Community Wellness and Urban Planning:
The health implications of transit, water and housing policies

Presented by Chair Susan Haigh
Factors influencing health

- Behavioral patterns, 40%
- Environmental exposure, 5%
- Social circumstances, 15%
- Genetic predisposition, 30%
- Health care, 10%
COMMUNITY PLANNING OBJECTIVES

1. Access to Recreation and Open Space
2. Access to Healthy Foods
3. Access to Medical Services
4. Access to Public Transit and Active Transportation
5. Access to Quality Affordable Housing
6. Access to Economic Opportunity
7. Completeness of Neighborhoods
8. Safe Neighborhoods and Public Spaces
9. Environmental Quality
10. Green and Sustainable Development and Practices
How does the Met Council impact health in the metro region?

- Planning
- Transportation
- Mass transit
- Housing
- Parks
- Water
Overview of disparities in the metro

• People of color make up the fastest growing segment of our population.
  – Today: 23% of our population
  – 2040: 43% of our population

• People of color are:
  – More likely to live in poverty
  – Less likely to graduate from high school
  – Less likely to own their own home
  – More likely to suffer from chronic illness
Poverty in the seven-county area

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>8.1%</td>
</tr>
<tr>
<td>2000</td>
<td>6.9%</td>
</tr>
<tr>
<td>2007-2011</td>
<td>10.3%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, Decennial Census, 1990, 2000; American Community Survey five-year data, 2007-2011
### Poverty in the seven-county area

<table>
<thead>
<tr>
<th></th>
<th>All races</th>
<th>White, non-Hispanic</th>
<th>Persons of color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>182,680</td>
<td>116,080</td>
<td>66,600</td>
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<tr>
<td>2000</td>
<td>179,316</td>
<td>87,415</td>
<td>91,901</td>
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</table>

<table>
<thead>
<tr>
<th></th>
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<th>Persons of color</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>8.1%</td>
<td>5.7%</td>
<td>33.0%</td>
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<tr>
<td>2000</td>
<td>6.9%</td>
<td>4.0%</td>
<td>21.3%</td>
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<tr>
<td>2007-2011</td>
<td>10.3%</td>
<td>6.0%</td>
<td>24.8%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, Decennial Census, 1990, 2000; American Community Survey five-year data, 2007-2011
Racially Concentrated Areas of Poverty (RCAP)

- RCAP - 40% or More People at 185% Poverty and 50% or More People of Color

Source: RCAPs as defined by Metropolitan Council on March 6, 2013

April 30, 2013
What causes disparities?

- Policy decisions
- Real estate redlining
- Location of transportation
- Types of transportation options
- Location and access to employment and school
- Types & locations of housing
Population by Age

Seniors: Doubled by 2030
More 65+ than <15

Seniors: 21 percent in 2040

Ages 65+
Ages 25-64
Ages 15-24
Ages 0-14

<table>
<thead>
<tr>
<th>Year</th>
<th>Ages 0-14</th>
<th>Ages 15-24</th>
<th>Ages 25-64</th>
<th>Ages 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>384,000</td>
<td>581,000</td>
<td>1,579,000</td>
<td>307,000</td>
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<tr>
<td>2020</td>
<td>441,000</td>
<td>598,000</td>
<td>1,644,000</td>
<td>461,000</td>
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<tr>
<td>2030</td>
<td>475,000</td>
<td>639,000</td>
<td>1,668,000</td>
<td>665,000</td>
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<tr>
<td>2040</td>
<td>515,000</td>
<td>704,000</td>
<td>1,754,000</td>
<td>770,000</td>
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</table>
Transit and Transit-Oriented Development
Transportation & health by the numbers

6% Increased likelihood of obesity associated with each additional hour spent in a car

$200B Amount of health care costs annually attributable to traffic injuries and fatalities

$50B Cost of health problems from transportation-related air quality issues

$117B Societal cost of obesity
Cities of our past

- Very compact
- Very walkable, close proximity to retail, amenities, etc
- Poor hygiene and close living quarters
- Disease spread quickly

Bologna, Italy
Source: www.skyscrapercity.com
Auto-centric cities

- Communities spread to accommodate wider streets, freeways
- Autos allowed people to live further from school, work and family
- Businesses created parking lots to accommodate vehicles
New generations prefer transit
Young People Driving
Percentage of Age Group with Driver's License

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1983</th>
<th>2008</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>46.2</td>
<td>38.3</td>
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<tr>
<td>17</td>
<td>68.9</td>
<td>60.4</td>
<td>60.4</td>
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<tr>
<td>18</td>
<td>80.4</td>
<td>72.4</td>
<td>72.4</td>
</tr>
<tr>
<td>19</td>
<td>87.3</td>
<td>78.8</td>
<td>78.8</td>
</tr>
<tr>
<td>20-24</td>
<td>91.8</td>
<td>83.8</td>
<td>83.8</td>
</tr>
</tbody>
</table>

