



— THE HEART **SUMMIT** — 2018

ARKANSAS HEART HOSPITAL®

Exercise is Medicine

-We are made to move-

Arkansas Heart Hospital

CEO

Bruce Murphy, M.D., Ph.D.

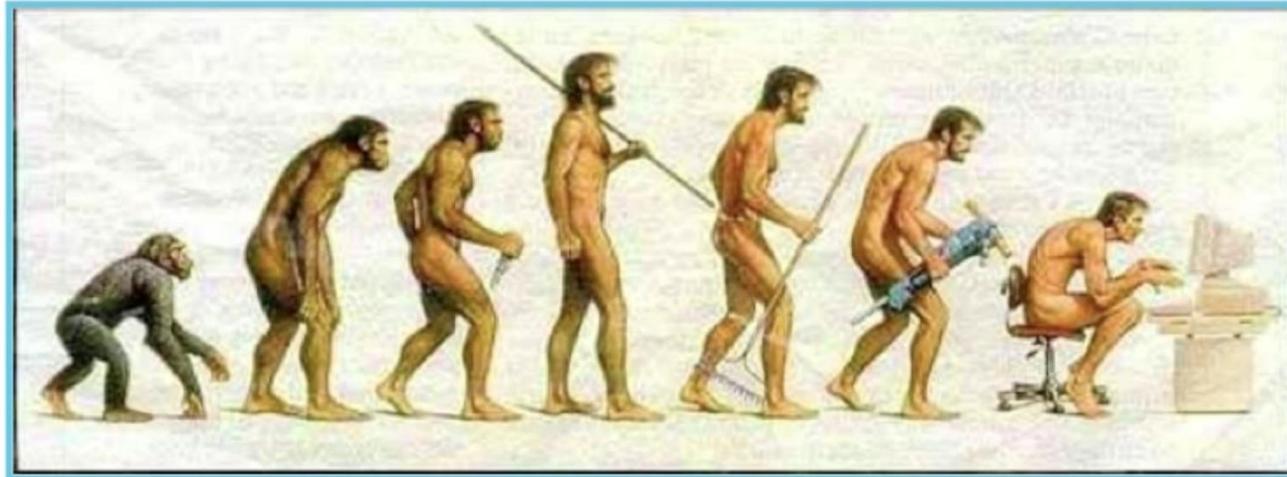
- The human DNA evolved over at least 45,000 years within emphasis of high physical activity. The current DNA requires humans to be physically active for normal function

Superior locomotive ability was once essential for human survival and physical activity was obligatory for evading predators and food procurement.

Nature selection on “survival of fittest” supposed that being “fit” as apposed to “un fit” had greater likelihood of survival.
This is still true in animal kingdom today.

A sedentary life is now so prevalent that we now refer to exercise as having “healthy benefits” even though the exercise trained state is the biologically normal condition. Ironically to be “fit” is normal, to be inactive abnormal.

The Sedentary Death Syndrome; Are We On Our Way to Extinction?



The inactivity epidemic is more concerning than the obesity epidemic.

In modern life we are predisposed to physical inactivity. We spend a large amount of time in sitting position even if you exercise for 30 min in morning you will spend about 90% of the next 15.5 hours in sitting position.

Sitting is the new smoking.

Exercise is Health



What Drug Works For?

- Neurologic/Brain
- Immunology
- Cardiac
- Endocrine
- Orthopedic
- Cancer

Anxiety and Depression

- Conclusive evidence
- Primary care physician – 25% reduction in depression
- Light weights group activity – 40% reduction in depression
- Heavy weights group activity – 60% reduction in depression

Physical Activity and Cancer Risk

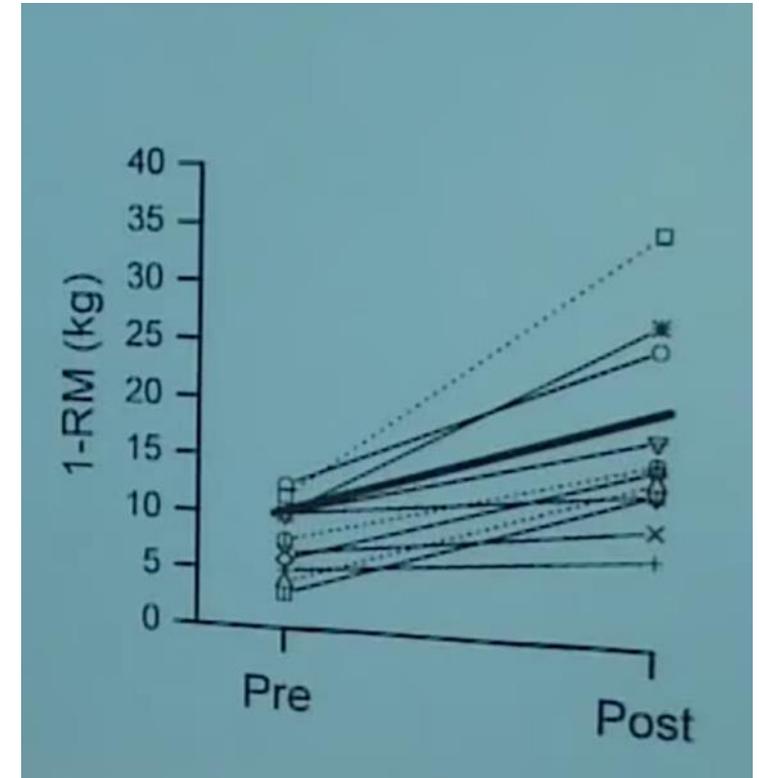
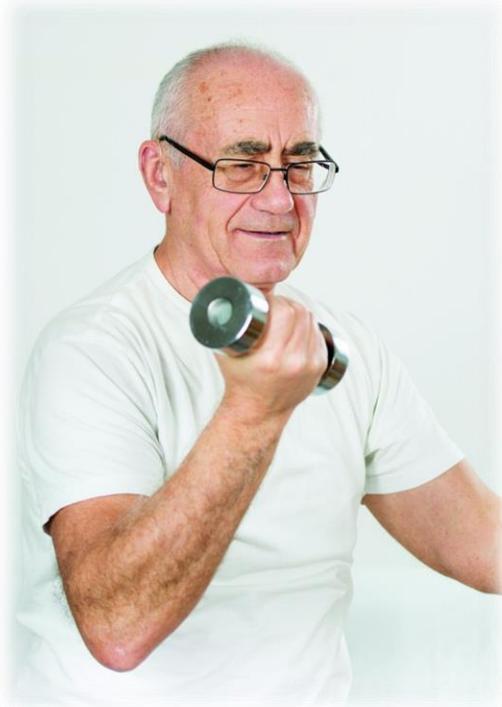
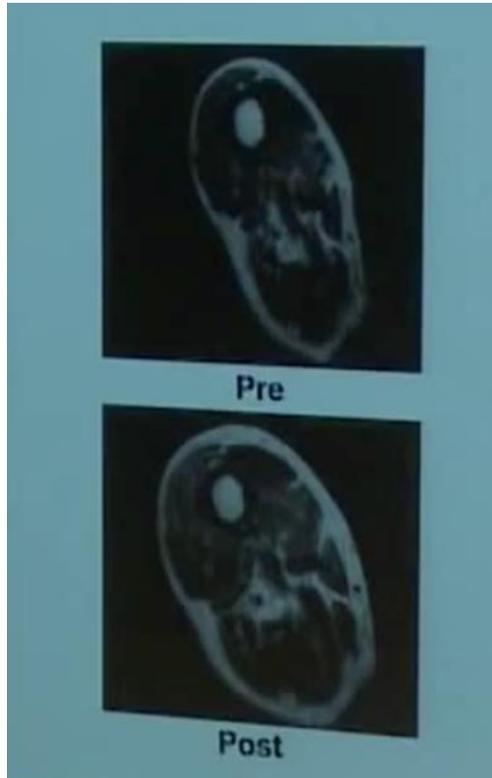
- Physical inactivity – nearly twice as likely to develop colon cancer
- Active Females – 30% reduction in breast cancer
- Prostate cancer reduced incidence of advanced forms and in older men 70% reduction if greater than 3 hours moderate exercise week.
- Lung Cancer – 20% reduction with physical activity

Osteoporosis

- Conclusive evidence
- Life long physical activity has protective effect
- Anabolic (Weight Lifting) exercise – Great benefit
- Vitamin D & Calcium of little value without physical activity

Are older adults trainable?

