

Vulnerable Road Users & Safety Education

AMANDA HOLLAND – ACTIVE TRANSPORTATION

VTRANS – ASSET MANAGEMENT BUREAU



Safety of Vulnerable Road Users (VRU)

2023 Act No.62, FY24 Transportation Bill

Sec. 40 - Micromobility Safety Education Program Report

(A) THE AGENCY, IN CONSULTATION WITH STAKEHOLDERS IDENTIFIED BY THE AGENCY, **SHALL DEVELOP A COMPREHENSIVE MICROMOBILITY SAFETY EDUCATION PROGRAM THAT ENHANCES AND EXPANDS ON CURRENT EFFORTS TO INCREASE SAFETY FOR INDIVIDUALS WHO USE ROADS, SIDEWALKS, CORRIDORS, AND PATHS IN VERMONT, WITH AN EMPHASIS ON BICYCLE SAFETY.**

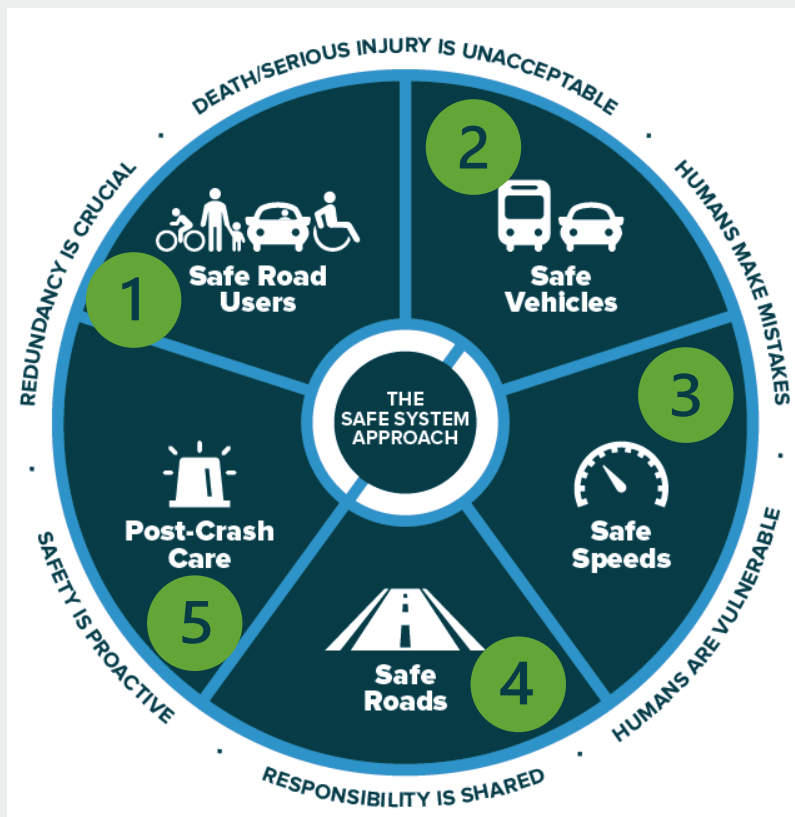
(B) THE AGENCY SHALL PROVIDE AN **ORAL REPORT ON MICROMOBILITY SAFETY PROGRAM DESIGN, RECOMMENDED MODIFICATIONS TO CURRENT EFFORTS TO INCREASE MICROMOBILITY SAFETY THROUGHOUT THE STATE**, AND ANY **RECOMMENDATIONS FOR STATUTORY CHANGES**, INCLUDING HOW, IF AT ALL, THE STATE'S DRIVING UNDER THE INFLUENCE STATUTES SHOULD BE AMENDED TO ADDRESS UTILIZING MICROMOBILITY WHILE UNDER THE INFLUENCE, **NEEDED TO SUPPORT EXPANDED MICROMOBILITY SAFETY IN THE STATE.**

(C) AS USED IN THIS SECTION, "MICROMOBILITY" INCLUDES THE FOLLOWING, AS DEFINED IN 23 V.S.A. § 4:

- (1) BICYCLES; (2) ELECTRIC BICYCLES; (3) ELECTRIC PERSONAL ASSISTIVE MOBILITY DEVICES,
- (4) MOTOR-DRIVEN CYCLES, WHICH INCLUDES SCOOTERS; AND (5) MOTOR-ASSISTED BICYCLES.

FHWA Safe Systems Approach

Multipronged framework consisting of 5 elements



- To achieve a Safe System and yield the most benefit, **all 5 elements need to be strengthened.**
- System redundancy is key to ensure safety is not fully dependent on one element.

