Statewide Action Plans for Pedestrian and Bicyclist Safety

Presented by FHWA Office of Safety, VHB, and UNC HSRC

Elissa Goughnour VHB
Dan Gelinne UNC Highway Safety Research Center
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Mark Cole Virginia DOT

Housekeeping

- ⇨ Submit your questions
- ⇨ Webinar archive: www.pedbikeinfo.org/webinars
- ⇨ Live transcript: www.streamtext.net/player?event=HSRC
- ⇨ Certificates and professional development hours
- ⇨ Follow-up email later today

Meet the Panel

Elissa Goughnour

VHB

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UNC Highway Safety Research Center

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Oregon DOT

Nick Foster

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Guidance for Developing Pedestrian and Bicyclist Safety Action Plans

Elissa Goughnour, VHB
Dan Gelinne, UNC Highway Safety Research Center

Presentation Topics

1. Introduce PBSAPs
2. Motivation for PBSAP Development
3. Guidance for Developing PBPSAPs
4. Components of a High Quality PBSAP

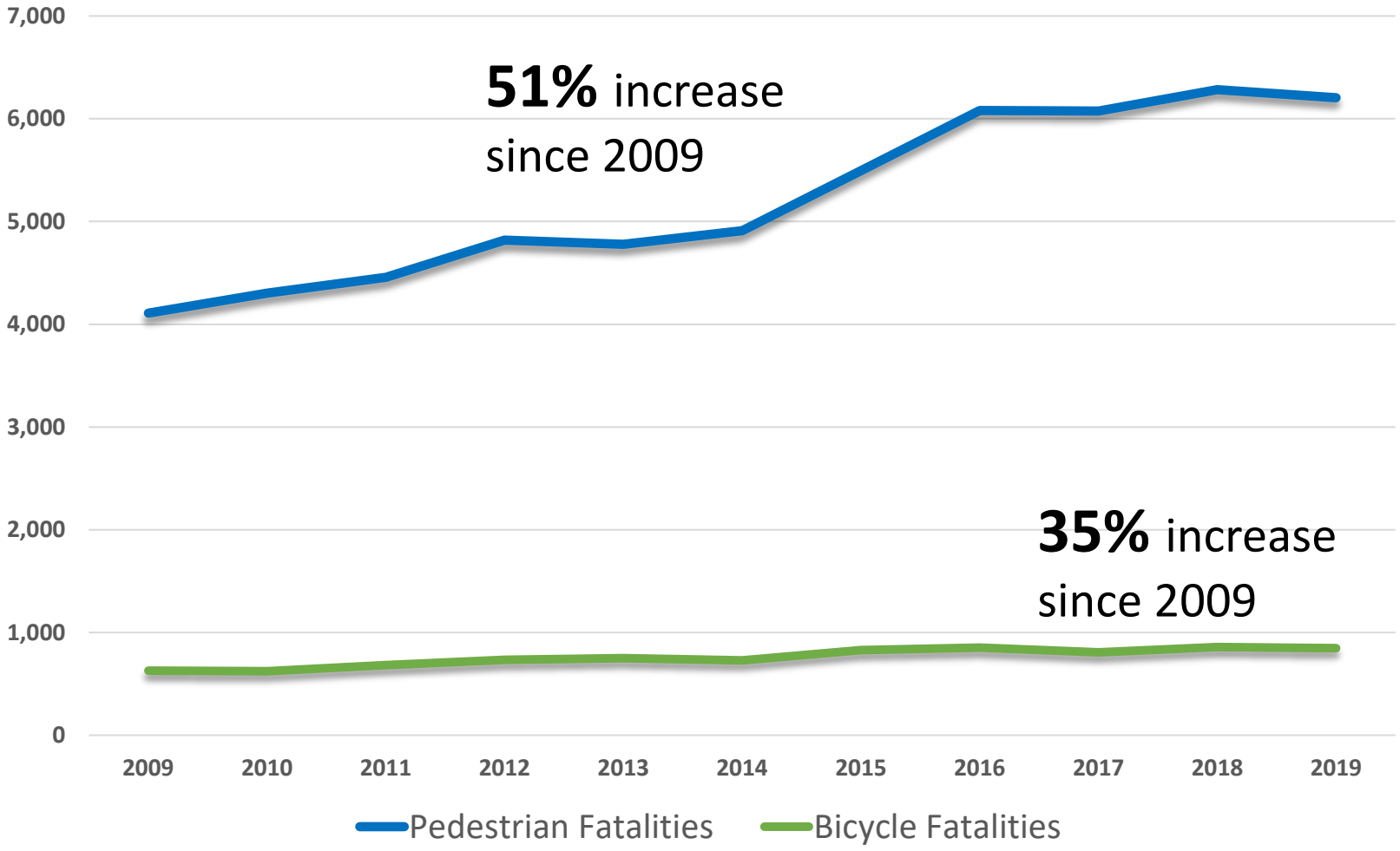
Pedestrian and Bicyclist Safety Action Plan (PBSAP)

Establishes a framework for focusing a community's attention on improving conditions for bicycling and walking.

Lays out a vision for improving safety, examining existing conditions, and using a data-driven approach to match safety programs and improvements with demonstrated problems.

Safety Trends

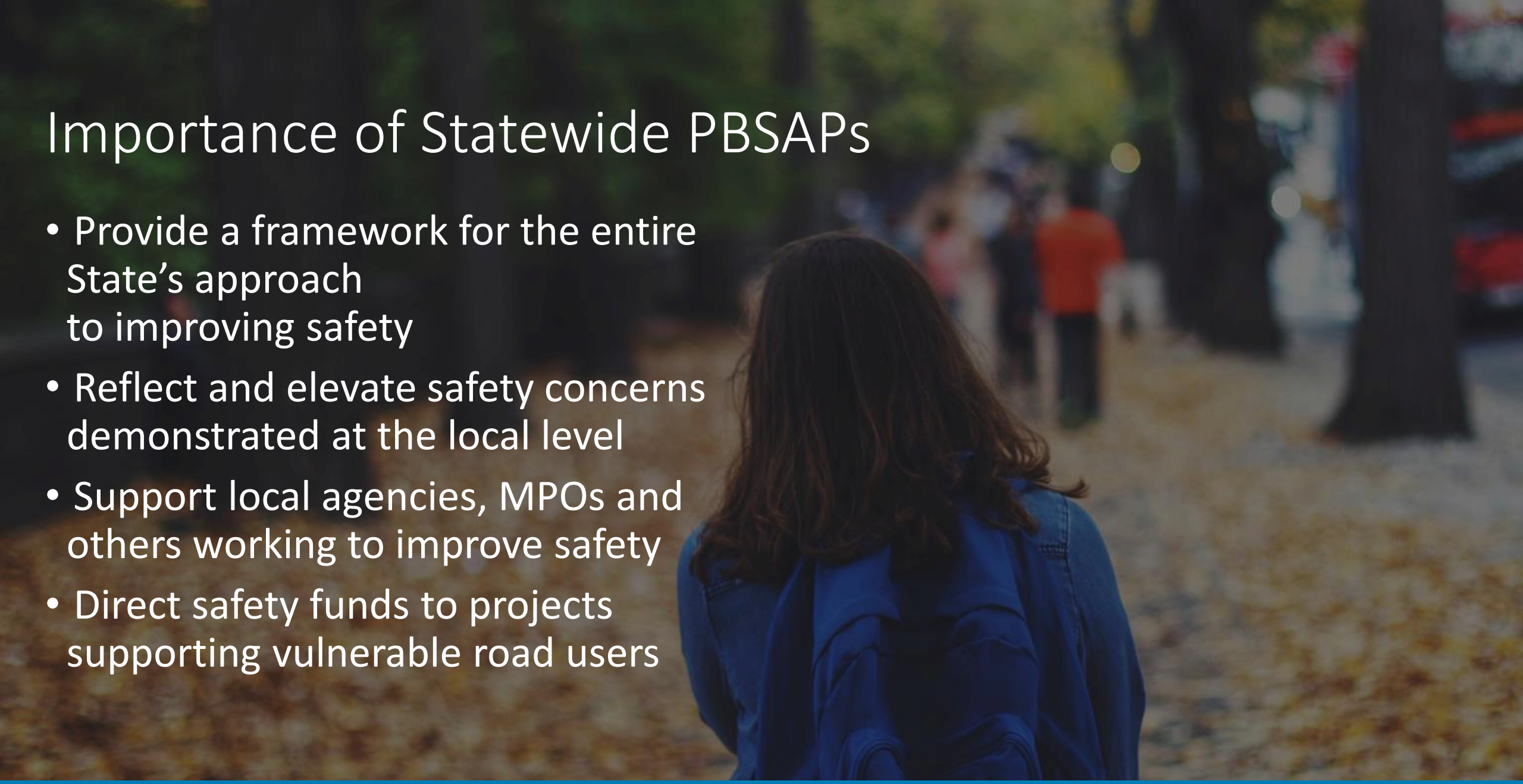
Non-Motorized Fatalities 2009-2019



Why Develop a PBSAP?

- To understand how multiple roadway users interact.
- To improve conditions for bicycling and walking.
- In a society that values choice and freedom, people should be able to bike or walk safely, whether for fun and recreation, errands, getting to work or school, shopping, or other reasons.

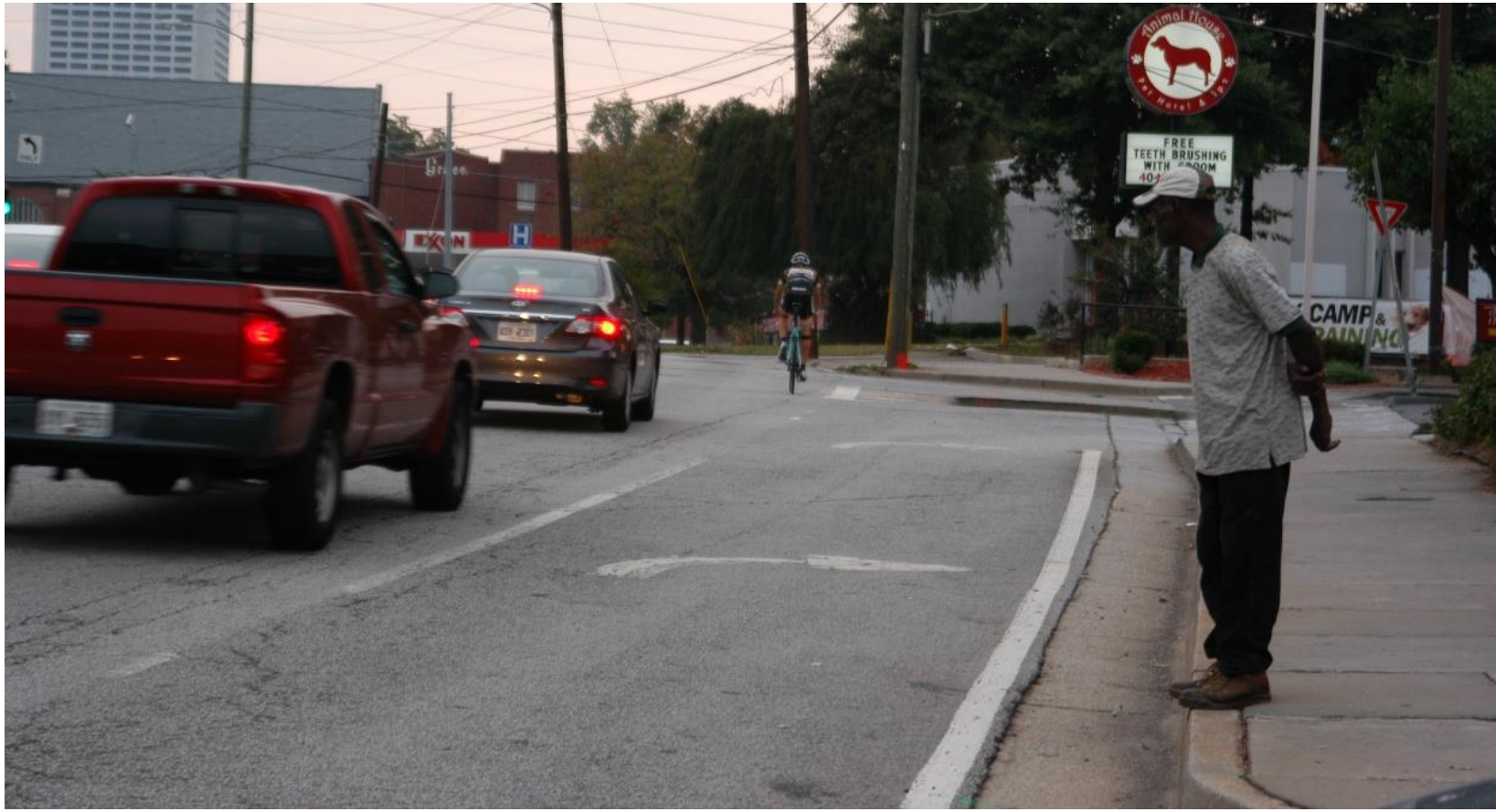
Importance of Statewide PBSAPs



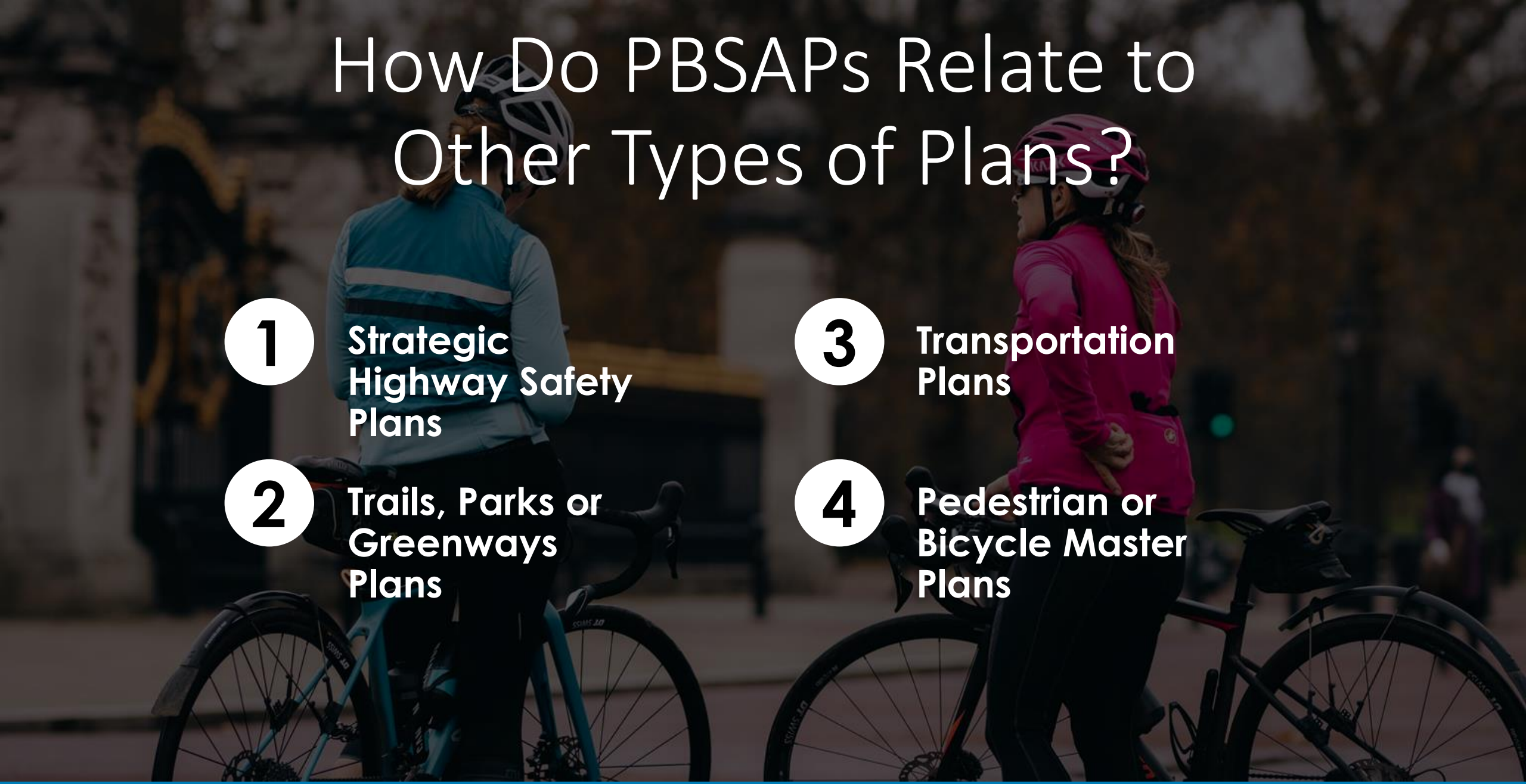
- Provide a framework for the entire State's approach to improving safety
- Reflect and elevate safety concerns demonstrated at the local level
- Support local agencies, MPOs and others working to improve safety
- Direct safety funds to projects supporting vulnerable road users

Combined or Separate?

