

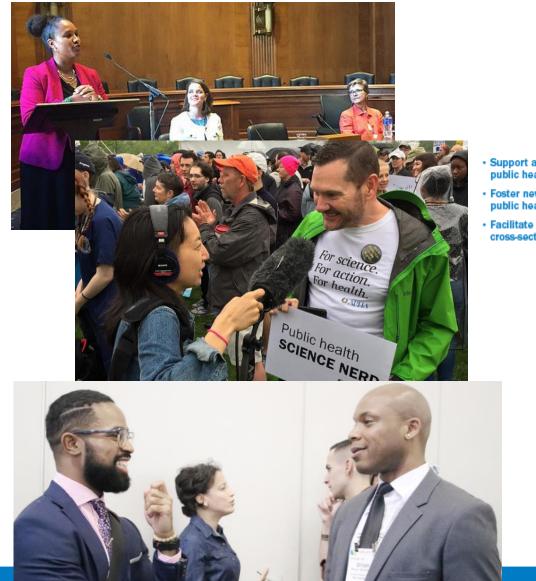
At the Intersection of Health and Transit

October 17, 2017

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American Public Health Association

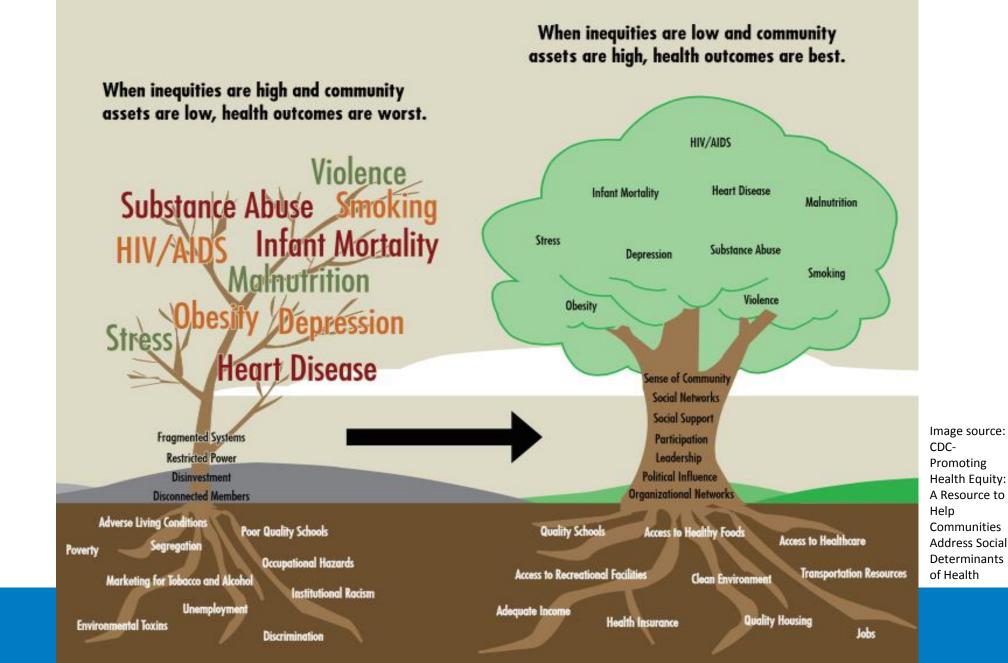


Support a diverse Strengthen Strengthen Build a public health workforce our core public health public health Foster new Expand our base practice movement public health science Advance health THE in all policies HEALTHIEST cross-sector efforts NATION Align organizational capacity and infrastructure · Configure components, staff and programs to maximize opportunities to achieve central challenge Ensure responsible stewardship

We will achieve our mission if we:



Our environments cultivate our, communities and our communities nurture our health.



