

# Diet and Influences on Food Choice



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# Causes of death

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# Causes of death

1) 435,000



Left: Van Gogh. *Smoking Skeleton*. Center: Image copyright. Right: Bartel T. Available at Wikimedia Commons.

# Causes of death

1) 435,000



2) 400,000



Left: Van Gogh. *Smoking Skeleton*. Center: Image copyright. Right: Bartel T. Available at Wikimedia Commons.

# Causes of death

1) 435,000



2) 400,000



3) 85,000



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- Diet and health
- Trends in American diets
- Influences on food choice
- Improving American diets

# Essential questions

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- Why do we eat what we eat?
- Why does it matter?
- What has led to the rise in diet-related disease in the United States?
- How can American diets be improved?



- Diet and health

Trends in American diets

Influences on food choice

Improving American diets



# Diet related diseases

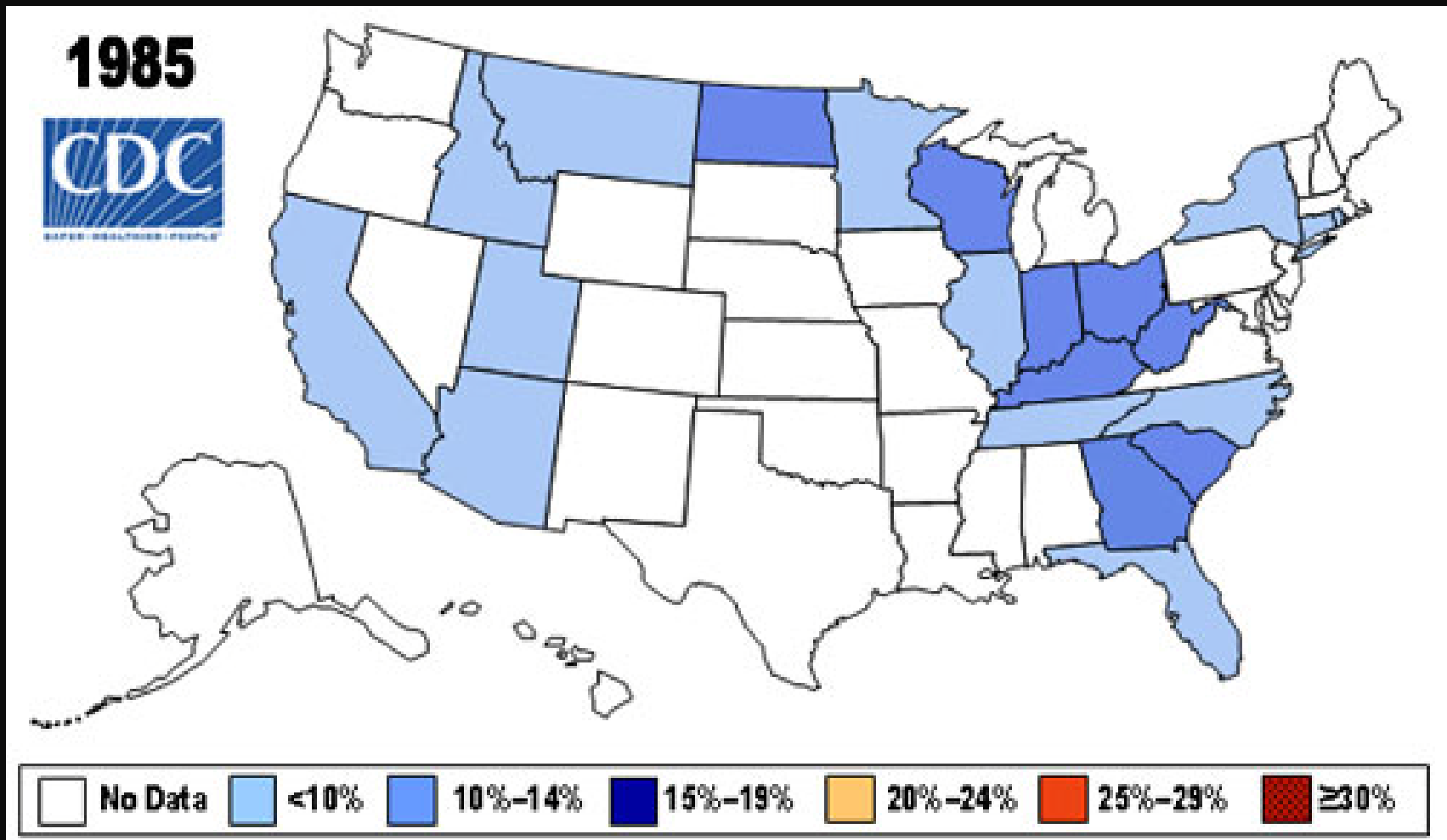
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# Diet related diseases

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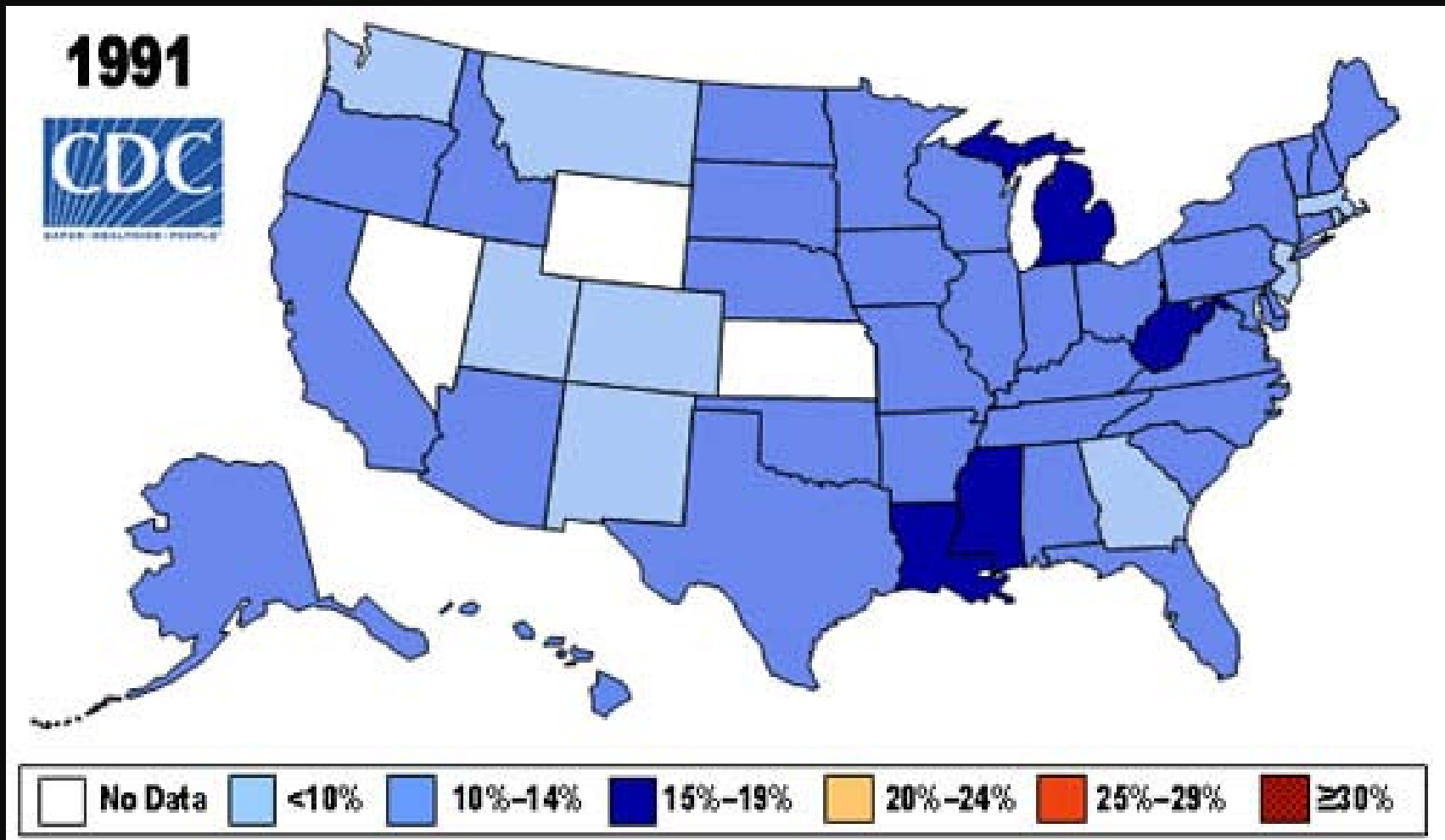
- Heart disease
- Type 2 diabetes
- Certain cancers
- Stroke
- Hypertension

