



KOPPERT CRESS
Architecture Aromatique



KOPPERT CRESS



Architecture Aromatique





Let's change
the way we look at
fresh food and health





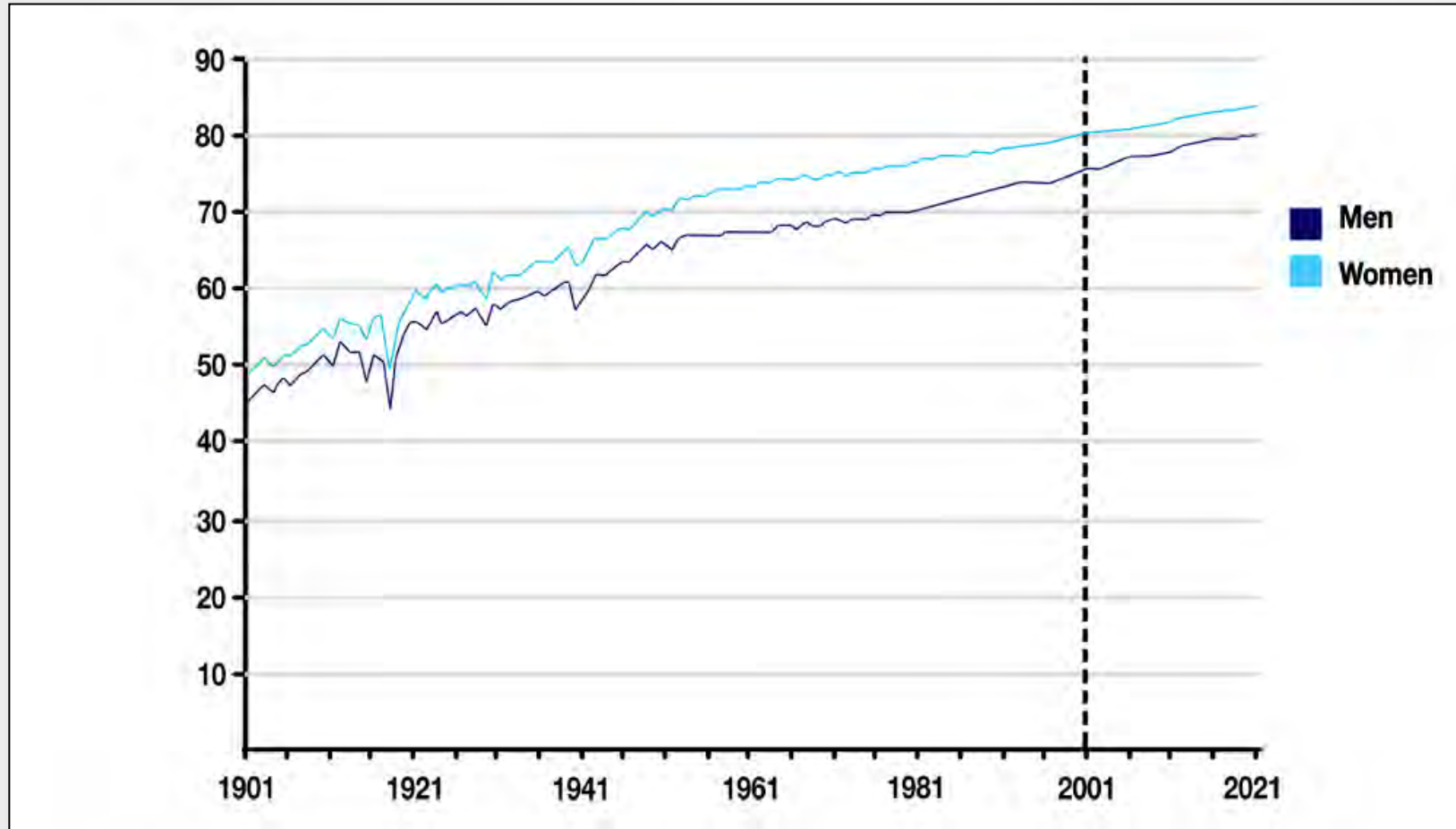
Biggest learning point meet the Hunter Collector



Genetically the same
The human genome changes 0,2% in 1 million years



Years Life Expectancy at birth (UK)





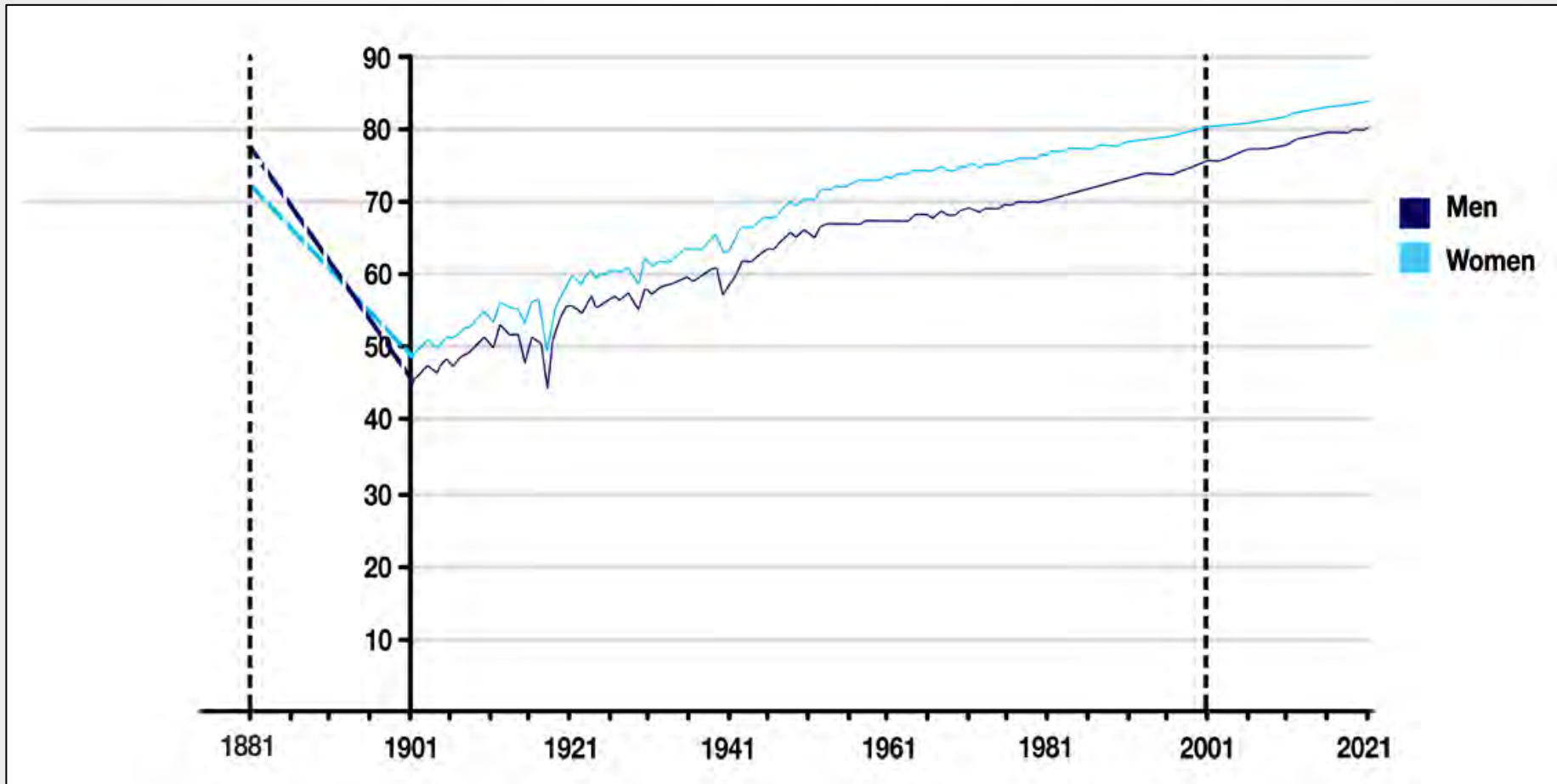
WRONG!

Mis-interpretation of statistics



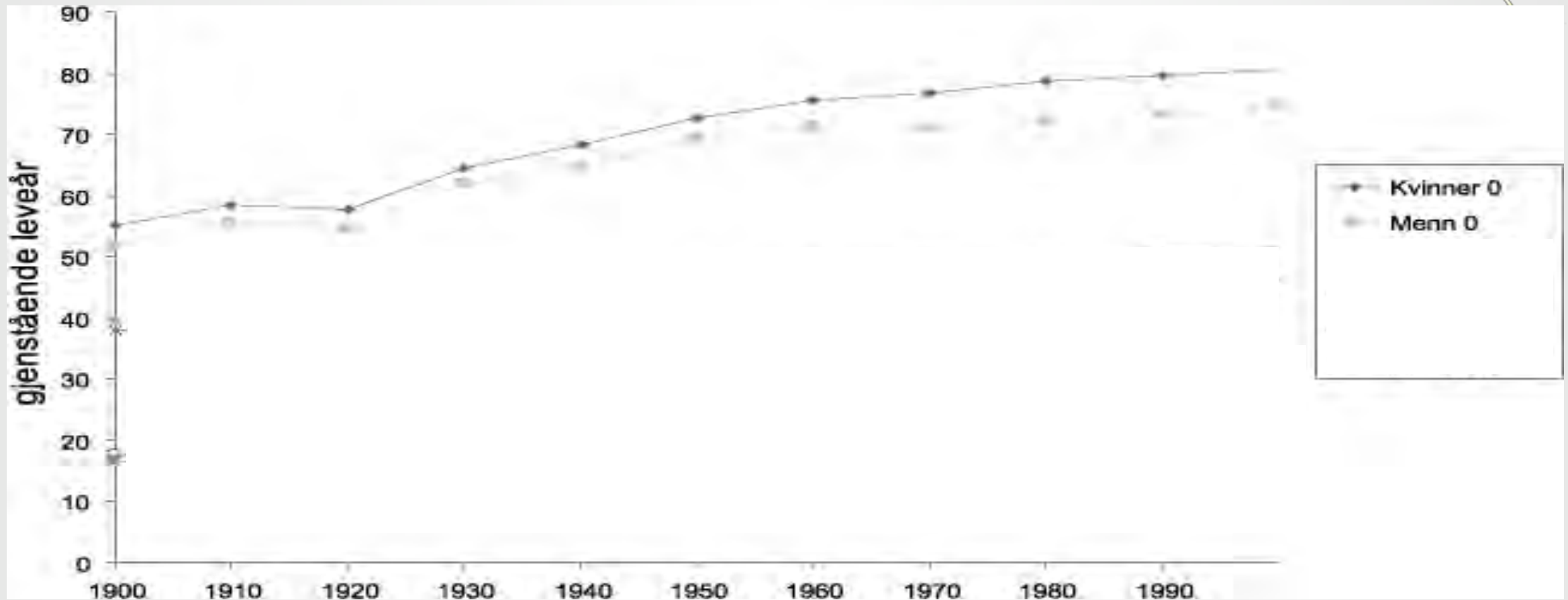
LE@ 5yrs

Life Expectancy at birth (UK)



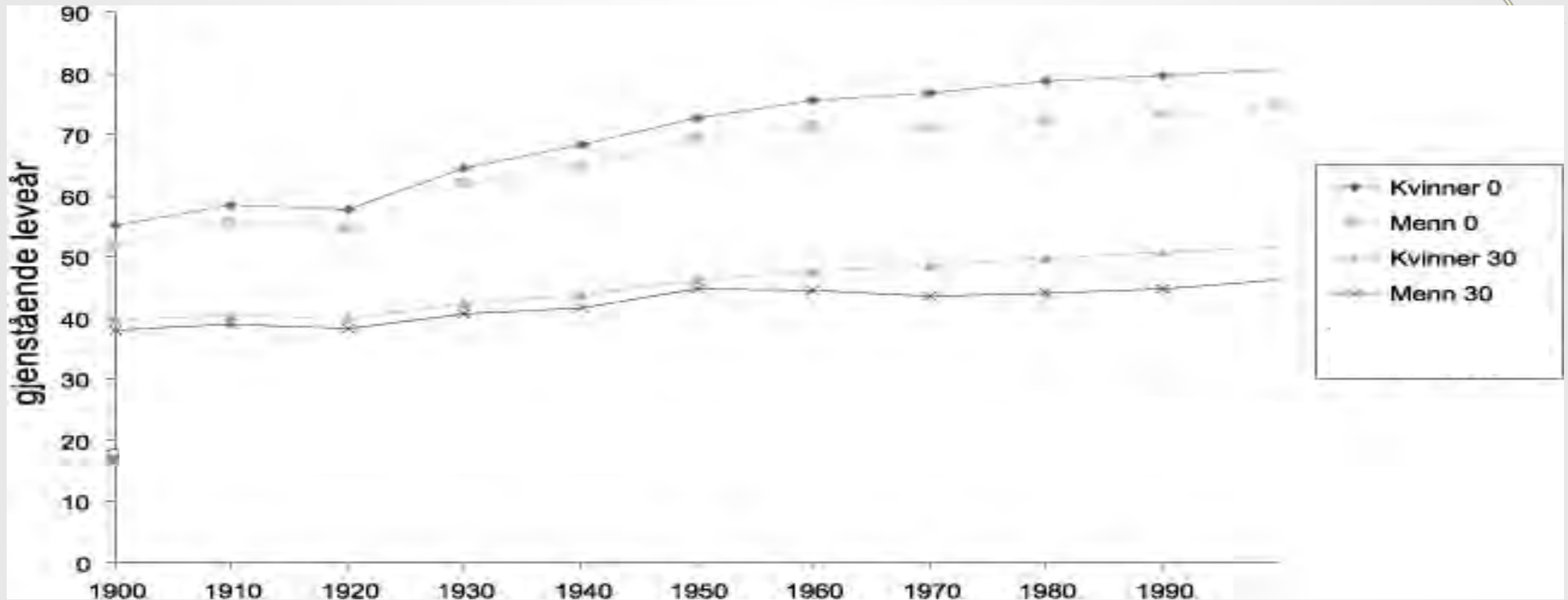


Life Expectancy by Age Group



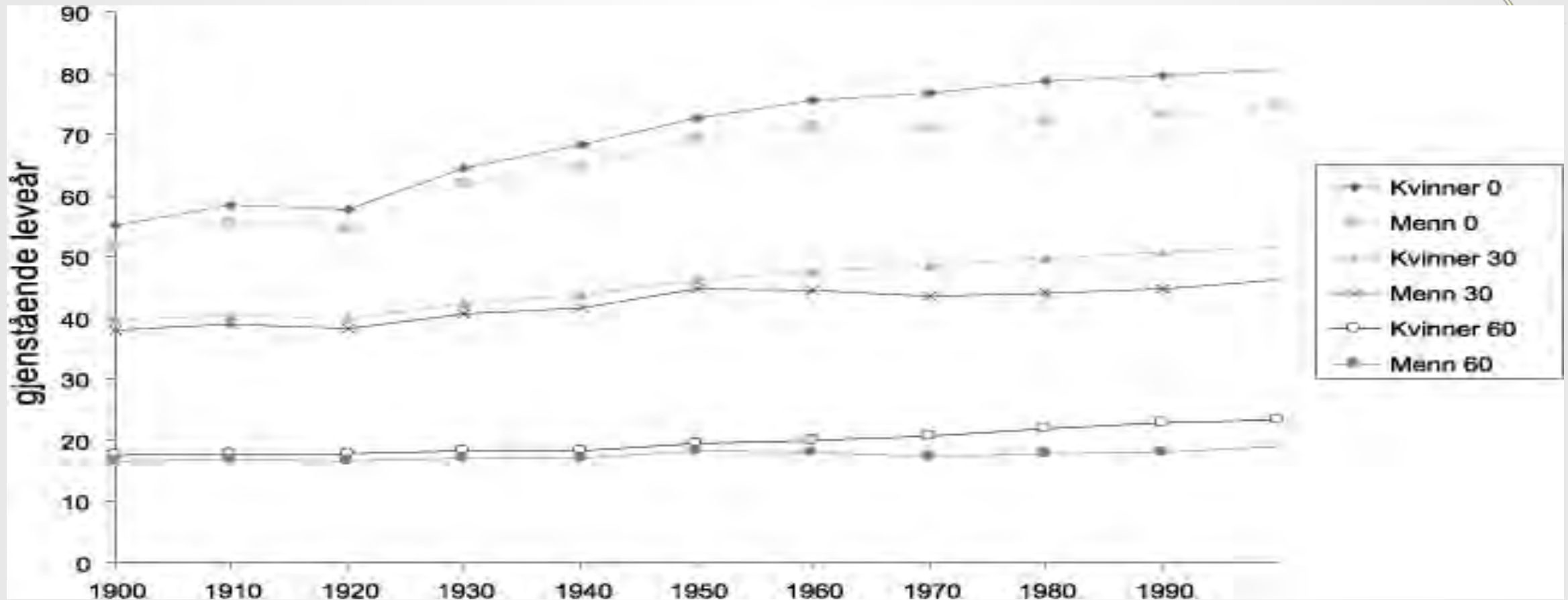


Life Expectancy by Age Group





Life Expectancy by Age Group





Life expectancy England & Wales



- Mid-Victorian men: 75
- 21st century men: 75.9

- Mid-Victorian men: 75
- 21st C: working class men: 72



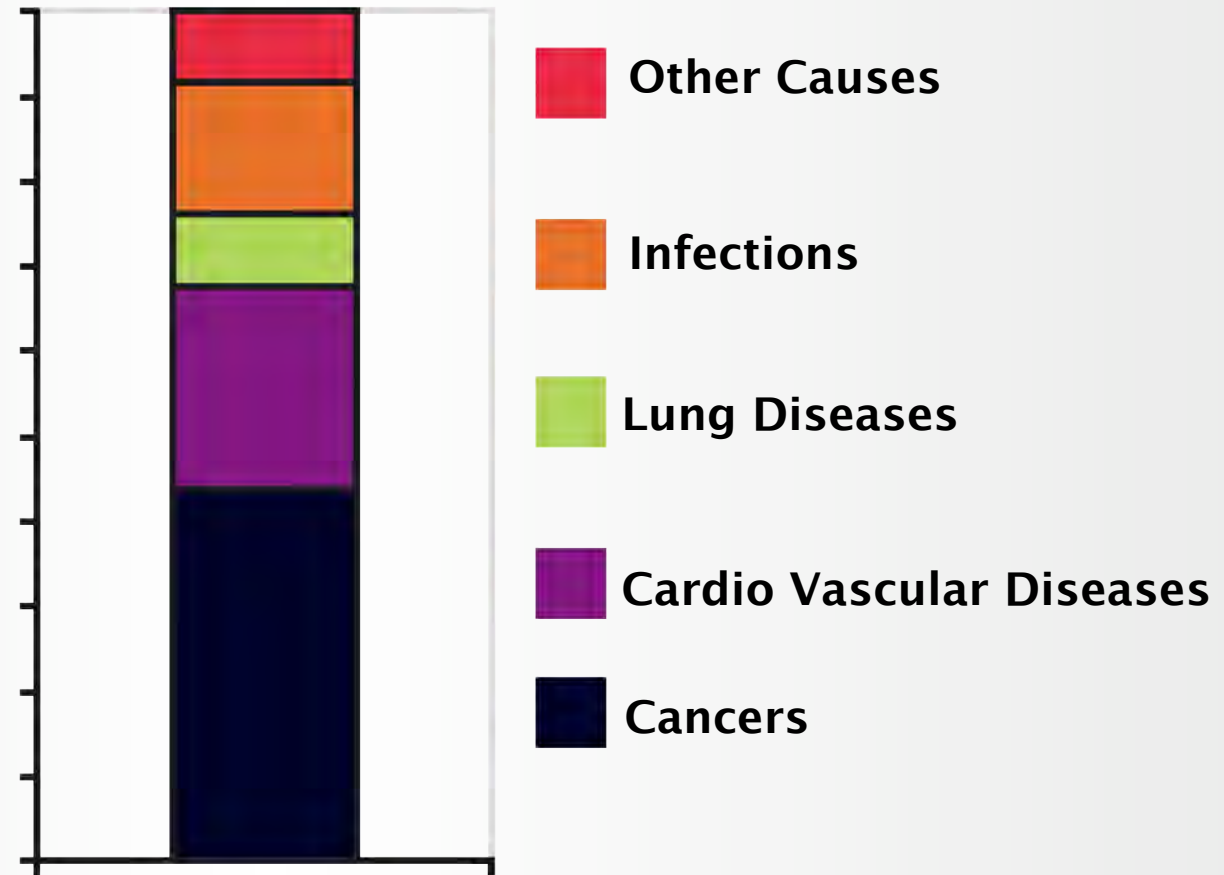
The Mid-Victorian 'Golden Age'



