

# Steps Toward Health: Safe Routes to School 101

- **Marjorie Hennessy** (she/her),  
Active Living Program Manager
- **Taylor Firestine** (he/him),  
Walk & Bike Program Coordinator



# Learning objectives

- ❑ Overview of the 6 Es with examples of Safe Routes to School activities and other best practices from Indiana and the U.S.
- ❑ Know the five elements of a Safe Routes to School Action Plan and why they're critical.
- ❑ Understand methods of engaging multiple partners, parents, and advocates with diverse backgrounds.

# About Health by Design

Health by Design works at the intersection of the built environment and public health, collaborating across sectors and disciplines to ensure Indiana communities have neighborhoods, public spaces and transportation infrastructure that promote active living for all.



WALKING



BIKING




TRANSIT





LAND USE

## We achieve our goals by:


 Advocating for policy change

 Building community capacity

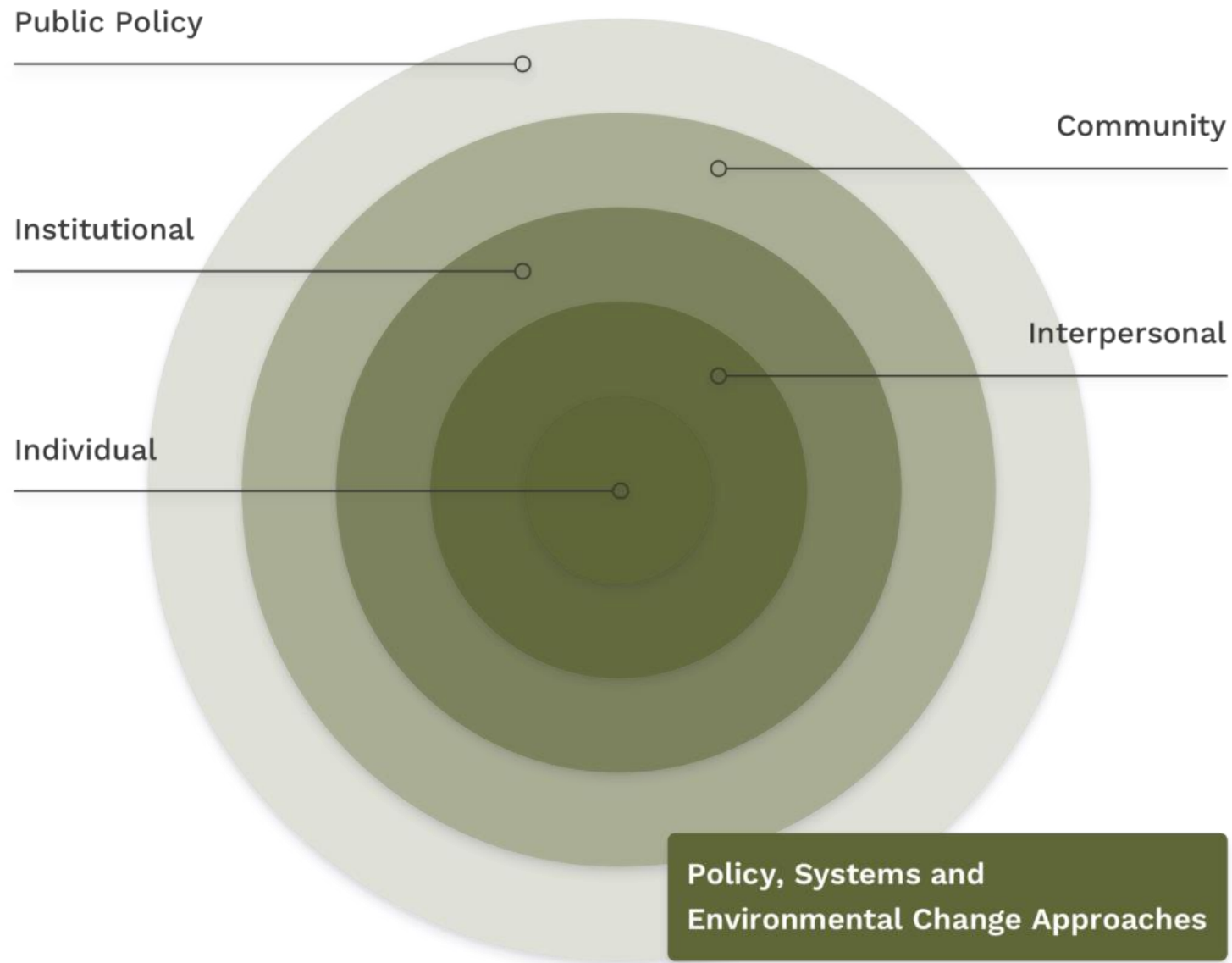
 Convening diverse partners

 Educating on best practices

 Facilitating dialogue

 Promoting smart design

 Providing technical assistance





**Policy:** Safe Routes to School

**System:** Changes the everyday decisions that create students' transportation system; biking, walking, and transit are seen as integral parts of the system and necessary to access school sites

**Environment:** An environment is created where kids (and parents) can walk, bike, and/or use transit easily and comfortably



# Equality



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# Equity





*"One number may determine how healthy you are and how long you live. It isn't your weight, cholesterol count, or any of those numbers that doctors look at.*

***It's your address."***

--Policy Link



# THE ROLE OF Communities IN PROMOTING PHYSICAL ACTIVITY

## WALKABLE COMMUNITIES

People who live  
in walkable  
neighborhoods are

**2  
times**

as likely to get  
enough physical  
activity as those  
who don't.

## JOINT USE

The number of children who  
are physically active outside is

**84%**

higher when  
schoolyards  
are kept open  
for public play

## TRAILS

People who live  
near trails are

**50%**

more likely to  
meet physical  
activity guidelines.

## RECREATIONAL FACILITIES

Teens who live in poor or mostly  
minority neighborhoods are

**50%**

less likely to have  
a recreational facility  
near home.

Active Living Research

[www.activelivingresearch.org](http://www.activelivingresearch.org)

Sources: TRAILS: Huston S, Evenson K, Bors P, et al. "Neighborhood Environment, Access to Places for Activity, and Leisure-Time Physical Activity in a Diverse North Carolina Population." *American Journal of Health Promotion*, 18(1): 58-69, September/October, 2003. WALKABLE COMMUNITIES: Frank LD, Schmid TL, Sallis JF, Chapman J, Saelens BE. Linking objectively measured physical activity with objectively measured urban form. Findings from SMARTRAQ. *American Journal of Preventive Medicine* 2005; 28(2S2):117-125. JOINT USE: Farley T, Meriwether R, Baker E, Watkins L, Johnson C, Webber L. Safe play spaces to promote physical activity in inner-city children: Results from a pilot study of an environmental intervention. *Am J Pub Health*. 2007;97:1625-1631. RECREATIONAL FACILITIES: Gordon-Larsen P, Nelson MC, Page P, Popkin BM. "Inequality in the Built Environment Underlies Key Health Disparities in Physical Activity and Obesity." *Pediatrics*, 117(2): 417-424, 2006.