# Obesity



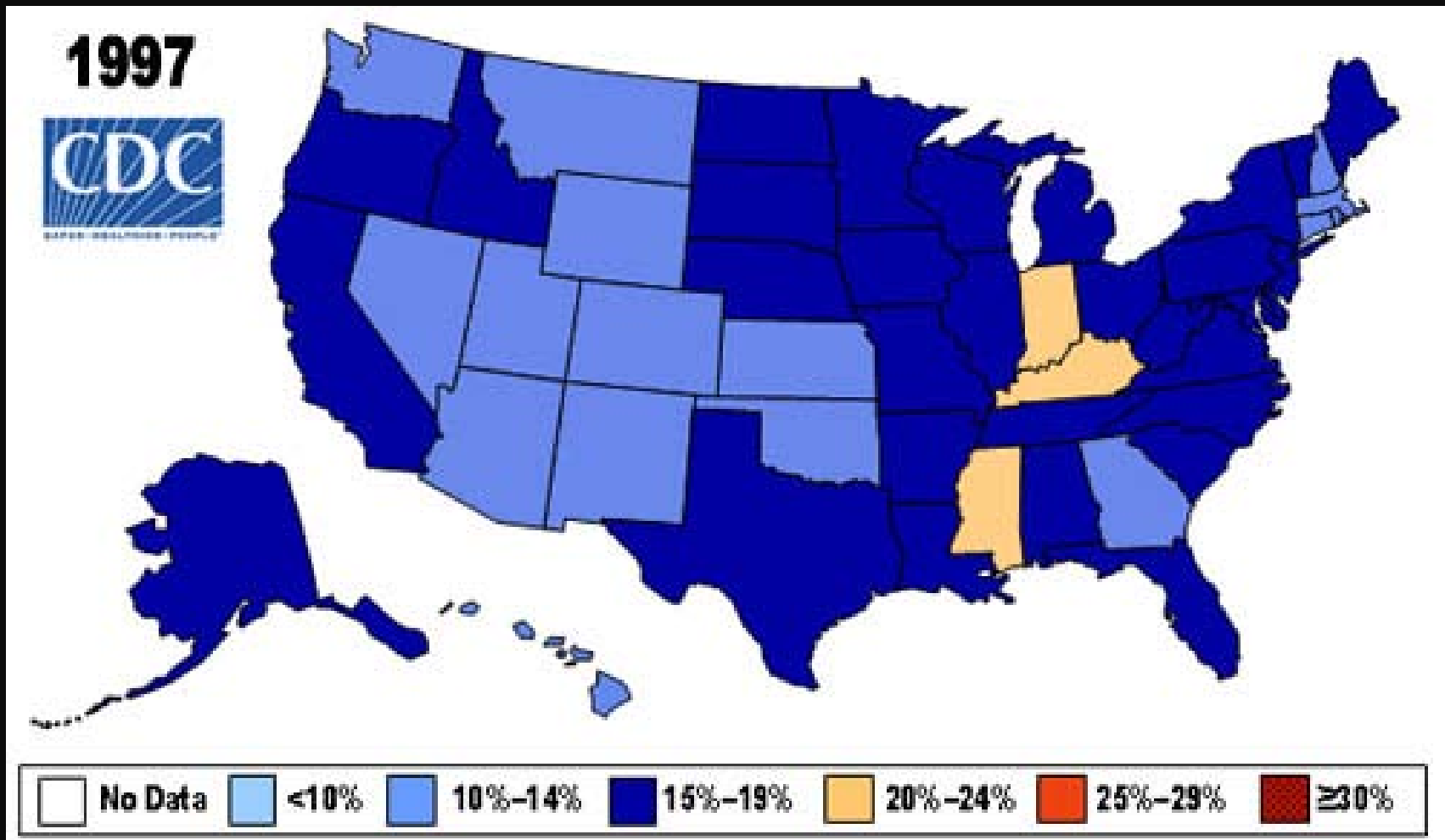
Source: <http://www.cdc.gov/obesity/data/trends.html>

# Obesity



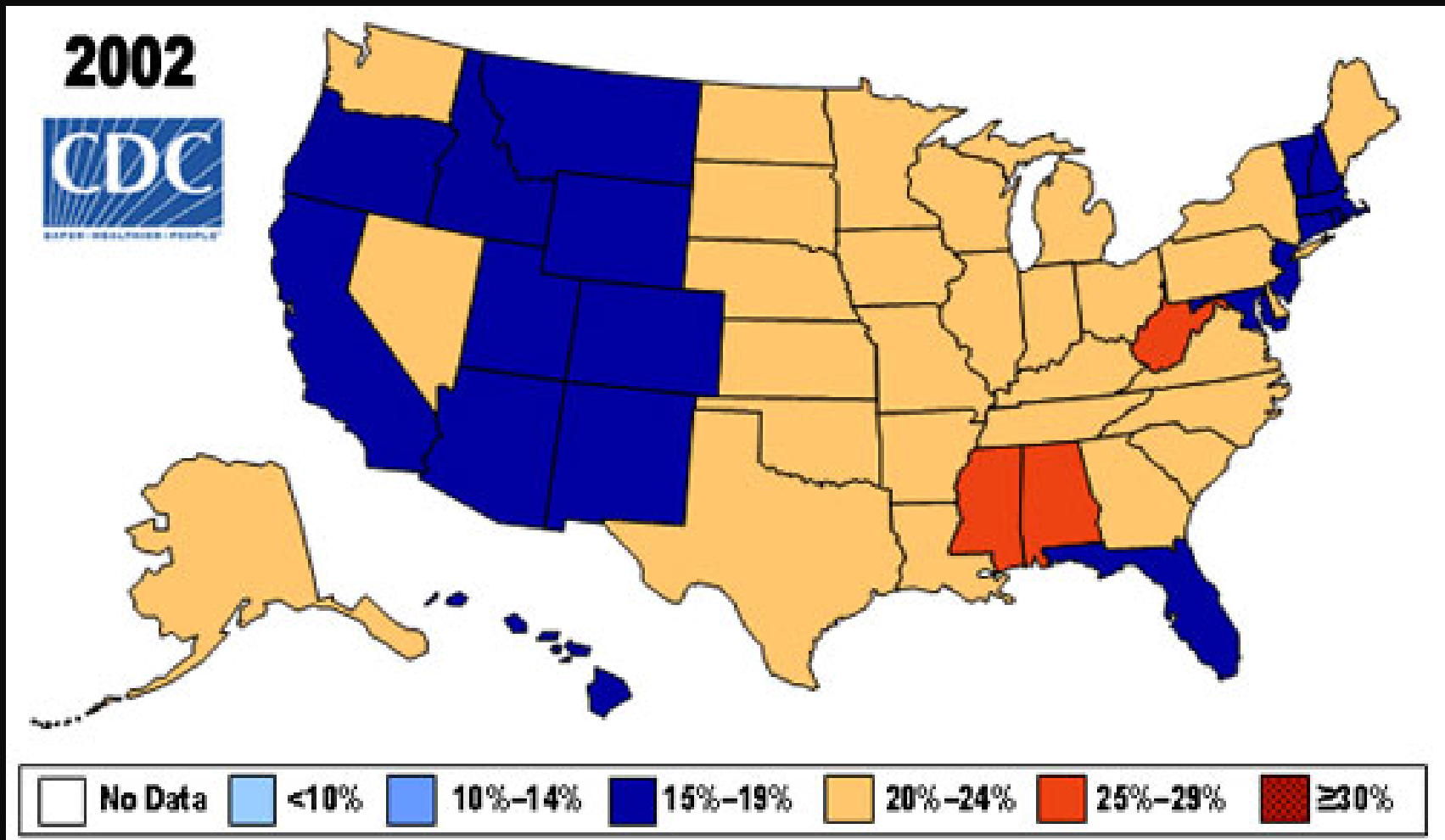
Source: <http://www.cdc.gov/obesity/data/trends.html>

