At the Intersection of Health and Transit

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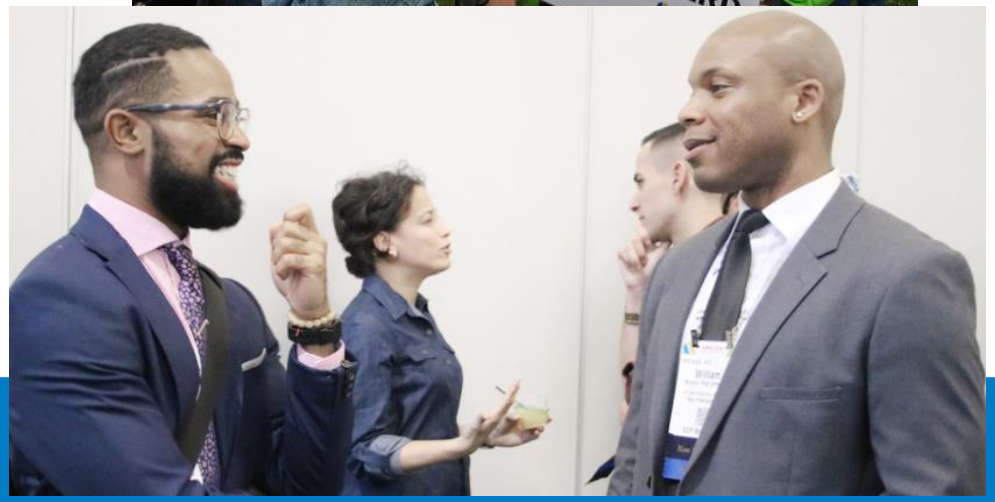

We will achieve our mission if we:

- Support a diverse public health workforce
- Foster new public health science
- Facilitate cross-sector efforts

- Strengthen our core
- Expand our base
- Advance health in all policies

- Configure components, staff and programs to maximize opportunities to achieve central challenge
- Ensure responsible stewardship

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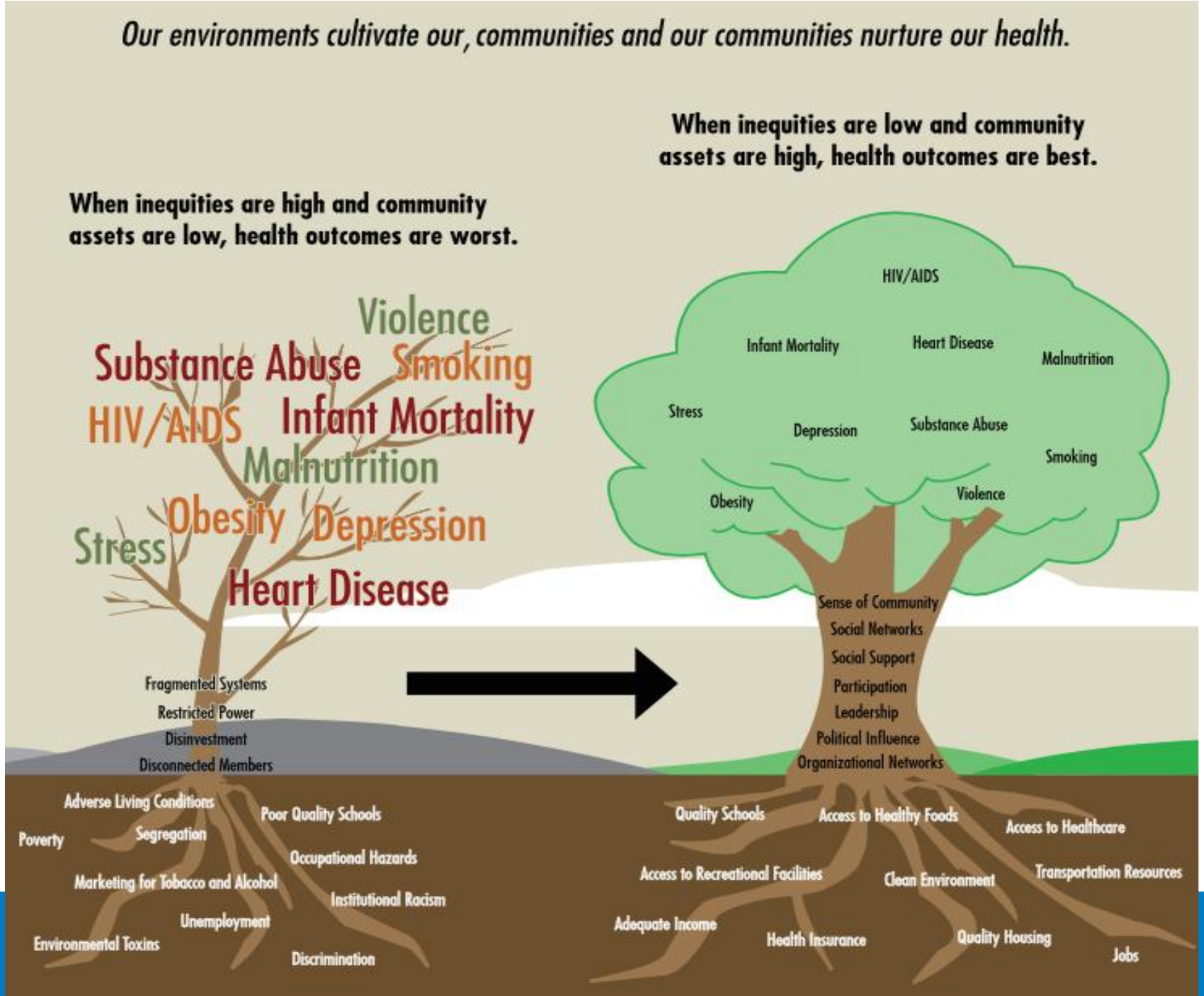


Image source: CDC- Promoting Health Equity: A Resource to Help Communities Address Social Determinants of Health

