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

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What Determines Health?

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.

Convergence Partnership, 2009
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
  – Dependance 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

- Sedentary Lifestyles
- Obesity Epidemic
- Depression
- Loss of Greenspace
- Peak Petroleum
- Suburban Sprawl
- Climate Change
- Air Pollution
- Population Growth
- Poverty
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.

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

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Lawrence D. Frank, PhD, Martin A. Andresen, MA, Thomas L. Scheid, PhD
How Kids Get to School, 2009

- School Bus 40%
- Car 44%
- Walk 12%
- Other 3%
- Bicycle 1%

Growth in Childhood Obesity, 1971 to Present

Percent of children aged 2-19 who are obese

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

Note: Obesity is defined as BMI ≥ gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts
Bending the Curve: Childhood Obesity, 1972 to 2030

Percent of children aged 2-19 who are obese

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

Note: Obesity is defined as BMI ≥ 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

American Academy of Pediatrics, 2009
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

Morbidity and Mortality Weekly Report, CDC, July 24, 2009