- Available resources
- Coordination with existing documents and plans
- Agency goals



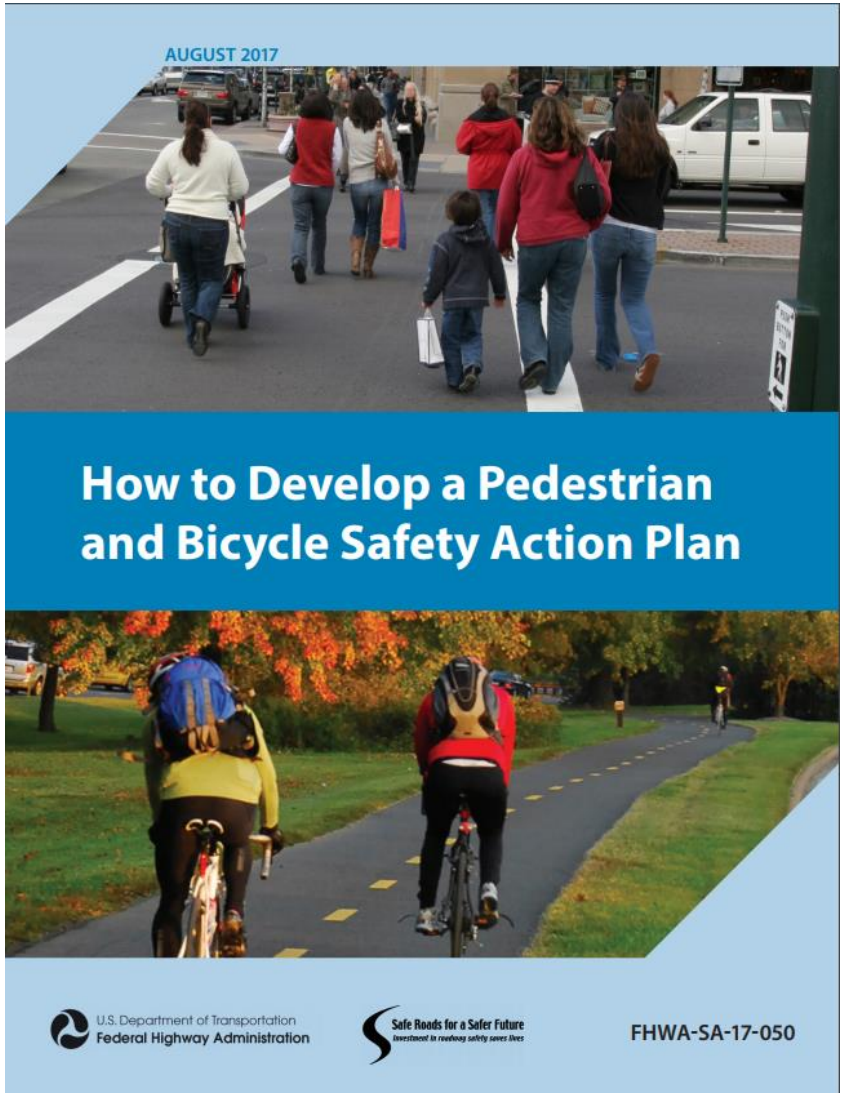
How Do PBSAPs Relate to Other Types of Plans?



1. Strategic Highway Safety Plans
2. Trails, Parks or Greenways Plans
3. Transportation Plans
4. Pedestrian or Bicycle Master Plans

FHWA Guidance

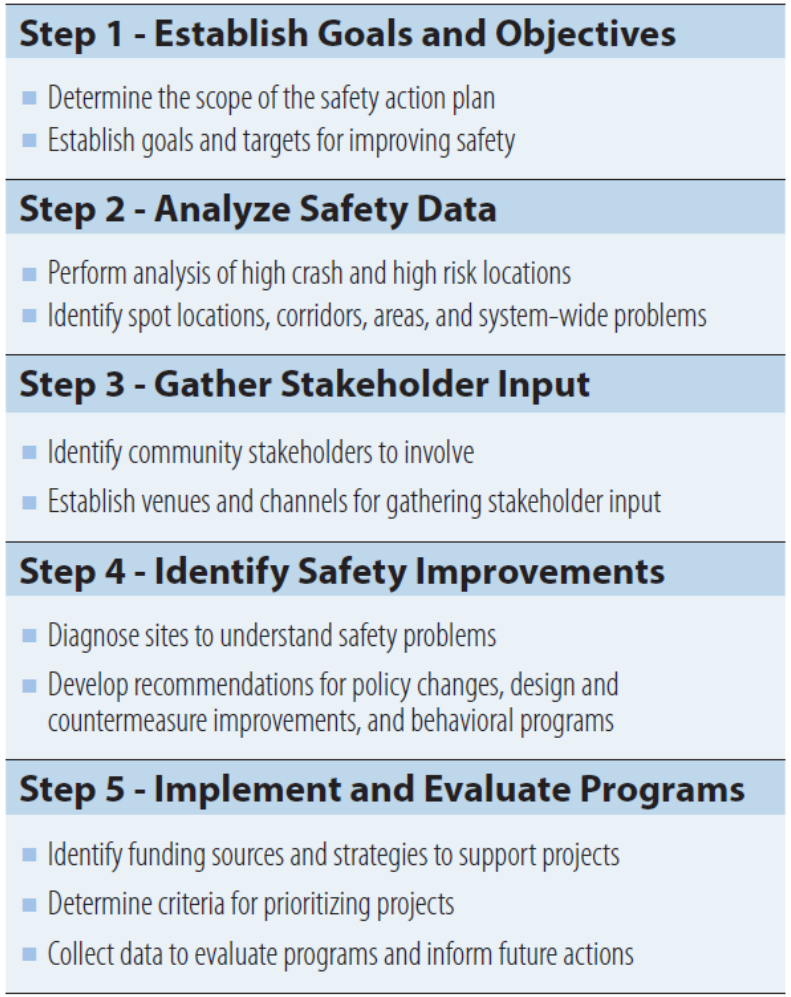
- Lays out process for developing PBSAPs
- Dives into specific steps like stakeholder engagement, data analysis, and countermeasure selection



https://safety.fhwa.dot.gov/ped_bike/ped_focus/docs/fhwasa17050.pdf

FHWA Guidance

- Lays out process for developing PBSAPs
- Dives into specific steps like stakeholder engagement, data analysis, and countermeasure selection



https://safety.fhwa.dot.gov/ped_bike/ped_focus/docs/fhwasa17050.pdf

Step 1: Establish Goals and Objectives

Determine the scope of the safety action plan and establish goals and targets for improving safety

Clear goals and objectives will help you:

- keep the plan focused
- identify clear metrics for success
- identify plan partners
- ensure ongoing progress towards implementation

Step 2: Analyze Safety Data

Use available data to understand risk factors impacting safety and locations where improvements can be made

Consider pros/cons of traditional spot safety approaches and more proactive, systemic analysis methods

Spot Safety Approach

Makes improvements at individual sites or road segments with relatively high numbers of crashes, without regard to other sites with similar risk factors.

Corridor Retrofit Approach

Makes improvements at several adjacent locations (with possibly similar risk factors), not all of which may have experienced a high number of crashes.

Systemic Approach

Makes improvements at locations with a high predicted crash risk or presence of key risk factors, regardless of actual crash history.

Systematic Approach

Makes improvements at all sites in an area, regardless of predicted crash risk or crash history.

Step 2: Analyze Safety Data

Table 1. Pedestrian and bicycle crash data and potential risks.

Data Types	Risk Types	Location Types
Crash Data		
Location	Time or Distance Exposed to Traffic	Intersections and Segments
Contributing factors and crash types	Behaviors	Corridors
Environmental and temporal factors	Speed	Areas
	Conspicuity	System-wide Problems
Behavior and Observational Data		
Intersection conflicts	Behaviors	Corridors
Motor vehicle speeds	Speed	Areas
Citations and convictions	Conspicuity	System-wide Problems
Use of bicycle lights/reflectors		
Volume and Count Data		
Traffic volumes and projections	Volume and Type of Road Users	Intersections and Segments
Pedestrian crossing counts or estimates	Time or Distance Exposed to Traffic	Corridors

Source: How to Develop a Pedestrian and Bicyclist Safety Action Plan (Ch. 3, p. 21)

Step 3: Gather Stakeholder Input

Identify stakeholders and provide venues and opportunities to gather their input and priorities

Consider factors such as:

- Equity and inclusion
- Convening a steering committee / panel for ongoing input
- Traditional meetings vs. web-based or other engagement tools
- External and internal (within Department) engagement

Step 3: Identify Safety Improvements & Recommendations

Integrate a range of policy, program and countermeasure strategies to respond to safety problems

Policy

Policy measures with system-wide impacts on key issues like speed

Engineering

Deployment of proven countermeasures and design strategies to address identified risk factors

Behavioral

Safety messaging and engagement with community members to support other interventions

Step 5: Implement and Evaluate

Set your plan up to be successful, show results, and work toward your goals.

Implementation considerations:

- How will you fund your plan's recommendations?
- Assigning responsibilities and timelines
- How often to review and report progress? What are your interim targets/milestones?
- What resources will your agency need (e.g. staff capacity)?

Considerations for Agencies

- What plans do we have now, and what gaps would a PBSAP fill?
- What is our motivation for developing a plan?
- What data can we use in our analysis?
- Which stakeholders and partners do we need to engage?
- How can we structure the plan to support implementation and achieve our goals?
- What emerging and future challenges will need to be captured in your plan?

Thank You!

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Oregon's Pedestrian and Bicycle Safety Implementation Plan Update

Pedestrian and Bicycle Information Center (PBIC) Webinar

Nick Foster, AICP, RSP- Associate Planner, Kittelson & Associates, Inc.

Christina McDaniel-Wilson, P.E., RSP- State Traffic Safety Engineer, Oregon Department of Transportation

April 13th , 2021

Oregon Department of Transportation

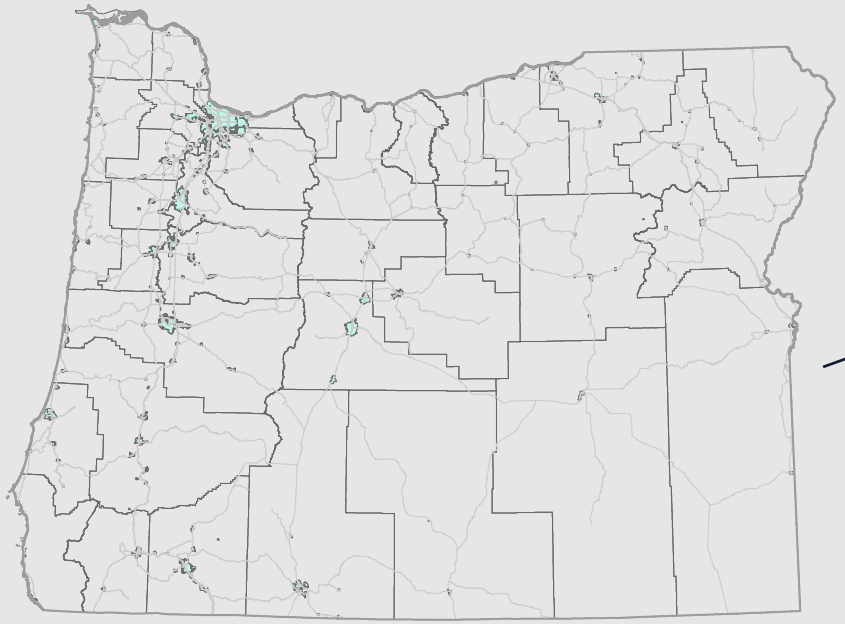
Overview

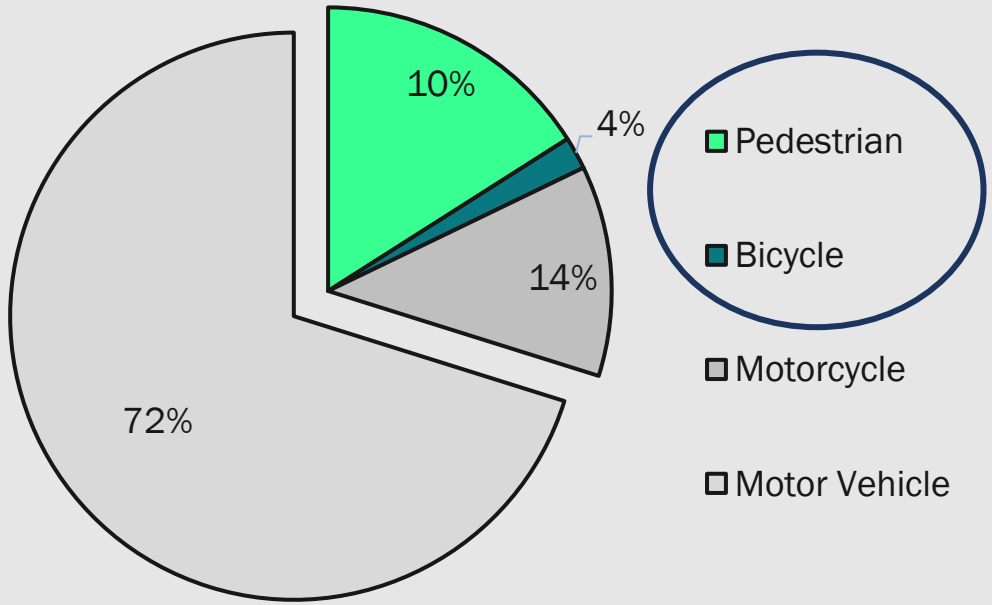
- Background
- NCHRP Research Report 893
- Project goals & objectives
- Differences between the old plan and the update
- Implementation

Oregon Department of Transportation

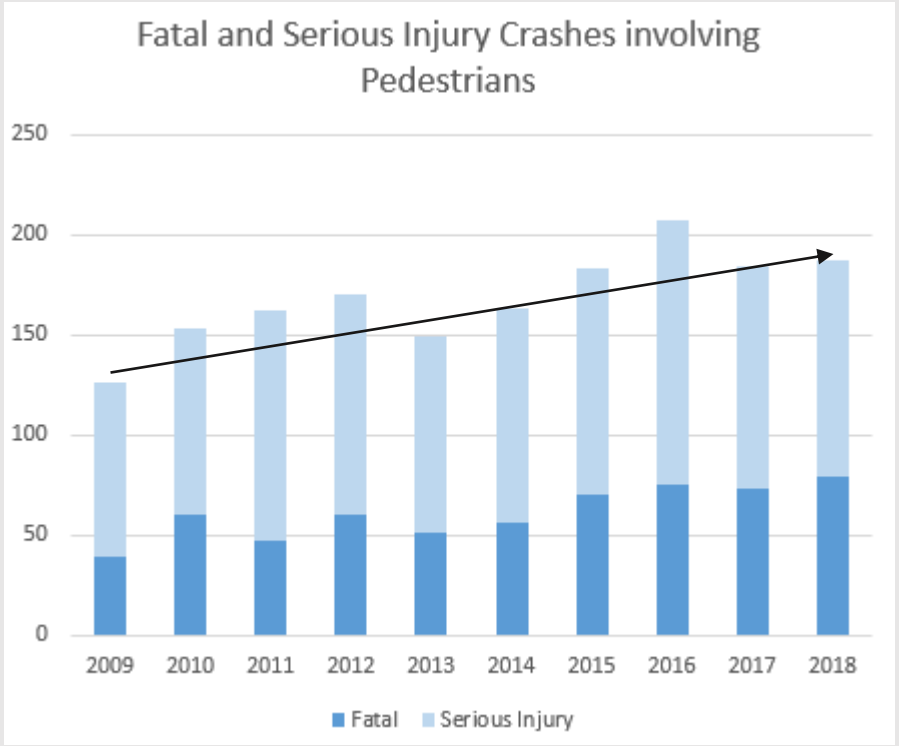
Pedestrian and Bicycle Crash Trends, Oregon

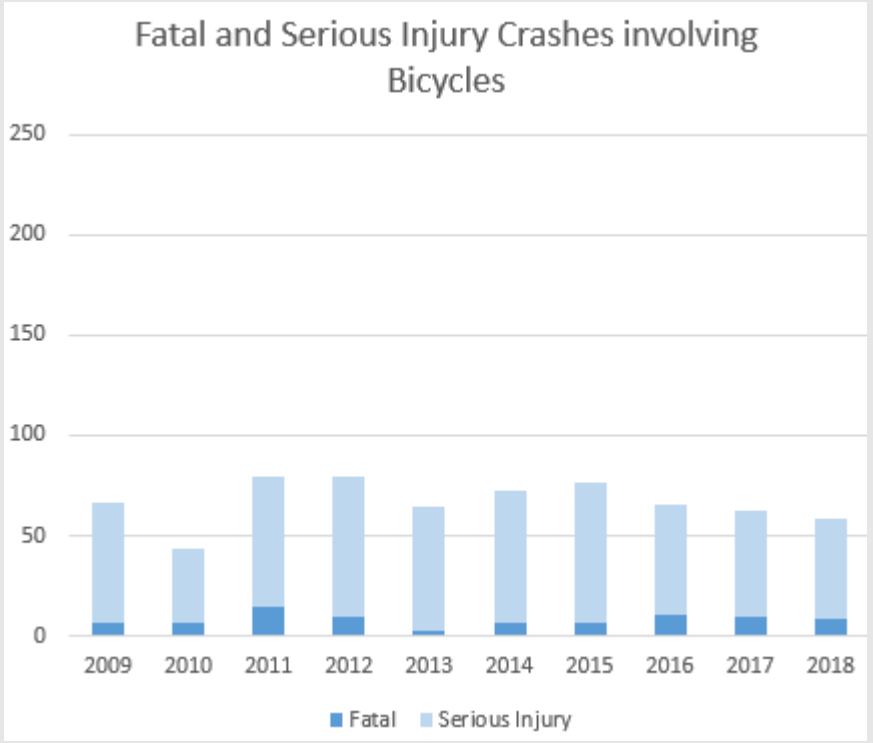
- On average, between 2014 and 2018:
  - About 1 in every 7 of the fatal and severe injury **crashes** each year involved pedestrians and bicycles