- c1850 – c1885
- Mid-Victorians, rich or poor, had similar life expectancy
- Better health expectancy
- Required significantly less health care

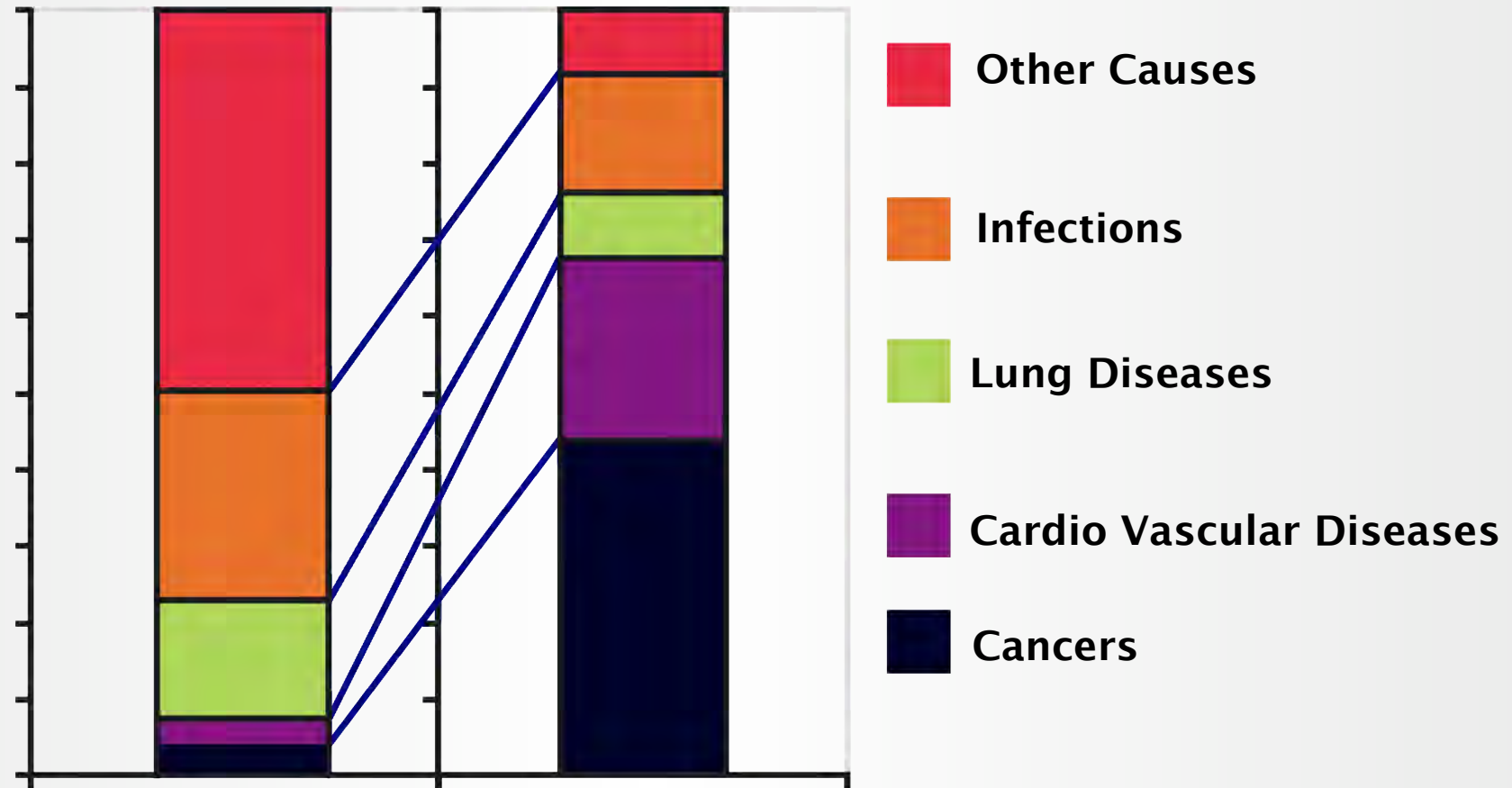


Cause of Death in England and Wales 1997





Cause of Death in England and Wales 1880 and 1997





Examples

- 1900: army rejects 50% of recruits

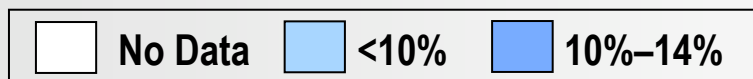
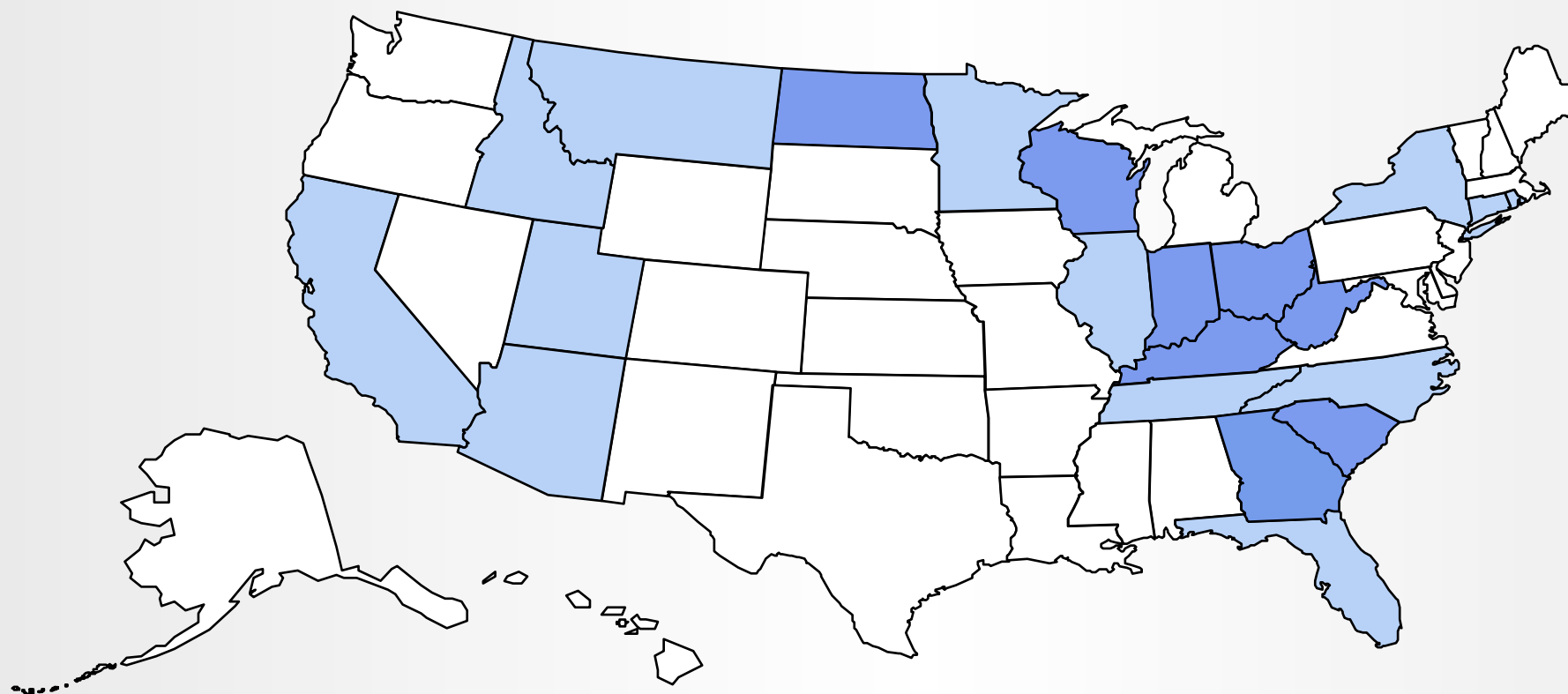
Minimum height of army recruits

- 1800 – 1880: 1.68m
- 1885: 1.60m
- 1900: 1.52 (=10% reduction)



Obesity Trends* Among U.S. Adults

BRFSS, 1985

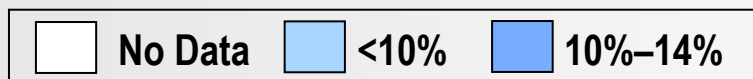
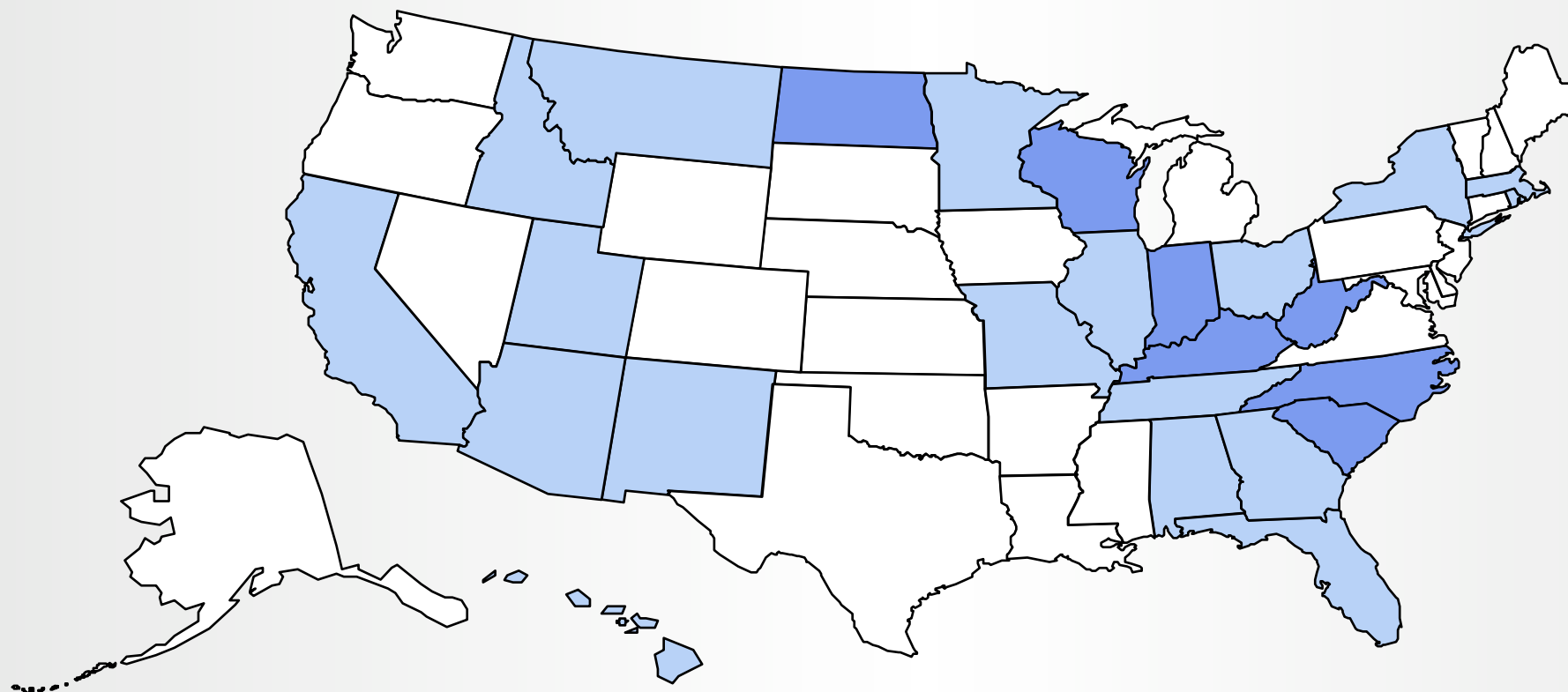


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1986

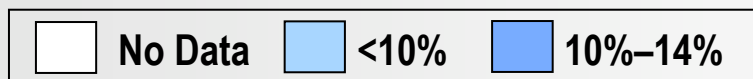
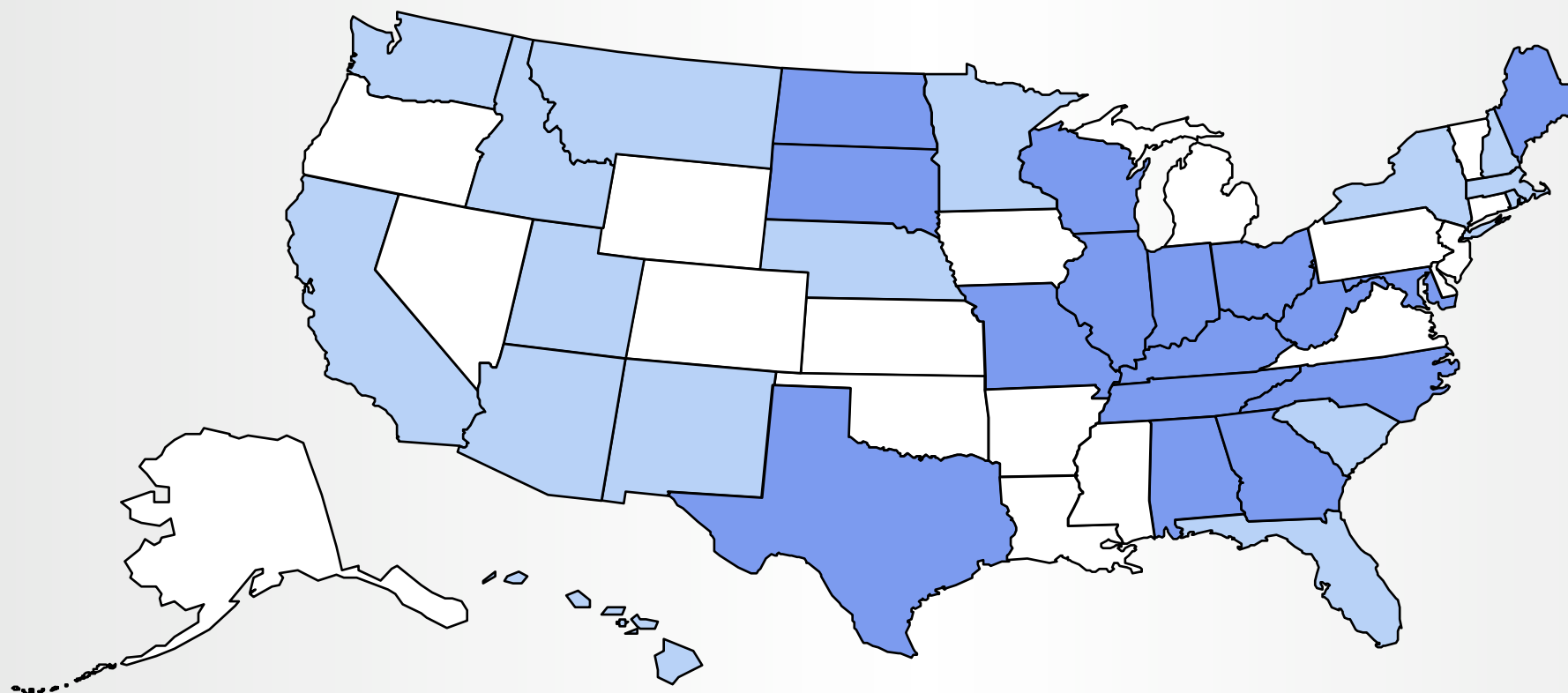


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Obesity Trends* Among U.S. Adults

BRFSS, 1987

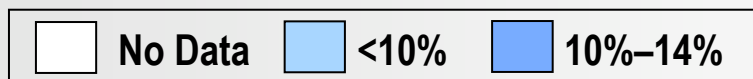
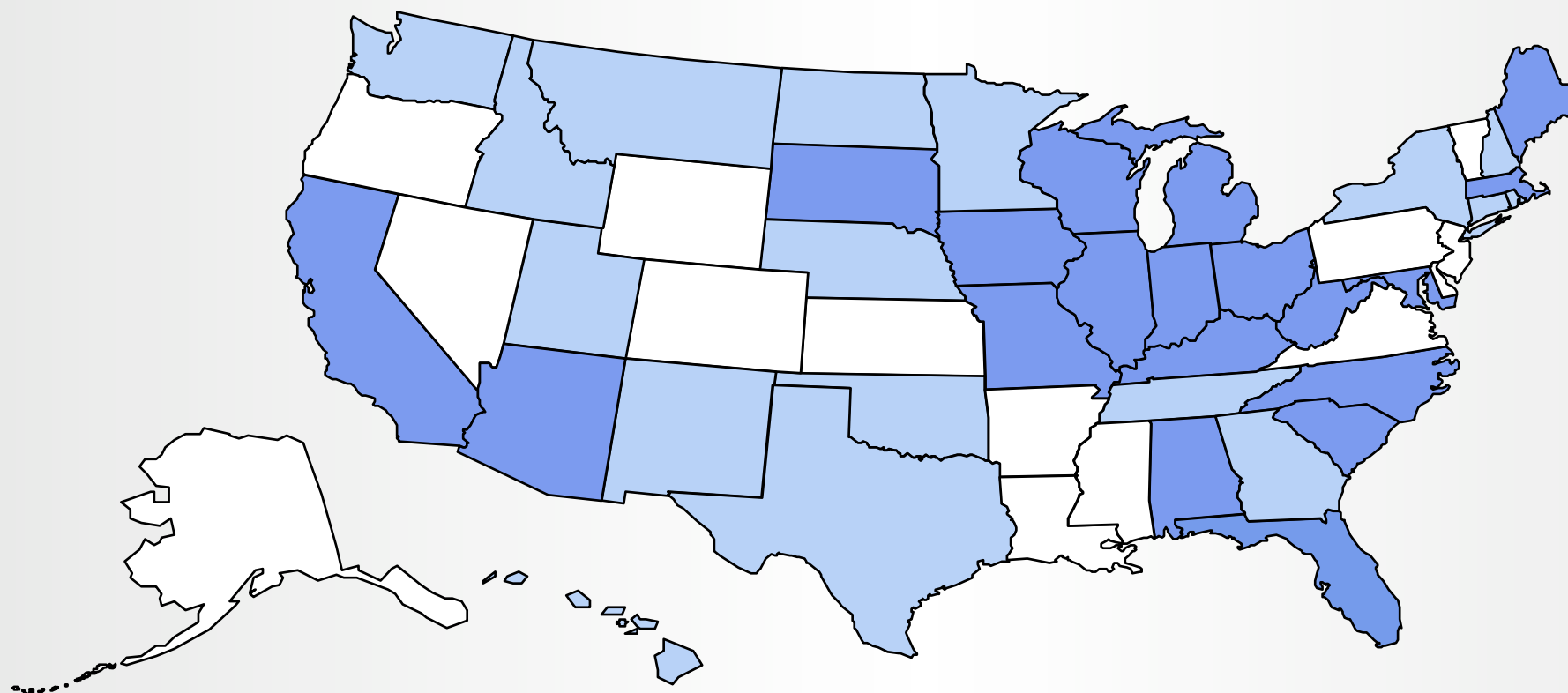


