Source: stock image

VISION ZERO TOOLKIT

The Vision Zero Toolkit provides communities, organizations, and advocates with tools and resources to advance Vision Zero. Each section includes a variety of available resources, as well as notable practices from Vision Zero communities.

U.S. Department of Transportation
Federal Highway Administration

FHWA-SA-23-026

ZERO IS OUR GOAL
A SAFE SYSTEM IS HOW WE GET THERE

Notice

This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in this document.

The U.S. Government does not endorse products or manufacturers. Trademarks or manufacturers' names appear in this document only because they are considered essential to the objective of the document. They are included for informational purposes only and are not intended to reflect a preference, approval, or endorsement of any one product or entity.

Non-Binding Contents

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide information to the public regarding existing requirements under the law or agency policies. However, compliance with applicable statutes or regulations cited in this document is required.

Quality Assurance Statement

The Federal Highway Administration (FHWA) provides high-quality information to serve Government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. FHWA periodically reviews quality issues and adjusts its programs and processes to ensure continuous quality improvement.

Technical Documentation Page

1. Report No. FHWA-SA-23-026	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Vision Zero Toolkit		5. Report Date March 2024	
		6. Performing Organization Code	
7. Author(s) Renee Blackburn, Angie Byrne, Erwin Figueroa, and Terra Reed		8. Performing Organization Report No.	
9. Performing Organization Name and Address U.S. Department of Transportation Volpe National Transportation Systems Center 20 Binney Street, Cambridge, MA 02142		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. 693JJ322N300034	
12. Sponsoring Agency Name and Address Federal Highway Administration Office of Safety 1200 New Jersey Avenue SE Washington, DC 20590		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code HSA	
15. Supplementary Notes Project manager: Chimai Ngo FHWA reviewers: Melissa Anderson, Anthony Boutros, Paul Lafleur, Darren Thacker, and Jen Warren NHTSA reviewer: Emily Thomas External reviewers: David Fields, City of Houston, TX; Lisa Foster, City of Alameda, CA; Gregory Francese, City of Hoboken, NJ; Julia Kite-Laidlaw, New York City, NY; Lake McTighe, Portland Metro MPO, OR; Theresia Rogerson, Santa Cruz County, CA; Michael Sawyer, City of Richmond, VA; and Arnold Shir, Santa Cruz County, CA			
16. Abstract The Toolkit provides communities, organizations, and advocates with tools and resources to advance Vison Zero. Each section includes a variety of available resources, as well as notable practices from existing Vision Zero communities.			
17. Key Words Vision Zero, Safe System Approach, equity, safety culture	18. Distribution Statement No restrictions.		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 55	22. Price

Form DOT F 1700.7 (8-72) **Reproduction of completed page authorized.**

Table of Contents

Introduction **1**
Why Vision Zero? 1
Safe System Approach (SSA) 2
Who Can Use this Toolkit 4
How to Use this Toolkit 5
Section 1: Building Support and Establishing Vision Zero **7**
Establishing a Safety Culture – "Safety is a Shared Responsibility" 7
Building Internal and External Support 7
Cooperation, Collaboration, and Community Engagement 8
Leadership Commitment 10
Creating a Multidisciplinary Vision Zero Team 11
Identifying Team Leadership 11
Representative Vision Zero Team 12
Organizational Practices 13
Policy 14
Coordination with Existing Policies and Plans 14
Equity 16
Include and Invest in Equity from the Start of Vision Zero Planning 17
Equity in Engagement 18
Equitable Outcomes 18
Section 2: Developing a Vision Zero Action Plan **21**
Vision and Goals 21
Guiding Principles 22
Action Plan Timelines 22
Data-Driven Strategies 23
Compiling and Analyzing Data 24
A High Injury Network that uses Demographic Data 27
Countermeasures 28
Infrastructure Projects 28
Behavioral Projects 30
Operational Projects 30
Accessibility in Countermeasures 31
Section 3: Implementing Your Vision Zero Action Plan **33**

Implementation 33
Evaluation 34
Accountability and Transparency 36
Embedding Organizational Practices 37
Funding and Resources 37
Improving Communications 39
Meaningful Community Engagement 41
Including Multilingual and Multicultural Outreach and Educational Programming 41
Engaging Multi-Generational Age Groups in Planning and Policy 43
Reaching People with Disabilities 44
Section 4: Continuing Your Vision Zero Journey 47
Next Steps 47
Additional Resources 48
Getting Started and Vision Zero Action Plan Development 48
Equity and Engagement 48
Countermeasures 49
Evaluation 49
Technical Assistance and Capacity Building 49

Introduction

Getting to zero deaths and serious injuries among roadway users requires the commitment of multiple resources plus collaboration and buy-in from all levels of government and the local community. Engaging with diverse partners to build community support and develop an effective Vision Zero Action Plan [1] (also referred as "Action Plan" in this document) will strengthen Vision Zero initiatives in communities. This comprehensive toolkit is designed to support communities looking to jumpstart Vision Zero by compiling useful information and recommendations from across government and advocacy groups into an easy-to-use guide.

This toolkit is designed to help build a foundational understanding of the tools and resources needed to get started with Vision Zero in your community. Some sections may be more relevant to your community than others and overlapping content throughout the document will help ensure that you don't miss key elements, while highlighting that successful Vision Zero efforts are built on a safe systems approach. Each community is different, so references and examples throughout the document are intended to illustrate how Vision Zero looks in different places.

Why Vision Zero?

Vision Zero is a strategy to eliminate l traffic fatalities and serious injuries, while increasing safe, healthy, equitable mobility for all road users. Originating in Sweden in the 1990's, Vision Zero represents a paradigm shift in reducing traffic fatal and severe crashes.[2]

Highlight: Vision Zero Network

"Vision Zero is not a slogan, not a tagline, not even just a program. It is a fundamentally different way to approach traffic safety."

—Vision Zero Network

The **Vision Zero Network** provides guidance and support to agencies and advocates implementing Vision Zero.

There are multiple ways communities have incorporated Vision Zero or similar approaches into their roadway design and traffic operation, policy, engagement, and other safety programming. These efforts may be called Vision Zero or other names like Road to Zero and Toward Zero Deaths, but they share the same goal and take a similar approach.[3,4] Communities that implement Vision Zero typically incorporate the components described in this toolkit.

The U.S. Department of Transportation (USDOT) adopted the National Roadway Safety Strategy (NRSS) to advance its commitment to reaching zero fatalities.[5,6] The NRSS outlines a comprehensive, long-term

---

[1] A Vision Zero Action Plan is a document that lays out actionable, measurable strategies, emphasizing design and policy solutions. Each strategy should identify the lead agency responsible, along with supporting/partner agencies, a projected timeline, and budget needs. Work on the Plan and its components should be underpinned by a process of continued community engagement and attention to equity. Section 2 discusses developing Vision Zero Action Plans. Additional information can be found at: https://visionzeronetwork.org/roadmapforaction/

[2] Vision Zero Network, "What Is Vision Zero?" https://visionzeronetwork.org/about/what-is-vision-zero/

[3] National Safety Council, "Road to Zero: A Plan to Eliminate Roadway Deaths," https://www.nsc.org/road/resources/road-to-zero/road-to-zero-home.