# Obesity



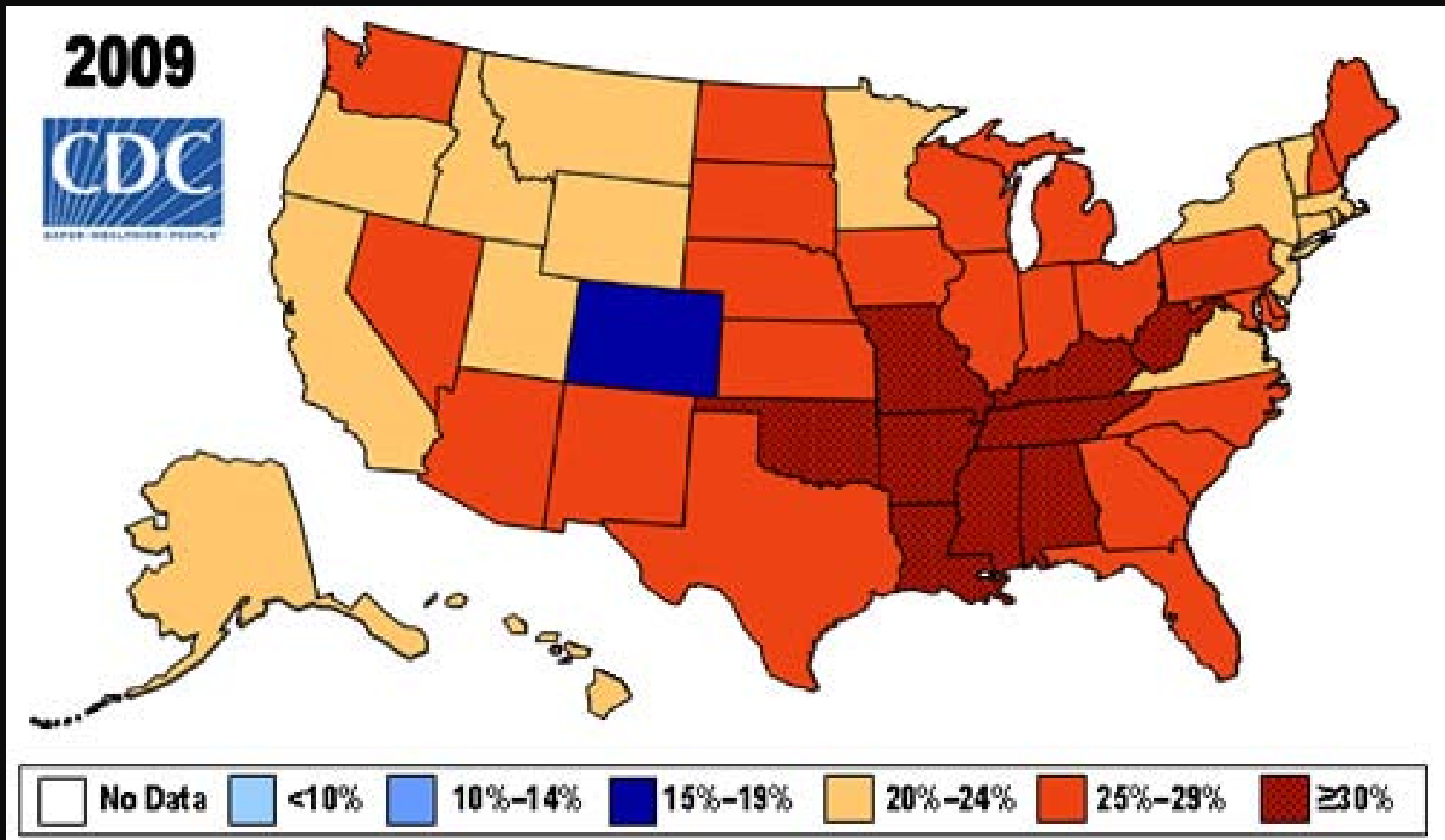
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# Obesity



Source: <http://www.cdc.gov/obesity/data/trends.html>

# Obesity



Source: <http://www.cdc.gov/obesity/data/trends.html>

# Risk factors

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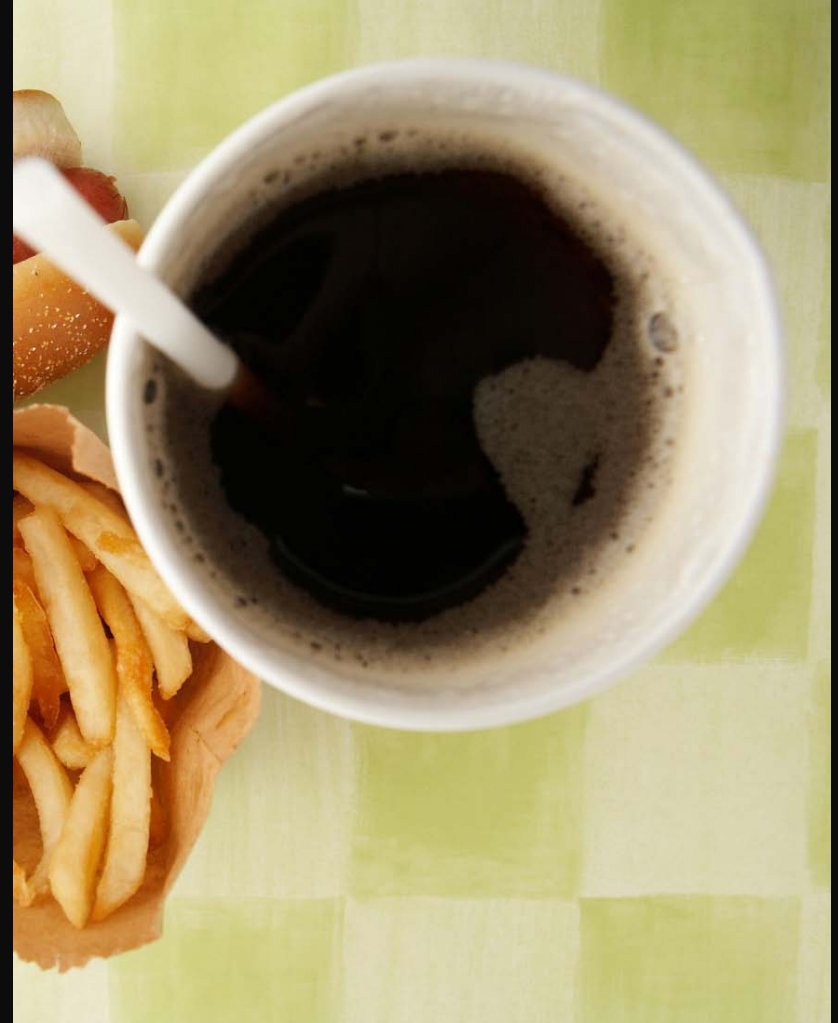
# Risk factors

- Refined grains
- Added fats
- Added sugars
- Excess salt
- Processed meats



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# Added sugars, added fats



Left: Public domain. Available at Wikimedia Commons. Right: Image copyright.

# Balancing energy intake



Image copyright.

# Balancing energy intake

- Sedentary person: ~2,000 kcal
- 1 lb. body fat: 3,500 kcal



Image copyright.

# Balancing energy intake

- Active person: >2,000 kcal



Left: Brittany Randolph. 2007. Available on Flickr.