Equity and Equality

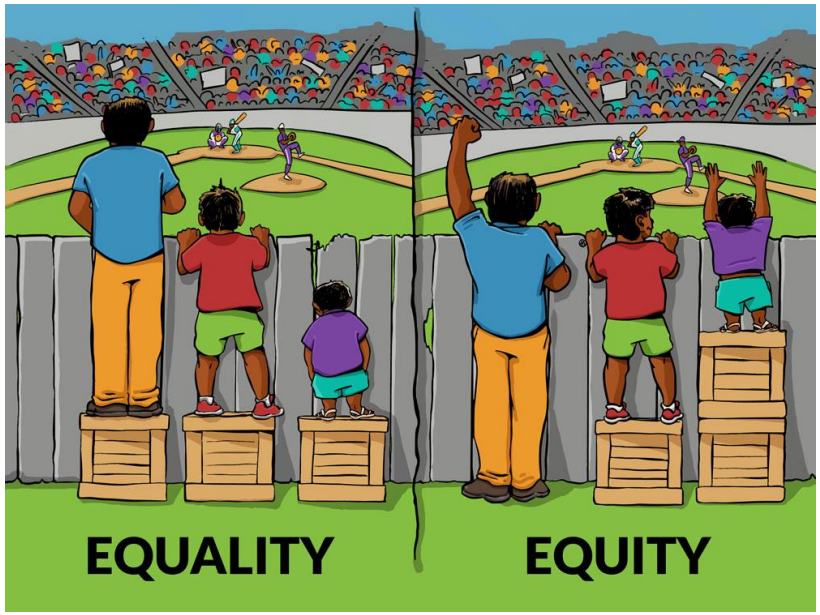


Image Source: Interaction Institute for Social Change, Artist: Angus Maguire. http://culturalorganizing.org/the-problem-with-that-equity-vs-equality-graphic/

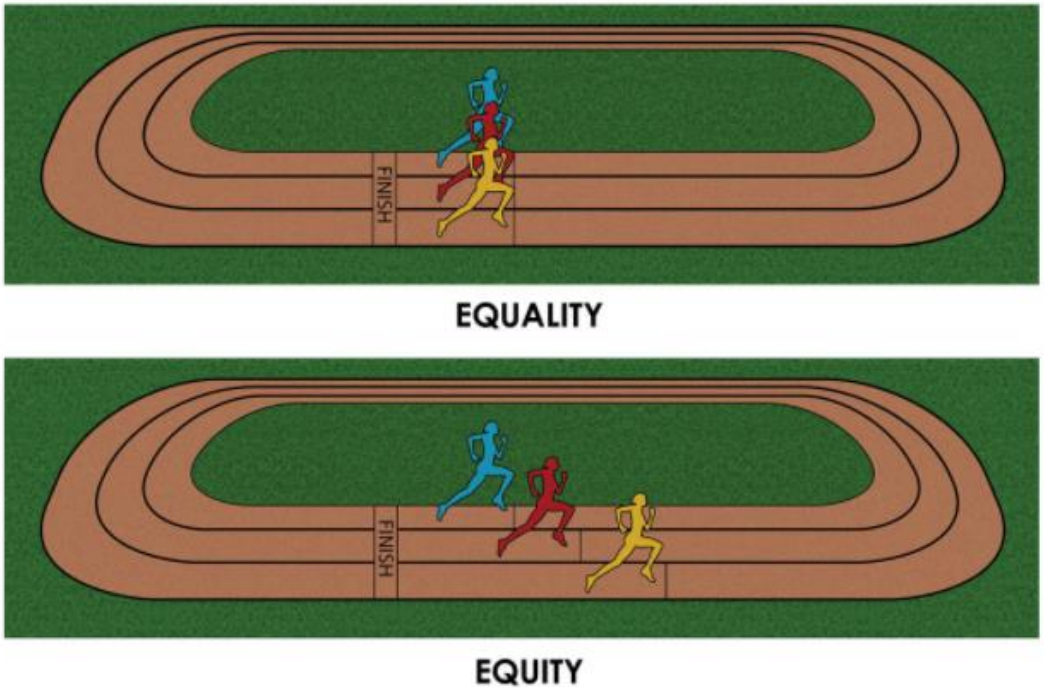


Image Source: http://culturalorganizing.org/the-problem-with-that-equity-vs-equality-graphic/

How Transportation Impacts Health and Equity Costs

Image Source: The Hidden Health Costs of Transportation, https://www.apha.org/~/media/files/pdf/factsheets/hidden_health_costs_transportation.ashx

Air Quality

Traffic-related air pollution is linked with:

- Asthma and other respiratory symptoms
- Decreased lung function
- Development of cardiovascular disease and death
- Increased risk of dementia incidence

Photo obtained from: www.pedbikeimages.org/ Dan Burden

Health Impacts of Major Roadways on Children

- Children's respiratory systems are still developing making them sensitive to air pollution
- Associated with asthma, impaired lung development, low-birthweight infants, & childhood leukemia
- Children of color and children living in low-income communities are more likely to live near high-volume traffic roadways

Resource: Photo obtained from: www.pedbikeimages.org/ Unknown

Air Quality

- Atlanta, GA- 1996 Olympic Games
  - Peak traffic decreased, ozone concentration decreased, temporary decrease in pediatric asthma burden
- Los Angeles, CA- 2011 Closure of Interstate 405
  - Traffic reductions, reduction in ultrafine particles and less black carbon

Image source: Jae C Hong/ Associated Press, http://www.nytimes.com/2011/07/17/us/17freeway.html

