

National Physical Activity Plan

Transportation, Land Use, and
Community Design

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Introduction

- Melissa Bopp, researcher and faculty member at Penn State University
- Chair of the Transportation, Land Use and Community design Sector of the National Physical Activity Plan
- Research and service surrounding active transportation
 - Books, articles and reports about walking and cycling
 - Partnership with the League of American Bicyclists
 - Focus on equity, access, policies and programs to support active travel



Outline

- Why do we care about active transportation
 - Who is doing it and who isn't
 - Considerations for diverse and underserved populations
- Strategies
 - How does this relate to your community/state?
 - Putting it into action
 - Involving stakeholders

What is Active Transportation and Why do we Care?

- Active transportation is using walking and bicycling for transportation
- Same benefits as participating in physical activity¹
 - Improved mental and physical health
 - Decreased disease risk
- Additional benefits ²
 - Decreased pollution and carbon emissions
 - Improves traffic congestion
 - Communities that support active travel see financial benefits

¹Physical Activity Guidelines Advisory Committee. (2018). *Physical Activity Guidelines Advisory Committee Report, 2018*.

²Bopp, M., Sims, D., & Piatkowski, D. (2018). *Bicycling for Transportation: An Evidence Base for Communities*. Elsevier.

Connection to Land Use and Community Design

Land use and Community Design

- Residential, commercial, civic, industrial, park, etc.
- Provides destinations and amenities for transportation related walking and cycling
 - Safe infrastructure (bike lanes/trails, crosswalks, sidewalks, traffic calming) promotes active transportation, decreases crashes and fatalities
- Also supports recreational/leisure-time physical activity

High demand for diverse land use

- A 2014 Transit Center survey of nearly 12,000 individuals in regions across the country found that regardless of where they live now, most people would like to live in places where amenities (a mix of shops, services, schools, and offices) are within walking distance, regardless of urban, suburban, or rural setting. ¹

¹ TransitCenter, "Who's On Board: 2014 Mobility Attitudes Survey," September 2014.



Who is Participating in Active Travel?

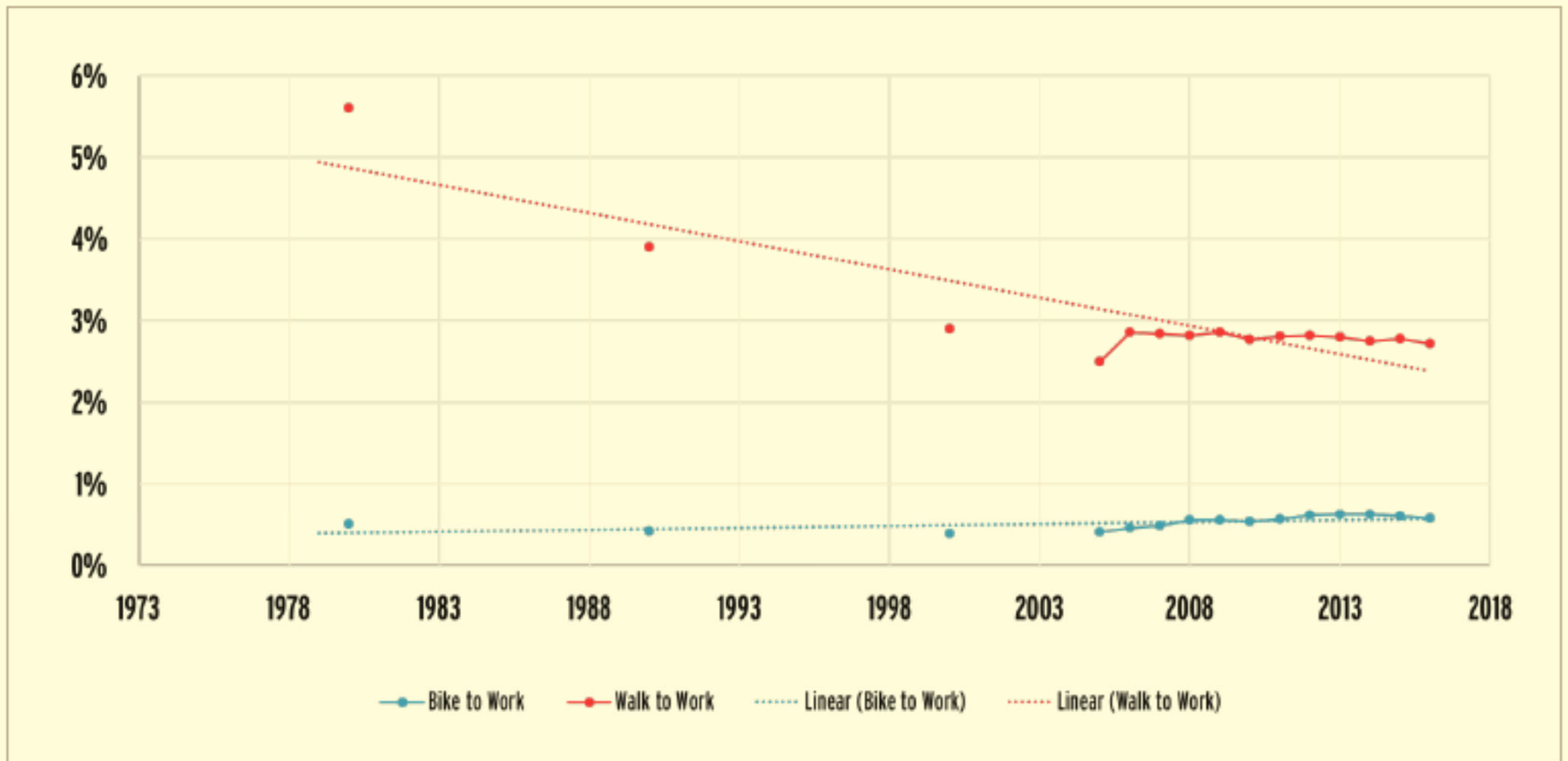
- Not many people
 - Estimates from national data for the % of respondents who report any walking or bicycling for transportation¹
 - 18.5%
 - Higher for men vs women
 - Higher for younger vs older
 - National data on active travel to work
- 41% of all trips taken in the U.S. are three miles or less and nearly 19% are one mile or less.² Yet, nearly 60% of trips one mile are driven.³