[4] Toward Zero Deaths, "TZD: The National Strategy Vision is a Highway System Free of Fatalities," https://www.towardzerodeaths.org/

[5] USDOT, "National Roadway Safety Strategy," https://www.transportation.gov/NRSS

[6] USDOT, "National Roadway Safety Strategy, Our Nation's Roadway Safety Crisis," https://storymaps.arcgis.com/stories/9e0e6b7397734c1387172bbc0001f29b

approach to significantly reducing serious injuries and fatalities on the roadways. The NRSS is arranged around five objectives that correspond to the five Safe System Approach (SSA) elements.[7]

Safe System Approach (SSA)

THE SAFE SYSTEM APPROACH

Zero is our goal. A Safe System is how we get there.

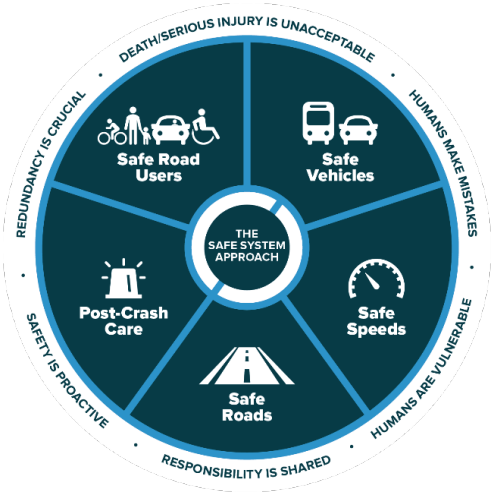
Source: FHWA

Eliminating fatalities and serious injuries for all road users requires a fundamental shift to a proactive and holistic approach. The SSA, which is foundational to achieve Vision Zero, consists of six principles, which form the framework for the approach, and five elements that work together to achieve the goal of zero fatalities. This approach acknowledges human mistakes and vulnerability and guides the design and management of road systems with multiple layers of protection that work together to create a comprehensive, systematic, and redundant environment that protects all road users.

The six principles that guide the SSA are:

- Death and serious injuries are unacceptable
- Humans make mistakes
- Humans are vulnerable
- Responsibility is shared
- Safety is proactive
- Redundancy is crucial

The SSA further identifies five elements of a safe road system. These elements work together to guide policy, design, and practice around transportation.



Source: FHWA

[7] USDOT, "What is a Safe System Approach?" https://www.transportation.gov/NRSS/SafeSystem

Safe Road Users

- Address all road users, including those who walk, bike, roll, drive, ride transit, use mobility devices, and travel by other modes
- Acknowledge that humans who use transportation systlems are vulnerable and make mistakes

Safe Vehicles

- Design and regulate vehicles to minimize the occurrence and severity of injury for persons inside and outside the vehicle
- Incorporate the latest technologies into design to help mitigate serious injuries and fatalities

Safe Speeds

- Reduce speeds to reduce impact forces, provide additional time for drivers to stop, and improve visibility
- Change policy and design street systems to limit speed and encourage safe behavior, which tie into Safe Roads and Safe Road Users

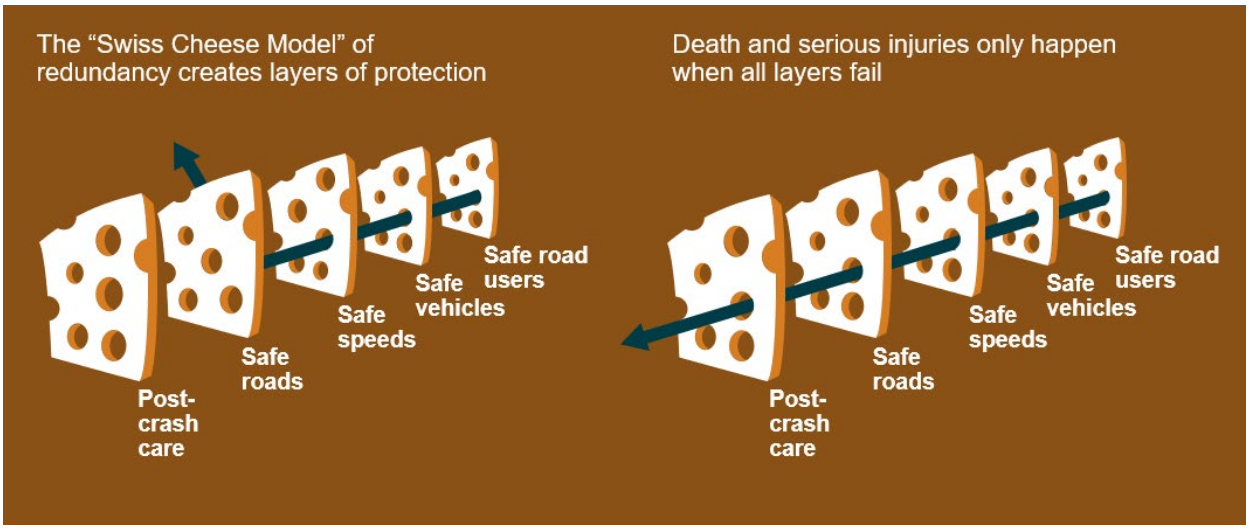
Safe Roads

- Acknowledge that roadway designs used in the past are often not safe and do not prioritize safe access and mobility for all
- Design to accomodate human mistakes and injury tolerances
- Physically separate people traveling at different speeds, provide dedicated times for different users to move through a space, and alert users to hazards and other road users
- Understand the importance of low-cost, low-technology options
- Design and operate street systems to prevent crashes and minimize crash impacts

Post-Crash Care

- Create a system where emergency responders can quickly arrive, stabilize injury, and transport to medical facilities
- Provide resources and support to victims and victim families
- Conduct forensic analysis at crash site and providing feedback to road designs
- Provide judicial and media education

Together, the five SSA elements create layers of protection and shared responsibility for the safety of all road users. The “Swiss Cheese Model” helps demonstrate this concept, as each layer contributes to a redundant system where lapses and weaknesses in one part of the system can occur without resulting in a complete failure of the system leading to death or serious injuries.



Source: FHWA

Examples: Vision Zero initiatives that use the Safe System Approach

Hoboken, NJ: The city's Vision Zero Action Plan is organized around the SSA, identifying the timeframe, stakeholders, and performance metrics for completion of each action.[8]

Portland, OR: Metro identifies the SSA as an effective and inclusive way to address transportation safety in its 2018 Regional Transportation Safety Strategy.[9]

California: The state Department of Transportation (Caltrans) adopted the SSA for their State highway system and incorporated it into their 2020-2024 Strategic Highway Safety Plan and Caltrans 2020-2024 Strategic Plan.[10]

Who Can Use this Toolkit

This toolkit can serve as a reference for any of the diverse stakeholders leading and participating in Vision Zero. In particular, city, county, regional, or Tribal governments might benefit from this toolkit, but it may also be useful for advocates, community organizations and partners, university students or researchers, local leadership, and state governments looking for ways to help support robust and effective commitments to Vision Zero.

[8] Hoboken Vision Zero, "Action Plan," 2021, https://www.vzhoboken.com/action
[9] Metro, "Regional Transportation Safety Strategy," https://www.oregonmetro.gov/sites/default/files/2019/01/29/2018-Regional-Transportation-Safety-Strategy_FINAL.pdf
[10] Reed Parsell, "Mile Marker: A Caltrans Performance Report, Summer 2021," California DOT, 2021, https://dot.ca.gov/programs/public-affairs/mile-marker/summer-2021/safety

Example: Who leads in Vision Zero?

