

Guess Who's Coming to Dinner: Public Health at the Transit Table

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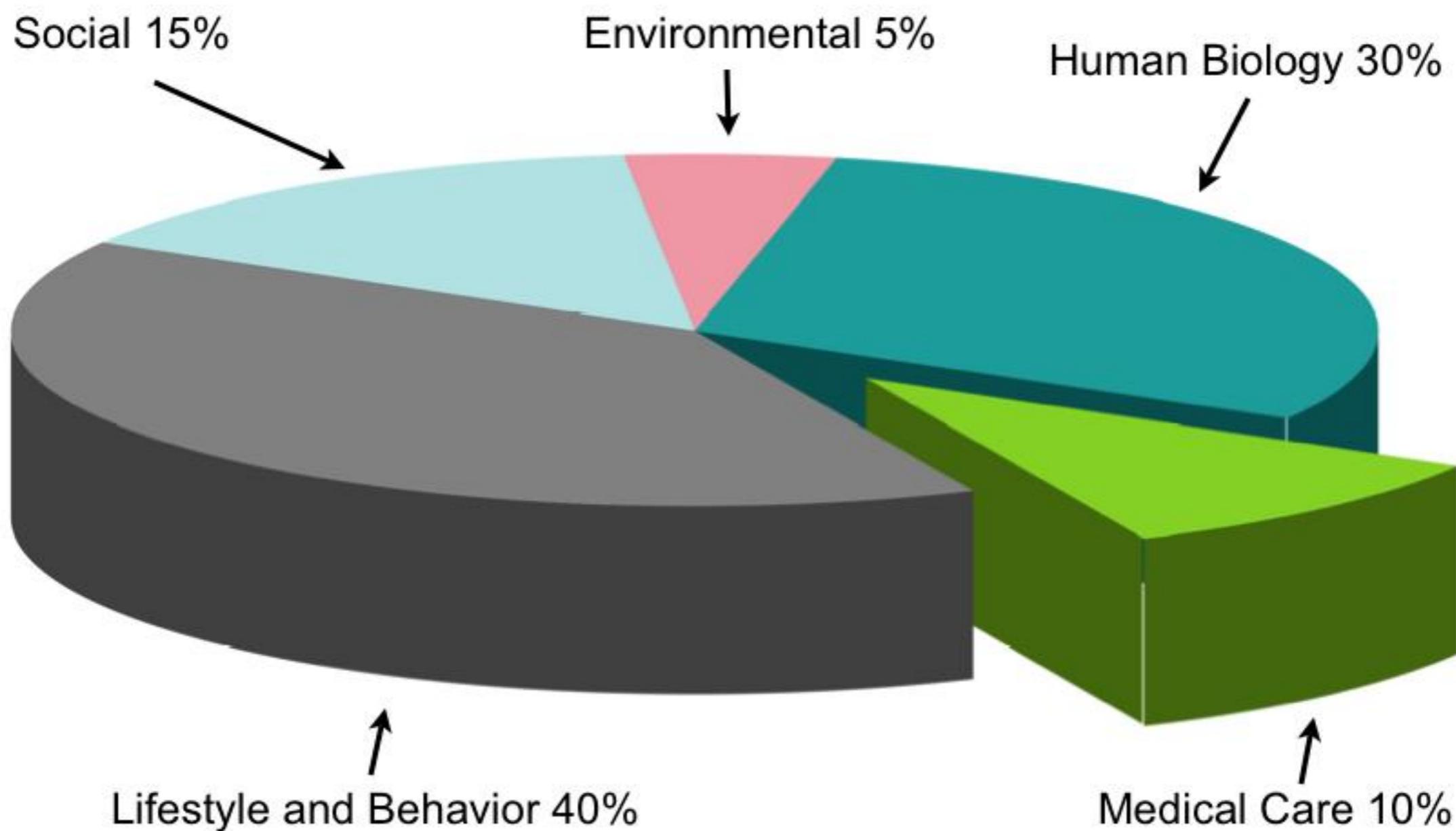
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What Determines Health?



What must happen?

- Transportation decisions can and should engage diverse voices, constituencies, disciplines, and fields in a systemic way of looking at problems and crafting sustainable solutions that benefit everyone rather than solely reflecting the purview of traffic engineers and road planners.

What must happen?

- Government transportation agencies and developers must be accountable for how their decisions impact the viability of regions, the health of communities, and the well being of residents.

Why?

- “...integrating health-enhancing choices into transportation policy has the potential to save lives by preventing chronic diseases, reducing and preventing motor-vehicle-related injury and deaths, improving environmental health, while stimulating economic development, and ensuring access for all people.”
- Centers for Disease Control