Safety

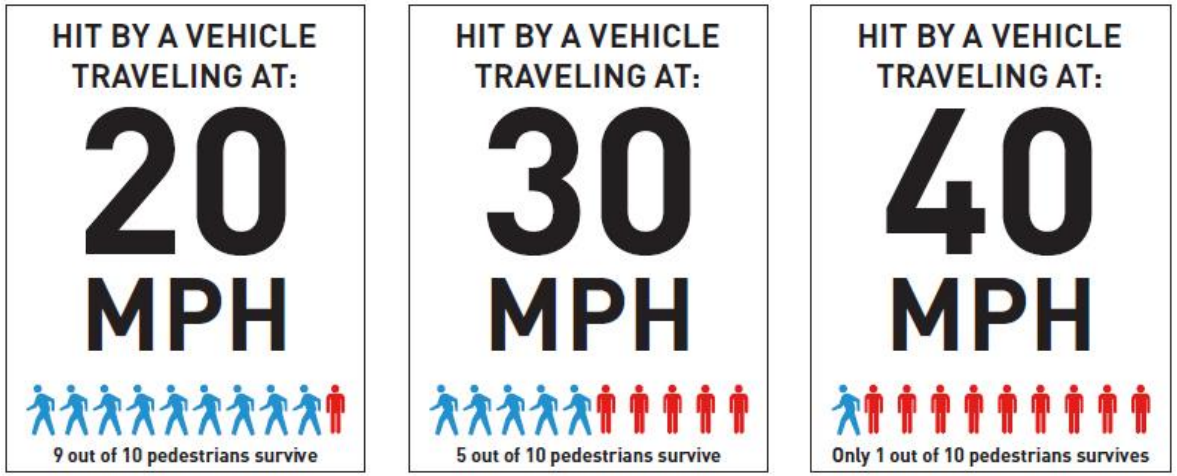


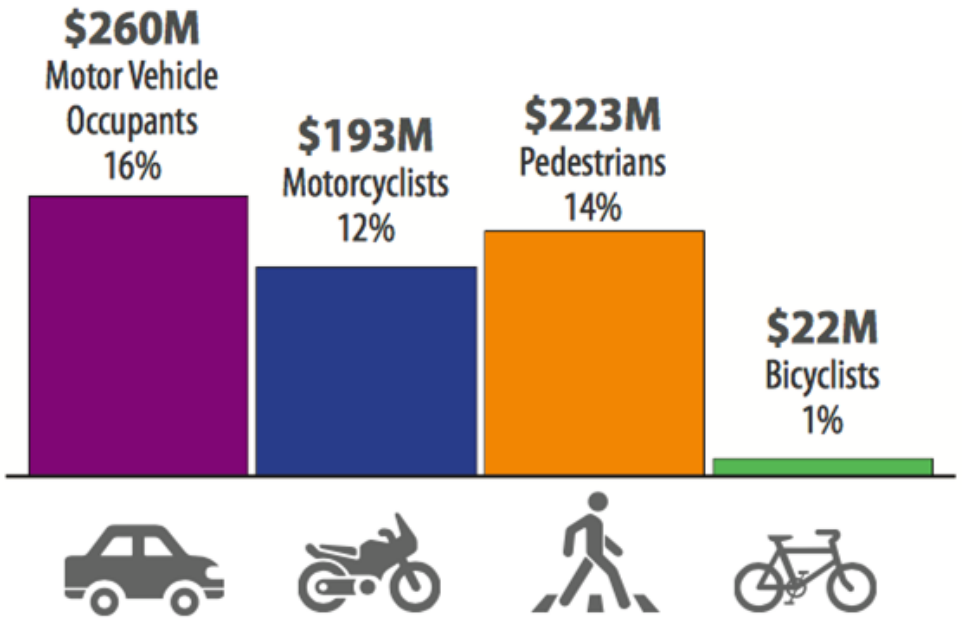
Image Source: http://visionzeronetwork.org/resources/speed-fatality-map/; Seattle Department of Transportation

- More than 32,000 people are killed and 2 million are injured each year from motor vehicle crashes
- Approximately 90 people die each day in the US from crashes

PENNSYLVANIA

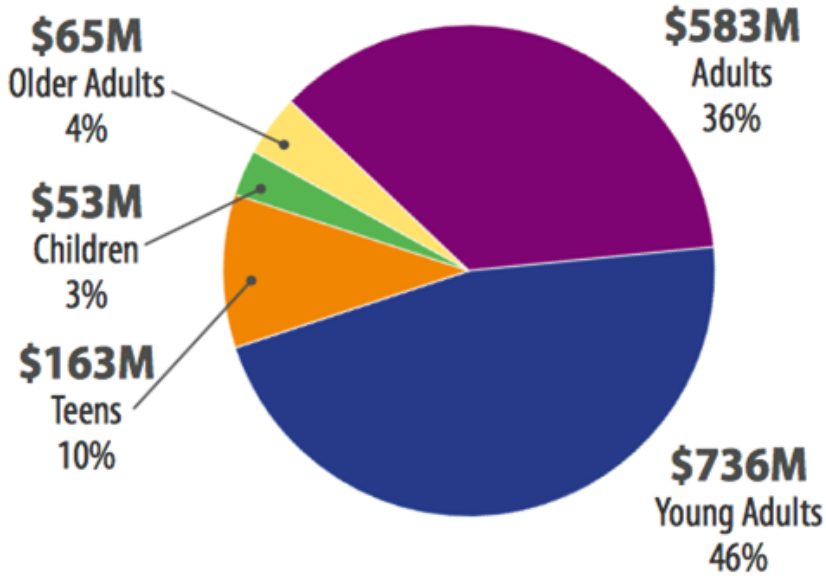
$17 Million Medical costs + **$1.58 Billion** Work loss costs = **$1.60 Billion** Total cost of crash-related deaths in Pennsylvania in one year.

BY TYPE OF ROAD USER



In Pennsylvania, $903 million (56%) were categorized as "other/unspecified."