¹Whitfield, G. P., Paul, P., & Wendel, A. M. (2015). Active Transportation Surveillance - United States, 1999-2012. *MMWR Surveill Summ*, 64 Suppl 7, 1-17. <http://www.ncbi.nlm.nih.gov/pubmed/26313567>

Litman, T. (2011). Short and sweet: Analysis of shorter trips using national personal travel survey data. Victoria Transport Policy Institute. Available at <http://www.vtpi.org/Short%20trips.pdf>. Accessed on September 25, 2011.

³Federal Highway Administration. (2009). National Household Travel Survey – 2009. Available at <http://nhts.ornl.gov/download.shtml>. Accessed on October 2, 2011.

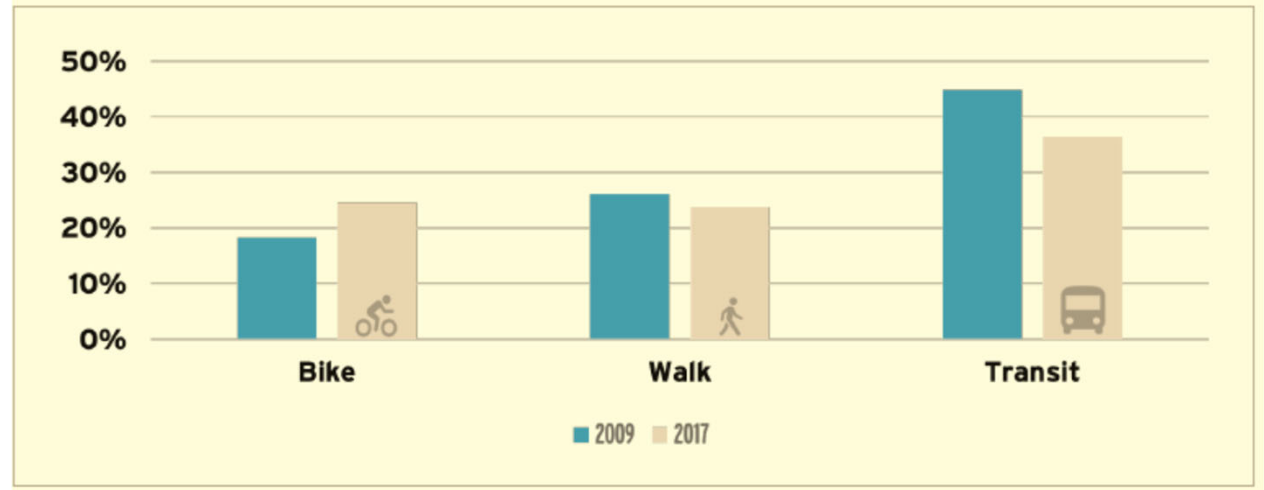
FIGURE 1.1.3 - PERCENTAGE OF WORKERS WHO PRIMARILY BIKE OR WALK TO WORK OVER TIME



