Health and Transportation: Working Together to Improve the Lives of Oregonians

Oregon Public Health Association Conference Presentation
October 13, 2014

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Built Environment: A Determinant of Health

Determinants of Health and Contribution to Premature Death, U.S.

- Genetic Predisposition, 30%
- Social Circumstances, 15%
- Environmental Exposure, 5%
- Medical Care, 10%
- Behaviors, 40%

### Top 10 Risk Factors for Poor Health and Number of Attributable Deaths, U.S.

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietary risks</td>
<td>678,282</td>
</tr>
<tr>
<td>Smoking</td>
<td>465,651</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>442,656</td>
</tr>
<tr>
<td>High body mass index</td>
<td>363,991</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>234,022</td>
</tr>
<tr>
<td>High blood sugar</td>
<td>213,669</td>
</tr>
<tr>
<td>High total cholesterol</td>
<td>158,431</td>
</tr>
<tr>
<td>Ambient air pollution</td>
<td>103,027</td>
</tr>
<tr>
<td>Alcohol use</td>
<td>88,587</td>
</tr>
<tr>
<td>Drug use</td>
<td>25,430</td>
</tr>
</tbody>
</table>

**Deaths Attributable to Physical Inactivity as an Independent Risk Factor:**

- 6% of heart disease
- 8.3% of type 2 diabetes
- 12.4% of breast cancer
- 12.0% of colon cancer
- 10.8% ALL CAUSE MORTALITY

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*Journal of the American Medical Association*


Physical inactivity cited in >10% ($100 billion) of health care costs
Physical Activity Trends

Sedentary Time ↑
Leisure Time ↔
Occupation ↓
Transportation ↓
Home ↓
Inactive Americans would gain 1.3-3.7 years life from age 50 by becoming active

Prevention of Weight Gain

Diabetes Mellitus

Heart Disease

Stroke

Musculoskeletal Injury

Risk

Modest Change in PA Here = Big Reduction in Risk

Active Transportation and Obesity: US vs Others

Why Focus on Transportation? Evidence:

The CDC Guide to Strategies to Increase Physical Activity in the Community

1. Individually adapted health behavior change programs
2. Social support interventions in community settings
3. School-based physical education (with minimum minutes)
4. Point-of-decision prompts for using stairs
5. Community-wide awareness and education campaigns
6. Access to places for physical activity, combined with outreach
7. Street-scale urban design and land use policies
8. Community-scale urban design and land use policies
9. Active transport to school
10. Transportation and travel policies and practices
Physical Activity & Transportation Takeaways

• **Powerful** effect on chronic disease (30-50% morbidity; 10% mortality)

• **Independent** of food intake or weight status

• **Priority** is to get sedentary people active

• At least 150 minutes a week

• Brisk walking a great choice

• **Active transportation** is one of the best ways
Socio-ecological Model for Physical Activity

- **Structures, Policies, and Systems**: city code requires sidewalks in all new developments.
- **Community**: neighborhood assn asks for lighting and crossing signals.
- **Institutions and Organizations**: employer $$$ incentives for active commuting.
- **Interpersonal**: friends form a walking group.
- **Individual**: Dr. advises patient to be active.

Transportation as a PSE Strategy

Greatest Individual Effort

Counseling & Education
- Advice to eat healthy, be physically active

Clinical Interventions
- Rx for high BP, high cholesterol, diabetes

Long-lasting Protective Interventions
- Immunize, smoking cessation, screening

Changing the Context to make individuals’ default decisions healthy
- Fluoridation, 0g trans fat, iodization, smoke-free laws

Socioeconomic Factors
- Poverty, education, housing, inequality
Policy Frameworks and Tools
ODOT and OHA Partnership

- Build mutual understanding
- Identify joint policy and program objectives
- Build supportive framework to promote connection between transportation and public health, statewide
Key Areas of Work: ODOT and OHA-PHD

- Communication and Planning
- Safe and Active Transportation
- Research and Data Analysis
- Leveraging Opportunities

MOU
Roles for Local Public Health Partners

- Amplify critical health issues: asthma, chronic disease, injury
- Bring awareness of a population-level approach
- Bring a health in all policies perspective
- Provide evidence, surveillance, data
- Engage community, health experts
- Apply equity lens to address disparities
- Broaden focus beyond built environment, where relevant (e.g., incentives, campaigns for behavior norm change)

Vision: Walking, biking and transit are default choices for meeting everyday needs.
Emphasize: One Health Lens, Multiple Benefits

- Cut air pollution to reduce respiratory and heart illnesses;
- Make streets safe to reduce the number of fatalities and serious injuries from crashes;
- Provide access to places to be physically active, to reduce rates of chronic diseases;
- Reduce greenhouse gases
- Alleviate the transportation cost burden for the public, by offering low-cost alternatives.
Other Wins!

“People out walking make our towns livelier, safer and more attractive places to live, work, play, shop and invest.”

“It connects us to the places where we live, it makes us healthier, and it’s cheap.” -- Oregon Walks

“Is a step toward social equity, since walking can be made accessible to all ages, races, incomes, and abilities.”

“Walking is not just about health. It’s about joyfulness and fun.”
-- WalkBoston

“It is hard to get people to eat healthier. But we can get them to walk. All they need are shoes.” -- KP CEO

“Walking is safe, simple, and doesn’t require practice, or any fancy gear.” -- U.S. S.G.
Thank you!

Photo of the signing of the Bicycle Bill in 1971, which started the Bike and Ped program and all that has come after.