# WALKING AND BICYCLING TO SCHOOL

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48 < 10

Percentage of  
children who walked  
or bicycled to school  
in 1969.

Estimated  
percentage of  
children who walk or  
bike in 2019.

[CNU survey](#)

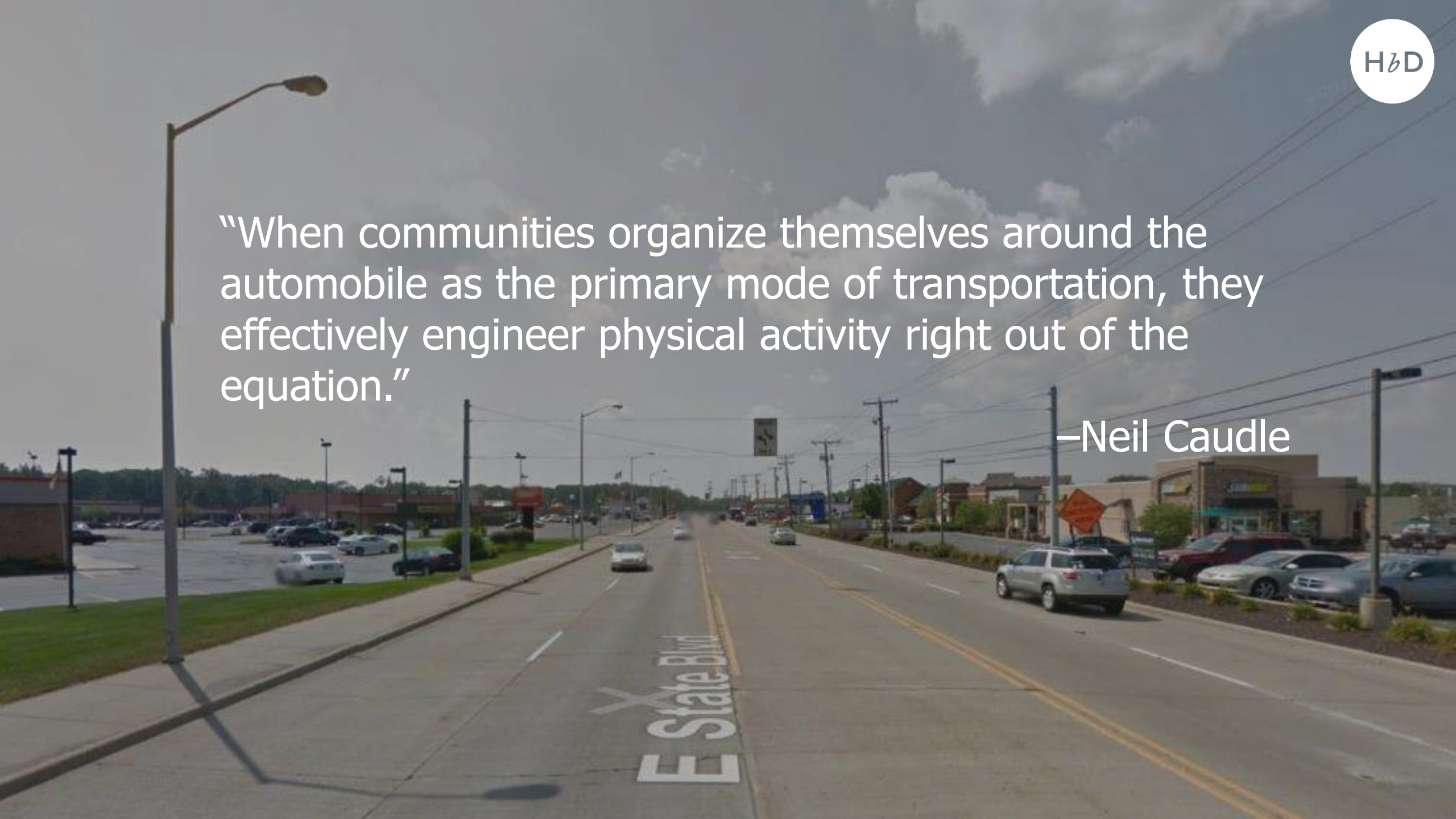


# HOW DID WE GET HERE?

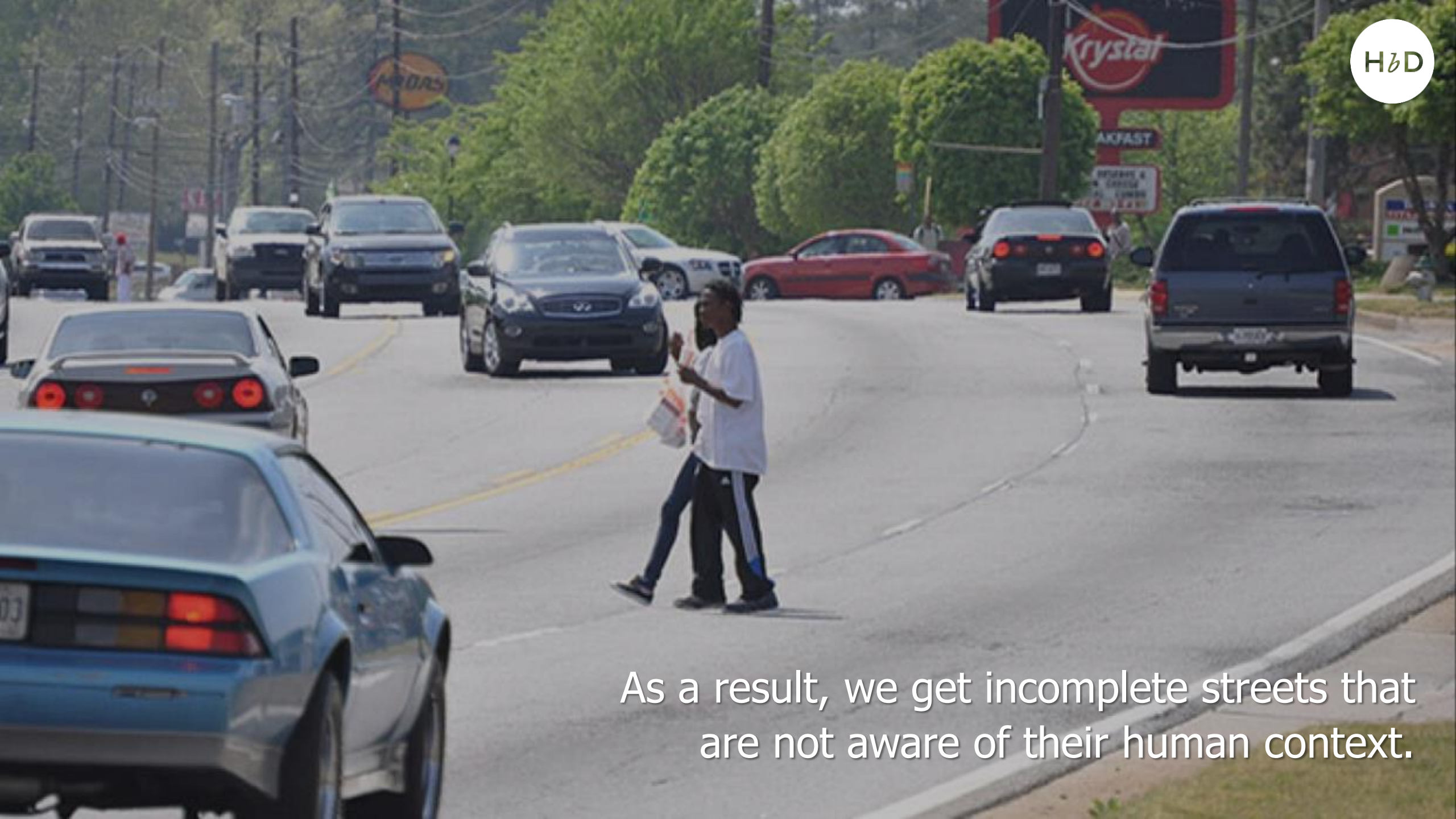


“When communities organize themselves around the automobile as the primary mode of transportation, they effectively engineer physical activity right out of the equation.”