Source: League of American Bicyclists, 2018

Walking and Biking Trips for Low Income Households

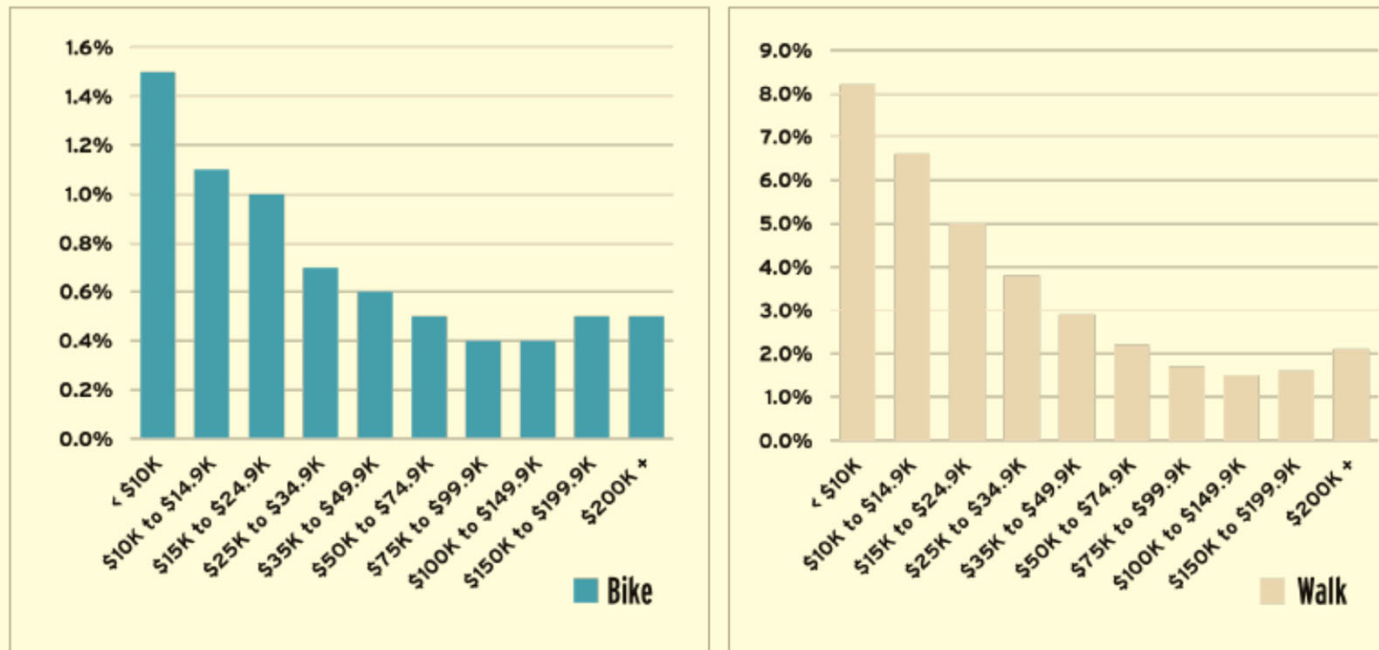
FIGURE 1.2.6 - PERCENT OF BIKING, WALKING, & TRANSIT TRIPS BY PEOPLE FROM HOUSEHOLDS WITH INCOME OF LESS THAN \$25,000 PER YEAR