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1988

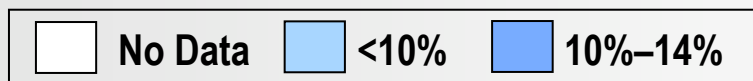
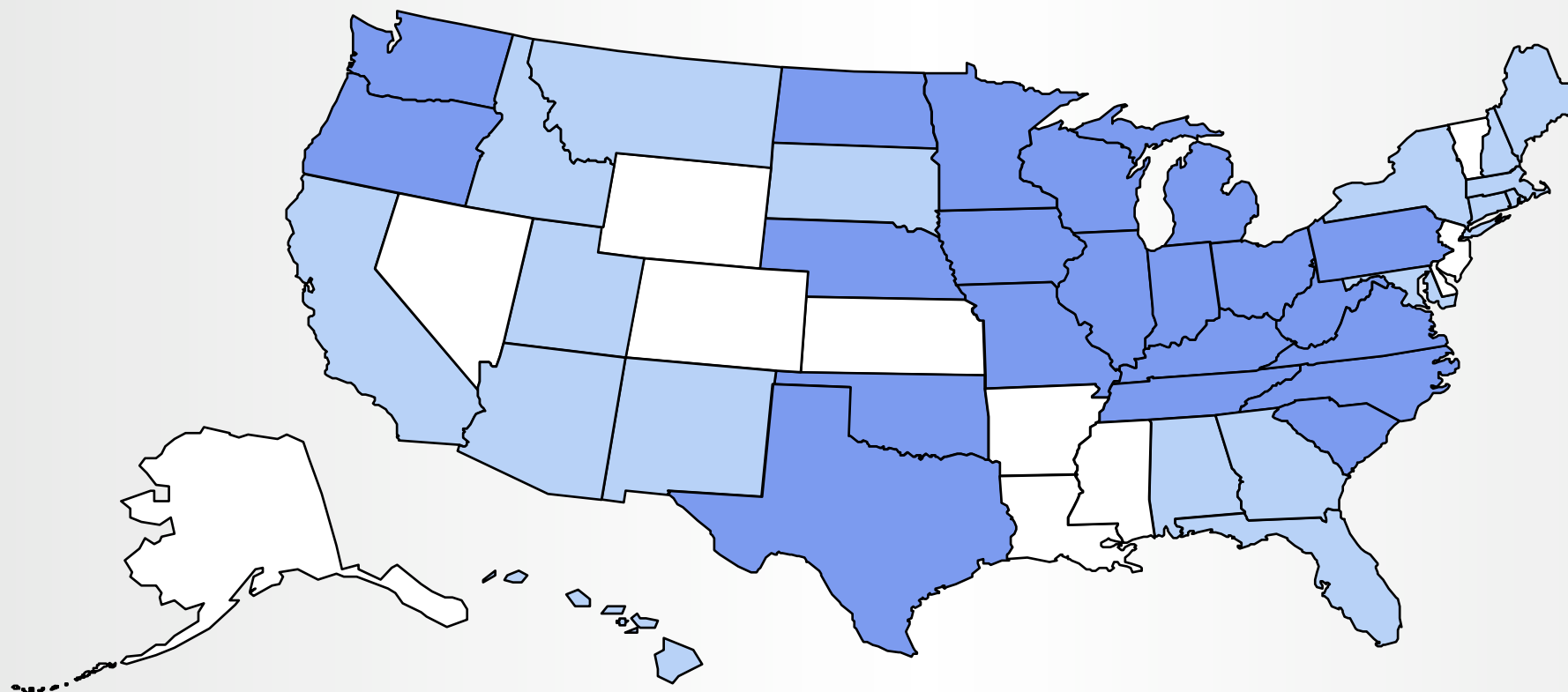


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Obesity Trends* Among U.S. Adults

BRFSS, 1989

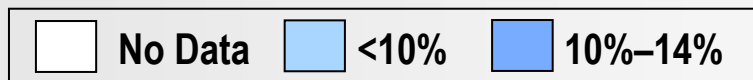
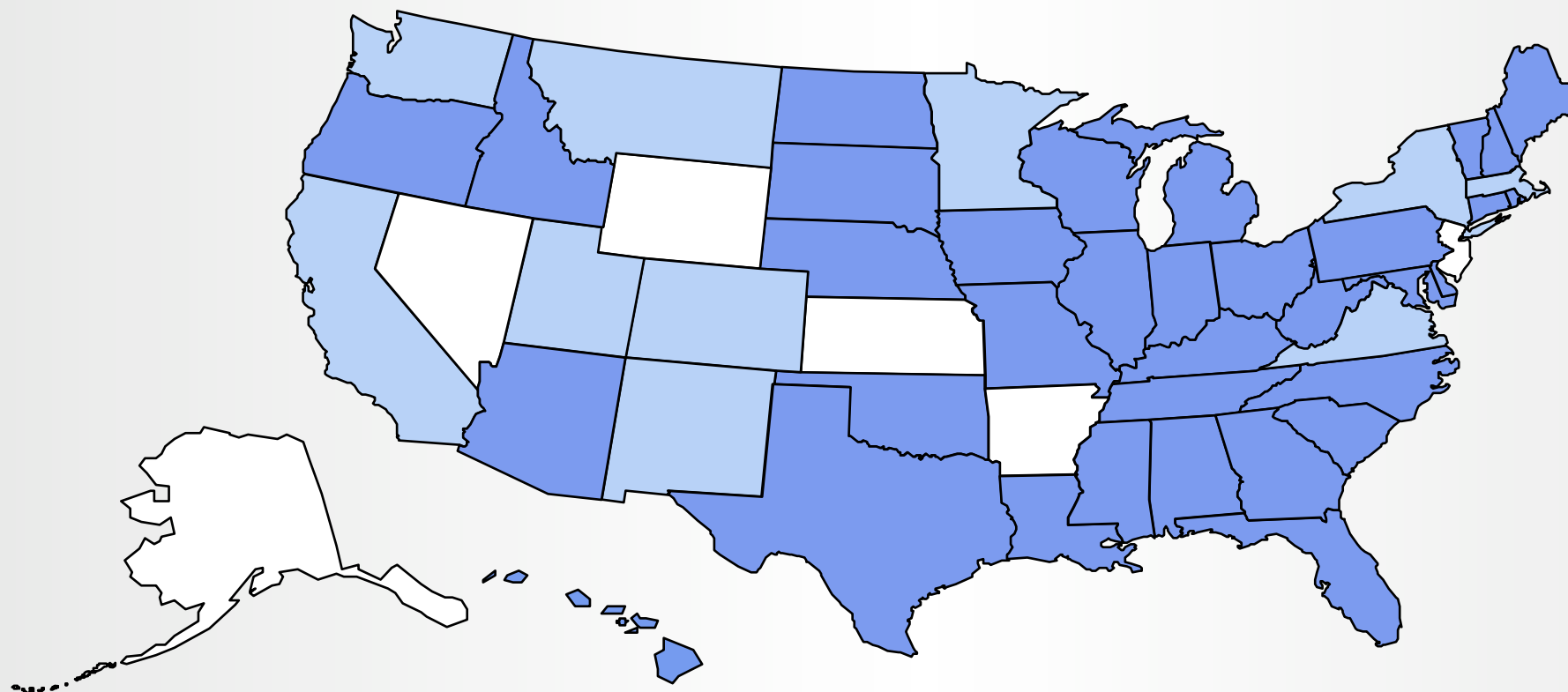


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Obesity Trends* Among U.S. Adults

BRFSS, 1990

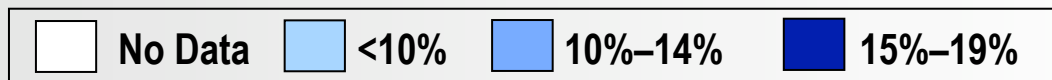
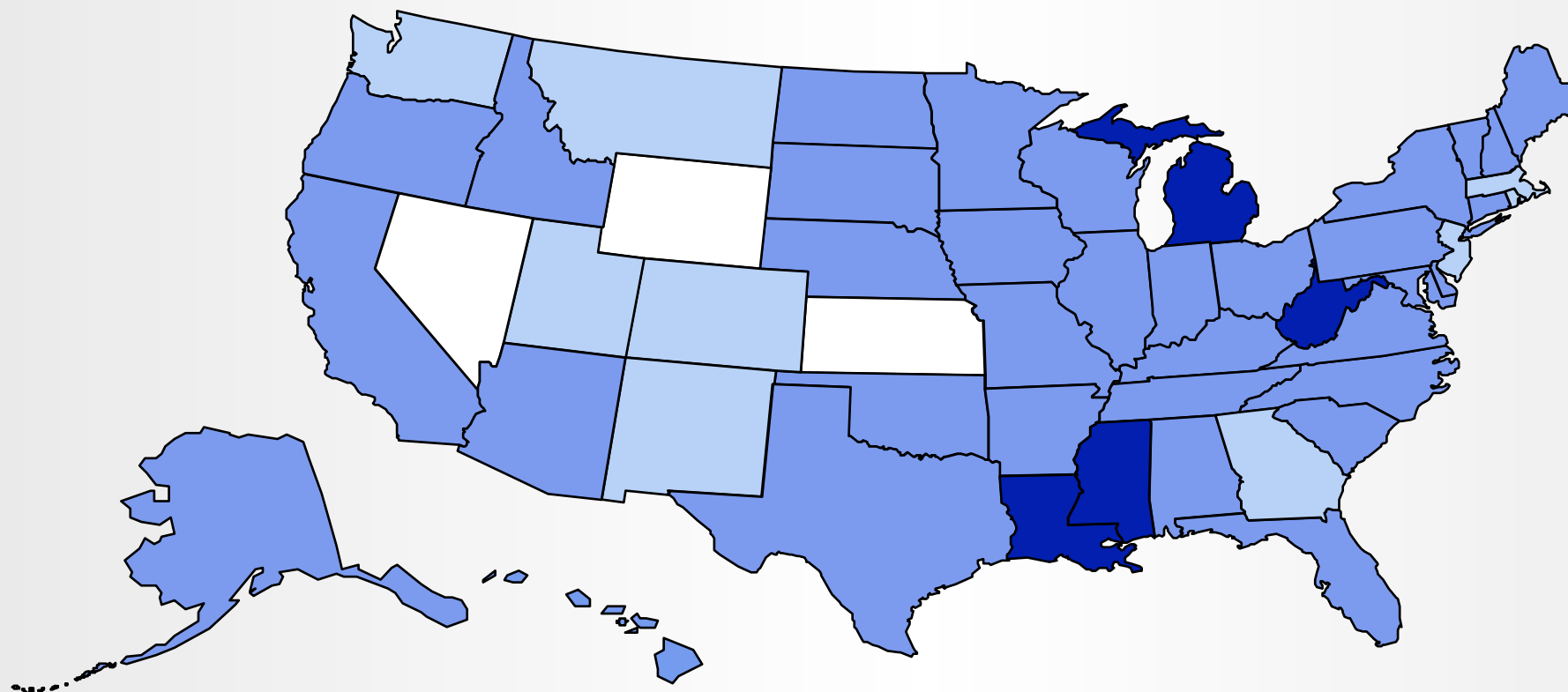


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1991

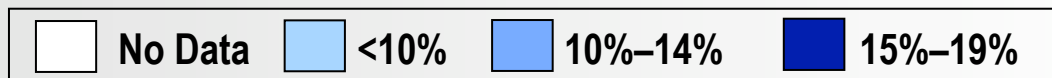
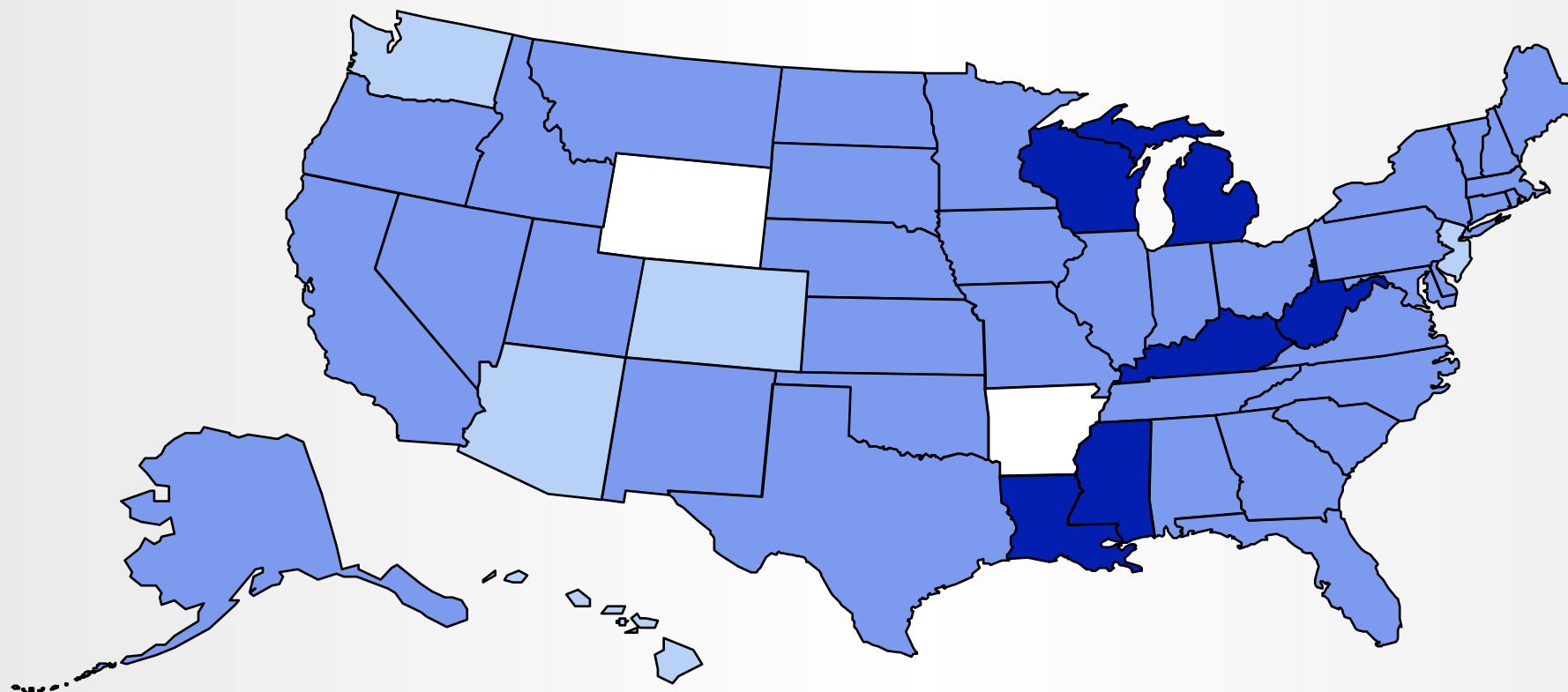


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Obesity Trends* Among U.S. Adults

BRFSS, 1992

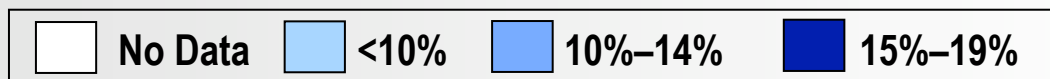
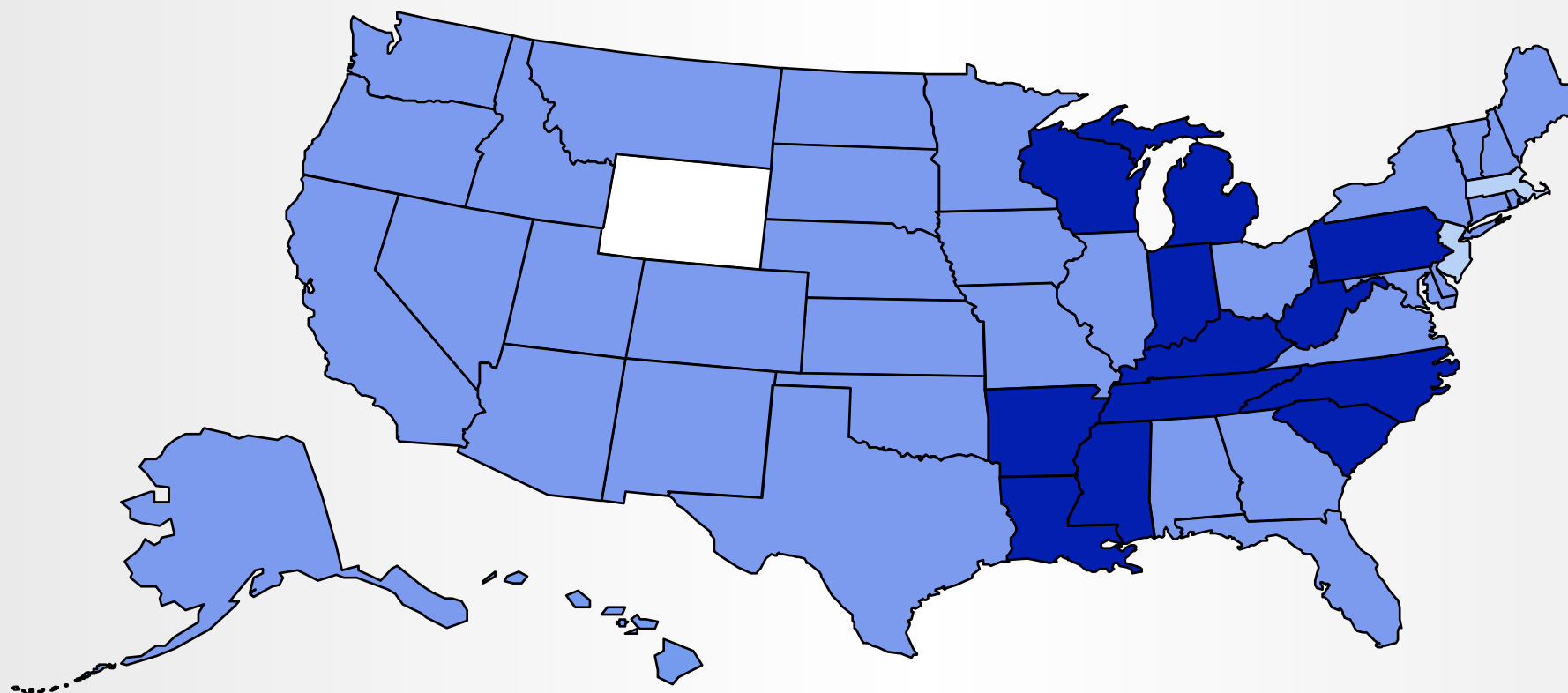


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1993

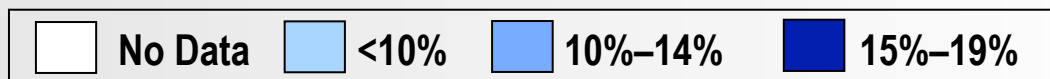
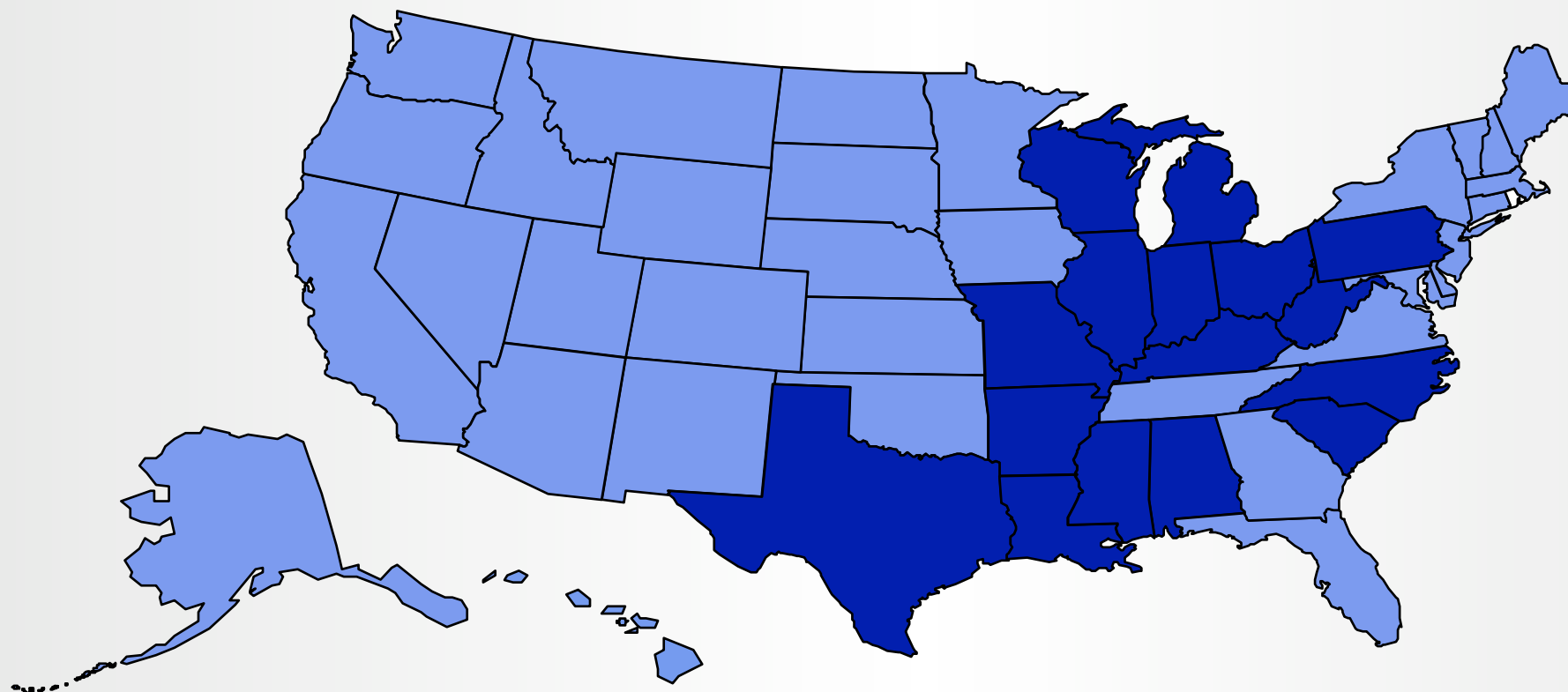