—Neil Caudle







As a result, we get incomplete streets that are not aware of their human context.



Incomplete streets that turn the most vulnerable users into second-class citizens.





Community  
design that  
limits mobility  
options.

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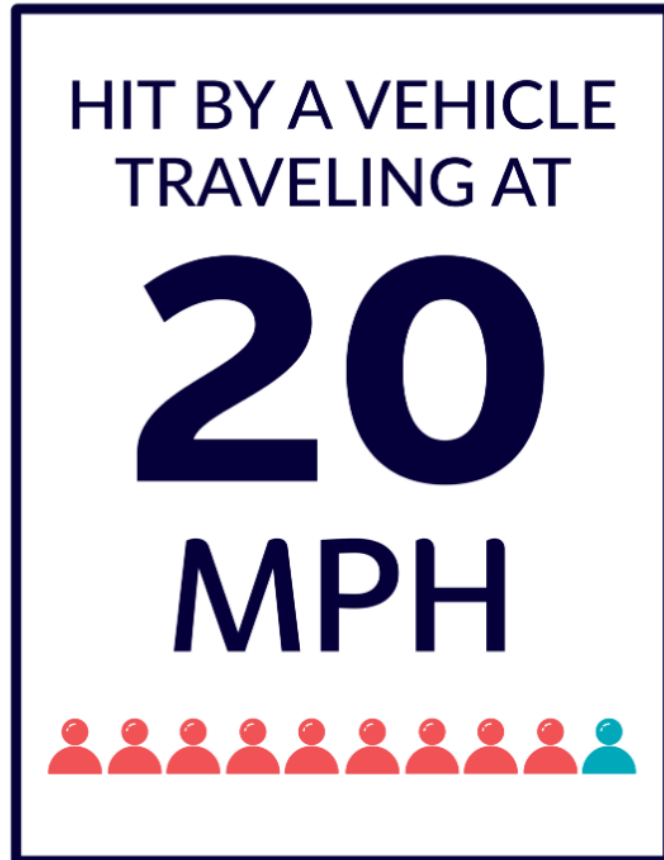
Infrastructure (or a lack of it) create additional barriers.