Safety of Vulnerable Road Users (VRU)

Vulnerable User is defined as any of the following: *[See [23 VSA §4 \(81\)](#)]*



- A **pedestrian**;
- An operator of highway building, repair, or maintenance equipment or of agricultural equipment;
- A person **operating a wheelchair or other personal mobility device**, whether motorized or not;
- A person operating a **bicycle or other nonmotorized** means of transportation (such as roller skates, rollerblades, or roller skis);
- A person operating a **motor-assisted bicycle or an electric bicycle**;
- A person riding, driving, or herding an animal.

Safety of Vulnerable Road Users (VRU)

Laws establish clear rights and responsibilities for each roadway user

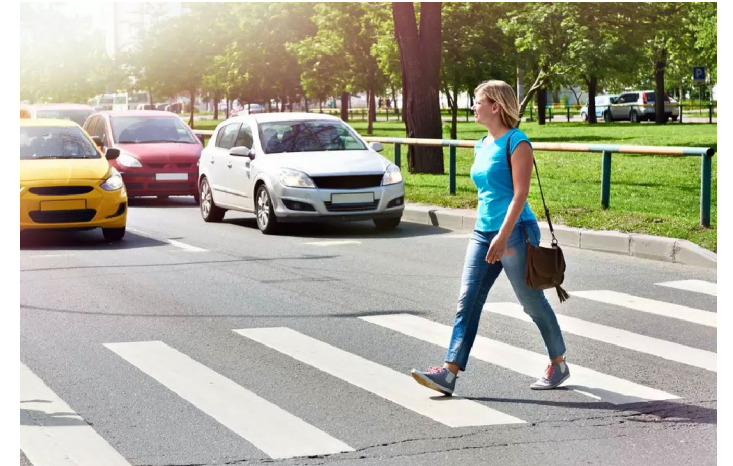


Operators of motor vehicles shall:

- Pass VRUs with “due care”
- Yield to pedestrians in crosswalks

Operators of bicyclists shall:

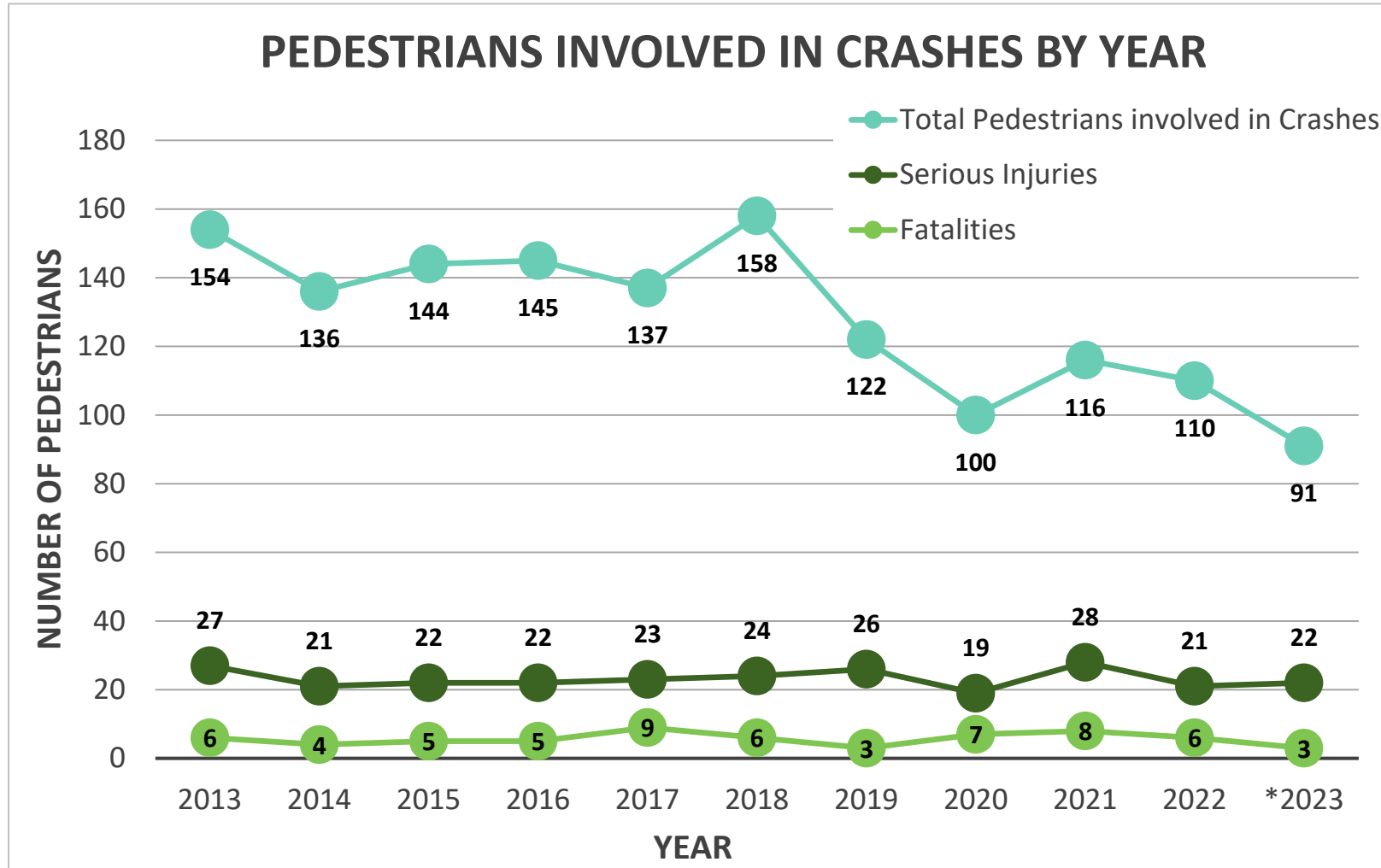
- Follow the rights and responsibilities of motorists
- Shall signal to indicate change of speed or direction
- Shall ride to the left when overtaking another VRU



