Moving Philadelphia:
Designing a Healthier Tomorrow

Richard E. Killingsworth, MPH
Nemours Health and Prevention Services
Time is the coin of your life. It is the only coin you have and only you will determine how it will be spent.

Carl Sandberg
In an average lifetime....
• Three years in meetings
• 13 years watching television
• 1800 trips to McDonald’s
• Eat 35,000 cookies
• Consume 1500 pounds of candy
• Spend 24 years sleeping.
A brisk walk in the park keeps Marcy B in shape between dog shows. Her owner, Columbus resident Cathy Stumbo, get up early to give her 5-year-old Doberman his regular workout. They typically log 15 miles in Berline Park.
Place Matters

- Place determines...
  - Health Behavior
  - Quality of Life
  - Overall Health Status
  - Economic Vitality
  - Intellectual Capital
  - Sustainability
Placemaking Considers the Possibility That...

- the pattern of growth may upset the balance of human behavior.
- the social costs of development may be far more reaching than traffic jams and sprawl.
- the healthy new developments we live in may not be so healthy.
Low Density

Large, Segregated Single-Use Zones

Sparse Network

Lack of Centers
We Are Where We Live
**Why Placemaking is Important: A Health Perspective**

Good Places Yield Happiness
- Outdoor interaction
- Restorative properties
- Stimulates development
- Multisensory experience
- Experiential learning
- Mood enhanced

Health Yields $$$ Benefit
- Less healthcare costs
- Less healthcare utilization
- Improved QoL = $ spent on business not healthcare
- Stronger business environment
- Increased demand for greenspace

Happiness Yields Health
- Increase in activity
- Decrease in blood pressure
- Controlled eating
- Less weight gain
- More positive outlook on life
- Increase in self-esteem
- Increase in locus of control
- Less depression & anxiety

Health Yields Economic Benefit
Emergence of a Sedentary Society

- Automobile
- Television
- Computers
- Convenience Engineering
- Built Environment

Courtesy: Ross Brownson
Courtesy: Ross Brownson
Gardner Memorial Chapel
Davidson, TN

Junior Funeral Home
Pensacola, FL

Adams Funeral Parlor
Compton, CA

Courtesy: Ross Brownson
The Burden of Physical Inactivity

- **The Problem**
  - 1 in 4 adults are sedentary
  - Over two-thirds do not achieve recommended dose
- **The Public Health Burden**
  - 64% overweight 31% obese
  - Physical inactivity is a primary factor in over 200,000 deaths annually.
- **The Economic Burden**
  - Medical costs associated with physical inactivity/poor diet exceed $78.5B annually.

Obesity Trends* Among U.S. Adults
BRFSS, 1985
(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
Obesity Trends* Among U.S. Adults
BRFSS, 1991
(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
Obesity Trends* Among U.S. Adults

BRFSS, 1997

(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
Obesity Trends* Among U.S. Adults
BRFSS, 2001
(*BMI ≥30, or ~ 30 lbs overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 2007
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
Trends of Overweight* in Children and Adolescents

*BMI ≥ 95th Percentile

Data Source: US HHS – Centers for Disease Control and Prevention 2006.
The Science Base:

- Changing the built environment to increase children’s physical activity for recreation and transportation... can help provide long-term solutions to the childhood obesity epidemic.

- Unlike the effects of motivational and educational approaches, changes in the built environment are long lasting.

- Given the urgency of improving children’s health, we must implement actions on the evidence that suggest the built environment is a key variable supporting good health.

- Jim Sallis and Karen Glanz, 2006

“The Role of Built Environments in Physical Activity, Eating, and Obesity in Childhood” The Future of Children, Vol. 16/No. 1/Spring 2006
Walking and Bicycling: International Comparisons

Percent of trips by walking and biking, 1995

- USA: 7%
- Germany: 34%
- Netherlands: 46%

Pedestrian fatalities per 100 million trips, 2000

- USA: 17 fatalities
- Germany: 5.2 fatalities
- Netherlands: 1.1 fatalities

Pucher, AJPH 93:1509, 2003
Obesity Trends Compared with Active Transportation Trends

Courtesy: John Pucher
Active Transportation Share Select Countries - 2008

IMPORTANT NOTES:
*Work trips only, **Walk and bike combined for Spain

(Source: Bassett, Pucher and Buehler 2008)
## Increasing Bicycle Use, Portland, OR

