Creating Livable Communities

The Public Health Partnership

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What is Health?

“a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”

World Health Organization

- Physical health
- Mental health
- Well-being
- Livability
Disease in the 21\textsuperscript{st} Century

- Diseases and costs of care for aging populations.
- Chronic/lifestyle related conditions:
  - Diabetes
  - Heart Disease
- Mental Disorders:
  - Depression
  - Anxiety
  - Substance Abuse
Bariatric Surgery Volume for California Hospitals

Average Cost per Surgery: $20,000-$50,000
How does our modern society affect health?

- Increased reliance on motor vehicles
- Decreased daily physical activity
- Increased passive entertainment
  - Adults
  - Children
- Decreased down-time?
How might the built environment affect health?

Related to automobile dependency
- ↓ physical activity
- ↑ air pollution
- ↑ car crashes & injuries

Related to land use
- ↓ physical activity

Related to social processes
- mental health impact
- ↓ social capital
Physical Activity
Physical Activity

↓ population density
↓ employment density

↑ trip distances
↑ vehicle trips
↓ walking

↑ overweight
↑ obesity
Supersizing of Vehicle Travel

US Vehicle Miles Traveled (VMT) Per Capita

From 4,000 to 10,000 VMT per person
We have changed how much we walk or bike.

Percent of children who walk or bike to school:

1974: 66%

2000: 13%
Travel and Physical Activity

US average: 73 mins/day driving

Percentage of trips are walking/biking

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<td>Italy</td>
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Automobile Trips

Walk and Bike Trips
Physical Inactivity

- 70% of adults do NOT get at least 30 minutes of daily physical activity
- Over 60% of adults are overweight!
Built Environment and Obesity

• Each additional 30 minutes spent in a car per day increases the odds of being obese by 3%.

• Each mile walked per day decreases the odds of being obese by 7.7%.
Sprawl and Obesity

Those living in sprawling counties were likely to walk less \( (p=0.004) \), weigh more \( (p<0.001) \), and have a greater risk of hypertension \( (p=0.018) \) than those living in compact counties.

(average six pound difference)

The costs of sprawl

- Disproportionate land consumption verses population growth
- Jobs/housing, schools/neighborhood imbalances
- Traffic congestion
- Loss of open space
  - Environmental degradation
- Negative health consequences
Want to take a walk?
Physical activity

A sedentary lifestyle increases the risk of:

- overall mortality (200 to 300%)
- cardiovascular disease (300 to 500%)

Low physical fitness is comparable to:

- Hypertension
- High cholesterol
- Diabetes
- even smoking
Benefits of living in a Walkable Community

- 2 ½ times more likely to get the recommended amount of physical activity
- Increased life expectancy of 4 years
Mental Health

The impact of sitting in cars longer, getting home later (exhausted), playing video games, and being driven everywhere...

Millions of prescriptions

- Psychiatrists
- Nonpsychiatrists

SOURCE: IMS Health, Inc.
HEALTH AFFAIRS - Volume 19, Number 4
Methylphenidate (Ritalin) Consumption, United States and Elsewhere, 1987 - 1998

Social Capital

Social capital:

Collective value derived through

• Social networking and engagement
• Trust and reciprocity
Social Costs

• More driving time means less time with family, friends, and civic organizations.
  • Every 10 minutes of commute time means a 10% decline in social capital

• Suburban voters tend to favor more individualized, less collective solutions
### Summary: Built environment and health

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- **↓ physical activity**
- **↑ air pollution**
- **↑ car crashes**
- **↑ pedestrian injuries**
- **mental health**
- **↓ social capital**
Physical activity → Depression ↑

Infrastructure costs ↓ Air pollution

↓ Depression

↑ Physical activity

And by the way...

↑ Social capital
Partnerships:

- Urban planners
- Transportation engineers
- Community groups
- Landscape architects
- Developers
- Policy makers
- Lenders
- Public health
- Health care
- Joe Blow

...and many others
What can Public Health do?

• Provide data
• Research best practices
• Bring disciplines together
• Monitor health outcomes
• Educate and encourage
• Connect health & health care systems
  • And other societal systems
• Evaluate progress
Measuring how we’re doing

For a river…it may be a fish.

For a human ecosystem…it may be children walking to school, or elders chatting on the sidewalk, or soccer moms driving less…