Pedestrians shall:

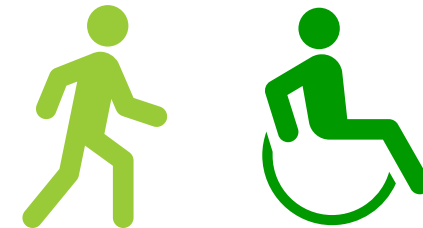
- Yield to vehicles if crossing *outside of a marked crosswalk*
- Before leaving curb *at a marked crosswalk*, check the proximity of vehicles adjacent to the crossing. If vehicle is too close to safely stop, pedestrian to yield.

Safety Trends – Crashes involving Pedestrians



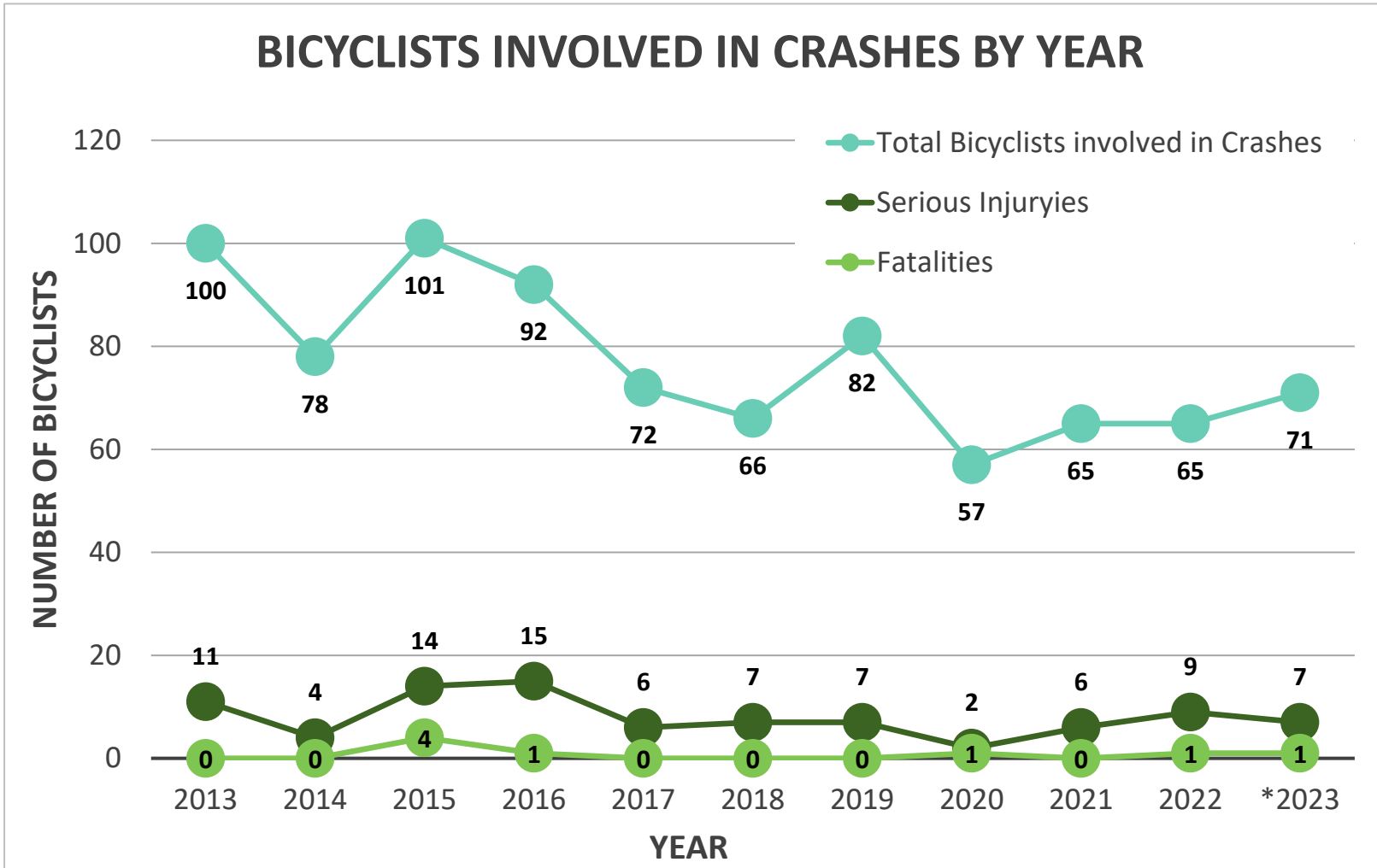
Strategic Highway Safety Plan 2022-2026

Objective for 2022-2026
**Attain a 10% reduction in
 pedestrian fatalities &