In addition to local governments, other entities also adopt and implement Vision Zero. In Albuquerque, NM, Albuquerque Public Schools developed a Vision Zero for Youth initiative with input from elementary and middle school students, as well as faculty, staff, and community members. The program includes development of a traffic safety curriculum, a safety awareness campaign, and a Vision Zero Action Plan for safer traffic conditions.[11]

How to Use this Toolkit

The toolkit is organized into three sections, representing different phases of a successful Vision Zero initiative. Section 1 describes how to build support for Vision Zero and establish a team of partners to lead the work. Section 2 focuses on the Vision Zero Action Plan, which is a key element of any Vision Zero initiative. Section 3 describes actions and considerations that may be useful when implementing your Vision Zero Action Plan, highlighting the importance and complexity of meaningful and equitable community engagement. Finally, Section 4 describes ways to deepen your engagement in and understanding of Vision Zero, including a list of resources that may help guide you. You do not need to use this guide in order – feel free to skip to sections that meet you where you are in your Vision Zero journey and best support the work you are doing.

As you read through the document, look for callout boxes, which highlight important information. The graphic below shows what to expect in different colored boxes.

Strategies

This toolkit describes strategies that will help you develop and implement Vision Zero. These strategies vary and include checklists, descriptions of tools and activities that you can use, and questions that you might work with your team and stakeholders to answer.

Examples

This toolkit highlights successful approaches from existing programs that might work for your community.

Highlights

Where terms and concepts might be new to users, definitions and explanations are highlighted.

[11] Albuquerque Public Schools, "APS Vision Zero for Youth Initiative," https://www.aps.edu/capital-master-plan/vision-zero-for-youth-initiative

Section 1: Building Support and Establishing Vision Zero

Establishing a Safety Culture – "Safety is a Shared Responsibility"

FHWA defines safety culture as the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands.[12] As one of the Safe System principles indicates, safety is a shared responsibility. A strong safety culture is essential to the implementation of the Safe System Approach and Vision Zero. Growing a strong safety culture among the agencies and organizations, from staff to leadership, will provide a solid foundation for Vision Zero. Public commitments to safety culture can set an example in your community and provide ways for staff, as well as residents, to play a role in Vision Zero. This may take the form of safe driving pledges, robust training requirements for fleet vehicle users, or educational campaigns that highlight safe practices within stakeholder agencies. Carlsbad, California, for example, launched a safety pledge as part of its Safer Streets Together program. In addition to a publicly available pledge, they have educational and awareness activities and yard signs and window clings for people to share their commitment with others.[13] When community members understand risks in transportation and choose to make safe choices, that community has a strong public safety culture.

Building Internal and External Support

Building internal and external support for Vision Zero is crucial as you get started. It is critical to know who your stakeholders are and how you will build support and buy-in among them. You also want to identify potential champions and identify opportunities to bring them on board. Early messaging and engagement will set the tone for Vision Zero in your community and is likely to impact your success in completing the steps outlined in this toolkit.

[12] FHWA, December 2, 2020, "Zero Deaths – Saving Lives through a Safety Culture and a Safe System," https://safety.fhwa.dot.gov/zerodeaths/safety_culture.cfm,

[13] City of Carlsbad, "Safer Streets Together – Pledge Campaign Launched," https://www.carlsbadca.gov/Home/Components/News/News/1587/18370

Strategy: Build Support for Vision Zero and Identify Champions

Connect street safety issues with other issues affecting your community.

Connecting street safety with other issues ensures that Vision Zero is not seen as an isolated issue and helps engage groups that might not otherwise get involved. For example, increasing road safety and developing infrastructure for other modes of transportation can lead to healthier lifestyles and less automobile pollution. Further, safer pedestrian options and transit connections can attract people to commercial areas and encourage them to support local businesses, which they might not see when driving through in a car.

What stakeholders or local leaders that work on public health, alternative transportation, sustainability, public safety, community development or other related issues should you engage in Vision Zero?

Craft your story.

The story you tell about the need for and benefits of Vision Zero can help build support. From hyper-specific results on a neighborhood to how Vision Zero fits into local goals, your story can demonstrate why Vision Zero is needed.

Are there opportunities to tie Vision Zero to local social or cultural stories or touchstones? How will your story connect to people in your community? See the Improving Communications section for more.

Recognize certain strategies may be unpopular, at first.

Some strategies for achieving Vision Zero may be negatively received before and immediately after implementation. For example, the idea of repurposing vehicle parking or reducing automobile lanes may be unpopular with certain people or groups. Collaborating with supportive partners that are trusted voices for potential opposition groups can be effective in educating them on the benefits of Vision Zero and addressing their concerns. Engaging potential detractors early may help reduce conflict later.

Who are the key stakeholders in your community and how can you engage with them early? Are there examples of successful projects that you can highlight?

Cooperation, Collaboration, and Community Engagement

Meaningful collaboration and engagement among governmental leaders, community advocates, and the public is critical at every step in Vision Zero – starting the work and building your team, developing your Vision Zero Action Plan, implementing strategies outlined in your Action Plan, and evaluating and reporting on progress. In a strong Vision Zero effort, stakeholders work together to establish shared goals to reduce traffic fatalities in the community, and to hold leaders and the community as a whole responsible for achieving those goals. Community feedback throughout the process can be a useful tool in identifying modifications and improvements to your projects and strategies along the way.

Strategy: Provide for Meaningful Public Involvement

The USDOT establishes the following as features of meaningful public involvement that you can incorporate into your Vision Zero engagement:[14]

1. Understand the history and demographics of the affected community.
2. Build durable relationships with diverse community members outside of the project lifecycle to understand their transportation wants and needs.
3. Proactively involve a broad representation of the community in the planning and project lifecycle.
4. Use engagement techniques preferred by, and responsive to the needs of, these communities, including techniques that reach the historically underserved.
5. Document how community input impacted the final projects, programs, or plans, and communicate with the affected communities how their input was used.

Community engagement can provide information on traffic safety issues that may be difficult to capture through data, such as perception of safety, use of the built environment, close calls, or other issues that may be hard to quantify. Many communities use interactive maps and public outreach to empower residents to identify dangerous corridors and intersections, accessibility issues, and locations where traffic calming or other infrastructure might improve safety and access to places people want to go. New York City used an interactive public input map in the development of Vision Zero Borough Pedestrian Safety Action Plans.[15]

The amount of input people want to give and how they can best engage may vary widely across your community. It is important to provide different ways to participate, from signing a letter of support or filling out a simple survey to taking on a leadership role, in order to gather input that reflects your community and allows people to engage on their own terms.

The Meaningful Community Engagement section of this toolkit provides recommendations for engaging groups that are often underrepresented in decision making and overrepresented in traffic fatalities and serious injuries.

[14] USDOT, "Promising Practices for Meaningful Public Involvement in Transportation Decision Making," October 2022, https://www.transportation.gov/priorities/equity/promising-practices-meaningful-public-involvement-transportation-decision-making

[15] New York City DOT, "2015 Borough Pedestrian Safety Action Plan for the Bronx," 2015, https://www.nyc.gov/html/dot/downloads/pdf/ped-safety-action-plan-bronx.pdf

Leadership Commitment

Securing a commitment from local leaders with decision-making or funding authority is a crucial step in advancing safety efforts and can ensure that needed changes to policy and organizational practices are implemented. This commitment supports Vision Zero goals and projects and is a concurrent step alongside building community support. Some jurisdictions initiate their Vision Zero work by engaging with their community first, while others start their work through an executive order or other leadership commitment. Ideally, these two activities can support one another.