Equity and Equality

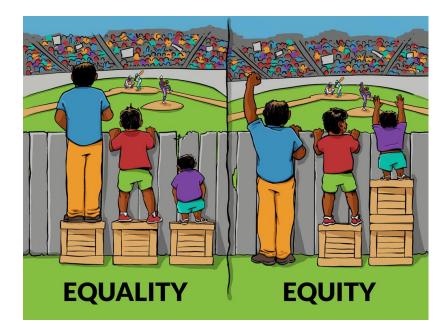
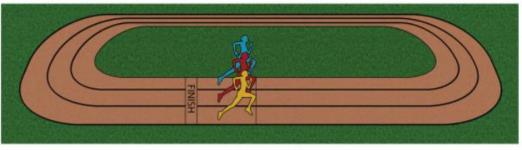
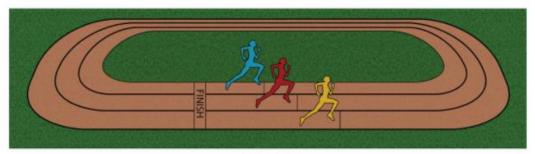


Image Source: Interaction Institute for Social Change, Artist: Angus Maguire. <u>http://culturalorganizing.org/the-problem-with-that-equity-vs-equality-graphic/</u>



EQUALITY



EQUITY

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



How Transportation Impacts Health and Equity Costs

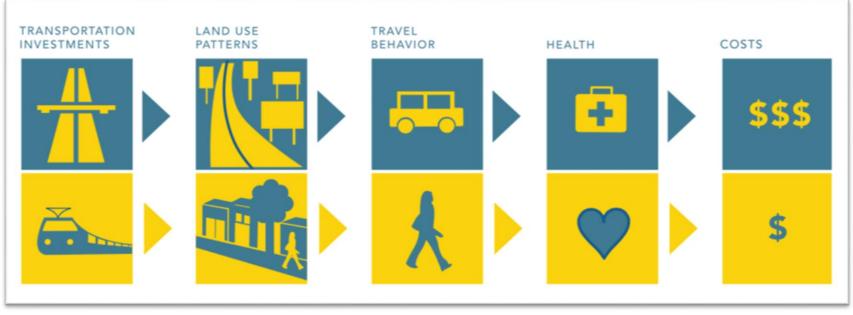


Image Source: The Hidden Health Costs of Transportation, <u>https://www.apha.org/~/media/files/pdf/factsheets/hidden_health_costs_transportation.ashx</u>



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: <u>www.pedbikeimages.org/</u> 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





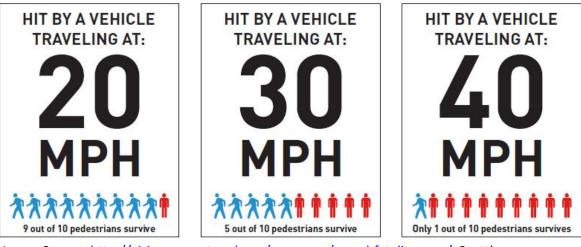
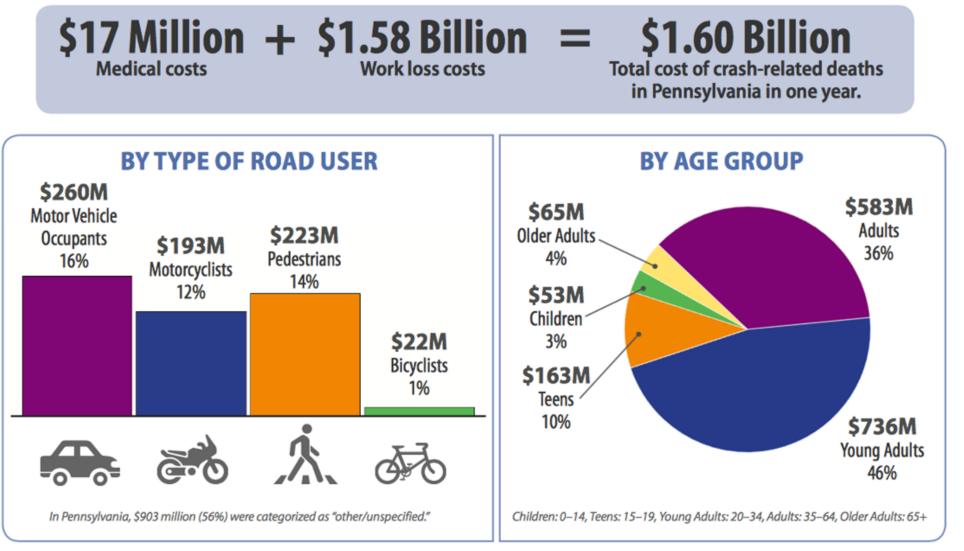