Strength training in > 85 year olds increases muscle mass and strength



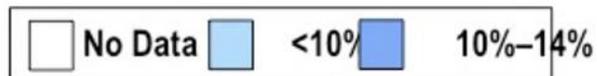
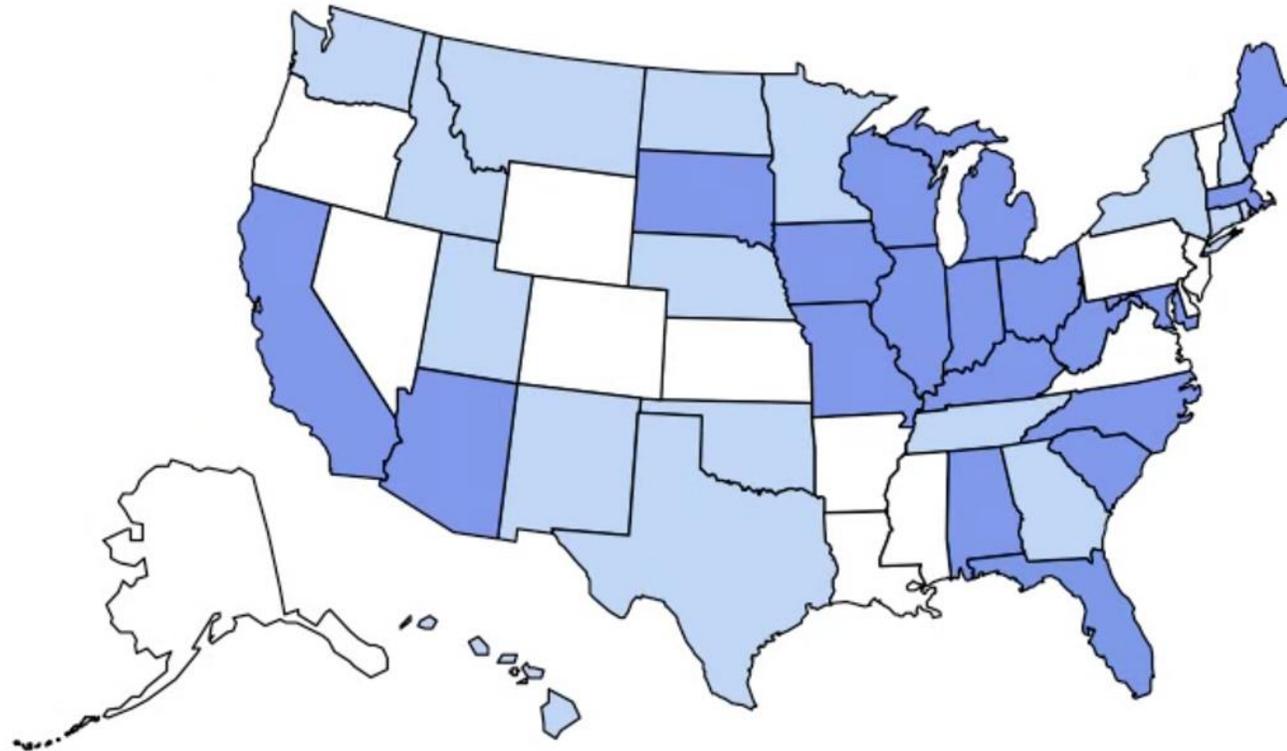
40% increase in mass and 50% increase in strength in 12 weeks

Obesity is the newest
chronic disease

Obesity Trends* Among U.S. Adults

BRFSS, 1988

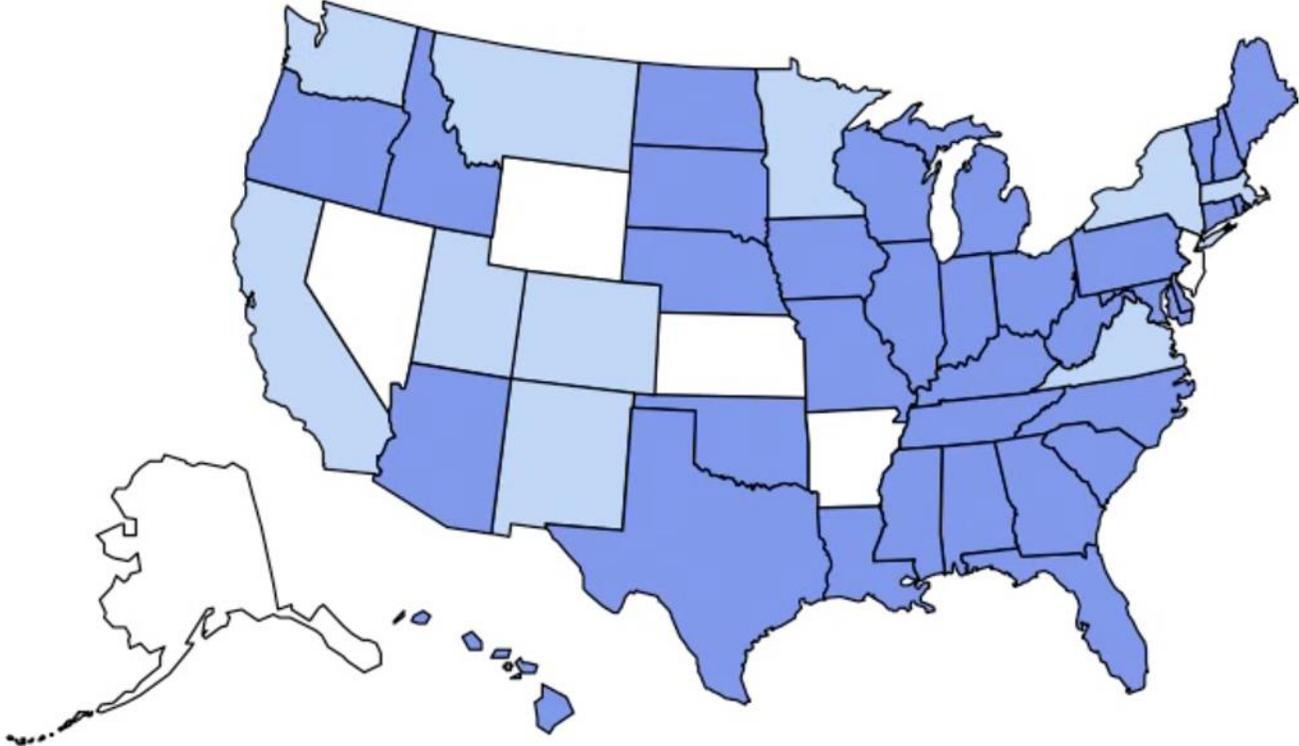
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1990

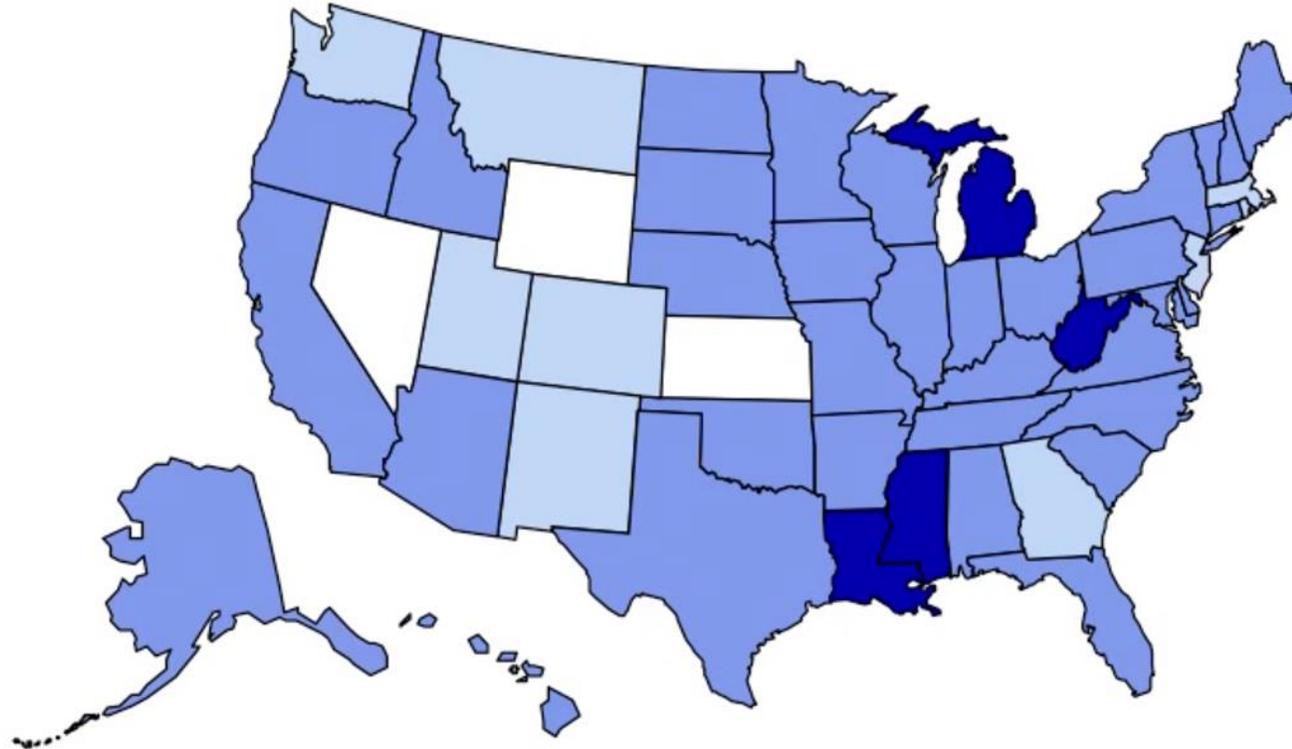
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Obesity Trends* Among U.S. Adults

