

Diabetes and Obesity: Ugly Twins



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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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What is Obesity?



- There is a formal definition.
- People don't have to be as heavy as you *might* think to be obese.



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What are the Consequences of Obesity?

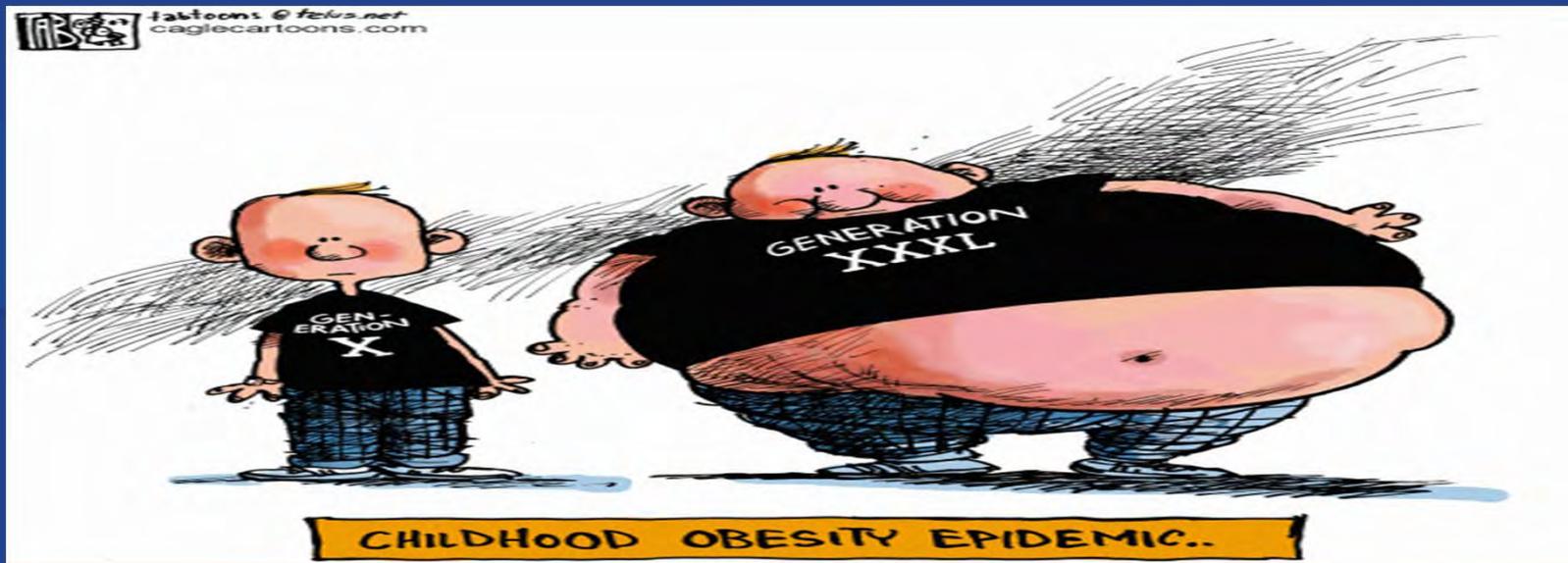


- **Increased risk of:**
 - Heart disease and stroke
 - Breast and colon cancer
 - Diabetes
 - Others
- **National cost of about \$147B/year**

How Common is Obesity?



- 34% of U.S. adults are obese.
- Approximately 17% of children and adolescents aged 2—19 years are obese.

