

# Psychology's Role in Addressing the Childhood Obesity Epidemic



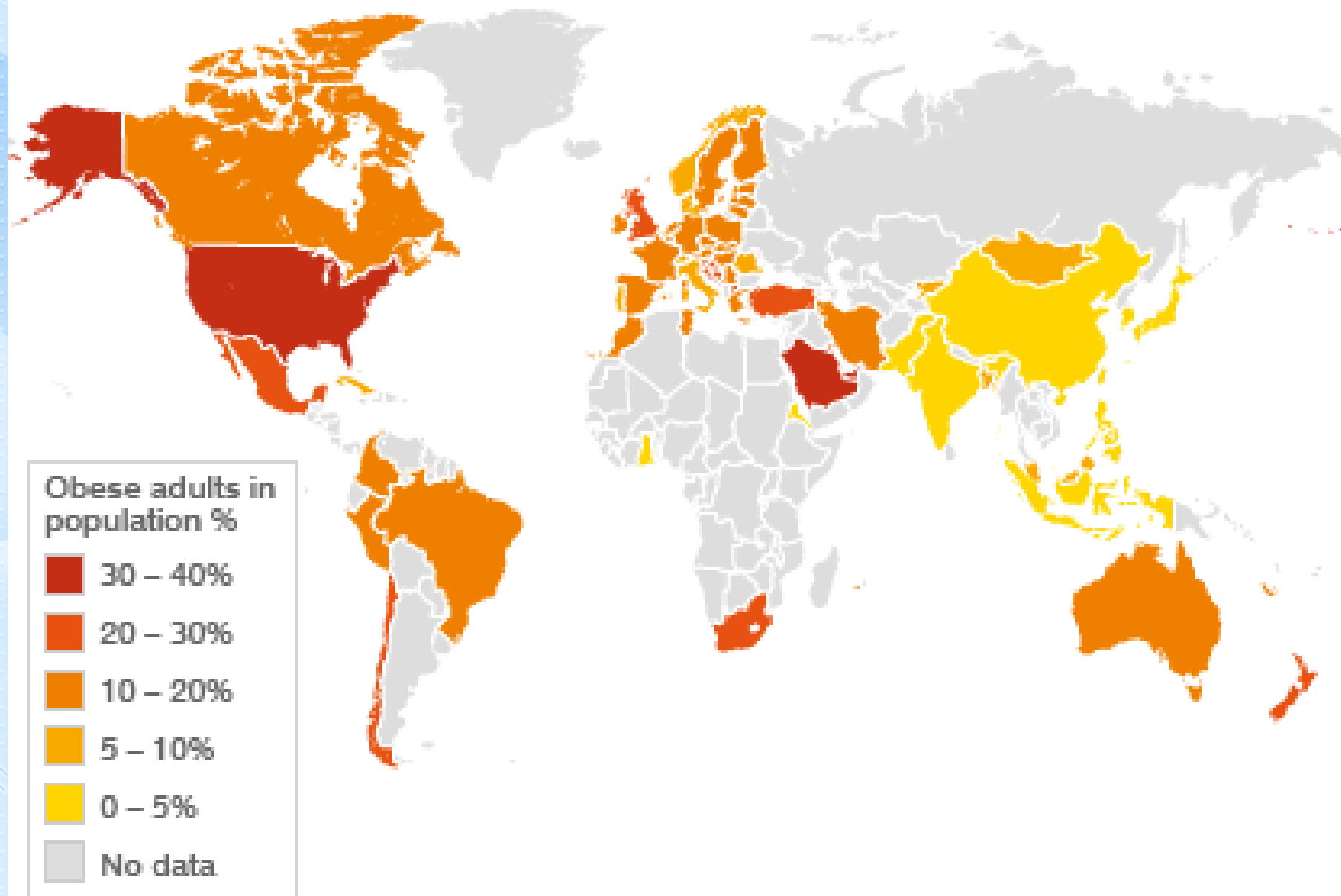
Suzanne Bennett Johnson  
2012 APA President  
[sbjohnson@apa.org](mailto:sbjohnson@apa.org)



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## THE GLOBAL OBESITY PROBLEM



An obese adult is classified as having a Body Mass Index equal to or greater than 30