Strategy: Reflect on Your Current Leadership

- Who are they? Consider your mayor, city councilors, county supervisors, regional commissioners, or Tribal Council members.
- Is there someone who initiated Vision Zero or who is already engaged in traffic safety efforts?
- What is their commitment level?
- How will you engage with them and/or continue to keep them involved in the process?
- Are there other key people that your organization would like to have support from moving forward?

You may already have leadership in your community pushing for Vision Zero or you may need to find someone who connects to your story. Successful Vision Zero efforts highlight that buy-in from executive-level leadership, publicly and privately, is a crucial step in advancing safety efforts.

This leadership commitment transforms one local champion's interest into an initiative with legitimacy and, ideally, some authority to implement, even beyond one champion's tenure or ability to provide continued support. Leadership commitment can be achieved in several ways, some of those include:

- Executive orders
- Administrative orders
- Resolutions
- Vision Zero support pledges
- Funding allocations for Vision Zero Action Plan development and implementation

Examples: Leadership Commitment for Vision Zero

Houston, TX: The mayor of Houston signed an executive order in 2019 that helped lay the foundation for the City's Vision Zero Action Plan released a year later.[16]

Tampa, FL: Advocates hosted a mayoral candidate street safety forum in 2018 that led to a pledge to achieve Vision Zero by the new mayor in 2019, just a few months after election.[17]

In most communities, a commitment to Vision Zero involves a target date to achieve zero roadway fatalities and serious injuries. When local leadership commits to an ambitious goal like Vision Zero, it is

[16] City of Houston, "Executive Order: Vision Zero Houston," August 13, 2019, https://www.houstontx.gov/execorders/1-60.pdf

[17] Leah Shahum, "Engaging Candidates to Advance Vision Zero," April 5, 2020, https://visionzeronetwork.org/engaging-candidates-to-advance-vision-zero/

important to note that they are committing to ongoing support, engagement, and accountability when it comes to meeting the targets and goals of the program you establish. This could include active participation in outreach and engagement about Vision Zero, using such things as earned media and social media to promote and raise awareness about Vision Zero efforts, and supporting the Vision Zero Task Force in navigating and overcoming bureaucratic hurdles that may arise during implementation.

Leadership commitments can also help secure local or national funding for Vision Zero. Local leaders may be able to allocate or secure funding for Vision Zero. Commitment from a high-ranking official is also one of the conditions of the Safe Streets and Roads for All (SS4A) Grant Program, which is explained in further detail in the Funding section of this toolkit.[18]

Creating a Multidisciplinary Vision Zero Team

To engage, empower, and retain stakeholders, invite them to participate in the decision-making process by serving as members of your Vision Zero team – some communities call this a Task Force, Steering Committee, or Working Group. An effective team is made up of people with the expertise and authority to develop and implement effective strategies and who are impacted most by traffic fatalities and serious injuries – which are not necessarily mutually exclusive. Some localities have codified the composition of their team into Vision Zero legislation to ensure diversity and participation as their work evolves.

While larger, more diverse teams can provide a broader perspective and support community partnerships, it may also be useful to have smaller working groups. Internal agency staff responsible for implementing the plan may need to have candid conversations about the feasibility of certain projects, discuss crash information, or work through challenging decisions that may not be appropriate to discuss in an open stakeholder forum.

The size and composition of Vision Zero teams varies across different communities and may include multiple related groups. It is important to create opportunities for larger teams and smaller working groups to be transparent and collaborative, without a need to duplicate roles in each group. The New Jersey Vision Zero Alliance, for example, is comprised of a coalition of partners that includes community members, advocates, policymakers, transportation professionals, and public health professionals.[19]

Identifying Team Leadership

It is critical that Vision Zero has a defined, high-level home within an agency in your community. This may look very different from one community to the next, and there is no “right” leader for Vision Zero, but there should be consideration of agencies that can provide ongoing support for Vision Zero, as well as agencies with decision-making or implementation authority that will be able to lead the team effectively. Agencies that traditionally serve as lead include transportation, public health, planning, public works, public safety, executive and legislative branches, and Tribal councils. Once a lead agency is identified, other departments, agencies, and stakeholders may take on different responsibilities within a Vision Zero team.

[18] USDOT, “Safe Streets and Roads for All (SS4A) Grant Program,” https://www.transportation.gov/grants/SS4A
[19] Vision Zero New Jersey Alliance, “Vision Zero New Jersey,” https://www.visionzero4nj.org

Representative Vision Zero Team

Consider equity and the diversity of stakeholders when assembling your team. Engaging with diverse stakeholders, including community members, community organizations, local businesses, academic institutions, public health organizations, and Tribal, State, and local agencies is key. Collaboration will help your Vision Zero team understand and incorporate the lived experiences of the community and solicit feedback, providing community stakeholders with an opportunity to take ownership in developing and implementing the Vision Zero Action Plan. Work with members of your team to ensure that you are providing opportunities for them to actively participate in the process – this may mean meeting times, locations, and formats that are accessible to everyone on the team and in the community.

Strategy: Engage a Diverse VZ Team

Having a diverse range of stakeholders involved in Vision Zero is key to the success of Vision Zero. However, it is important to understand the different ways that stakeholders can contribute to the process. Beyond holding meetings at different times and locations, what other ways can you include different groups of stakeholders in establishing Vision Zero?

Strategy: Vision Zero Team Checklist

This checklist is intended to help you build a diverse Vision Zero team. It is by no means exhaustive, and you do not necessarily need to include every stakeholder group on this list. Your community may have groups or local advocates that are not listed here. It can be helpful to ask currently engaged stakeholders and safety champions who else they would include.

Government Agency Partners

- ☐ Local agency departments
- ☐ Metropolitan Planning Organization (MPO) or other regional agency
- ☐ Transit agencies
- ☐ State Department of Transportation (DOT)
- ☐ Other State agencies
- ☐ Federal agencies
- ☐ Tribal agencies

Demographic-based Groups

- ☐ Young people
- ☐ Older adults
- ☐ People with disabilities (vision, hearing, mobility)
- ☐ People with low-incomes
- ☐ Groups representing Black, Indigenous, and other persons of color (consider representation of each ethnicity and race in your community)
- ☐ People experiencing homelessness
- ☐ Gender identity groups
- ☐ Faith-based groups
- ☐ School-based groups

Mobility-based Groups and Users

- ☐ Groups representing vulnerable road users (people who walk, bike, roll, motorcycle)
- ☐ Micromobility groups (shared micromobility companies, micromobility advocacy, and support groups for scooters, skateboarding, other mobility assistive devices)
- ☐ Public transportation groups
- ☐ Truck drivers
- ☐ Bus drivers
- ☐ For-hire drivers (taxi, ride-hailing, courier)

Related Stakeholders

- ☐ First responders (EMS, Fire, Police) and medical providers
- ☐ Business and commercial groups (Business Improvement Districts, Merchants Association, Chamber of Commerce, etc.)
- ☐ Housing groups (including groups that work with the homeless)
- ☐ Public health groups
- ☐ Location-based groups (Block Associations, Neighborhood Associations, etc.)
- ☐ Environmental and climate advocacy groups
- ☐ Local media
- ☐ Park and nature-based groups

Organizational Practices

When creating Vision Zero Action Plans, Vision Zero teams identify which departments, agencies, and stakeholders "own" each action item. External partners, including advocacy groups and the media, may also own some action items. Your Vision Zero team may also consider assigning actions to both internal and external partners by adding their organization's name into the Action Plan for additional accountability as you move toward implementation. This commits stakeholders to their Vision Zero-related work, promotes accountability and transparency, and sustains a strong safety culture among stakeholders. Accountability at the agency level, as opposed to an individual level, helps ensure continuity if there are staffing changes over time. If multiple owners of an action item are identified, it is a good practice that one agency takes primary responsibility for implementation.