 serious injuries by 2026****



*2023 Crash data set has not been finalized. **Target value is based on a 5-year moving average.

Safety Trends – Crashes involving Bicyclists



Strategic Highway Safety Plan 2022-2026

Objective for 2022-2026

Attain a 5% reduction in bicyclist fatalities & serious injuries by 2026**

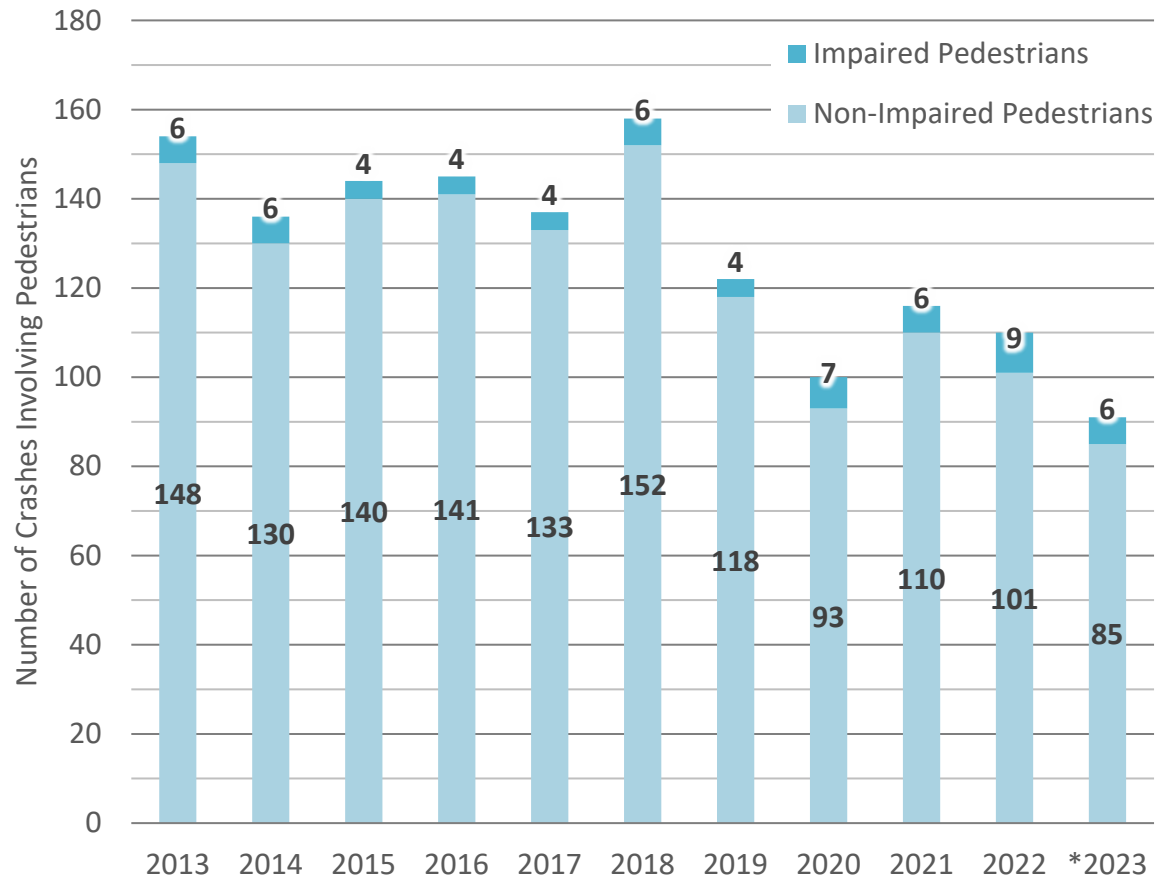


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Safety Trends – VRU Impairment