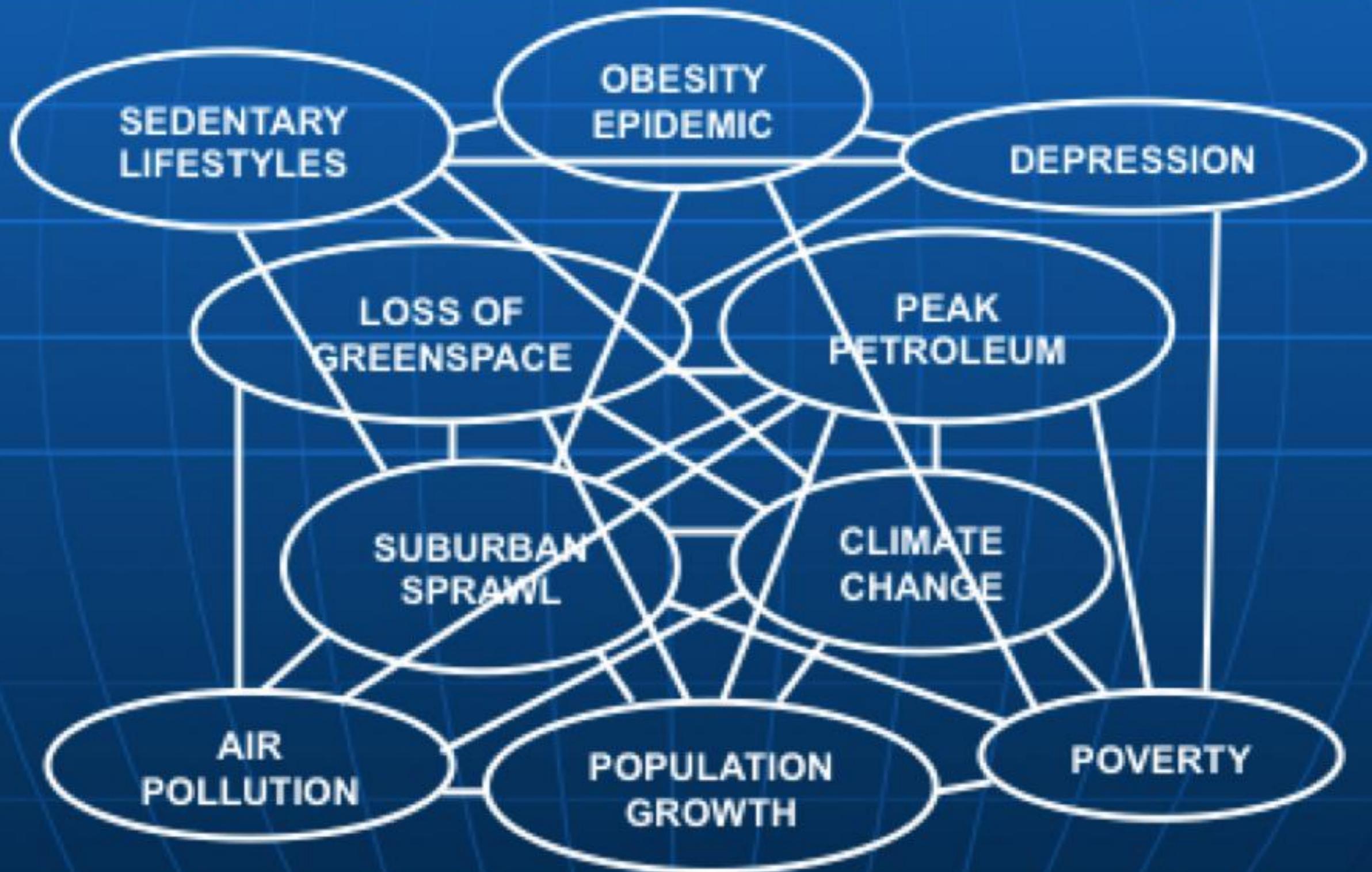
Why?

- Three major challenges:
 - Climate Change
 - Dependence on foreign oil
 - Crumbling health care system
- Host of factors:
 - Connections between health, built environment, and transportation
 - Rise in obesity, diabetes, and cardiovascular disease
 - Worsening congestion
 - Changes in population demographics

What's Wrong with Our Health?

- Much of 21st century human disease is preventable; physical inactivity is the major culprit
- Physical inactivity drives rising health care costs
- We've "planned" human power out of our transportation options
- Rising VMT and climate change are major health risks

Complexity and Ecosystems thinking



Obesity-Related Health Spending Reaches \$185 Billion

- 16.5% of all medical spending
- Includes treatment of:
 - Diabetes and heart disease
 - Hypertension
 - Stroke
 - Breast, colorectal, endometrial, and kidney cancers
 - Sleep apnea

