

A background image showing two young children, a girl in a red shirt and a boy in a blue shirt, crouching on a sidewalk and painting a mural. The girl is using a brush to paint a yellow shape, and the boy is also painting. In the background, a street with a motorcycle and buildings is visible.

2019 Pennsylvania Health Equity Summit

Active Transportation: Design for More Walking and Biking

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A background photograph showing two young children, a girl in a red shirt and a boy in a blue shirt, kneeling on a sidewalk and painting a yellow crosswalk. The girl is using a brush to paint a yellow circle, and the boy is also painting. The scene is outdoors on a sunny day with buildings and a street in the background.

2019 Pennsylvania Health Equity Summit

Active Transportation: Design, Plan, Fund, Educate, Encourage, Construct, Maintain, Coordinate, and Collaborate for More Walking and Biking

2019 Pennsylvania Health Equity Summit
Philadelphia, PA

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Active Transportation in PA

What is Active Transportation?

Active transportation is any self-propelled, human-powered mode of transportation, such as walking or bicycling.

Active Transportation in PA



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Active Transportation isn't
just recreational



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Walking and biking connects you to the people and resources in your community.



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Active Transportation supports
all ages, skill levels and
dis/abilities

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It promotes innovation



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Disruption – Tactical Urbanism

Active Transportation in PA



Experimentation

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It supports Community Health



For every 0.6 miles walked daily, there is a **5%** reduction in the likelihood of obesity.

(Frank, L.D., et al. 2004)



Walking or biking for 20 minutes each day can lower the risk of heart

failure by **21%** for men and by **29%** for women.

(Rahman, I, et al. 2014; Rahman, I, et al. 2015)



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Active Transportation in PA

It supports Mode Shift

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.

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).

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.

People who live in:

NEIGHBORHOODS WITH SIDEWALKS ARE:

50%
more likely to meet physical
activity guidelines

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

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

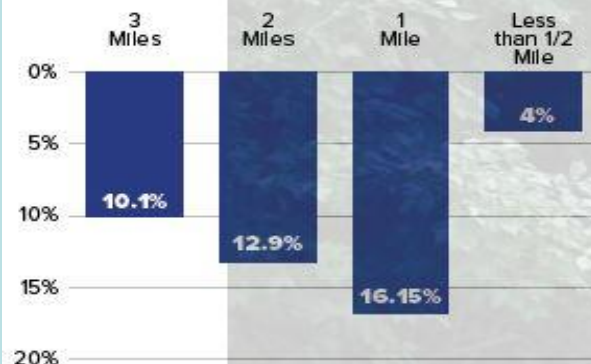
SLOWING DOWN TRAFFIC REDUCES
CRASHES THAT CAUSE INJURIES BY:

10% on main roads
25% on residential
streets

SOURCES: U.S. Department of Transportation, Federal Highway Administration. (2010). Our nation's travel. Analysis of the 2009 NHTS. In: Transportation USD, ed. Washington, DC: Russell C. et al. (2012). Physical activity associated with public transport use: a review and modeling of potential benefits. Int J Environ Res Public Health 9(7): 2454-2478. Hamer M & Chole Y. (2008a). Active commuting and cardiovascular risk: A meta-analytic review. Prev Med 46(1): 9-13. CDC National Center for Health Statistics. (2012). Behavior of Physical Activity. <http://www.cdc.gov/nchs/data/behavior.htm>. Salas JJ, et al. (2009). Neighborhood environments and physical activity among adults in 14 countries. Am J Public Health 99(8): 1484-1490. Kuo J, et al. (2015). Perceived neighborhood environmental attributes associated with walking and cycling for transport among adult residents of 17 cities in 12 countries: the IPEN study. Environ Health Perspect. DOI:10.1289/ehp.1409488. Silva R. (2001). Area wide urban traffic calming schemes: a meta-analysis of safety effects. Accid Anal Prev 35(3):327-336

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

Number of Vehicle Trips 3 Miles or Less



43% of trips are **three miles or less** and could be replaced by shifting modes to biking or walking.



(https://nhts.ornl.gov/tables09/fatcat/2009/vt_TRPMILES.html)



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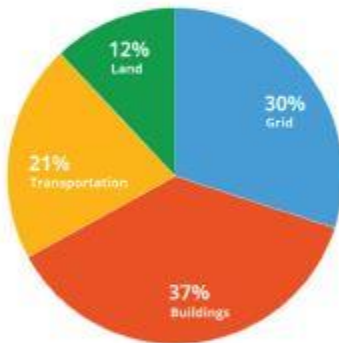
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Biking 2 miles, rather than driving, avoids emitting

2 lbs of pollutants, which would take 1.5 months for one tree to sequester.