# Eating for health

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# Eating for health

- Vegetables
- Fruits
- Whole grains



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## Diet and health

- Trends in American diets

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Improving American diets



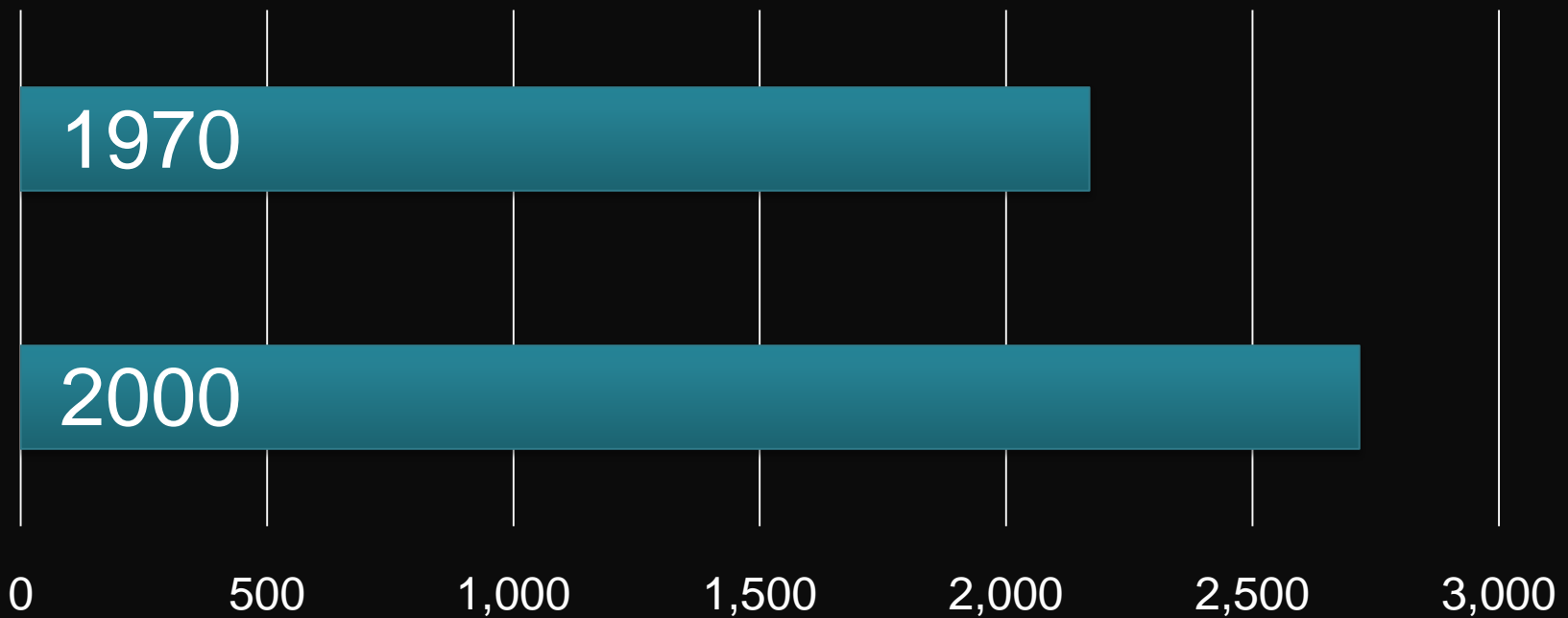
# Calorie intake

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- 1970 to 2000

# Calorie intake

- 1970 to 2000
- 25% increase



Calories per person, per day

Source: USDA Economic Research Service. *U.S. per capita loss-adjusted food availability.*

# Soft drink consumption

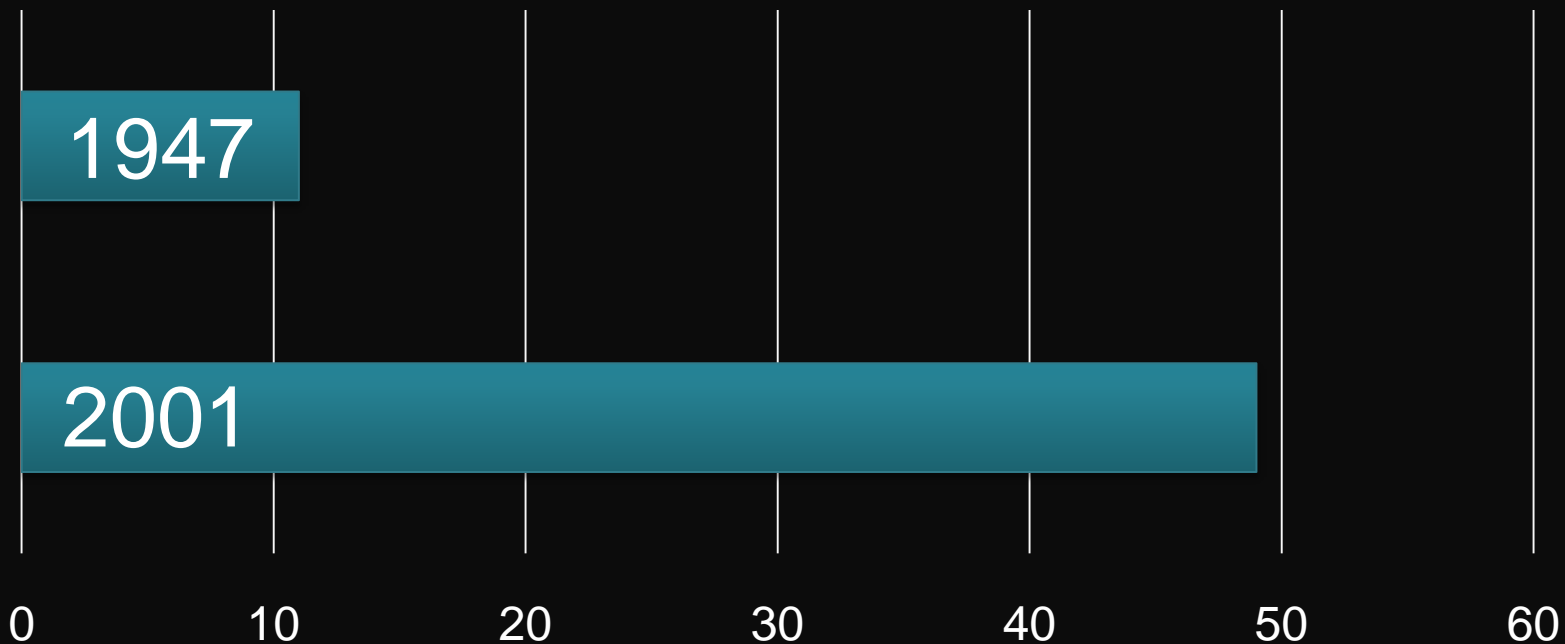
- 1947 to 2001



Image copyright.

# Soft drink consumption

- 1947 to 2001
- 345% increase



Gallons per person, per year

Source: USDA Economic Research Service. *U.S. per capita loss-adjusted food availability.*

# Milk consumption

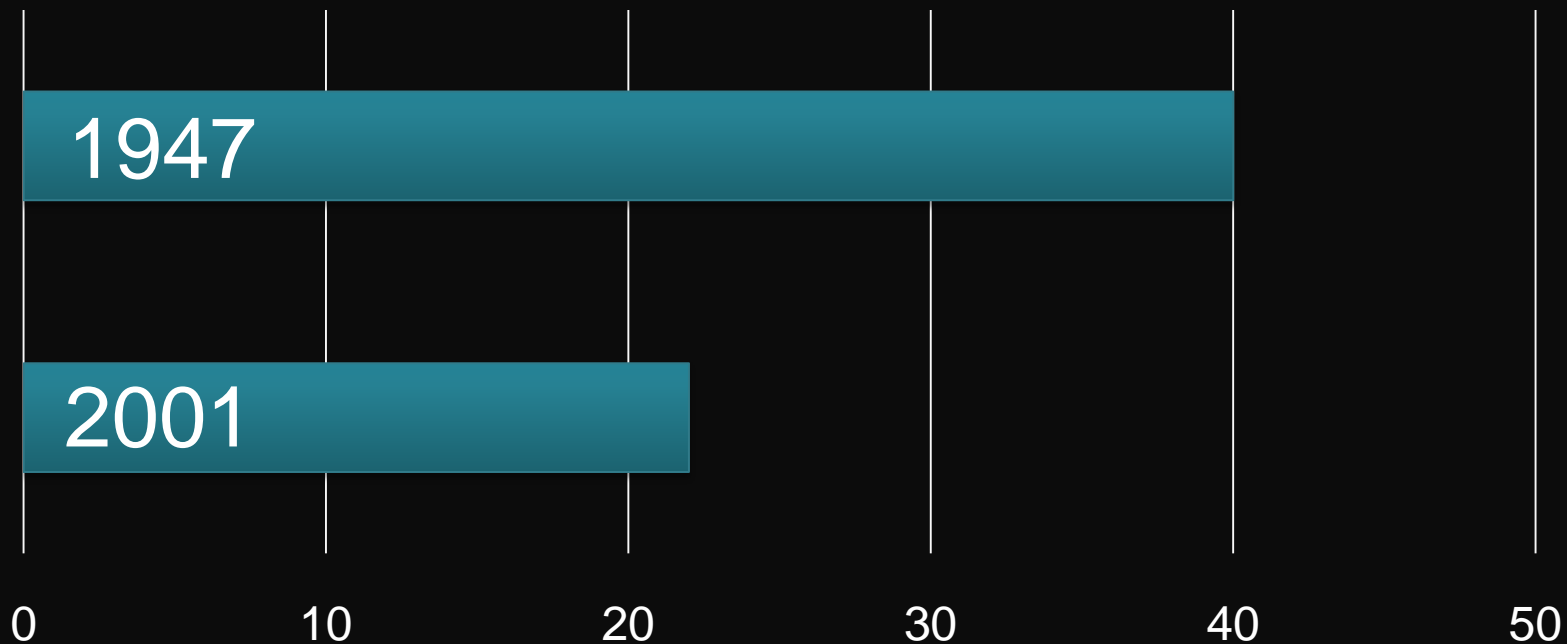
- 1947 to 2001



ChildofMidnight. 2009. *Milk Jugs in a Row*. Available on Wikimedia Commons.