Source: League of American Bicyclists, 2018

Active Commuting and Income

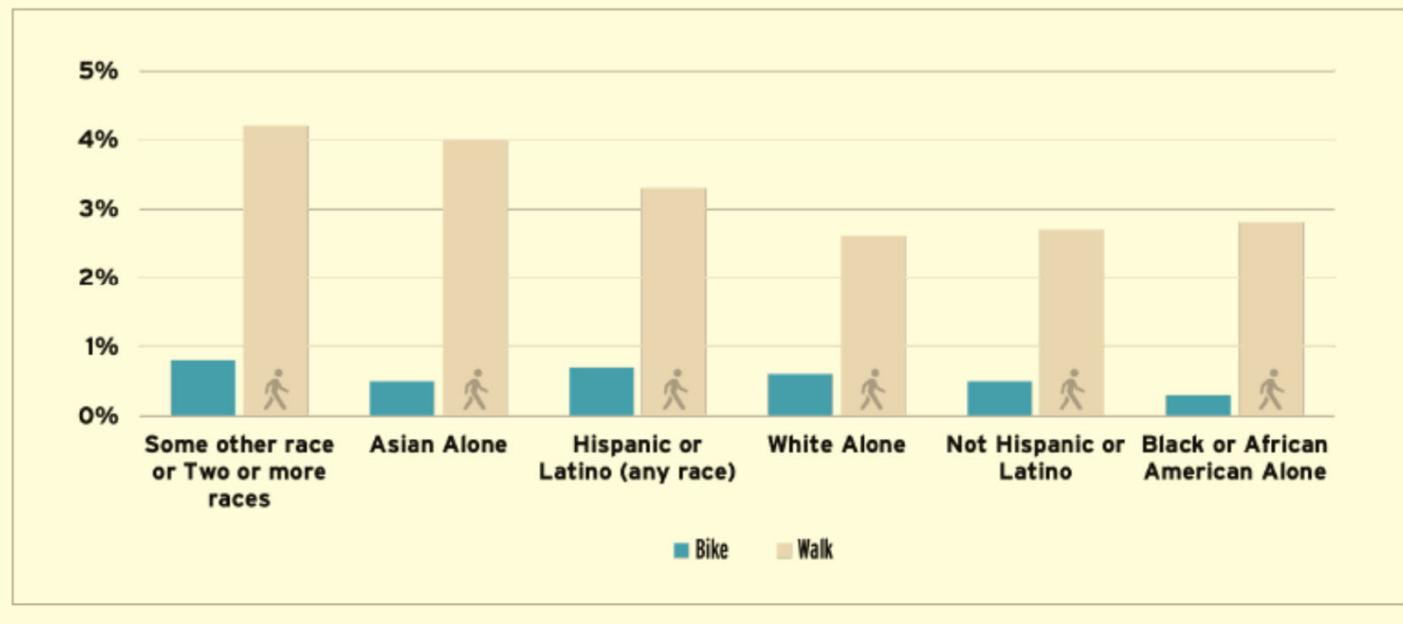
FIGURE 1.2.7 - BIKING & WALKING TO WORK BY HOUSEHOLD INCOME: 2008-2012 ²¹



Source: League of American Bicyclists, 2018

Active Commuting and Race/Ethnicity

FIGURE 1.2.9 - RATES OF BIKING & WALKING TO WORK BY RACE & ETHNICITY, 2008-2012



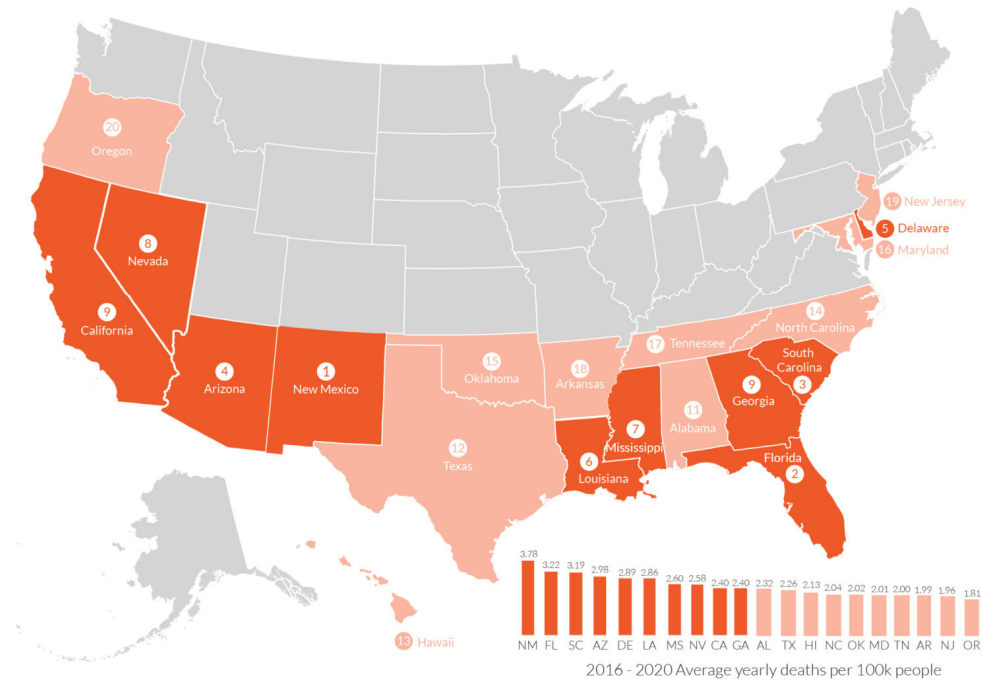
Source: League of American Bicyclists, 2018