Cawley and Meyerhoefer, National Bureau of Economic Research, October, 2010

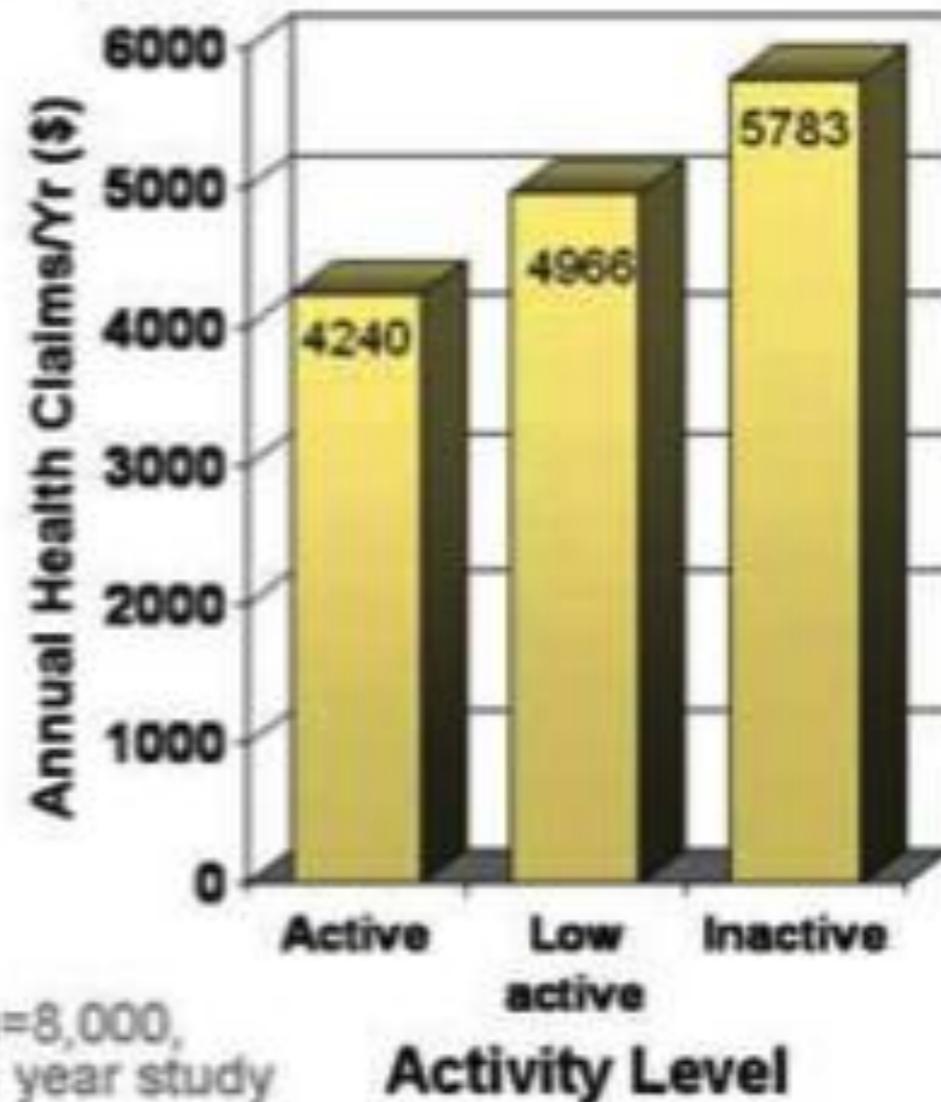
Obesity-Related Healthcare Costs

Hospitalizations 2-19 years of age

- *Primary and secondary diagnoses of obesity and obesity-related conditions including asthma, diabetes, gallbladder disease, skin infections, pregnancy complications, depression, other mental health disorders*
- **1999: 21,743 \$126 million**
- **2005: 42,429 \$238 million**
- Health Affairs, 2009