# Milk consumption

- 1947 to 2001
- 45% decrease

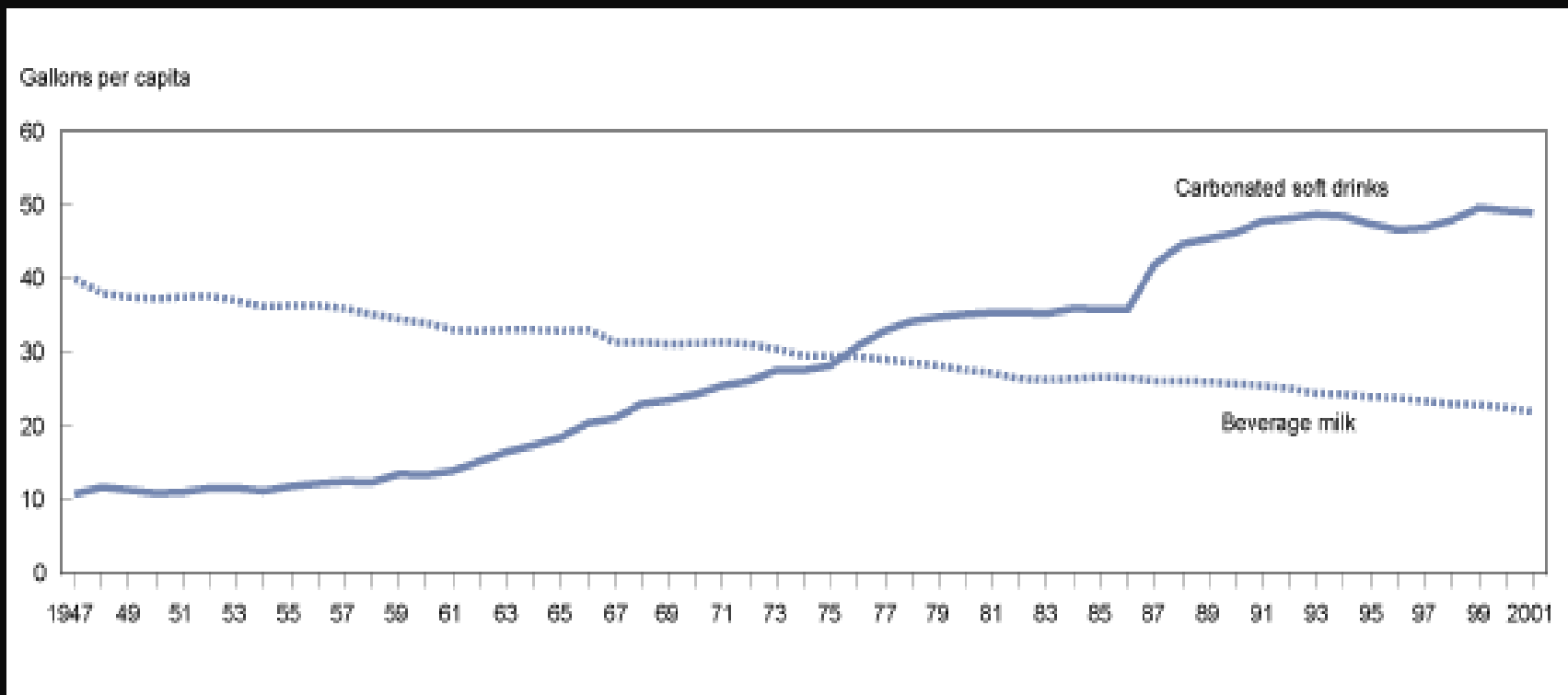


Gallons per person, per year

Source: USDA Economic Research Service. *U.S. per capita loss-adjusted food availability.*

# Soft drinks vs. milk

- 1947 to 2001



USDA Economic Research Service. 2004.

# Sugar consumption

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- 1970 to 2003



# Sugar consumption

- 1970 to 2003
- 19% increase



Pounds per person, per year

Source: Centers for Disease Control and Prevention. *Trends in intake of energy and macronutrients - United States, 1971-2000.*

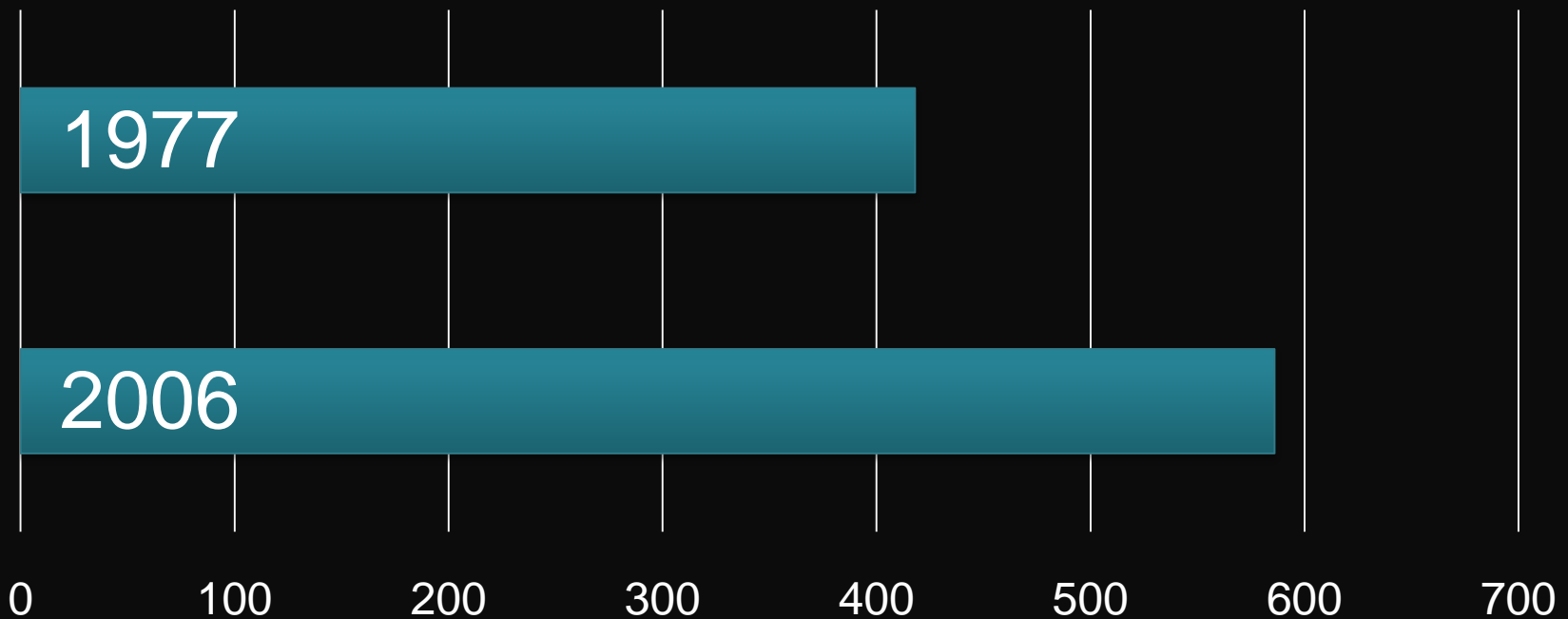
# Calories from snacks

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- Youth, 1977 to 2006

# Calories from snacks

- Youth, 1977 to 2006
- 40% increase



Calories per person, per day

Source: Farah Wells H, Buzby JC. *Dietary Assessment of Major Trends in U.S. Food Consumption, 1970-2005*.

