

# LINKING TRANSPORTATION PLANNING AND HEALTH OUTCOMES

April 14, 2015

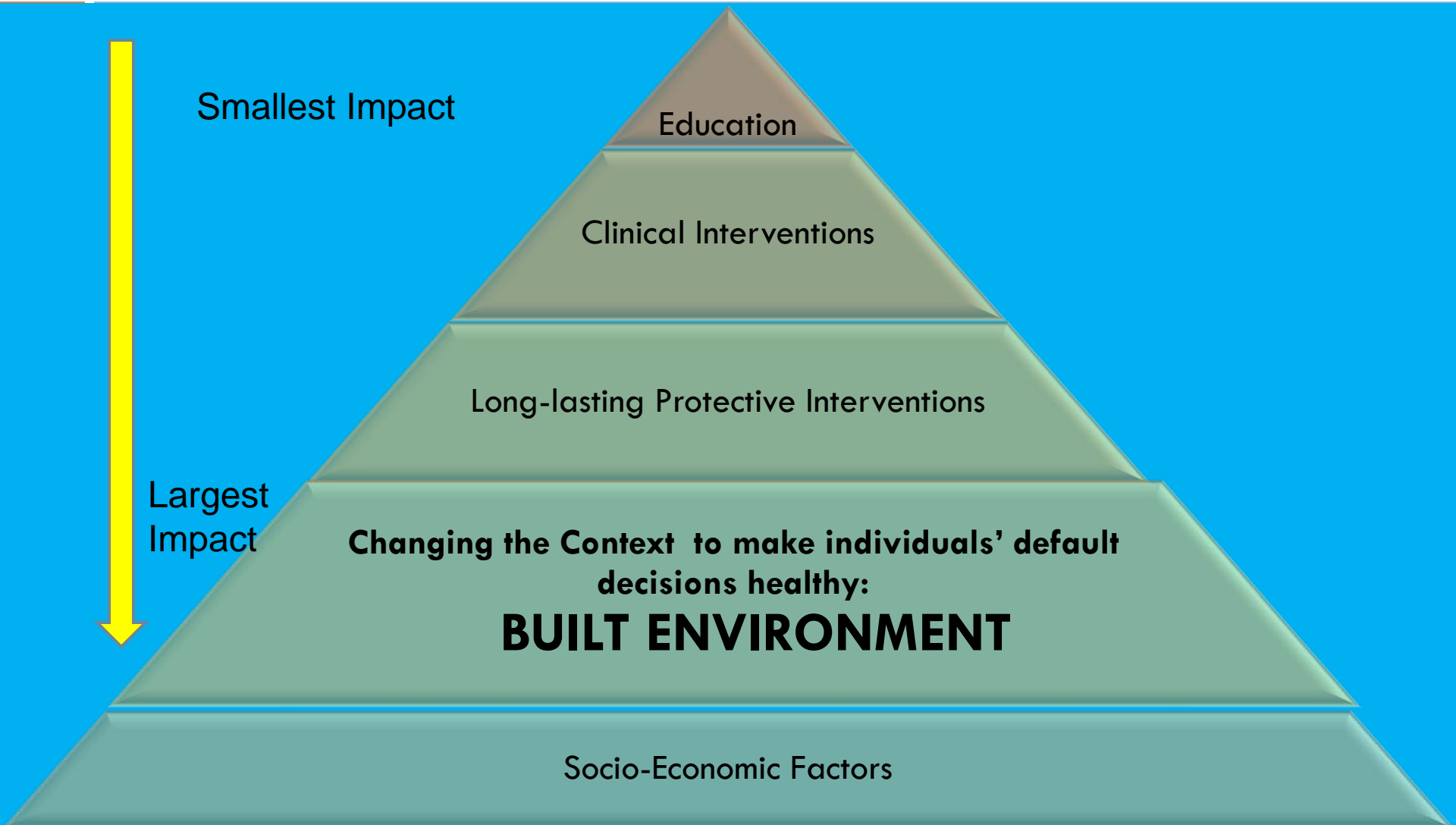
Spokane Plan Commission Transportation Sub-Committee