Number of Impaired Pedestrians Involved in Crashes

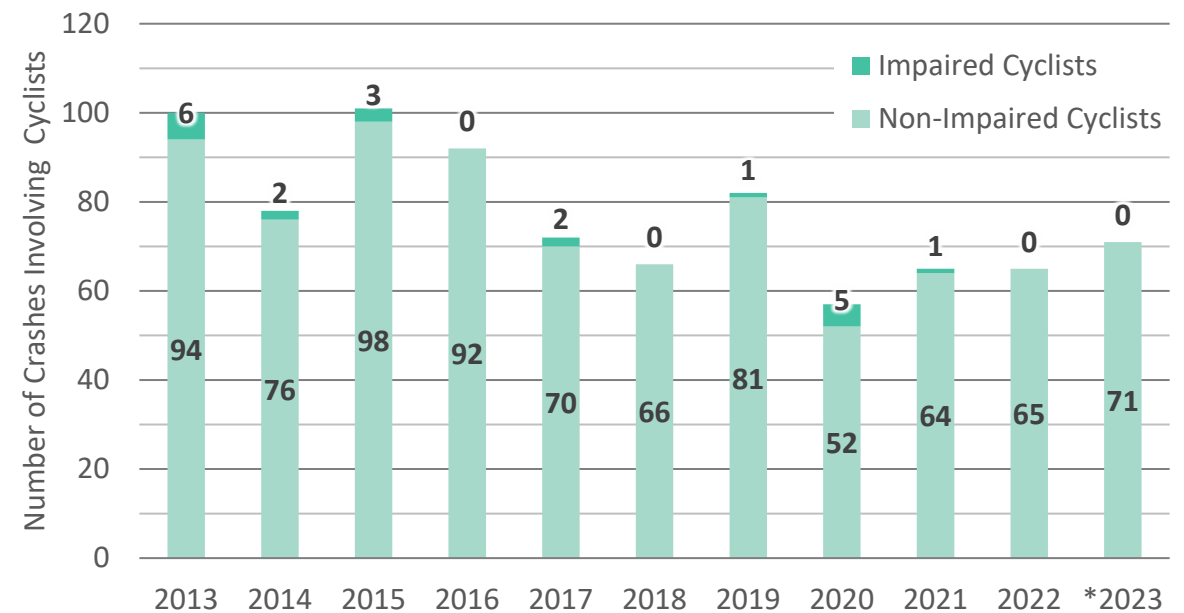


*2023 Crash data set has not been finalized

Based on 10-year average, impaired VRUs were associated with 3 - 4% of all VRU crashes annually.



Number of Impaired Cyclists Involved in Crashes



What Makes Active Transportation Safe?

5 Elements of the Safe System Approach



✓ Education of all road users

Strategy → Establish VRU Safety Culture

- Increase the understanding of pedestrians, bicyclists, and motorists on rules of the road and how to properly share the road.
- Educational programs for VRUs regarding proper equipment and safe riding in traffic including commuter programs and Safe Routes to School.