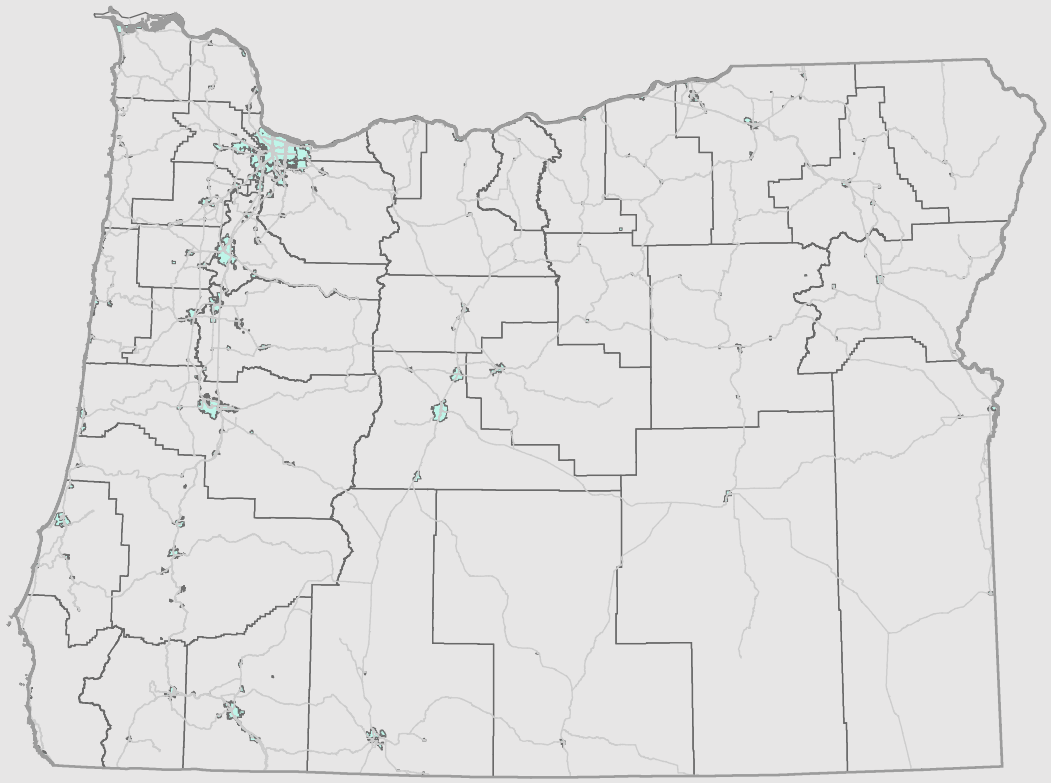
Pedestrian and Bicycle Crash Trends





ARTS program principles

- Blind to jurisdiction and meets all requirements of HSIP (to be eligible for federal funding)
- Engage local agencies in the project selection process
- Funding allocation to Regions based on fatal and serious injury crashes
- Combination of Hot Spots and Systemic
- Projects selected by ODOT Regions and local agencies

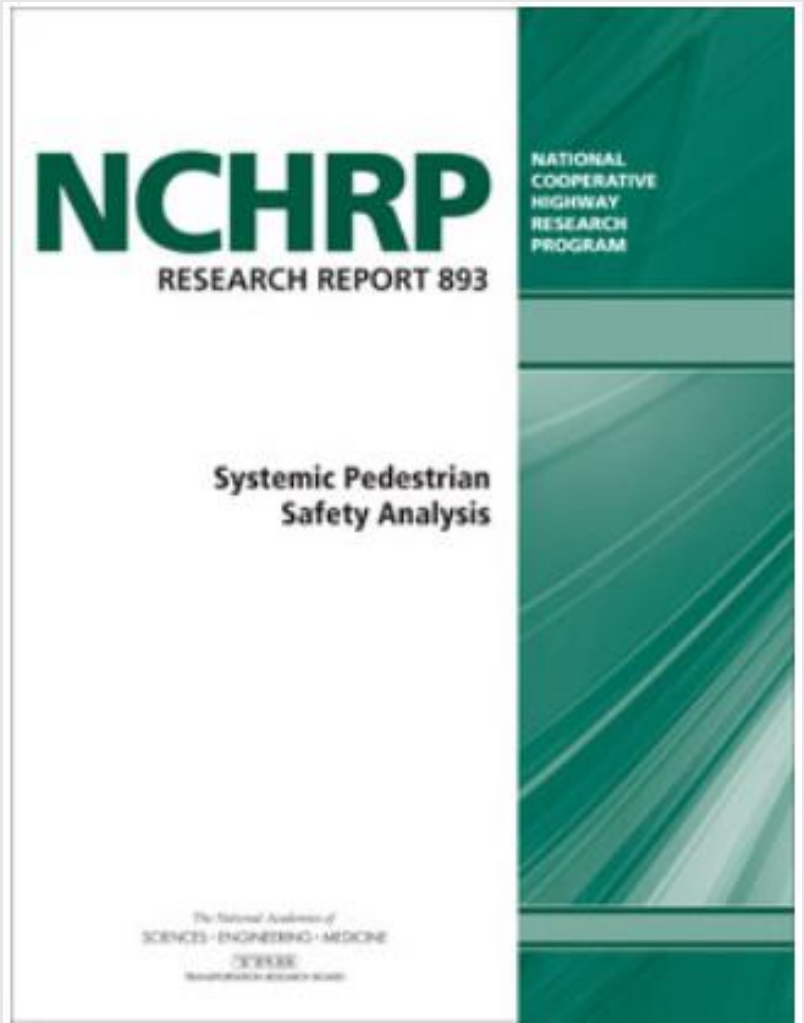


Pedestrian and Bicycle Safety

- Three primary focus areas for infrastructure safety in the Oregon Transportation Safety Action Plan
- Systemic Safety Plans
  - Roadway Departure
  - Intersections
  - Pedestrian and Bicycles

NCHRP Research Report 893 – Systemic Pedestrian Safety Analysis

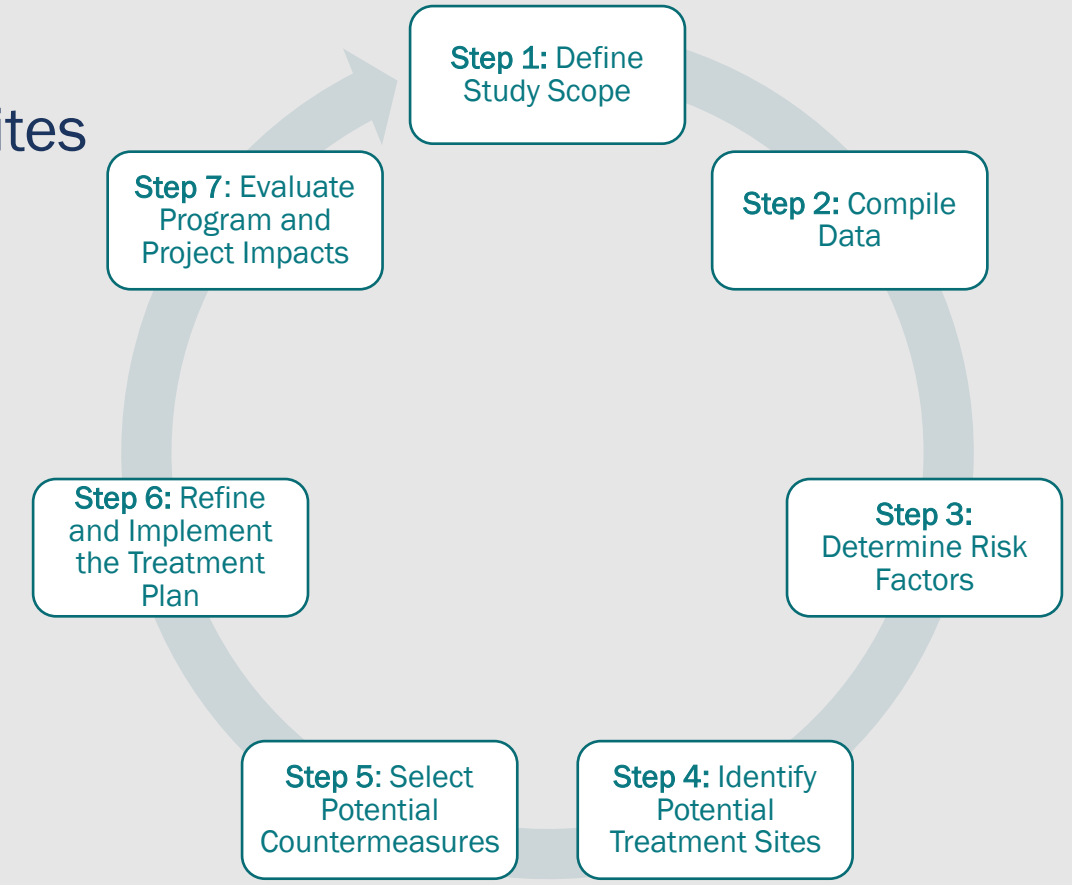
- Describes a Safety Analysis Method for:
  - Pedestrian Systemic Safety Analyses Considering:
    - Pedestrian Activities/Behavior
    - Roadway Features
    - Other Contextual Risk Factors (e.g., land-use)
  - Identifying Cost-effective Countermeasures
  - Prioritizing Locations



http://www.trb.org/Publications/Blurbs/178087.aspx

Systemic Safety Benefits

- Comprehensive Decision-making Basis
- Cost-effective
  - Typically Low-cost Treatments at Similar Sites
- Data-driven
- Proactive
- Consistency



http://www.trb.org/Publications/Blurbs/178087.aspx

Figure 3. Steps in a systemic pedestrian safety analysis process.

http://www.trb.org/NCHRP/Blurbs/178087.aspx

Step 1: Define Study Scope

- Study Area – *Statewide*
- Target Facility/Location Types – *State Highways*
  - *Emphasis on Urban Areas (population >5,000)*
- Target Crash Types
  - *Pedestrian*
  - *Bicycle*

Figure 3. Steps in a systemic pedestrian safety analysis process.

http://www.trb.org/NCHRP/Blurbs/178087.aspx

Step 2: Compile Data

Data Type	Eugene	Portland	Bend	ODOT
Ped Counts				X
Vehicle Counts		X		X
Zoning	X	X	X	X
Parks	X	X	X	X
Schools	X	X	X	X
Transit Stops				X
Functional Class	X	X	X	X
Ped Facility	X	X	X	X
Bike Facility	X	X		X
Trails/Shared-use Paths	X	X		X
Road Centerlines	X	X	X	X
Road Lanes			X	X
Road Shoulders				X
Road Speed	X	X		X
Traffic Signals	X	X	X	X
Enhanced Crossings	X			X
Crashes 2007 - 2017				X
SPIS Data 2009 – 2015				X

Step 3: Determine Risk Factors (Pedestrian)

Figure 3. Steps in a systemic pedestrian safety analysis process.

http://www.trb.org/NCHRP/Blurbs/178087.aspx

Risk Factor	Facility Type	Urban	Rural
Roadway Characteristics			
Principal Arterial	General	X	X
Number of Lanes (>= 4 Lanes)	Segment	X	X
High-Access Density	Segment	X	
No Sidewalks (or Only One Side)	Segment	X	
Posted Speed (>=35 mph)	Segment	X	X
Context			
Mixed Use Zoning	General	X	
Other Zoning	General		X
Proximity to Schools (1 Mile)	General	X	X
Proximity to Transit Stops (1/4 Mile)	General	X	X
Demographics			
High Population over the Age of 64	General	X	X
Other Risk Factors (Not Used in Screening Due to Data Availability)			
High-turning Volumes at Intersections	Intersection	X	X
Left-turn Signal Phasing (Permissive)	Intersection	X	X
Lighting	Intersection	X	X
Propensity for Mid-block Crossings	Intersection/Mid-block	X	X
Exposure	Intersection	X	X

Step 3: Determine Risk Factors (Bicycle)

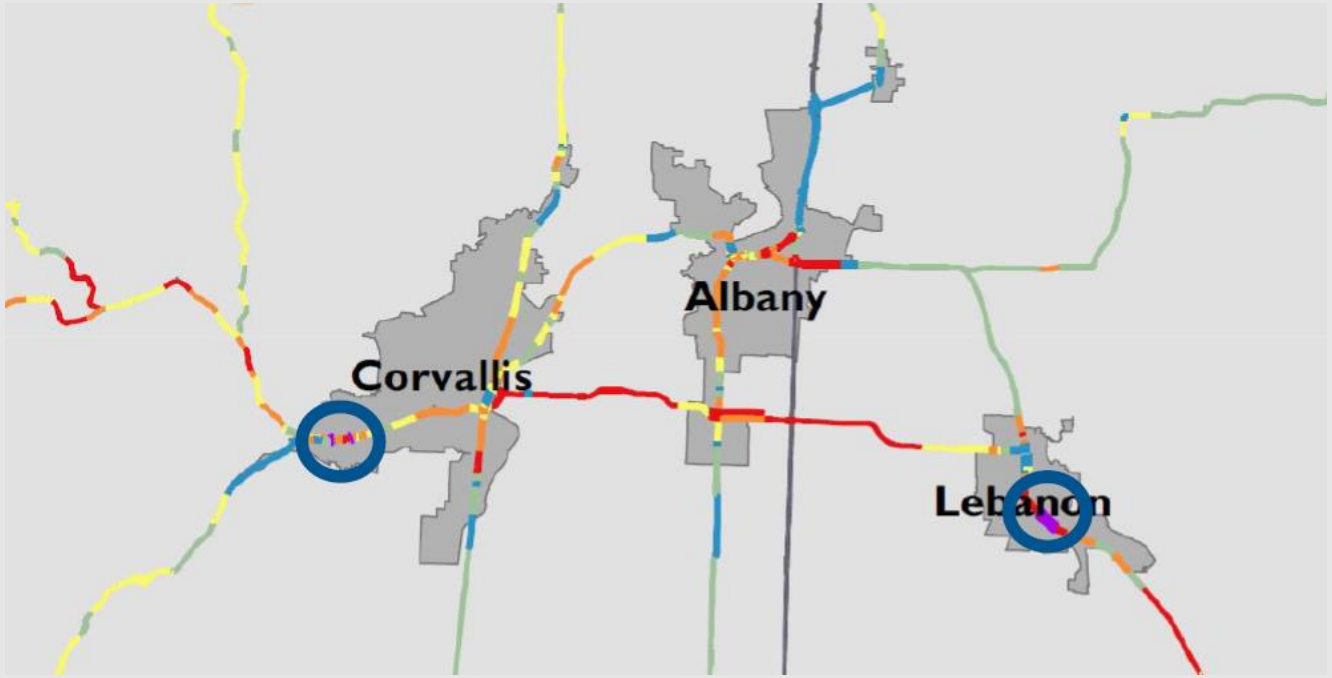
Figure 3. Steps in a systemic pedestrian safety analysis process.

http://www.trb.org/NCHRP/Blurbs/178087.aspx

Risk Factor	Facility Type	Urban	Rural
Roadway Characteristics			
Principal Arterial	General	X	X
Minor Arterial	General	X	
Number of Lanes (>= 4 Lanes)	Segment	X	X
High-Access Density	Segment	X	
No Bike Lanes	Segment	X	
Posted Speed (>=35 mph)	Segment	X	X
Context			
Mixed Use Zoning	General	X	
Proximity to Schools (1 Mile)	General	X	X
Proximity to Transit Stops (1/4 Mile)	General	X	X
Demographics			
High Population over the Age of 64	General	X	X
Other Risk Factors (Not Used in Screening Due to Data Availability)			
High-turning Volumes at Intersections	Intersection	X	X
Left-turn Signal Phasing (Permissive)	Intersection	X	X
Time of Day/Lighting	Intersection	X	X
Scenic Bikeways	General	X	X
Exposure	General	X	X

Step 4: Identify Potential Treatment Sites

Figure 3. Steps in a systemic pedestrian safety analysis process.



http://www.trb.org/NCHRP/Blurbs/178087.aspx

Figure 3. Steps in a systemic pedestrian safety analysis process

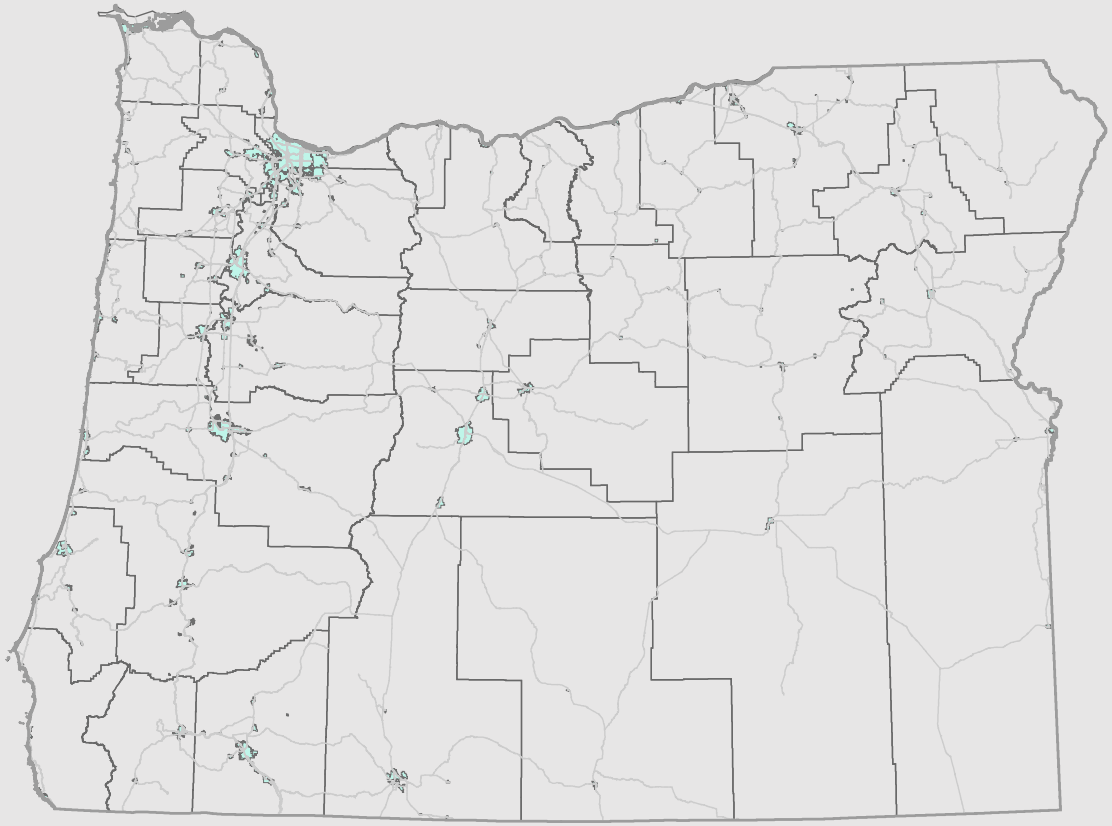
Step 5: Select Potential Countermeasures