# Food prepared away from home

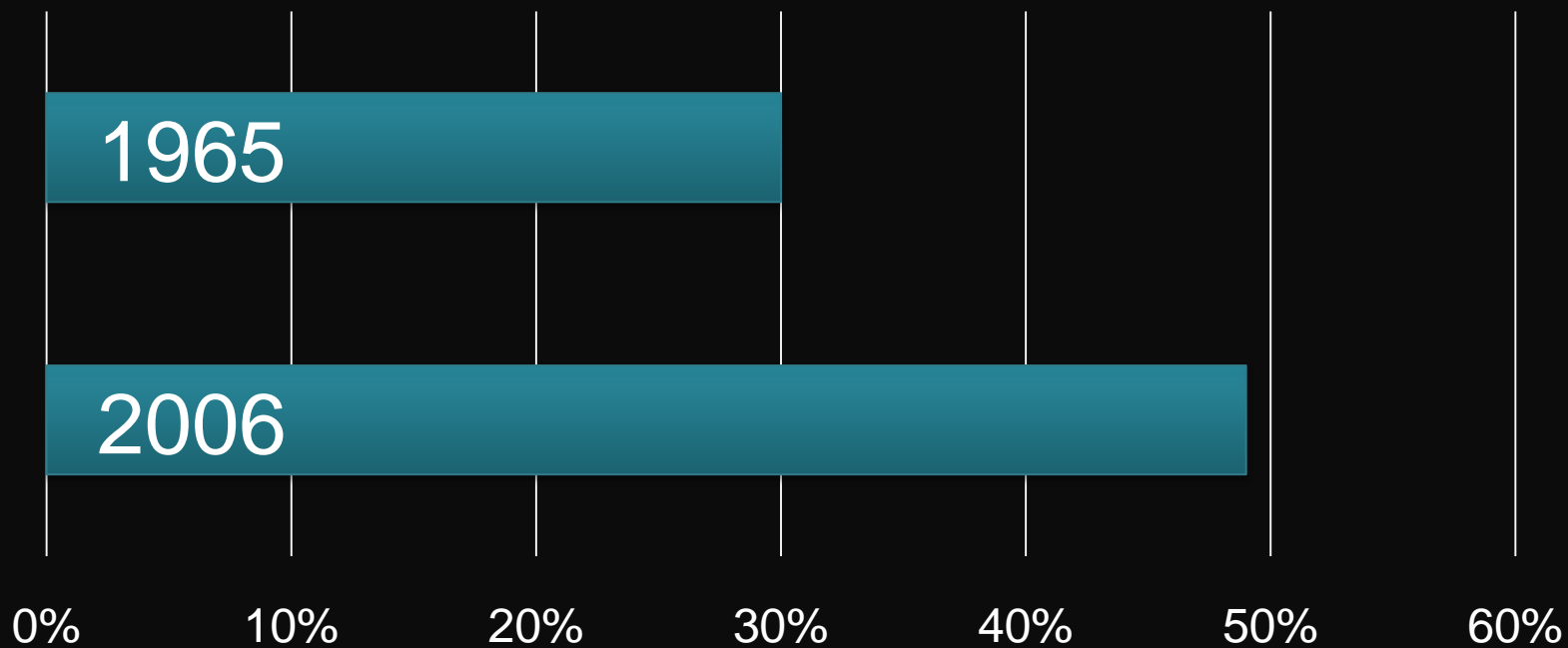
- 1965 to 2006



Ebru. 2007. *Fast food*. Available at Wikimedia Commons.

# Food prepared away from home

- 1965 to 2006
- 63% increase



Percent of food budget

Source: Ogden CL, Carroll MD, Curtin LR, Lamb MM, Flegal KM. *Prevalence of high body mass index in US children and adolescents, 2007-2008.*

# Vegetable consumption

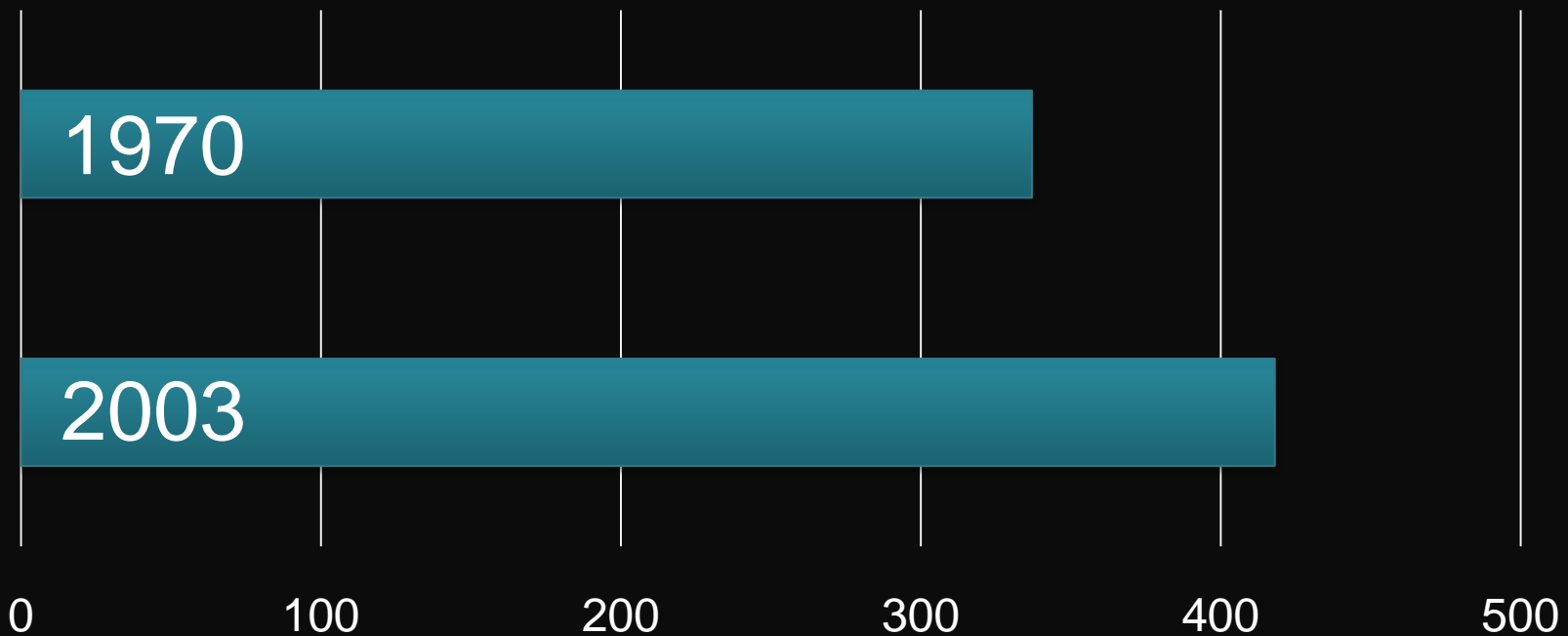
- 1970 to 2003



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# Vegetable consumption

- 1970 to 2003
- 24% increase



Pounds per person, per day

Source: Centers for Disease Control and Prevention. *Trends in intake of energy and macronutrients - United States, 1971-2000.*