BY AGE GROUP



Children: 0–14, Teens: 15–19, Young Adults: 20–34, Adults: 35–64, Older Adults: 65+

Information obtained from: https://www.cdc.gov/motorvehiclesafety/pdf/statecosts/pa-2015costofcrashdeaths-a.pdf

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Pedestrian Inequities

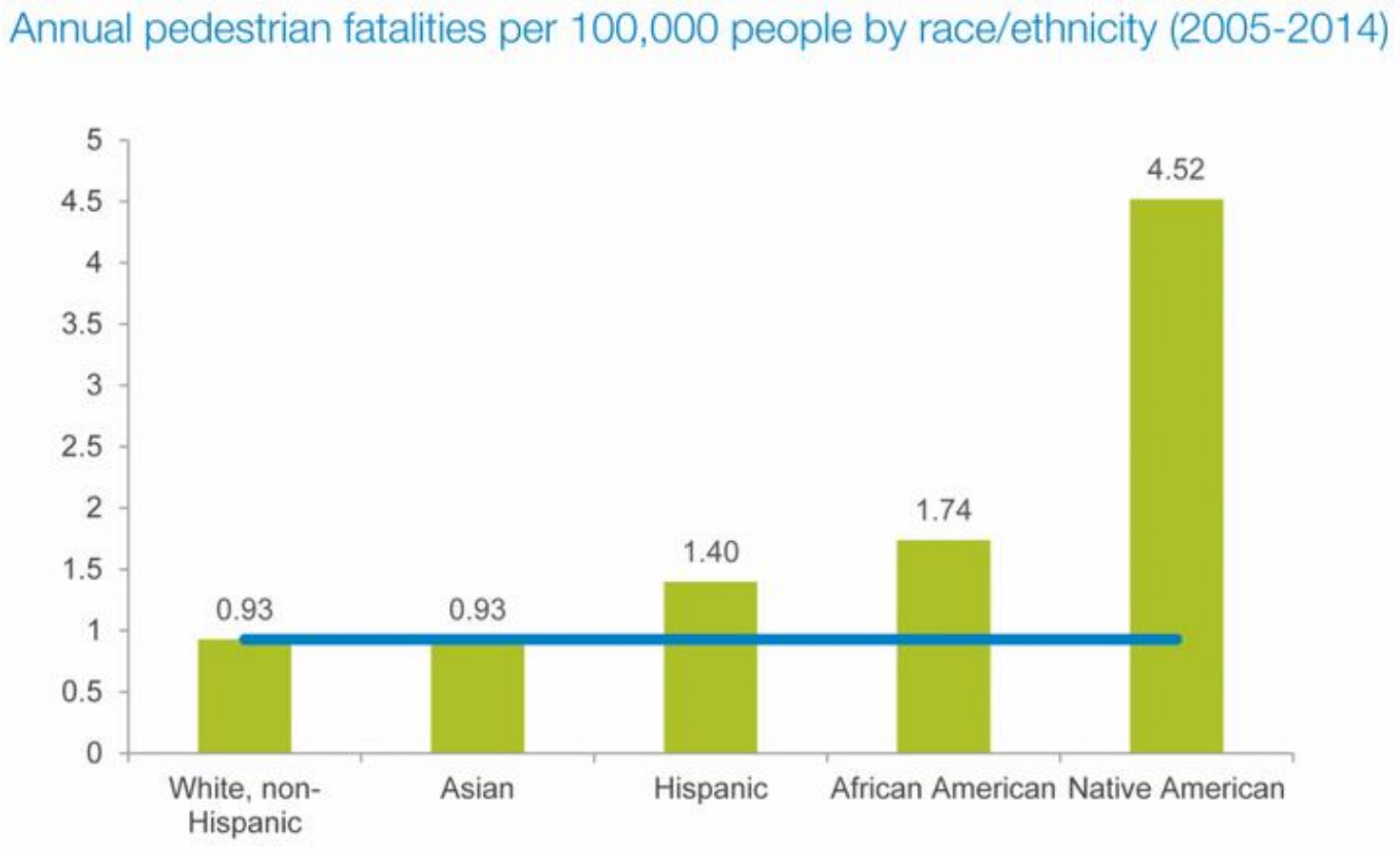

Image source: Dangerous by Design 2016, https://smartgrowthamerica.org/dangerous-by-design/

Transportation, Noise and Health

- Noise impacts sleep, concentration, and increases risk of coronary heart disease and hypertension
  - Children especially vulnerable- exposure to high levels is associated with such effects as stress symptoms, language development, and reductions in learning ability

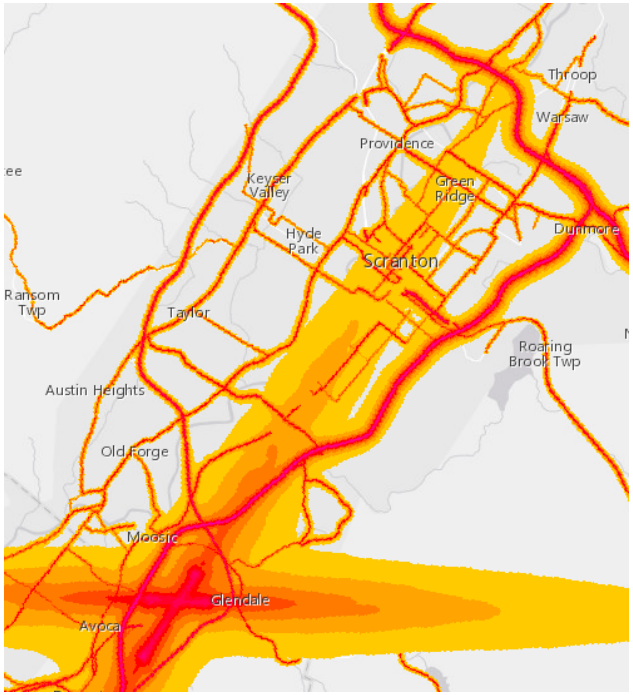

Image Source:
https://maps.bts.dot.gov/arcgis/apps/webappviewer/index.html?id=a303ff5924c9474790464cc0e9d5c9fb

Climate Change, Transportation and Health

Image Source: Making the Connection: Changing Climate through Healthy Community Design and Transportation APHA Factsheet

TRANSPORTATION AND DESIGN
Impacts on Climate Change and Health

Driving releases harmful pollutants into the environment. People both inside and outside the vehicle are exposed.

