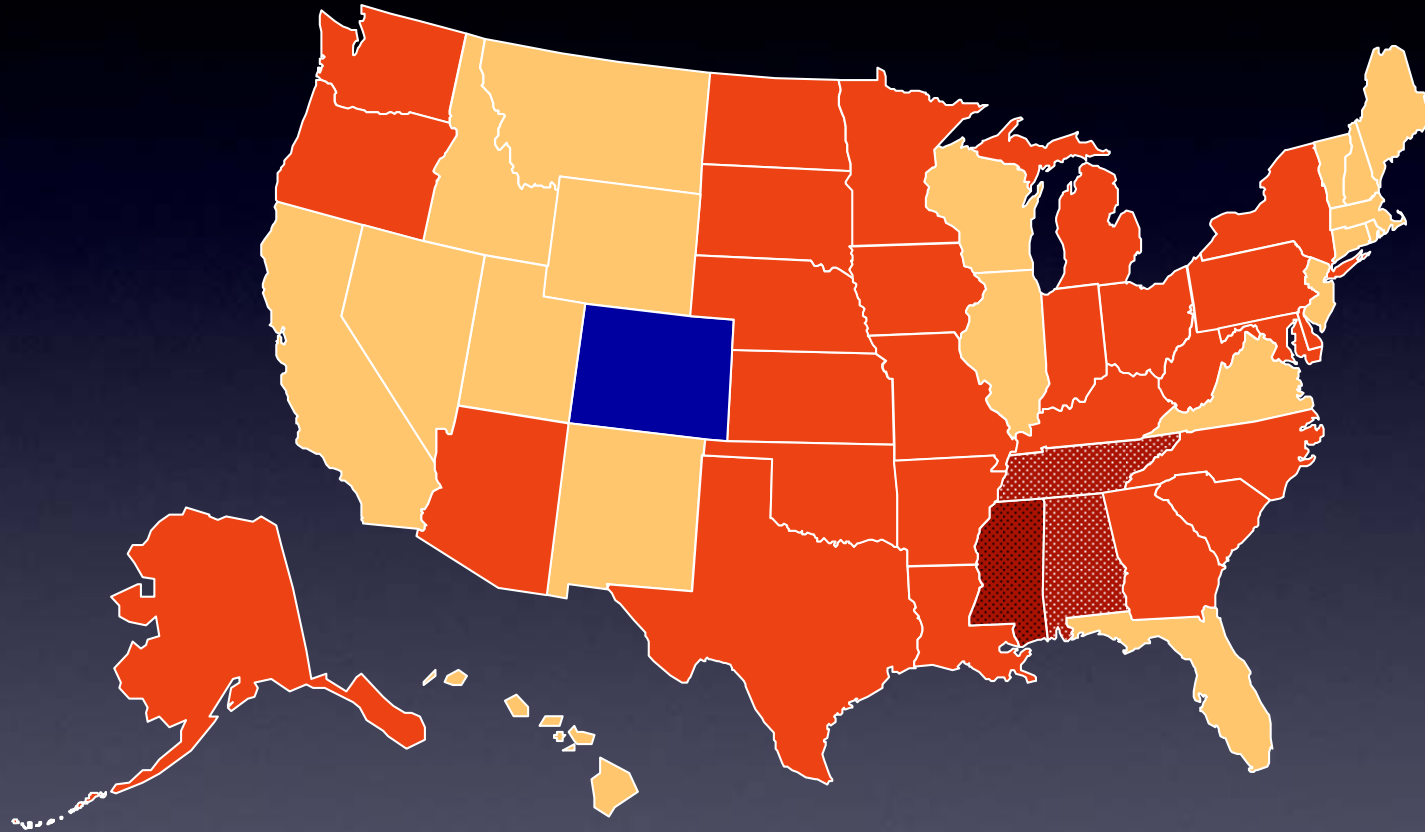


No Data <10% 10%–14% 15%–19% 20%–24% 25%–29% $\geq 30\%$

Obesity Trends* Among U.S. Adults

BRFSS, 2007

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

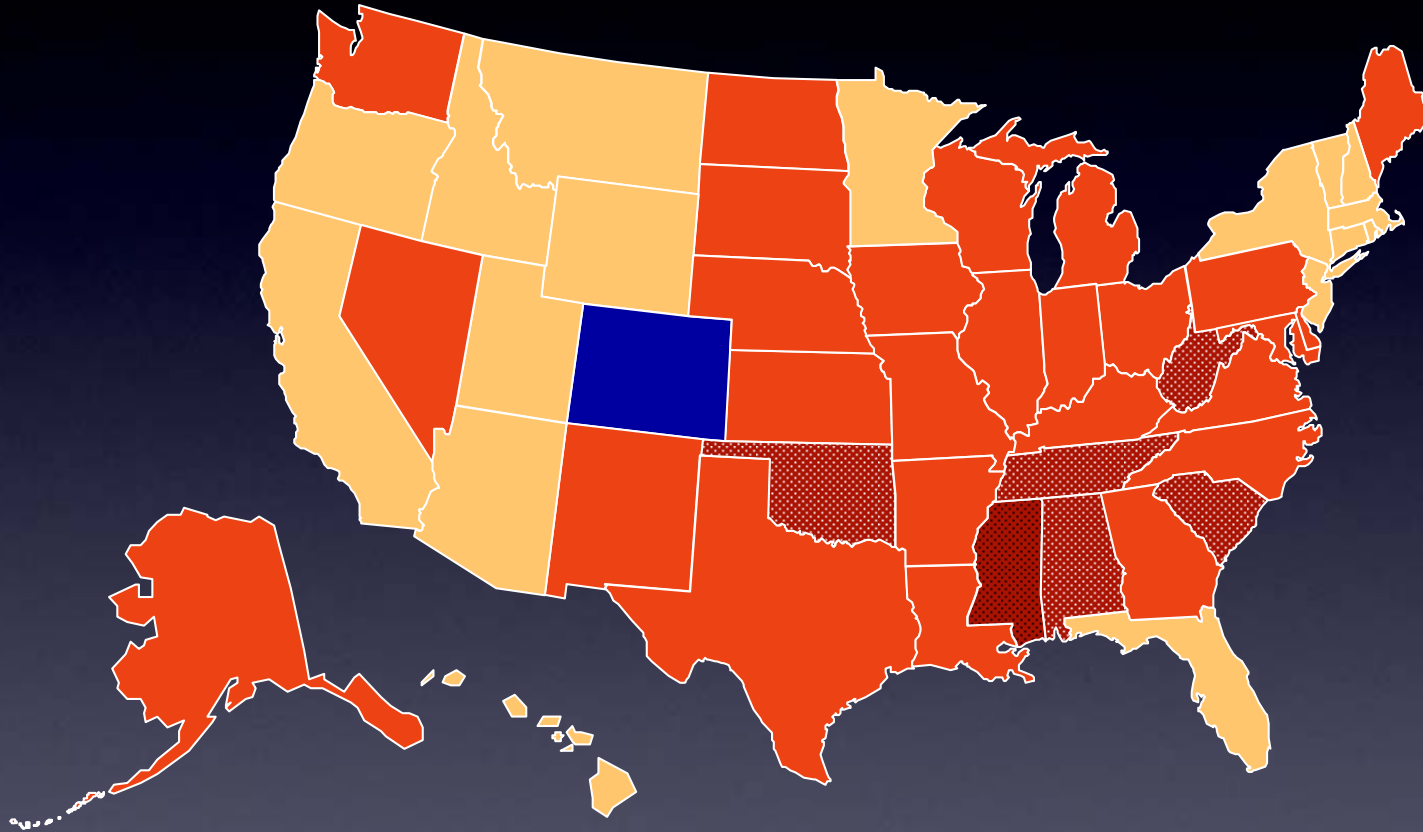


No Data <10% 10%-14% 15%-19% 20%-24% 25%-29% $\geq 30\%$

Obesity Trends* Among U.S. Adults

BRFSS, 2008

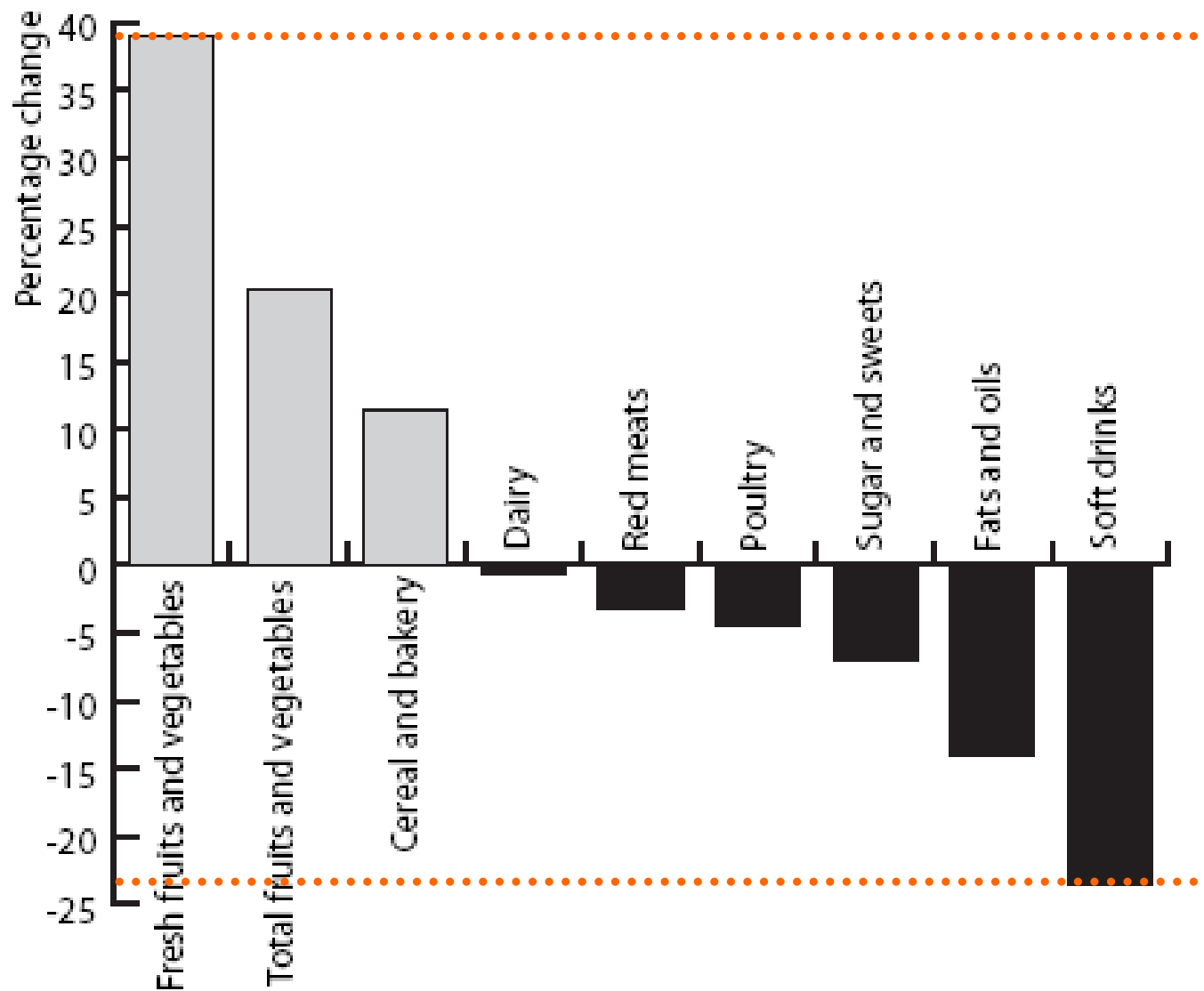
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



No Data <10% 10%–14% 15%–19% 20%–24% 25%–29% $\geq 30\%$

What's Changed?

Change in food prices, 1985–2000 (real dollars)



Source: USDA ERS FoodReview, Vol. 25, Issue 3. Converted to real dollars.



TACO BELL
Open Late
FOURTHMEAL.COM
FOURTHMEAL
THE MEAL BETWEEN
DINNER & BREAKFAST.

The image is a promotional advertisement for Taco Bell's 'Fourth Meal'. It features the Taco Bell logo in the top left corner, which consists of a blue and white bell with a yellow flame. Below the logo, the text 'Open Late' is written in white. To the right of the logo, the website 'FOURTHMEAL.COM' is displayed in white. The central focus is the word 'FOURTHMEAL' in large, bold, black letters with a yellow outline, set against a large yellow number '4'. Below this, the tagline 'THE MEAL BETWEEN DINNER & BREAKFAST.' is written in white, slanted text. The entire advertisement is set against a dark blue background.