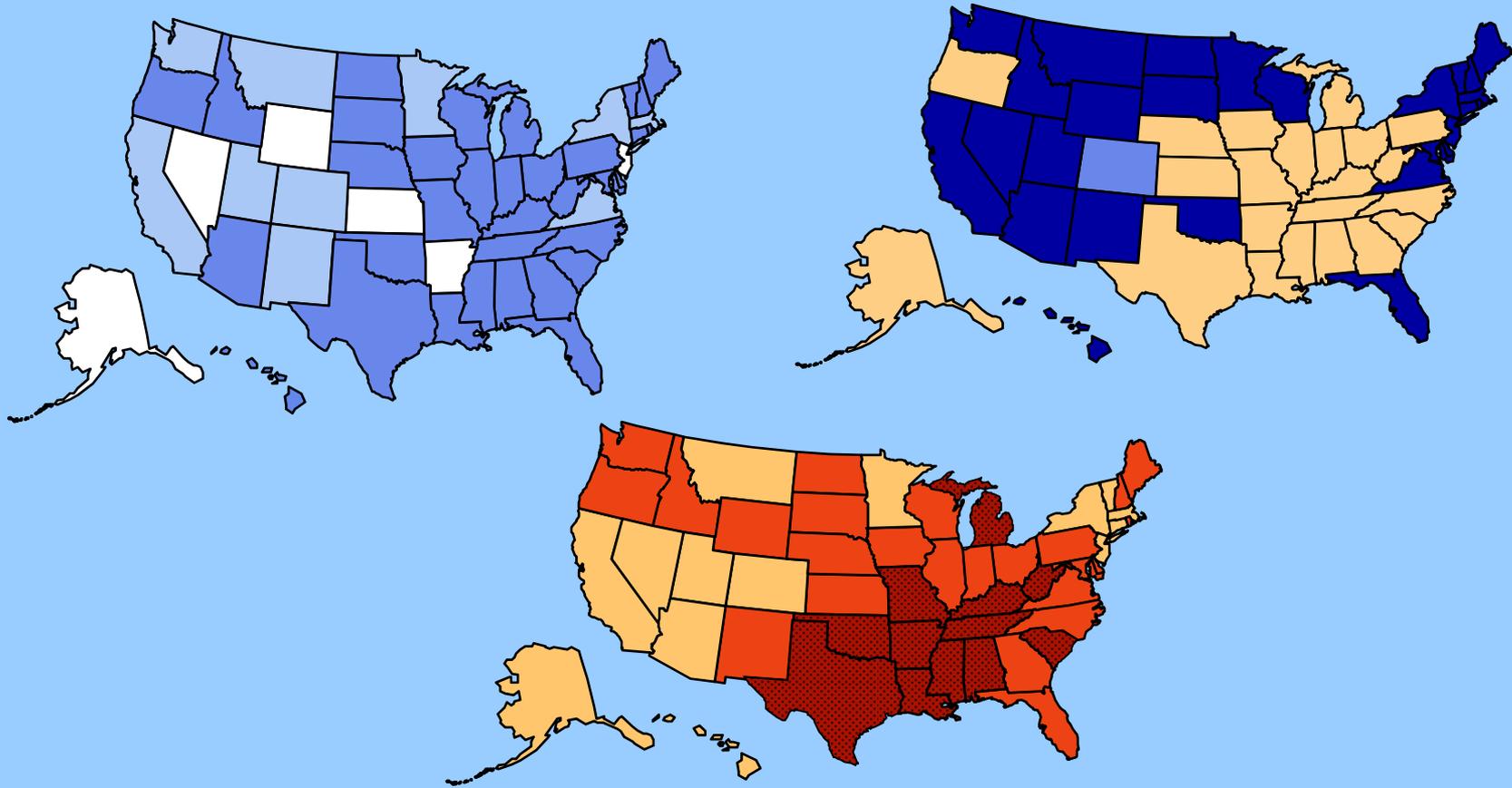


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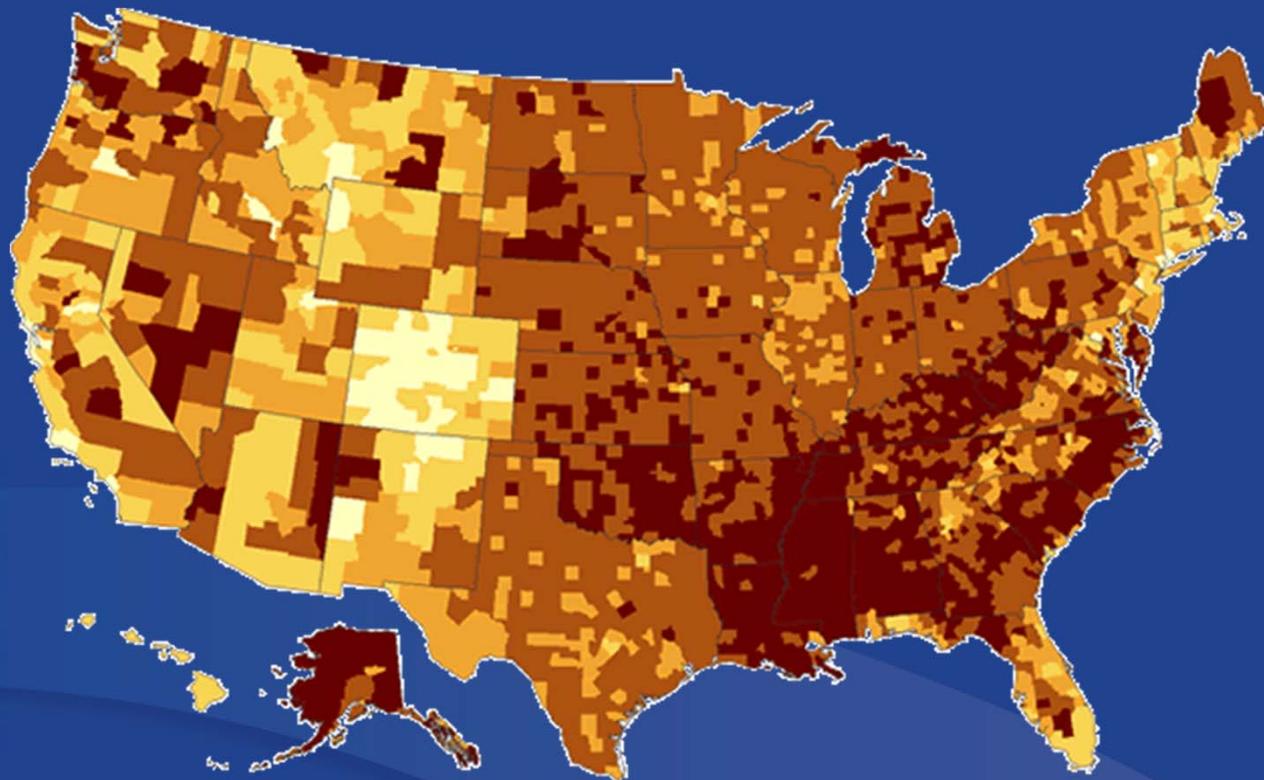
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Is Obesity Getting Worse?



Where is there the most obesity?



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What is Diabetes?



- **Diabetes occurs when there is too much glucose (sugar) in the blood**



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What is Diabetes? , continued



- **Type 1**
 - **Body doesn't make enough insulin**
 - **Usually, but not always, begins in youth**
 - **No known way to prevent**
- **Type 2**
 - **Body becomes insulin resistant**
 - **Usually, but not always, begins in adulthood**
 - **Can be prevented (will say more on this later)**
 - **Accounts for 90-95% of all diabetes**

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What are the Consequences of Diabetes?