BRFSS, 1991

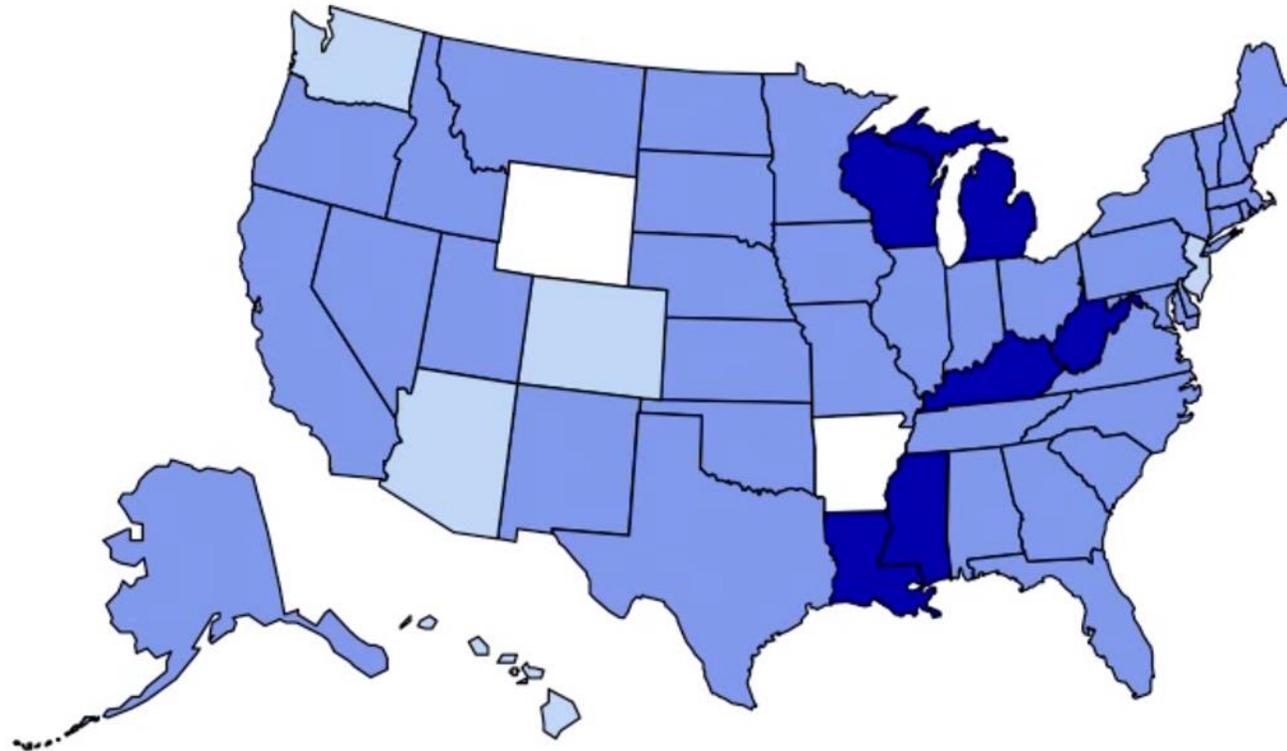
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Obesity Trends* Among U.S. Adults

BRFSS, 1992

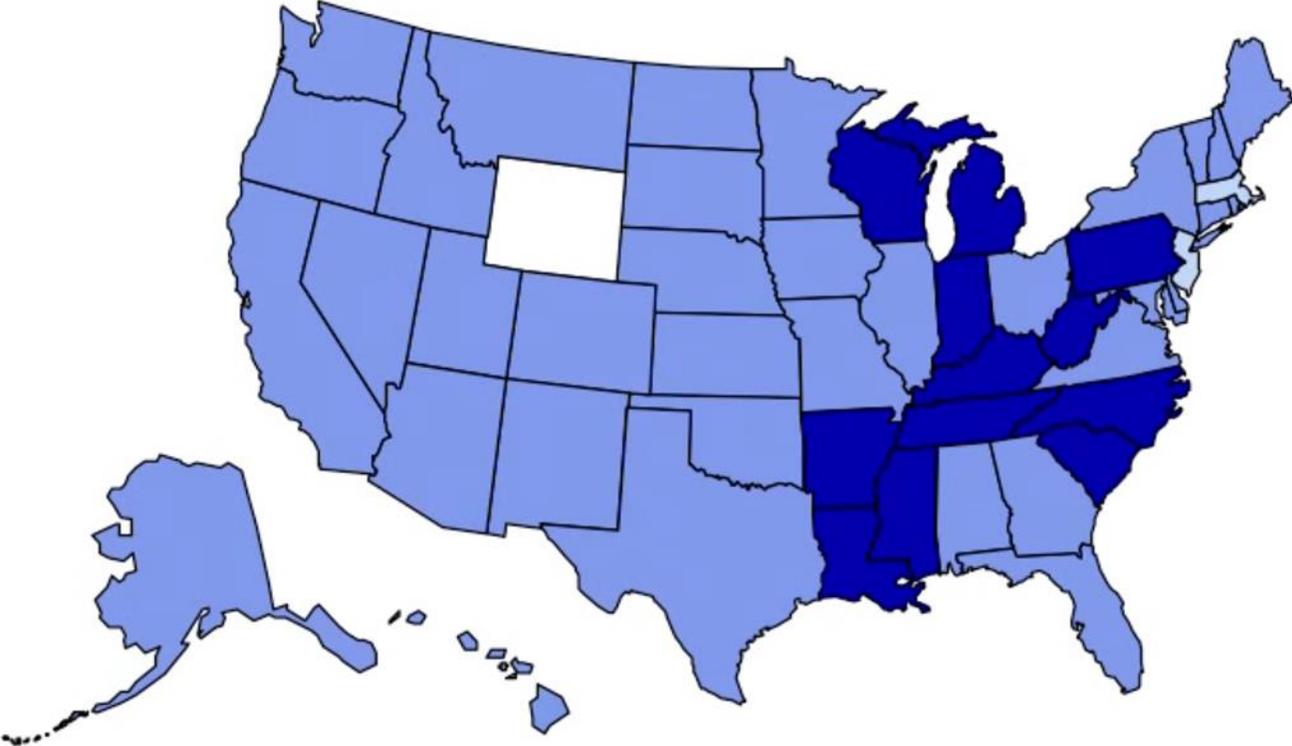
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Obesity Trends* Among U.S. Adults

BRFSS, 1993

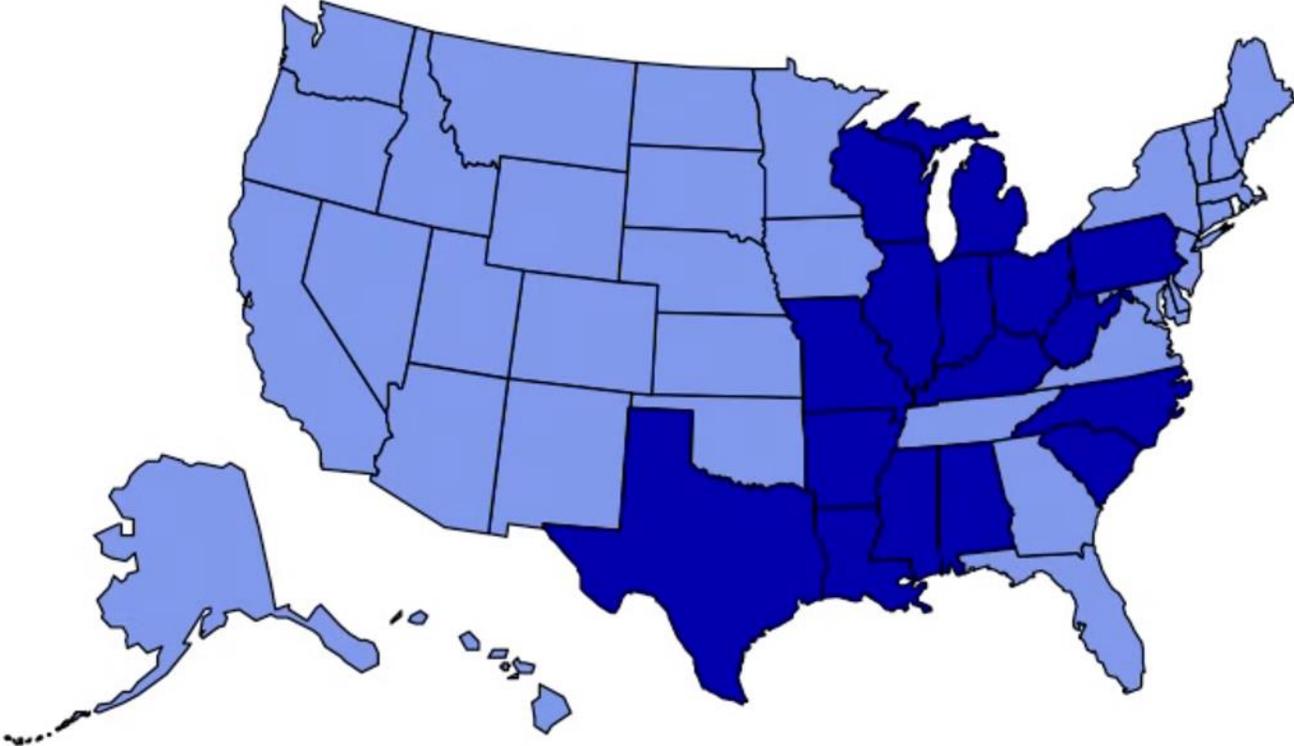
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Obesity Trends* Among U.S. Adults