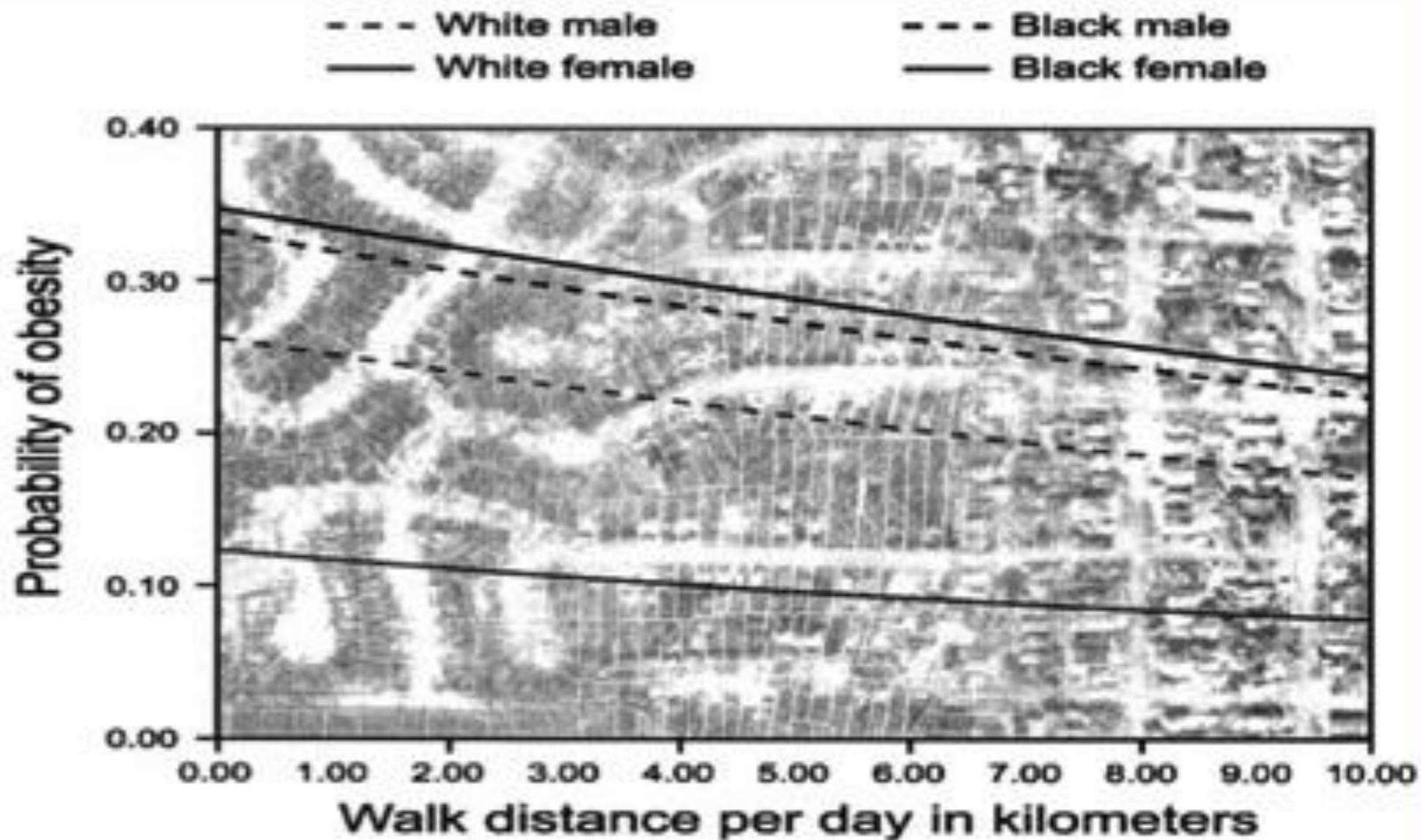
Activity Level and Health Claims

- Health claims increase as activity levels decrease.
- Compared to active persons:
 - Inactive persons cost \$1,543 per year more than active ones.



Source: *Preventing Chronic Disease*, Oct. 2005.