**NEW AT 6**



**PARENTS COMPLAIN OF DANGEROUS WALK TO SCHOOL**

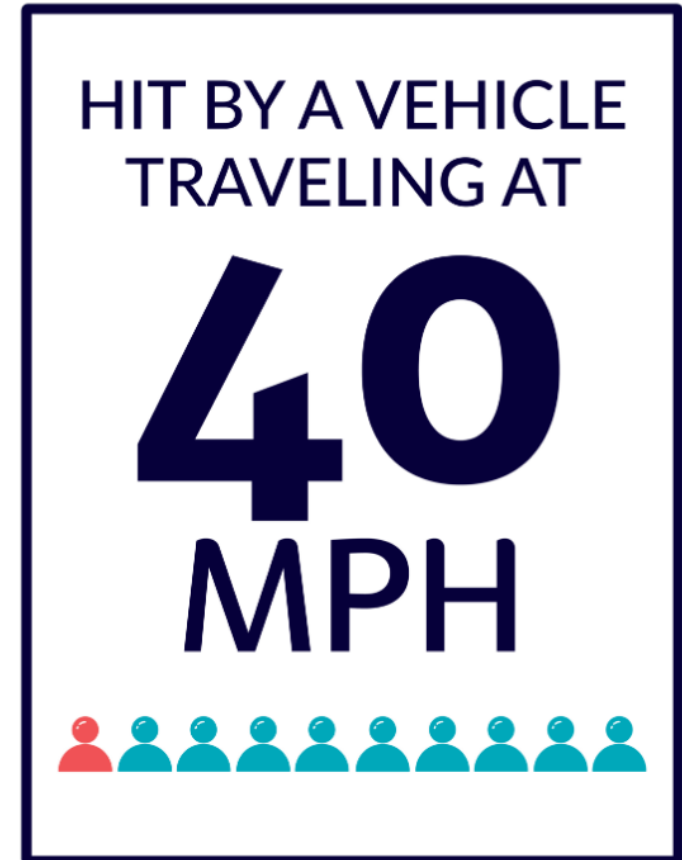
# Pedestrians vs. speed



**9** out of **10**  
pedestrians survive

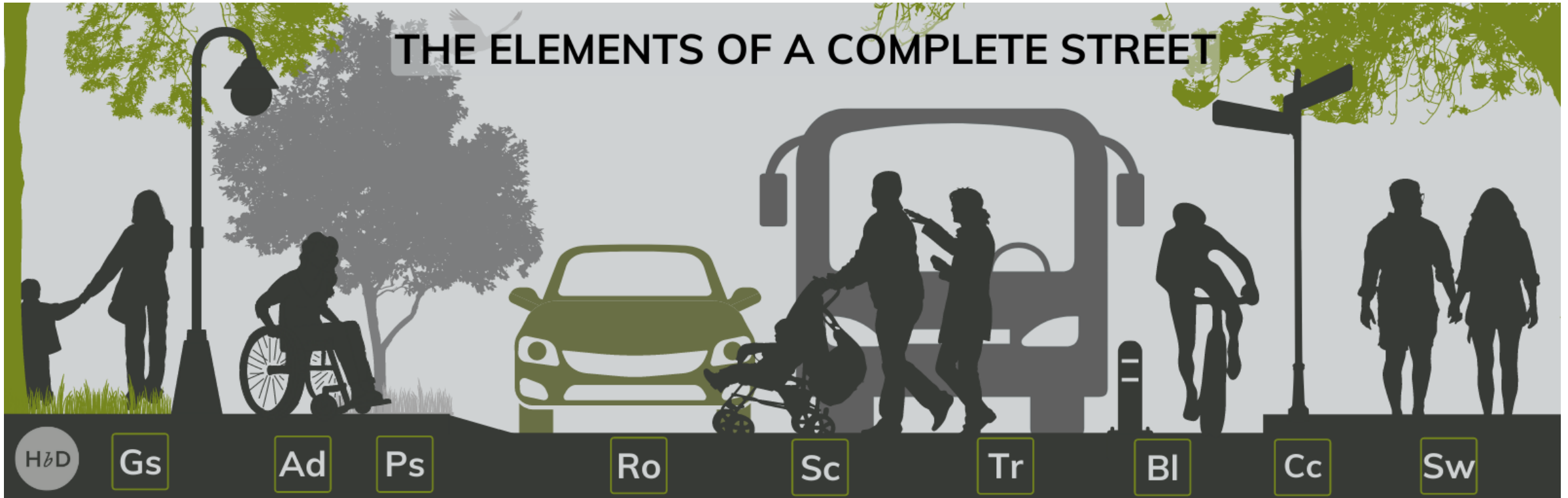


**5** out of **10**  
pedestrians survive



**1** out of **10**  
pedestrians survive

# Complete Streets



Complete Streets allow for safe, equitable, reliable, and convenient use; and they support mobility for all roadway users.

**Gs**

**GREENSPACE:** Public spaces encourage community interaction and serve as destinations via placemaking

**Ro**

**ROADWAY:** Designed for speed management, predictability, and enhanced safety

**BI**

**BIKE LANES:** Separate, protected, dedicated lanes for bicycle use

**Ad**

**ADA:** Compliant curb ramps, auditory crossing signals, and other measures ensure accessible streets for all users

**Sc**

**SAFE CROSSINGS:** Clearly marked and designated crossings that increase driver awareness

**Cc**

**COMFORT & CONVENIENCE:** Pedestrian scale lighting, signage, wayfinding, benches, trash receptacles, etc.

**Ps**

**PLANTING STRIP:** Designed for shade, comfort, increased sense of safety, and speed reduction

**Tr**

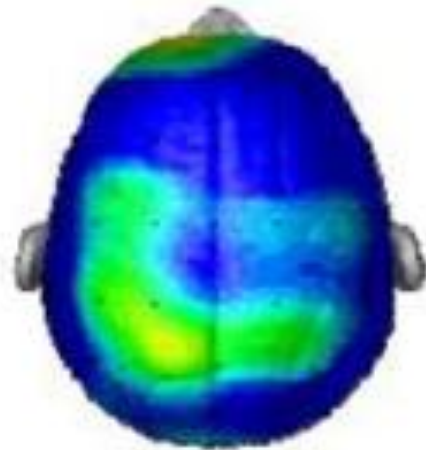
**TRANSIT:** Dedicated lanes and spaces for transit access

**Sw**

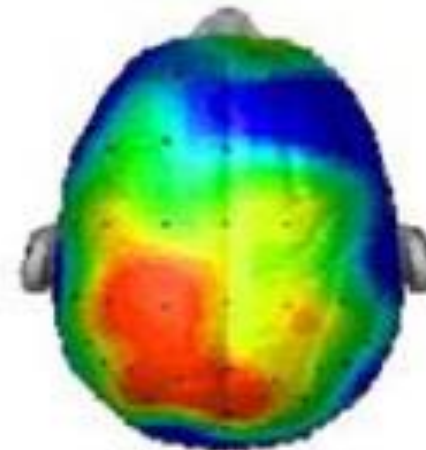
**SIDEWALKS:** Clear, shaded, smooth with connections to adjacent spaces, transit stops, and other destinations

# YOUR BRAIN ON PHYSICAL ACTIVITY

Average composite of 20 student brains



YOUR BRAIN  
AFTER SITTING

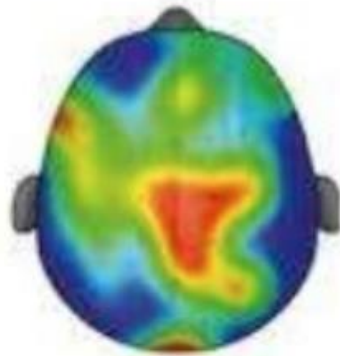


YOUR BRAIN  
AFTER EXERCISE



# YOUR BRAIN ON PHYSICAL ACTIVITY

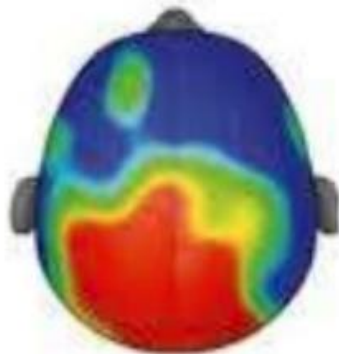
Average composite of 20 student brains  
taking the same test