Food Science, Hyperpalatability

- “Biological system for maintaining energy balance goes awry”
- Key:
 - Sugar, fat, salt
 - Variety
 - Ready availability
 - Large size
 - Complexity / multisensor
 - ✘ Engage cues associated with desire, e.g., deservingness



Promoting Health Through Delaware Valley Regional Food System Planning

Health Recommendations Currently

- Education – esp youth – and marketing
- Change environment/menu of options
- Model good behaviors
- Monitor
- Networking – build community
- Access
- Availability
- Affordability
- Sustainability

Recommendation 1

- Address toxic food environment
 - Marketing
 - Zoning
 - Vending
 - Taxation
 - Procurement policy
 - Engagement in broader policy

*"There is no connection between
food and health.*

*People are fed by the food industry,
which pays no attention to health,
and are healed by the health industry,
which pays no attention to food."*



Wendell Berry

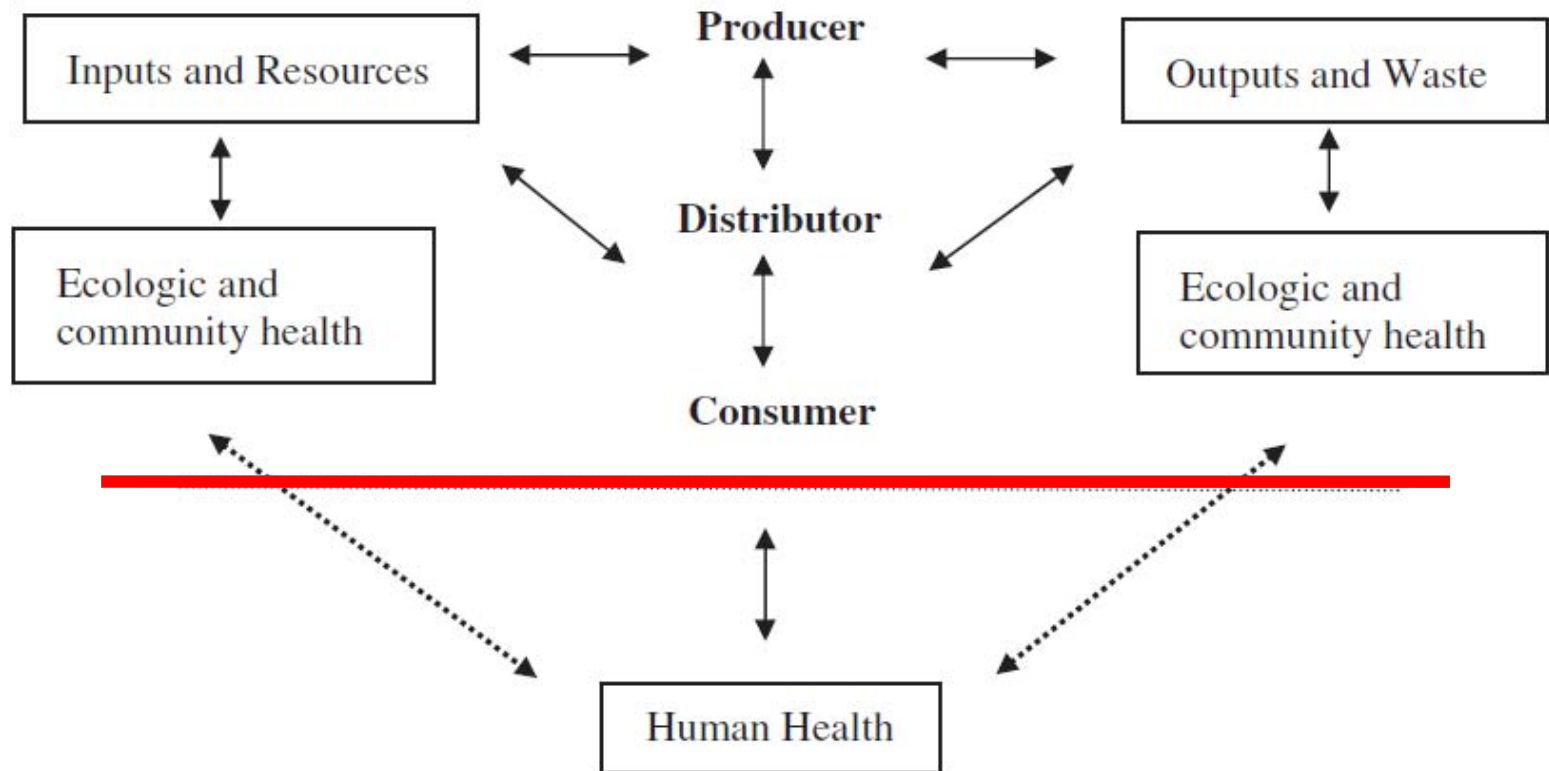


FIGURE 1 Model of the food production and nutrition system.