Danger on the Roadways

(Source: Smart Growth America 2022)

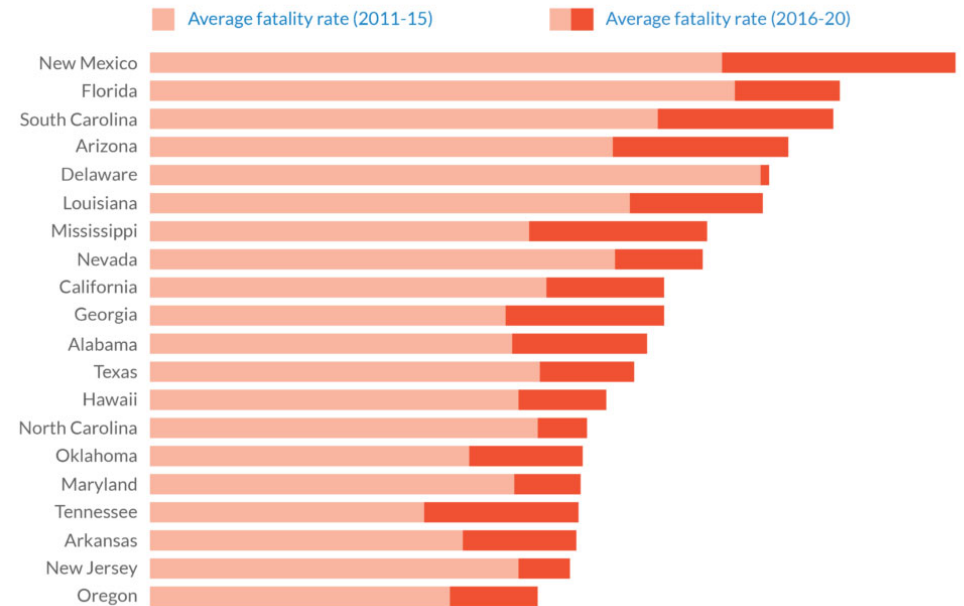
THE TOP 20

Most dangerous states for pedestrians (2016-2020)



No states in the top 20 are improving

All have gotten significantly more deadly

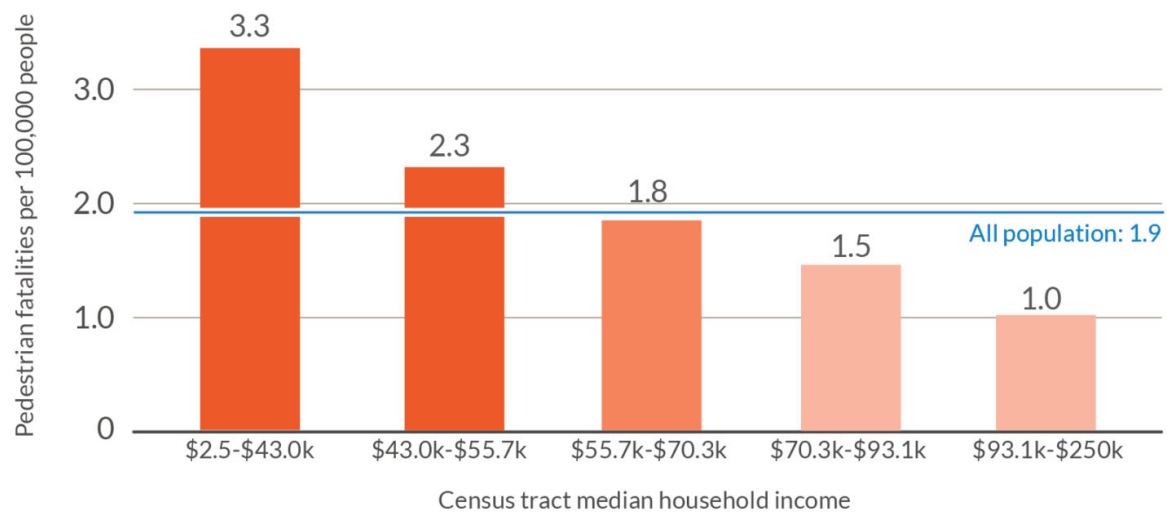


Considerations for Low Income Communities

(Source: Smart Growth
America 2022)