# Fruit consumption

- 1970 to 2003

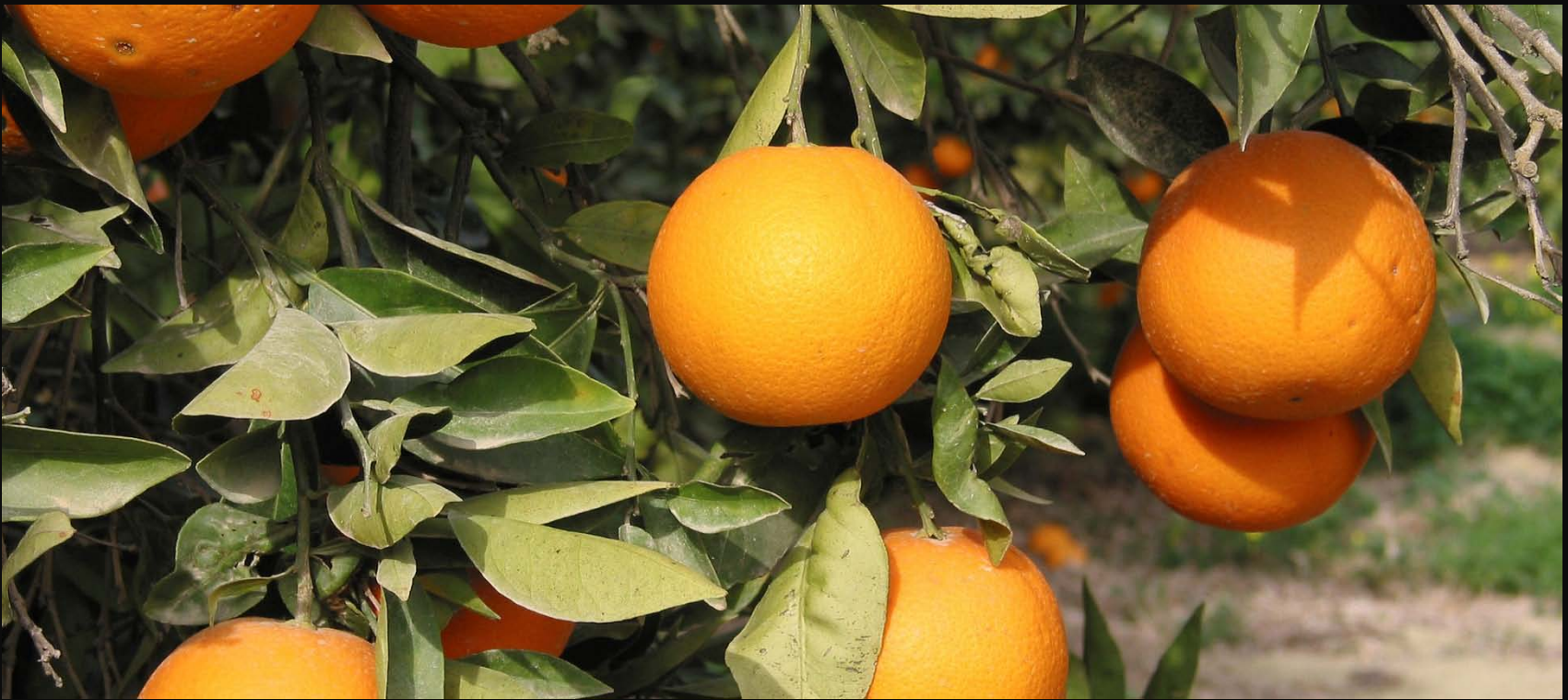
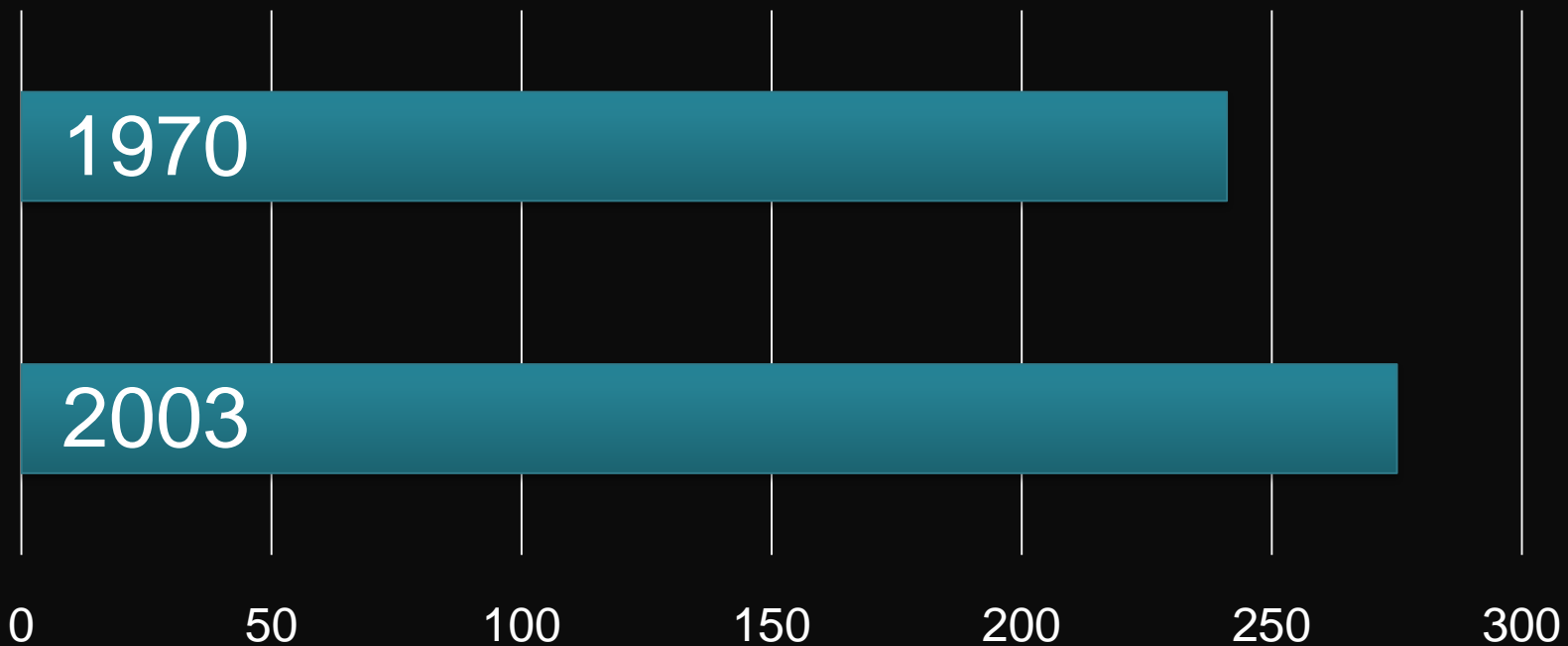


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# Fruit consumption

- 1970 to 2003
- 12% increase



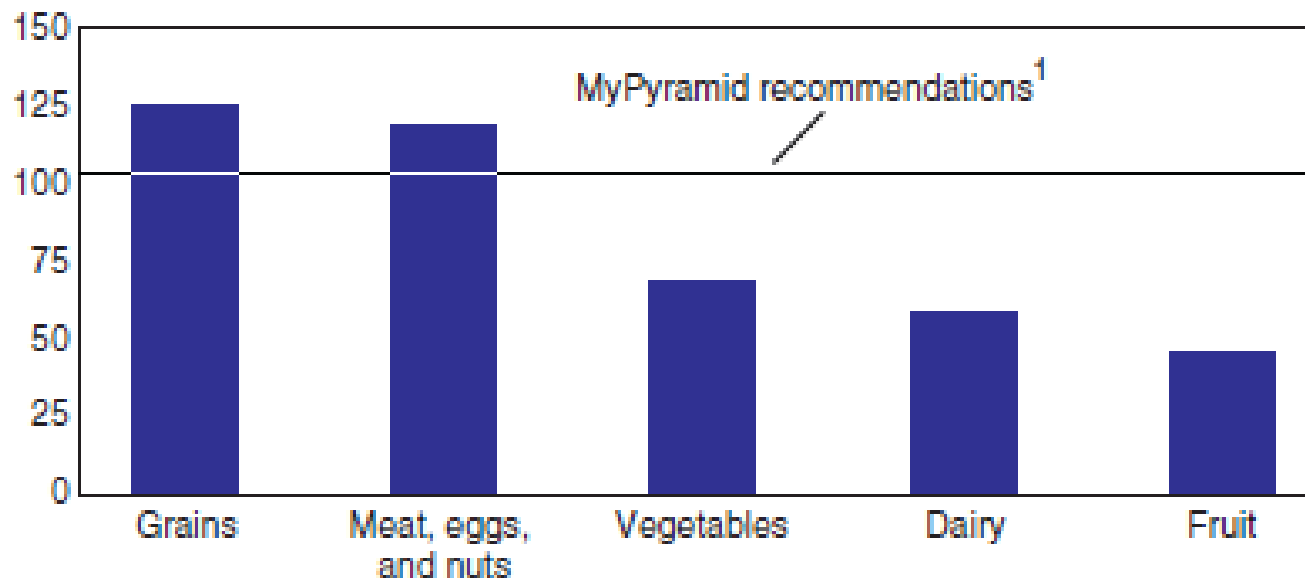
Pounds per person, per day

Source: Centers for Disease Control and Prevention. *Trends in intake of energy and macronutrients - United States, 1971-2000.*

# Fruit and vegetable consumption

## Loss-adjusted per capita food availability out of balance with dietary recommendations

Percent of recommendation



Source: USDA, ERS Food Availability (Per Capita) Data System.