**Strategy supported in Vermont's Strategic Highway Safety Plan & the Bicycle and Pedestrian Strategic Plan*

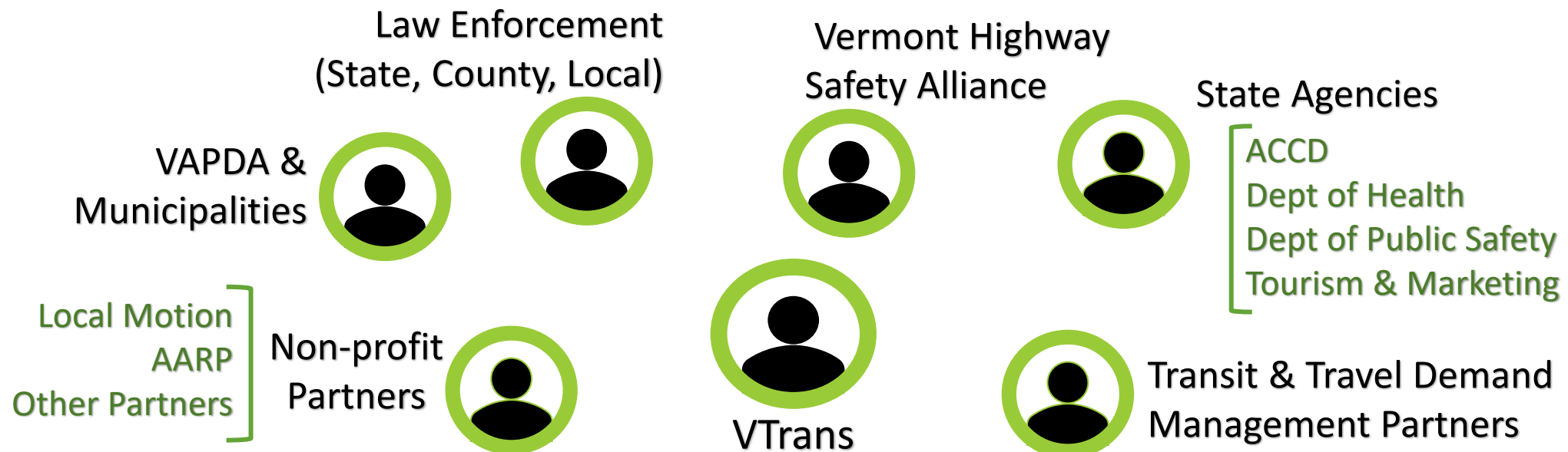
Strategic Partnerships = Broad Audience



Educate ALL roadway users



VTrans partners with many stakeholders to fund initiatives and coordinate efforts



Partnerships – VT Dept. of Health

Broad Safety Education Example



✓ Safe Streets for All Website

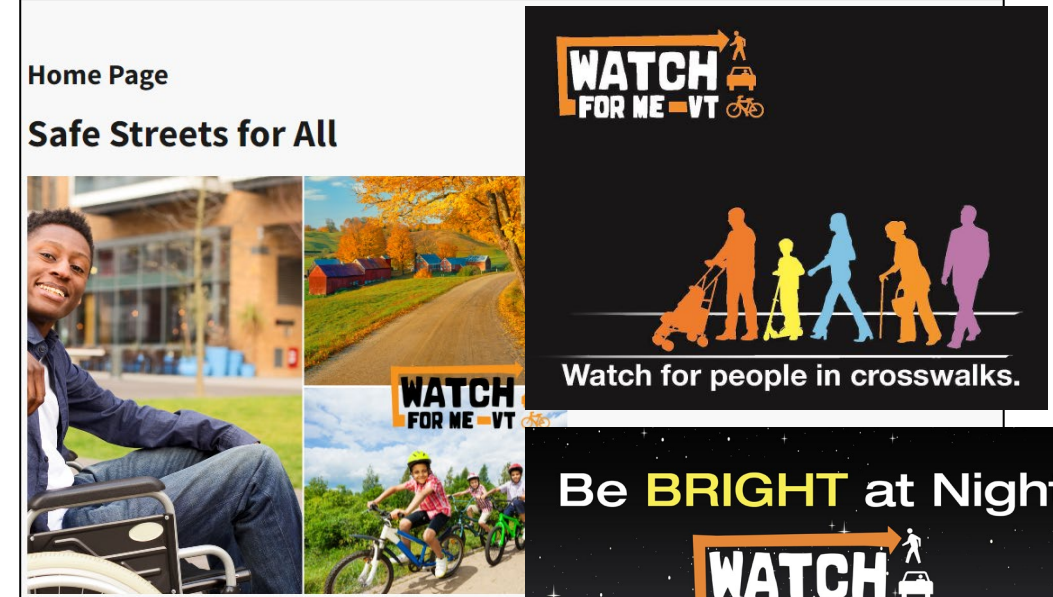
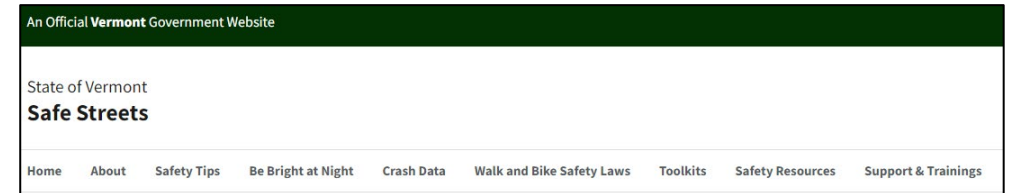
Aggregates statewide resources targeted to communities in support of local safety initiatives.

- ❑ Safety tips, campaign graphics, social media calendar, contact for further resources
- ❑ “Be Bright at Night” campaign (Nov-Dec 2022)

✓ Watch For Me VT Campaign

Raise awareness of best practices for all road users.

- ❑ Ready-made graphics and materials available for partner or community events



Partnerships – Local Motion

Bicycle Safety Education Example



✓ Bike Smart

On-bike skill training.

ANNUAL PROGRAM INFLUENCE

- ❑ 50 Schools & Organizations
- ❑ 10,000 school-aged children

✓ Safe Routes to School

Create a culture of walking & biking.



ANNUAL PROGRAM INFLUENCE

- ❑ 30+ Schools*
- ❑ 8,000 – 10,000 community members



*Currently 62 Vermont schools are signed up for the Vermont SRTS program.