(EPA, 2000; NC State, 2001)



Transportation contributes 21% of PA Greenhouse Gas emissions



If **8%** more children living within 2 miles of a school were to walk or bike to school, the air pollution reduced from not taking a car would be equivalent to removing **60,000** cars from the road for one year.

(Pedroso, MS, 2008; Safe Routes to School, 2008)

Supports Greenhouse Gas Reductions

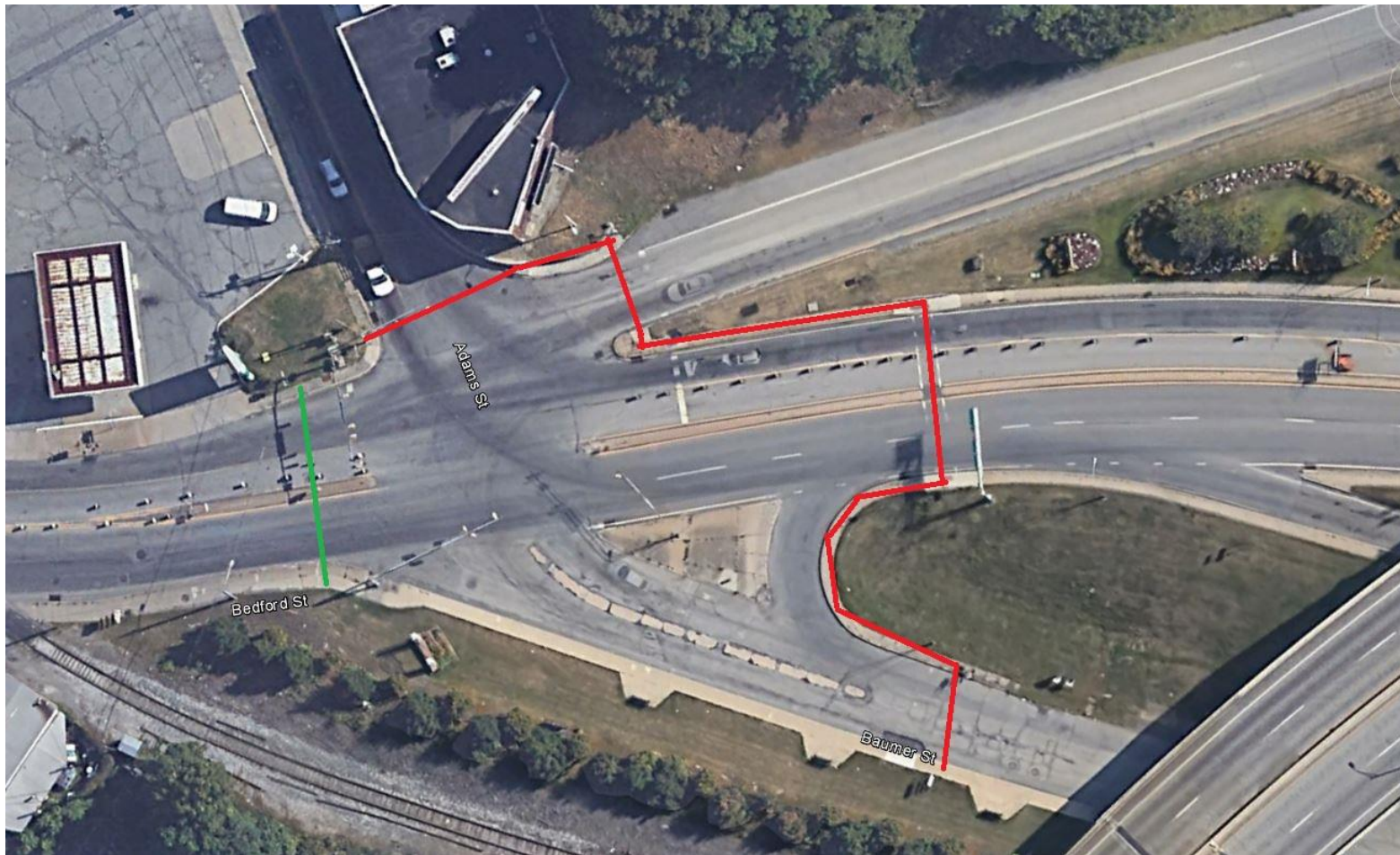


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201 Pedestrian Fatalities 18 Bicyclist Fatalities

4129 Reportable Pedestrian Crashes

976 Reportable Bicyclist Crashes

Pennsylvania's 2019 Active Transportation Plan

The combined rate of pedestrian and bicyclist fatalities were 15% of the total fatalities on state roads



Pedestrians account for of 13.2% all traffic deaths in Pennsylvania, despite representing only 3.2% of all traffic crashes.