CLIMATE IMPACTS:
Increases Traffic, Increases Pollution

HEALTH IMPACTS:
Decreases physical activity
Increases chronic disease risk
Worsens existing chronic disease

Many people can be transported at once via mass transit, reducing vehicles on roads. This form of transportation also encourages walking between stops and destinations.

CLIMATE IMPACTS:
Reduces Traffic, Reduces Pollution

HEALTH IMPACTS:
Increases physical activity (slightly)
Increases safety, Decreases stress
Increases social interaction

Walking, biking, and rolling to the places we need to go is termed active transportation. People who have options to reach their destinations without driving can have more active lifestyles. Active lifestyles promote healthier lives.

CLIMATE IMPACTS:
Reduces Traffic, Reduces Pollution

HEALTH IMPACTS:
Increases physical activity, Decreases chronic disease risk, Decreases stress, Increases social interaction

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Public Transit & Physical Activity

- Public transit use linked to higher physical activity
  - One study demonstrated 29% of transit walkers achieve 30 minutes daily physical activity walking to and from public transit
  - In 2007, a study demonstrated a savings of $5,500/ person over a lifetime from the extra walking due to transit use
- Reduces health risk factors such as air pollution, vehicle crashes and physical inactivity

Photo obtained from: www.pedbikeimages.org/ Dan Burden

Image Source: Active Living Research: http://activelivingresearch.org/ActiveTravelinfographic

Transportation Access

- Lack of transportation options can be a barrier to employment
  - Greatest barrier for low-income populations, populations with disabilities, and communities of color
- Lack of transportation access associated with lack of regular medical care, missed appointments, and less healthcare use
  - Due to transportation issues, approximately 3.6 million Americans miss or delay non-emergency medical care every year.

Crosswalk Celebration- Baltimore Greenway Trails Coalition

Video hosted on the Plan4Health website: http://plan4health.us/plan4health-coalitions/baltimore-md-baltimore-greenway-trails-coalition/

Health Inequities

Low-income communities and communities of color are more likely to have:

- inadequate infrastructure promoting active transportation
- higher risk of injury or death due to motor vehicle crashes
- higher risk of chronic disease

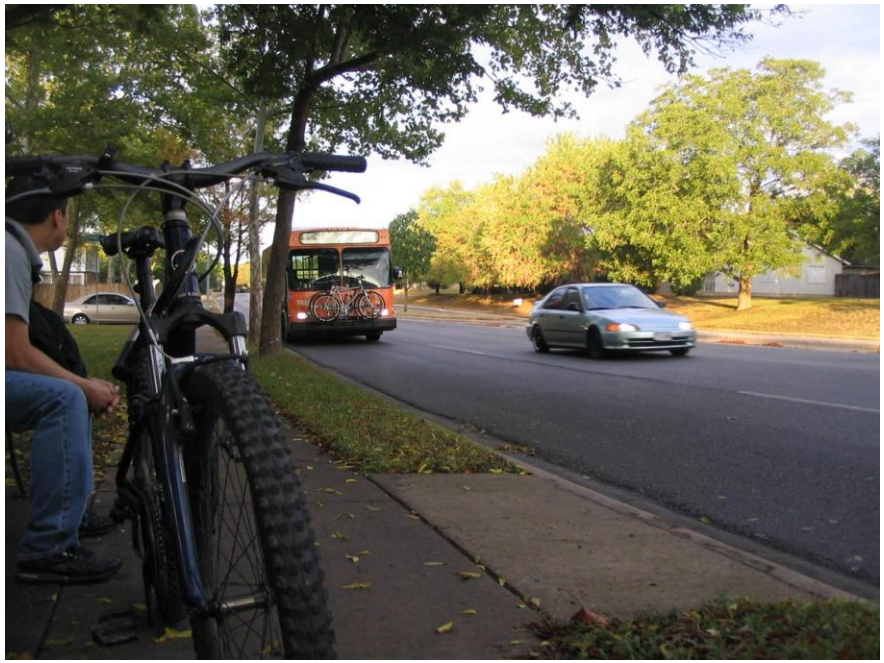

Photo obtained from: www.pedbikeimages.org/ Greg Griffin

Partnerships and Tools to Advance Health Equity

Photo obtained from www.pedbikeimages.org/ Dan Burden

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Partnering with Public Health Professionals

- Cross-sector coalitions
- Provide health data to make the case
- Address health inequities

Dr. Jonathan Patz presenting to WI Governor's Bicycle Coordinating Council Meeting, photo courtesy of Dr. Maggie Grabow

Co-benefits of Partnerships

- Pooling of resources
- Strength in numbers
- Access to a larger network of people
- Increased flexibility
- Sustainability
- Advance win-win opportunities for all partners involved