People walking in lower-income areas are killed at far higher rates

Pedestrian fatalities per 100k people by census tract income

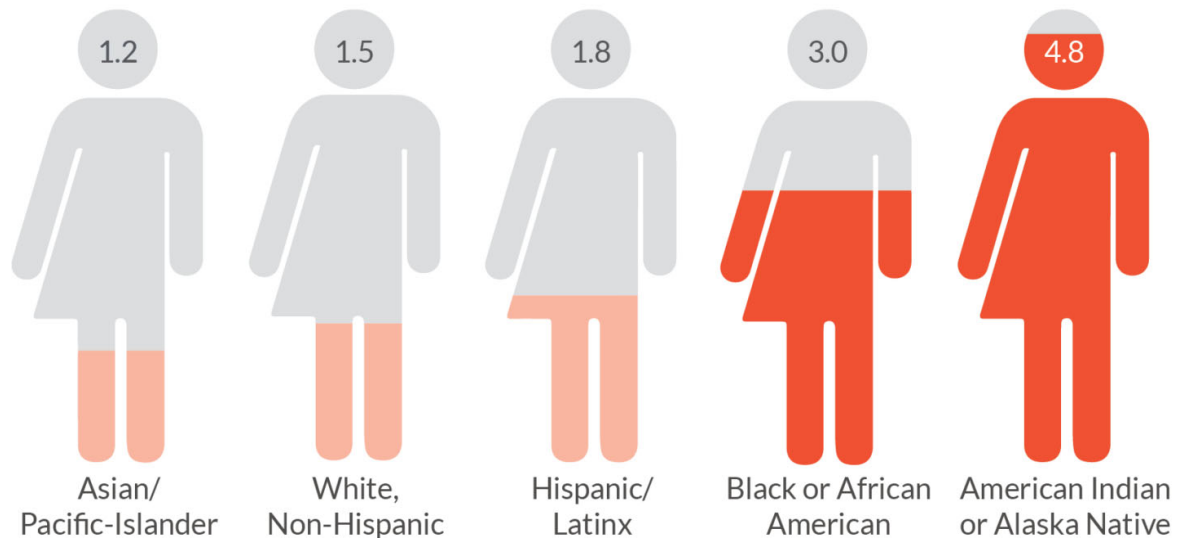


Considerations for Communities of Color

(Source: Smart Growth
America 2022)

People of color, particularly Native and Black Americans, are more likely to die while walking than any other race or ethnic group


Pedestrian deaths per 100,000 by race & ethnicity (2016-2020)



National Physical Activity Plan

Sector Strategies



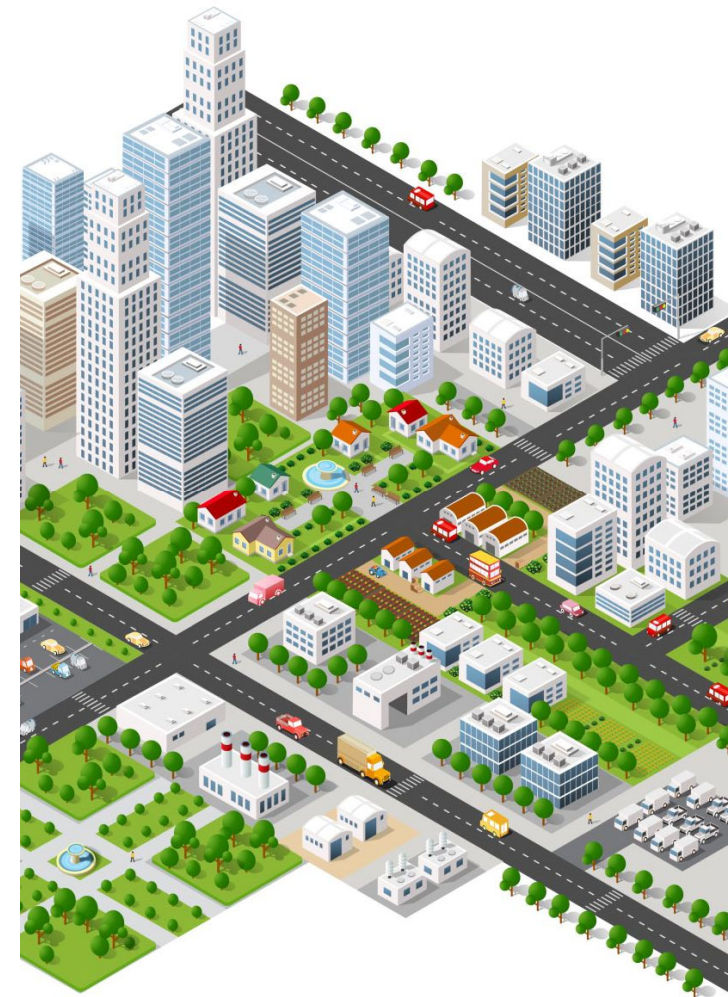


Strategy 1: Planning

- Community planners should integrate active design principles into land-use, transportation, community, and economic development planning processes
 - WHAT?
 - Complete Streets Plans
 - Master Bicycle and Pedestrian Plans
 - Local and Regional Plans
 - WHO?
 - Local and regional planning organizations
 - Regional stakeholders
 - Bicycle and pedestrian advocacy groups
 - Local/regional government