Policy

Agencies tasked with Vision Zero can ensure continuity of road safety programs beyond election cycles and changes in administration through policy setting and implementation. Ready-to-implement policies can be proposed to help initiate your Vision Zero work and bring attention to your immediate actions, while more complex policies may need to be developed along with your Vision Zero Action Plan and implementation efforts.

Examples: Vision Zero Supportive Policies

Alameda, CA implemented two policies to improve safety. One removes street parking to increase visibility for pedestrians and drivers. The other reduces standard travel lane widths to 10 feet, or 11 feet for truck and bus routes.

Cambridge, MA passed a Cycling Safety Ordinance requiring the construction of separated bike lanes on streets scheduled for re-pavement and designated for improvement by the City's Five-Year Plan for Streets and Sidewalks. The city council expanded the requirements by setting a goal of 25 new miles of separated bike lanes within seven years.

Communities have implemented various policies to improve safety.[20,21,22] Some examples of potential Vision Zero-related policy changes include Complete Streets policies, setting appropriate speed limits, or setting policy around your Vision Zero goals or practices to ensure that the efforts continue beyond elected officials' term limits or other political timelines. Policy changes that set appropriate speed limits, when combined with street design changes, can create safer streets and reinforce safety culture in your community. In Austin, TX, the city council voted to lower the speed limit in residential streets from 30 mph to 25 mph.[23] However, not all jurisdictions have the authority to change speed limits. Home Rule States require authorization from the State legislature to set speed limits on local streets.

Home Rule and Dillon Rule are principles of local governance. Some States exercise a combination of both rules, while others use neither. Home Rule is granted by the State constitution or through statute and allows some autonomy to the local government. Dillon Rule states that local government exercise powers granted by the State, powers necessarily and fairly implied from the grant of power, and powers crucial to the existence of local government. Check your state's laws and regulations to find out more.

Coordination with Existing Policies and Plans

Understanding the safety needs of your community is critical to the success of Vision Zero. In many cases, there are policies, studies, and planning documents that inform or support Vision Zero initiatives. To avoid recreating work that has already been done in your community, these resources can be

[20] City of Alameda, "Policy for Improvements to Visibility (Daylighting)," July 29, 2019, https://www.alamedaca.gov/files/sharedassets/public/public-works/misc/public-works-daylighting-policy-final-signed.pdf

[21] City of Alameda, "City of Alameda Resolution No. 15648," April 23, 2020, https://www.alamedaca.gov/files/assets/public/departments/alameda/transportation/vision-zero/streetdesignresolution15648.pdf

[22] City of Cambridge, "Cycling Safety Ordinance," August 24, 2022, https://www.cambridgema.gov/en/streetsandtransportation/policiesordinancesandplans/cyclingsafetyordinance

[23] Sarah Asch, "To curb dangerous driving, Austin council votes to lower speed limits," June 19, 2020, https://www.statesman.com/story/news/local/2020/06/19/to-curb-dangerous-driving-austin-council-votes-to-lower-speed-limits/42464943/

referenced, leveraged, or integrated into your Vision Zero Action Plan. It may also be useful to note outdated policies or plans that might be replaced or updated by your Vision Zero Action Plan.

Although Vision Zero focuses largely on roadway systems and infrastructure, it may be useful to reference related policies and planning documents. Housing plans may identify transportation safety and equity concerns that are specific to people experiencing homelessness. A student-initiated public health project from a local university might provide recommendations for improving pedestrian safety as part of increasing physical activity. Establishing and engaging with a diverse team can help identify traditional and non-traditional policies and plans that might strengthen your Vision Zero efforts.

State and Regional Policies and Plans

State and regional policies guide transportation decisions, so it is useful to have a thorough understanding of current policies that may benefit or hinder progress on Vision Zero in your community. Many state and regional plans identify priorities and funding opportunities for both infrastructure and non-infrastructure investments while also providing guidance for coordinating projects and programs along or near jurisdiction boundaries. For example, a bicycle network plan or transit network improvement plan may provide insight into strategies or priorities for safety initiatives related to Vision Zero. Non-transportation plans can also provide insights on regional priorities. For example, housing plans can be used to preemptively address traffic safety issues that may arise in the future.

Strategy: State and Regional Plans and Programs Checklist

States and Regional agencies may have planning documents and policies that apply to your jurisdiction. Use this checklist to look for and assess policies and programs that support Vision Zero or to consider for future needed planning efforts.

- ☐ Long-Range Transportation Plans
- ☐ Statewide Transportation Improvement Programs
- ☐ State Highway Safety Plans
- ☐ Strategic Highway Safety Plans
- ☐ Pedestrian Safety Action Plans
- ☐ Bicycle Network Plans
- ☐ Freight Plans
- ☐ Metropolitan Transportation Plans
- ☐ Transportation Improvement Programs
- ☐ Metropolitan Planning Organization Strategic Plans
- ☐ Unified Planning Work Programs
- ☐ State Health Improvement Plans
- ☐ Regional Housing Plans
- ☐ Public Transportation Agency Plans
- ☐ Vulnerable Road User Safety Assessments
- ☐ Title VI Plans
- ☐ SS4A Comprehensive Action Plan

Local Policies and Plans

Policies and planning documents that local agencies or community organizations in your jurisdiction have developed may provide support for your Vision Zero initiative and/or prioritize projects that can be included in your Vision Zero Action Plan. Identifying and working with neighboring jurisdictions in your region that may have an existing Vision Zero Action Plan can help provide regional perspective and backing for leadership.

Tying strategies and projects in your Vision Zero Action Plan to existing priorities can provide accountability and build buy-in. Connecting transportation safety issues to a local Climate Action Plan, for example, may provide additional visibility and support for your Vision Zero Action Plan.

Strategy: Local Plans and Processes Checklist

Each community has different local planning documents and policies. Use this checklist to look for and assess policies that you already have in place that support Vision Zero or to consider for future needed planning efforts.

- ☐ Pedestrian Safety Action Plans
- ☐ Bicycle Network Plans
- ☐ Multimodal Transportation Plans
- ☐ Road Safety Assessments
- ☐ Complete Streets Ordinances or Plans
- ☐ Americans with Disabilities Act (ADA) Transition Plans
- ☐ Local Comprehensive Plans
- ☐ Community Strategic Plans
- ☐ Park and Trail Master Plans
- ☐ Community Health Improvement Plans
- ☐ Housing Plans
- ☐ Health Impact Assessments
- ☐ Climate Action Plans
- ☐ Title VI Plans
- ☐ SS4A Comprehensive Action Plan

Equity

Decades of disinvestment in transportation infrastructure, along with policies and design standards that prioritize moving vehicles over moving all road users have created or exacerbated disparities in our communities. Lack of investment in sidewalks, bike lanes, and transit facilities makes people who rely on walking, mobility devices, biking, and transit more vulnerable because they may not have safe or well-connected ways to get around. Roadway design that may encourage speeding further disadvantage these already vulnerable people.