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Obesity Trends* Among U.S. Adults

BRFSS, 1994

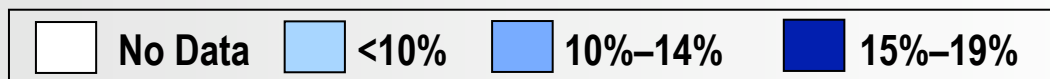
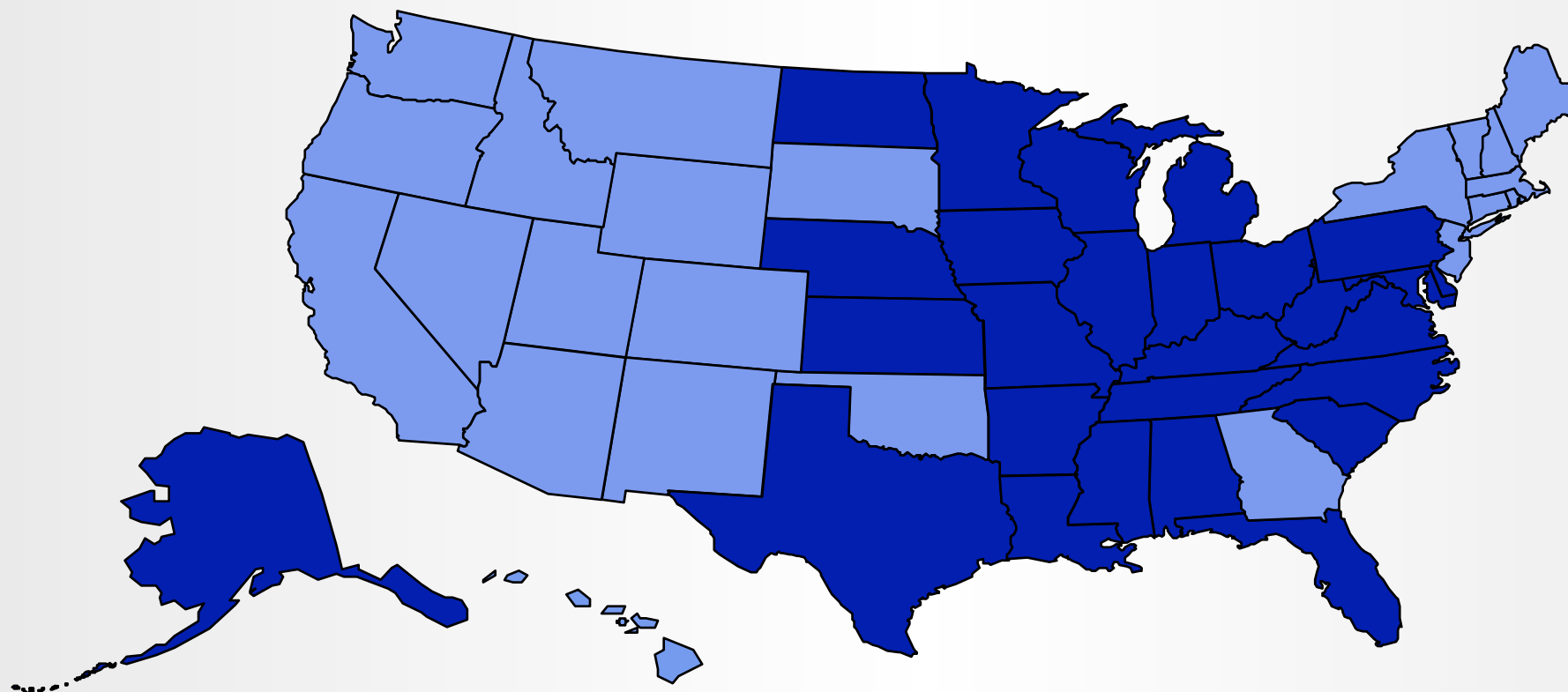


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1995

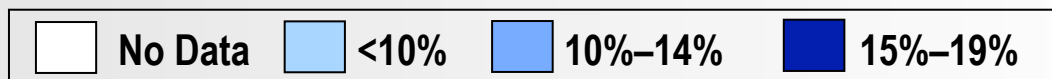
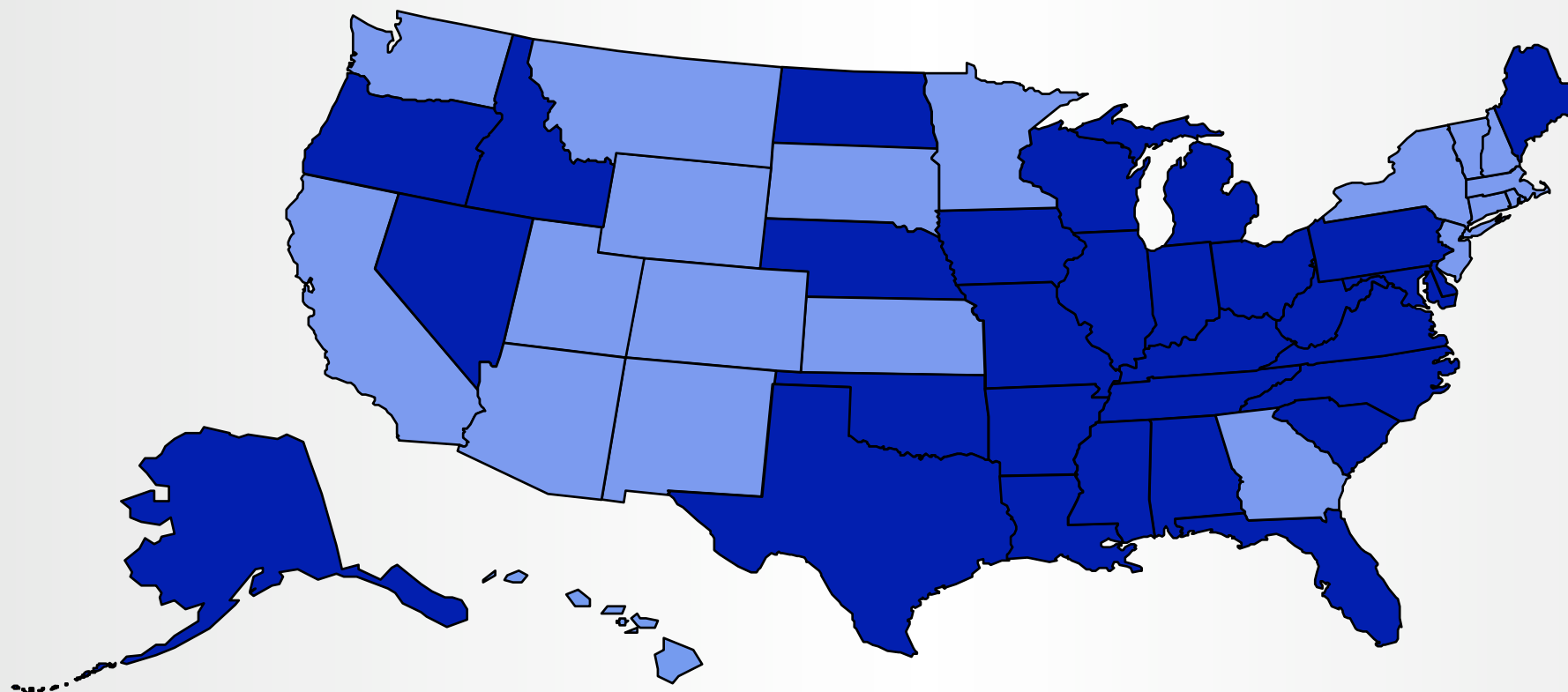


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1996

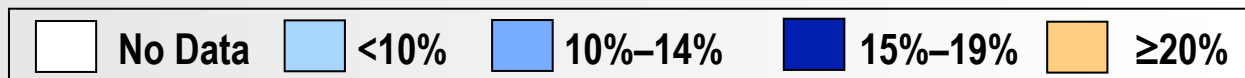
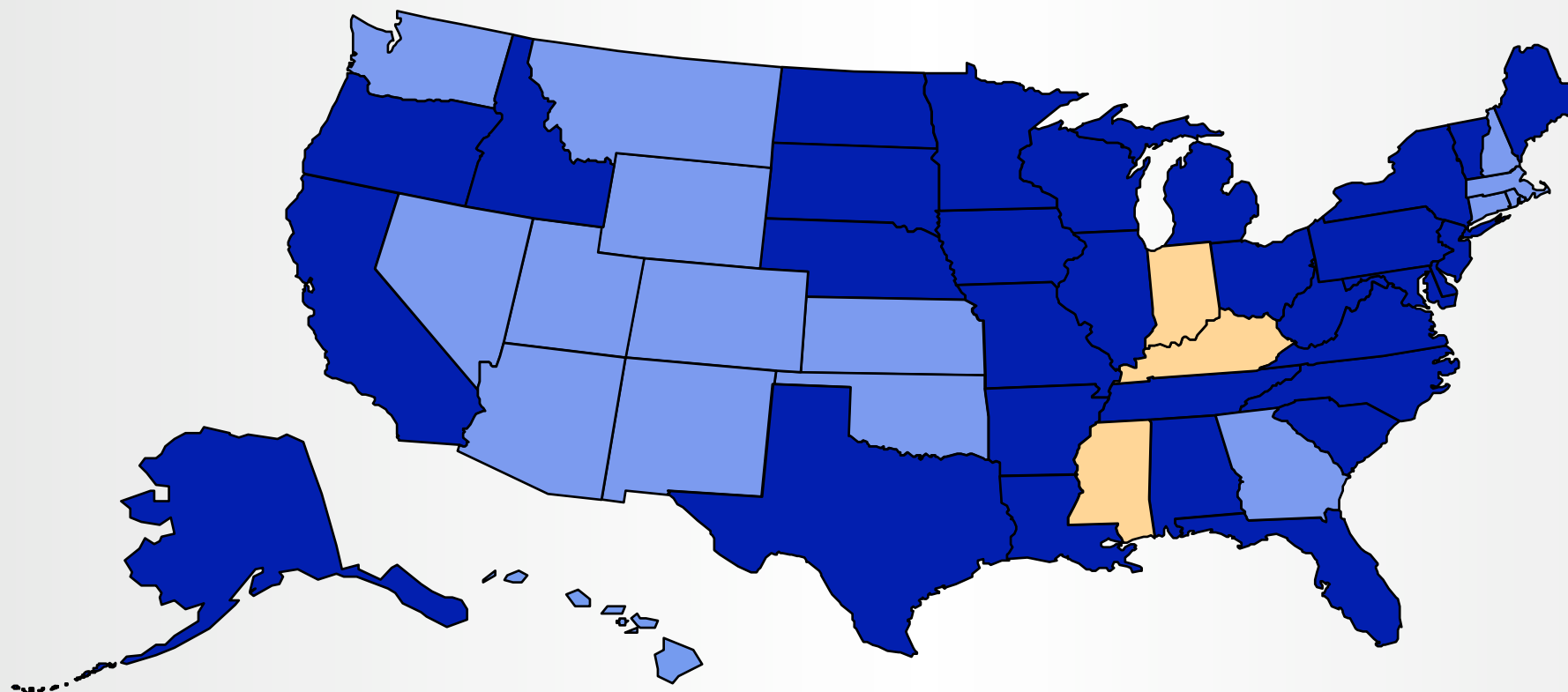


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1997

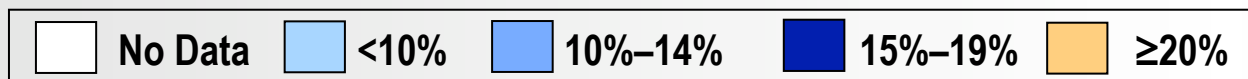
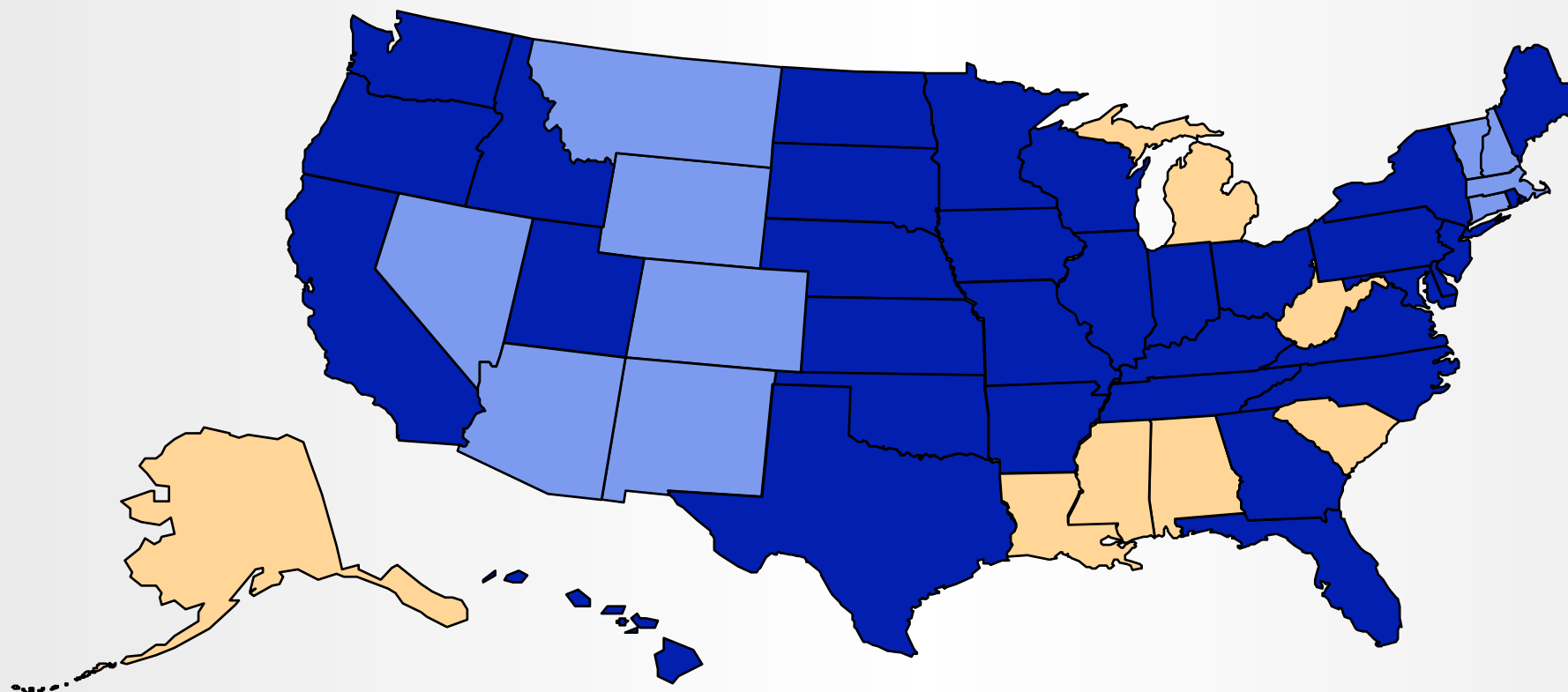


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Obesity Trends* Among U.S. Adults

BRFSS, 1998

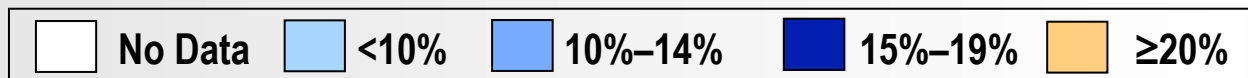
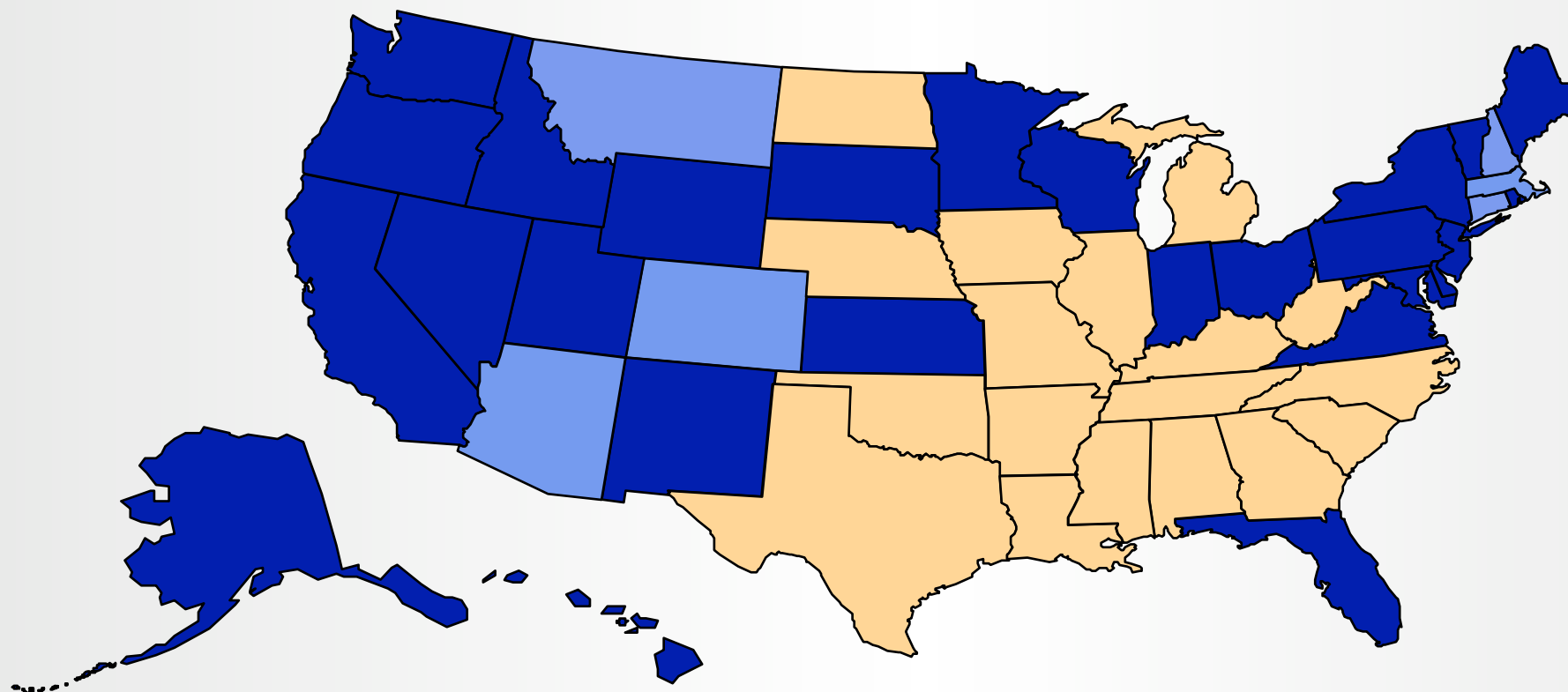