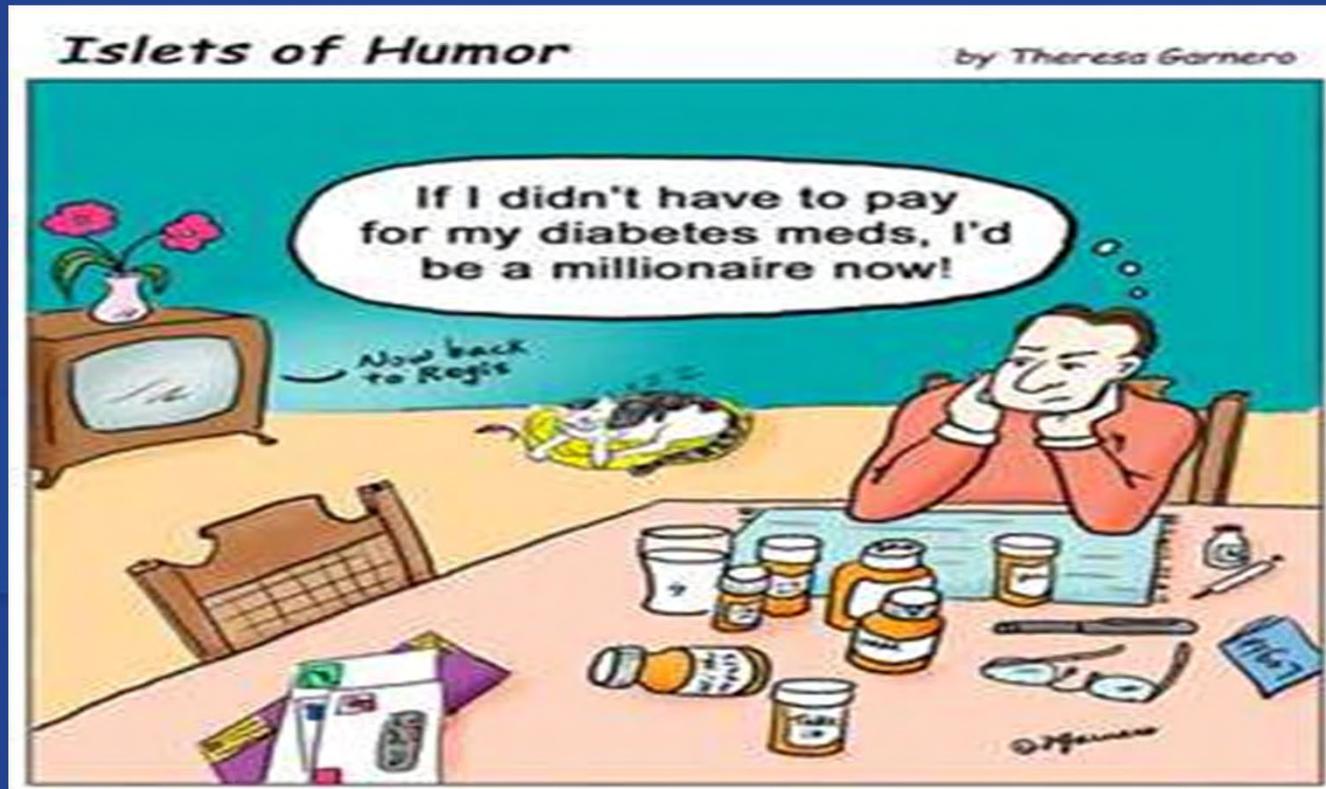
- **Increased risk of:**
 - **Heart disease and stroke**
 - **Blindness**
 - **Kidney failure**
 - **Tooth loss**
 - **Hearing loss**
 - **Nerve damage**
 - **Amputation of lower limbs**
 - **Death**

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- National cost of about \$174B/year



How Common is Diabetes?



- 8.3% of the US population have diabetes
- 18.8 million people in the US have diagnosed diabetes
- 7.0 million people in the US have undiagnosed diabetes
 - Possible to have type 2 for years and not know it