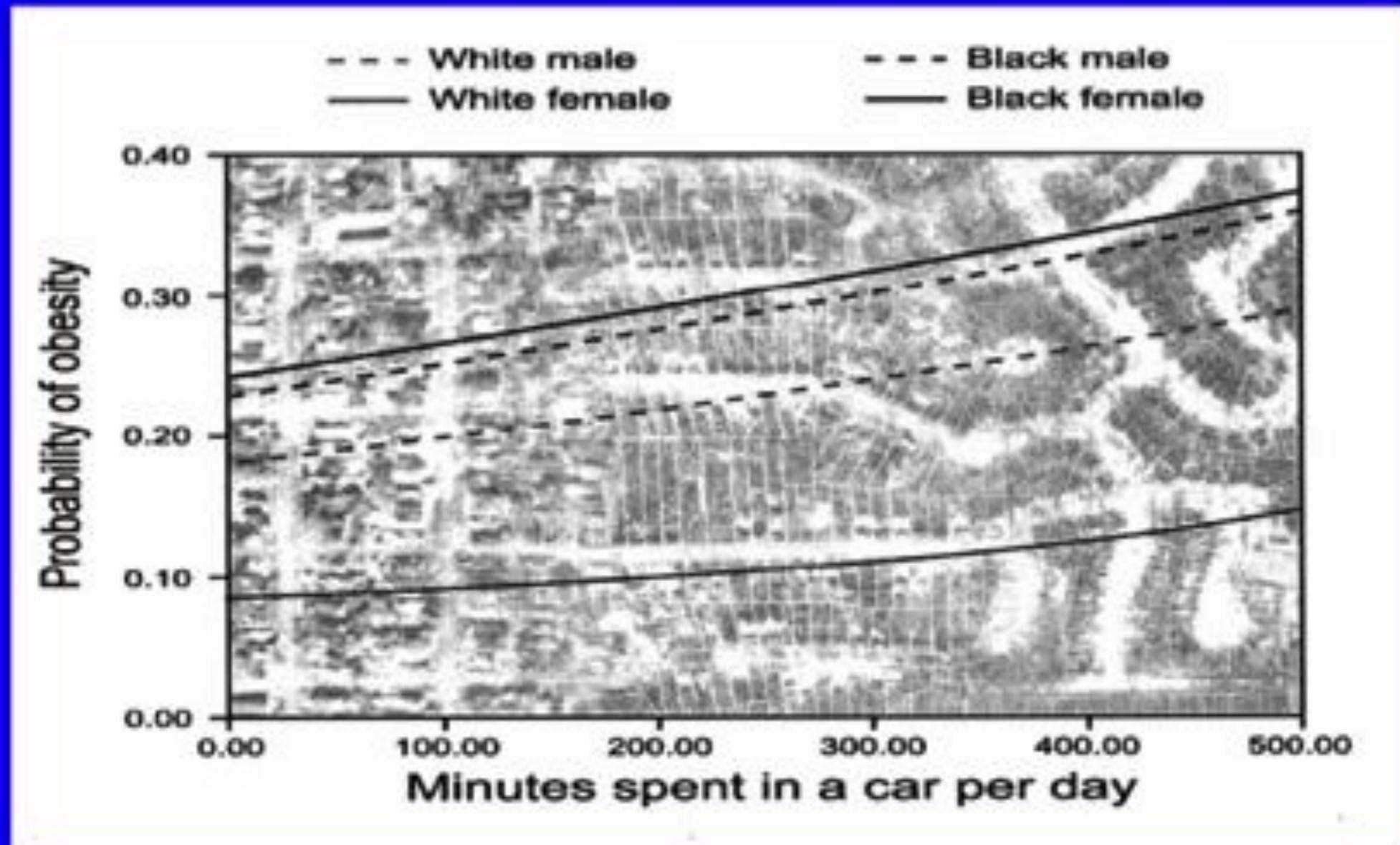
Less walking: More obesity



Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars

Lawrence D. Frank, PhD, Martin A. Andresen, MA, Thomas L. Schmid, PhD

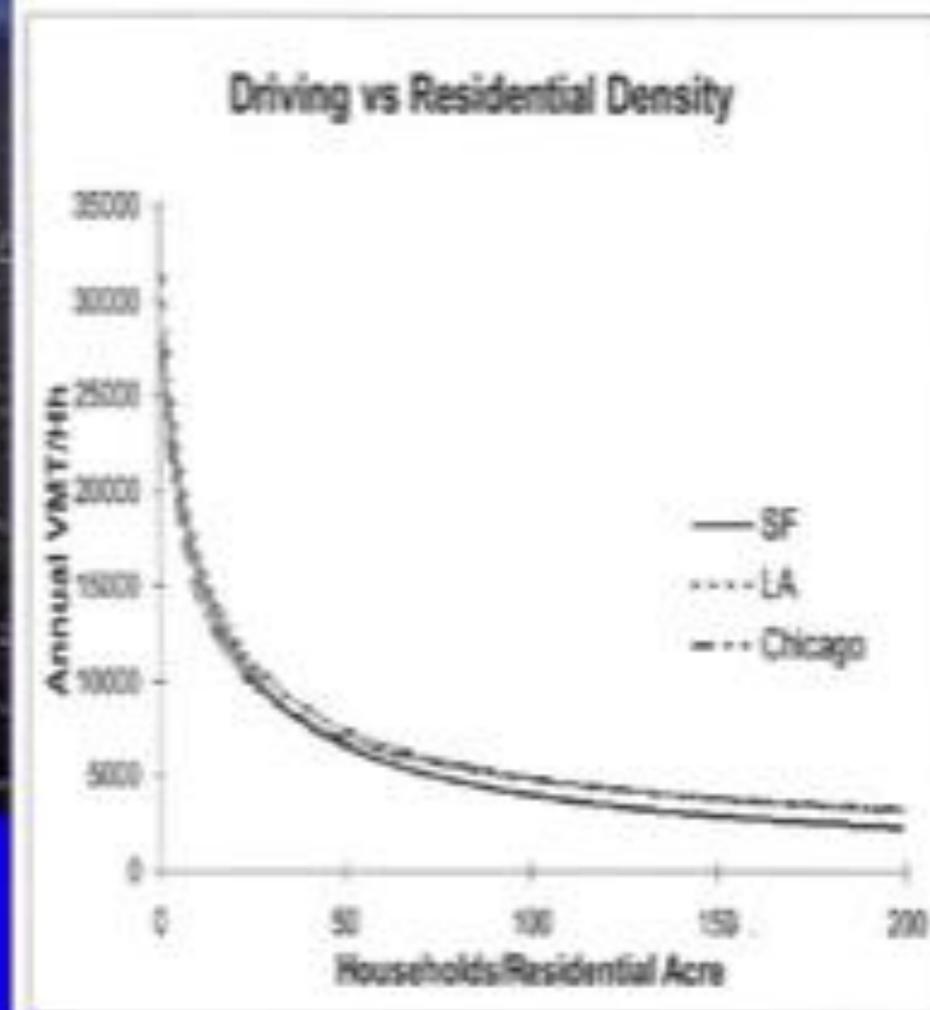
More time in a car → Higher probability of obesity