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Obesity Trends* Among U.S. Adults

BRFSS, 1999

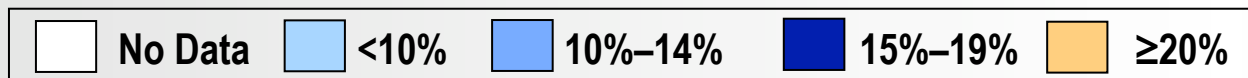
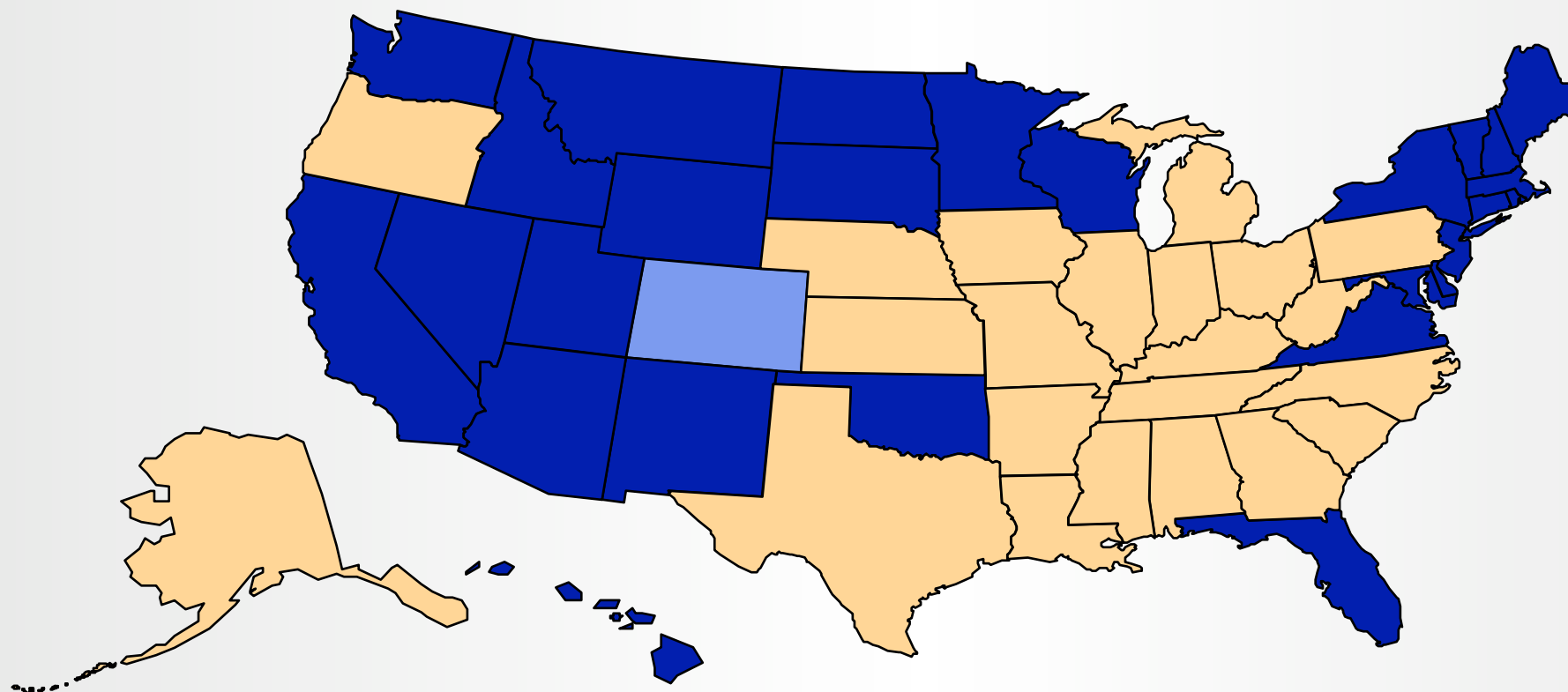


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2000

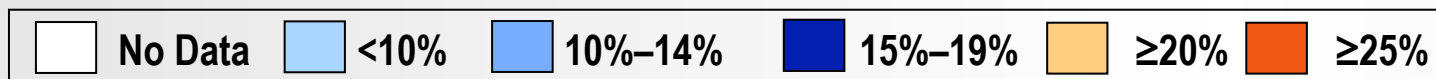
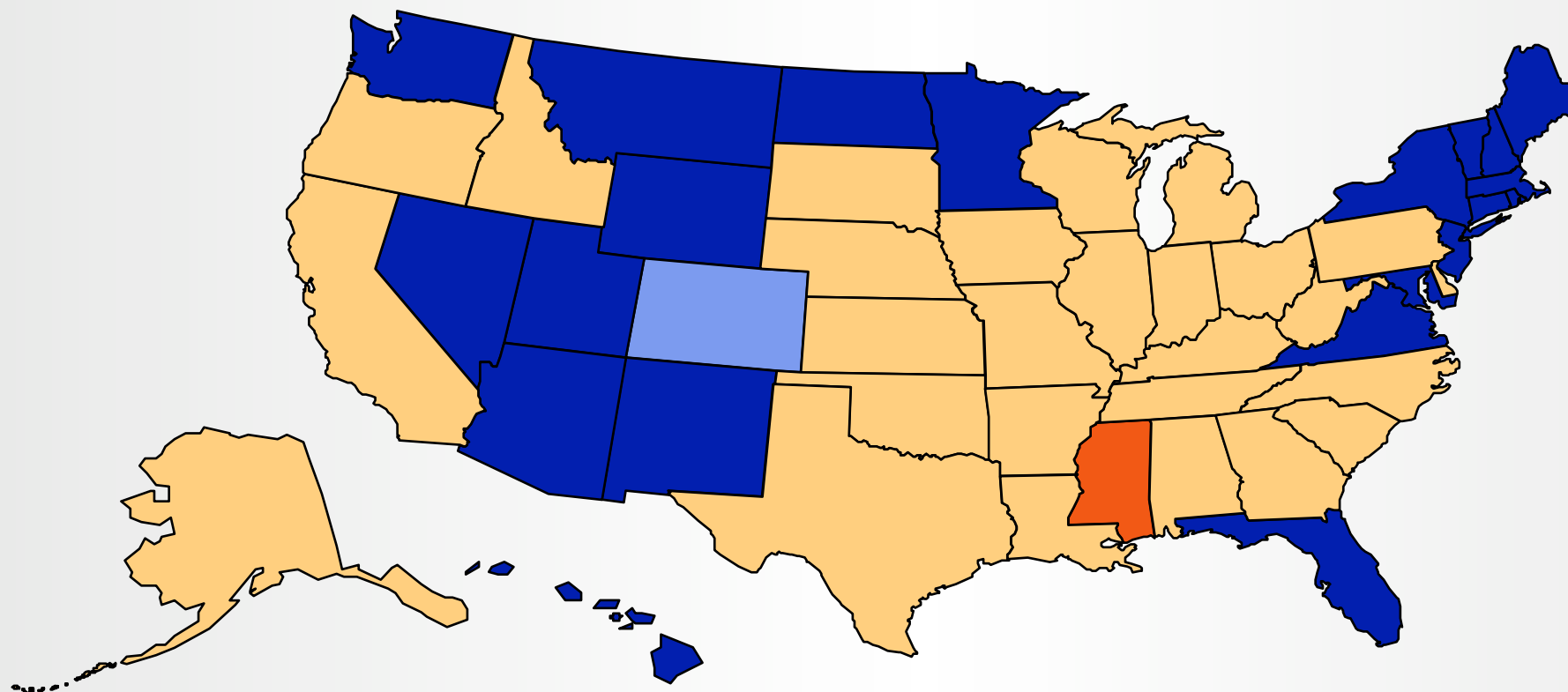


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2001

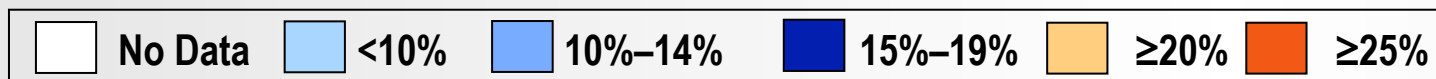
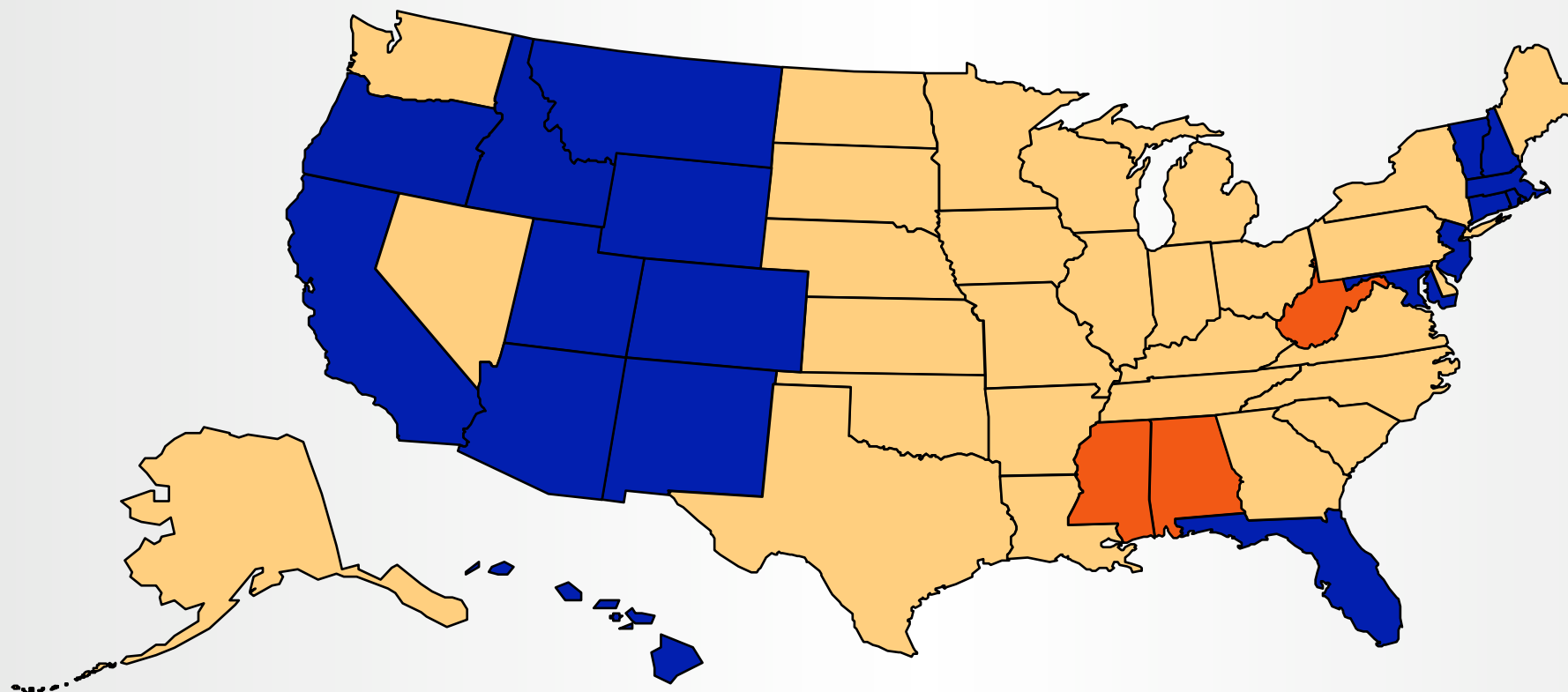


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2002



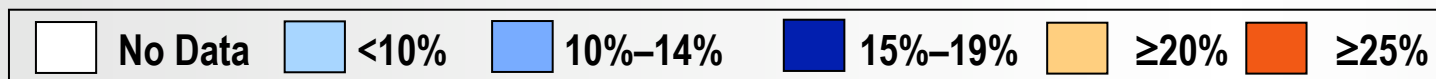
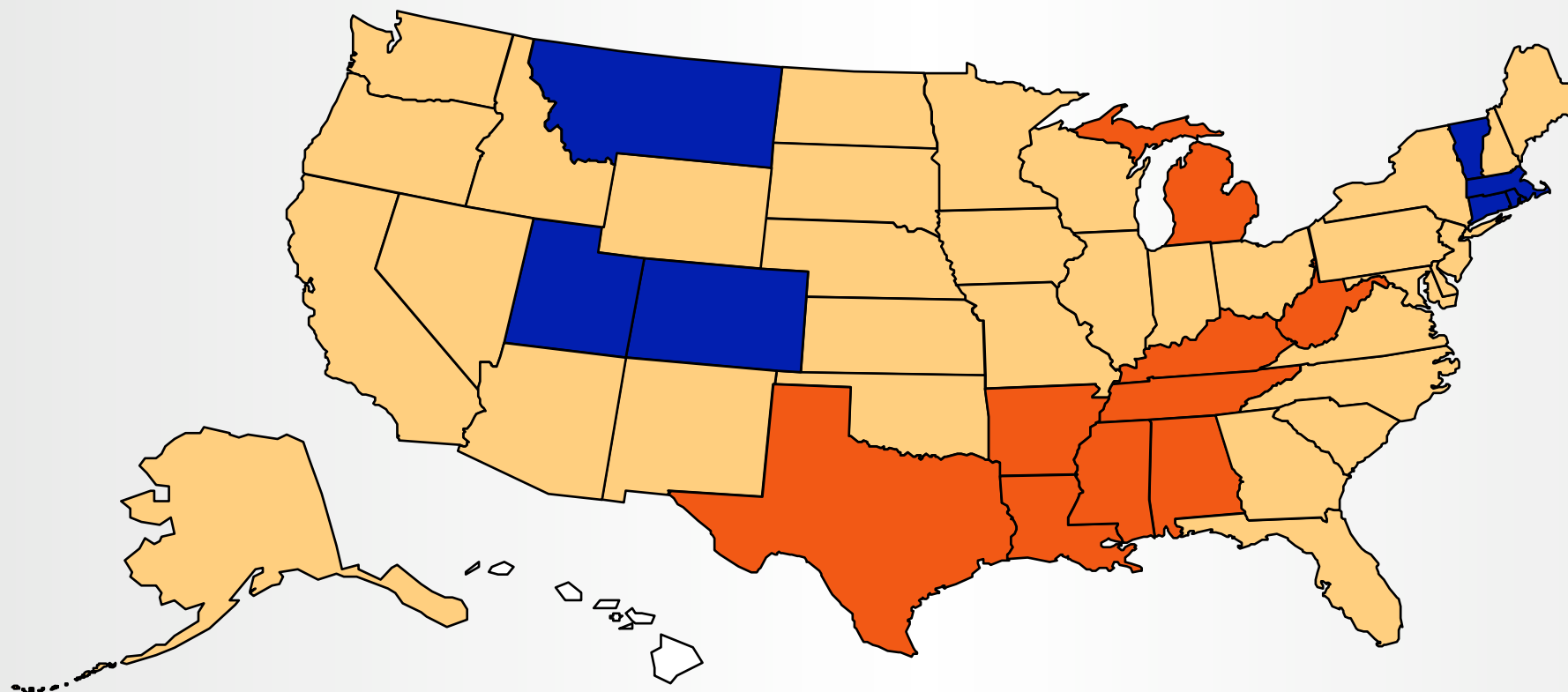
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

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



Obesity Trends* Among U.S. Adults

BRFSS, 2004

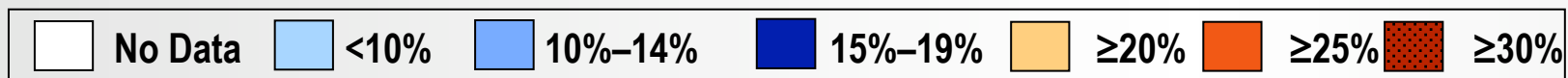
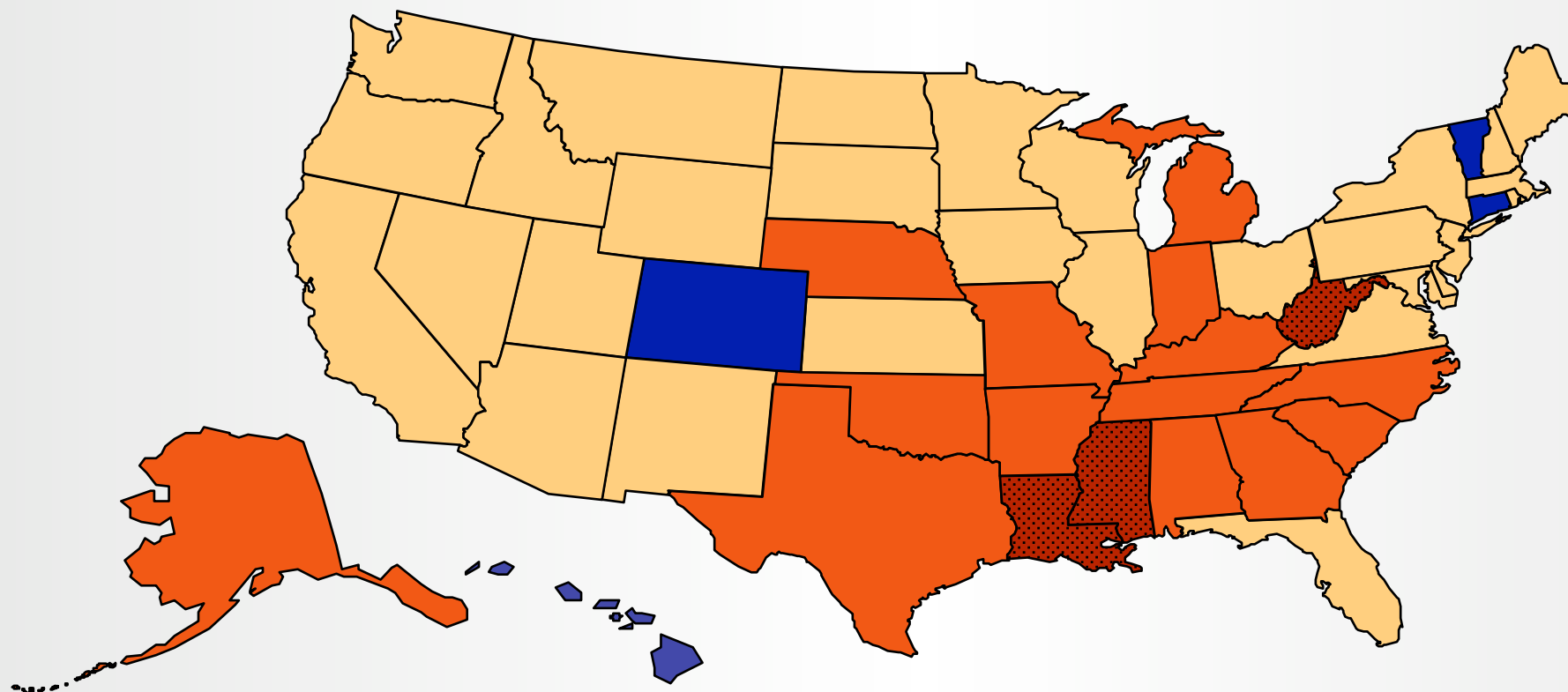