According to the NRSS, "traffic crashes are a leading cause of death for teenagers in America, and disproportionately impact people who are Black, American Indian, and live in rural communities."[24] Many Vision Zero communities have identified areas or populations that are disproportionately impacted by traffic safety issues. Vision Zero and the SSA are tools that should be applied equitably to address disparities in traffic safety impacts.

Addressing equity in Vision Zero requires a thoughtful approach to ensure that both process and outcomes are equitable in order to address and not repeat the disparities and harms of the past. Equitable process means that underserved communities are meaningfully involved in transportation decision-making processes and their specific needs are identified and prioritized. Equitable outcomes refer to closing disparities in roadway fatalities for disadvantaged groups and expanding safe and reliable transportation options for people living in disadvantaged communities.

Include and Invest in Equity from the Start of Vision Zero Planning

As you build your team and start to think about the vision and goals that will guide your work, it is important to understand your community and the ways transportation safety issues impact people. Engaging underserved communities as soon as your community starts the Vision Zero planning process will help ensure that their voices are meaningfully incorporated into the strategies and projects in your Action Plan. This may mean focusing your efforts in particular areas of your community or prioritizing outreach to certain populations, like Black, Indigenous, and persons of color, people with disabilities, young people, or seniors.

Compiling and analyzing data is part of developing your Vision Zero Action Plan, and you should consider what parts of your community disproportionately experience traffic fatalities and serious injuries and who are the most vulnerable members of your community in regard to traffic safety. Understanding your community from this perspective will help you better address past harms and create a more equitable transportation system in the future.

Strategy: Understand How People Use Roadways

Understanding how people use the roadways in your community will help determine where and what type of investments are most needed. Consider the following questions to better understand their behaviors and needs. Collecting demographic information with the responses to this question will help you understand how different groups in your community experience the transportation system.

- How do they use the roadways – transportation, destination, place for socialization, place for commerce?
- What destinations they regularly travel to?
- What time of the day do they use the roadways?
- What mode of transportation do they use to travel?
- What changes would be needed for people to use the roadways or utilize other modes of transportation?
- Do they use the roadways with others? If so, who are they (family, friends, care partner, other)?
- What destinations would they like to access, but are unable to? What obstacles are preventing them from doing so?
- If their main mode of transportation is not available, which other mode(s) of transportation do they use to reach their destination?

[24] USDOT, "National Roadway Safety Strategy," https://www.transportation.gov/NRSS

Richmond, VA developed a Path to Equity Policy Guide for transportation decision making and investment. The effort to develop the guide incorporated extensive research to better understand how inequities in their transportation system was driven by historical planning and decision making. The City of Richmond has committed to integrating policy recommendations from the Path to Equity into its Richmond Connects multimodal transportation plan.[25]

Equity in Engagement

Some communities are underrepresented in transportation decision-making processes because there are many economic and social barriers to traditional engagement techniques like public meetings. To make the transportation process more equitable, it is important to prioritize proactive and consistent meaningful public involvement opportunities that meet underrepresented communities where they are and incorporate their feedback into plans and projects. This is a critical step towards establishing trust and making sure that roadway improvements meaningfully improve safety and meet the specific needs of community members. Public events are useful opportunities to share information about Vision Zero, traffic safety, current traffic safety efforts in the community, and opportunities to get involved. More importantly, this engagement gives community members a way to provide input and feedback on community safety issues and help define what they see as the major issues.

Engaging with people who are Black and indigenous, people with low incomes, people experiencing homelessness, people with Limited English Proficiency, people with disabilities, older adults, and young people in the community will strengthen the strategies and projects that you develop in your Vision Zero Action Plan and help prioritize investment to have the most safety impact. If you create opportunities for all community members to be involved in ways that work for them, particularly those who have been underrepresented, you will build support for Vision Zero and have more equitable outcomes. For more on engaging and collaborating with different communities, see the Meaningful Community Engagement section.

Leading with equity as you build your team and establish Vision Zero will help ensure that your work serves the entire community equitably. Continue engaging with all community members as you develop and implement your Vision Zero Action Plan and provide ample opportunities for them to provide feedback.

Equitable Outcomes

Vision Zero can play an important role in addressing historical and current day inequities in transportation safety when equity is centered in the process and implementation. For instance, equity can be addressed through a comprehensive safety analysis that you will conduct while developing your Vision Zero Action Plan, by integrating demographic, public health, emergency response, and medical data for a more complete picture of the safety disparities and needs of the community. Equitable engagement with community members is another way Vision Zero can impact equity in roadway safety. The USDOT defines meaningful public involvement as a process that proactively seeks full representation from the community, considers public comments and feedback, and incorporates that feedback into a project, program[26]. The impact of community contributions encourages early and continuous public

[25] City of Richmond Office of Equitable Transit and Mobility, "Path to Equity: Policy Guide for Richmond Connects," February 2022, https://rva.gov/path2equity

[26] US DOT, "Public Involvement", 2023, https://www.transportation.gov/public-involvement

involvement and brings diverse viewpoints and values into the transportation decision-making process. Prioritizing safety investments in areas with disinvestment and disparities in access to safe transportation, while implementing the SSA throughout your community, will lead to more equitable outcomes and a safer transportation system for all. This is addressed in more detail in Section 2, under Data-Driven Strategies.

Section 2: Developing a Vision Zero Action Plan

When developing a Vision Zero Action Plan, it is essential to have a clear vision, defined goals, and specific objectives. This section provides an overview of what to include in an Action Plan, with recommendations and examples to show that you can develop an Action Plan that reflects your community and meets its needs, while also including key components. In addition to the recommendations in this toolkit, there are numerous resources developed by Vision Zero advocacy groups that might help you develop your Action Plan, including the Vision Zero Network's "Vision, Strategies, Action: Guidelines for an Effective Vision Zero Action Plan."[27]

Action Plans generally document the processes followed to develop the plan in order to support transparency and give validity to the strategies and projects identified in the Action Plan. This may include the following, which are discussed in Section 1: Building Support and Establishing Vision Zero:

- Leadership commitment
- The role of your Vision Zero team in developing and implementing your Action Plan
- Engagement and collaboration efforts that informed your Action Plan and helped build community buy-in for Vision Zero
- Existing policies and plans that are related to Vision Zero, including any that need to be updated or could be replaced by your Action Plan

While an Action Plan should include all of the components in this section, it is important to note that you do not need to spend a long time getting everything perfect. For many communities, traffic safety issues are critical and need to be addressed as quickly as possible. Major infrastructure changes can take time, so you want an Action Plan that empowers your community to get started and provides direction to stakeholders and decision makers. Your Action Plan should be a living document and may change over time as you gain access to additional data and resources, and as you incorporate and evaluate new strategies and projects. Even community engagement work, particularly because it should continue throughout your Vision Zero effort, can be robust without taking so much time that you can't get to implementation.