- Establish a Selection Framework
  - Effectiveness
  - Program/Crash Type Relationship
  - Cost
  - Feasibility
- Develop Potential Countermeasure List
- Select Countermeasures

											Evaluation Factors					
SITE II	LOCATION/ROADW	BEGIN MILE POI	END MILEPOIN	ODOT BUD CONTEXT	CRASH PATTERN(S)	RISK FACTORS	POTENTIAL COUNTERMEASURE	CRI	ARTS #	1	2	3	4	5	Total
2	OR 99E	18.16	24	Commericial Corridor	Vehicle vs. bicycle at driveway	Principal Arterial > 4-lanes No Sidewalks Other Zoning	1. Install urban green bike lanes at conflictpoints	39	BP5	3	1	3	3	3	13
							2. Reduce urban driveway density from 48 to 26 -	29	H30	3	1	1	1	3	9
							3. Install Cycle Track	59	BP19	2	3	1	2	2	10
							4. Installation of raised bicycle crossing or other speed reducing measure for vehicles entering or leaving the side road	51	N/A	3	3	2	3	1	12
					Vehicle vs. bicycle along										

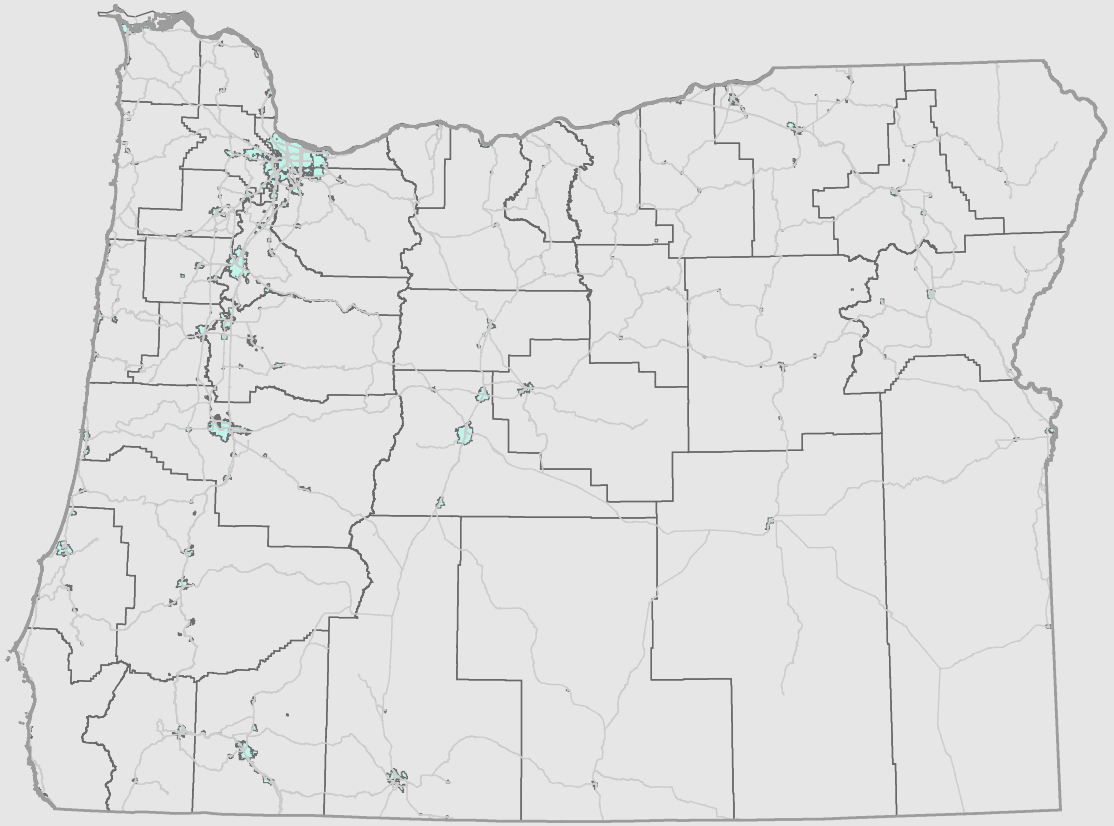
How is the New Plan Different?

- This Plan Provides:
  - Framework for Conducting Systemic Pedestrian and Bicycle Safety Analyses
  - Risk Factors to Identify Locations for Treatments
  - Example Applications and Treatment Options
- This Plan *Does Not* Provide:
  - A Project List



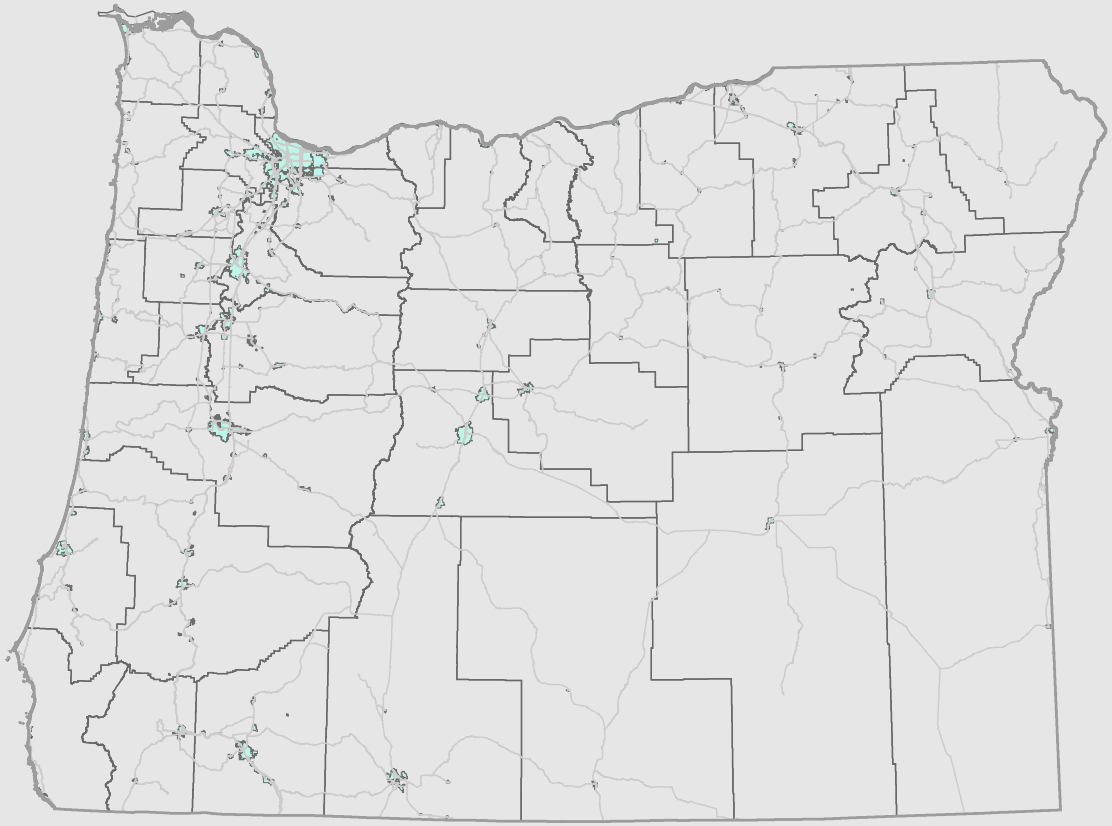
Transferability and Other Considerations

- Data Availability and Consistency is Critical
  - Some Agencies May Need to Enhance Datasets to Conduct Similar Analyses
  - Existing Research Can Be Used to Fill in Data Gaps
  - Regularly Maintain/Update Data
- Exposure Models/Data Would Enhance Analyses
- Syncing Datasets Improves Analysis Efficiency
- States Could Engage Local Agencies If Plan Will Affect Project and Program Funding
- Do Not Let Perfect Get in the Way of Good



Follow up Research and Next Steps

- Apply Results Statewide
- More Detailed Analysis at Intersections
- Developing Flexible Approaches to Estimating Exposure
- Continue to Expand Understanding of Safety Effects of Treatments




Questions?
Oregon
Department
of Transportation

Resources and References

- ARTS Program: https://www.oregon.gov/odot/Engineering/Pages/ARTS.aspx
- NCHRP 893: http://www.trb.org/NCHRP/Blurbs/178087.aspx
- NCHRP 20-14 (13): https://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=4823
- ODOT Pedestrian and Bicycle Plan: https://www.oregon.gov/odot/Engineering/Pages/Highway-Safety.aspx
- Transportation Safety Action Plan: https://www.oregon.gov/ODOT/Safety/Documents/TSAP_2016.pdf

Oregon Department of Transportation

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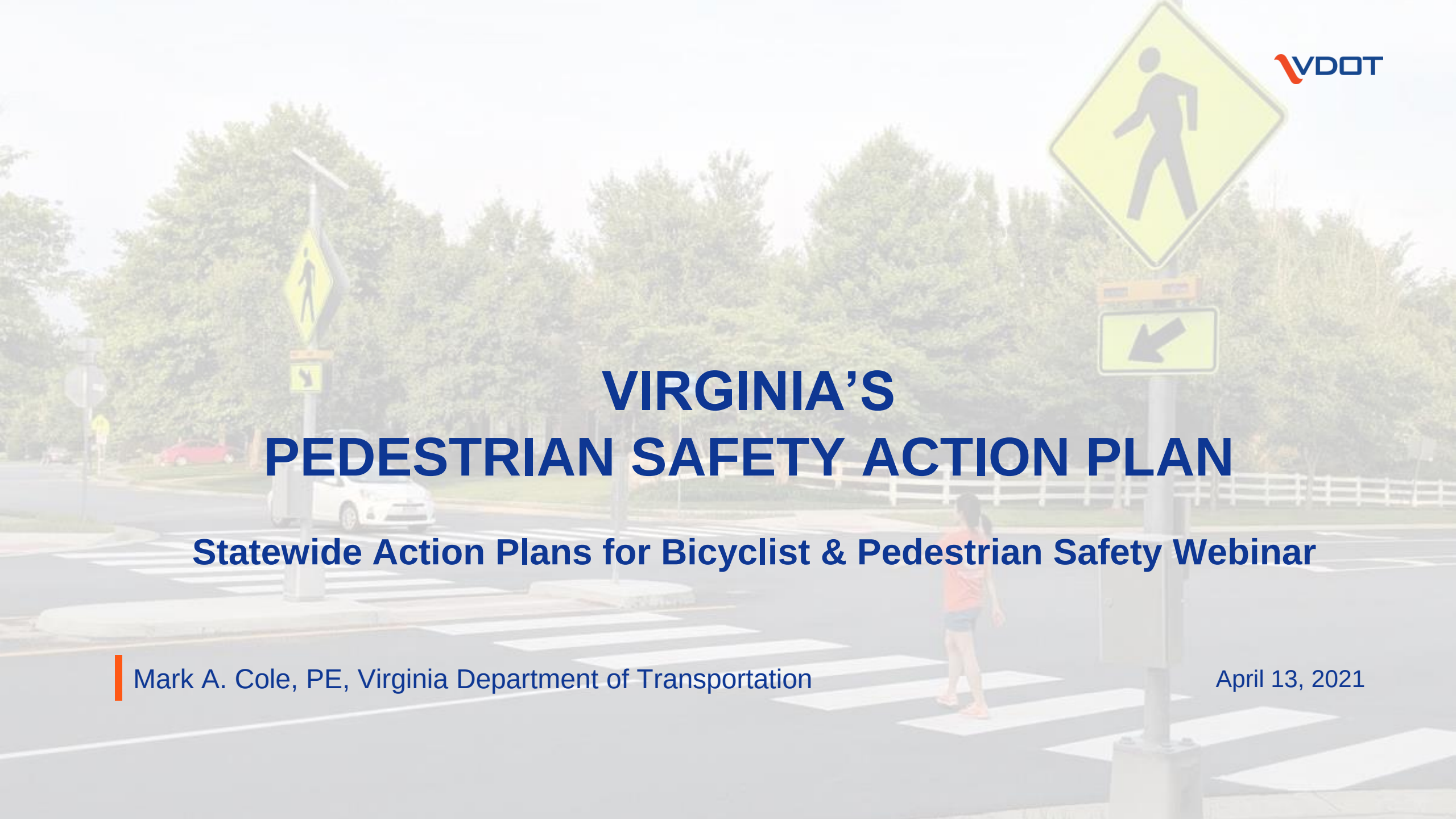


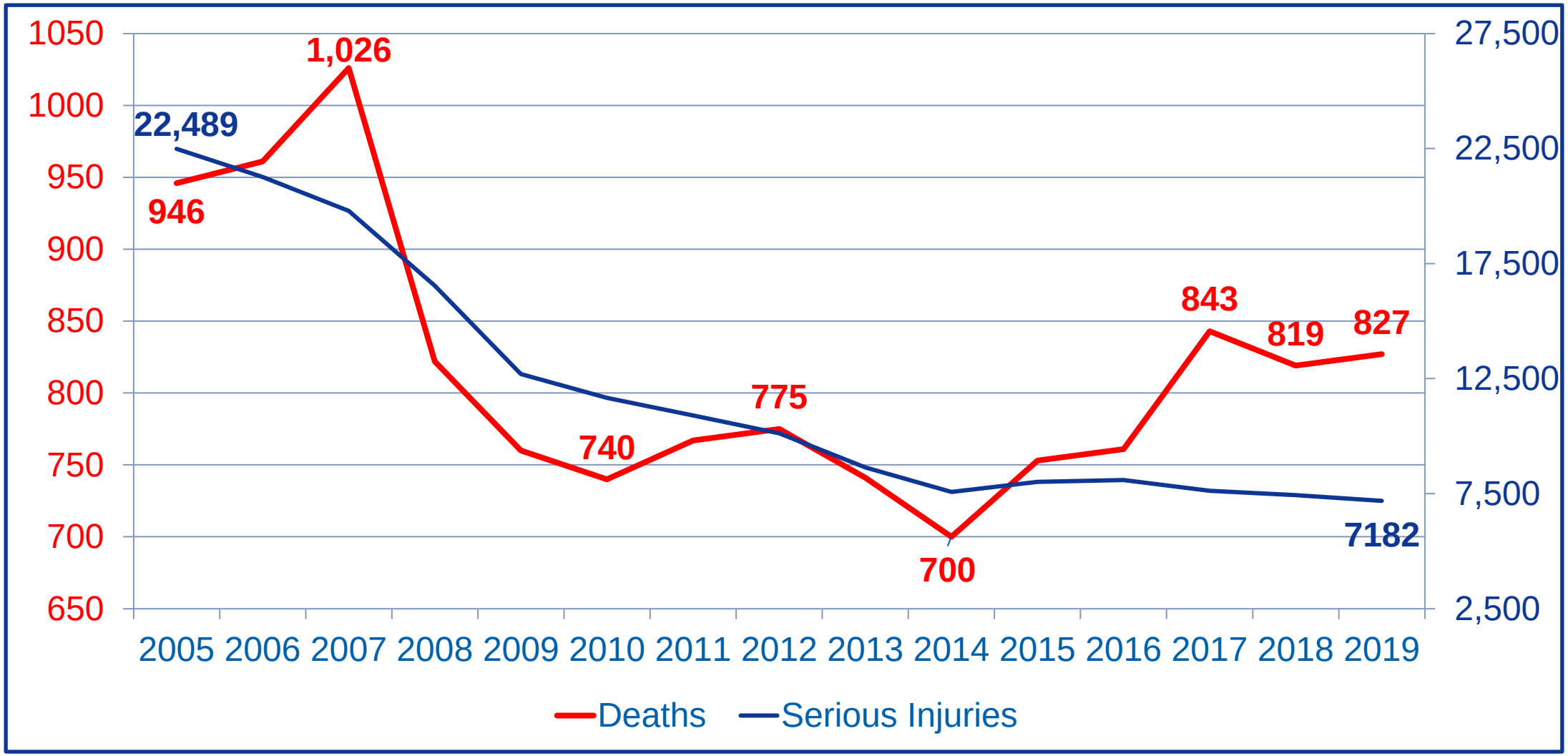
VIRGINIA'S PEDESTRIAN SAFETY ACTION PLAN