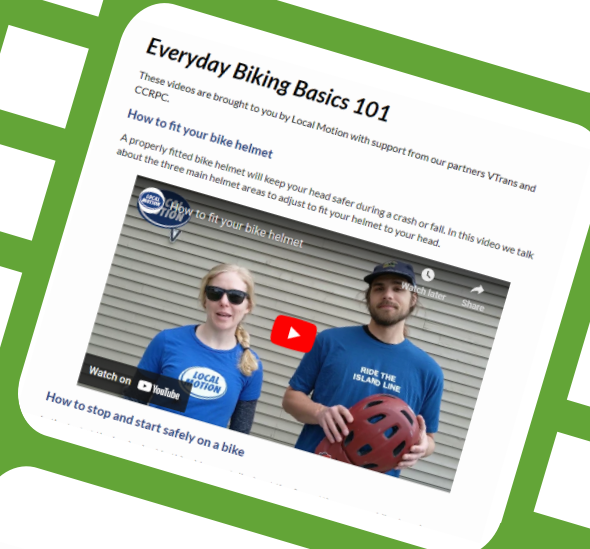
Partnerships – Local Motion

Bicycle Safety Education Example



- ✓ **Everyday Bicycling Workshops**
Bicycle skill training – safety and etiquette.

- ✓ **Bicycling Safety Videos**
Create a culture of biking.



Educate with a Multipronged Approach

Print & Digital Guides, Stickers, Checklist, Etc.



Events & Trainings



Local Motion Webinars

This winter (and fall and spring), we're holding a series of webinars intended to help advocates and communities make progress on improving infrastructure for walking and biking. Check them out and register here!



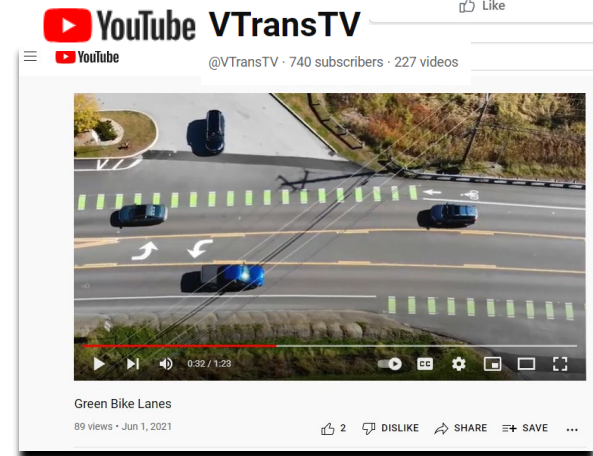
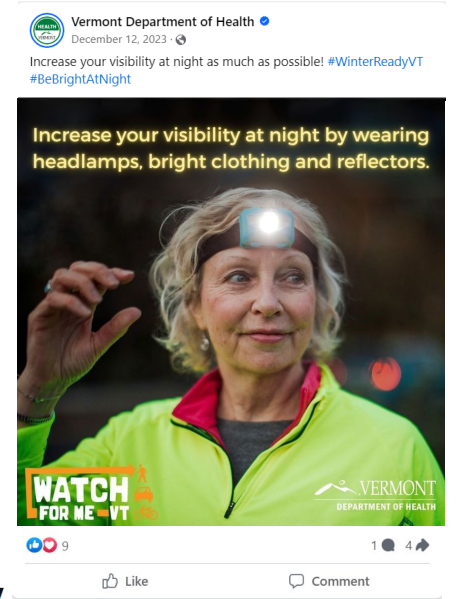
Webinar: What You Need to Know About E-bikes in VT



Webinar Series: AARP "Get Back on Your Bike & Biking Basics"

A series of webinars created in partnership with AARP

Social Media Engagement & Instructional Videos



Rolling with the Trends in Micromobility



- ✓ Technology evolves
- ✓ New users engage
- ✓ An individual's mobility options increase

Type of Device	Classified as Motor Vehicle	Operator Rights & Duties Defined By	Speed Restrictions on Motor	Conditions to Engage Motor
<i>Bicycle</i>	No	Bicycles	-	-
<i>Motor Assisted Bicycle</i>	No	Bicycles	20 MPH	None, unassisted
<i>EBike, Class 1</i>	No	Bicycles	20 MPH	Assisted, propel only when pedaling
<i>EBike, Class 2</i>	No	Bicycles	20 MPH	None, unassisted with throttle option
<i>EBike, Class 3</i>	No	Bicycles	28 MPH	Assisted, propel only when pedaling
<i>Electric Personal Assistive Mobility Device (Segway)</i>	No	Pedestrians	None	None, unassisted

How to Respond?