Table 1 adapted from Sobal, J., Khan, L.K., Bisogni, C.A. A conceptual model of the food and nutrition system. *Social Science and Medicine* 1998;47(7):853–63 and Lang, T., and M. Heasman. 2004. *Food Wars: the battle for mouths, minds and markets*. London: Earthscan Books.

Recommendation 2

- Engage the health sector more in food system planning!
- Delaware Valley is a center for hospital and health industry
 - Nationally -- \$12 billion food delivery budgets
- Much of their resources go to treating diet-related disease
- Has played leadership role in addressing other health threats
- They need to know what you know
 - Credibility

Opportunities

- Locally
 - 4 hospital farmers' markets, 2 CSAs
 - 3 hospitals took Balanced Menus challenge
 - Pilot: 4 hospitals dropped >1000 tons GHG, equiv of 102,454 gallons gas
- Opportunities:
 - Education/messaging
 - Sites for programs
 - Health tracking
 - Food purchasing power
 - Food waste




THE AGRICULTURE & PUBLIC HEALTH GATEWAY

Username :

Password :

[Register](#) | [Benefits of registering](#)
[I Forgot my Password](#)

[Home](#) | [About this site](#) | [How to use this site](#) | [Contact us](#) |  [RSS Feed](#)

Browse By Subject

- [Public Health & Agriculture](#)
- [Environment & Agriculture](#)
- [Crop Production](#)
- [Sustainable Agriculture](#)
- [Industrial Food Animal Production](#)
- [Agriculture Policy & Public Health](#)
- [Community & Occupational Health](#)
- [Food Safety & Labeling](#)
- [Food Systems](#)

Link to Other Resources

- [Fact Sheets](#)
- [Glossaries](#)
- [Listservs & Newsletters](#)
- [Images](#)
- [Events](#)



The Gateway allows [researchers](#), [journalists](#), [advocates](#) and [educators](#) to explore the links between agriculture and public health by searching several databases simultaneously, or by browsing a vetted collection of reports, journal articles and other resources. [\[more about How to use this site ... \]](#)

Highlighted Resources

.....in Science, Policy and Advocacy

[Produce industry looks to reassure consumers](#)

Food-borne illness outbreaks associated with fresh or fresh-cut produce have led both government and industry to develop new guidelines to improve produce safety on the farm, according to a new report jointly authored by Food & Water Watch and the Institute for Agriculture and Trade Policy.



[Politics in Heartland](#)

Community Coalition's annual conference in Des Moines, Iowa, from Oct. 10-11 is a special one day event featuring a food policy council.

Organizers and practitioners on Oct. 10, as well as six field trips around Iowa. The conference is entitled "From Commodity to Community: Food Politics and Projects in the Heartland."

[CDC tracks fruit and vegetable consumption](#)

The federal Centers for Disease Control and Prevention have issued their State Indicator Report on Fruits and Vegetables, 2009, which provides for the first time information on fruit and vegetable consumption and policy and environmental support within each U.S. state.



[Report evaluates carbon calculators](#)

A new report in the journal Ecological Economics

Search Databases

Search several key health and agriculture databases at one time.

[About This Search Tool](#)

Search By:

- Whole Document
- Title
- Abstracts
- Author

List By:

- Alphabetical Order
- Database

Search In:

- All Databases
- Gateway (this site)
- AGRICOLA - Articles
- AGRICOLA - Books
- EarthTrends
- NASD
- PubMed

<http://aphg.jhsph.edu/>

Sugar Sweetened Beverage Tax (Phila, Proposed)

- Sugar sweetened beverages associated with obesity (many studies)
 - No nutritional value
 - No fullness
 - Affect children's taste preferences
- SSB -> water 2x/week → save >\$40/person; lose 7lbs/person/year
- Funds from tax support obesity prevention