2019 ACTIVE TRANSPORTATION PLAN

Pennsylvania's 2019 Active Transportation Plan

Statewide Survey Analysis - Walking

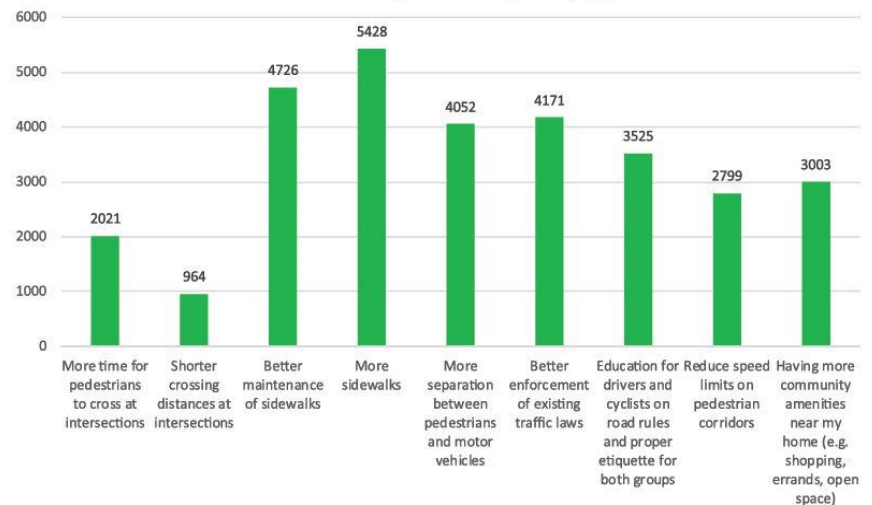
How easy or challenging is it to walk in your community?

Answered: 12,780 Skipped: 1,039



Which of these changes would most improve your walking experience?

Answered: 12,780 Skipped: 1,039

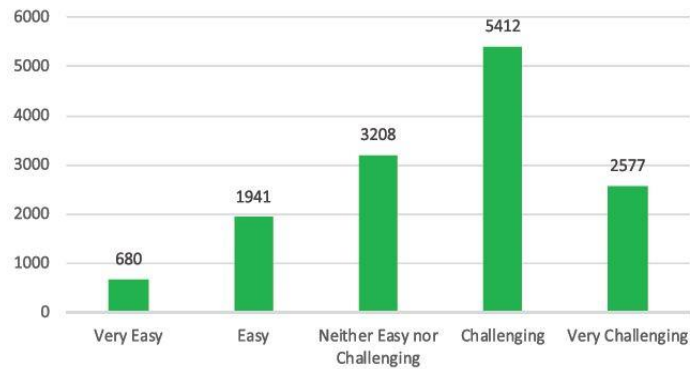


Pennsylvania's 2019 Active Transportation Plan

Statewide Survey Analysis - Biking

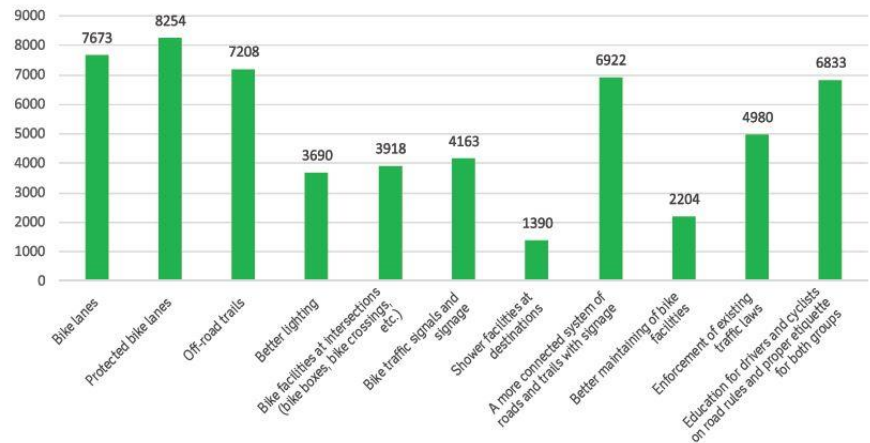
How easy or challenging is it to bike in your community?

Answered: 13,819 Skipped: 0



Which of the following would make you want to bike more frequently?

Answered: 12,006 Skipped: 1,813



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Pennsylvania's 2019 Active Transportation Plan

BICYCLIST DESIGN USER PROFILES

Interested but Concerned

51%-56% of the total
population

Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.

Somewhat Confident

5-9% of the total
population

Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.