Image Source: <u>http://visionzeronetwork.org/resources/speed-fatality-map/</u>; Seattle Department of Transportation

- 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



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



Pedestrian Inequities

Annual pedestrian fatalities per 100,000 people by race/ethnicity (2005-2014)

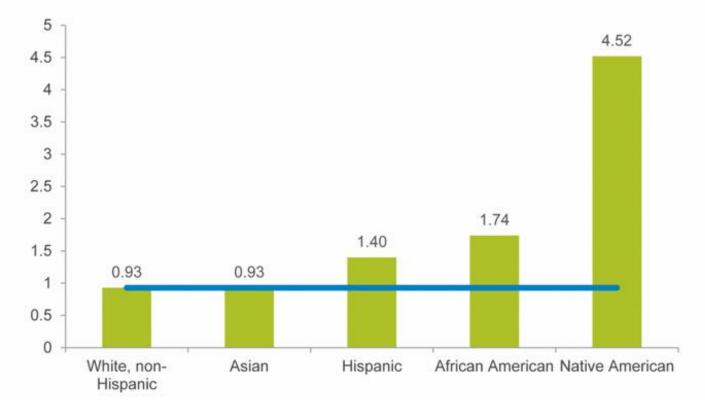


Image source: Dangerous by Design 2016, https://smartgrowthamerica.org/dangerous-by-design/



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

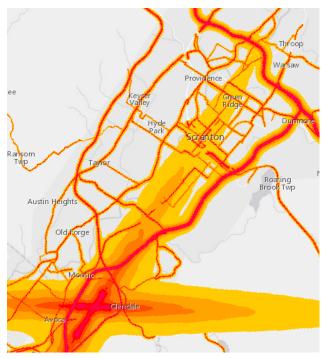


Image Source: https://maps.bts.dot.gov/arcgis/apps/webappviewer /index.html?id=a303ff5924c9474790464cc0e9d5c9fb



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



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

ACTIVE TRANSPORTATION



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

MASS/PUBLIC TRANSPORTATION



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



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



Run errands on foot or bike: A remedy for adult inactivity.



EXPERTS RECOMMEND 150 minutes of physical activity per week

only 50% of U.S. adults meet the guideline.

Walking or biking:

to transit stops provides an average of 12-15 minutes of daily activity.
to work is linked with 11% reduction in the risk of cardiovascular disease. Most errands in the U.S. are within walking or biking distance.

27% are easy walking distance (<1 mile). 61% are easy biking distance (<5 miles).

People who live in:

NEIGHBORHOODS WITH SIDEWALKS ARE:



MIXED-USE NEIGHBORHOODS -WITH WORK, PLAY, AND SHOPPING NEARBY ARE:

33% more likely to meet physical activity quidelines by walking for transportation

SLOWING DOWN TRAFFIC REDUCES CRASHES THAT CAUSE INJURIES BY:



1000

SOURCES U.S. Department of Transportation, Federal Highway Administration (2010) Dur nation's travel. Analysis of the 2009 NHTS In Transportation (JDC, ed Washington DC, Rissel C, et al. (2012) Physical activity associated with public transport use-a review and modeling of potential benefits. Int J Environ Res Public Health. 3(7), 2454-247.8 Harmer M & Choin Y. (2008); Active commuling and cardioassociate raik: A meta-analytic review. Prev Med. 46(1), 3-13. CDC National Center for thealth Establish. RadStats: Resplace or Physical Active; http://www.ob.gov/nche/fastats/werdee.thm. Salls. F. et al. (2009). Neighborhood environments and physical activity among adults in 11 countries. An J Public Health. Sol(9):484-490. Neigh Let al. (2015). Perceived neighborhood environmental attributes associated with valling and cycling for transportation (2015). Area wide urban traffic caliming schemes: a meta-analysis of safety effects. Accid Anal Prev. 33(3):327-336.

Learn more about how policies impact active travel at activelivingresearch.org/ActiveTravelreview.