Statewide Action Plans for Bicyclist & Pedestrian Safety Webinar

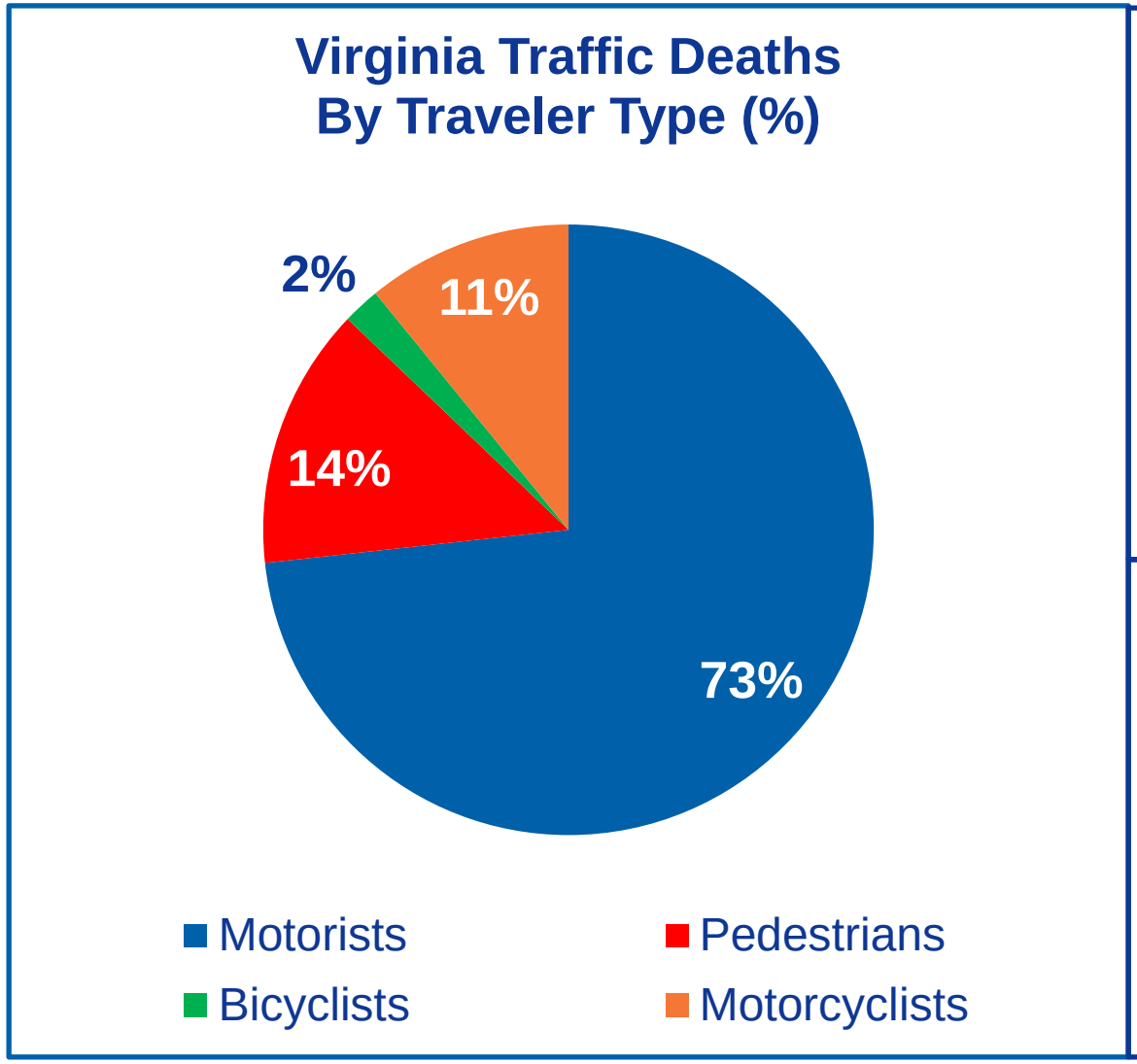
Mark A. Cole, PE, Virginia Department of Transportation

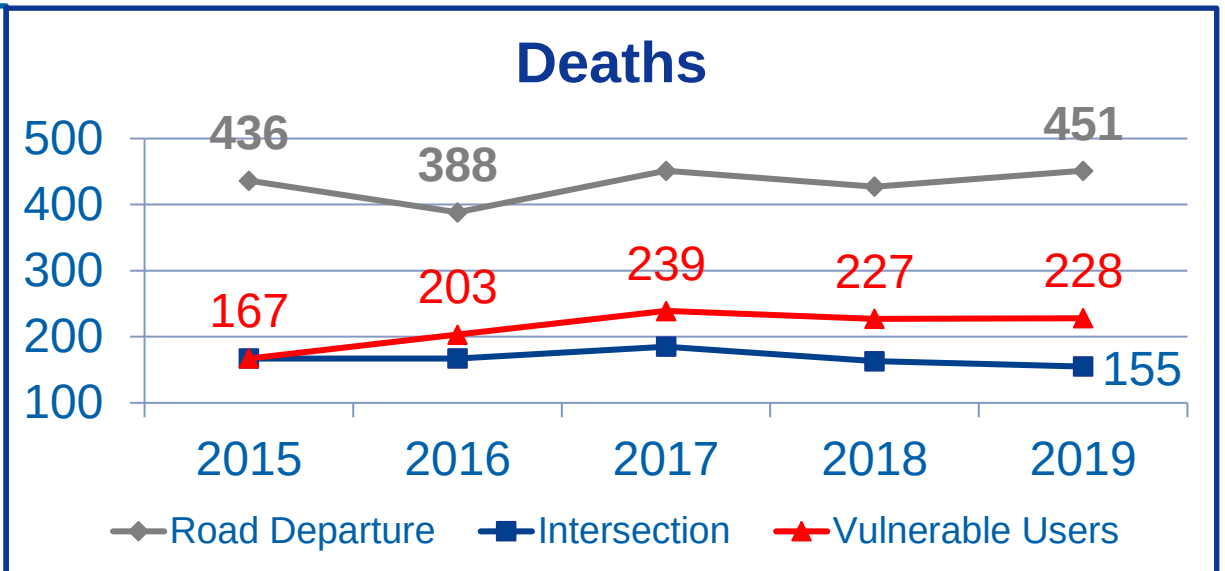
April 13, 2021

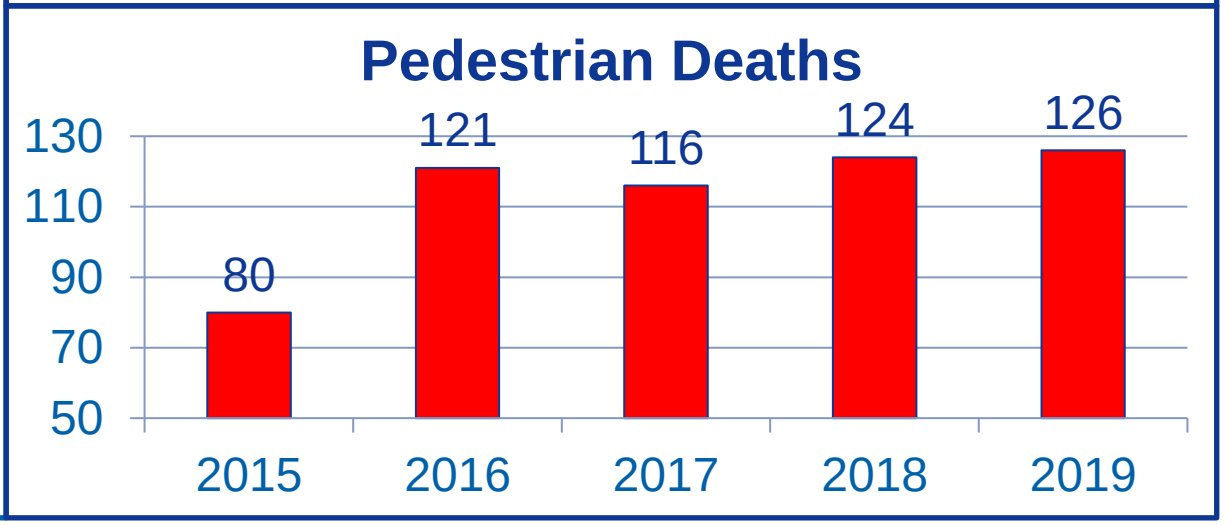
Virginia Traffic Deaths and Serious Injuries (2005 - 2019)



Virginia Traffic Death Trends (2015 – 2019)



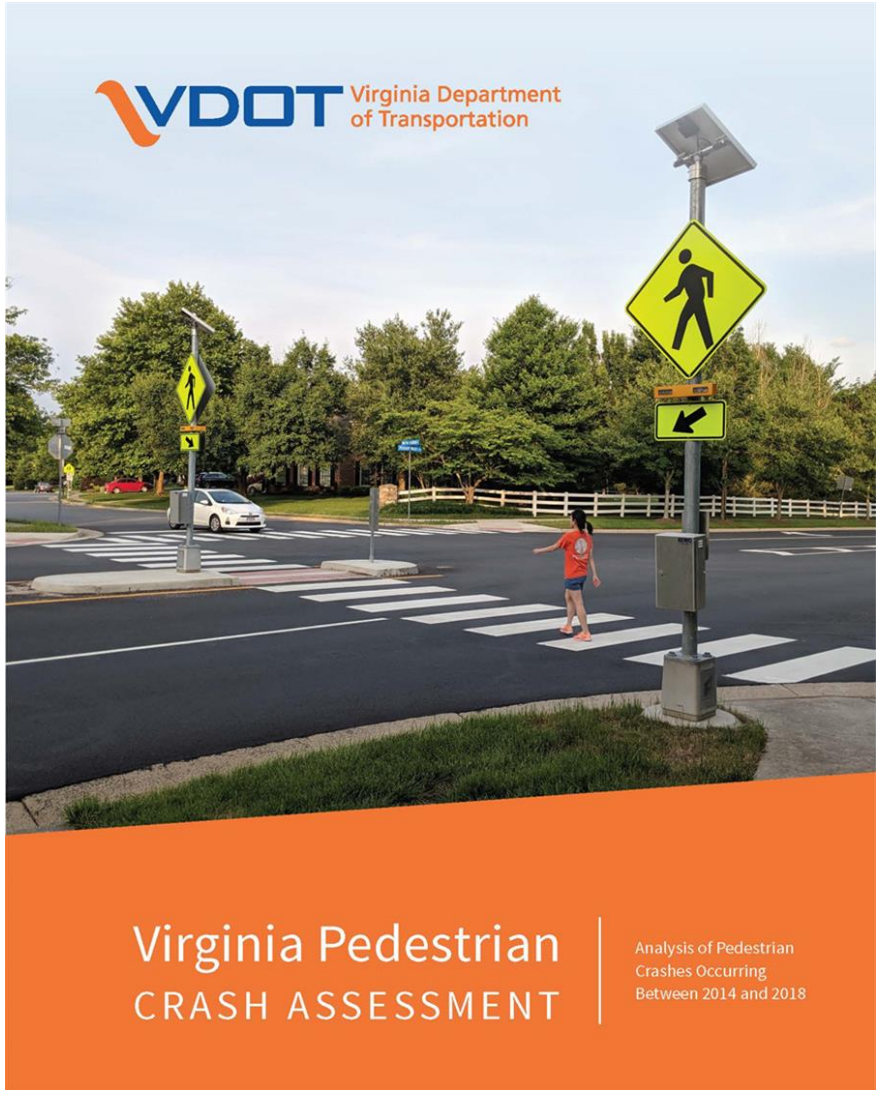




Talking Points

- Virginia Pedestrian Crash Assessment
- The Virginia Health Opportunity Index (HOI)
- Virginia's Pedestrian Safety Action Plan (PSAP)
- Tips for using data to examine traffic safety

Virginia Pedestrian Crash Assessment



- Analyzes pedestrian crashes
- First published in 2016
  - updated in 2017 and 2020
- Uses a variety of data sources to:
  - Understand common factors among crashes
  - Identify crash trends across time

5 Big Things We Learned From the Crash Assessment

1. Over 90% of Pedestrian deaths Occur while Crossing the Street/Road

However, crossing infrastructure is not available most of the time.

2. Land Use Matters

If its urban or suburban, pedestrians will almost always be present and need to cross the road.

3. Speed Can be Deadly

Chance of death increases with speed, especially for pedestrians

4. Visibility is Crucial

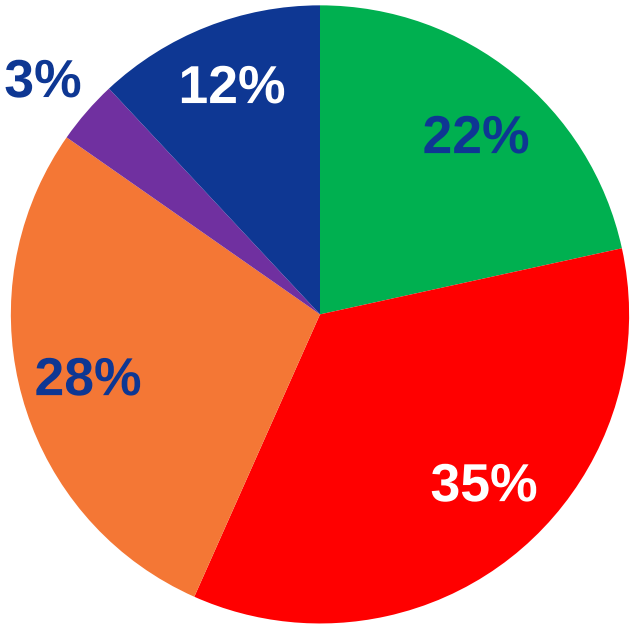
77% of pedestrian deaths occur in limited light conditions.

5. Healthy Communities Have Better Pedestrian Safety Outcomes

60% of pedestrian deaths & injuries occur in locations with low or very low health opportunity

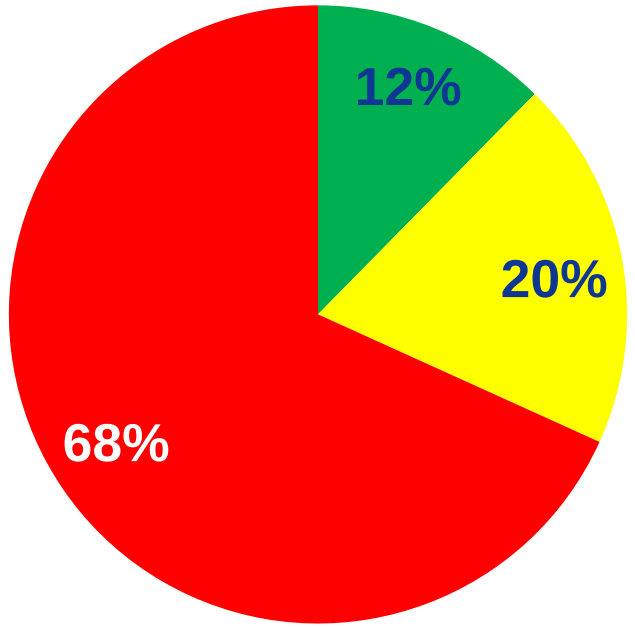
1. Over 90% Of Ped Deaths Occur while Crossing the Road

Where Virginia's Fatal Pedestrian Crashes Happen (%)



- Signalized Intersection
- Unsignalized Intersection
- Mid-Block
- Intersection/Mid-Block
- Other

Virginia's Fatal Pedestrian Crashes & Marked Crosswalk Availability (%)

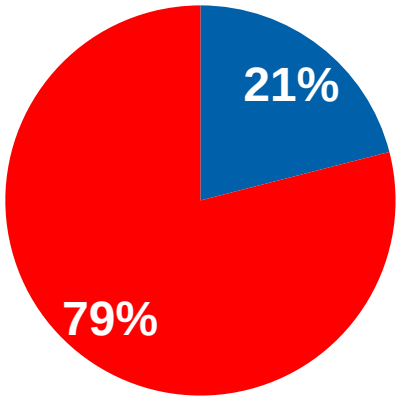


- Crosswalk Available - Pedestrian Struck In Crosswalk
- Crosswalk Available - Pedestrian Not in Crosswalk
- No Crosswalk Available

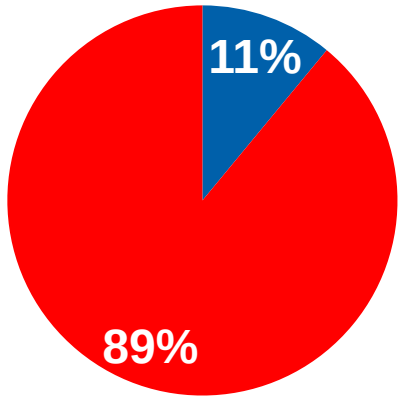
2. Land Use Matters

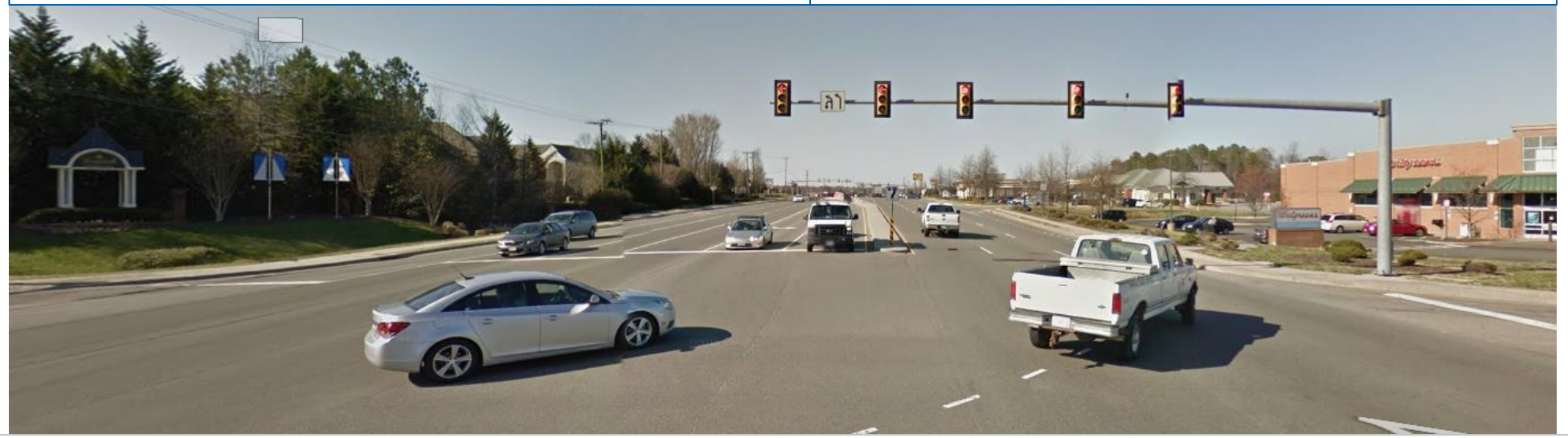
Pedestrian Crashes By Land Use (2014-2018)