BRFSS, 1994

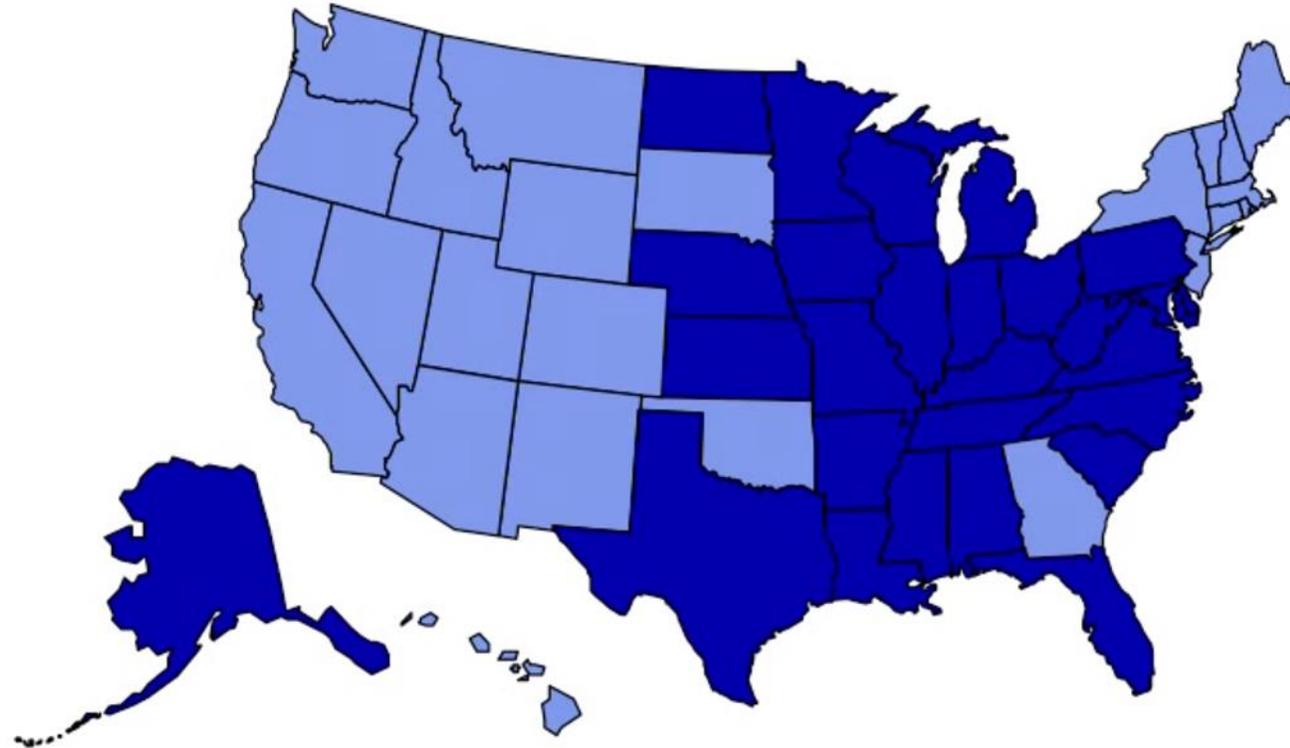
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Obesity Trends* Among U.S. Adults

BRFSS, 1995

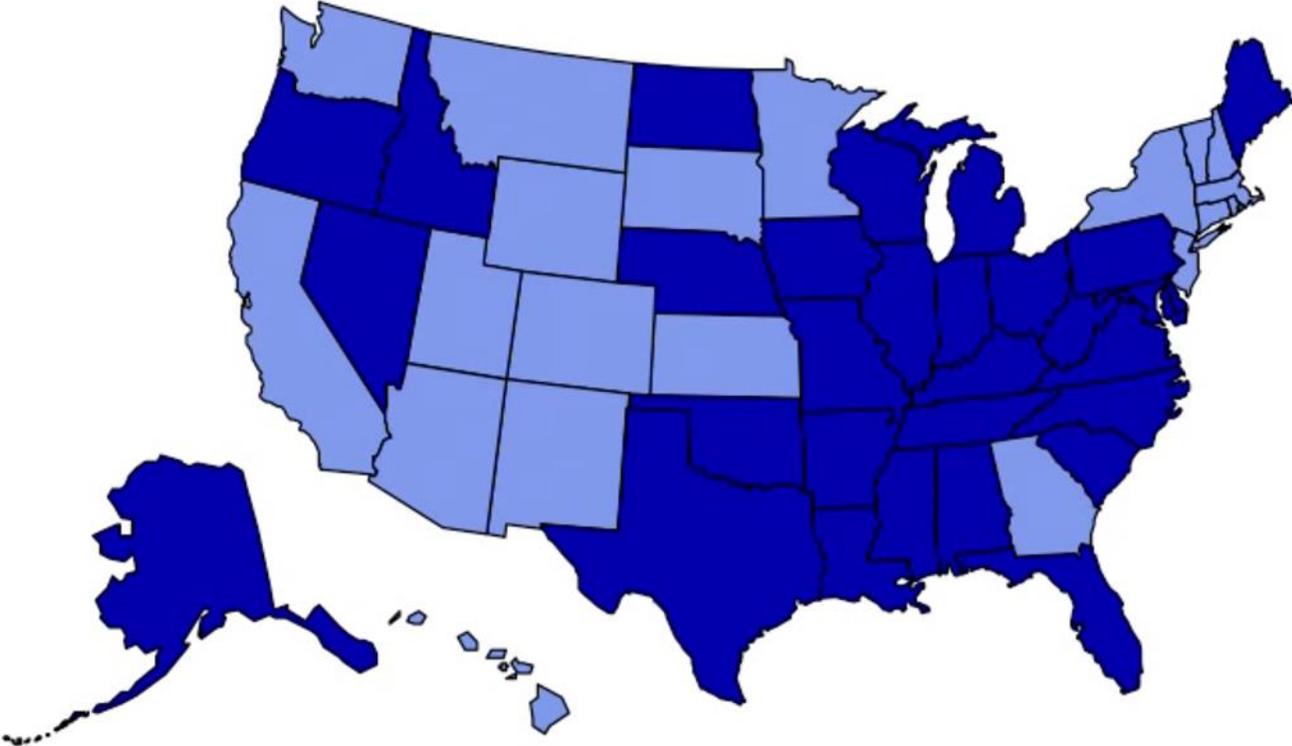
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Obesity Trends* Among U.S. Adults