SOURCE: World Health Organization, 2005

# Obesity: U.S. Leads the World

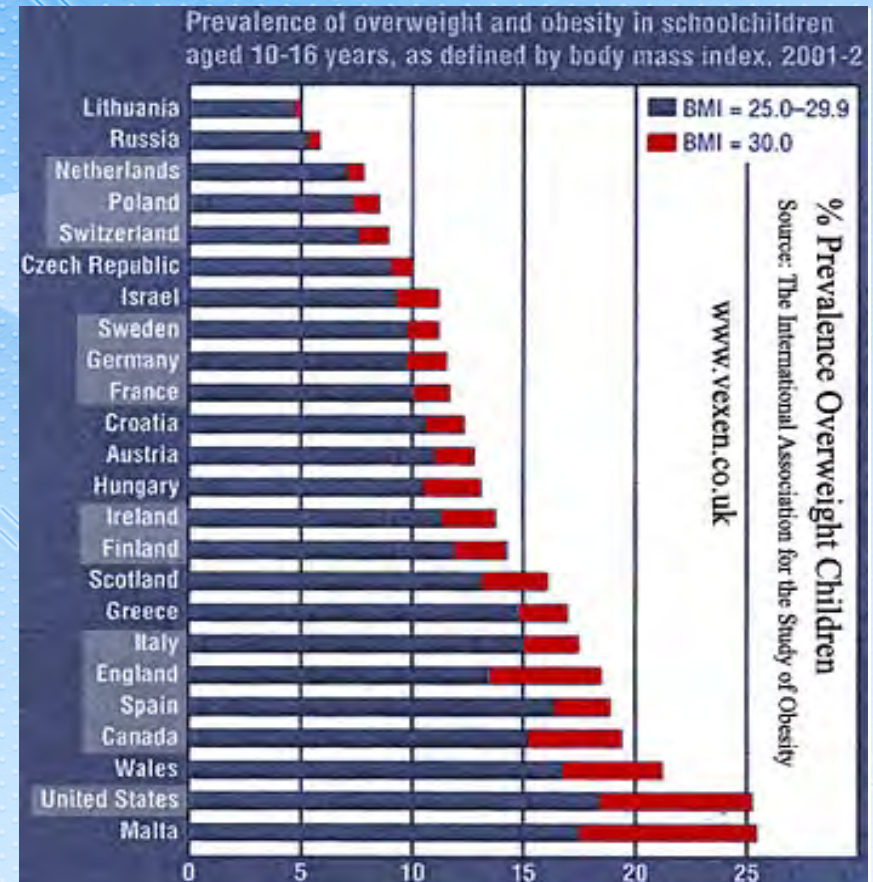
## Adult Obesity



**Figure 1.** Percentage of obese and overweight population by country.

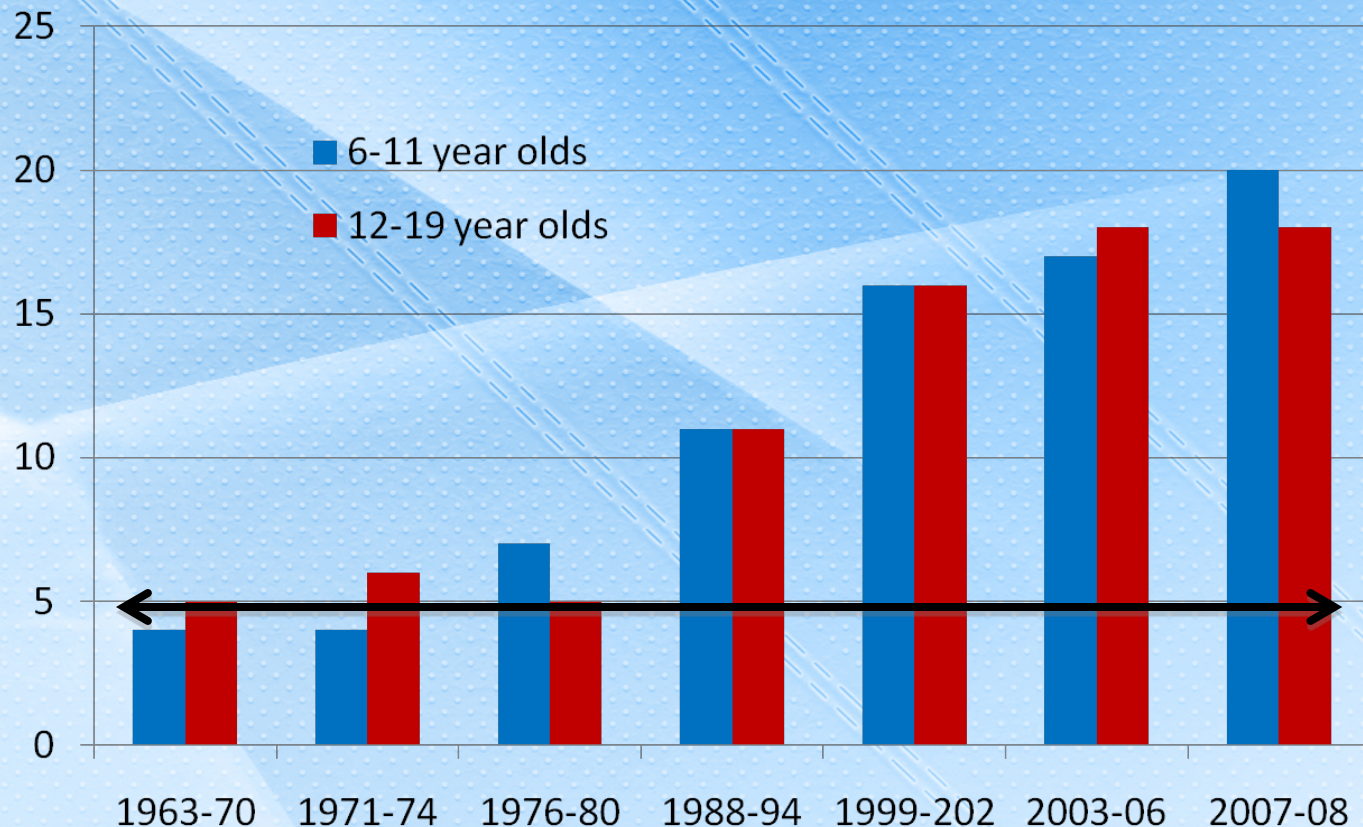
Source: OECD Health Statistics, 2004.

## Childhood Obesity



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# Obesity Trends in U.S. Children

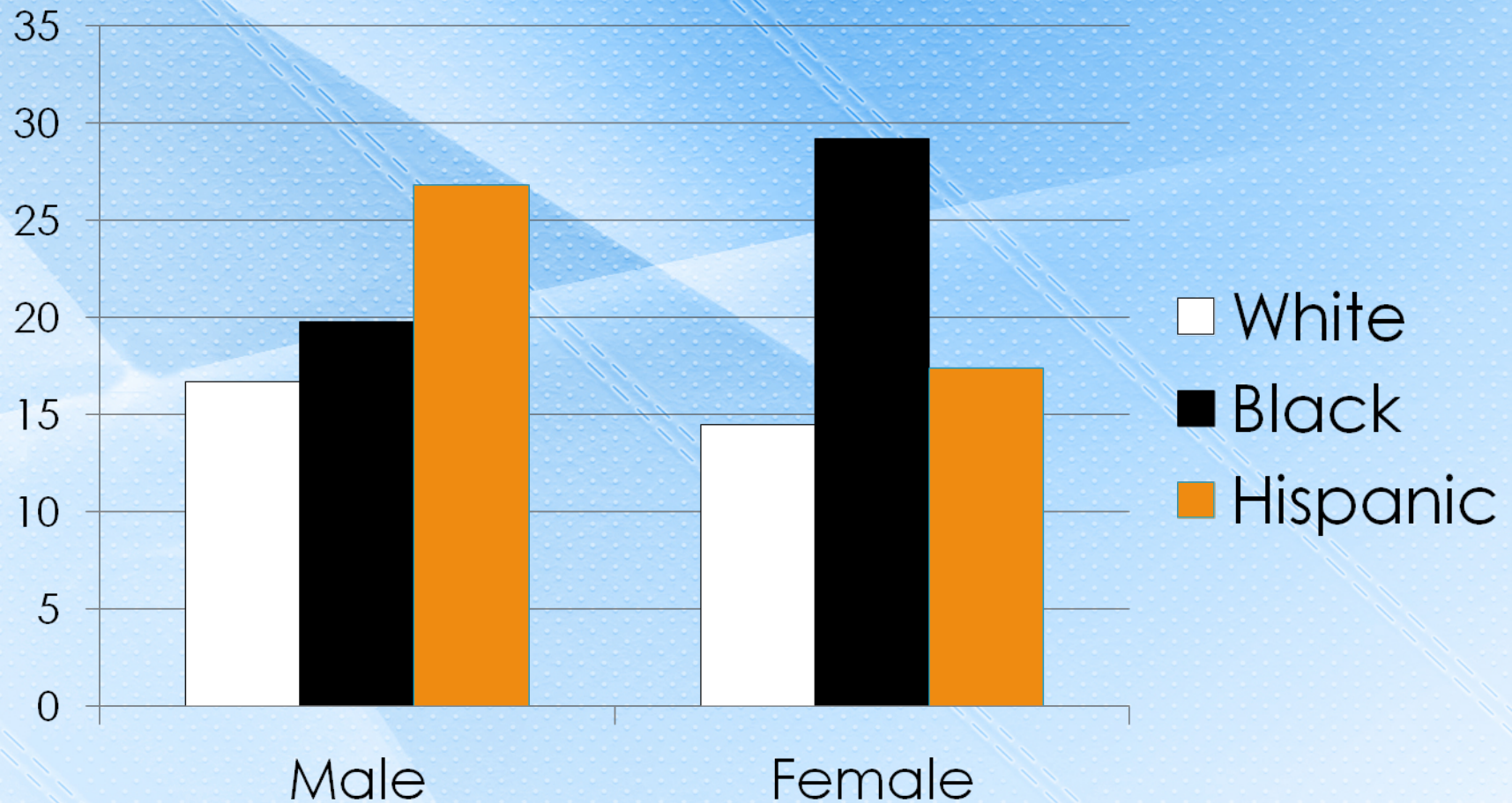


Source: C. Ogden & M. Carroll. (2010). *Prevalence of Obesity Among Children and Adolescents: United States, Trends 1963-1965 Through 2007-2008* [Division of Health and Nutrition Examination Surveys]. CDC:  
[http://www.cdc.gov/nchs/data/hestat/obesity\\_child\\_07\\_08/obesity\\_child\\_07\\_08.htm](http://www.cdc.gov/nchs/data/hestat/obesity_child_07_08/obesity_child_07_08.htm)