Pedestrian Fatal Crashes



Pedestrian Injury Crashes





Residential/Commercial/Recreational Land Uses

Rural/Industrial Land Uses

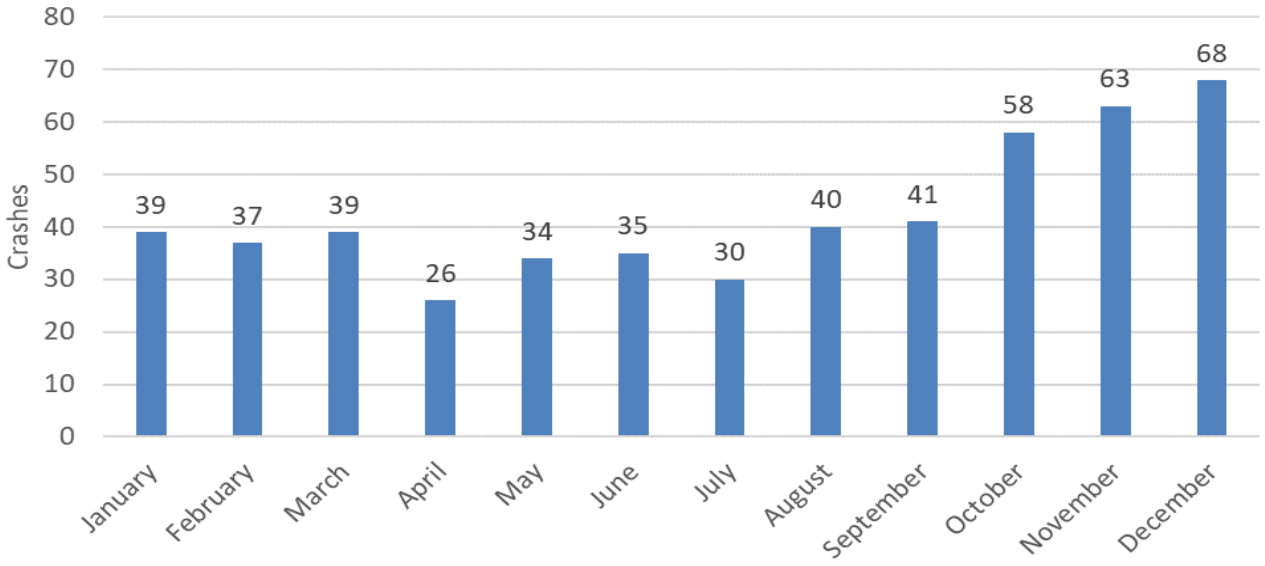
3. Speed Can be Deadly

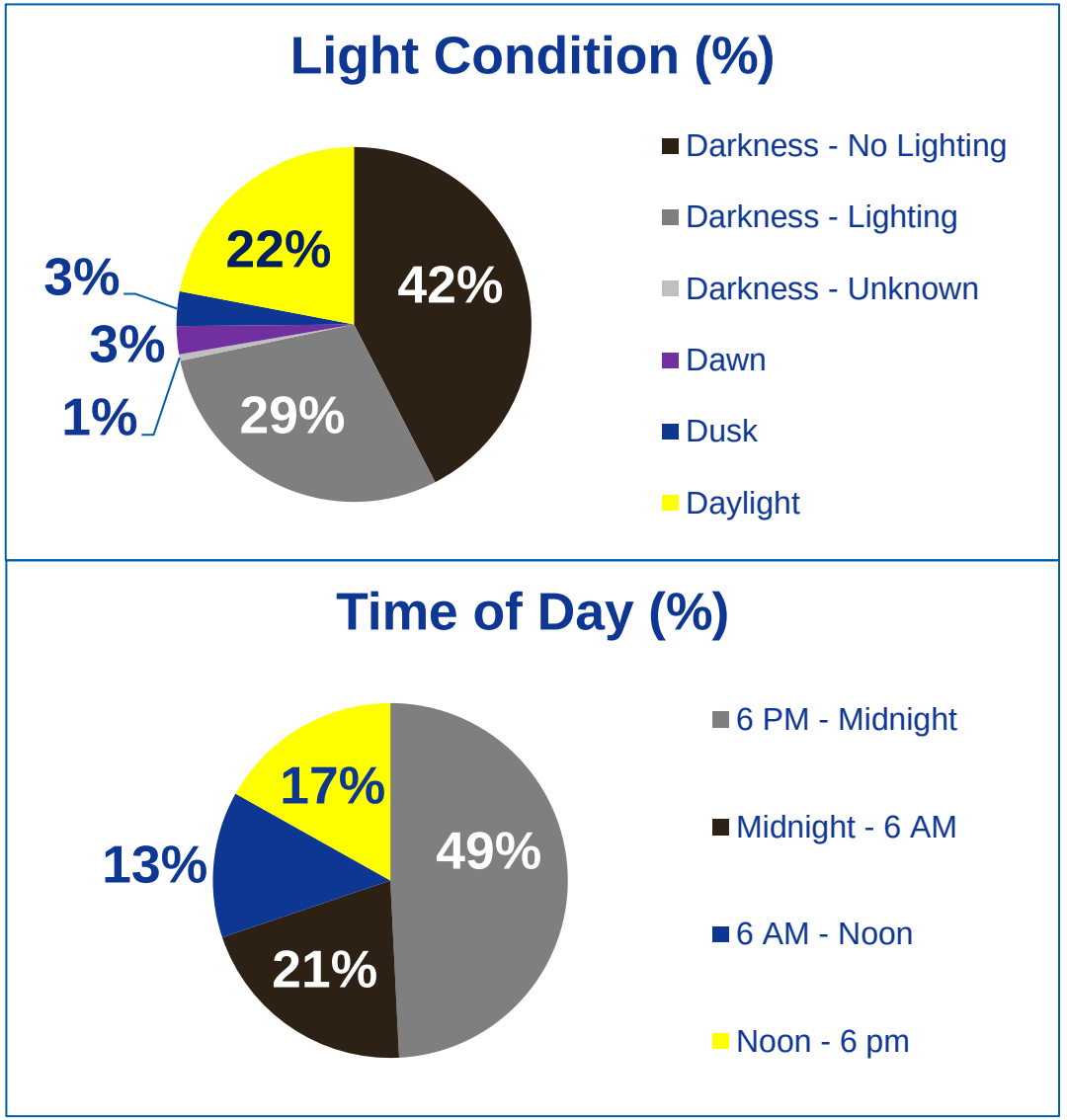
Virginia Pedestrian Crash Severity By Speed Limit (2014-2018)

4. Visibility is Crucial

Pedestrian fatal crashes by:

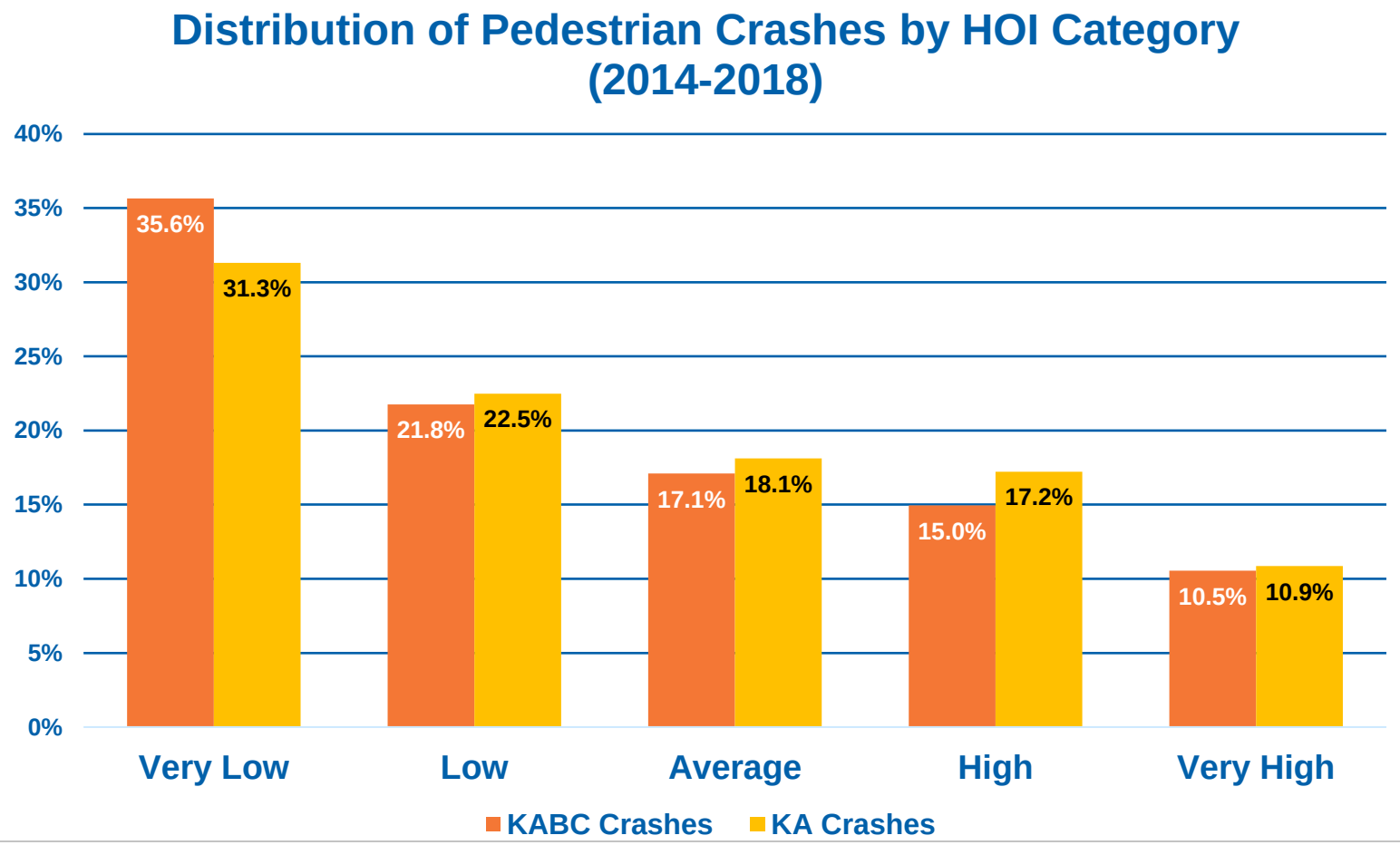
- light condition
- Month
- time of day





5. Healthy Communities Have Better Pedestrian Safety Outcomes

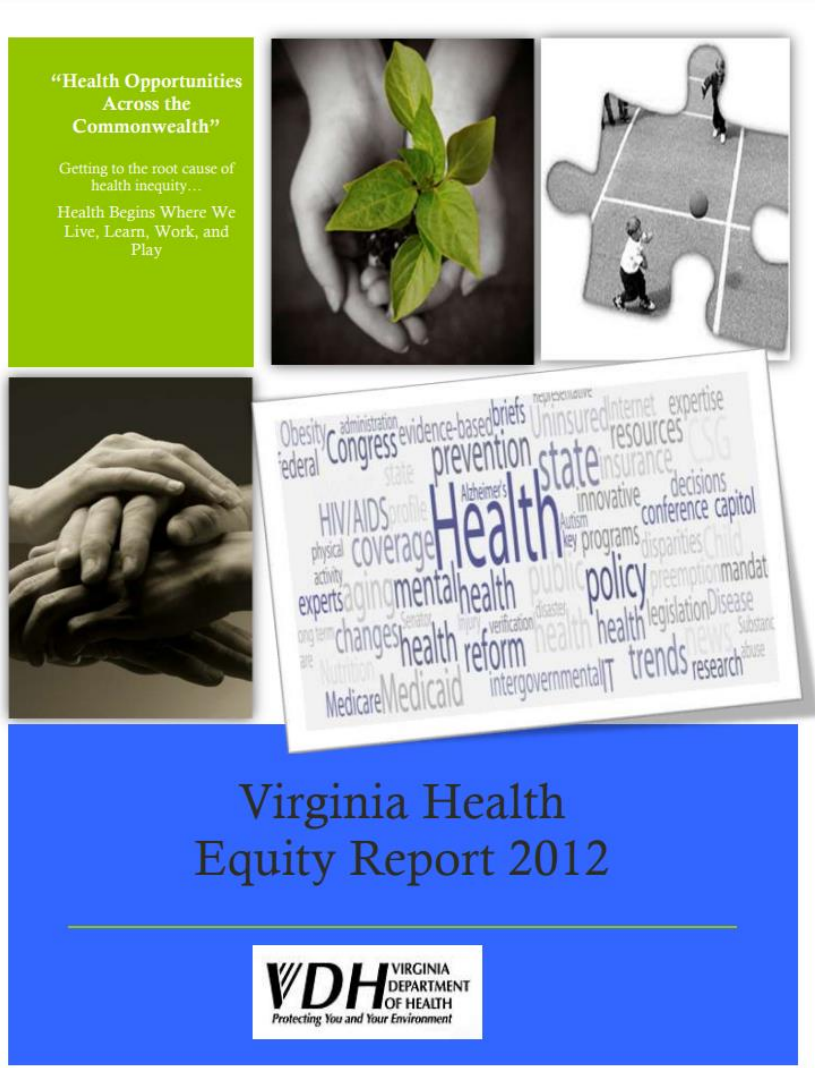
Almost 60% of deaths and injuries occur in locations with VERY LOW or LOW Virginia Health Opportunity Index (HOI) Scores



What is the Virginia Health Opportunity Index?

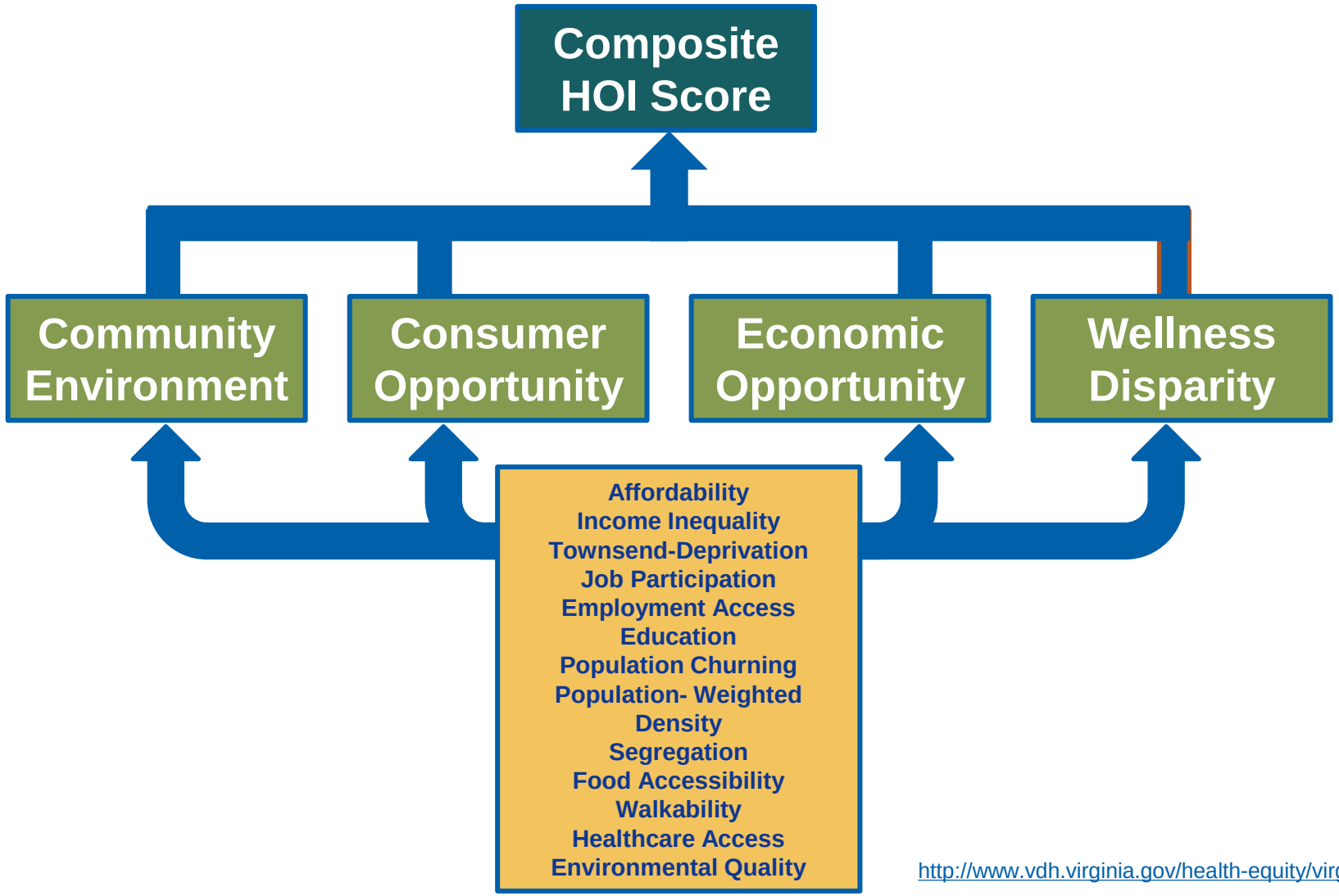
Virginia Health Opportunity Index (HOI)