Vision and Goals

It is imperative for a Vision Zero Action Plan to document the commitment a community has made to achieving a vision for traffic safety and its goals for Vision Zero. As the SSA is the foundation of Vision Zero, it can guide the development of a vision and goals. It also provides a comprehensive framework to identify strategies to make streets safer for people. Leveraging SSA principles can also help ensure that your Action Plan consists of a human-centric approach, as the City of Phoenix did in their Road Safety Action Plan.[28] The SSA also provides a structure that may help organize your Action Plan to demonstrate

[27] Vision Zero Network, "Vision, Strategies, Action: Guidelines for an Effective Vizion Zero Plan," December 2017, https://visionzeronetwork.org/wp-content/uploads/2017/12/VZN_ActionPlan_FINAL.pdf
[28] City of Phoenix, "Road Safety Action Plan," 2022, https://www.phoenix.gov/streetssite/Documents/Vision_Zero_Road_Safety_Action_Plan.pdf

that you are incorporating its guidance. For example, in the Macon-Bibb County Vision Zero Action Plan, all of the proposed strategies are organized by the five elements of the SSA.[29]

Strategy: Develop SMART Goals

SMART goals help make the internal and external strategies and projects in your Vision Zero Action Plan more effective:

- **S**pecific
- **M**easurable
- **A**ctionable
- **R**ealistic
- **T**ime-Bound

Creating specific and measurable objectives allows for internal and external accountability and establishes a clear direction for agencies and stakeholders who are leading and supporting the implementation of the Action Plan goals. As you develop the strategies for your Action Plan, also consider how you will evaluate them and measure success. What data will you need to identify the impacts of a strategy and how will you communicate those impacts to leaders and stakeholders over time? See Evaluation in Section 3 of this toolkit for ideas about how you might evaluate your strategies and progress.

Guiding Principles

Establishing guiding principles at the start of the Vision Zero Action Plan process can provide a "North Star" to help ensure that your community's goals that are reflected throughout all sections of the plan, as well as during implementation. For example, the Somerville, MA Action Plan identifies Equity, Data-Driven Decision Making, Coordination, and Accountability as driving principles.[30] The SSA principles and elements may be a good foundation for developing your guiding principles.

Action Plan Timelines

Most Vision Zero Action Plans are designed as 3-to-5 year plans. Within those plans, short- (less than a year), medium- (1-3 years), and long- (more than 3 years) term goals are created depending on the action and requirements needed for implementation. For example, a short-term goal may include quick-build infrastructure projects using temporary materials, such as paint and plastic bollards, to redesign streets. Medium- and long-term goals may include upgrading quick-build projects to capital projects with permanent materials.

The goals in your Action Plan may also have different time-bound expectations depending on the level of engagement or the projects you would like to complete. When working with communities of color or those that have historically been marginalized, different methods of engagement may be necessary to gain trust and meet the community where they are at. For example, Fort Lauderdale, FL has placed special emphasis on building community trust. One project is the Connecting the Blocks program, which develops Neighborhood Mobility Plans that encourage community participation and requests for projects, such as crosswalks.[31] Your Action Plan can acknowledge the time it takes to build this trust and develop infrastructure projects that won't further marginalize communities, while also identifying more immediate improvements that will increase safety in the short-term.

---

[29] Macon-Bibb County, "Macon-Bibb County Vision Zero Action Plan," November 10, 2020, https://psrb.maconbibb.us/wp-content/uploads/2021/02/508_Macon-Bibb-VZAP_01Jan2021.pdf

[30] City of Somerville, "Taking Action for Safer Streets: Action Plan 2020," January 10, 2020, https://www.somervillema.gov/departments/programs/vision-zero-somerville

[31] Vision Zero Network, "Vision Zero in Mid-Sized Cities: Spotlight on Fort Lauderdale," June 29, 2018, https://visionzeronetwork.org/spotlight-on-fort-lauderdale/

Data-Driven Strategies

To develop a safer roadway system in your community, it is important to understand the existing infrastructure conditions, inequities, and community concerns. Local data can tell your community's stories about the common types of risky roadway conditions and severe crashes and help you identify the strategies and actions that are proven to address them. This data, along with an understanding of the projects and strategies that you propose in your Vision Zero Action Plan, will help you plan for project timelines, costs, and resource needs, as well as prioritize your efforts to best serve your community.

Using a High Injury Network (HIN), equity data, and information gathered through the community engagement process can also help determine and prioritize the projects that will have the most impact in reducing serious injuries and fatalities.

> **Highlight: High Injury Network (HIN)**
>
> An HIN is a map of corridors that identifies a network of streets and intersections with higher rates of fatal and serious injury crashes. It is an important tool that can help organizations focus limited resources in problematic areas. It can also be used to visualize areas or types of roadways, and not just individual locations, with safety issues, and therefore may help your community identify systemic solutions. As a geospatial tool, an HIN can be overlaid with other data, like local health equity data, to see where safety impacts may be compounded for disadvantaged communities.

A mixture of both high-profile, capital-intensive projects and lower-cost, quick-build projects are recommended to create meaningful change in locations with the highest crash rates, while also addressing community safety concerns that may not be easily measurable through available, quantitative data. See Section 3: Implementing Your Vision Zero Action Plan for more about how to ensure that your Action Plan can and will be implemented.

Consider countermeasures that are relevant to the context of your community. Culturally appropriate and linguistically accessible strategies, when combined with proven safety countermeasures, can ensure that implementation of Vision Zero results in a reduction of injuries and fatalities that is done with the community, not despite it. It may be helpful to set goals for engagement that can be evaluated over time to provide transparency and show how certain countermeasures were developed based on community input. For example, Nashville, TN's Action Plan includes action items on developing metrics to monitor engagement in vulnerable communities, conducting audits in schools located in vulnerable areas, and developing a targeted list of both quick implementation and long-term improvements.[32]

Careful consideration of the location of projects is important so as not to exacerbate existing inequities in low-income communities and communities of color. San Francisco, CA's HIN is disproportionally concentrated in communities of color and low-income communities and the projects they implement

[32] Metropolitan Government of Nashville and Davidson County, "Nashville Vision Zero Action Plan 2022-2026," https://www.nashville.gov/sites/default/files/2022-08/NashvilleVZ_ActionPlan_FINAL_Resolution.pdf

take this into account.[33] Concentrating enforcement-based countermeasures may exacerbate other community concerns. During the project selection process, meeting with community stakeholders – groups directly related to transportation and groups unrelated to transportation but working with low income or communities of color – can allow for Vision Zero projects to improve safety and other community concerns simultaneously.

As you implement Vision Zero strategies, it is important to continue to monitor data to evaluate your efforts, and, at a more granular level, to understand what interventions are working best for different locations. Reductions in fatalities and serious injuries may not follow a linear decline. Using a 5-year annual average for crash fatalities and injuries can provide a more accurate picture of the progress of Vision Zero in your community and provide context for years where fatality and serious injury data is higher or lower than the average.

Compiling and Analyzing Data

Understanding where fatalities and serious injuries are occurring in your community is important to address the issue of traffic safety in a systematic way. An HIN that identifies corridors and intersections with the largest number of fatal and severe crashes may be combined with data on time of crash and crash factors to identify areas in your community or types of roadways that require the most urgent interventions to save lives. You can also use the HIN model to look specifically at certain types of crashes, like crashes involving people biking and walking, which illustrate safety impacts for vulnerable road users. For these types of crashes, you may use all fatal and injury crashes, not just severe crashes. In New Mexico, for example, the Mid-Region Council of Governments' HIN includes multiple maps that show fatal and severe crashes for all modes, bicyclist-involved crashes, and pedestrian-involved crashes.[34] With this data, decision makers can see where different types of safety impacts are needed to address different kinds of crashes, and how to invest in countermeasures to protect the most vulnerable road users.