# 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



# Factors that Affect Health





Air Pollution



Social Capital



Sedentary



Lifestyle



Safety

# Air Pollution

- Asthma and respiratory illnesses more likely within 300 feet of a major roadway
  - ▣ 4 schools, ~3,000 students
- 16.4% of adolescents have asthma
  - ▣ Higher than US, same as WA

# Asthma and Air Pollution

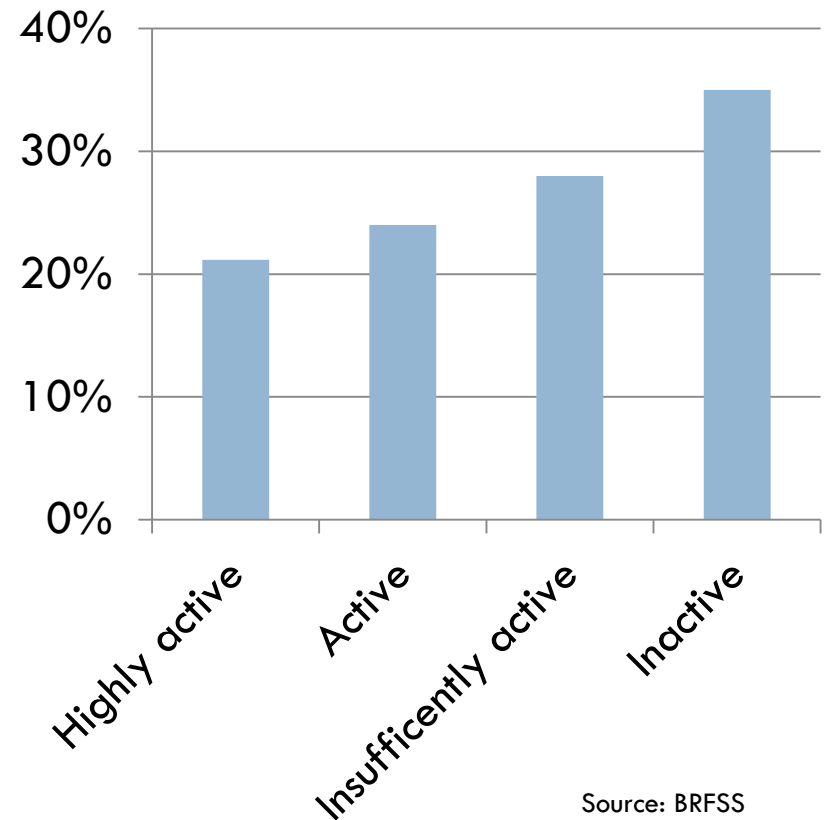
- Natural experiment during 1996 Summer Olympic games in Atlanta
- Peak morning traffic decreased 23% and peak ozone levels decreased 28%
- Asthma-related emergency room visits by children decreased 42%
- Children's emergency visits for non-asthma



# Sedentary Lifestyle

- 60% of Spokane County adults are overweight or obese
- Inactive adults 2x more likely to be obese
- Obese residents more likely to be hospitalized for chronic conditions
- Half of 6<sup>th</sup> grade children never walk or bike to school