AFTER 20 MINUTE  
WALK



AFTER SITTING  
QUIETLY

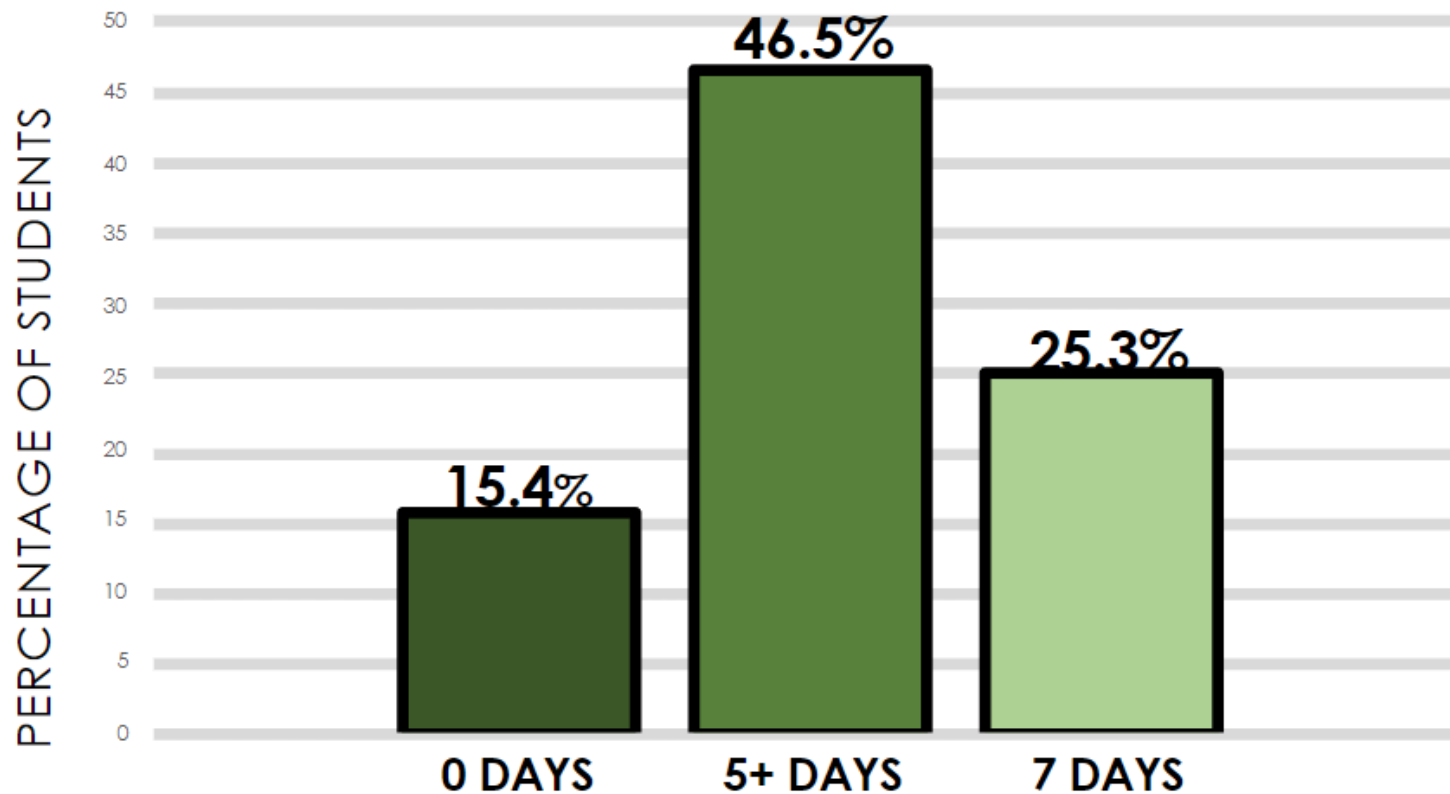




# YOUTH PHYSICAL INACTIVITY in INDIANA

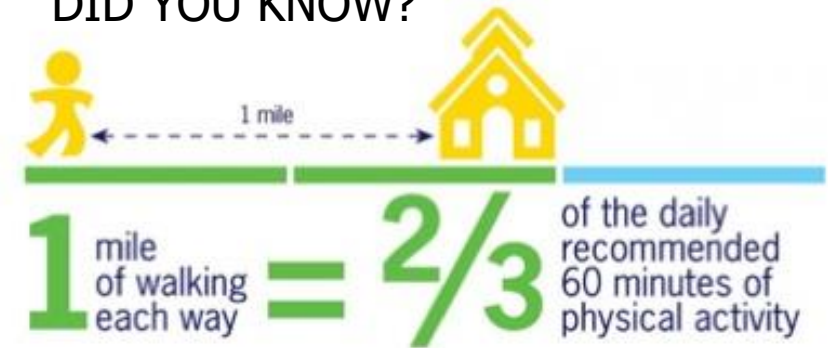
H&D

PERCENTAGE OF HIGH SCHOOL STUDENTS BY DAYS OF PHYSICAL ACTIVITY, INDIANA, 2015



2015 Youth Behavioral Risk Survey

DID YOU KNOW?



# PREVENTATIVE EFFECTS

Lowers risk of:

- Early death
- Coronary heart disease, stroke
- High blood pressure, adverse blood lipid profile
- Type 2 diabetes
- *Cancers: Recent evidence indicates exercise linked to lower risk of 13 cancers!*
- Weight management and maintenance
- Prevention of falls
- Depression, cognitive function (older adults)
- Helps control joint swelling and pain from arthritis

# HEALTH VALUE

Being **physically active** is one of the most important steps that Americans can take to improve their health.

“If you do only one thing to **keep your brain young, EXERCISE.**”

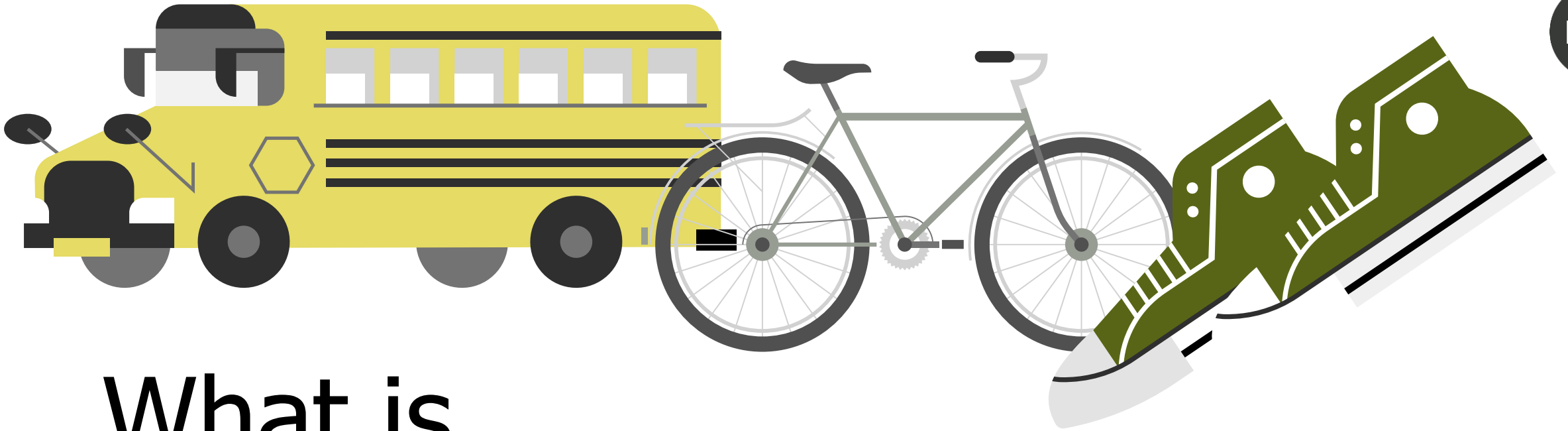
*-Dr. Art Kramer, Neurologist, Univ. of Illinois*