BRFSS, 1996

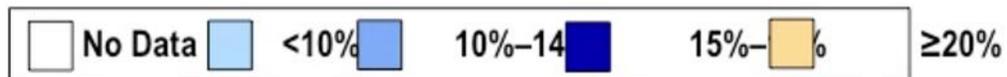
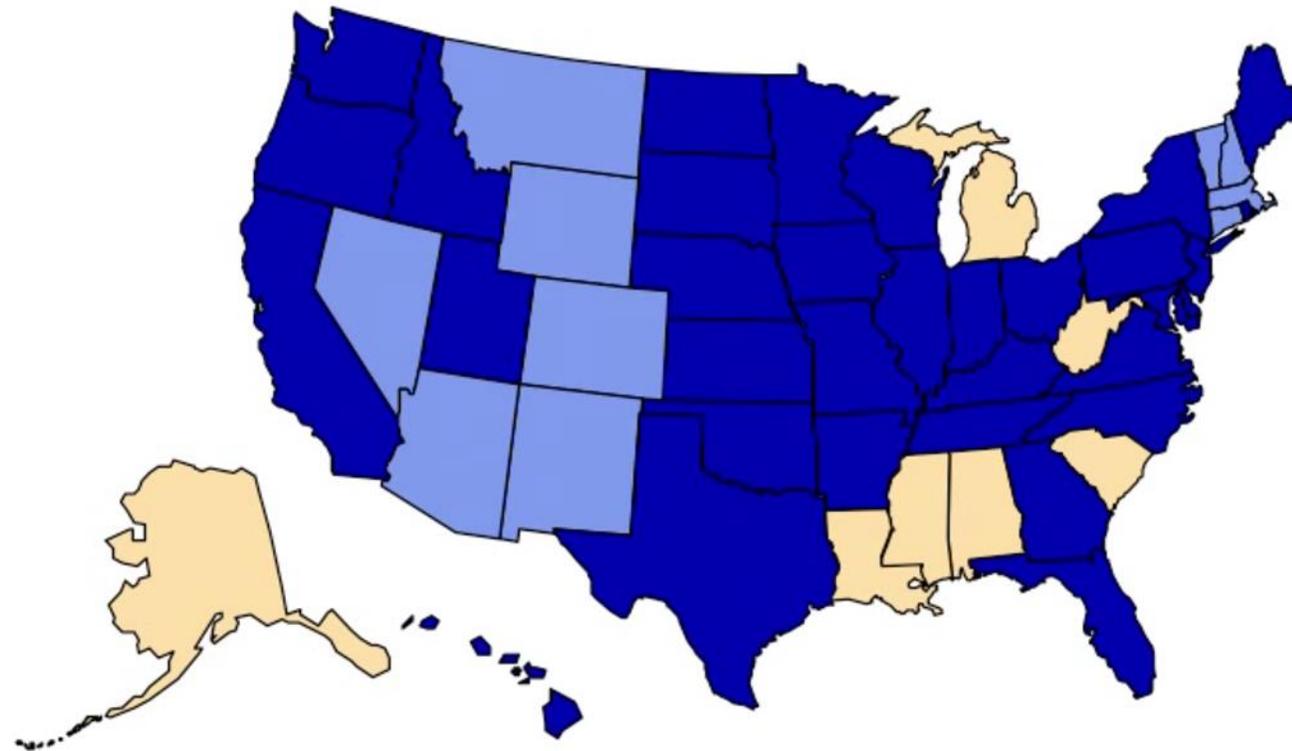
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Obesity Trends* Among U.S. Adults

BRFSS, 1998

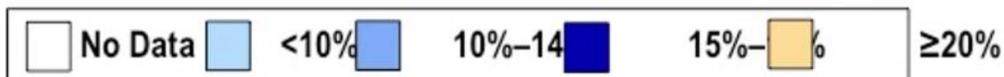
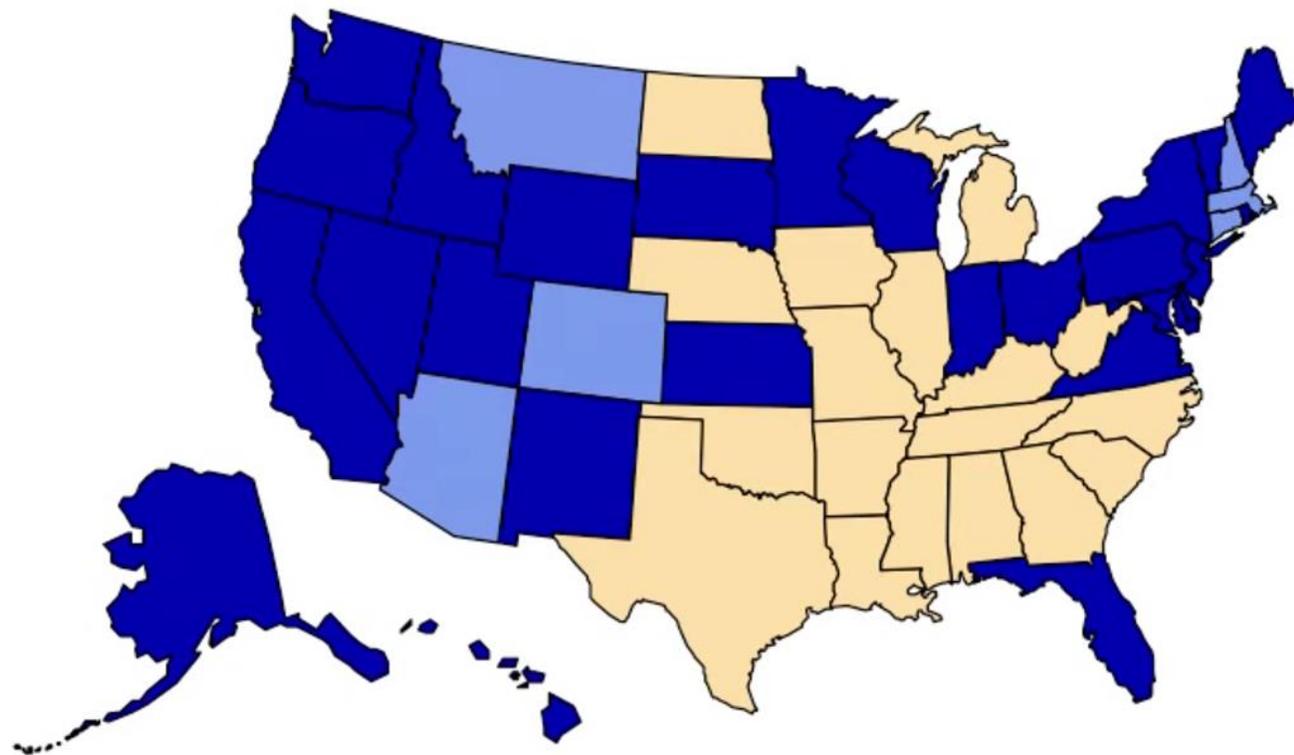
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Obesity Trends* Among U.S. Adults

BRFSS, 1999

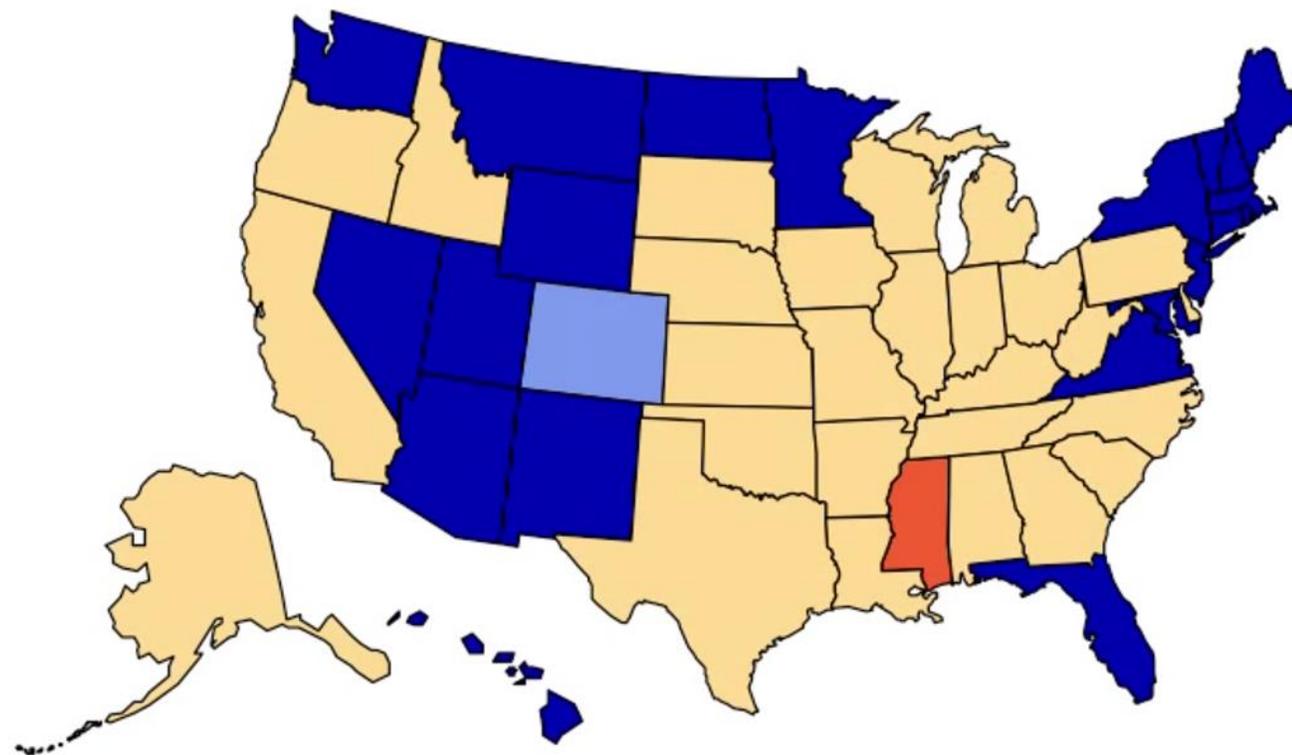
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Obesity Trends* Among U.S. Adults