The Collaboration Continuum

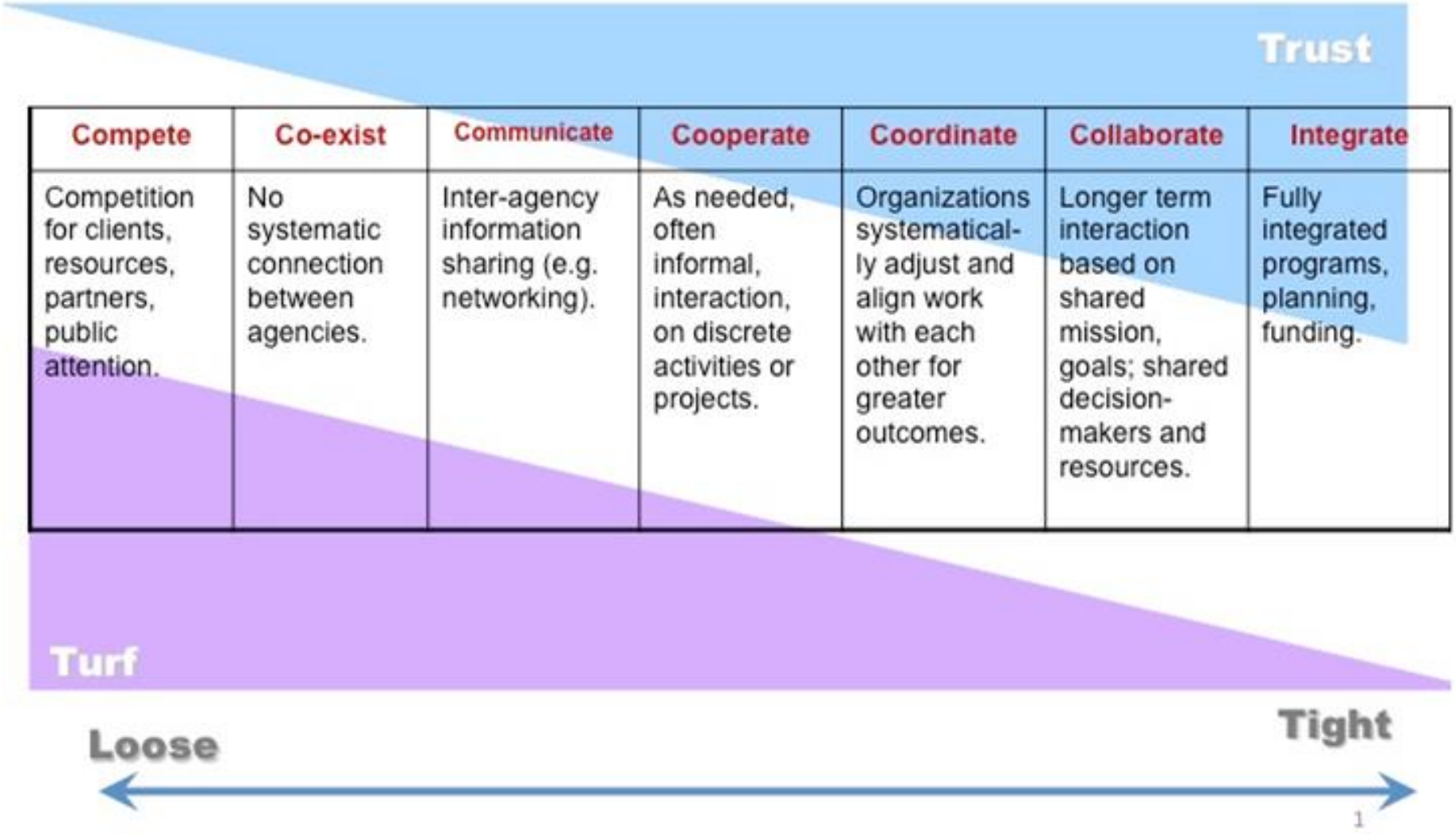

Image source: http://www.collaborationforimpact.com/collaborative-approaches/ca-subpage-2/

Transportation and Health Tool

https://www.transportation.gov/transportation-health-tool

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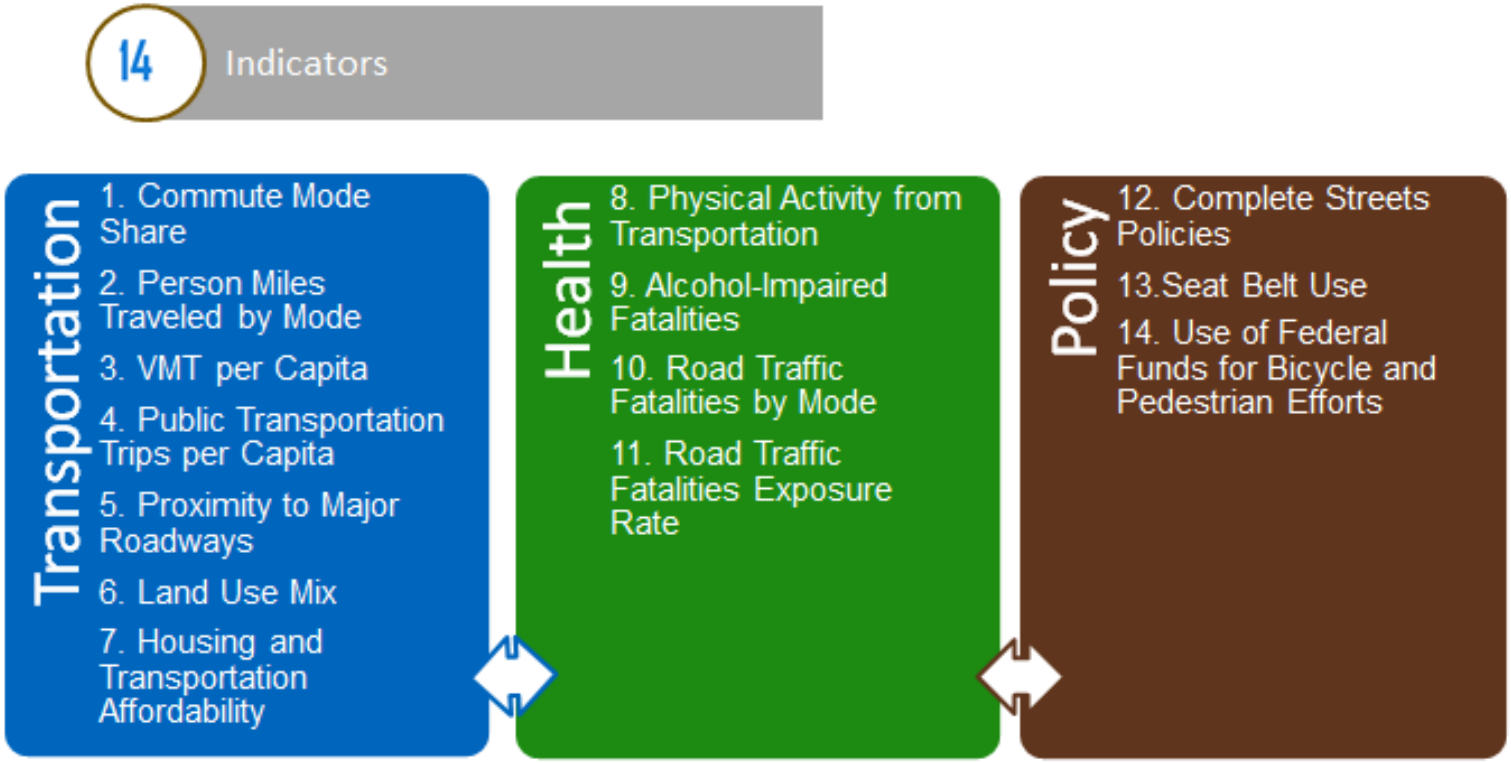
Goals for the Transportation and Health Tool