**Obesity by Activity Level  
Spokane County Adults, 2011**



Source: BRFSS

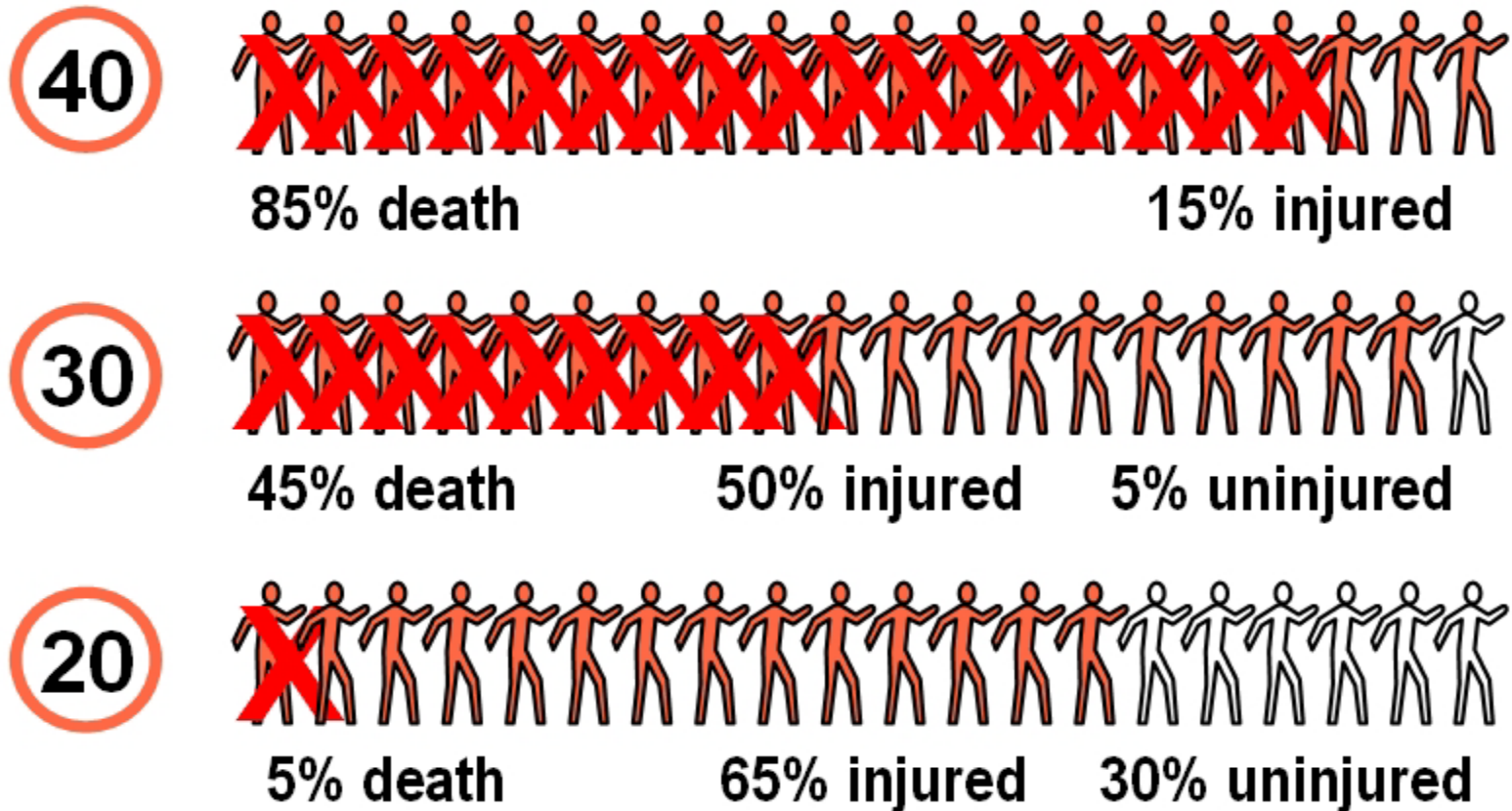


# Safety

- 40 non-fatal pedestrian injuries per year
- 5 fatal pedestrian injuries per year
  
- 8 non-fatal bicyclist vs MV injuries per year
- 1 non-fatal bicyclist vs MV injuries per year
  
- Barriers to walking are busy traffic (53%) and lack of sidewalks (44%)