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



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



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

Trust

Compete	Co-exist	Communicate	Cooperate	Coordinate	Collaborate	Integrate
Competition for clients, resources, partners, public attention.	No systematic connection between agencies.	Inter-agency information sharing (e.g. networking).	As needed, often informal, interaction, on discrete activities or projects.	Organizations systematical- ly adjust and align work with each other for greater outcomes.	Longer term interaction based on shared mission, goals; shared decision- makers and resources.	Fully integrated programs, planning, funding.
Turf						

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

APHA

Transportation and Health Tool

Transportation and Health Tool

Transportation.gov

Home

U.S. Department of Transportation

Transportation and Health Tool Home

Indicator Data

Indicator Profiles

Strategies

Literature and Resources

Scoring Methodology

Background



Photo credit: www.pedbikeimages.org 🖗 / Laura Sandt

What is the Transportation and Health Tool?

The Transportation and Health Tool (THT) was developed by the U.S. Department of Transportation and the Centers for Disease Control and Prevention to provide easy access to data that practitioners can use to examine the health impacts of transportation systems.

Contact Us

Transportation and Health Tool Office of Policy 1200 New Jersey Avenue, SE Washington, DC 20590 United States tht@dot.gov ⊠ Q

Business Hours: 9:00am-5:00pm ET, M-F

Share



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

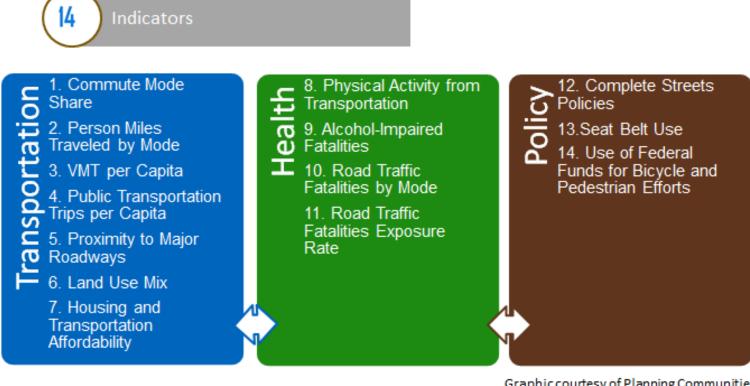


Goals for the Transportation and Health Tool

- 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

DAPHA

- 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

TRANSPORTATION & HEALTH TOOL CASE STUDY





GREENSBORO DEPARTMENT OF TRANSPORTATION, NORTH CAROLINA



THE UNIVERSITY OF NORTH CAROLINA - GREENSBORO (UNCG) has worked in close partnership with the city to promote transportation and health. Together they have established a new foundation for a number of bicycle/pedestrian and public transit initiatives that have made travel around UNCG and other parts of the city safer and more conducive to healthy lifestyles.

> UNCG encourages bicycling and walking on campus by providing more than 860 bicycle parking racks, four bicycle repair stations, and a pedestrian underpass at a majo railroad corridor. The city and UNCG are partners in Watch for Me NC, a program nsored by the North Carolina Department of Transportation to provide pedestrian and bicycle safety education and strengthen effective enforcement.

"The city and University have put considerable effort into improving bicycling and walking transportation infrastructure and safety, enhancing transit services, and promoting equity around the UNCG campus," said Tyler Meyer, Planning Division Manager at the Greensboro Department of Transportation (GDOT).

Because of its ongoing efforts to advance transportation and health, GDOT was selected by APHA, CDC, and the Federal Highways Administration to host a ransportation and Health Tool (THT) implementation workshop in August 2016 The workshop opened a transportation and health dialogue between GDOT, UNCG,

public health agencies, and other valuable stakeholders in the community to support and advance transportation investments that positively impact health. Although Greensboro has made much progress in promoting active transp

stakeholders from academia, health, and transportation had not met to specifically address the link between transportation and health in the city's urban campus corridors. The workshop offered a way for stakeholders to share their perspectives on enhancing three corridors GDOT selected for the workshop and to foster collaboration for transportation and health initiatives in the future.