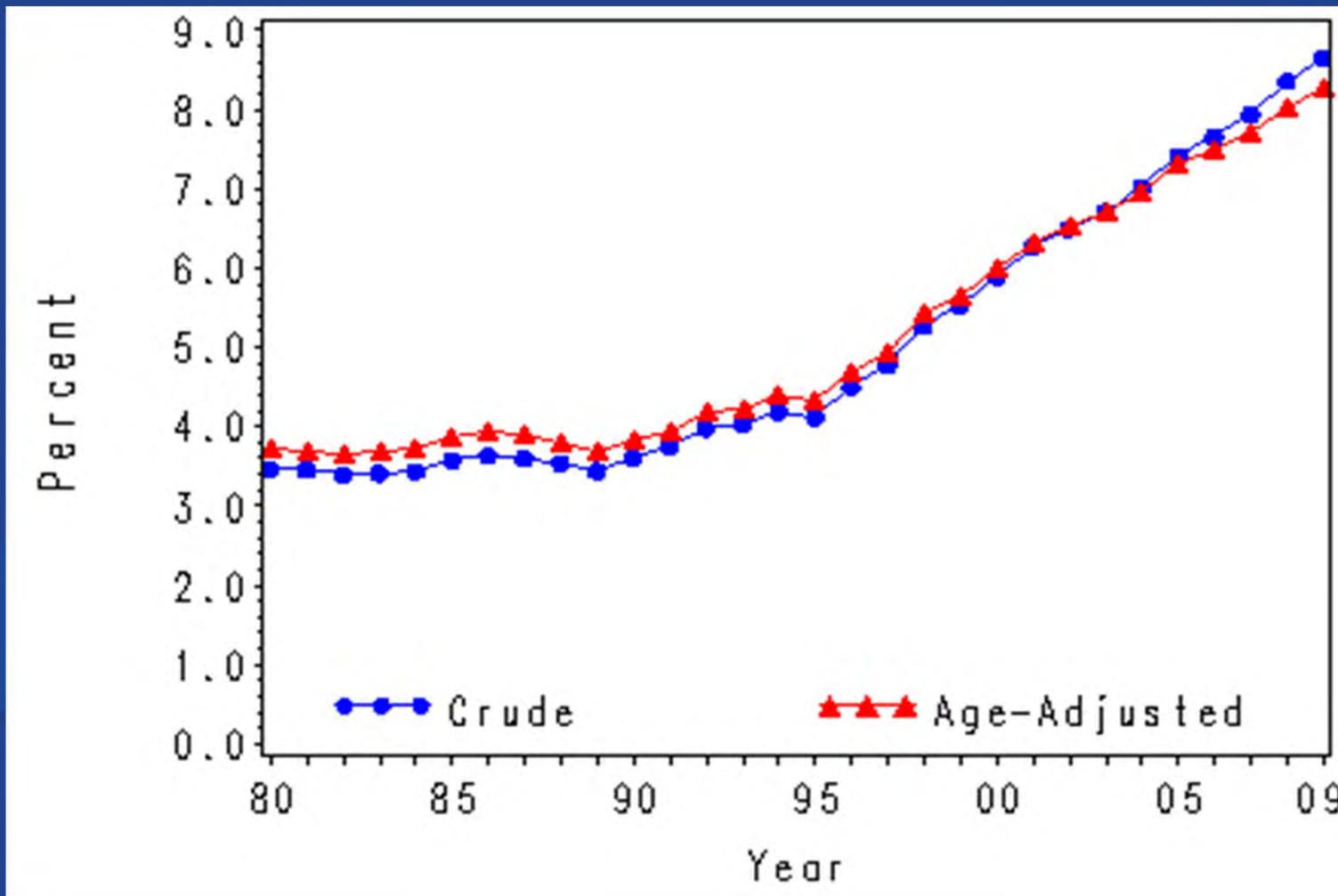


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Is Diabetes getting worse?