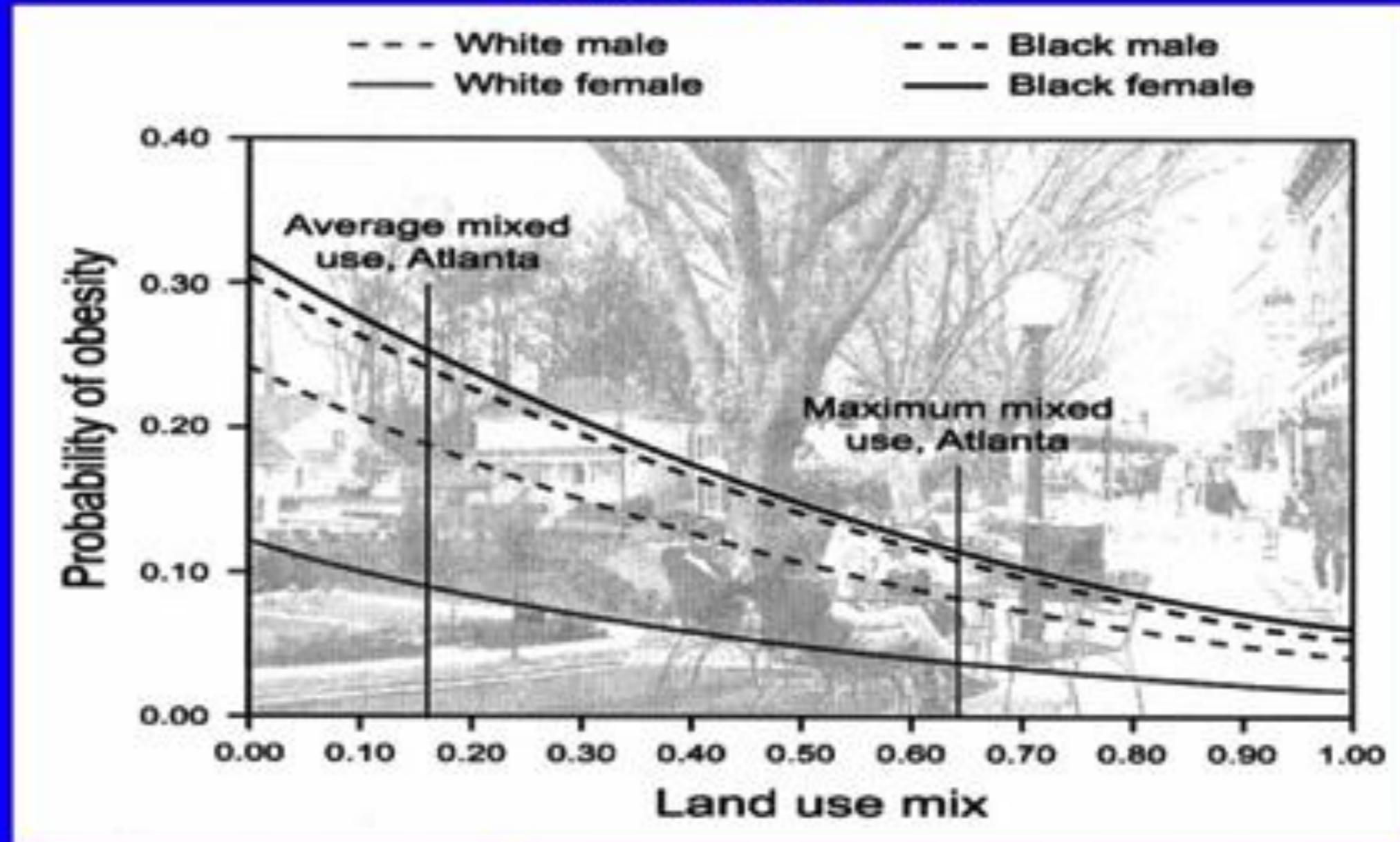
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Less Density = More Driving



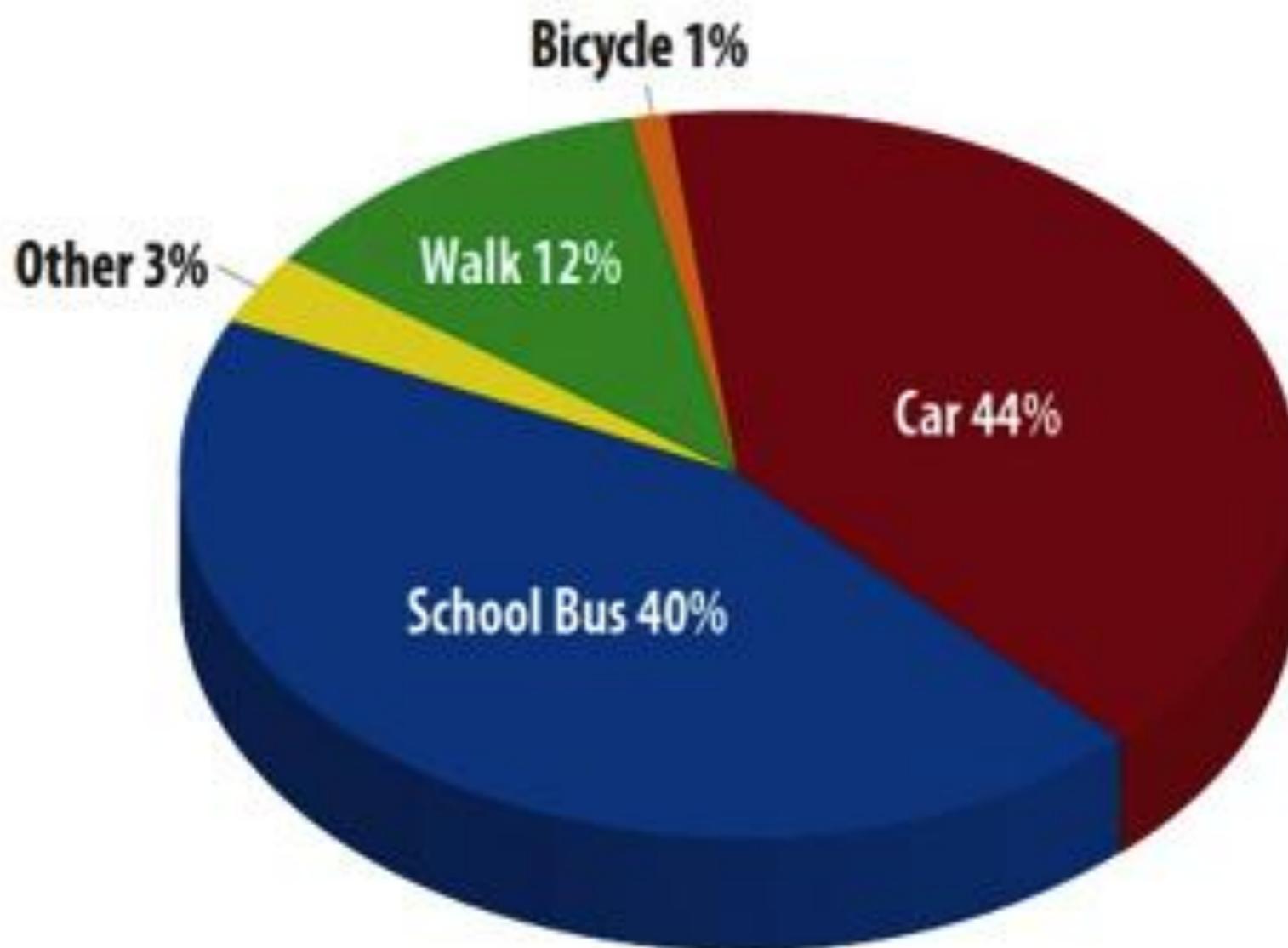
Higher density and connectivity: lower obesity— Atlanta study 2004



Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars

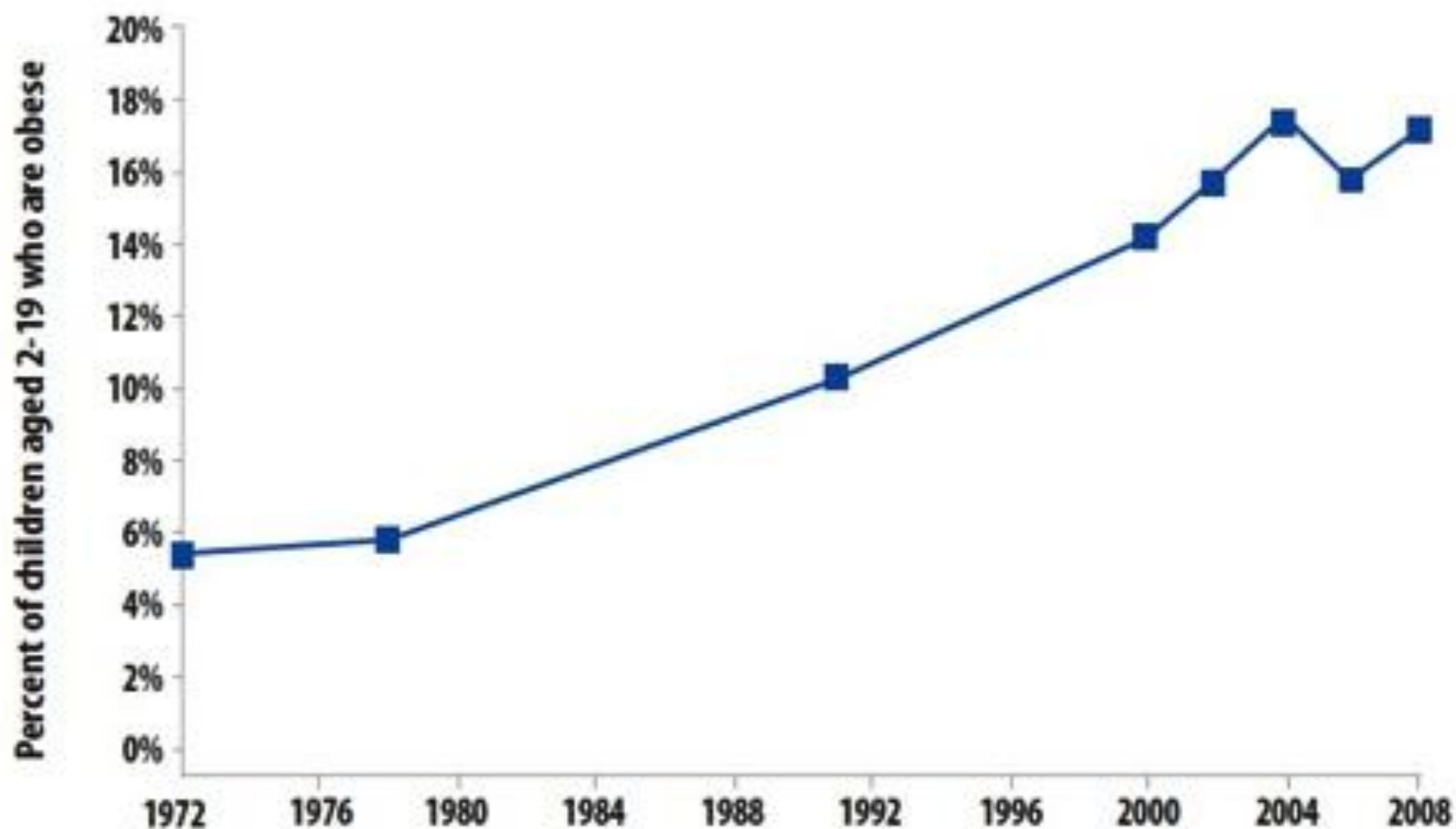
Lawrence D. Frank, PhD, Martin A. Andresen, MA, Thomas L. Schreid, PhD