Highly Confident

4-7% of the total
population

Comfortable riding with traffic; will use roads without bike lanes.



**LOW STRESS
TOLERANCE**

**HIGH STRESS
TOLERANCE**

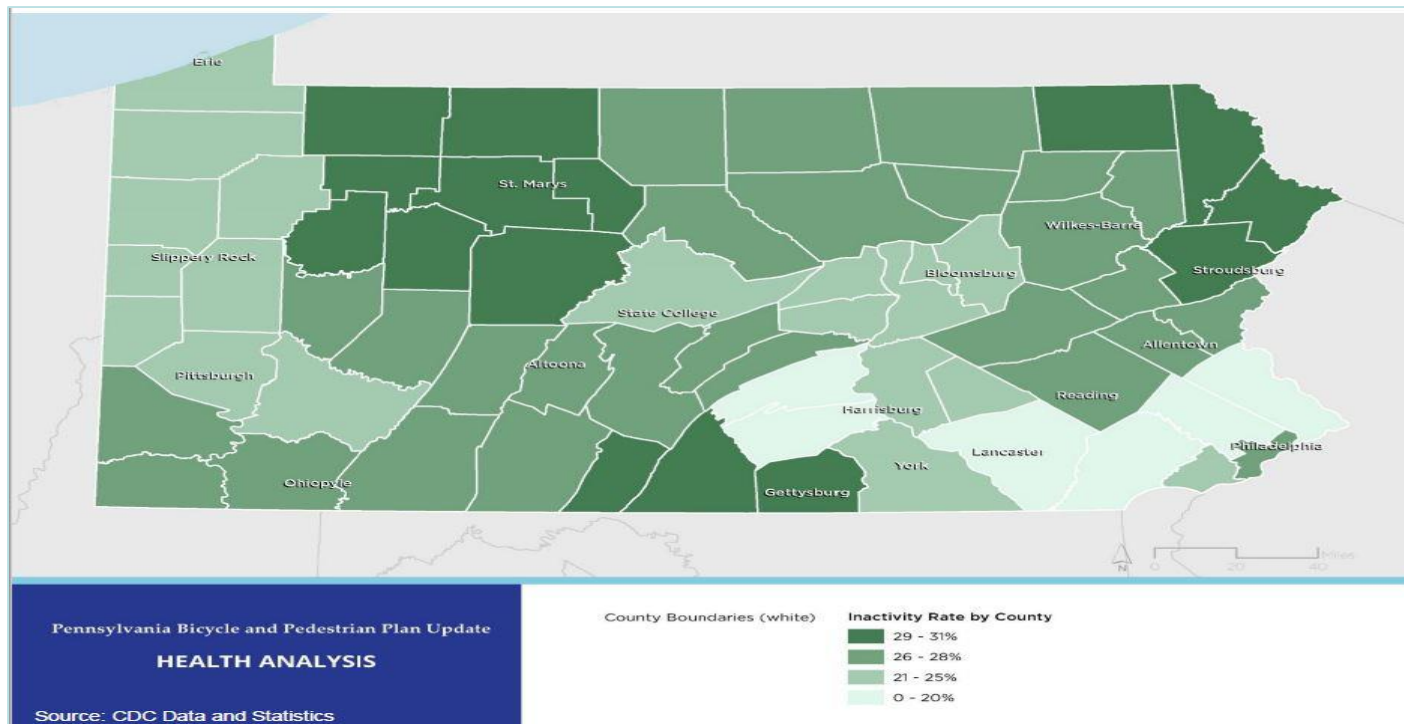
FHWA Bikeway Selection Guide - https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa18077.pdf



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Pennsylvania's 2019 Active Transportation Plan

\$13.4 Billion 2017 costs associated with Diabetes



<https://www.cdc.gov/physicalactivity/data/index.html>

Pennsylvania's 2019 Active Transportation Plan

Core Policy Statement

PennDOT shall make accommodations for active transportation a routine and integral element of planning, project development, design, construction, operations, and maintenance.

Pennsylvania's 2019 Active Transportation Plan

Vision Statement

Biking and walking are integral elements of Pennsylvania's transportation system that contribute to community health, economic mobility, and quality of life.



Pennsylvania's 2019 Active Transportation Plan

THEME 1: ENHANCE SAFETY



THEME 2: PROVIDE TRANSPORTATION EQUITY



THEME 3: CONNECT WALKING & BIKING NETWORKS



THEME 4: LEVERAGE PARTNERSHIPS



THEME 5: IMPROVE PUBLIC HEALTH



THEME 6: INCREASE ECONOMIC MOBILITY



Statewide Bicycle and Pedestrian Master Plan



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