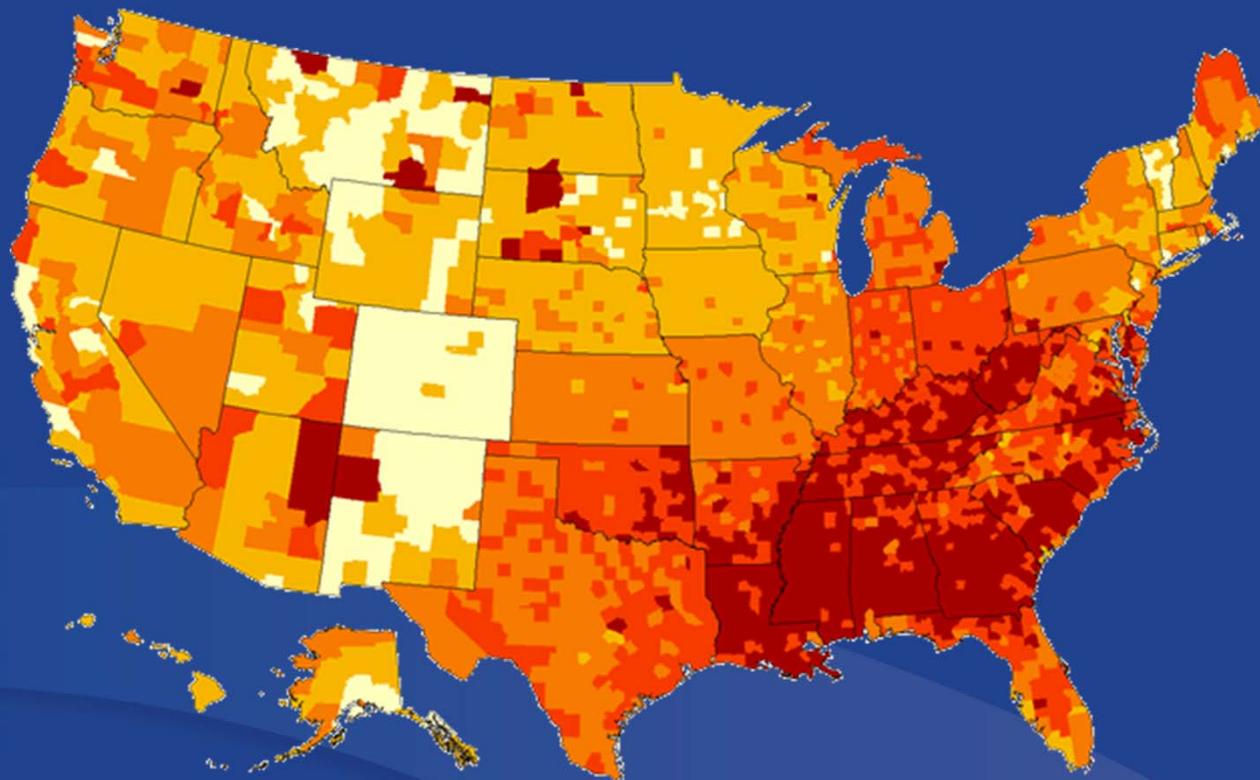


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Where is there the Most Diabetes?