BRFSS, 2001

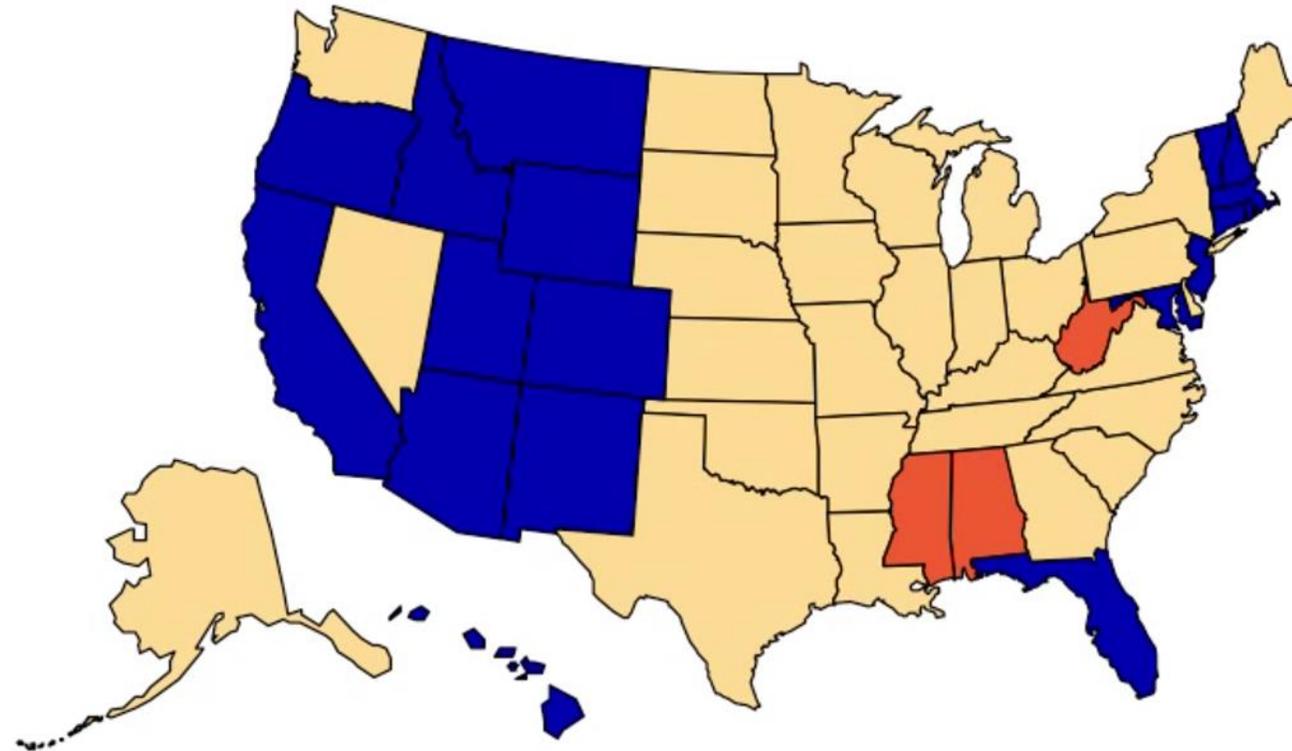
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Obesity Trends* Among U.S. Adults

BRFSS, 2002

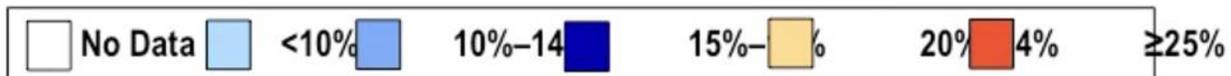
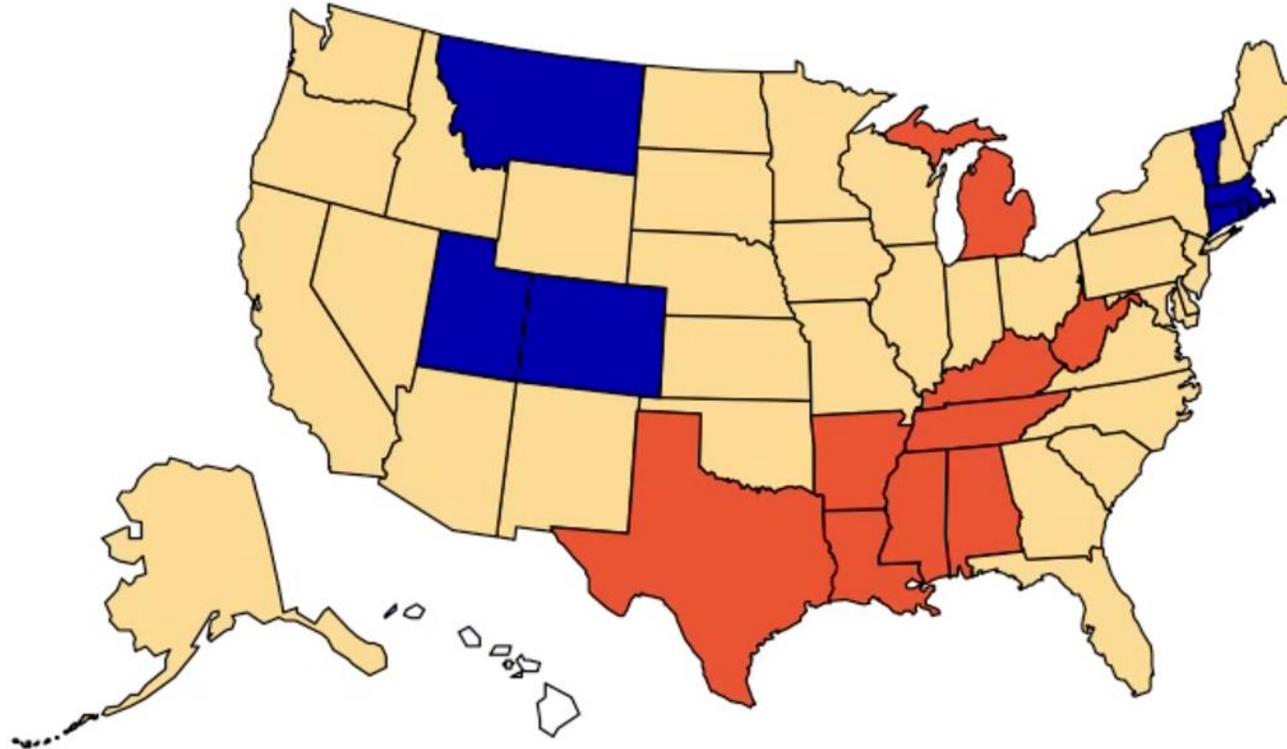
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Obesity Trends* Among U.S. Adults

BRFSS, 2004

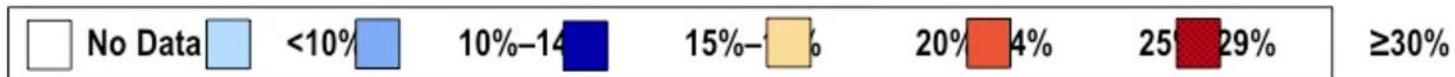
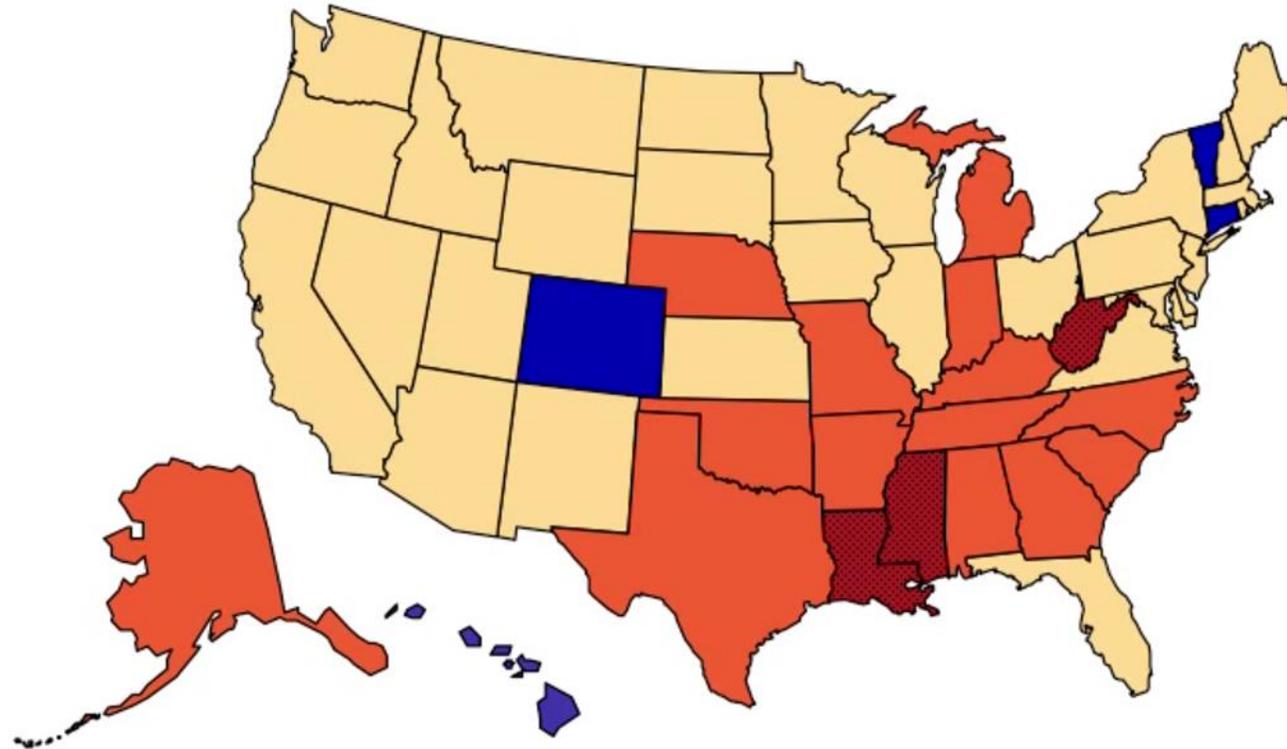
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Obesity Trends* Among U.S. Adults