# U.S. Adolescent Obesity: Gender and Ethnicity

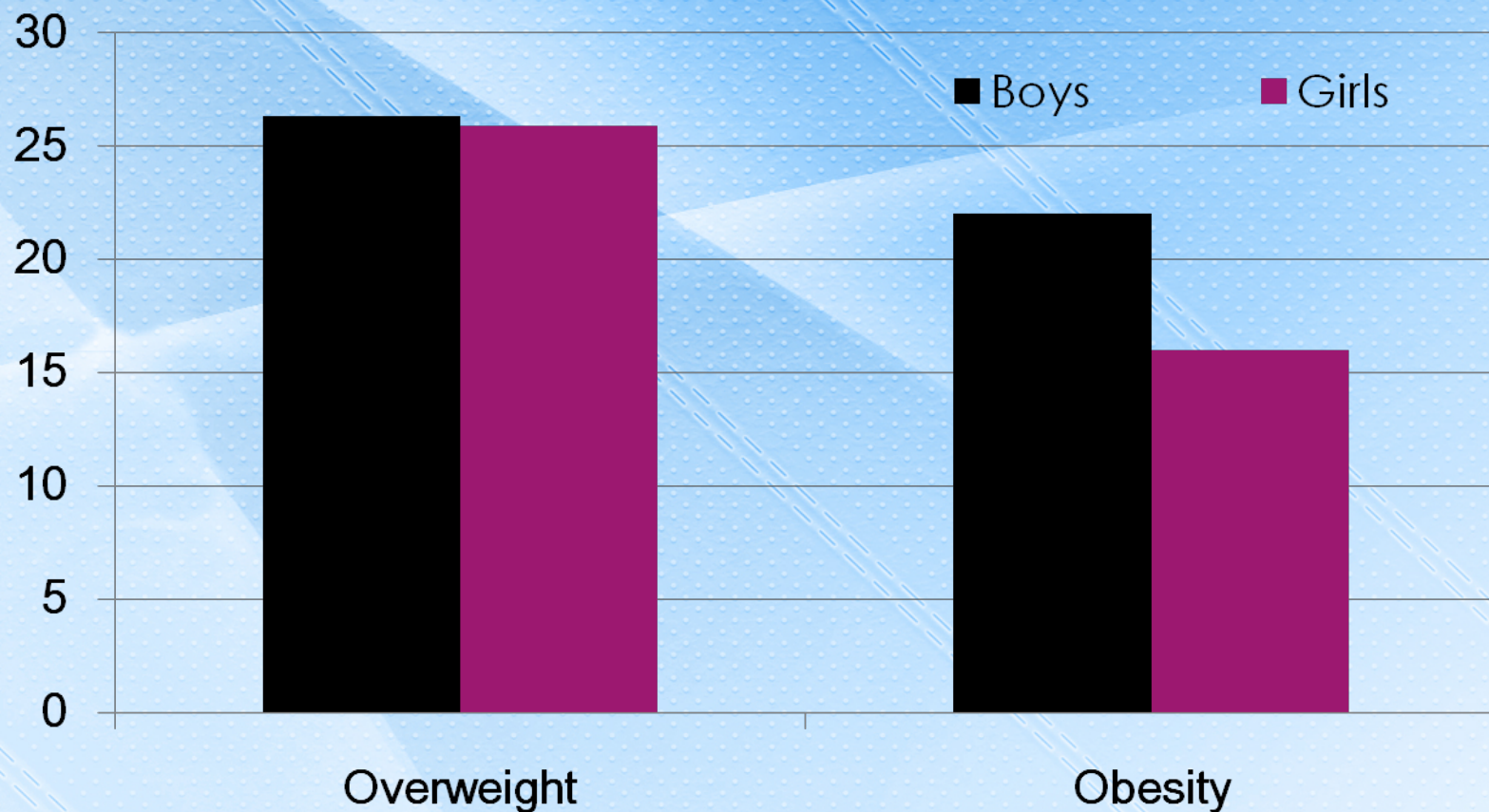


NHANES 2007-2008



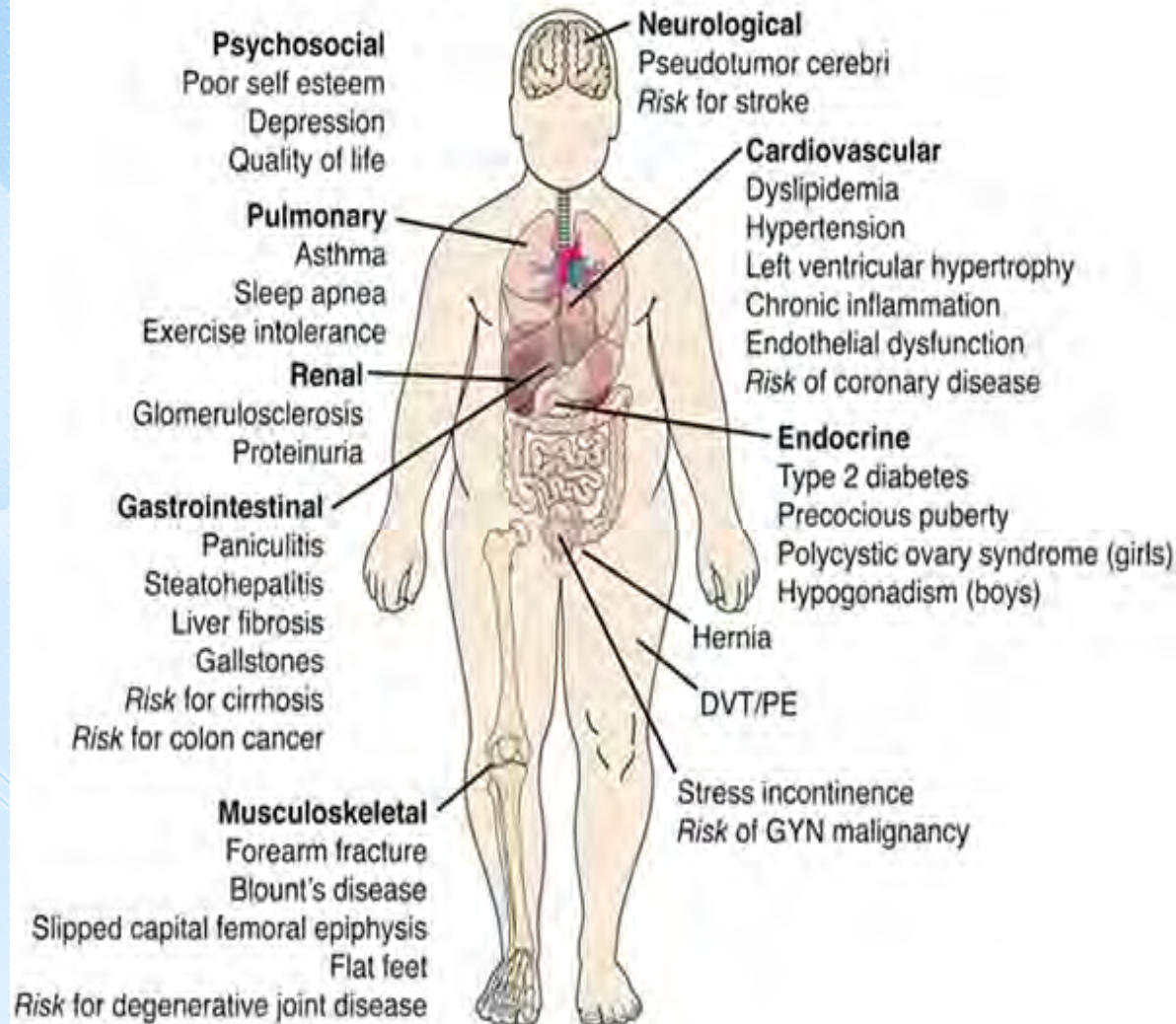
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# % Overweight and Obesity in 6-9 Year Old Spanish Children