(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2005



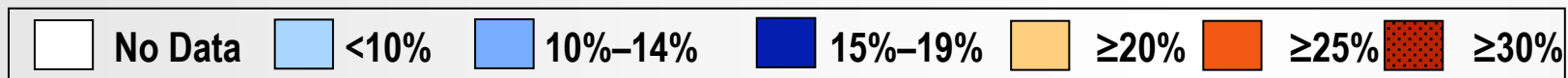
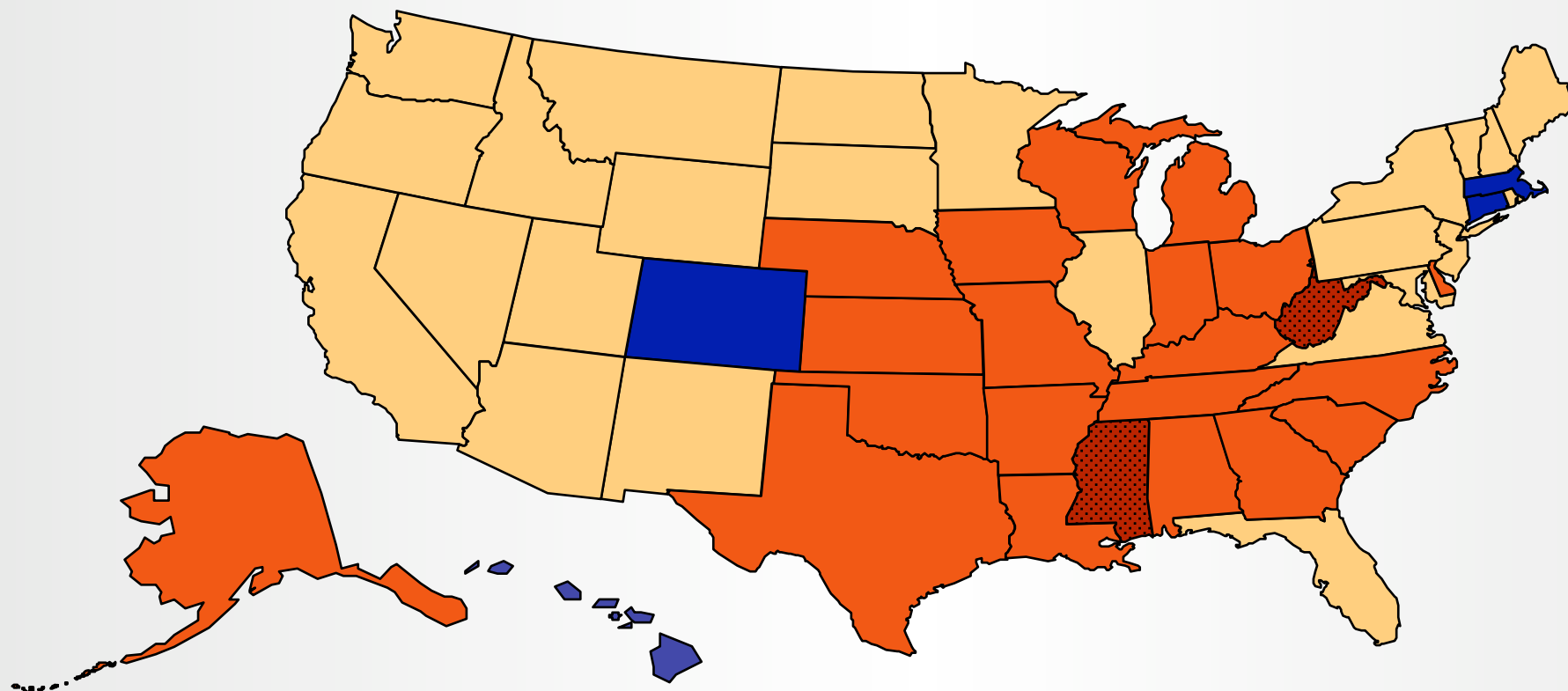
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)





Obesity Trends* Among U.S. Adults

BRFSS, 2006



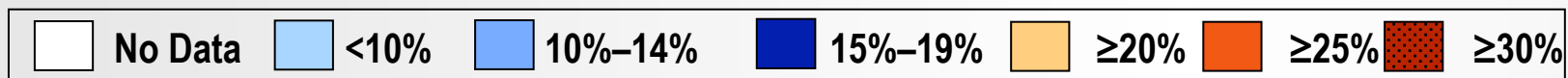
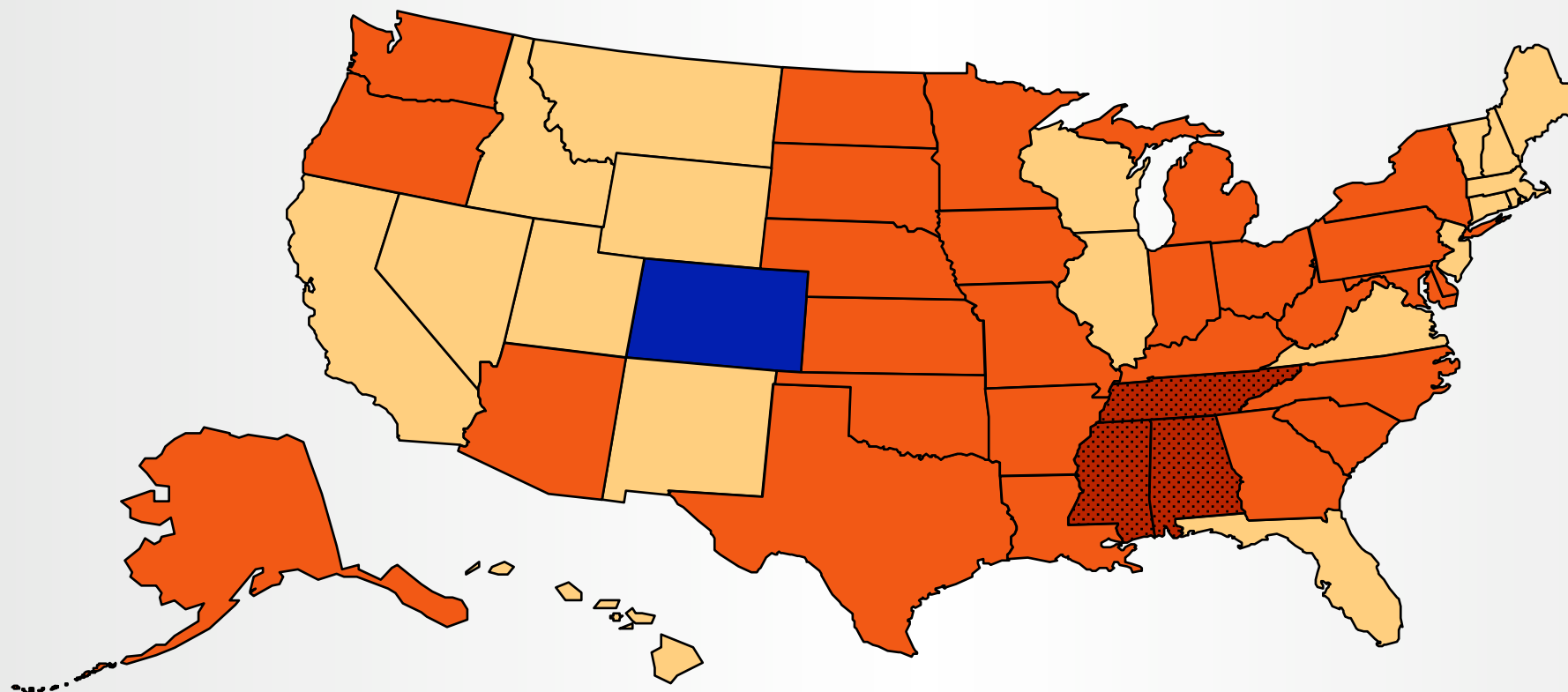
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)





Obesity Trends* Among U.S. Adults

BRFSS, 2007



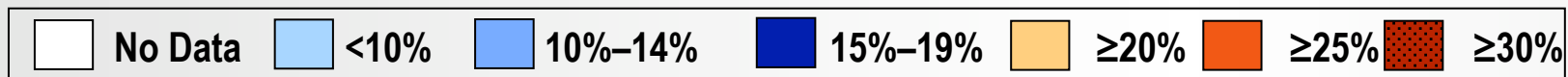
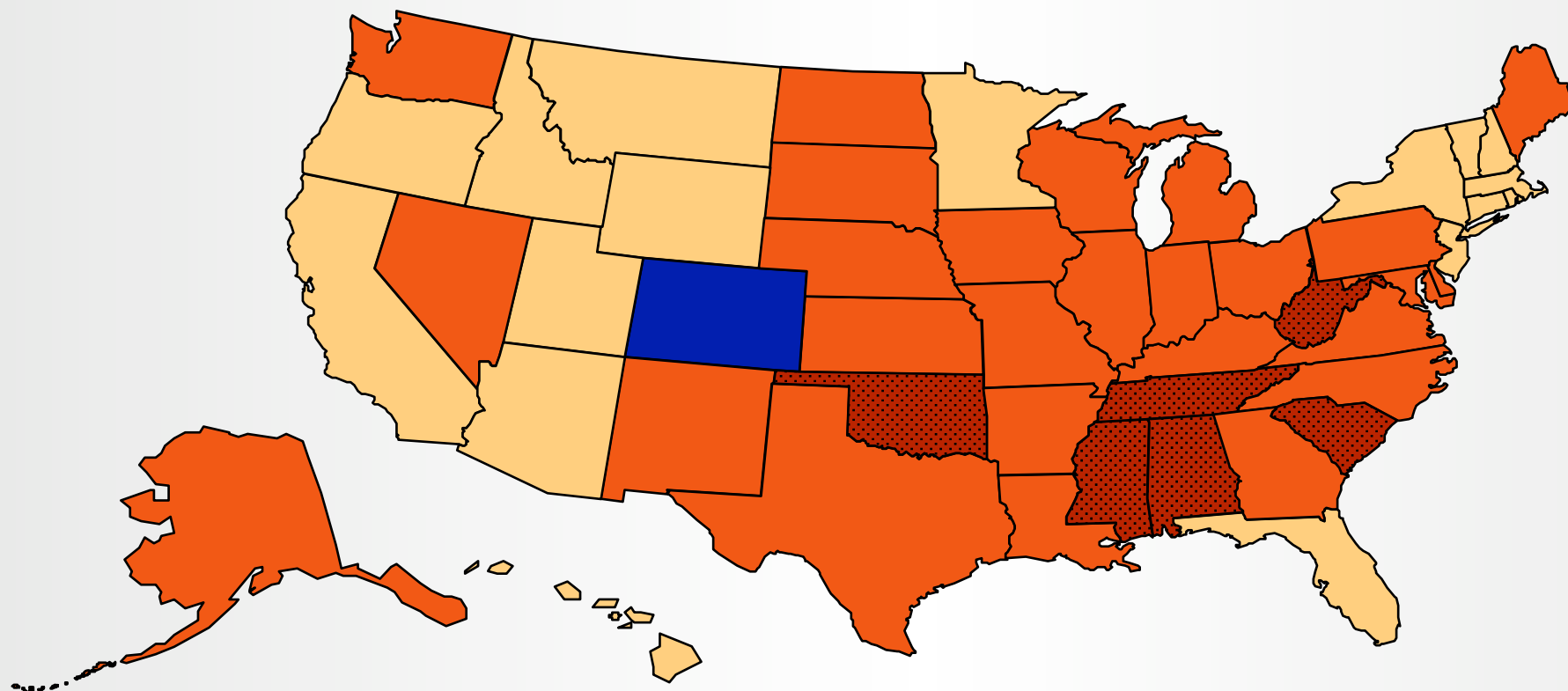
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)





Obesity Trends* Among U.S. Adults

BRFSS, 2008



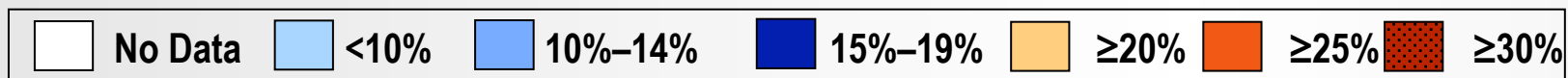
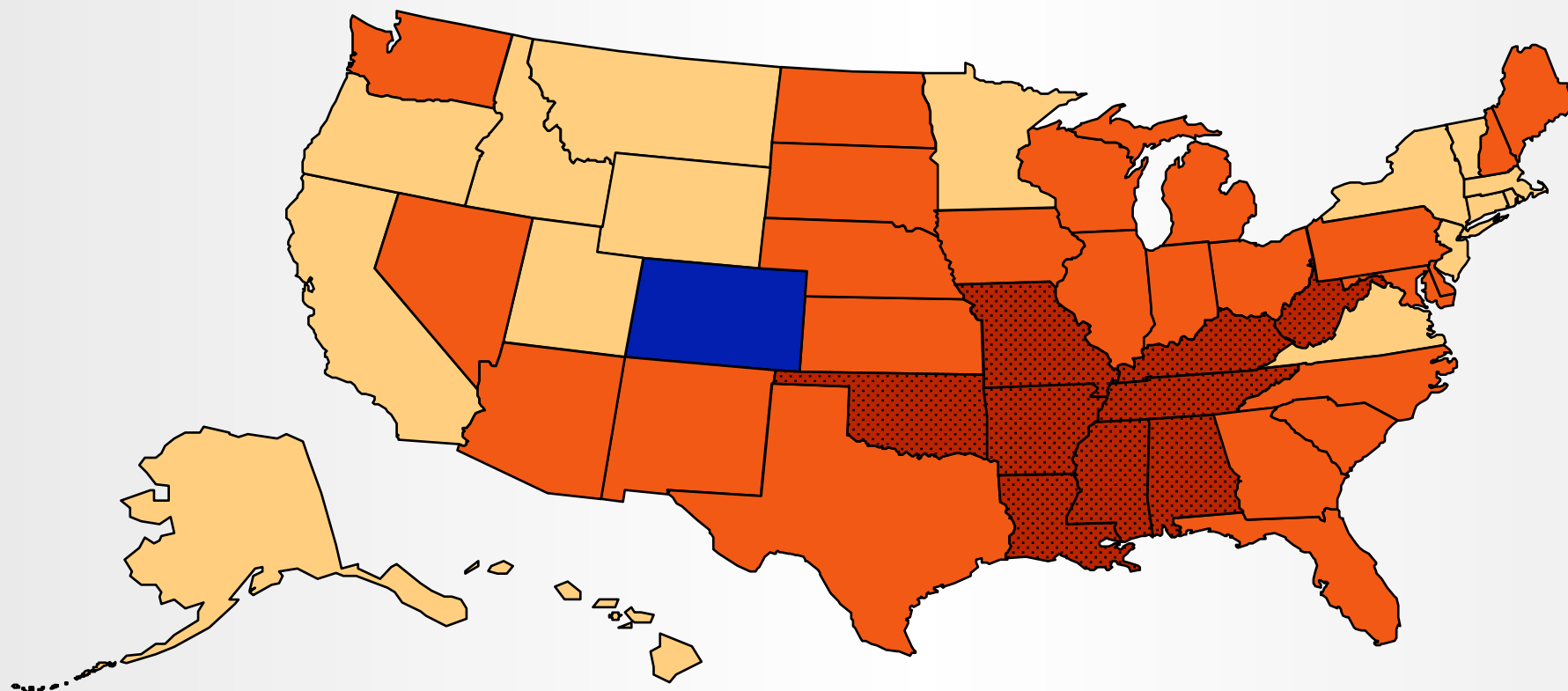
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Obesity Trends* Among U.S. Adults

BRFSS, 2009



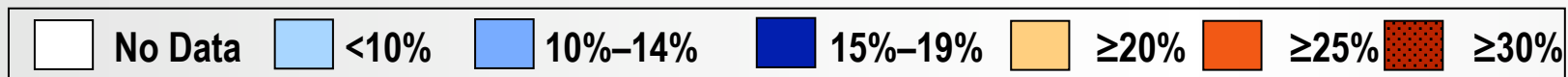
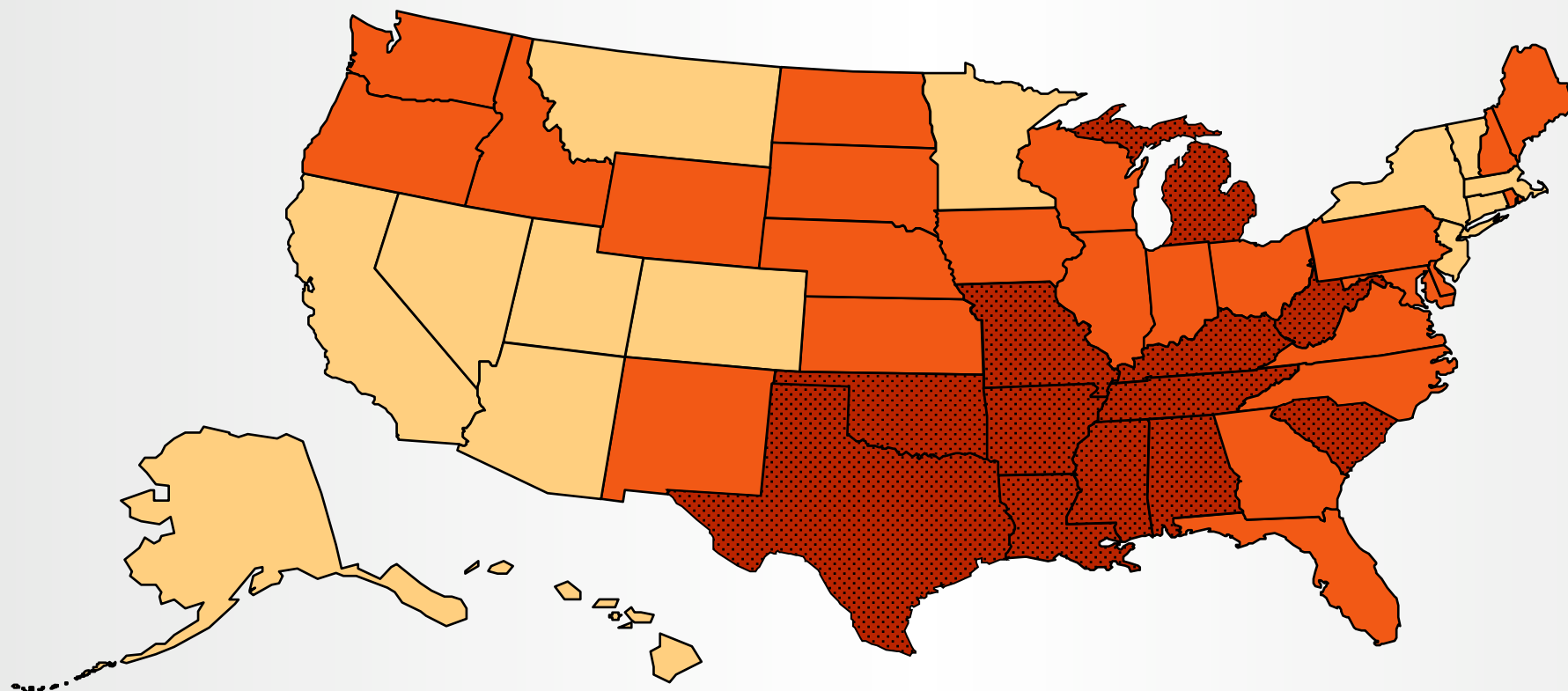
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)