**Educate,
Educate,
Educate!**

- ✓ Prioritize support for continual education for all road users

Safety of Micromobility Users



✓ Targeted E-Bike Education

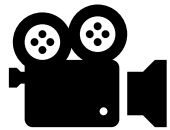
2023 – Consumer education at point-of-sale



- Complete - Content provided by local retailers
- Next step - Provide to recipients of the E-Bike Rebate program

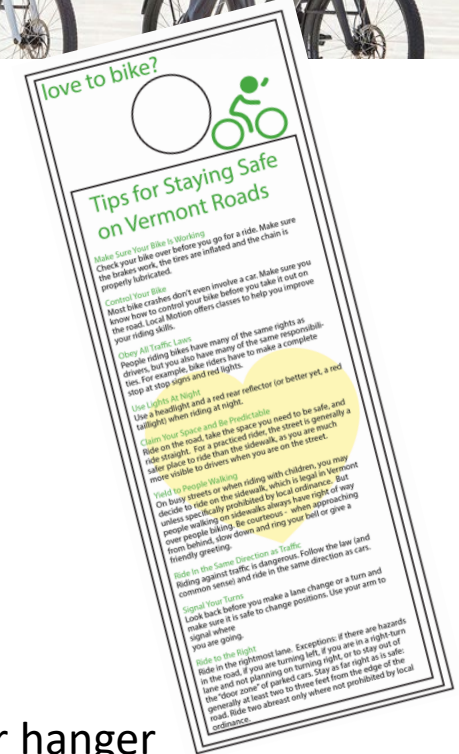
2024 – Utilize Partner network to identify and address gaps in consumer content

- Example – Agency to expand current “how to” video content & Safety PSAs



“How to Safely Pass a Vulnerable Road User”

“How to Safely Ride an E-bike”



Handlebar hanger highlights bike safety laws and best practices

Road Ahead: Broaden Reach of Safety Education

Establish a VRU Safety Culture by Education & Partnership

- Strengthen communication and collaboration with Partners
- Develop a coordinated plan for safety education related to VRU
 - ❑ Identify & prioritize education efforts
 - ❑ Coordinate public messaging campaigns across programs (Safety, Go! Vermont, Tourism, etc.)
 - ❑ Assess target audiences to inform campaigns
- Adapt resources to reflect current practices & address accessibility
- Deliver new trainings to practitioners
 - ❑ 2023 VTrans Complete Streets Guidance - Context informed design – No one size fits all
 - ❖ Train the Trainers – aids the integration of principles into mainstream practice

Questions / Comments?

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Road Ahead: Broaden Reach of Safety Education

Implement recommendations identified in recent state efforts

2021 Bicycle & Pedestrian Strategic Plan

- Targeted strategies to meet the following 5 goals:

-  Safety and Network Improvement
-  Education and Innovation
-  Inclusion and Integration
-  Communication and Collaboration
-  Effectiveness, Accountability, and Community Needs



2023 Vermont Vulnerable Road User Safety Assessment

- New FHWA requirement
- Data driven assessment
- Plan of safety improvements

2024-2026 Vermont Highway Safety Plan

- Annual performance report
- Establishes targets
- Identifies countermeasures to address safety needs

Road Ahead: Broaden Reach of Safety Education



The needs of people walking and bicycling of **all ages and abilities** will be considered in all VTrans activities.

VTrans staff will continue to work collaboratively internally and with external partners to improve safety, connectivity, and access to promote walking and bicycling.

2021 Bicycle & Pedestrian Strategic Plan - Objective 5

Use a wide variety of methods to educate the public on the safety and needs of people walking and bicycling

Strategy 5.1 - Develop a plan for safety education related to VRU that identifies education efforts and prioritizes their implementation.

Example Action Items:

- *Revise Driver's Education curriculum to instill principles for all modes sharing the road safely.*
- *Collaborate with AARP to educate their constituents on safe walking, bicycling and driving.*

Strategy 5.4 - Monitor changes in use of micromobility (e.g., electric devices, scooters, bikeshare, automated vehicles) and incorporate safety education to address known issues.

Road Ahead: Broaden Reach of Safety Education



The needs of people walking and bicycling of **all ages and abilities** will be considered in all VTrans activities.

VTrans staff will continue to work collaboratively internally and with external partners to improve safety, connectivity, and access to promote walking and bicycling.

2021 Bicycle & Pedestrian Strategic Plan - Objective 5

Use a wide variety of methods to educate the public on the safety and needs of people walking and bicycling

Strategy 5.2 - Leverage new technology platforms (*e.g., YouTube ads, podcasts, etc.*) and **collaborations with partners** (*i.e., Vermont Highway Safety Alliance stakeholders*) to distribute safety messaging and leverage earned media.

Strategy 5.3 – Maintain a Safe Routes to School Program, including collaboration with school districts to educate and engage school-age children and parents in safe practices.

Strategy 5.5 - Coordinate with VT Dept. of Health to promote walking and bicycling to meet physical activity and mental health goals (improving quality of life for Vermonters).

Example Action:

- Increase coordination on safety messaging