W TOOL CASE STUDY

S UPLI COC

OOL CASE STUDY

IES AND 14 RURAL COMMUNITIES in cent na onur va nume, cummenter a veneza stranggeou veneza service area includes Yakima County, which is home to more than the Yakama Nation Reservation. The average household in

ed its 2016 cr

compare Yakima County to the rest of War s CHNA process, Memorial is exam affect the health of its patients aining how tr shington State indicator from the Transportation and He ninants of Health section of its CHNA. So nd age that affect a wide range of h alth m. ments in which people are t cial de risks", can influence health more such as he born, live lealth a consider in a CHNA. Mem cand tte Mode Shan s will help pinpoint o used the THT india Sical

and unmaned community again or yop analog provide well from over 60 organizations including state, local, c health care providen s of under

areasity in us everyteay work and attacegic painting. In as one of the top priority areas. Health equity will be a tone of the top priority atous, reastin equity with nentation plan, to be released in February 2017. / volved with the CHNA, h ATION & HEALTH TOOL CASE STUDY: UNCO & GOOT



APHA.ORG/TRANSPORTATION

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

Health metrics to shape transportation investment

METROPLAN ORLANDO, FLORIDA





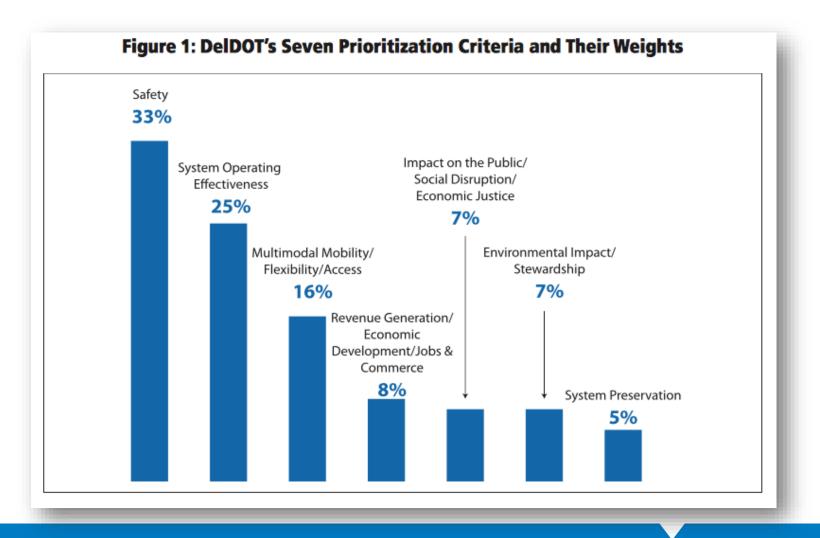
Delaware Department of Transportation

Table 2: Implemented and Needed Strategies for Each Geographic Scenario THT Strategy* Dover County Kent County Georgetown MOT								
THT Strategy*	Dover County	Kent County	Georgetown					
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								

Table 2: Implemented and Needed Strategies for Each Geographic Scenario



Delaware Department of Transportation





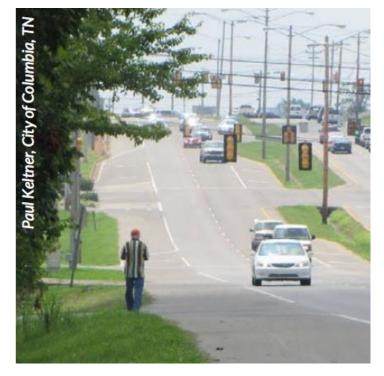


Metropolitan Planning Organization case studies



Nashville Area Metropolitan Planning Organization

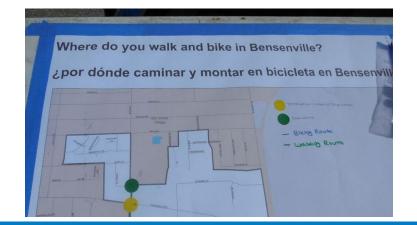
- Designed a scoring and selection process to prioritize the projects to ensure public health outcomes
- 77% of projects selected for funding in the MPO's 2040 Middle Tennessee Connected plan include a bicycling or walking element





Promising Practices

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



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 downs team, partner ships 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 health iere invironments for all.



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



GROUP BREAKOUT

- 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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