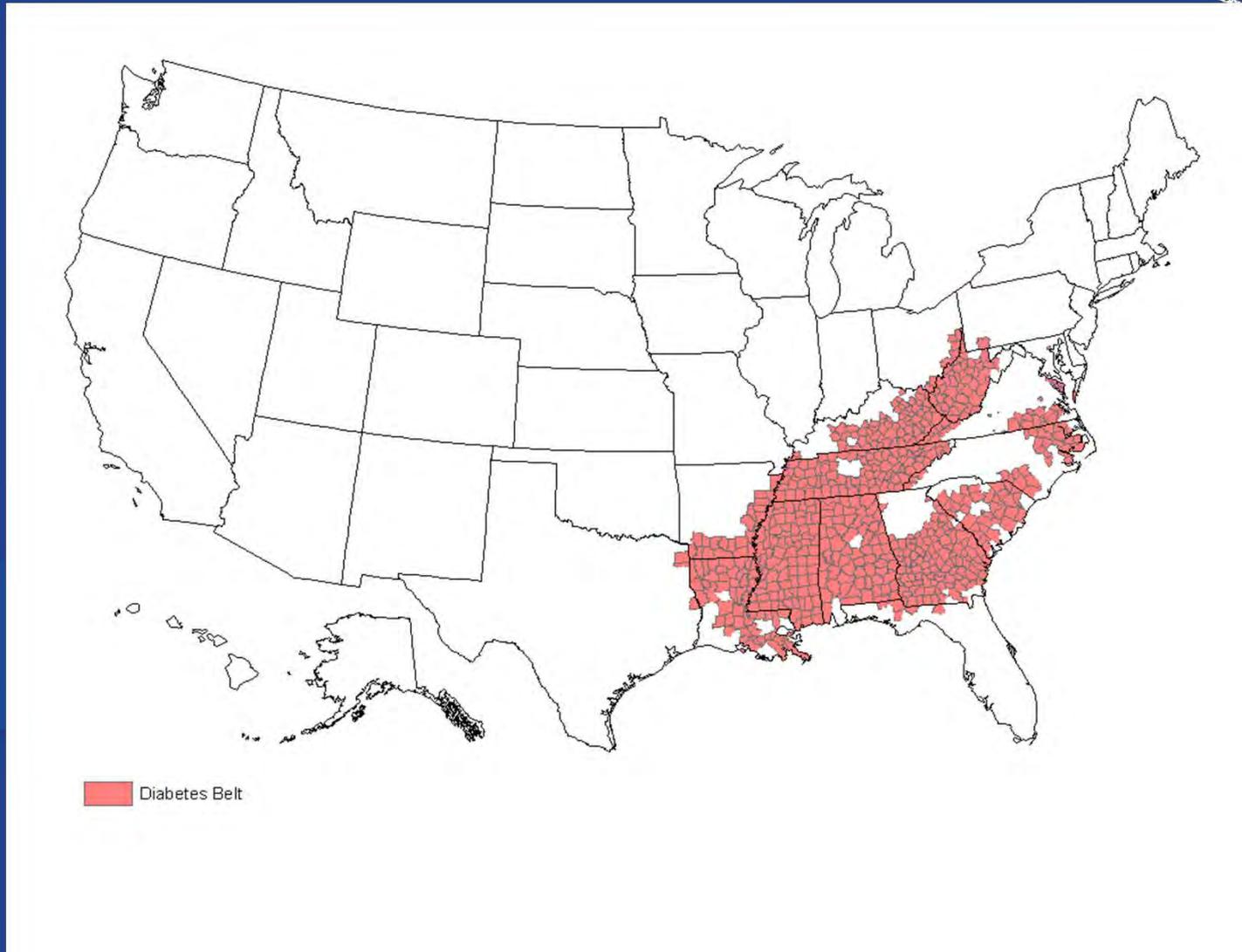


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Diabetes Belt



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Diabetes and Appalachia



- **‘Comparable’ means ‘similar age, income, education, sex, race/ethnicity, and obesity, physical activity, and smoking status’**
- **People who live in distressed Appalachian counties are 30% more likely to have diagnosed diabetes than comparable people in non-Appalachian counties**

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- **People with diagnosed diabetes who live in distressed or at-risk Appalachian counties have their disease diagnosed about 3 years younger than comparable people in non-Appalachian counties.**
 - **Unlikely to have better diagnosis, so probably develop the disease younger.**
 - **Younger onset of disease means greater risk of blindness, kidney disease, etc.**



- **Many people in Appalachia don't take diabetes seriously.**
 - **“Just a little sugar.”**
 - **Type 2 diabetes often has no signs or symptoms until the condition is very advanced.**

How can We Prevent Type 2 Diabetes?



- **The most important modifiable risk factors for type 2 diabetes are:**
 - **Obesity**
 - **Physical inactivity**
- **Obese people who lose 5-7% of their body weight and are active at least 150 minutes a week are 58% less likely to develop diabetes than those who do not.**

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What can be done?



- **Encourage food retailers to carry more healthy foods (fruits, vegetables, sugar-free beverages).**
- **Offer the option of smaller portion size in public venues.**
- **Create facilities where people can be active (e.g. walking trails).**

What can be done?, continued



- (maybe) Get out the message: ‘Just a little sugar’ is *VERY* serious.
- (maybe) Encourage traditional foods (*not* fast or convenience foods) and traditional hunting (*not* using four-wheelers).