- First developed in 2012 as part of the *Virginia Health Equity Report*
- "Examines how where you live, work and play influences the opportunity to live long, healthy lives."
- Each profile is made up of 13 indices covering the spectrum of quality of life indicators (affordability, healthcare access, air quality, etc.)
- Complex interactions that generate the final HOI



Source: Virginia Department of Health

What is the Virginia Health Opportunity Index?



http://www.vdh.virginia.gov/health-equity/virginia-health-opportunity-index-hoi/

Source: Virginia Department of Health

HOI – Relationship between Indexes and Profiles

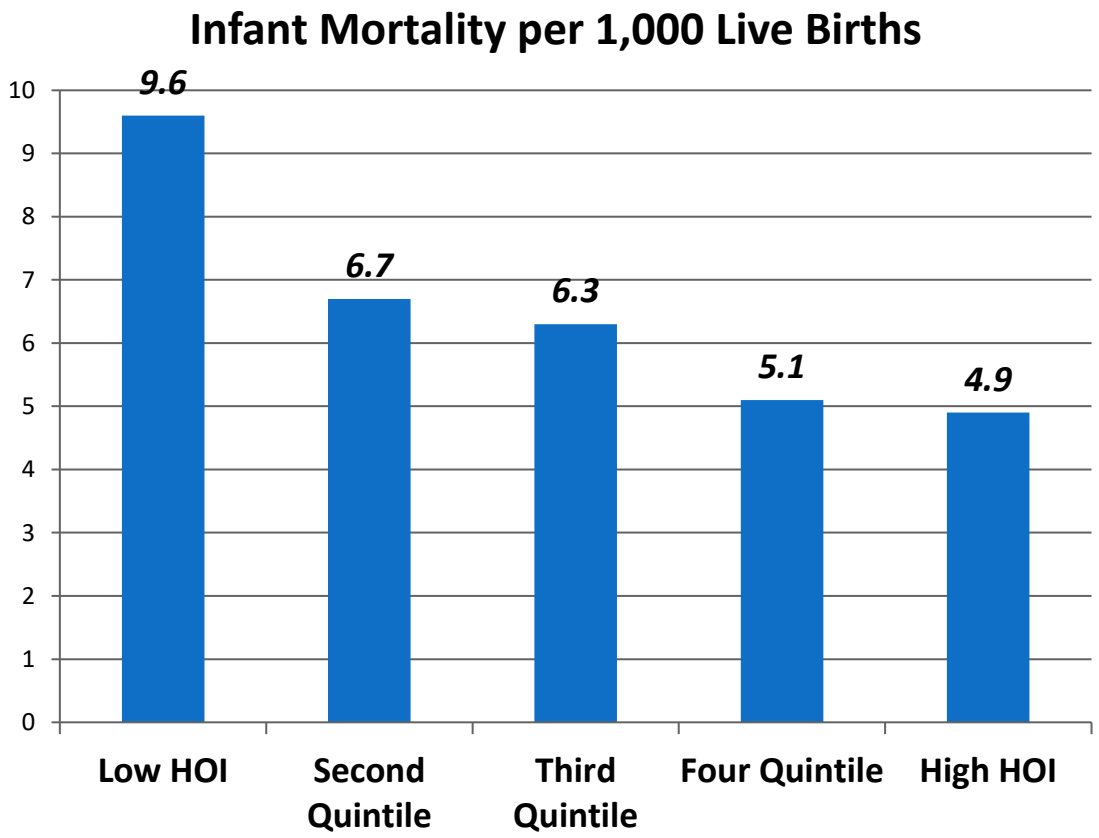
Index	Profiles			
	Community Environment	Consumer Opportunity	Economic Opportunity	Wellness Disparity
Affordability	- (↑)	+ (↑)	- (↓)	+ (↓)
Income Inequality	- (↑)	- (↓)	+ (↑)	+ (↓)
Townsend-Deprivation	- (↑)	+ (↑)	+ (↑)	+ (↓)
Job Participation	+ (↓)	- (↓)	+ (↑)	- (↑)
Employment Access	+ (↓)	- (↓)	+ (↑)	- (↑)
Education	+ (↓)	+ (↑)	- (↓)	- (↑)
Population Churning	- (↑)	+ (↑)	+ (↑)	- (↑)
Population- Weighted Density	+ (↓)	+ (↑)	+ (↑)	+ (↓)
Segregation	+ (↓)	+ (↑)	+ (↑)	+ (↓)
Food Accessibility	- (↑)	- (↓)	+ (↑)	- (↑)
Walkability	+ (↓)	+ (↑)	+ (↑)	+ (↓)
Healthcare Access	- (↑)	+ (↑)	+ (↑)	- (↑)
Environmental Quality	- (↑)	- (↓)	+ (↑)	+ (↓)

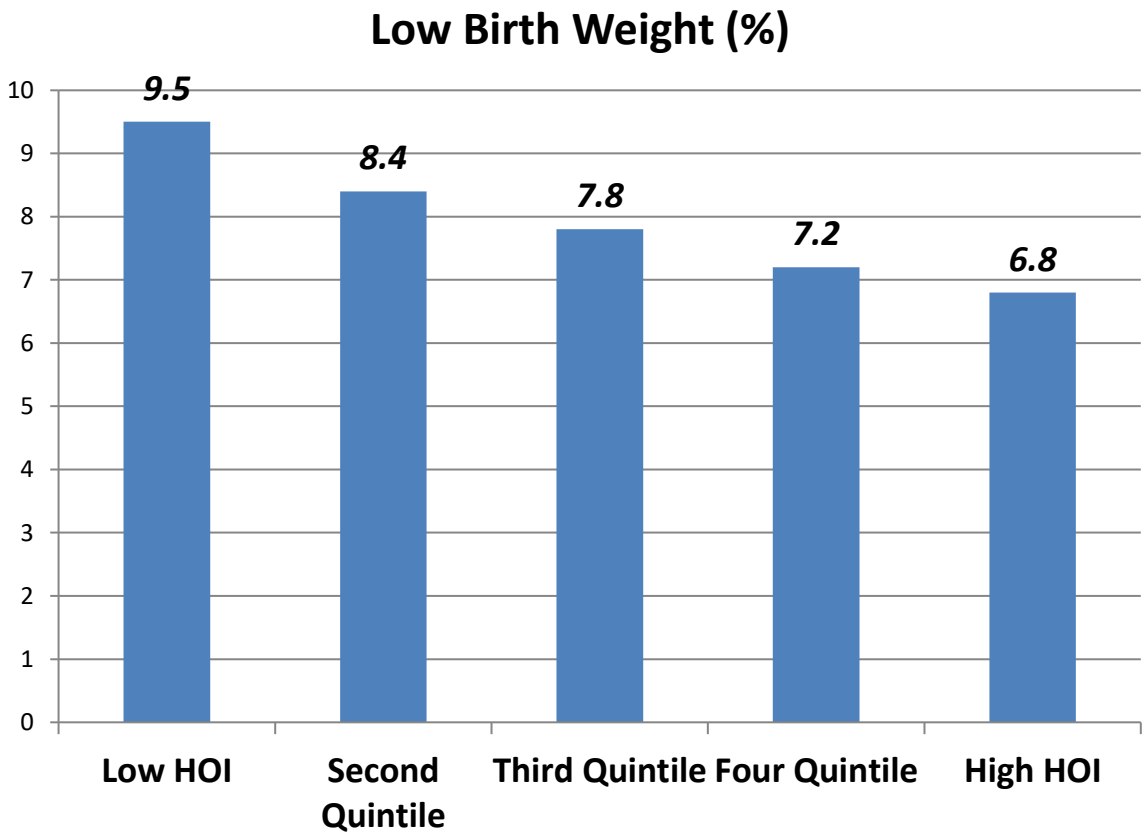
Indicates the effect on each profile value +/-

Indicates the effect on HOI ↓/↑

Source: Virginia Department of Health

HOI – Relationship to Health Outcomes

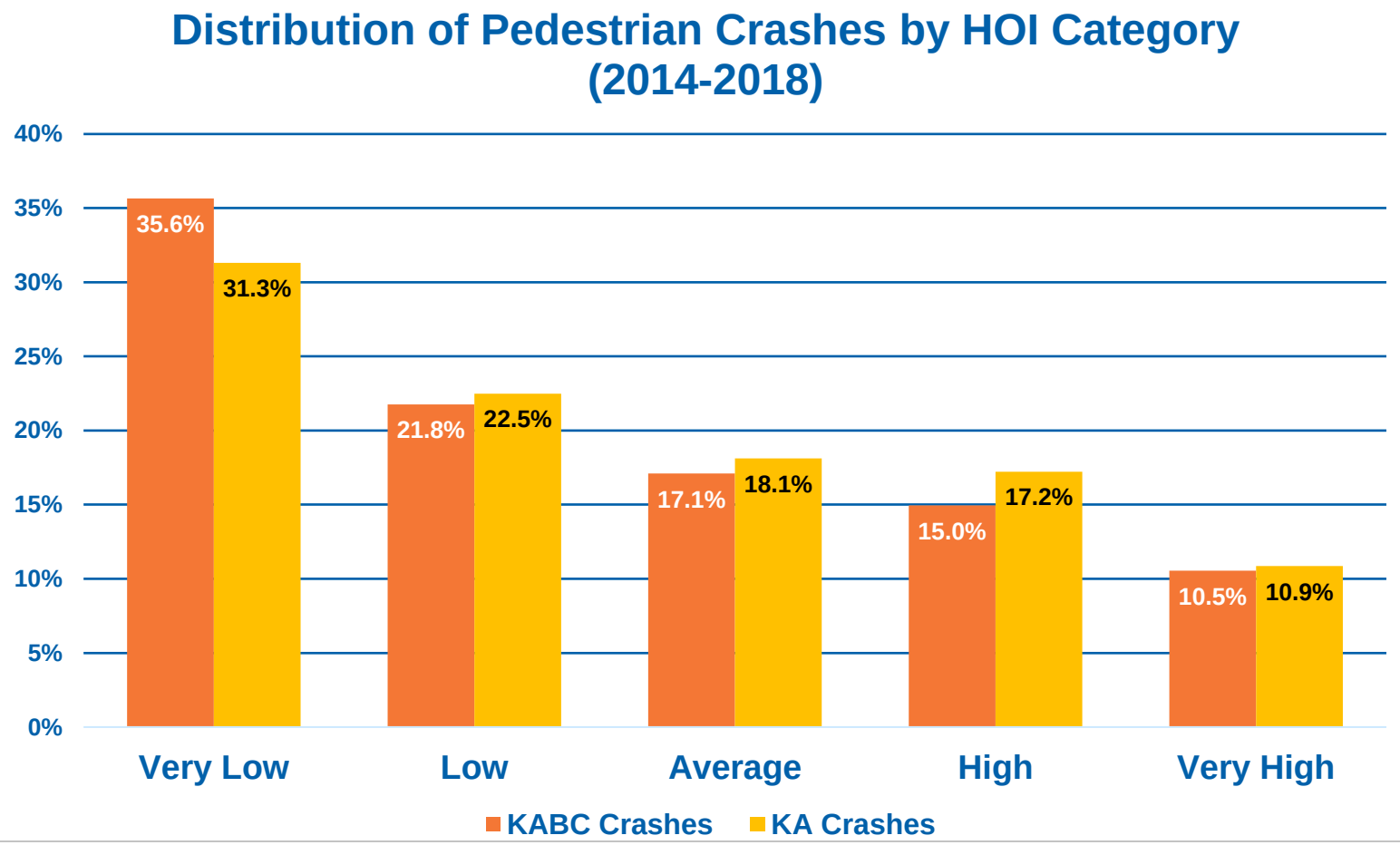




Source: Virginia Department of Health

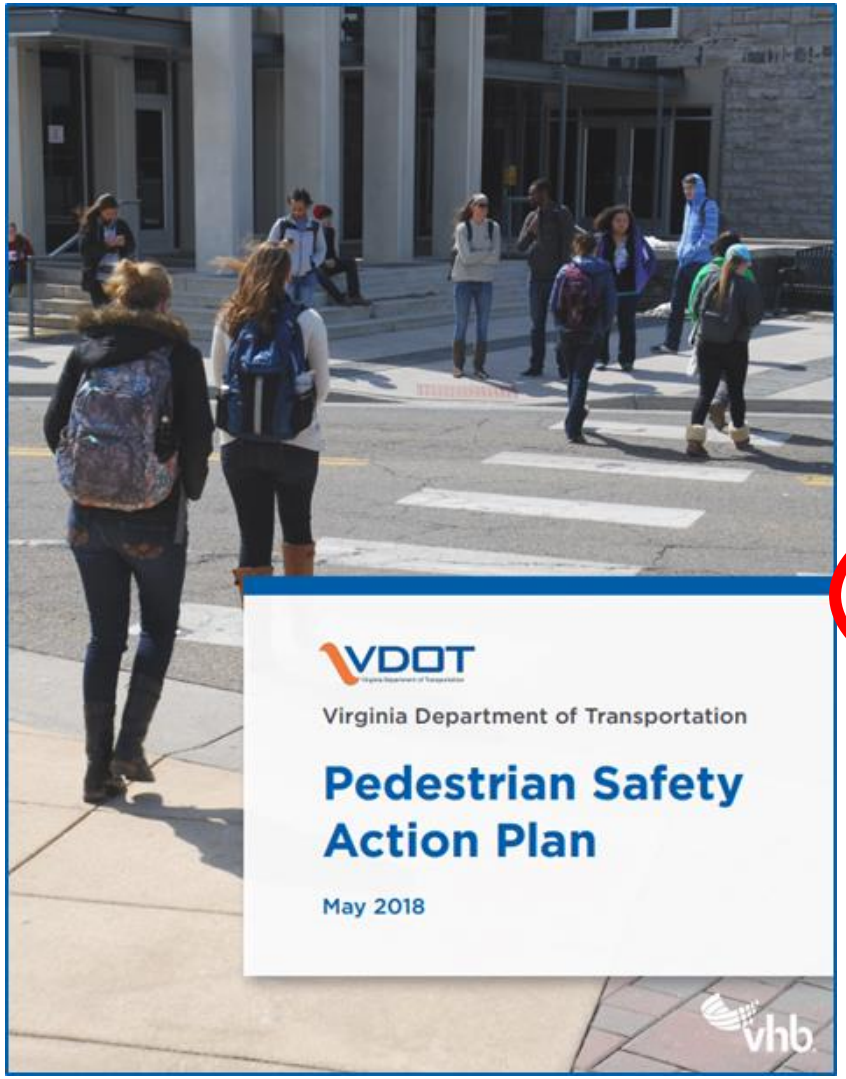
HOI – Relationship to Pedestrian Crashes

Almost 60% of deaths and injuries occur in locations with VERY LOW or LOW Virginia Health Opportunity Index (HOI) Scores



Virginia’s Pedestrian Safety Action Plan (PSAP)

Virginia Pedestrian Safety Action Plan (PSAP)



3 Major Components:

1 – VDOT Policy Recommendations to ensure pedestrian safety

2 – Safety Analysis to determine which specific road locations pose the greatest risk for pedestrians