Strategy 1 Tactics

Integrate considerations for non-motorized travel and public health **into formalized planning processes**, such as master plans, comprehensive plans, zoning code updates, housing and commercial developments, metropolitan planning organizations' (MPO) transportation improvement project lists, trail plans, and regional transportation plans, with specific focus on improving environments in low-income communities.



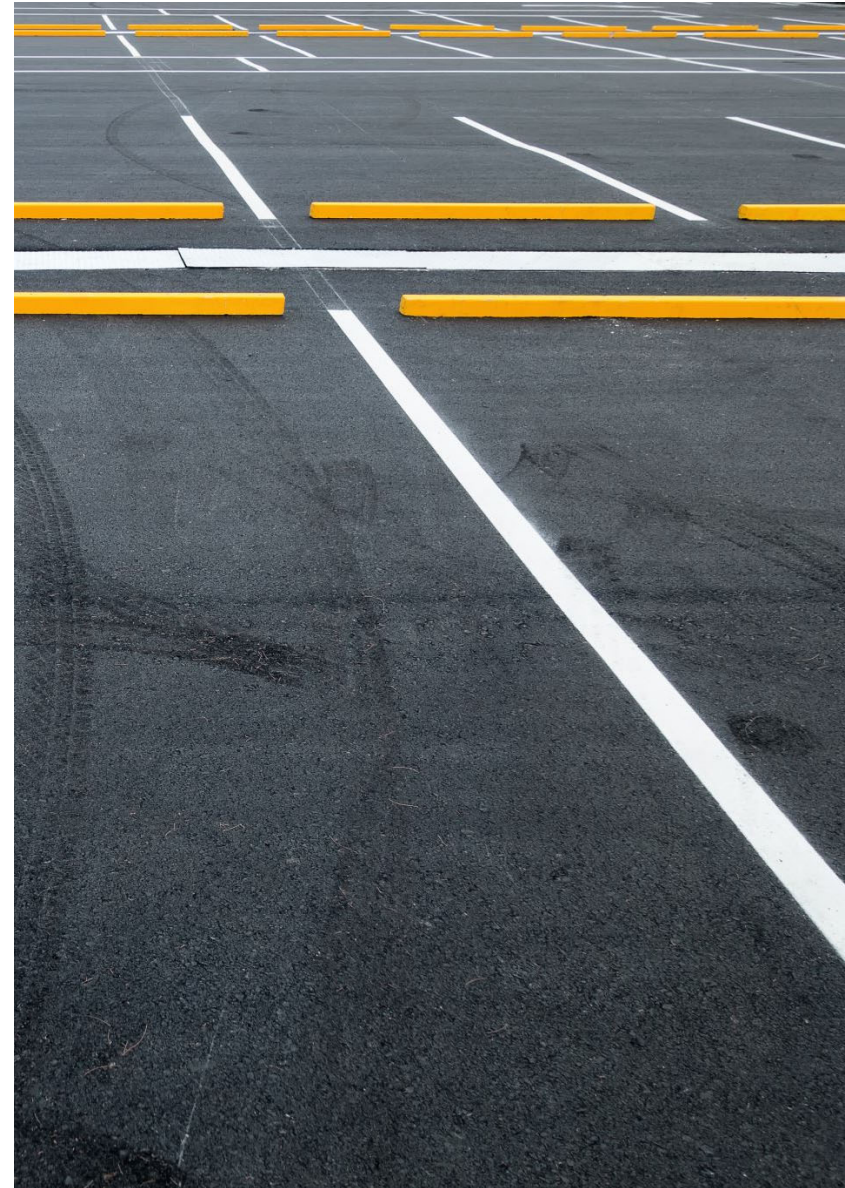
Strategy 1 Tactics

Encourage local and state jurisdictions to adopt **regulations** that require buildings and transportation facilities to be designed according to principles that maximize safety and attractiveness for pedestrians and bicyclists.