# Summary

- Too much:
  - Refined grains
  - Added fats
  - Added sugars
  - Sodium
- Not enough:
  - Vegetables
  - Fruits
  - Fiber



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Diet and health

Trends in American diets

- Influences on food choice

Improving American diets

# Individual influences

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- Hunger
- Taste
- Income
- Knowledge
- Emotions
- Health conditions
- Values

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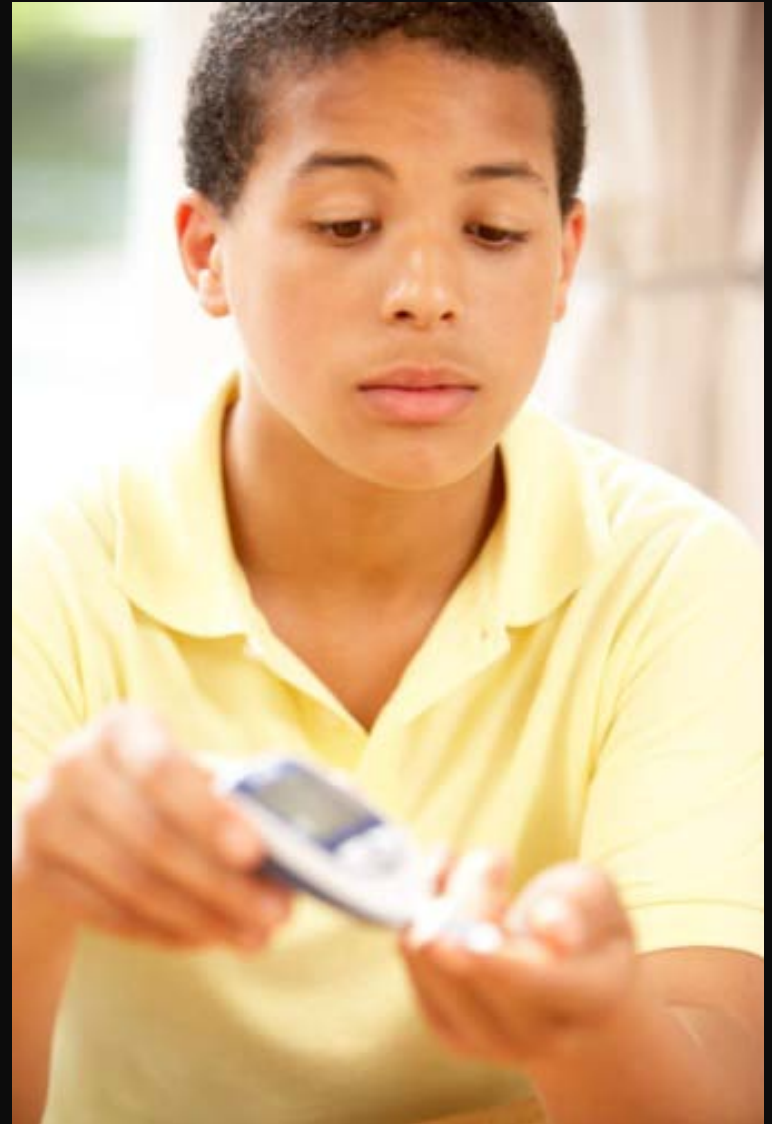


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# Individual influences

- Hunger
- Taste
- Income
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- Emotions
- Health conditions
- Values



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# Social influences

- Friends
- Family
- Coworkers
- Peers



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# Cost

- Are healthy diets affordable?



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# Food environments



Left, center: Images copyright. Right: Lean S. Pigtown: *All things Baltimore*. 2009. [www.sustainablecitiescollective.com](http://www.sustainablecitiescollective.com). Used with permission.

# Food marketing and labeling

- Billboards
- Internet
- Television
- Packaging



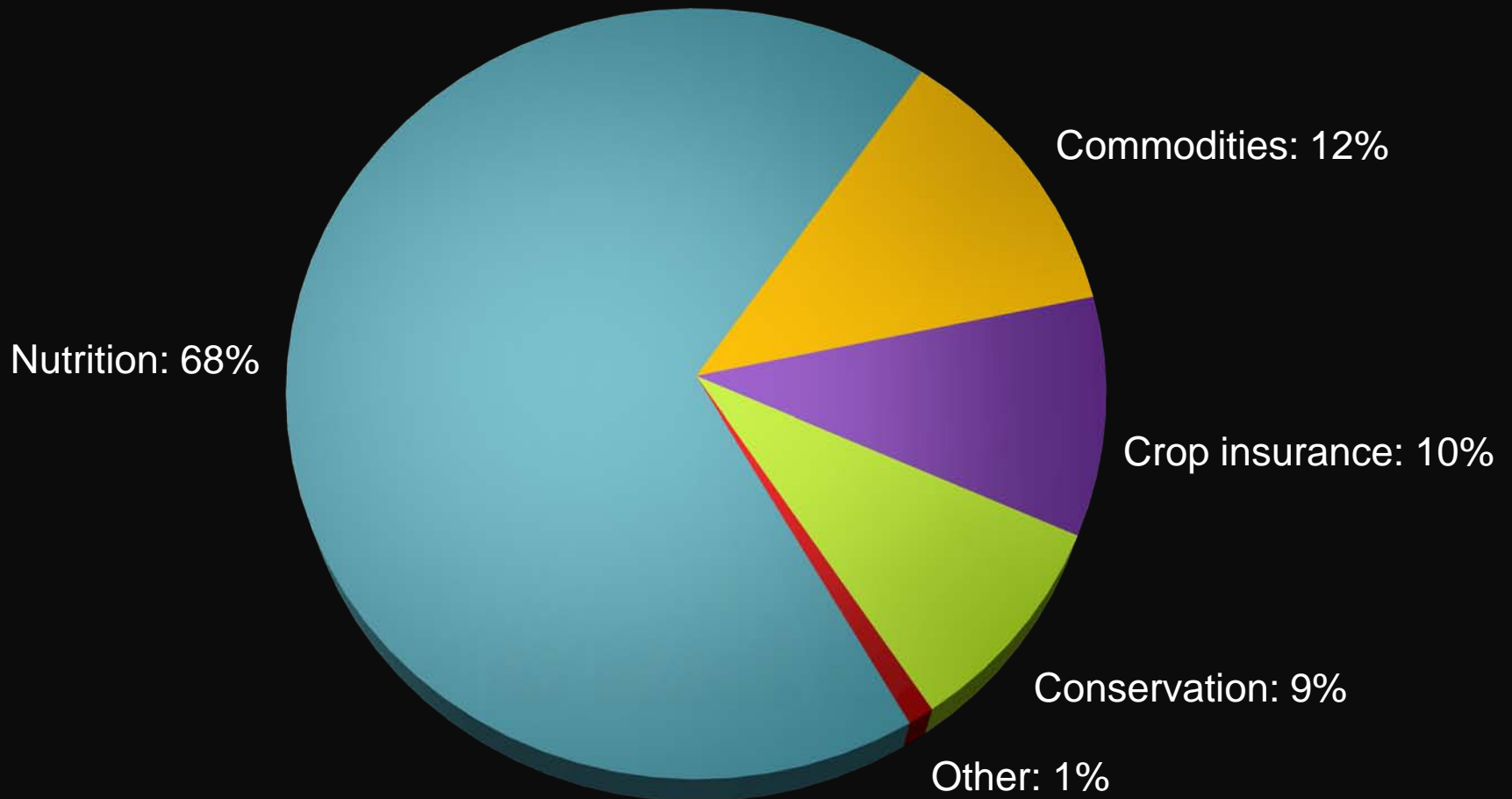
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# Food and agricultural policy



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# Farm Bill



Source: USDA ERS.

# Farm subsidies

## Corn



## Wheat



## Cotton

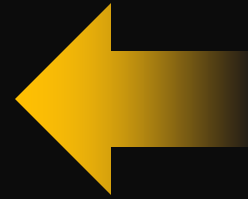


## Soybeans



Soybeans, cotton: USDA ARS. Wheat, corn: Images copyright. Data source: Environmental Working Group.

# Farm subsidies



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# Reducing childhood obesity

- Discount nutrient-rich foods
- Change social norms
- Reduce marketing to children
- Simplify nutrition advice
- Change food environments



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# Meatless Monday

- “One day a week, cut out meat.”