- Raise awareness about the links between transportation and health in both sectors
- Encourage health-supportive federal, state, and regional transportation policy and project decisions
- Support more effective and efficient collaboration between the transportation and public health sectors

Indicators



Graphic courtesy of Planning Communities

Transportation and Health Tool Strategies

- Built environment strategies to deter crime
- Child Passenger Safety laws, child safety seat distribution programs, education & enhanced enforcement
- Clean freight
- Complete Streets
- Distracted driving
- Encourage and promote safe bicycling & walking
- Expand bicycle & pedestrian infrastructure

- Expand public transportation
- Graduated driver licensing systems
- Health impact assessment (HIA)
- Health performance metrics
- High-occupancy vehicle lanes
- Impaired driving laws
- Improve roadway safety
- Improve vehicles & fuels
- Integrate health & transportation planning

- In-vehicle monitoring & feedback
- Multimodal access to public transportation
- Promote connectivity
- Ride sharing programs
- Rural public transportation systems
- Safe Routes to School programs
- Seat belt laws
- Strengthen helmet laws
- Traffic calming to slow vehicle speeds

Photos obtained from: www.pedbikeimages.org/ Lyubov Zuyeva, Dan Burden & Greg Griffin, AICP

Transportation & Health Tool Case Studies

APHA.ORG/TRANSPORTATION

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MetroPlan Orlando, Florida

- Use the THT to:
  - Develop a comprehensive guide that ensure transportation investments promotes health
  - Include health in its Long Range Transportation Plan
  - Integrate indicators in the Corrine Drive Complete Streets study

Delaware Department of Transportation

Table 2: Implemented and Needed Strategies for Each Geographic Scenario

THT Strategy*	Dover County	Kent County	Georgetown	MOT
Built environment strategies to deter crime				☐
Child passenger safety laws				
Clean freight (reduce diesel emissions)				☐
Complete Streets	☐	☐		
Distracted driving				
Encourage safe bicycling and walking	☐	☐		
Expand bicycle and pedestrian infrastructure	☐	☐		
Expand public transportation			☐	
Graduated driver licensing systems				
Health impact assessment (HIA)		☐	☐	☐
Health performance metrics		☐	☐	
High-occupancy vehicle lanes				☐
Impaired driving laws				
Improve roadway safety	☐		☐	
Improve vehicles and fuels				
Integrate health and transportation planning	☐	☐	☐	☐
In-vehicle monitoring and feedback				
Multimodal access to public transportation	☐		☐	
Promote connectivity	☐	☐	☐	☐
Ride sharing programs		☐	☐	
Rural public transportation systems		☐	☐	
Safe Routes to School programs		☐		
Seat belt laws				
Strengthen helmet laws				
Traffic calming to slow vehicle speeds			☐	

■ Implemented Strategies ☐ Needed Strategies

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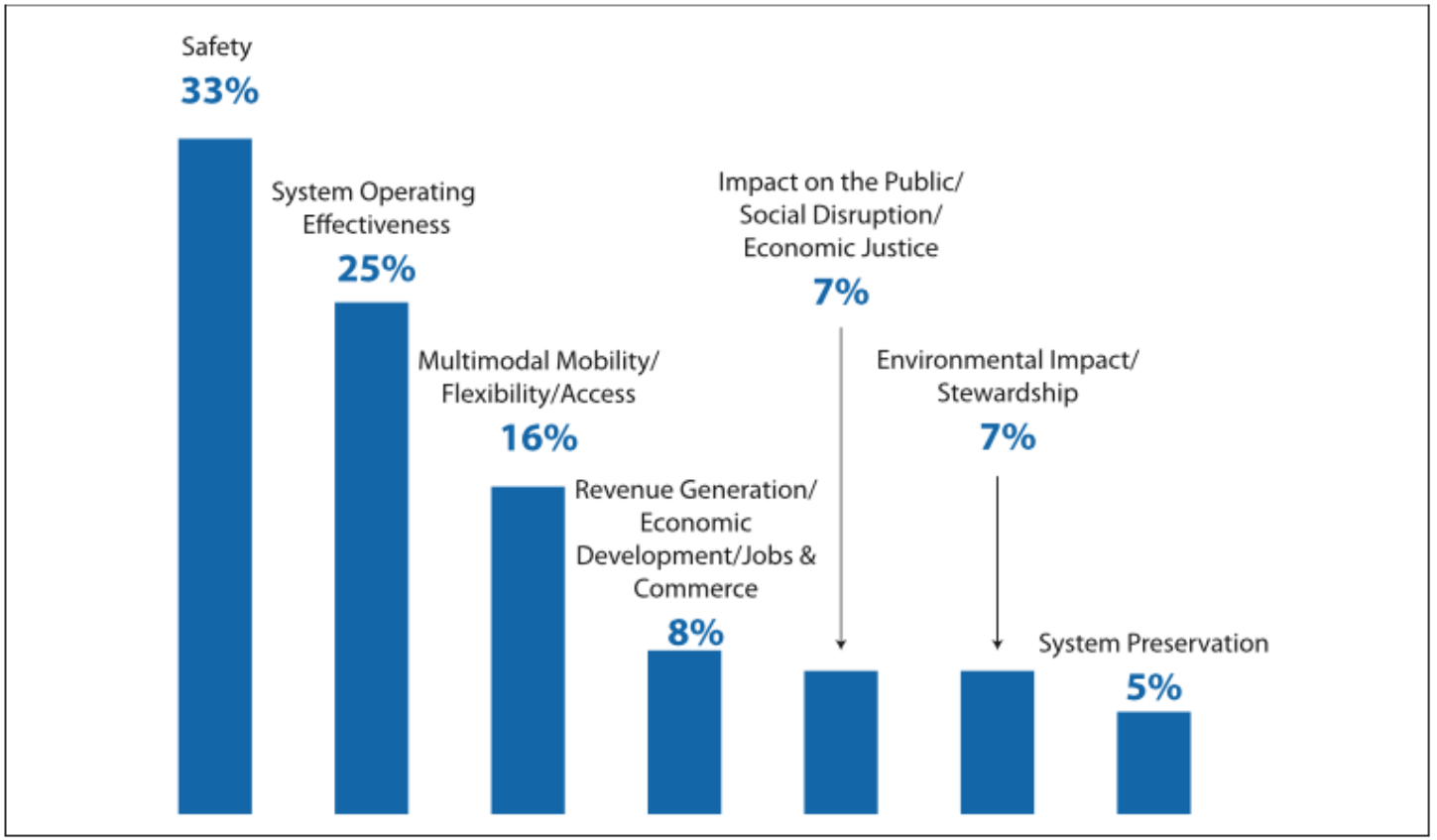
Figure 1: DelDOT's Seven Prioritization Criteria and Their Weights