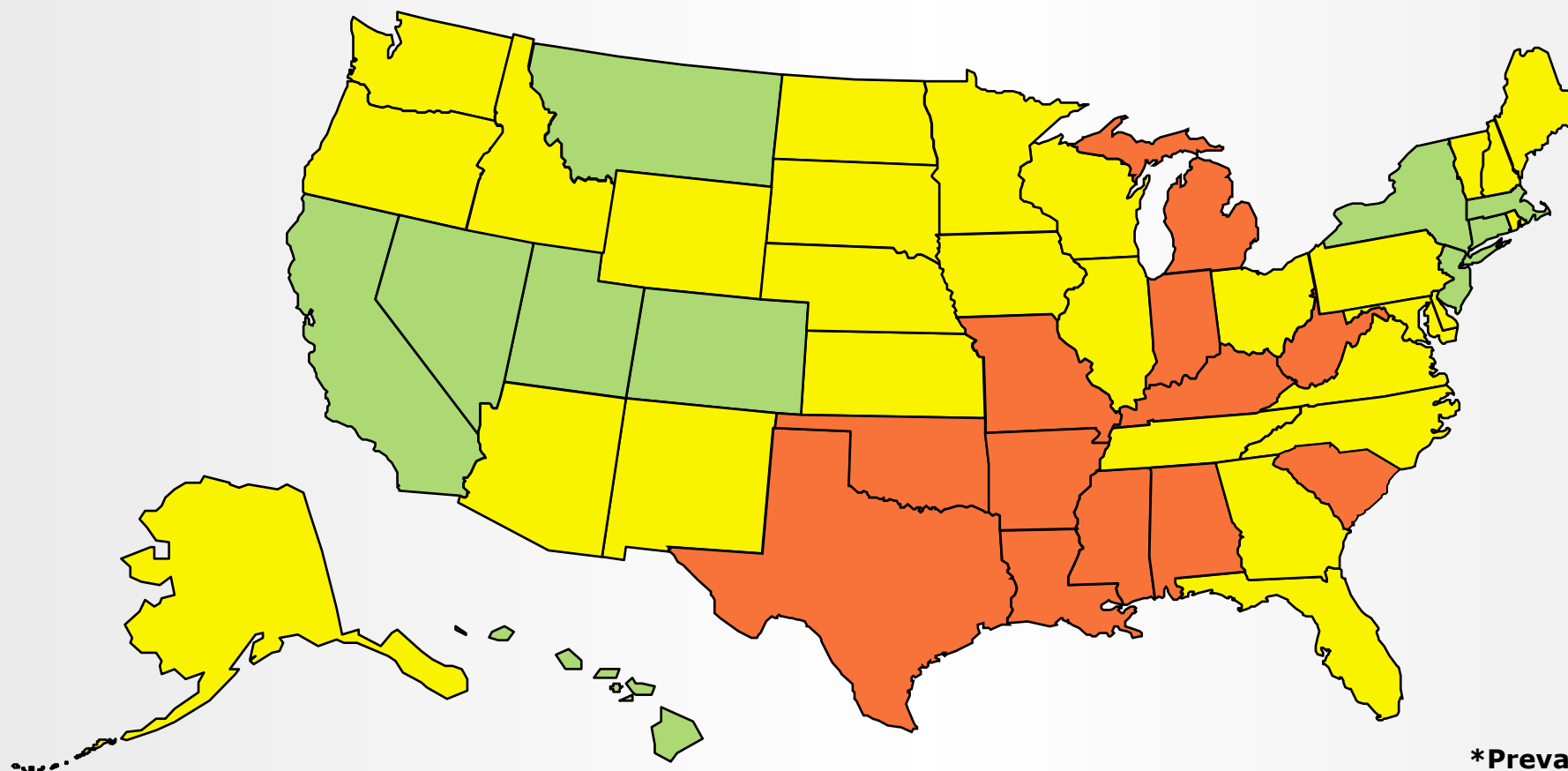
Obesity Trends* Among U.S. Adults

BRFSS, 2010

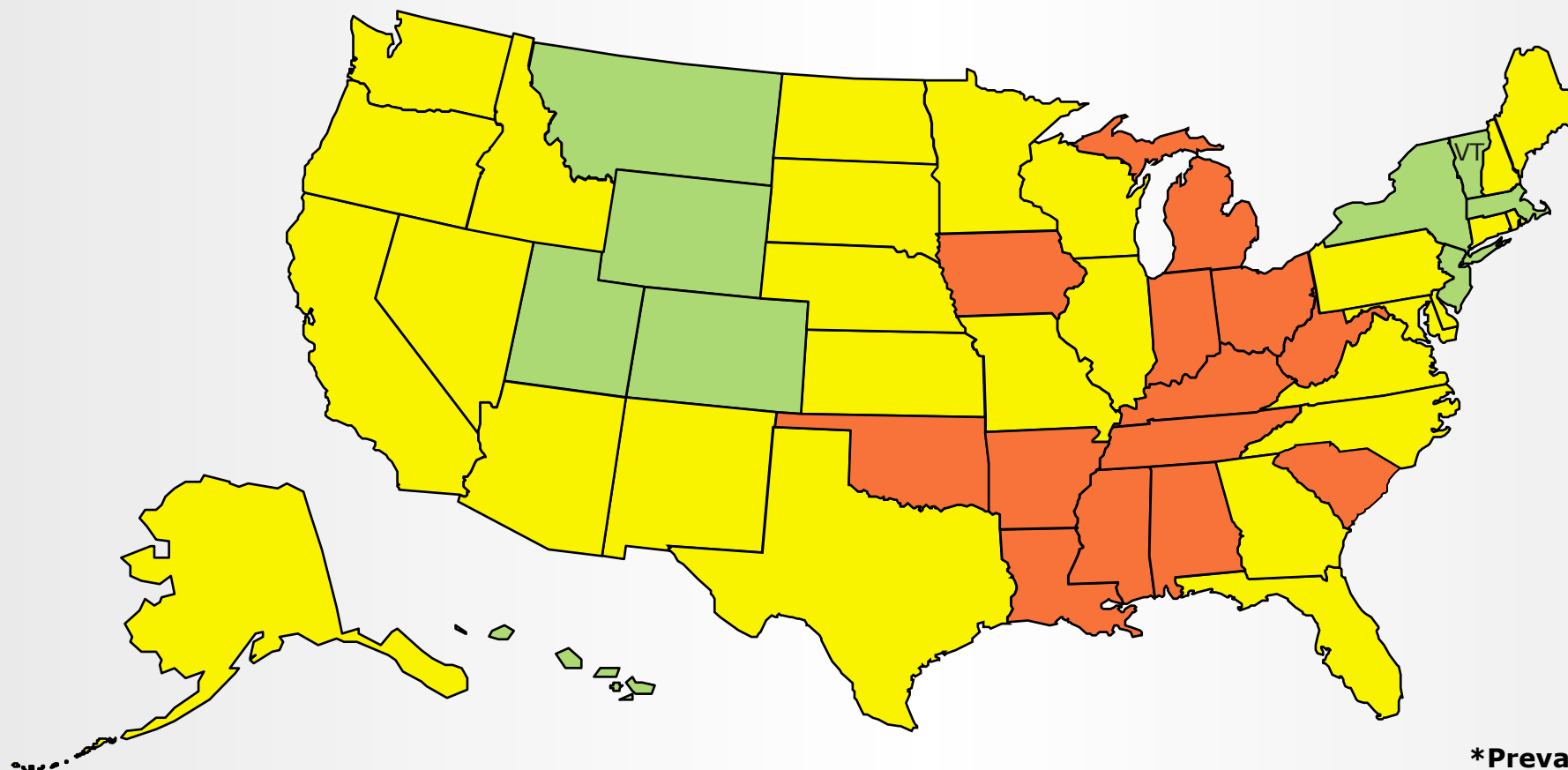


(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)





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



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This **must** stop!



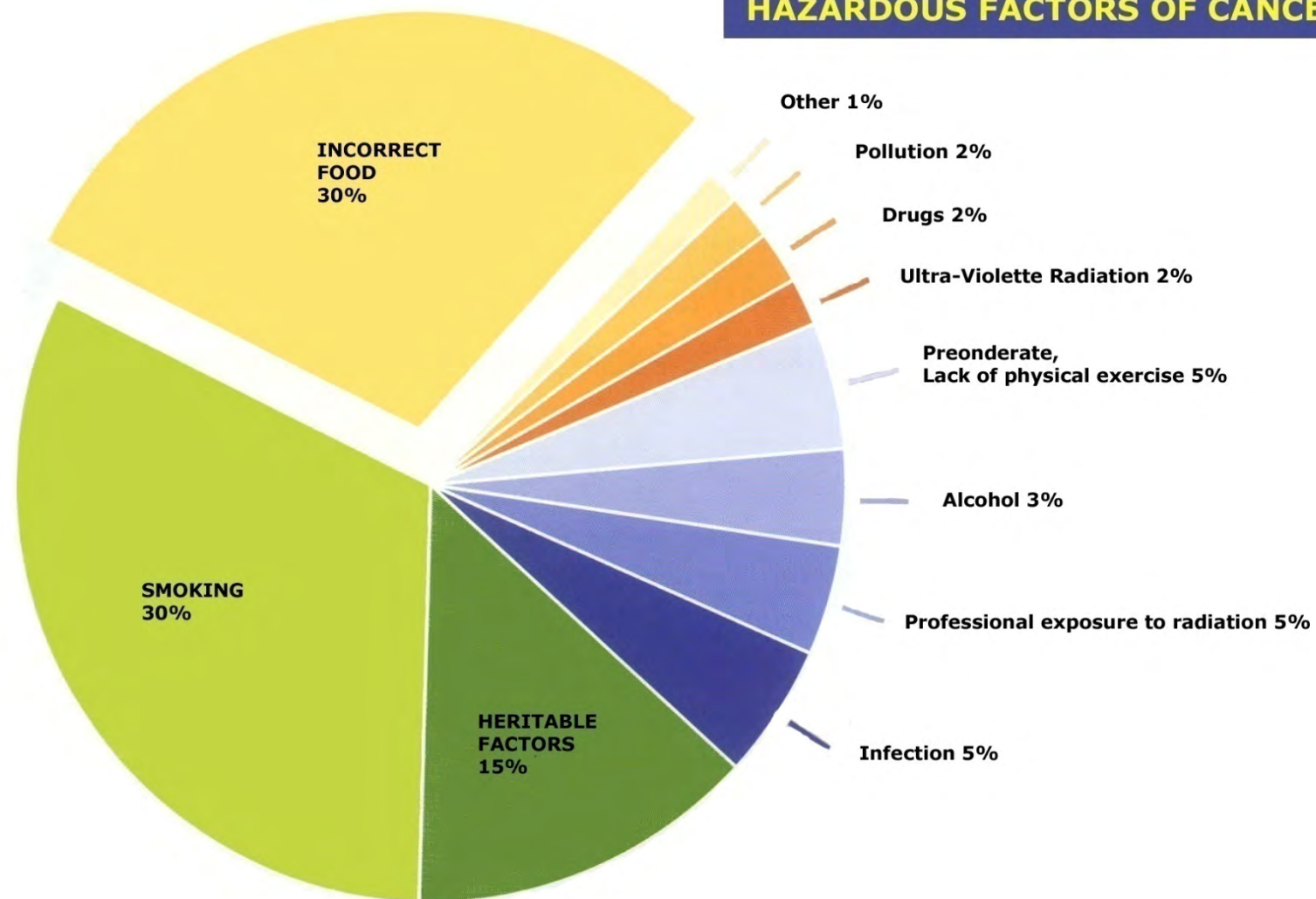
We need a

masterplan

to help new generations with healthy
ageing

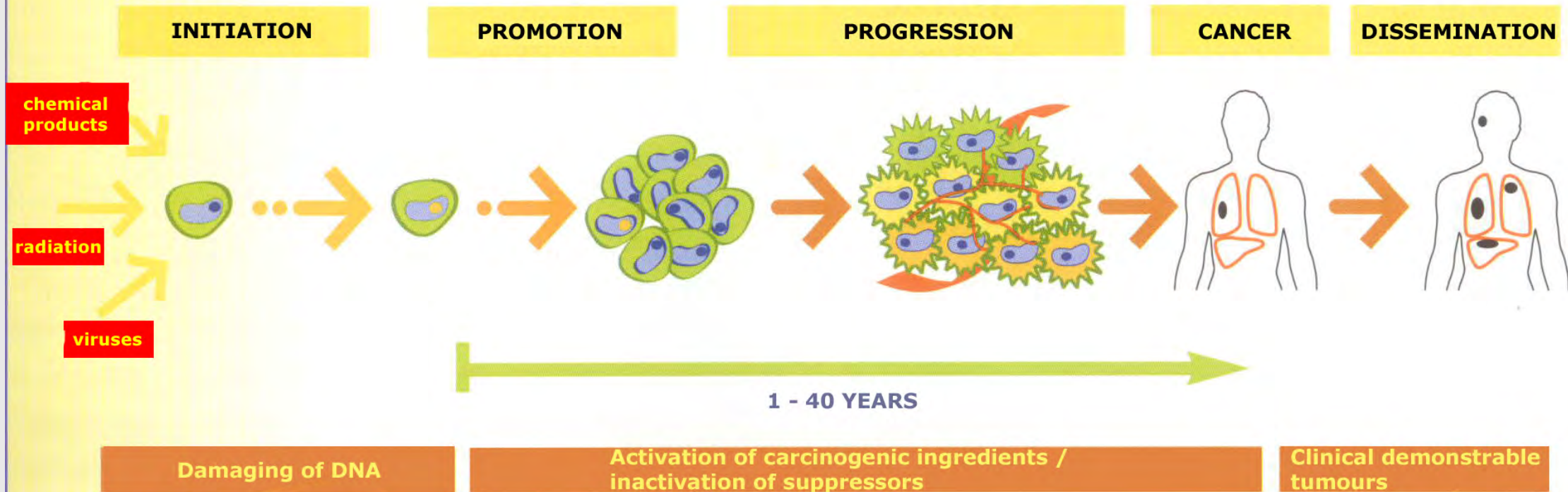


HAZARDOUS FACTORS OF CANCER



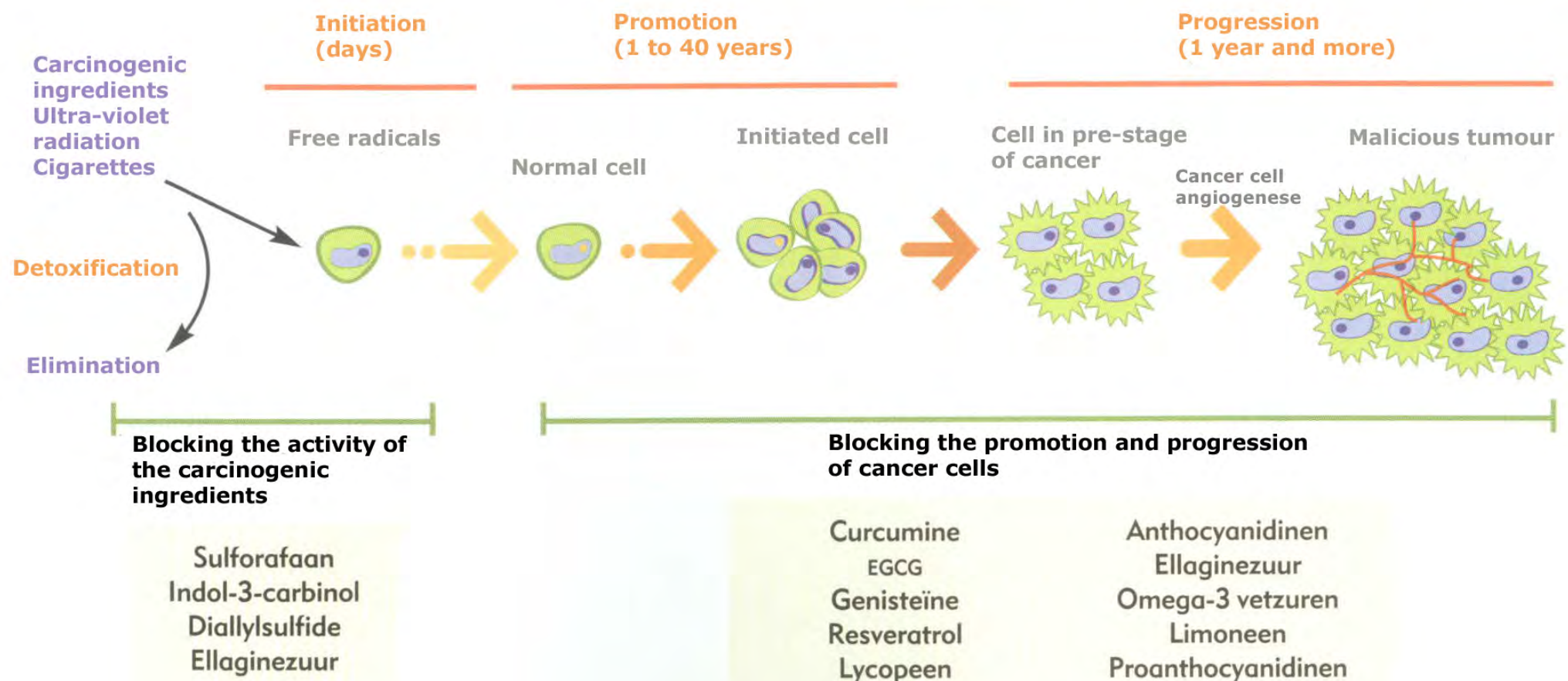


HOW CANCER DEVELOPS





The function of cancer-resistant ingredients





Plants are the closest to our **ancient diet**

- Holland has the highest level of
 - know how on seeds
 - know how on greenhouse growing
 - expertise in vegetables and distribution
- We have great agricultural and medical universities



Help

Dutch government is waking
up



“Towards a food policy:
policy that takes into account the
different values concerning food, the
cohesion between production and
consumption and the ever changing
power relations within the food system”.
Scientific Council for Government Policy
(The Netherlands, 2014).



"Dutch government can not separate the economic value of the fruit and vegetable sector from public interest.

The Scientific Council for Government Policy advised us to introduce a broader food policy with special attention to health and sustainability. Before the end of the summer, the government will officially respond to this report.

But, I can already say that the ambition of the Vegetable Conference to work together with teachers, doctors, farmers and retailers to inspire Dutch consumers to eat more fruits and vegetables from their own country, fits into the response of the government to this report".



Sharon Dijksma
State Secretary of Economic Affairs
at Vegetable Conference 2015



More help is needed





Food Landscape in Europe





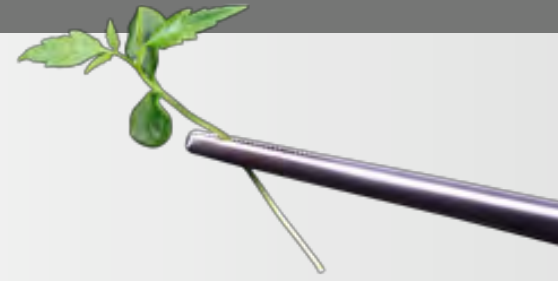
What's missing?



Fresh



food





List Approved ThankYouNature products

Thank You
Nature

Product

Red Onion	quercetine
Broccocress	sulforaphane
Plumb tomato	lycopene
Cherry tomato	lycopene
Carrots	β -carotene
Egg plant	folic acid
Blue berry	anthocyanes
Green paprika	vitamine C
Orange paprika	vitamine C
Spinach	luteine
Raspberry	anthocyanes
Green cabbage	luteine
Winter carrots	β -carotene
Broccoli	sulforaphane
Red Berry	anthocyanes
Sweet paprika	vitamine C





My focus: sulforaphane level



- **12396 published studies** on the positive relationship Broccoli and health on Pubmed.gov

The screenshot shows the PubMed website interface. At the top, there's a navigation bar with 'NCBI', 'Resources', and 'How To'. The search bar contains 'broccoli' and a 'Search' button. Below the search bar, there are links for 'RSS', 'Save search', and 'Advanced'. The main content area displays 'Results: 1 to 20 of 12396'. The first three results are listed, each with a checkbox, a title link, and a brief description. The first result is about anthocyanin accumulation in purple kohlrabi. The second is a controlled trial on the effect of vegetables and whole grain powder on bowel functions. The third is about diet rich in glucoraphanin reducing plasma LDL cholesterol. On the left side, there are filters for 'Article types', 'Text availability', 'PubMed Commons', 'Publication dates', and 'Species'. On the right side, there are sections for 'Filters: Manage Filters', 'New feature', 'Results by year', and 'Related searches'.

NCBI Resources How To Sign in to NCBI

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed Search
Search

RSS Save search Advanced Help

Article types
Clinical Trial
Review
Customize ...

Text availability
Abstract
Free full text
Full text

PubMed
Commons
Reader comments

Publication dates
5 years
10 years
Custom range...