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Conclusion



- **Diabetes and obesity are serious problems for both Appalachia and the nation.**
 - Dollars
 - Human suffering
- **The situation is bad and, unless things change, likely to get worse.**
- **Good news! We *can* prevent obesity and diabetes.**

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Thank you for your attention.

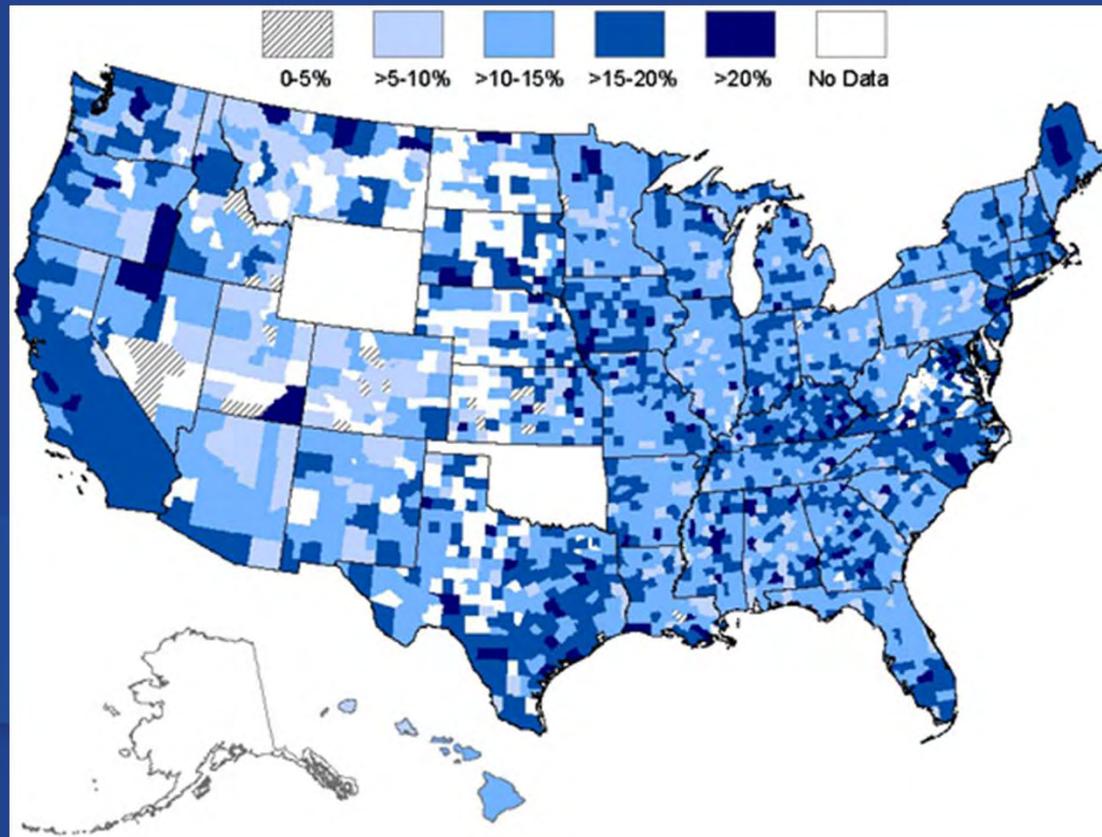
Questions? Comments?

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Obesity Among Children (2-4)



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Diabetes in the Young

- About 215,000 people younger than 20 years have diabetes (type 1 or type 2).
 - about 0.26% of all people in this age group
- Among youth aged <10 years, the rate of new cases was 19.7 per 100,000 each year for type 1 diabetes and 0.4 per 100,000 for **type 2 diabetes**.
- **Among youth aged 10 years or older, the rate of new cases was 18.6 per 100,000 each year for type 1 diabetes and 8.5 per 100,000 for type 2 diabetes**