# Walkable Neighborhoods & Communities support SRTS

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*Safe*  
*Useful*  
*Comfortable*  
*Interesting*



# What is Safe Routes to School?

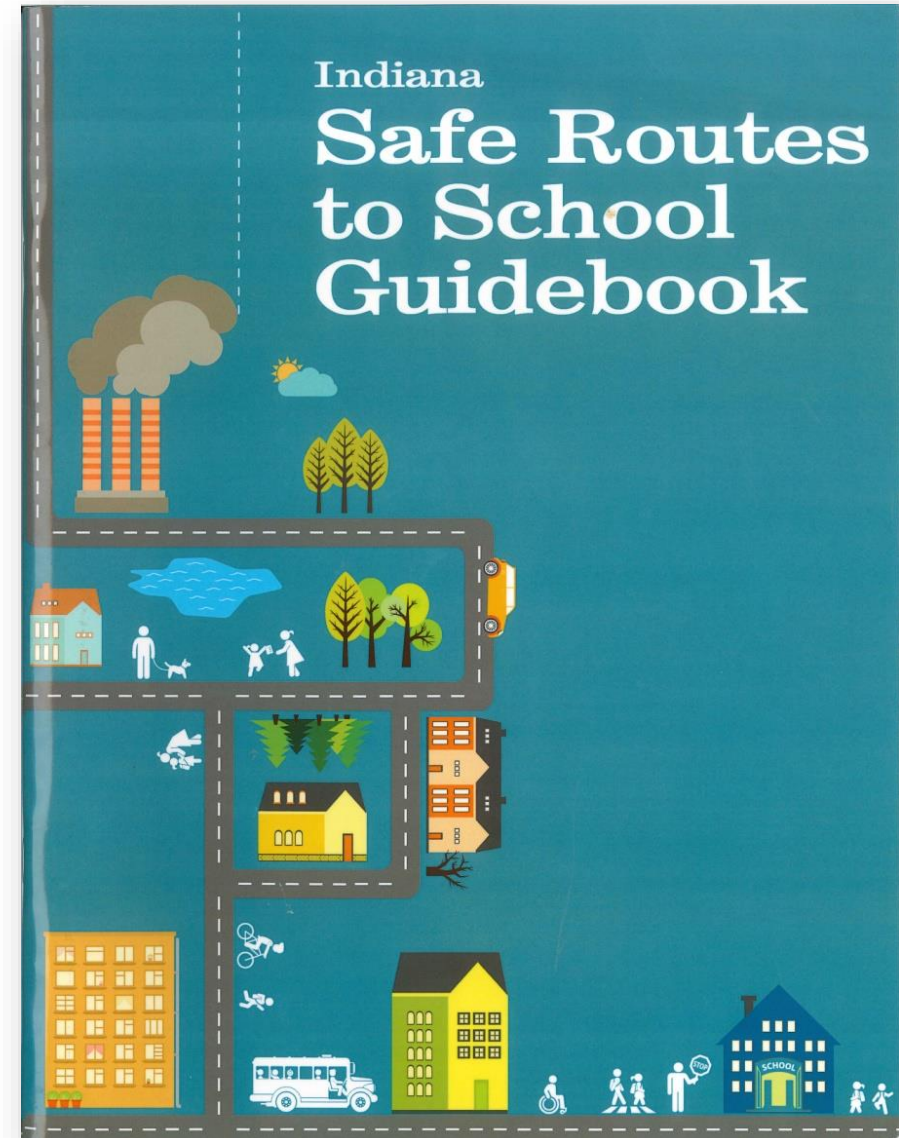
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# History and overview

- Distance to school
- Traffic safety
- Personal safety/crime
- School/district policies



## 6 Es

Safe Routes Partnership, a national thought leader, defines a comprehensive, integrated Safe Routes to School program as one with six key components.



# Equity

Ensuring that Safe Routes to School initiatives are benefiting all demographic groups, with particular attention to ensuring safe, healthy, and fair outcomes for low-income students, students of color, students of all genders, students with disabilities, and others.



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## SF BIKE & ROLL WEEK • 5/10 – 5/14/2021

Semana para ir en bicicleta o rodando أسبوع بايك آند رول

騎自行車和踏滑板周 Linggo ng pagbibisikleta

[sfbike.org/bikeandrollsf](https://sfbike.org/bikeandrollsf)

#bikeandrollsf





# Applying Equity to Your Safe Routes to School Program



Photo credit: Seattle Dept. of Transportation

- Ensure promotional and/or safety materials are multilingual, reflecting the diversity of students and their families
- Host a walk audit with neighborhood families to identify safe, preferred walking, biking, and rolling routes to school
- Provide district-wide or individual school maps of preferred routes that account for students of all physical abilities
- Safe Routes to School programs serving sizeable populations of students qualifying for free or reduced lunch and/or minority populations should consult families on local walking, biking, and rolling routes
- Arrival and dismissal plans should incorporate all modes of transportation to ensure safe travel for all students





# Engineering

Creating physical improvements to streets and neighborhoods that make walking and bicycling safer, more comfortable, and more convenient.



Photo credit: Toole Design

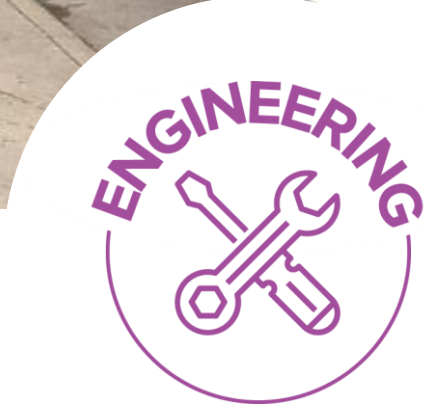


# Applying Engineering to Your Safe Routes to School Program



Photo credit: Matt Hygema

IPS Butler Lab School 55, Indianapolis





# Engagement

All Safe Routes to School initiatives should begin by listening to students, families, teachers, and school leaders and working with existing community organizations, and build intentional, ongoing engagement opportunities into the program structure.