Species
Humans
Other Animals

Clear all
Show additional filters

Summary 20 per page Sort by Most Recent

Results: 1 to 20 of 12396

Page 1 of 620

Send to: Filters: Manage Filters

1. [Anthocyanin accumulation and molecular analysis of correlated genes in purple kohlrabi \(Brassica oleracea var. gongylodes L.\)](#)
Zhang Y, Hu Z, Zhu M, Zhu Z, Wang Z, Tian S, Chen G.
J Agric Food Chem. 2015 Apr 8. [Epub ahead of print]
PMID: 25853486

2. [A Controlled, Randomized, Double-blind Trial to Evaluate the Effect of Vegetables and Whole Grain Powder That Is Rich in Dietary Fibers on Bowel Functions and Defecation in Constipated Young Adults](#)
Woo HJ, Kwak SH, Lee Y, Choi JH, Cho YM, Om AS.
J Cancer Prev. 2015 Mar;20(1):64-9. doi: 10.15430/JCP.2015.20.1.64.
PMID: 25853105

3. [Diet rich in high glucoraphanin broccoli reduces plasma LDL cholesterol: Evidence from randomised controlled trials](#)
Armah CN, Derdemezis C, Traka MH, Dainty JR, Doleman JF, Saha S, Leung W, Potter JF, Lovegrove JA, Mithen RF.
Mol Nutr Food Res. 2015 Apr 7. doi: 10.1002/mnfr.201400863. [Epub ahead of print]
PMID: 25851421

4. [A Survey of Nitrate and Nitrite Concentrations in Conventional and Organic-Labeled Raw Vegetables at Detail](#)

New feature
Try the new Display Settings option -
Sort by Relevance

Results by year

Related searches
broccoli sprout
broccoli sulforaphane
broccoli prostate
broccoli autism
broccoli breast

A box titled 'Related searches' containing a list of search terms: 'broccoli sprout', 'sulforaphane broccoli', 'broccoli prostate', 'broccoli autism', and 'broccoli cancer prevention'. The box has a red border and a small icon in the top right corner.

Related searches

broccoli sprout

sulforaphane broccoli

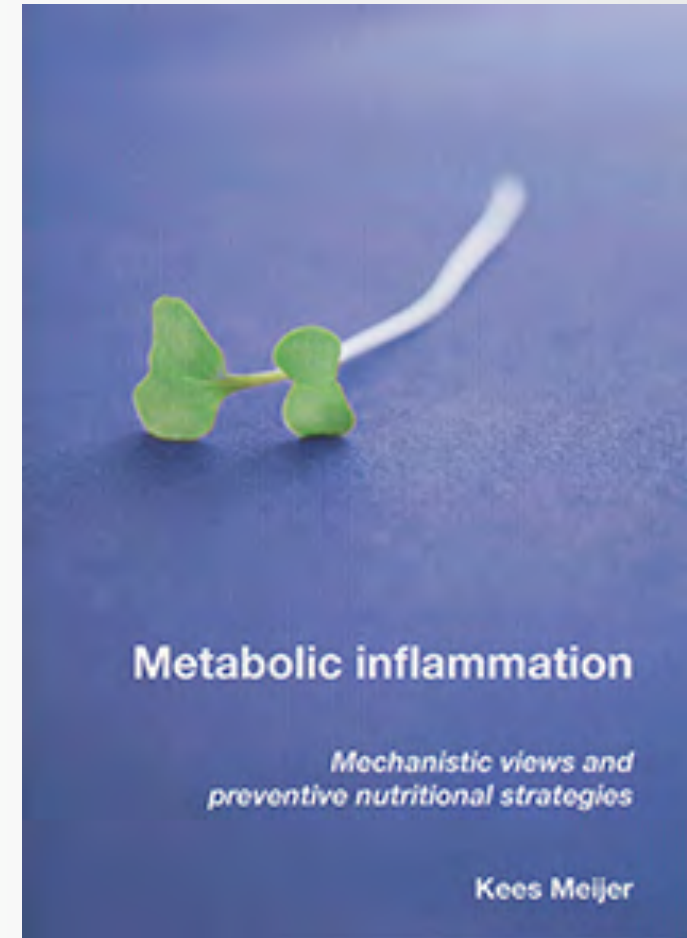
broccoli prostate

broccoli autism

broccoli cancer prevention



Broccoli protects against type 2 diabetes and heart and vascular diseases





Broccoli Sprouts and Autism



Preliminary evidence for the **first treatment for autism** that improves symptoms by correcting underlying cellular problems

In a placebo-controlled trial, sulforaphane derived from broccoli sprouts eased autism symptoms in nearly half of the 40 boys and men treated

- significant improvements in **social interaction**
- significant improvements in **verbal communication**
- substantial decreases in **abnormal behaviors**



[Singh, K., et al. \(2014\). Sulforaphane treatment of autism spectrum disorder \(ASD\).](#)



Broccoli test





Sulforaphane level



Broccoli (fresh):	0,2	mg / 100 gram
Broccoli (stir-fried):	0,1	mg / 100 gram
Broccoli (steamed):	0,1	mg / 100 gram
Broccoli (boiled):	0,01	mg / 100 gram



1 sprout BroccoCress®: 0,13 mg



We can do it



combine

- Medical research

with

- Plant research for fresh produce



We have to do it



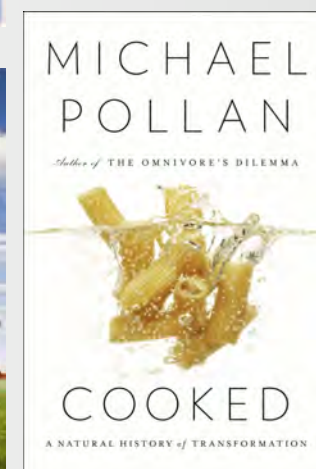
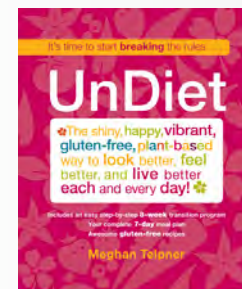
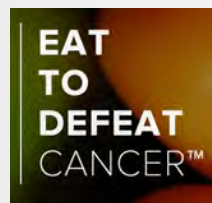
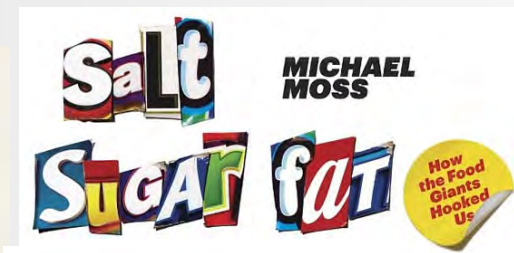
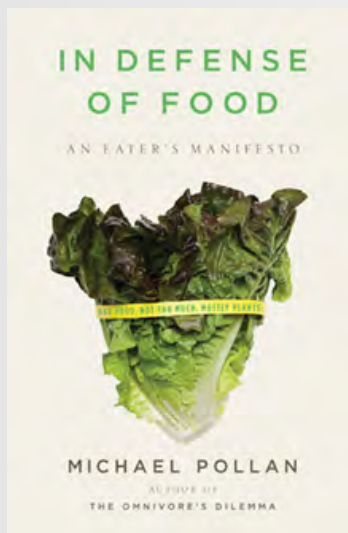
- In order to reduce health costs
- To promote healthy ageing



Trend

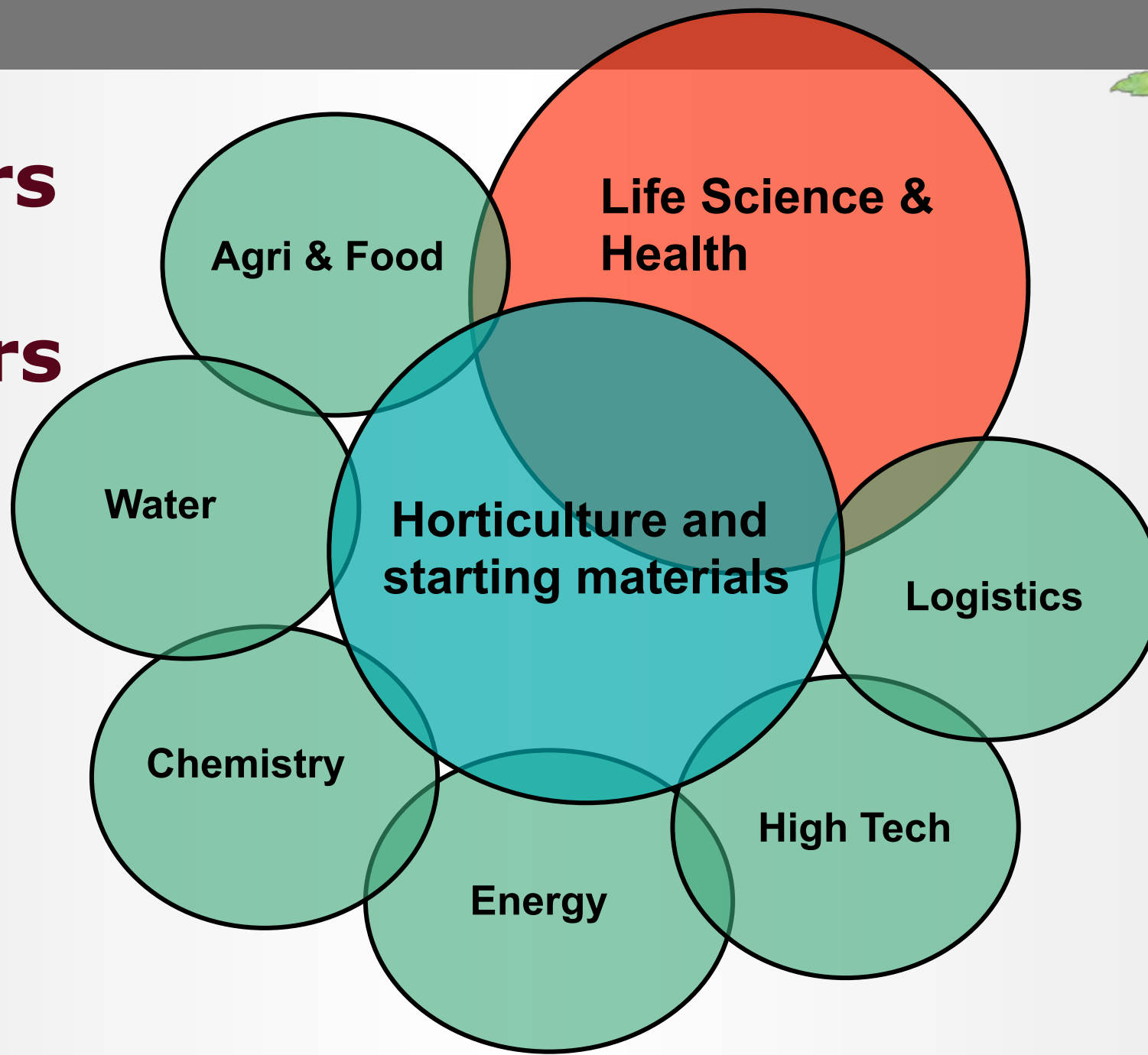
Increase in average healthcare spending

- The right food (choice) can prevent a large scale of the lifestyle related diseases
- Obesity 95%
- Type 2 diabetes 80%
- Heart and vascular diseases 40%
- Cancer 50%



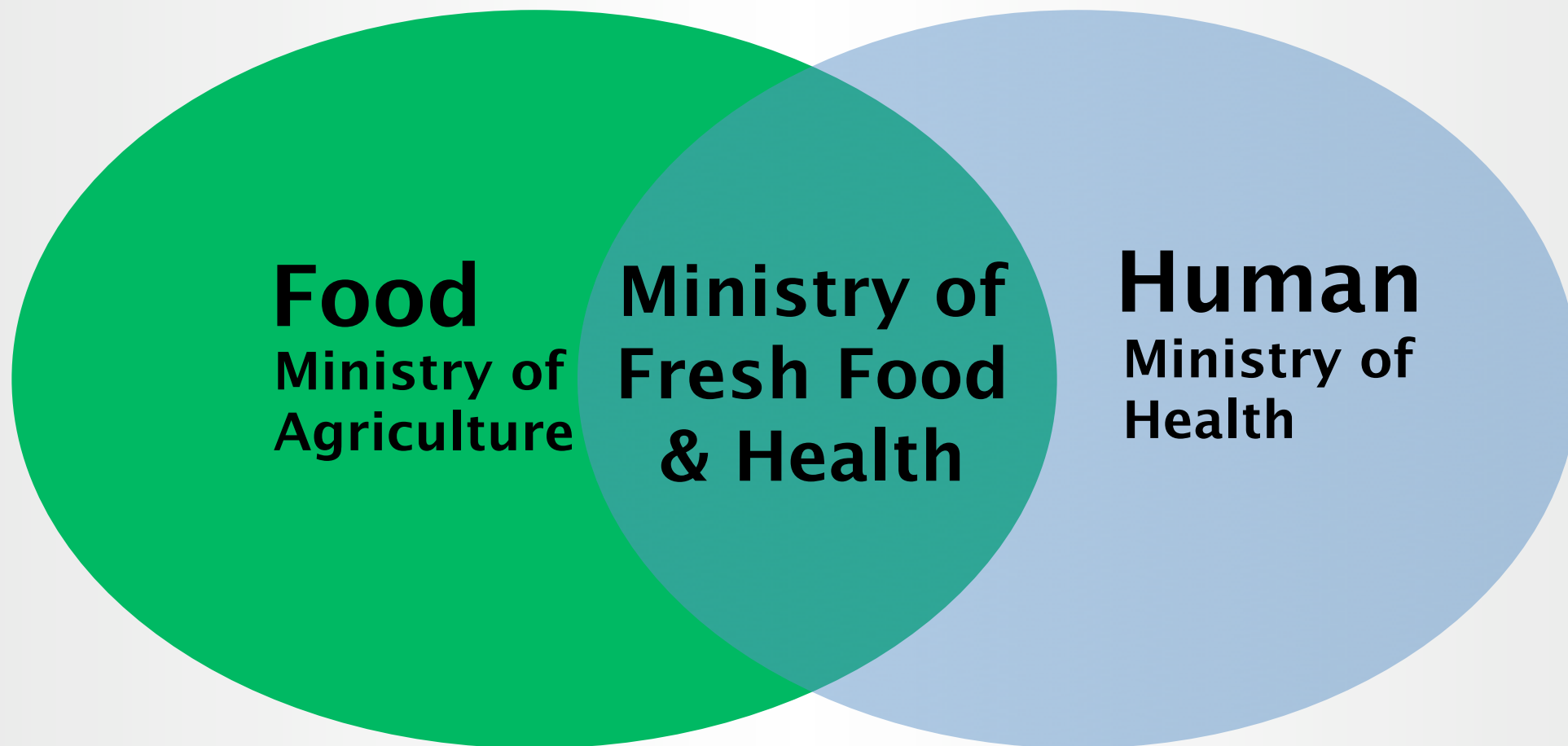


Crossovers between top sectors





We need a stimulator



**Fresh Food is not just an economic affair
Fresh Food is HEALTH!**



Restaurant derives from restore



[**res·tau·rant** (rst-ränt, -tr-nt)*n.* from present participle of **restaurer**, *to restore*, from Old French restorer; see **restore**: to bring back to or put back into a former or original state (*Medical Definition of restore*)]



DUTCH CUISINE - 80/20



**Rediscovering the Dutch kitchen where
vegetables are leading**



CULTURE



A close-up photograph of a plant's root system. Several thick, reddish-brown, knobby tubers are visible, some with small root hairs. Green stems with prominent red longitudinal veins emerge from the center of the tubers. The background is dark and textured, possibly soil or mulch.

HEALTH



NATURE





QUALITY



VALUE





BINDING FACTOR





**For everything comes together on the
plate..**





How can we feed 9 billion people?





How can we create value for
horticulture?





How can we move away from an agricultural policy towards a food policy





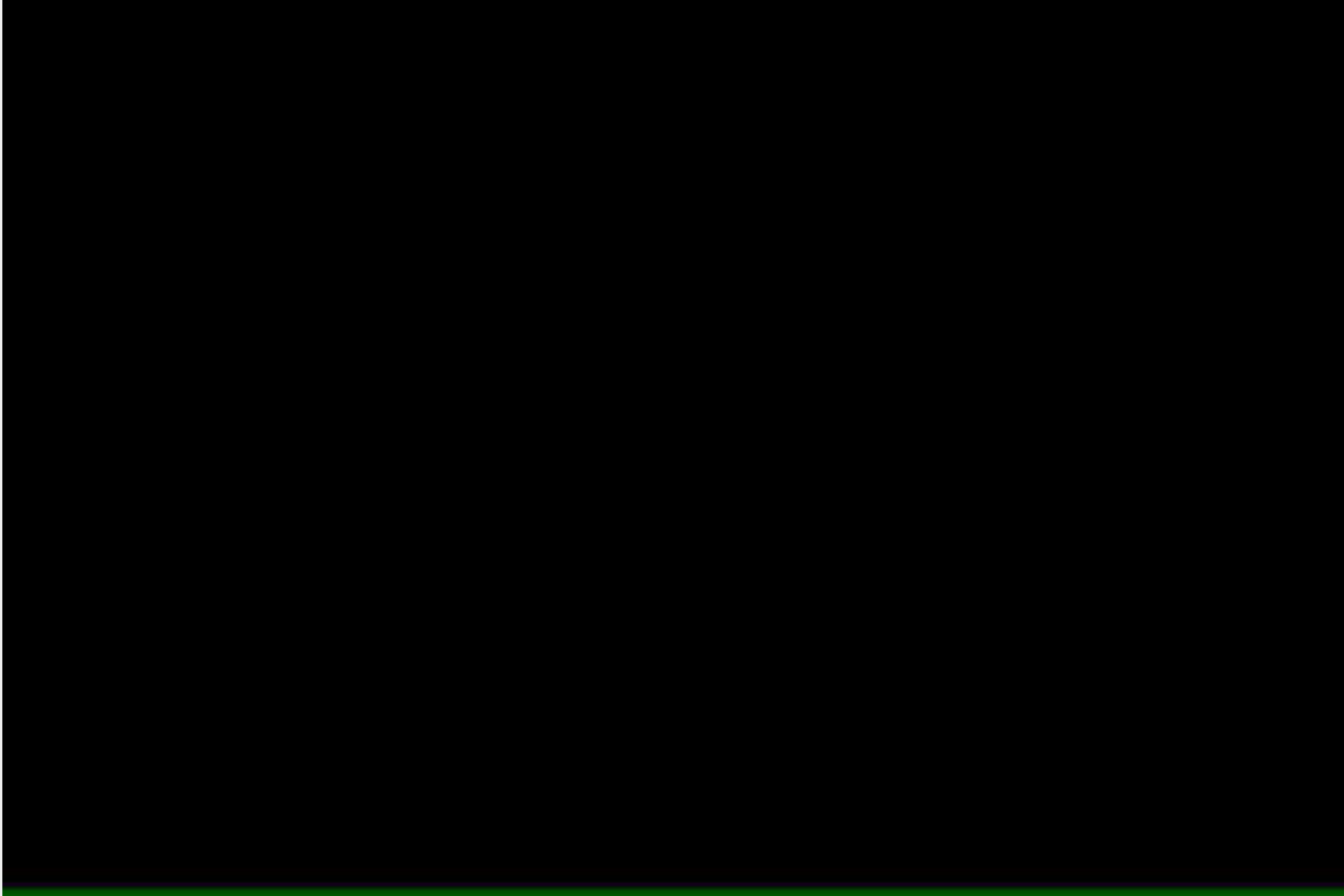
How can we put preventing before treating?





How can we give 'going Dutch'
a new meaning?







Markthal Rotterdam





Strange contradiction



- World population is growing 9 billion people 2050
- Farmers are getting broke because of low prices
- Supermarkets make huge margins on V&F.
- Consumer eats less V&F
- Bulk production of average quality due to low pricing
- Educated consumer wants products which are not available





Everybody knows

Nobody does



Fresh food





Fresh Food = Health

Inspired by

Richard Béliveau, Denis Gingras, Michael Pollan, Michael Moss, Carolyn Steel, John Charlton, Paul Clayton, Judith Rowbotham, Paul Talalay, Jaap Seidell, Kris Verburgh, Ralph Morren, David Servan-Schreiber, Suzanne Poot, Leonard Hofstra, Jaap Seidell, Meghan Telpner, Richard de Letter Growers in 90 countries and many others