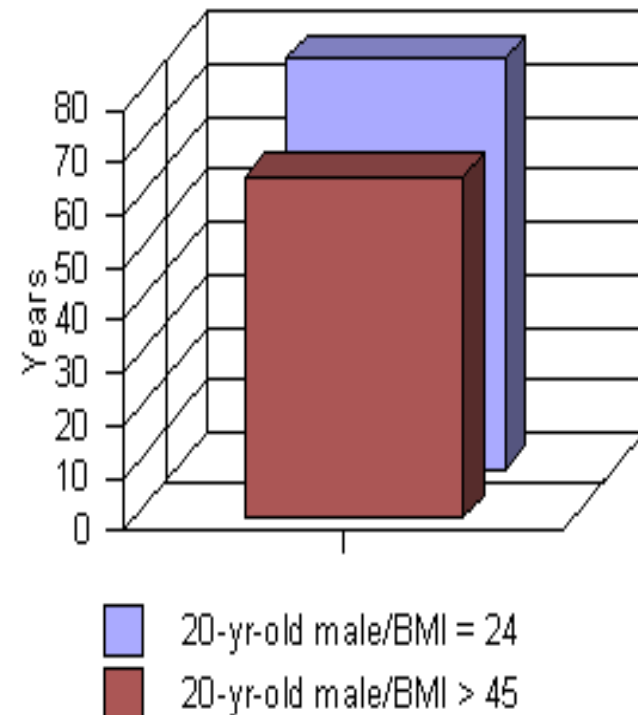


# Health Consequences of Obesity

## Complications of Childhood Obesity

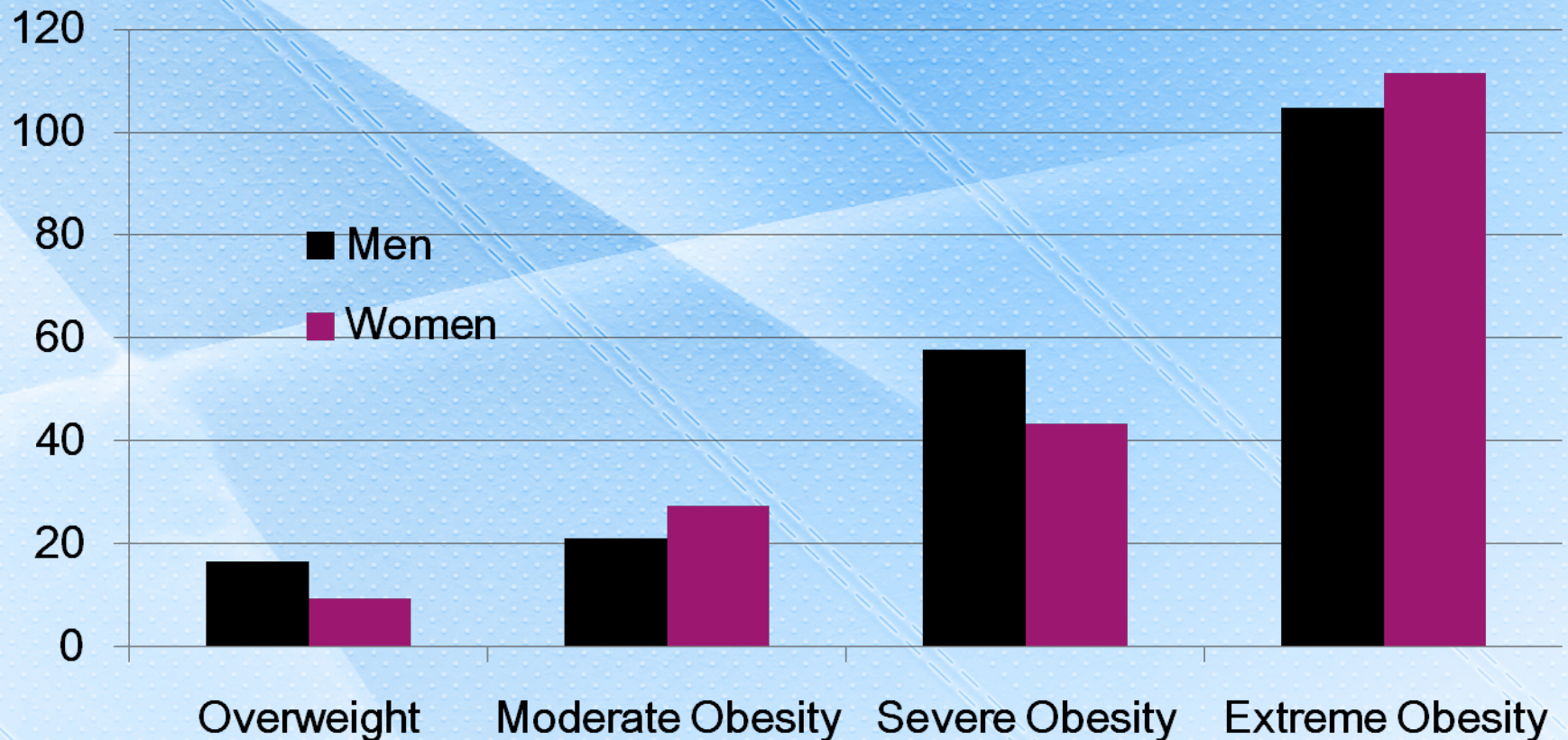


## Life Expectancy





# Percent Above Normal Weight Individuals' Annual Health Care Costs by Obesity Status and Gender



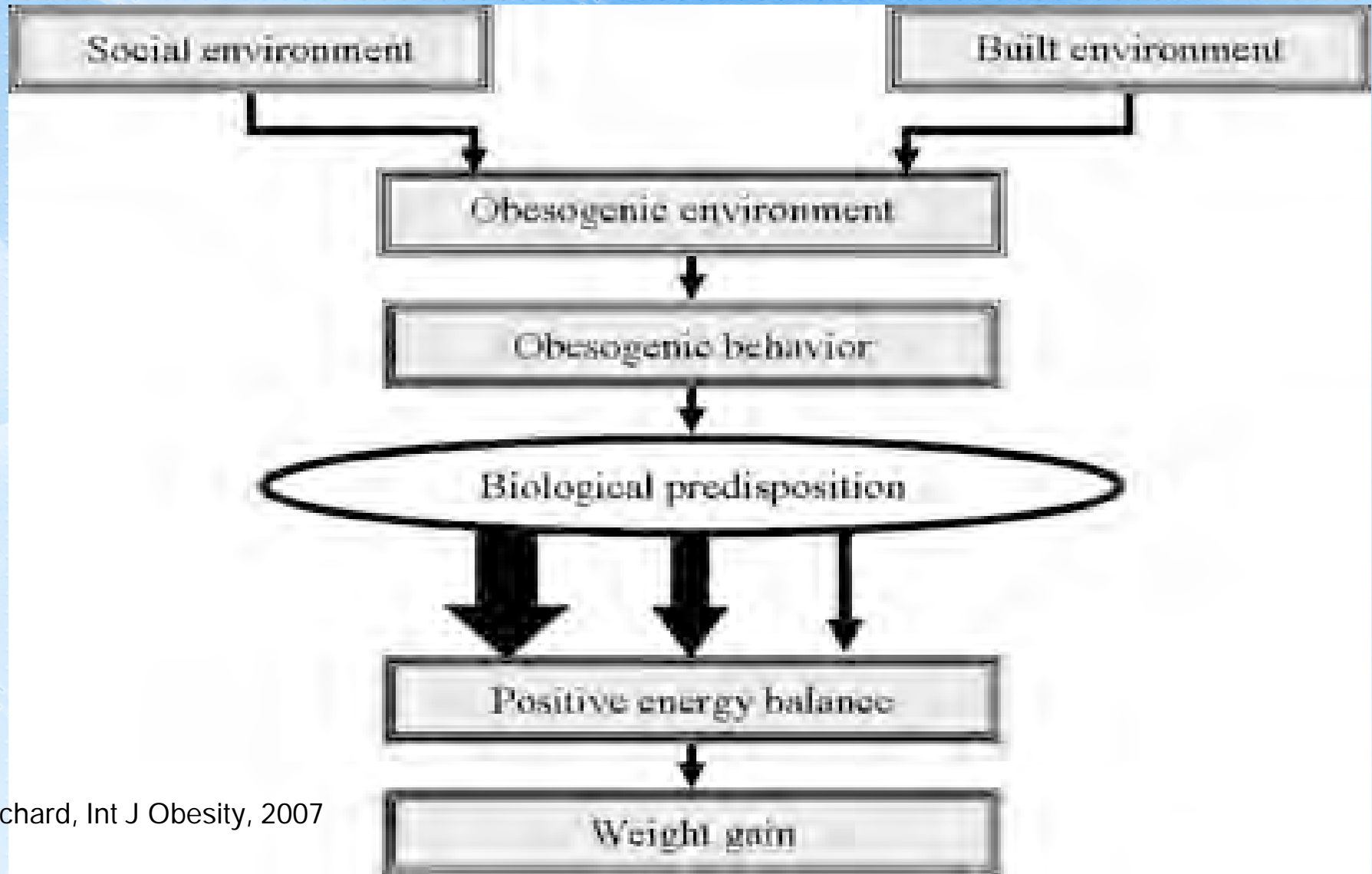


# Obesity in the United States

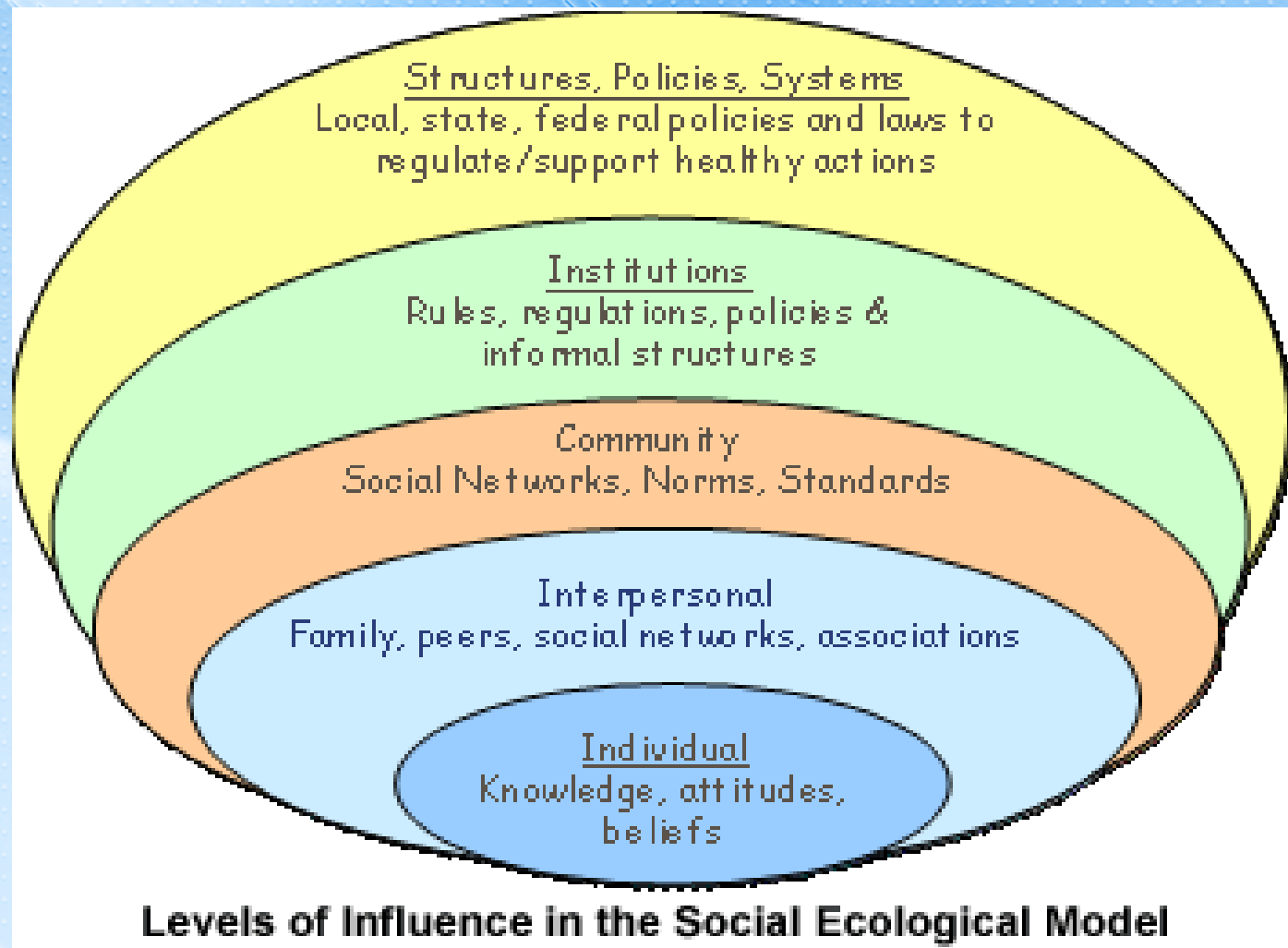
- ⊙ Is the second leading cause of death in U.S. and expected to become the leading cause
- ⊙ Will result in decreased U.S. life expectancy for first time in a century
- ⊙ Is causing a diabetes epidemic
  - ⊙ 33% of boys & 39% of girls born in 2000 will develop diabetes in their lifetime
  - ⊙ 50% of African-American girls born in 2000 will develop diabetes in their lifetime
- ⊙ Is expected to bankrupt the U.S. health care system