Photo credit: Health by Design



# Applying Engagement to Your Safe Routes to School Program

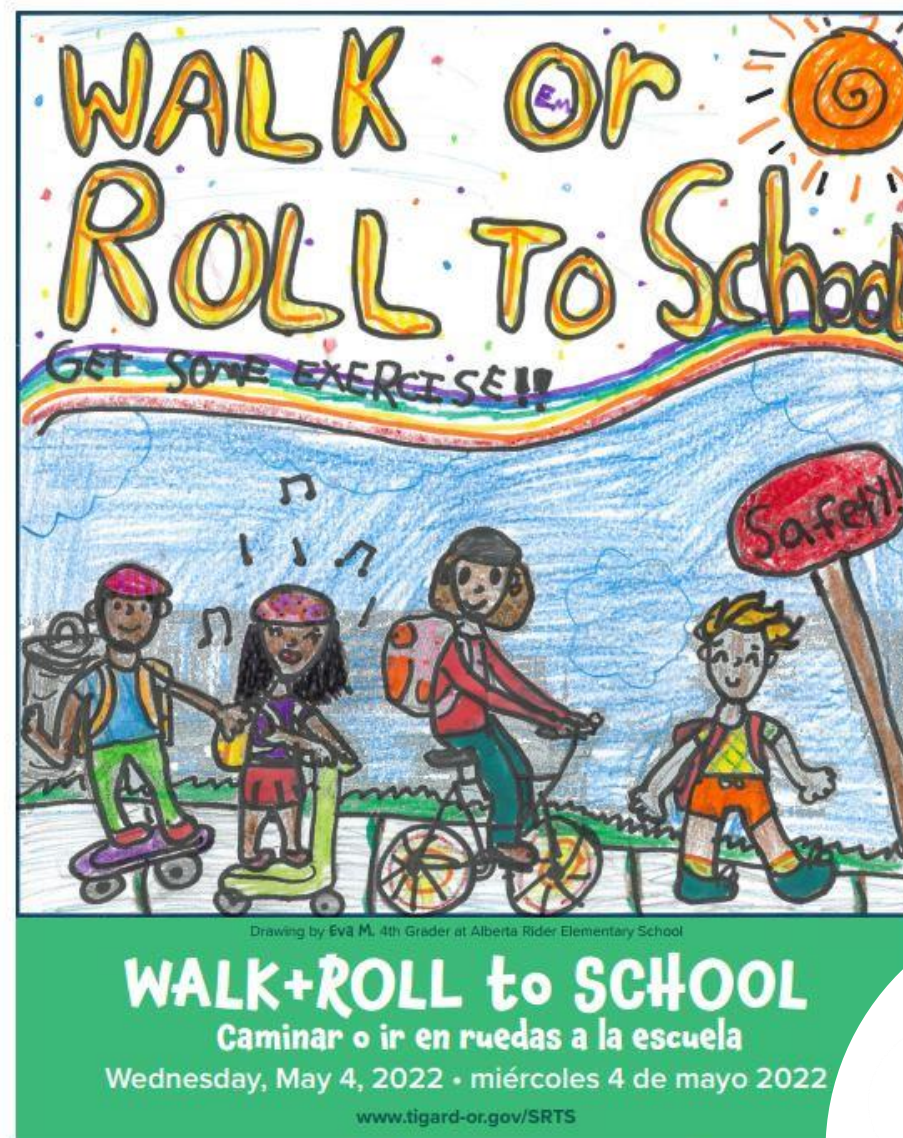
- Starts with authentic community engagement
- Outreach should engage parents / guardians at varying times and places (e.g., virtual, in-person, written survey, etc.) to ensure maximum participation
- Share resources for parents/guardians looking to become actively involved (e.g., Indiana Safe Routes to School Guidebook, Safe Routes Partnership website, etc.)
- Be honest with capacity limitations
- Develop or strengthen relationships between school district and local government (planners, engineers, law enforcement, etc.)





# Encouragement

Generating enthusiasm and increased walking and bicycling for students through events, activities, and programs.



Made possible with support from:  
Hecho posible con el apoyo de:





# Applying Encouragement to Your Safe Routes to School Program



**FINDLEY**

AKRON SAFE ROUTES

Peaceful Warrior  
I am strong.

Easy Pose  
I am kind.

Dance!



**FOREST HILL**

AKRON SAFE ROUTES

Photo credit: Summit County Public Health Dept.



**BUCHTEL**

AKRON SAFE ROUTES



**UNLOCKING the gates**  
Implementing Shared Use Agreements



Photo credit: Health by Design





# Education

Providing students and the community with the skills to walk and bicycle safely, educating them about benefits of walking and bicycling, and teaching them about the broad range of transportation choices.



Photo credit: City of San Pablo





# Applying Education to Your Safe Routes to School Program





# Evaluation

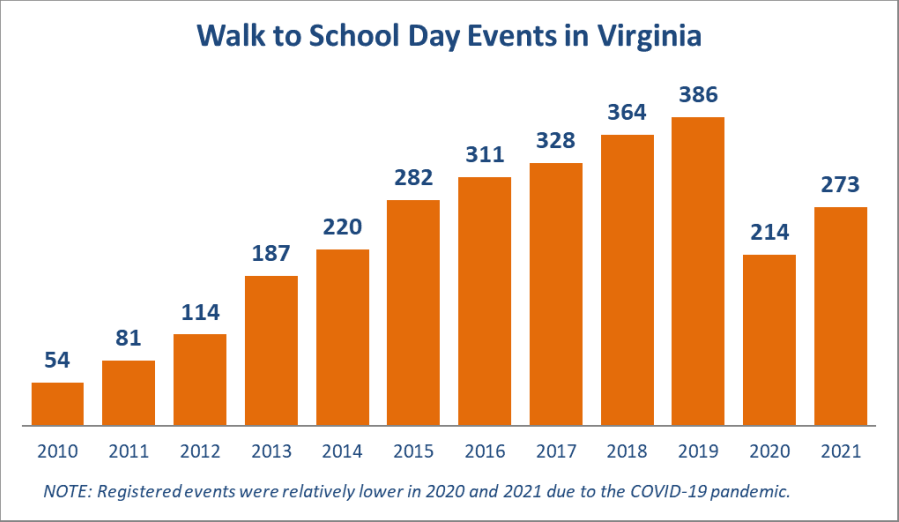
Assessing which approaches are more or less successful, ensuring that programs and initiatives are supporting equitable outcomes, and identifying unintended consequences or opportunities to improve the effectiveness of each approach.