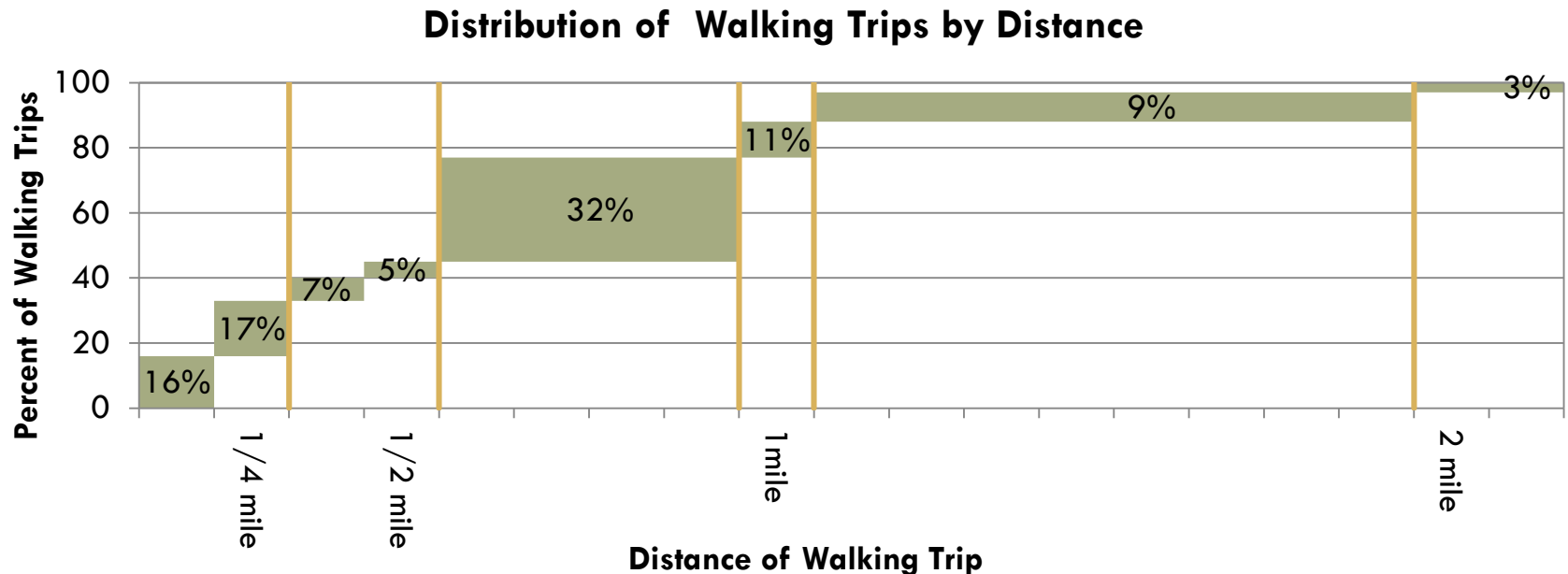
# Safety

## Pedestrian Injuries at Impact Speed



# Social Capital

- 87% of Spokane County workers drove or rode in a car to work
- Average travel time to work was 21 minutes.
- Nationally, 16% of people walk at least once per day
  - Most reported reasons were walking the dog or for recreation



# Cost of Transportation-Related Health Outcomes

## Motor vehicle crashes

\$180 billion per year

Includes:

- Health care costs
- Lost wages
- Property damage
- Travel delay
- Legal/administrative costs
- Pain and suffering
- Lost quality of life

## Obesity and overweight

\$142 billion per year

Includes:

- Health care costs
- Lost wages from illness or disability
- Future earnings lost by premature death

## Air pollution from traffic

\$50-80 billion per year

Includes:

- Health care costs
- Premature death

# Report: “Linking Transportation Planning and Health Outcomes”

## Recommendations:

- ❑ Reduce vehicle emissions through speed reduction and increased use of active and public transportation.
- ❑ Provide traffic calming methods, increase road connectivity, and limit block size to less than 600 feet to increase physical activity.
- ❑ Design city streets to reduce motor vehicle speed and minimize pedestrian and bicyclist injuries.
- ❑ Provide a community gathering place, a safe place to walk or bike, and accessibility of public transit to improve social capital, increase physical activity levels, stimulate interactions with neighbors, and decrease stress from commuting.
- ❑ Conduct a health impact assessment for all transportation related projects. Prevention and safety measures are often times less expensive than treating poor health outcomes.

# CDC Recommendations for Improving Health through Transportation Policy

- ❑ Reduce injuries associated with motor vehicle crashes
- ❑ Promote active transportation
- ❑ Expand public transportation
- ❑ Reduce transportation-related air pollution
- ❑ Encourage healthy community design

[www.cdc.gov/transportation](http://www.cdc.gov/transportation)