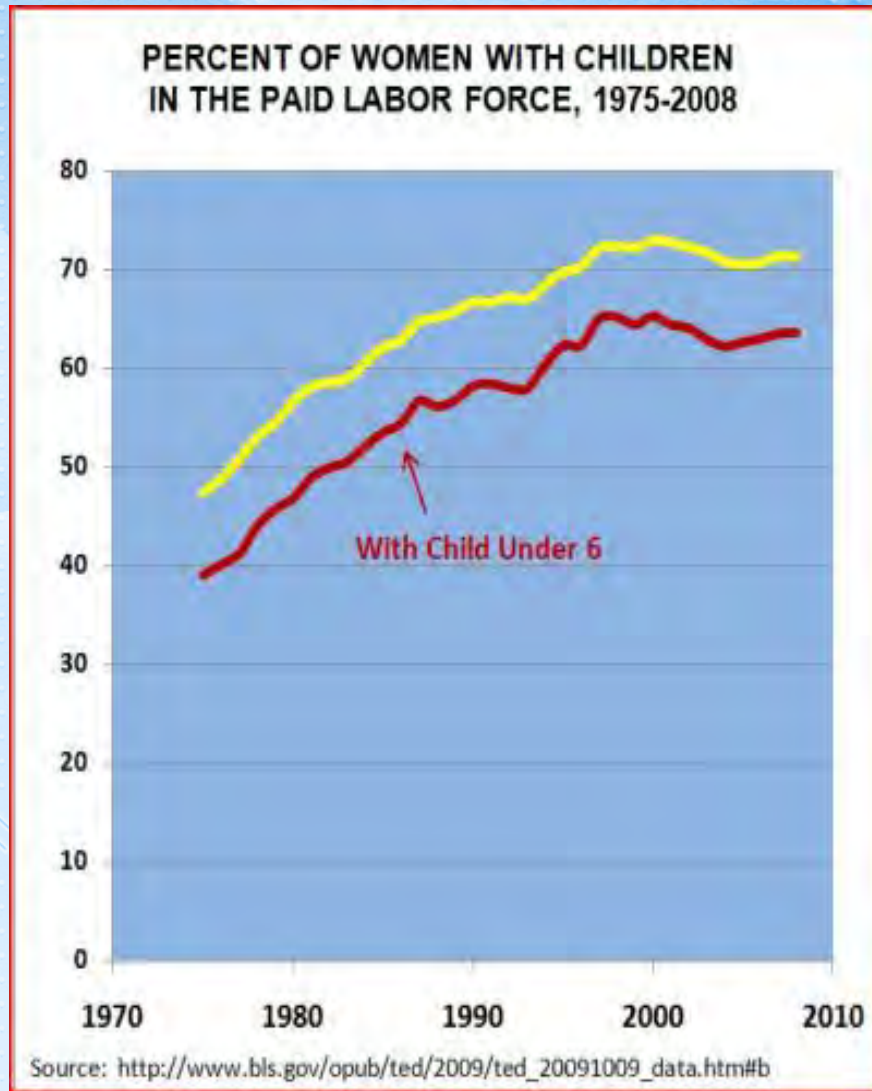
# The U.S. Childhood Obesity Epidemic: How Did This Happen?



# The Obesogenic Environment: A Socio-Ecological Perspective



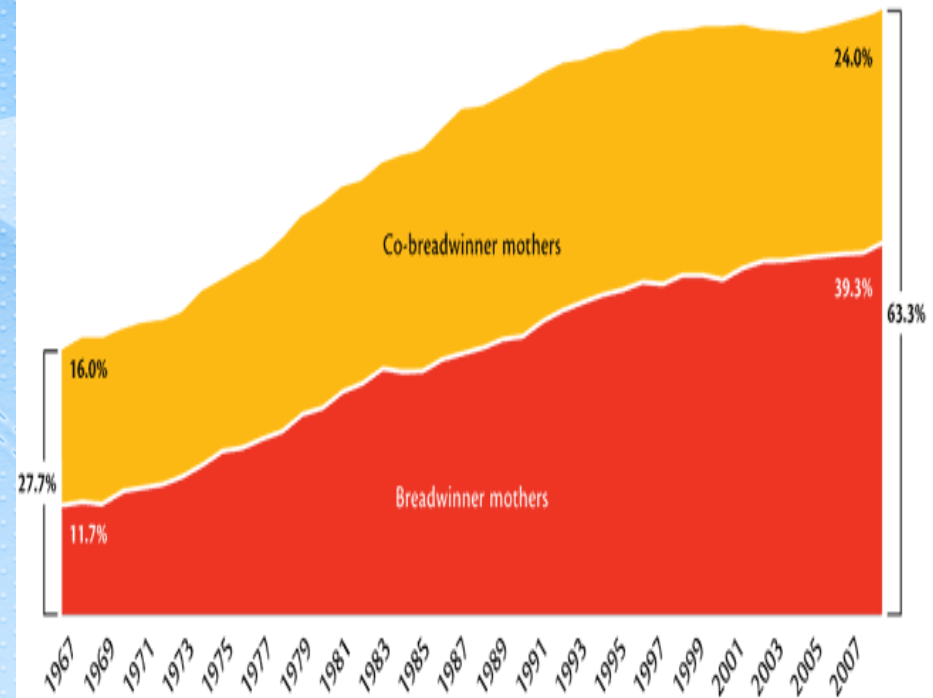
# Factors Promoting Increased Calorie Consumption: Increase in US Working Mothers



**FIGURE 2**

## The new workforce

*Share of mothers who are breadwinners or co-breadwinners, 1967 to 2008*



Source: See Table 1.

Notes: Breadwinner mothers include single mothers who work and married mothers who earn as much as or more than their husbands. Co-breadwinners include all breadwinners as well as wives who bring home at least 25 percent of the couple's earnings. The data only include families with a mother who is between the ages of 18 and 60 and who has children under age 18 living with her.