Photo credit: University of Alabama/Lakeshore Research Collaborative



# Applying Evaluation to Your Safe Routes to School Program



## PARENTS, ARE YOUR CHILDREN WALKING AND BIKING?

**If you're a parent or caregiver in Virginia, we want to hear from you!**

**Take our Fall 2020 Parent and Caregiver Survey to help us understand how the pandemic has influenced walking and bicycling.**

<https://www.surveymoz.com/s3/5831518/VA-SRTS-Parent-Survey>

### Cupertino High School Safe Routes to School Improvement Plan

- 1 Stevens Creek Boulevard/Finch Avenue**
  - Reconfigure intersection to tighten radius on southeast corner to eliminate slip lane
  - Tighten radius and install ADA-compliant curb ramps on southwestern corner of intersection
  - Install yellow high-visibility crosswalks on east side and south side of intersection
  - Long term: Install protected intersection and bicycle signal with Lead Bicycle Interval when separated bikeway is installed along Stevens Creek Boulevard
- 2 Finch Avenue/Sorenson Avenue and Finch Avenue/Craft Drive**
  - Install ADA-compliant curb ramps
- 3 Southern Parking Lot**
  - Install raised pedestrian walkways across driveways and reconfigure curbs
  - Install painted walkway through parking lot
- 4 Miller Avenue/Calle de Barcelona (location not shown on map)**
  - Study traffic signal timing to add protected left-turn phase onto Calle de Barcelona from Miller Avenue
- 5 Finch Avenue**
  - Widen sidewalk between Tilson Avenue and emergency access gate north of the baseball field to approximately eight feet
- 6 Calle de Barcelona/Finch Avenue**
  - Install KEEP CLEAR marking in intersection
  - Move crosswalk/stop sign closer to Finch Avenue
  - Install curb extensions and ADA-compliant curb ramps at crosswalk across Finch Avenue



Photo credit: City of Cupertino



# Creating a **SRTS** plan in 5 steps

**Form a SRTS Committee**

**Hold a kick-off meeting**

**Analyze existing conditions, identify issues**

**Identify solutions** (prioritize improvements)

**Make a Plan!**



# What's in a SRTS Plan?

**List of projects: safety/education/encouragement**

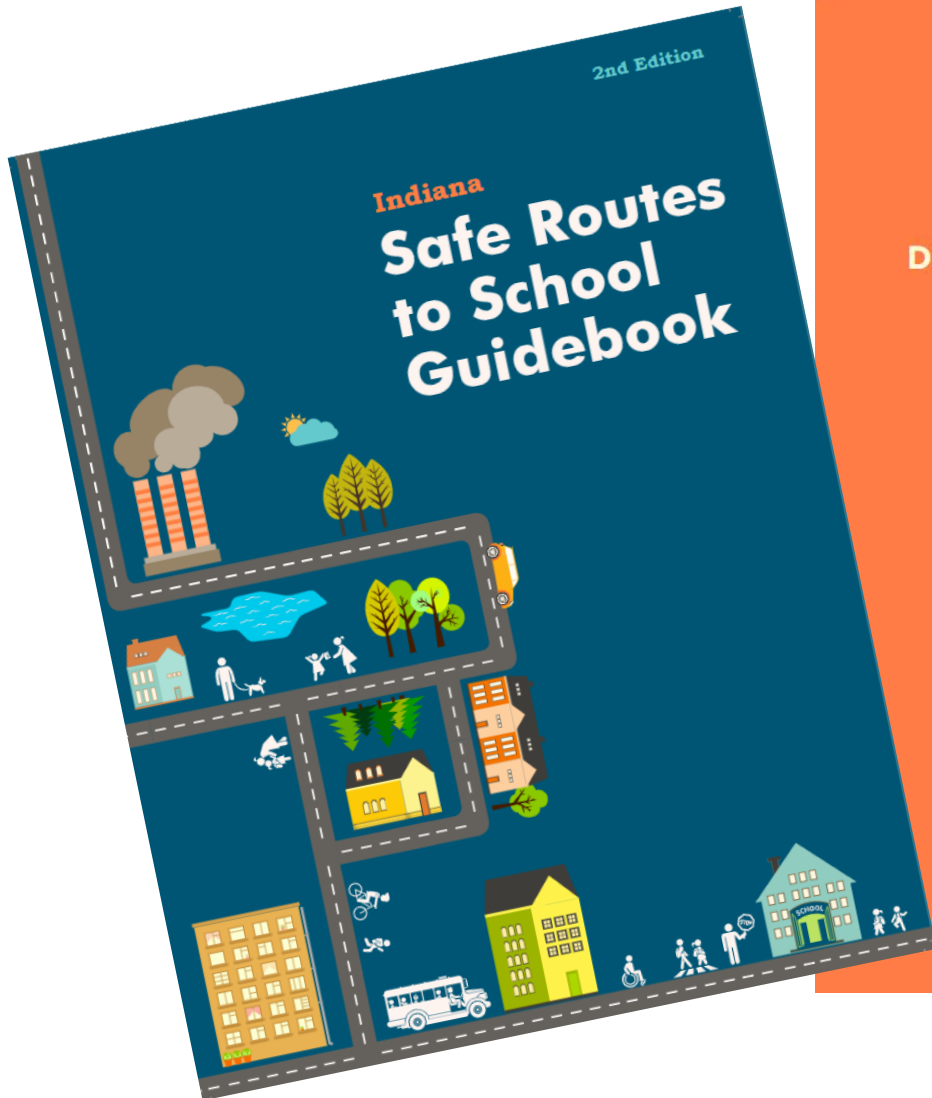
**Long and short-term priorities & goals**

**Partnerships & funding**

**Take Action!**

**Evaluate, assess, adjust, and repeat!**

# SRTS Guidebook



## Did you Know?

- In Indiana, 1,705 pedestrians and 820 bicyclists were involved in collisions in 2017; 114 of these were killed (104 pedestrians, 10 bicyclists).
- In 2017, there were 238 children ages 15 and younger involved in traffic crashes as pedestrians, of which, almost half (42.9%) experienced fatal or incapacitating injuries. An estimated 20 – 25% of rush hour traffic on local roadways is school traffic.
- Nationally, 85% of children's trips to school are made by car or school bus; only 13% of school trips are made by walking or bicycling.
- Approximately 16% of children and adolescents in the United States are now seriously overweight—more than twice the number of children considered obese in the early 1980s. Overweight children are more likely to develop cardiovascular disease, diabetes and other health-related problems.
- Asthma is on the rise among children. Vehicle emissions, especially diesel exhaust, are a known contributor to this disease.

SOURCES: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION; INDIANA STATE POLICE; SURFACE TRANSPORTATION POLICY PROJECT; U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES; CENTERS FOR DISEASE CONTROL AND PREVENTION; AMERICAN HEART ASSOCIATION; AMERICAN LUNG ASSOCIATION; AMERICAN JOURNAL OF PUBLIC HEALTH



## Your Safe Routes to School Plan: Steps for Success





# Glossary of Terms

## GLOSSARY OF KEY TERMS & ACRONYMS



1ST EDITION FEBRUARY 2021





# Stay Tuned

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# Questions?

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**Marjorie Hennessy (she/her),**  
Active Living Program Manager  
[mhennessy@hbdin.org](mailto:mhennessy@hbdin.org)

**Taylor Firestine (he/him),**  
Walk & Bike Program Coordinator  
[tfirestine@hbdin.org](mailto:tfirestine@hbdin.org)

# Thanks!