Strategy 1 Tactics

Establish parking policies that encourage and support **active living and active transportation.**



Strategy 2: Laws

- Communities should change **zoning laws** to require or favor mixed-use developments that place common destinations within walking and bicycling distance of most residents and incorporate designated open space suitable for physical activity.
 - WHAT?
 - Local and regional laws, legislation and ordinances
 - Local and regional plans
 - WHO?
 - Local and regional planning organizations
 - Economic development agencies
 - Housing agencies or developers
 - City/regional government





Strategy 2 Tactics

Encourage local jurisdictions to replace separate-use **zoning laws** with those that require or favor mixed-use zoning or provide incentives for using a mixed use code.

Strategy 2 Tactics

Encourage state governments to provide **incentives** for local jurisdictions to adopt mixed-use zoning laws.





Strategy 2 Tactics

Develop and disseminate **policy tools** to reduce the possible impacts of gentrification on low-income neighborhoods that adopt healthy design principles, as they become more desirable and experience rising home values.

Strategy 3: Funding

- Physical activity and public health organizations should advocate for **funding and policies** that increase active transportation and physical activity through greater investment in bicycle and pedestrian infrastructure and transit.
 - WHAT?
 - Funding sources
 - Funding mechanisms
 - Tax policies
 - Grants
 - WHO?
 - Local/regional governments
 - Private investors, employers
 - Pedestrian/cyclist/other advocacy groups



Strategy 3 Tactics

Increase federal, state, and local **investments**, including the prioritization of low-income communities, to create and maintain **seamless networks of high-quality sidewalks, crosswalks, bike facilities, greenways, trails, and transit** that are compliant with the Americans with Disabilities Act, to provide individuals of all ages and abilities with safe opportunities for active transportation.



Strategy 3 Tactics

Prioritize federal, state, and local **resources** to ensure that low-income communities (rural, urban and suburban), which are disproportionately affected by higher rates of bicycle and pedestrian deaths and injuries and which generally lack safe infrastructure for walking and bicycling, are able to access funds and technical assistance to improve bicycle and pedestrian infrastructure and transit.





Strategy 3 Tactics

Reform transportation spending at all levels to tie it to larger goals for health, safety, equity, and the environment—rather than to a focus only on traffic volumes and speeds.

Use the **tax code** to provide incentives to private employers and businesses to implement programs and infrastructure that support bicycling, walking, and public transit

Strategy 4: Data

- Transportation and public health agencies should invest in and institutionalize the **collection of data** to inform policy and to measure the impacts of active transportation on physical activity, population health, and health equity.
 - WHAT?
 - Local, regional, state assessment
 - Health and transportation surveys
 - WHO?
 - State and local health departments
 - Local and regional law enforcement
 - Transportation agencies
 - Non-profit health related groups
 - Conservation, pedestrian and cyclist groups

Strategy 4 Tactics

Improve and expand existing **data collection** sources to assess active transportation patterns and trends that include local-area data.



Strategy 4 tactics



Develop new **data collection sources** for pedestrian and bicyclist counts and impacts of bicycle and pedestrian trips on economic and personal health.



Develop **performance metrics** for walking and bicycling for transportation.



Strategy 4 Tactics

Improve
**transportation
modeling of active
transportation** trips
and use of
multimodal travel
demand models.



Strategy 5: Programming

- Transportation and public health agencies should implement initiatives to encourage, reward, and require more walking, bicycling, and transit use for routine transportation.
 - WHAT?
 - Programs and campaigns
 - Incentive strategies
 - WHO?
 - State and local health departments
 - Transportation agencies
 - Non-profit health related groups
 - Conservation, pedestrian and cyclist groups

Strategy 5 Tactics



Develop and disseminate market-based **tools** to encourage active transportation.



Support community bicycle sharing programs.



Strategy 5 Tactics

Promote and expand existing Bicycle-Friendly and Walk-Friendly Community, Campus, and Business award programs.

Develop and implement best-practice programs and policies that support Safe Routes to Schools.



Strategy 5 Tactics

Implement
comprehensive
transportation safety
programs using best
practices to minimize
pedestrian and
bicycle collisions,
injuries, and fatalities.

Strategy 5 Tactics



Use **events, short-term interventions, and demonstration and pilot projects** to create knowledge of and demand for permanent infrastructure and policy improvements for walking, cycling, and transit.



Adjust physical activity outreach, promotion, and messages appropriately for various target audiences; do not focus solely on “exercise” promotion.

Summary

- Active transportation has an important role in the health of your community and state
 - Physical and mental health
 - Environmental health
 - Economic health
- A variety of strategies are available for targeting a wide range of factors that can be impactful for walking and bicycling
- Important to think collaboratively and creatively



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Questions