BRFSS, 2005

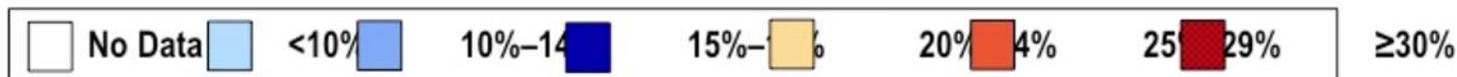
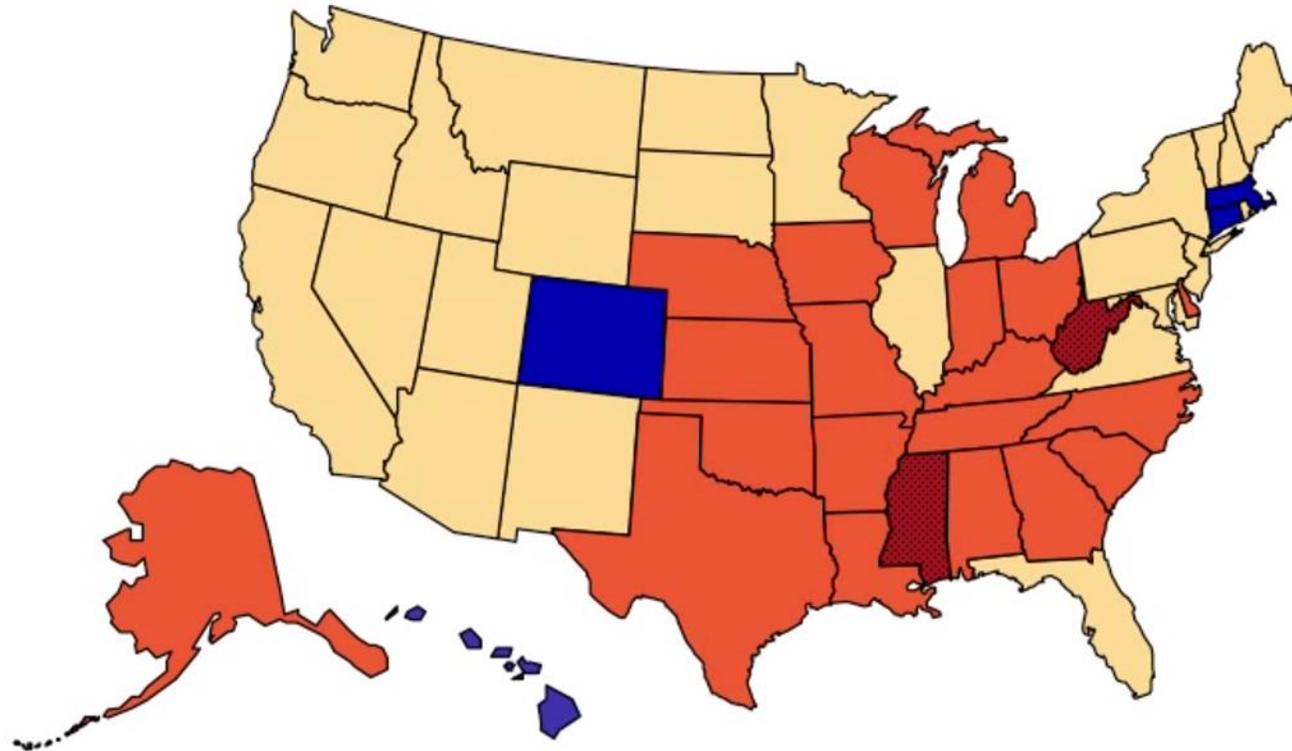
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Obesity Trends* Among U.S. Adults

BRFSS, 2006

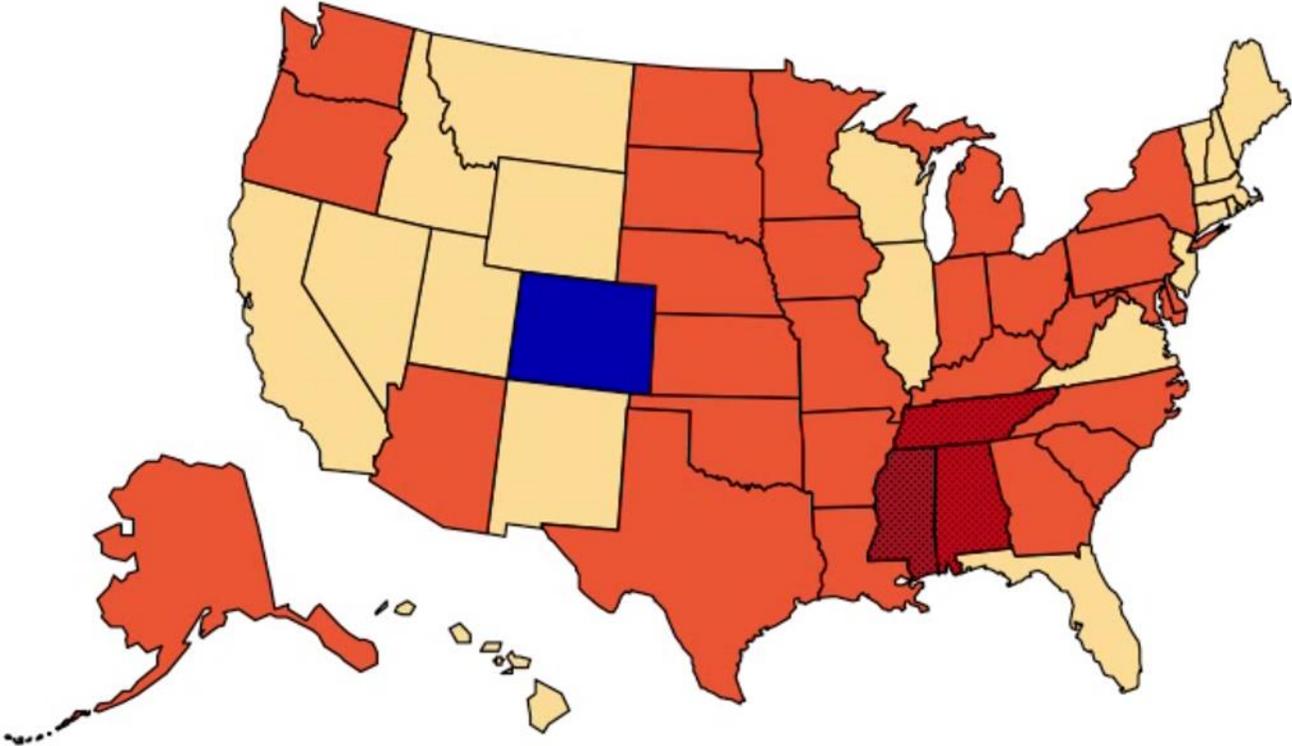
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Obesity Trends* Among U.S. Adults