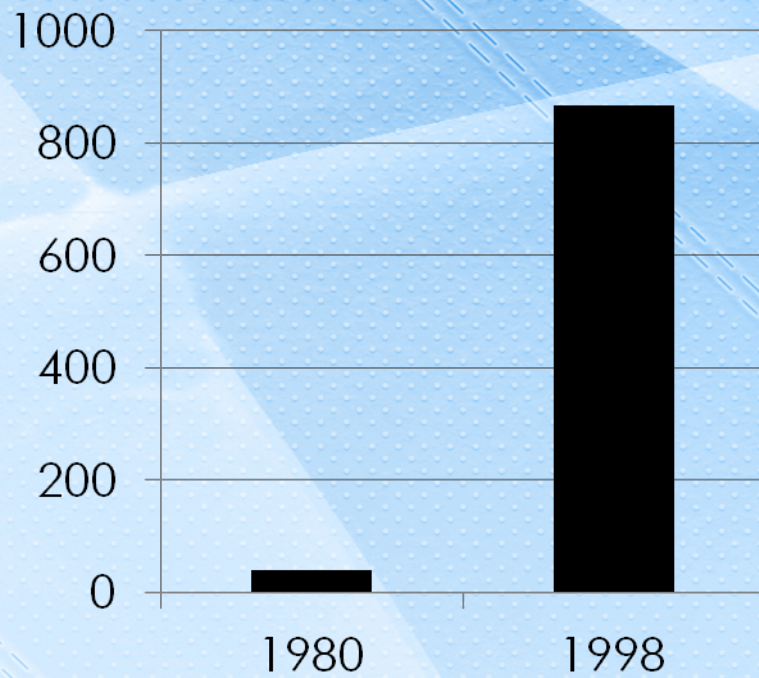
# Factors Promoting Increased Calorie Consumption: Rise of the US Fast Food Industry

- ◎ Number of per capita fast food restaurants doubled between 1972 and 1997 in the U.S.
- ◎ % family's food budget spent on dining out:
  - 1960's: 21%
  - 2008: 42%
- ◎ 30% of US children eat fast food every day
- ◎ Per capita calories in the U.S.
  - 1970: 3250 per day
  - 1997: 3800 per day

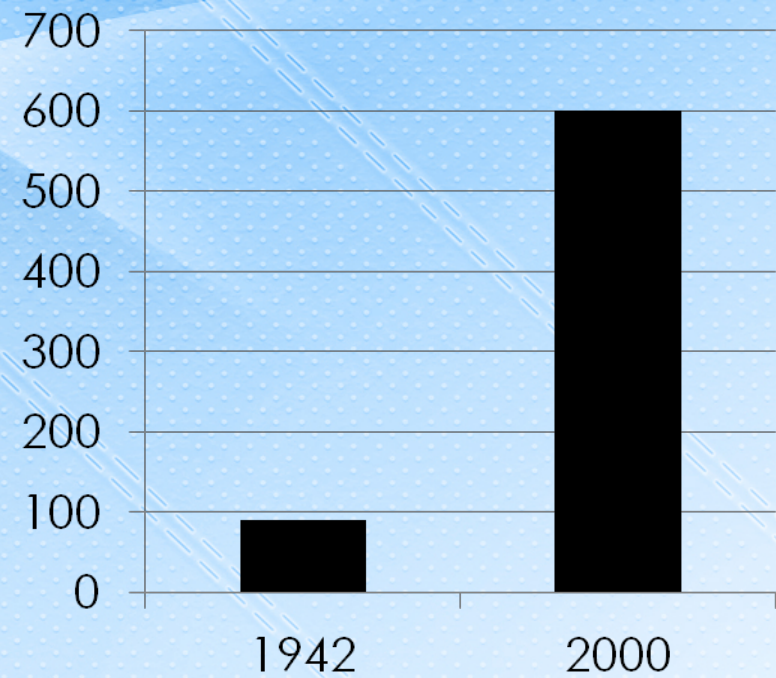


# Factors Promoting Increased Calorie Consumption: Rise of the US Soda Industry

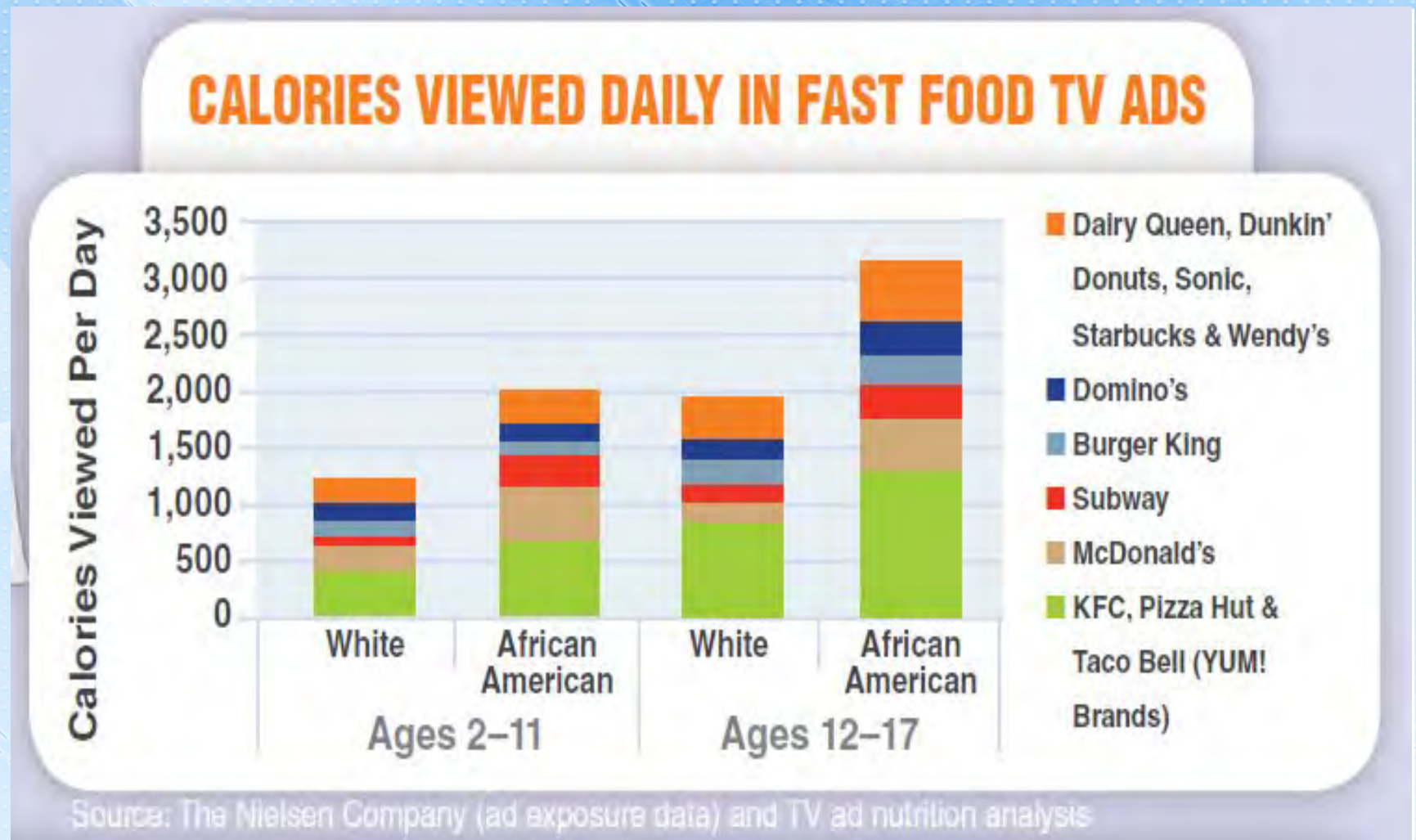
**Per Capita Consumption of High Fructose Corn Syrup (lbs)**



**Annual Per Capita Production of 8 oz Servings of Soft Drinks**



# Factors Promoting Increased Calorie Consumption: Marketing Fast Food to Youth





# Factors Promoting Increased Calorie Consumption: US Farm Subsidies

- ◎ US farm subsidies result in mega farms producing so much corn and soybeans that high fructose corn syrup, hydrogenated fats from soybeans, and corn-based feed is kept artificially low, resulting in low prices for fast food, corn-fed beef and pork, and soda
- ◎ No such subsidies exist for fresh fruits and vegetables which are produced in much lower quantities at higher cost to the public