<table>
<thead>
<tr>
<th>Year</th>
<th>Bridge Bicycle Traffic</th>
<th>Bikeway Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>2,850</td>
<td>78</td>
</tr>
<tr>
<td>1992</td>
<td>3,555</td>
<td>83</td>
</tr>
<tr>
<td>1993</td>
<td>3,885</td>
<td>86</td>
</tr>
<tr>
<td>1994</td>
<td>3,830</td>
<td>103</td>
</tr>
<tr>
<td>1995</td>
<td>3,207</td>
<td>113</td>
</tr>
<tr>
<td>1996</td>
<td>4,520</td>
<td>144</td>
</tr>
<tr>
<td>1997</td>
<td>5,225</td>
<td>166</td>
</tr>
<tr>
<td>1998</td>
<td>5,690</td>
<td>183</td>
</tr>
<tr>
<td>1999</td>
<td>5,910</td>
<td>213</td>
</tr>
<tr>
<td>2000</td>
<td>6,015</td>
<td>222</td>
</tr>
<tr>
<td>2001</td>
<td>7,686</td>
<td>235</td>
</tr>
<tr>
<td>2002</td>
<td>8,250</td>
<td>252</td>
</tr>
<tr>
<td>2003</td>
<td>8,562</td>
<td>254</td>
</tr>
<tr>
<td>2004</td>
<td>8,875</td>
<td>260</td>
</tr>
<tr>
<td>2005</td>
<td>10,192</td>
<td>262</td>
</tr>
<tr>
<td>2006</td>
<td>11,956</td>
<td>263</td>
</tr>
</tbody>
</table>

*1991: 78 miles of bikeways, 2,850 daily trips*

*2006: 263 miles of bikeways, 11,956 daily trips*

Courtesy: John Pucher
Provide a social and physical environment to support an extra 15-30 minutes of walking per day to expend enough calories to control weight gain of about a pound per month.

Saelens, Annals of Behavioral Medicine, 2003
Active Living

A way of life that integrates physical activity into daily routines.
If You Build It Will They Come?

- The more facilities that were available and destinations that were close by, the more people walked.

- People who live within walking distance of trails, parks or stores walked more frequently.

- The power of doing this is leveraged by the proximity of assets. The more assets in a “walkable” space the more people are drawn to it.

King, W., Am. J. of Public Health 2003
If You Build It Will They Be More Active?

- Access to sidewalks people are 28% more likely to be active
- Access to walking/jogging trails people are 55% more likely to be active
- Access to neighborhood parks people were twice as likely to be active
- Access to places for physical activity increased activity and weight loss
Youth, Design, & Activity

- Access to facilities like parks and time outdoors is associated with more activity
- More children walk to school where there are sidewalks and safety improvements
- Students were more active at school with more facilities, equipment and supervision
- Parental concerns about traffic and “stranger danger” are linked to children’s activity levels

Active Living by Design
What Do We Know?

Activity Friendly Communities could...

- Generate 2 more walk/bike trips per person per week
- Prevent up to 1.7 pounds of weight gain per year
- Positively impact the total minutes of physical activity (40% more physical activity)
- Decrease amount of time spent in a car. Each hour spent in a car is associated with a 6% increase in obesity.
- Increase life expectancy by 4 years.

Activity-Friendly Communities Makes Good Fiscal Sense

- Accumulating evidence indicates that open space is not an expense but an investment that produces important economic benefits.
- Open space protection is good for the community's health, stability, beauty, quality of life, and economic benefit.
- Every $1 investment in parks and trails for physical activity led to $2.94 in direct medical benefit.
An investment of $10 per person per year to increase physical activity and other community health promotion programs could save the U.S. more than $16 billion annually within 5 years.

This is a return of $5.60 for every $1 invested.
Active Living Strategies

- Preparation
- Promotion
- Programs
- Policies
- Physical Projects
Strategy 1: Preparation

• Build diverse partnerships
• Develop a common vision
• Assess people, policies and environments
• Create an action plan
• Identify a champion
• Prioritize local resources
Strategy 2: Promotions

- Develop key messages for focus areas and people
- Utilize mass media for awareness and advocacy
- Festivals / Events that Connect to Lifestyle / Community Change
- Develop Awards and Recognition Programs
Strategy 3: Programs

- Safe and Active Routes
- Complete Streets
- Bicycle Friendly Communities
- Parks and Trails Efforts that Connect the Community
- Healthy Businesses & Schools
Strategy 4: Policies

- Comprehensive school physical education/activity
- Greening of public space
- Public facility location/siting
- Joint-use policies
- Incentives for Developers to change practice
Strategy 5: Physical Projects

- Build safe and well-connected pedestrian and bicycle networks
- Neighborhood pocket parks
- Trail connections to destinations of interest
- Create pleasant and functional urban “greenspace” settings
What Will Your Community Look Like in 2030?
The Power of Relationships
If you reached out to 2 people and convinced them to leave a legacy…how many equal encounters would need to happen before everyone in Philadelphia was an advocate for healthy and livable communities?
Treat the earth well: it was not given to you by your parents, it was loaned to you by your children. We do not inherit the Earth from our Ancestors, we borrow it from our Children.

Native American Proverb