Graphic by Steven Melendez / WNYC
Data: Michael Sivak & Brandon Schoettle, University of Michigan Transportation Research Institute
Transit-related Public Health Indicators for Health and Quality of Life

- Increased physical activity
- Access to healthy food
- Adequate income & stable employment
- Traffic safety
- Clean air
- Equity
- Access to recreation and open spaces
Transportation Access & Equity

- Poorest 1/5 of US families pay 42% of their income to own and drive a car

- True cost of housing includes transportation
  - Affordable housing means that combined housing and transportation costs take up no more than 45% of a household budget
How to improving health through transit policy

- Expand transit service & frequency
- Promote active transportation (walking/biking)
- Incorporate healthy & dense community design, reduce vehicle miles traveled
- Ensure equitable access to transit and transportation networks
Transit-Oriented Development

• Transit Oriented Development (TOD) refers to residential and commercial centers designed to maximize access by transit and non-motorized transportation, and with other features to encourage transit ridership.

• A TOD neighborhood has a center with a rail or bus station, surrounded by relatively high-density development, with progressively lower density spreading outwards.
How does street design impact health?
Community design matters

- Pedestrian access to stores and businesses in close proximity to transit stops and homes helps people take shorter, more frequent trips for items they need.

- Keeps seniors mobile.
Clean Water
The history of our water
Sewage in the rivers & lakes

Photo: raw sewage and other garbage floating on the Mississippi River (1933)
Mississippi River declared public health hazard

- 1926 – Minnesota conducted a fish survey on the Mississippi River from the Twin Cities to Hastings. Only three live fish were found.

- 1927 - Minnesota and Wisconsin Boards of Health declared the Mississippi River a public health hazard.
75 Years of wastewater treatment

The opening of the Metropolitan Wastewater Treatment Plant signaled a focus on a cleaner, healthier environment.
Why do we worry about water?

• A single outbreak of cryptosporidium in Milwaukee's drinking water in 1993 resulted in 400,000+ cases of illness.

• Between 1999-2000, 25 states reported 39 outbreaks of waterborne diseases. 2,068 persons got sick and two people died.
Minnesota lakes anything but pristine, PCA testers find

By Kate Golden | 05/20/13

StarTribune | state + local

Minnesota lakes contaminated with all kinds of chemicals

Article by: JOSEPHINE MARCOTTY, Star Tribune | Updated: May 14, 2013 - 12:19 AM
Improvements in the Mississippi

- No longer raw sewage in river
- Communities use the river for drinking water
- River can be used for recreation
- Lower bacteria levels in river
- 90% reduction in toxic algae blooms
Mercury reductions

• The Metropolitan Council and the Minnesota Dental Association implemented a highly successful and innovative dental amalgam recovery program.

• In just three years, the program reduced up to 50% of Metro Plant’s mercury load.
Municipal Water Use in Seven-County Twin Cities Metropolitan Area, Minnesota

- % Groundwater
- % Surface Water

<table>
<thead>
<tr>
<th>Period</th>
<th>% Groundwater</th>
<th>% Surface Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941-1950</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>1951-1960</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>1961-1970</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>1971-1980</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>1981-1990*</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>1991-2000</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>2001-2010</td>
<td>25%</td>
<td>75%</td>
</tr>
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</table>
Protecting community wells

• Urban stormwater commonly contains heavy metals, volatile organic compounds, and chloride.

• Stormwater recharges aquifers, where many communities get their drinking water.

• Met Council implemented wellhead protection
  
  – Wellhead protection is a method of preventing contamination of a public water supply well by managing potential contaminant sources in the area.
Affordable Housing
Links between housing & health

- Substandard housing
- Unaffordable housing
- Unstable housing
- Council policies/programs
Substandard housing

- Links between poor housing and poor health
  - Lead exposure → neurological disorders
  - Mold → asthma, respiratory problems
  - Structural deficiencies → injuries
Poor housing, neighborhood conditions

Lower educational attainment

High noise levels = stress

Increased medical costs

Food desserts
Unaffordable housing

- Which bills to pay?
- Less money for health care
- Less money for nutritious food
Lack of stable housing

- Mental health problems
- Declines in educational achievement
- Disruption of medical care
Specialized housing

- Domestic abuse shelters
- Housing and services for older adults
Council’s Role in Housing: Metro HRA

• Section 8 vouchers

• High building inspection standards

• Greater need than resources → sequestration means 500 fewer families served
Council’s Role in Housing: Livable Communities Act

- Creating and preserving affordable housing
- Mixed-income opportunities
Corridors of Opportunity

• **Big Picture Project:** unified affordable housing strategy along Central Corridor

• Stimulate economic development
• Strengthen neighborhoods & stabilize housing
• Engage under-represented communities
Community wellness requires health in all policies

- Transit
- Multi-modal transportation
- Safe, affordable housing
- Specialized housing
- Wastewater treatment
- Planning for future of water supply
“Public health is what we, as a society, do collectively to assure the conditions in which people can be healthy.”

-Institute of Medicine (1988), Future of Public Health