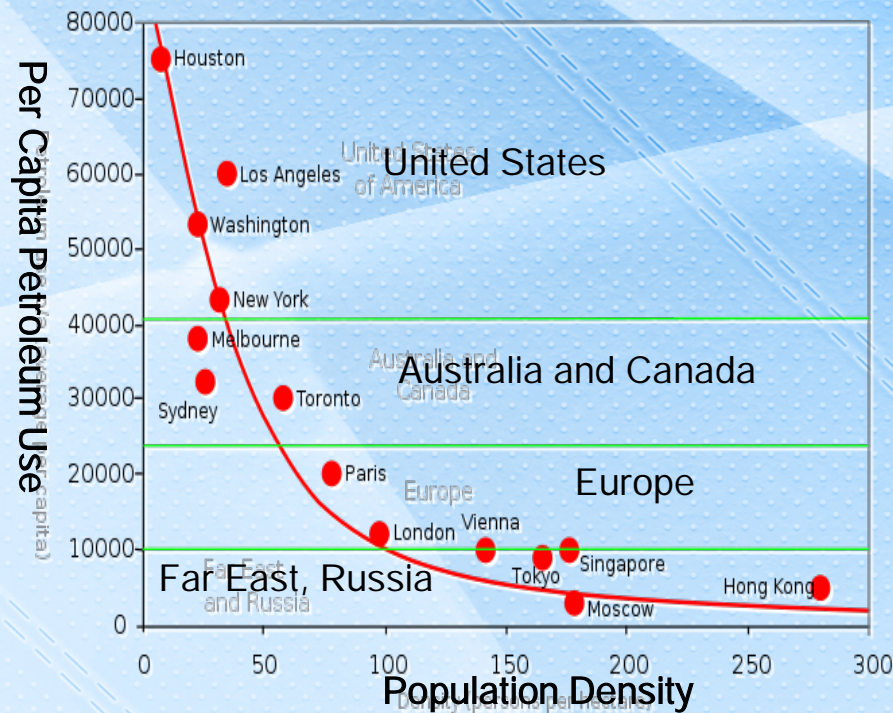




# Factors Associated with Decreased Physical Activity: Suburban Living

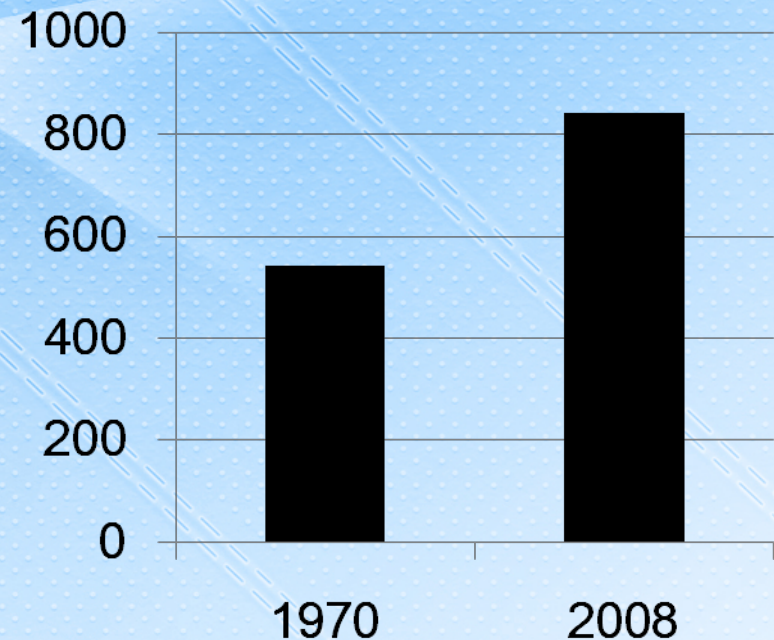
## Relationship between Transport and Land Use

A commonly used study of 32 cities by Newman & Kenworthy in 1989 concluded that there was a strong link between urban development densities and petroleum consumption.



Urban Task Force Partnership: Toward an Urban Renaissance, 1999  
Annual petroleum use per capita adjusted to US \$1 (1990)  
After Andrew Wright Associates, final section taken from 'Towards an Urban Renaissance', 1999

## US Vehicles per 1000 people



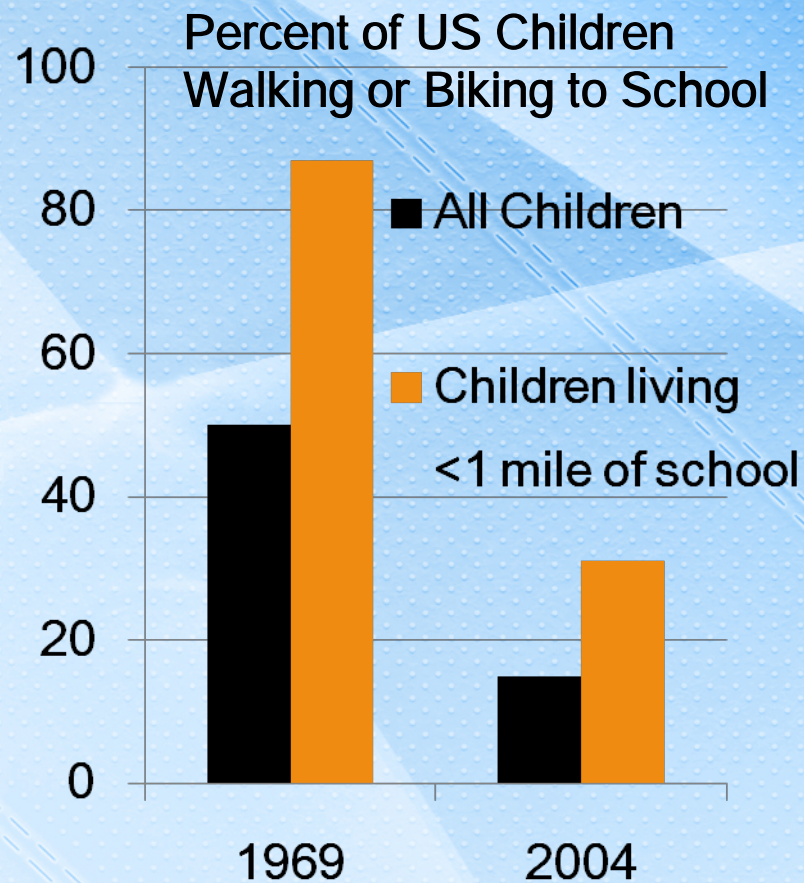
US Dept of Transportation, 2008



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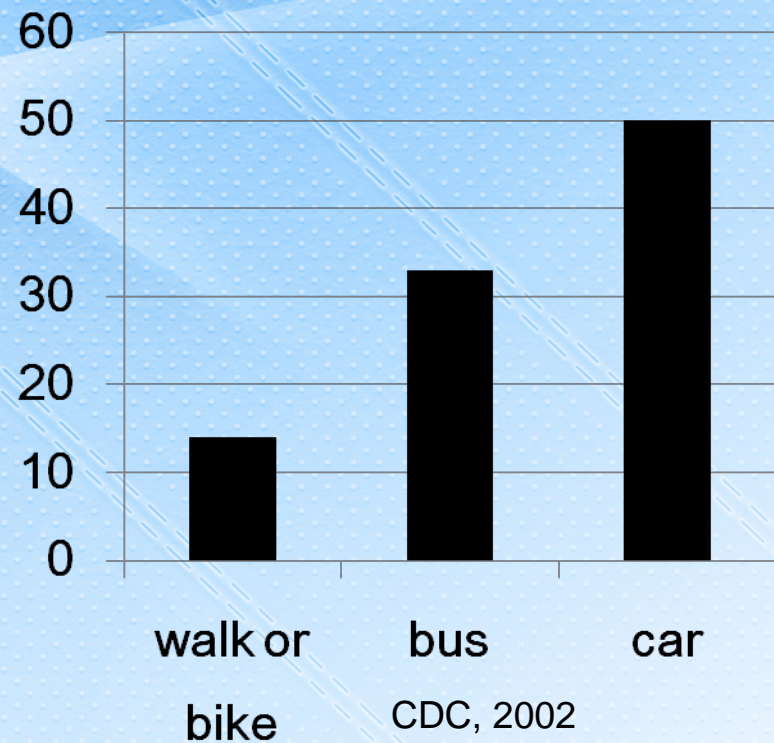