Metropolitan Planning Organization case studies

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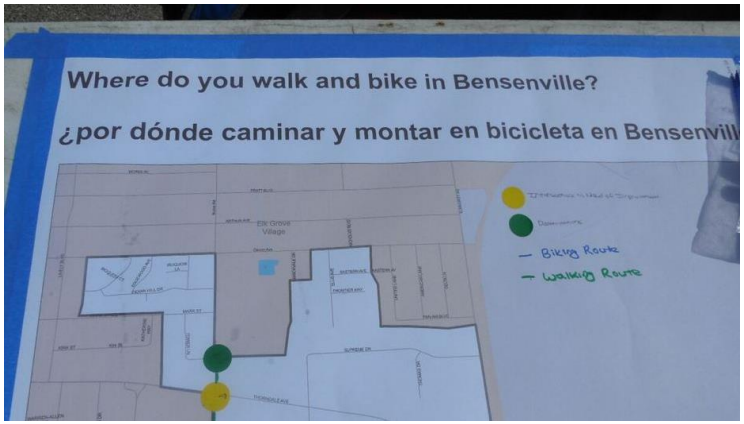
Nashville Area Metropolitan Planning Organization

- Designed a scoring and selection process to prioritize the projects to ensure public health outcomes
- 77% of projects selected for funding in the MPO's 2040 Middle Tennessee Connected plan include a bicycling or walking element

Promising Practices

- Plan4Health
- Vision Zero
- Complete Streets
- Safe Routes to School



UNIQUE PARTNERSHIPS:

Advancing healthy, active living in Austin, Texas

Environmental health professionals are working across sectors to ensure healthy communities for all. In understanding the decisions made upstream impact communities downstream, partnerships become key to lessening or improving the negative health impacts of our natural and built environments. Through these partnerships, environmental health professionals are able to integrate health and equity considerations in the planning and decision-making process to achieve healthier environments for all.

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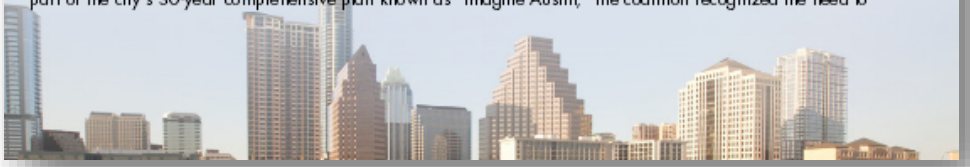
Within the health and planning sectors, there is a growing movement to collaborate to advance healthy community design and health equity and to integrate health considerations into planning and policy decisions. In Austin, Texas, officials recognized the benefits of cross-sector collaboration and the need to grow and sustain existing partnerships among transportation, health and human services, and planning and zoning agencies, eventually gaining additional support through the Plan4Health project. Plan4Health, a partnership between the American Public Health Association and the American Planning Association, is a program that encourages local APA chapters, APHA affiliates, and health and non-traditional health partners to form local coalitions to improve population health and reduce chronic disease risks through healthy planning.

Happily, Austin received funds to create the Austin Plan4Health Pilot Program and advance its work to increase physical activity and improve access to nutritious foods. The Austin Plan4Health coalition not only included the city's Planning and Zoning and Health and Human Services Departments, but also local partners such as the Office of Sustainability, Transportation Department, Capital Metropolitan Transportation Authority, the Texas APA chapter and Texas Public Health Association. Once the coalition was formed, partners created a shared vision for increasing physical activity and improving access to nutritious, local foods using best practices in district food planning and travel training programs.

The Austin Plan4Health coalition is focusing its efforts in North-Central Austin, which serves more than 21,000 residents, 68 percent of which identify as Hispanic or Latino. North-Central Austin community residents typically face less access to fresh, healthy and affordable foods, fewer transportation options and greater economic barriers than many other communities in Austin. Additionally, North-Central Austin is characterized by significant health disparities and a high burden of chronic diseases. Through a community health assessment conducted in 2012 as part of the city's 30-year comprehensive plan known as "Imagine Austin," the coalition recognized the need to



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GROUP BREAKOUT

1. How will you use the information you learned today in your work with the Northeast Pennsylvania Equitable Transportation Planning Council?
2. Who else needs to be at the table to advance health equity?

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