3 – Pedestrian safety countermeasure toolbox

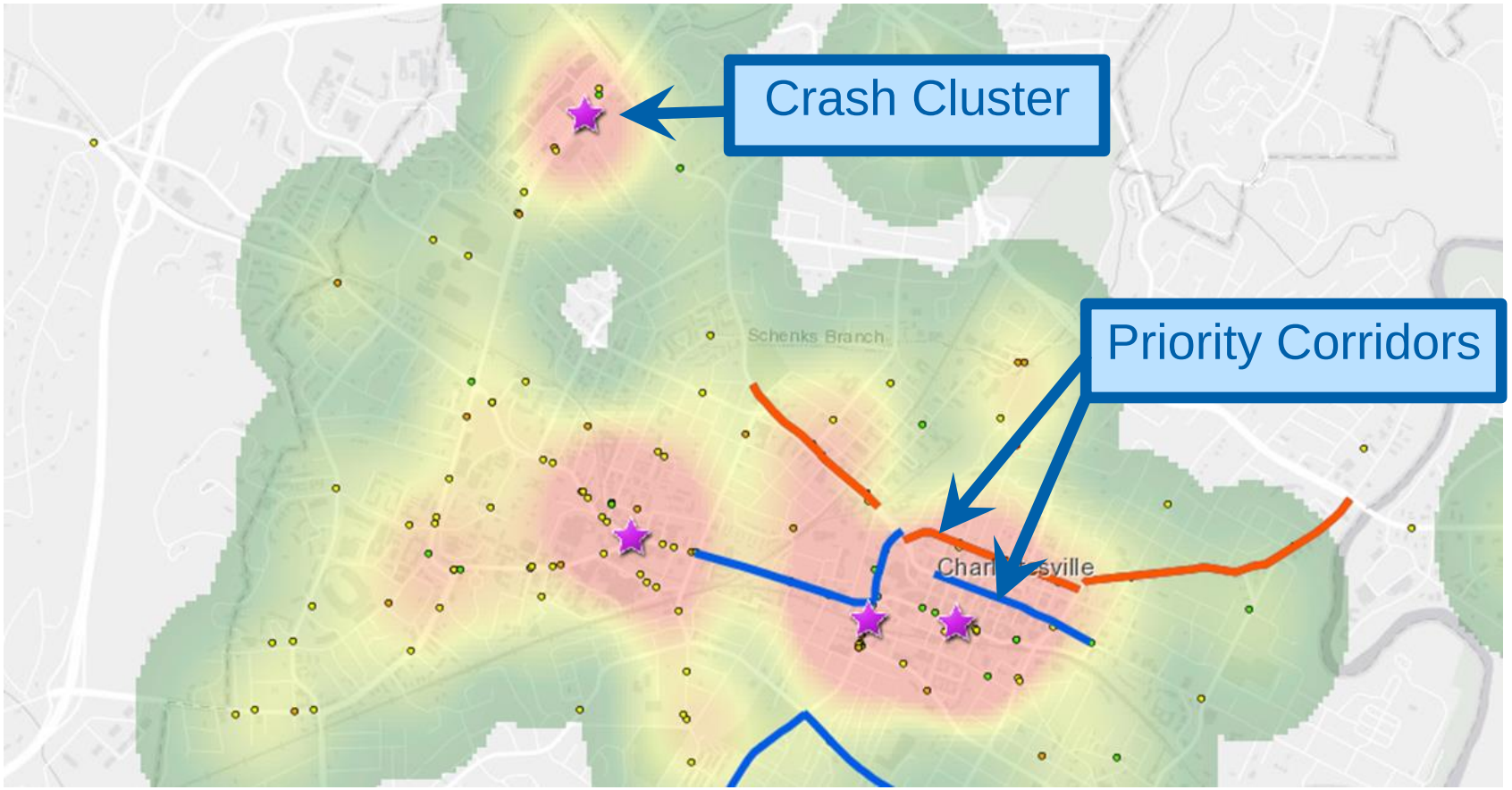
Safety Analysis – Crash Clusters and Priority Corridors

Crash clusters

- Density map of actual crash locations
- Look back

Priority Corridors

- Top ranked corridors based on scoring criteria that used various data sources indicating pedestrian presence or risk
- Predictive



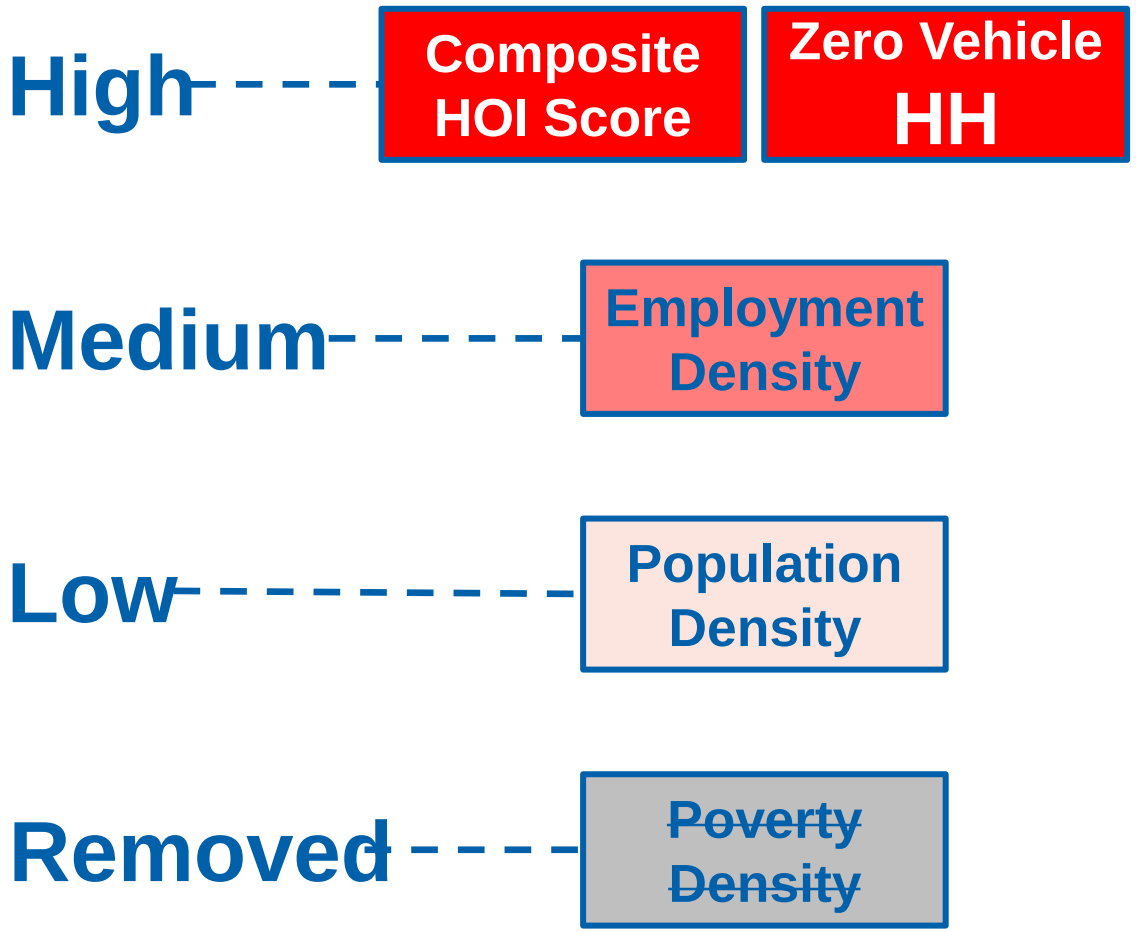
Priority Corridor Criteria – Original Method (2018)

2018 PSAP Corridor Scoring Factors: 181 Priority Corridors

High	Medium	Low
• Annual average daily traffic (AADT) • Posted speed limit • Zero-vehicle households • Population density	• Roadway geometry • Urban/rural context • Employment density • Proximity to a school	• Population living below the poverty line • Pedestrian crash history • Proportion of alcohol related crashes (by district) • Proximity to a park

Spatial Bayesian Analysis to Examine Health Opportunity Index

- HOI and zero vehicle households were the strongest indicators of pedestrian crashes – both all injury crashes and fatal/severe only crashes.
- Employment density was another strong indicator
- Population density and density of persons in poverty were poorer performers
  - Poverty alone was dropped in the PSAP scoring

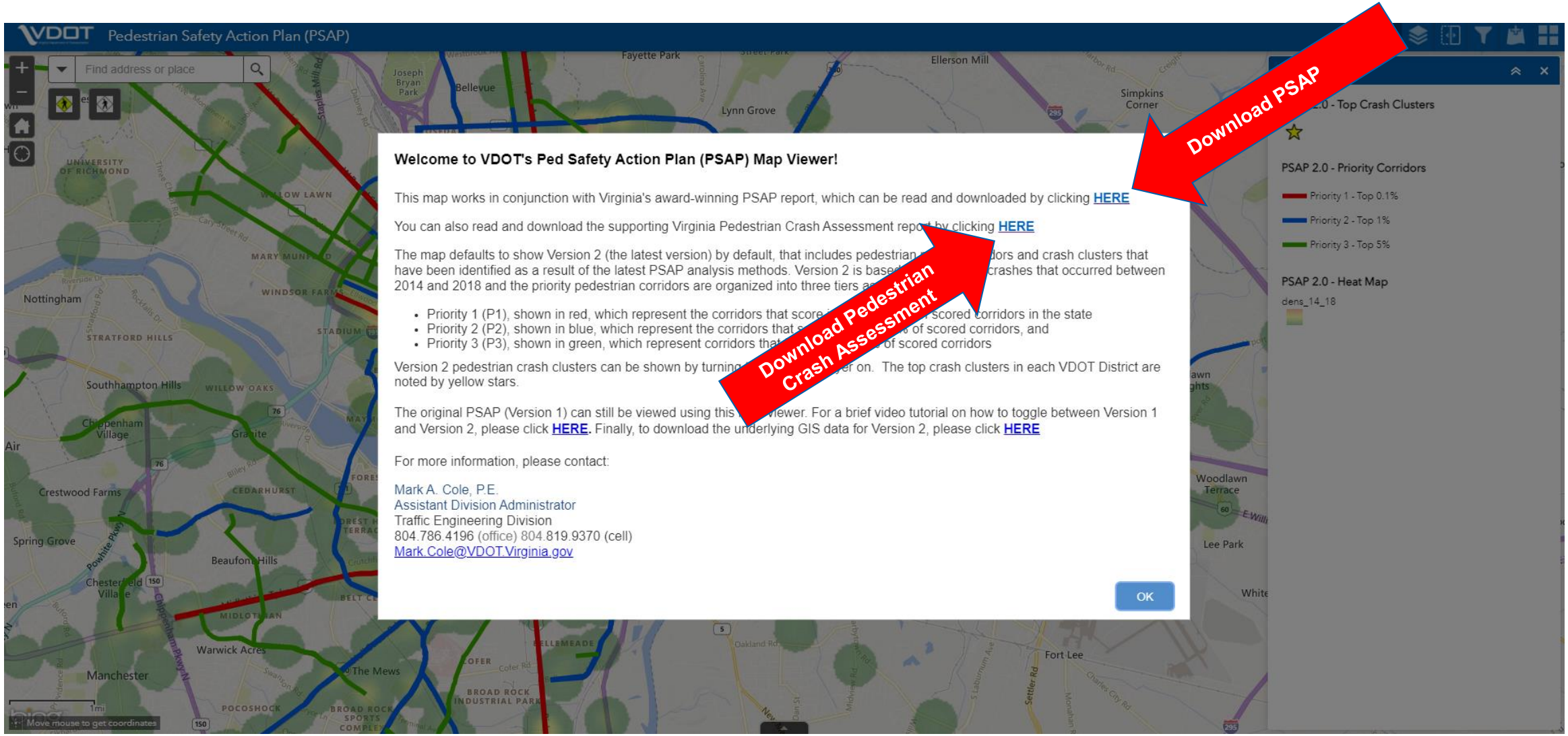


Priority Corridor Criteria – 2019 Update

2019 PSAP Corridor Scoring Factors

High	Medium	Low
• Annual average daily traffic (AADT) • Zero-vehicle households • **Transit access** • **Health Opportunity Index (HOI)**	• Roadway geometry • Employment density • Proximity to a school • **Posted speed limit**	• Pedestrian crash history • Proximity to a park • **Population density** • **Urban/rural context** • ~~**Proportion of alcohol related crashes (by district)**~~ • ~~**Population living below the poverty line**~~

PSAP Online Mapping Tool - https://bit.ly/VDOTPSAP_V2



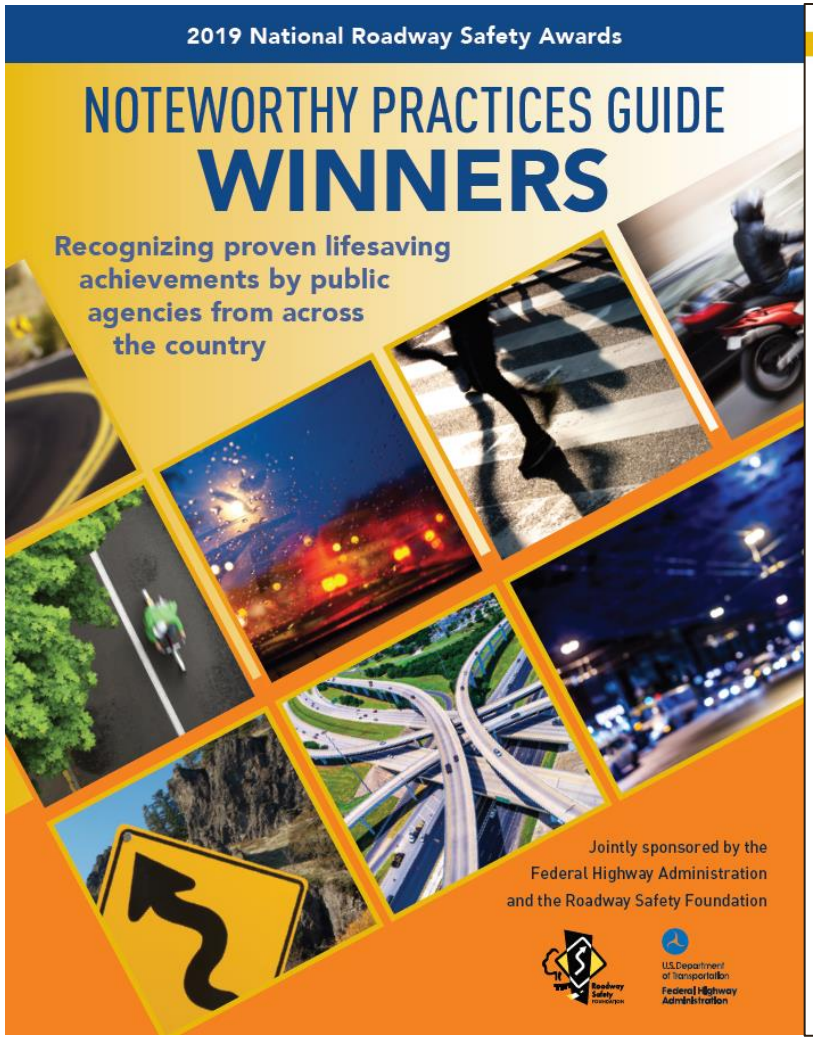
PSAP Pedestrian Safety Infrastructure Projects

- **Fall 2018 – Initial $8M for ped crossing projects at 25 PSAP locations**

- **Fall 2019 – Additional $25 Million approved for PSAP improvements**
  - **All VDOT signals on PSAP priority corridors will be evaluated to receive crosswalks and ped countdowns over a five –year period (over 370 signals in NOVA)**

- **Summer 2021 – Pedestrian Pilot Project on Suburban Arterials**
  - **5 to 10 locations Total**
  - **Screening Criteria:**
    - PSAP corridors
    - 40 mph plus posted speed
    - 15,000 plus AADT
    - 4 or more lanes

Virginia's PSAP
2019 National Roadway Safety Award Winner



WINNER (PPDE) VIRGINIA — 2019 NOTEWORTHY PRACTICES GUIDE

WINNER (PPDE): Virginia's Pedestrian Safety Action Plan (PSAP)

The Safety Concern: Between 2012 and 2016, over 450 pedestrians died and another 8,000 were injured while walking across or along public roads in Virginia.

The Solution: VDOT created a PSAP to better understand Virginia's pedestrian safety concerns, recommend policy changes, and identify and fund locations for pedestrian safety projects.

The Result: The PSAP report and online map were completed in May 2018 a... VDOT awarded $8 million to 25 pedestrian safety projects at PSAP-identified...

Pedestrian safety is a major concern in Virginia. Between 2012 and 2016, over 450 pedestrians died and over 8,000 were injured while walking along or across Virginia's public roads. Over 90 percent of Virginia's pedestrian crashes occur when the pedestrian is crossing the street. More than half (62% of crashes) occur at mid-block pedestrian crossings.

Pacific Avenue, Virginia Beach PSAP Improvements

In the spring of 2018, the Virginia Department of Transportation (VDOT) released its first statewide Pedestrian Safety Action Plan (PSAP), a national model focusing on sites where safety countermeasures should be considered to improve pedestrian safety. The PSAP process, led by VDOT and a stakeholder team, evaluated all public road segments in Virginia to determine locations with a history of, or potential for, pedestrian safety concerns. This evaluation demonstrated the interaction between the built environment and pedestrian safety.

During the summer of 2018, VDOT hosted a series of workshops across the Commonwealth to walk VDOT, local agency staff and contractors through the final report and interactive website and mapping tool, introducing them to the priority pedestrian corridors and crash clusters in their respective areas.

The educational workshops fostered partnerships with local agencies by quickly identifying low-cost, high-benefit ... countermeasures. To b... funding, proposed pro... locations on a priority ... a crash cluster identifie... prioritized projects tha... quickly, by 2019 or ear...

Fifty-nine candidate PS... at over $43 million wer... within weeks of the fun... After evaluating submi... 2018, VDOT announce... million to 25 projects. ... monitor projects that r... team expects a reduction in pedestrian crashes at locations where PSAP countermeasures are installed.

Agency: Virginia Department of Transportation (VDOT)
Project Contact: Mark A. Cole,
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Tips for Using Data & Developing a PSAP

- Your network of other safety professionals is invaluable
  - Make friends
  - Ask them what data they have and can share
  - Form a multidisciplinary stakeholder team to guide your analysis decisions

- GIS is a powerful tool for network analysis
  - In case of PSAP, used GIS to assign weights and rank statewide network
  - Provides an interactive and visual platform to share the results with others

- If you don't have the information you need, you may be able to collect the data
  - VDOT used Google Street view, to collect needed data
  - There is a lot of free, publicly available data to use. Think outside of your area of expertise.

- Don't be afraid to try new things
  - This was first time we used weighted factors to score and rank the network
  - This was also the first time we used Spatial-Bayesian analysis (thanks to our consultant, VHB!)

Thanks!

For more information, view VDOT's Pedestrian Safety Action Plan (PSAP) report and map tool at:

https://bit.ly/VDOTPSAP_V2

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Discussion

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