# Factors Associated with Decreased Physical Activity: School Transportation



CDC, 2005

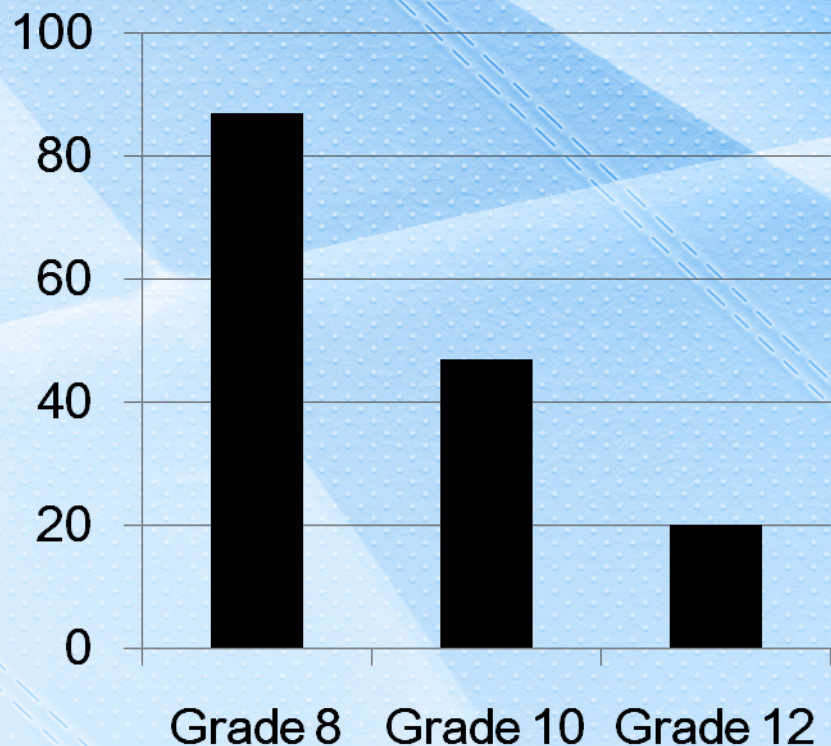
US School Transportation (1999): Percent of Children



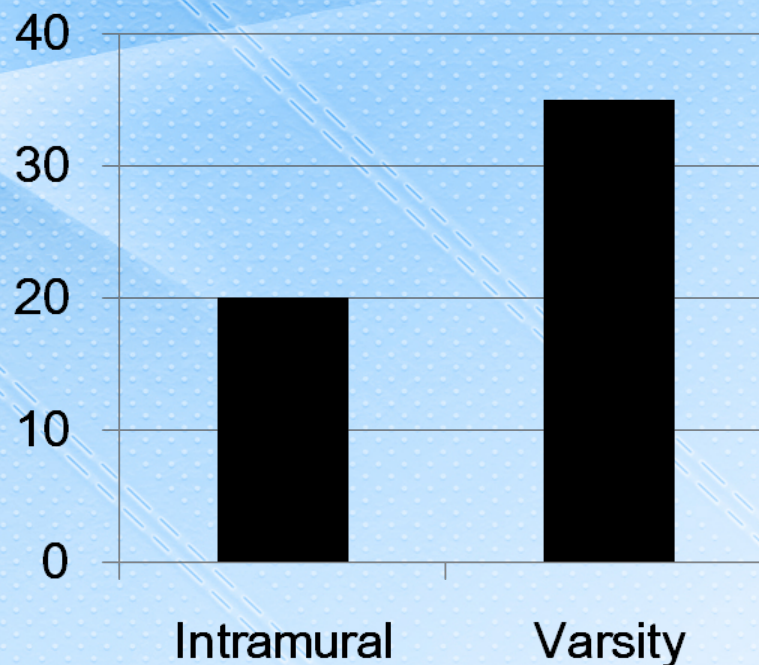
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# Decreased Physical Activity at School

**Percent of US Schools  
Requiring Physical  
Education by Grade**



**Percent of US High  
School Students  
Participating in School  
Sports**





# Factors Associated with Decreased Physical Activity: US Policies

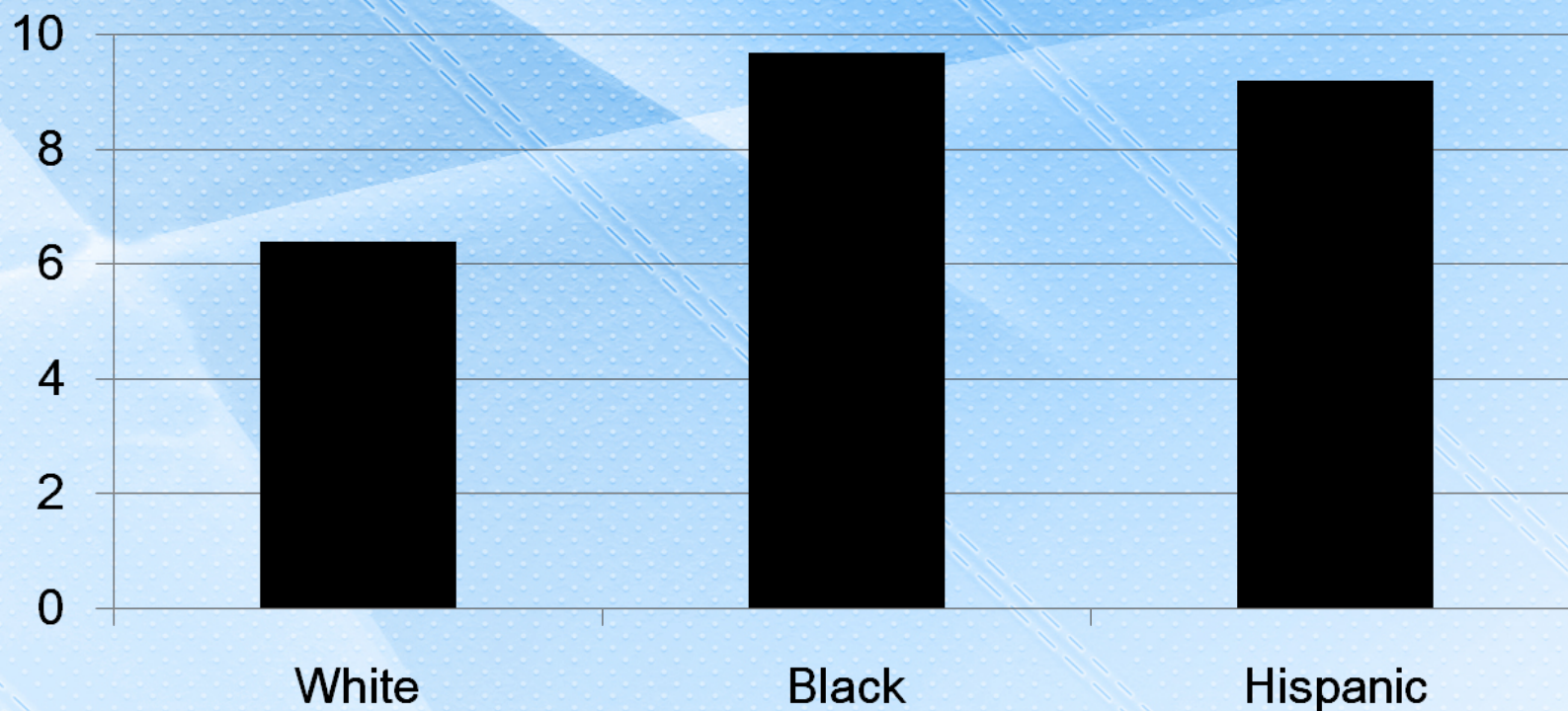
- ◎ US Department of Transportation spends most of its money on highways
- ◎ Traffic concerns are one of the primary reasons parents do not allow their children to walk or bike to school
- ◎ No Child Left Behind policy resulted in decreased access to physical education and recess as schools focus on high stakes testing





# Factors Associated with Decreased Physical Activity: Escalating Leisure Time Media Use

Hours Per Day Among 8-18 Year Olds





# Childhood Obesity Can Be Prevented & Treated

- ◎ 2011 Cochrane Review found “strong evidence to support beneficial effects of child obesity prevention programmes on BMI, particularly for programmes targeted to children six to 12 years”
- ◎ Particularly promising are interventions that:
  - increase physical activity and improve quality of food at school
  - target environments and cultural practices to increase healthier food consumption and daily physical activity
  - support parents to increase activity, decrease screen time, and eat healthier foods



# Psychology's Role in Addressing the Childhood Obesity Epidemic

- ◎ Psychologists are experts in understanding human behavior
  - Developmental perspective
  - Multivariate perspective
- ◎ Psychologists are experts in initiating and maintaining behavior change
  - Individual
  - Family
  - Systems
- ◎ Psychologists are experts at conducting research to develop the most effective interventions



# Psychology's Role in Addressing the Childhood Obesity Epidemic

- ◎ For many psychologists, this will require a paradigm shift from a mental health perspective to a health perspective
- ◎ Many psychologists limit themselves to the mental health arena and do not see physical health as within their purview
- ◎ To address the childhood obesity epidemic, psychologists must expand their role to the larger health arena
- ◎ For the health of our children, psychologists must embrace this new role