BRFSS, 2007

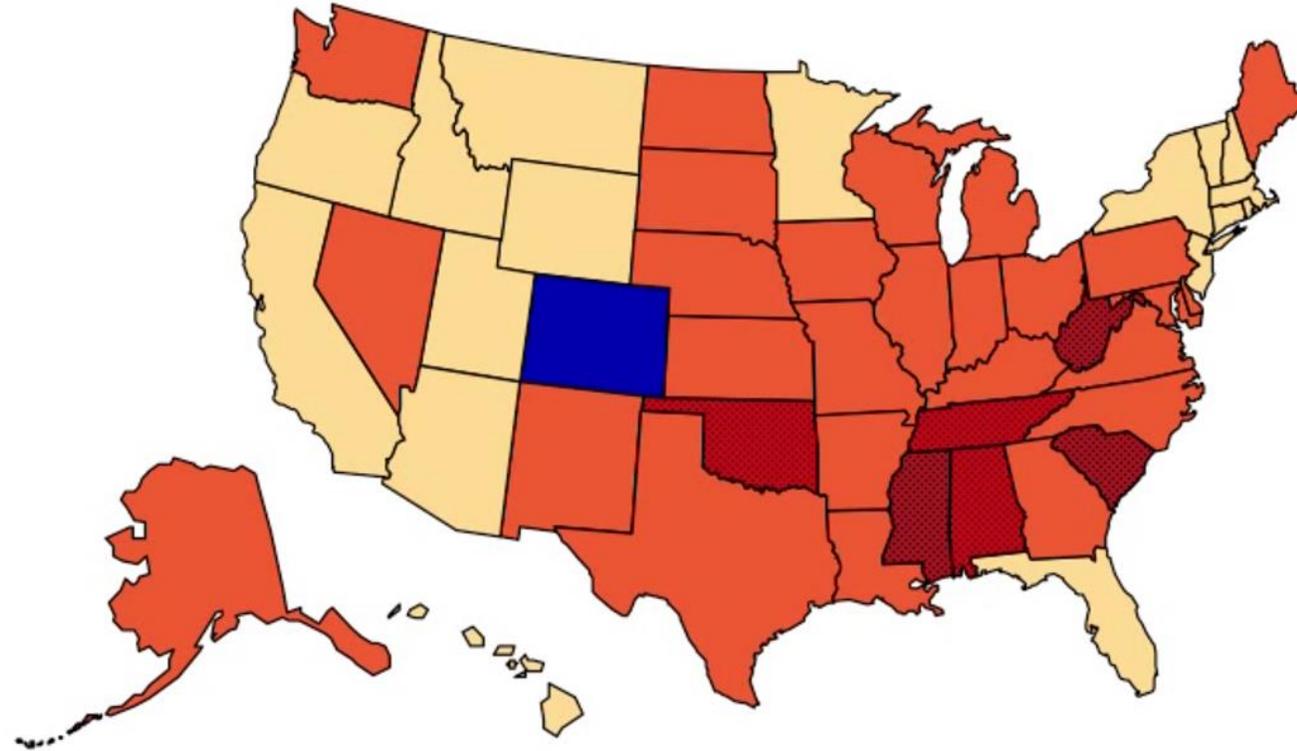
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Obesity Trends* Among U.S. Adults

BRFSS, 2008

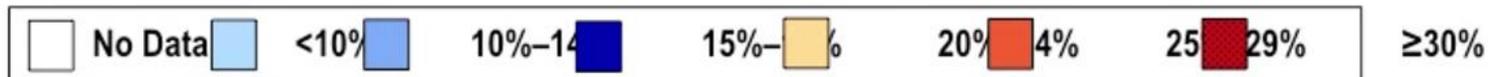
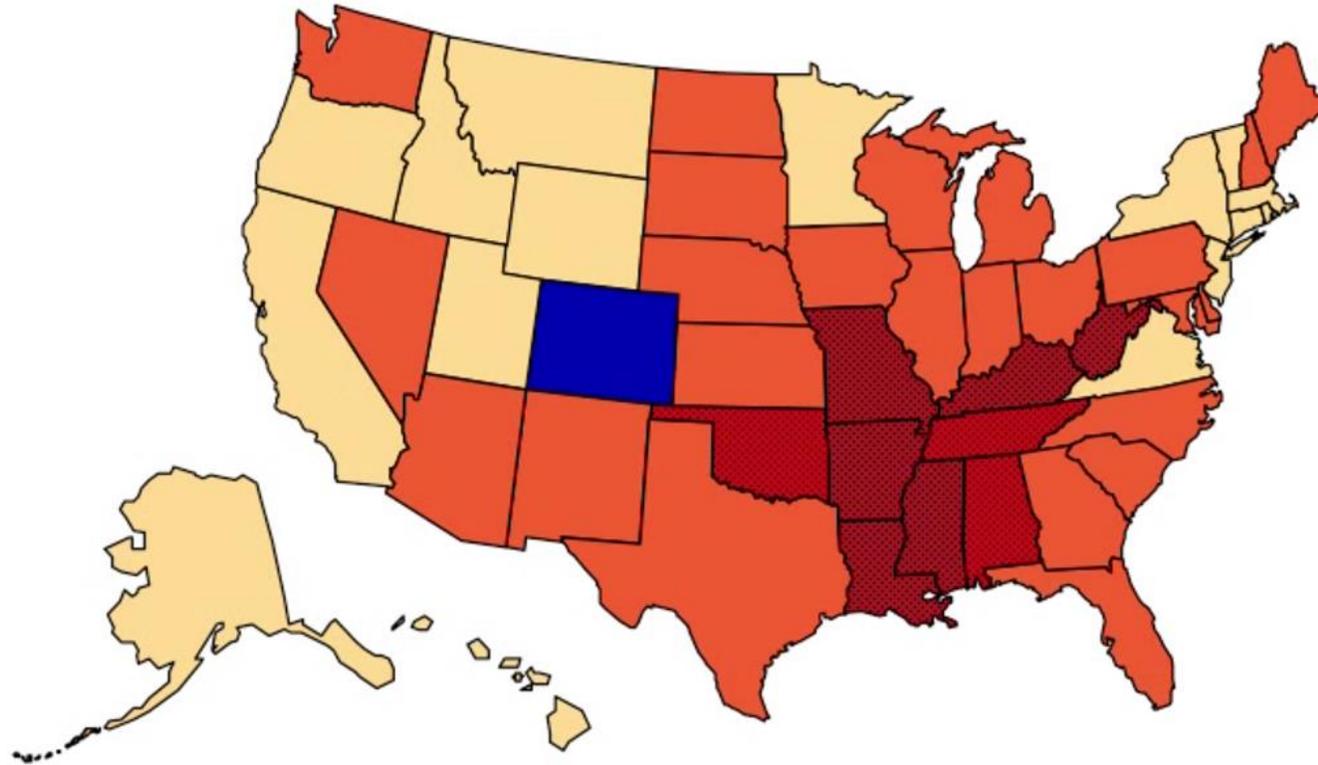
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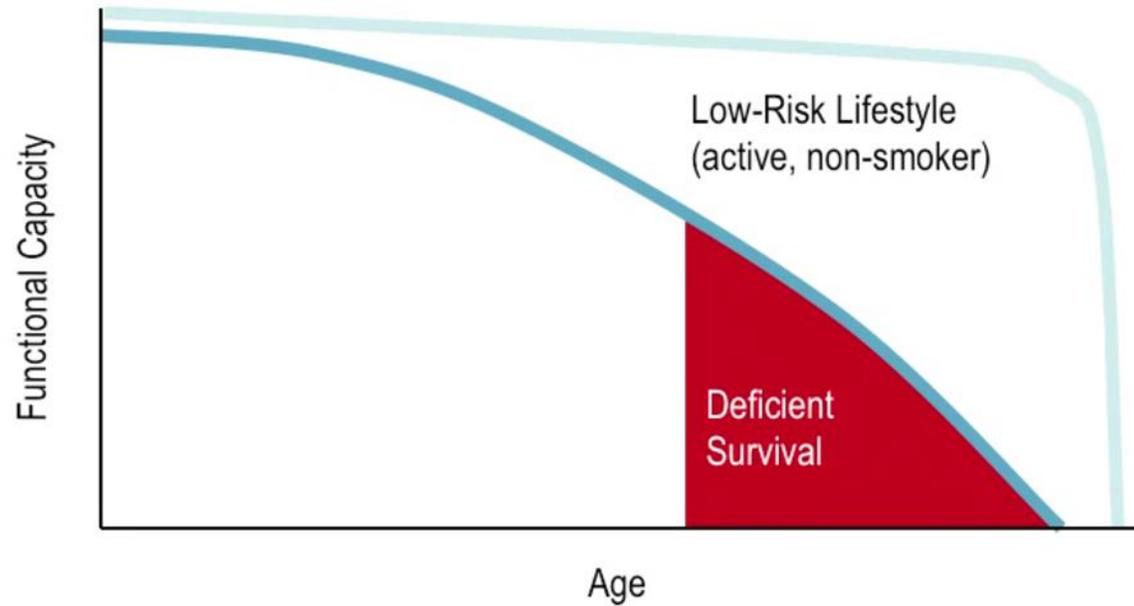
Obesity Trends* Among U.S. Adults

BRFSS, 2009

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The Effect of a Healthy Lifestyle “Squaring off” the Geriatric Curve



NEJM, April 1998



HOSPITAL
FOR
SPECIAL
SURGERY

2018 HEART
SUMMIT

ARKANSAS HEART HOSPITAL

The 5 “Musts” to sustainable exercise.

1. Exercise must be planned
2. Exercise must be fun
3. Exercise must be easily accessible
4. Exercise must be time efficient
5. Exercise must generate the desired results

Thank you for your attention.



— HEART
2018

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