How Kids Get to School, 2009



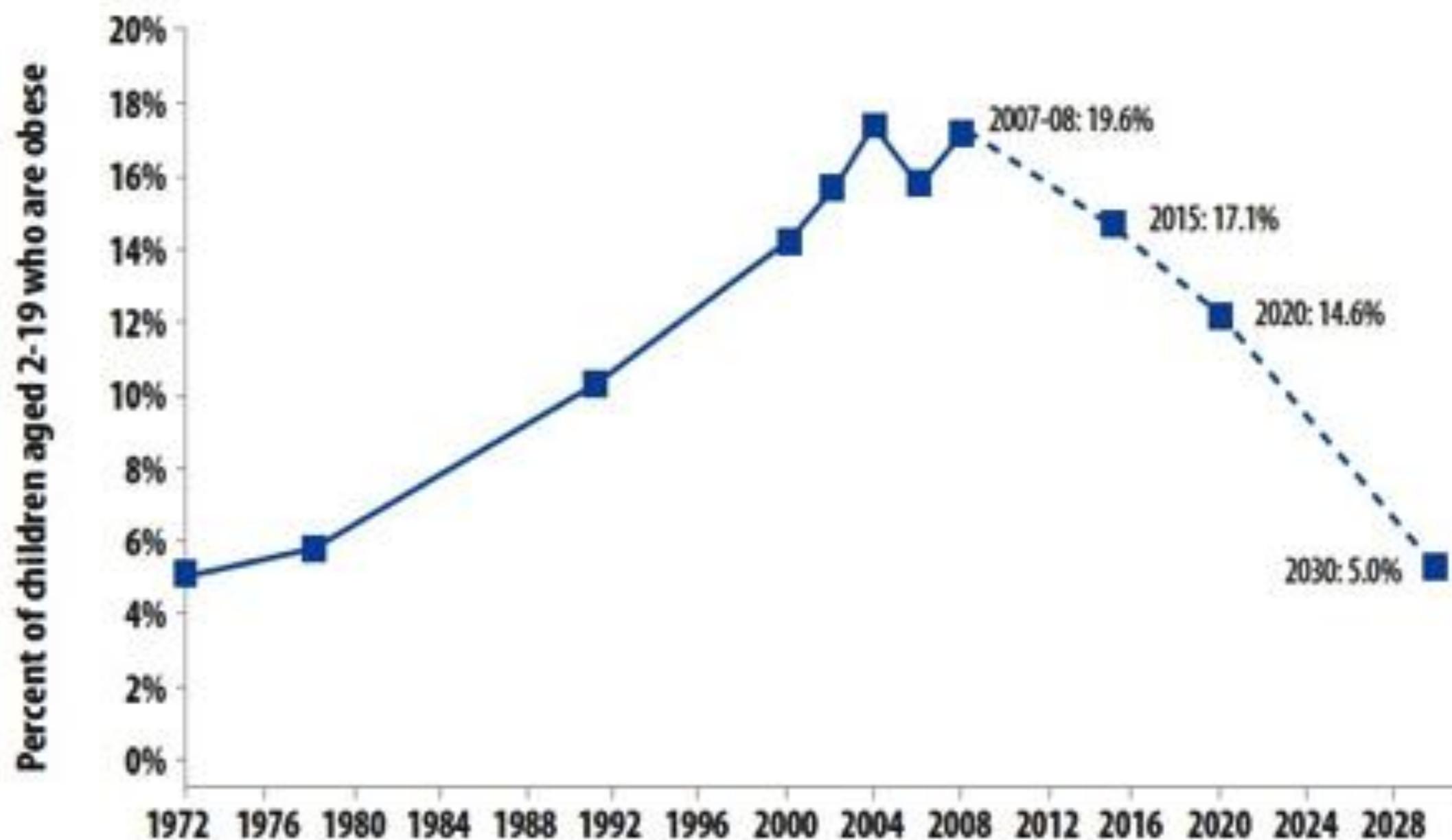
Source: U.S. Department of Transportation, Federal Highway Administration Office of Policy, National Household Travel Survey, 2009.

Growth in Childhood Obesity, 1971 to Present



Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Surveys.
Note: Obesity is defined as BMI \geq gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts

Bending the Curve: Childhood Obesity, 1972 to 2030



Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Surveys.

Note: Obesity is defined as BMI \geq gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts.

The American Academy of Pediatrics Asks Pediatricians to...

- Advocate for environmental improvements that will promote physical activity in children
- Become involved in local community planning processes...to prioritize space for parks
- Emphasize the need for built structures which will provide more opportunities for physical activity
- Advocate for safe routes for incidental activity opportunities, including walking or biking to school

The Centers for Disease Control Recommends...

- Enhance infrastructure supporting bicycling and walking
- Improve access to public transportation
- Zone for mixed use development
- Enhance personal and traffic safety...where persons are or could be physically active