The most common source of crash data is police reports; however, police reports do not always provide the entire context of crash and injury data. The national Fatality Analysis Reporting System (FARS) compiles fatality data across the country and, where available, incorporates demographic data on people

Highlight: Data for Small Jurisdictions

For small and rural jurisdictions, **certain traffic safety data may not be available in large enough numbers to use by itself for the purposes of improving traffic safety**. Fatal crashes alone, for example, may not be concentrated in specific locations and may appear in seemingly random locations. **Expanding your dataset to include serious injuries, property damage only crashes, near-misses, and other types of data** can help improve safety, especially when used to systemically improve street infrastructure. For example, a large number of crashes involving serious injuries in one location may lead you to not only redesign that intersection, but also all similar intersections within the jurisdiction.

[33] City of San Francisco, "2021 Vision Zero SF Action Strategy," November 10, 2021, https://www.visionzerosf.org/wp-content/uploads/2021/11/VZSF_AS_111021_spreads-FINAL.pdf

[34] Mid-Region Council of Governments, "High Fatal and Injury Network," https://www.mrcog-nm.gov/570/High-Fatal-and-Injury-Network

involved in those crashes.[35] Hospital data can also help fill in the blanks where police reports may have something missing or provide additional context and another point of view. This data is particularly important in cases of pedestrian and bicyclist crashes, where, in some instances, data can be more accurately reflected in hospital records than police reports.[36] Where it is available, data on near misses or risky behaviors from community input or Intelligent Transportation Systems (ITS) may further inform your understanding of local traffic safety issues for your Vision Zero Action Plan.

Here is a list of potential partners for data resources:

- Health Department (local, State, or Tribal level)
- Local hospitals and trauma centers
- Universities, particularly those affiliated with hospitals
- Local, State, or Tribal Police
- State DOTs
- Local, State, and Tribal advocacy groups
- Community groups

As your organization gathers data, a Memorandum of Understanding may be needed with each of your partner agencies to access and share certain data. It may be difficult for those who do not have easy access to public health departments and epidemiologists to obtain this data. When gathering and using hospital records, it's good practice to remove Personally Identifiable Information, which can be a large undertaking and may make it difficult for some stakeholders to share data externally.

Strategy: Get Creative about Data

Organizations have different types of data available to help create a full picture of traffic safety issues. **What are other avenues to explore for gathering data resources?**

There are multiple ways to obtain and use State and national data that can help provide context for local trends that may not be well represented with numbers and create an impetus for action. For example, there may be qualitative evidence of speeding trends in a community that is not well represented in the local quantitative data. Statewide data can help to contextualize the problem at the county level and provide greater clarity for local issues.

Importantly, data collection and usage may go beyond the numbers to incorporate the lived experiences of community members who are most directly impacted by traffic fatalities and injuries in the community. The qualitative input of the community can provide valuable feedback that might otherwise be missed by using only the quantitative data collected via police crash and other reports. Consider frequent and varied opportunities for engagement to collect information that may not be readily available through more traditional quantitative data sets, like identifying intersections with close calls, uneven sidewalks, or other challenges residents in your community experience when traveling. Census and other demographic data can also provide additional context for quantitative data, which will help to create a more comprehensive picture of how traffic fatalities affect communities. See the Cooperation,

[35] NHTSA, "Fatality Analysis Reporting System (FARS)," https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars

[36] Veronica Vanterpool, "Linking Transportation & Health Systems: Pioneering Collaborative Is Model for Vision Zero," June 28, 2019, https://visionzeronetwork.org/linking-transportation-health-systems-pioneering-collaborative-is-model-for-vision-zero/

Collaboration, and Community Engagement and Meaningful Community Engagement sections of this toolkit for more about how to strengthen your engagement and collaboration efforts.

Data is also often required for certain grant applications. Below are potential sources of data for Vision Zero Action Plan development and grant requirements:

- **American Community Survey Data:** The data profiles cover 100,000+ different geographies: Tribal areas, States, counties, places, zip codes, and congressional districts. Within those are covered topics like education, employment, health, and housing, among others.
    - https://www.census.gov/programs-surveys/acs/data.html
- **Climate and Economic Justice Screening Tool (CEJST):** The tool shows information about the burdens that communities experience. It uses datasets to identify indicators of burdens. The tool shows these burdens in census tracts.
    - https://screeningtool.geoplatform.gov/en
- **EJScreen:** An environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators.
    - https://www.epa.gov/ejscreen
- **Fatality and Injury Reporting System Tool (FIRST):** This query tool allows a user to construct customized queries from the Fatality Analysis Reporting System (FARS) and from the General Estimates System (GES)/Crash Report Sampling System (CRSS).
    - https://cdan.dot.gov/query
- **Fatal Car Crash Explorer:** This data set maintained by the University of Hawaii uses data from FARS and indicates which crashes involved a pedestrian fatality.
    - https://uheroanalytics.shinyapps.io/crash/
- **MyStreet:** My Street is a sketch-level planning tool designed to help you explore options for improving pedestrian safety in your area. Based on data you provide, and data already incorporated in the tool, My Street conducts systemic analysis and identifies priority sites for consideration.
    - https://mystreetpedsafety.org/
- **Screening Tool for Equity Analysis of Projects (STEAP) and HEPGIS Equity Maps:** Screening Tool for Equity Analysis of Projects is an extension of FHWA's HEPGIS web application that permits rapid screening of potential project locations anywhere in the United States to support Title VI, environmental justice, and other socioeconomic data analyses. The tool provides estimates of the socioeconomic characteristics of the resident population surrounding a project location.
    - https://hepgis.fhwa.dot.gov/FhwaGis/help/TitleVI-About.html
- **Social Vulnerability Index:** This tool, created by the Centers for Disease Control and the Agency for Toxic Substances and Disease Registry, uses 16 U.S. Census variables to help local officials identify communities that may need support before, during, or after disasters.
    - https://www.atsdr.cdc.gov/placeandhealth/svi/index.html

- **TransportSE:** A prototype screening tool to visualize national percentile ranks of all continental U.S. census block groups and a composite social vulnerability metric. Use the tool to explore the relationships between select indicators of transportation burdens, census demographic metrics, and social vulnerability. The tool can be customized with additional equity factors and transportation indicators or rescaled to different geographies.
    - https://explore.dot.gov/views/TransportSECensusMetricsDashboard/TransportSE
- **USDOT Equitable Transportation Community (ETC) Explorer:** The purpose of the ETC Explorer is to provide users a deeper understanding into how a community is experiencing transportation disadvantage to help ensure that the benefits of investments are addressing the transportation related causes of disadvantage.
    - https://www.transportation.gov/priorities/equity/justice40/etc-explorer

A High Injury Network that uses Demographic Data

Crash data by itself only tells part of the story. The demographics of who is most affected by serious injuries and fatalities can also play a key role in determining your course of action. High-injury corridors and intersections are more likely to be in low-income and Black, Indigenous, and People of Color (BIPOC) communities. In addition, young people and older adults tend to be overrepresented in injury crashes. Ensuring that community engagement is conducted with the affected populations during the development of your Vision Zero Action Plan can help bridge the gap between data and lived experiences. In the process of community engagement, pay close attention to the language used to describe their experiences, as this will help categorize the data collected in a way that is appropriate for the public to understand. See the **Cooperation, Collaboration, and Community Engagement** and **Broad Community Engagement** sections of this toolkit for more about how to strengthen your engagement and collaboration efforts.

Example: Different Ways to Represent Underserved Communities

Denver, CO's Vision Zero Action Plan uses the term **Communities of Concern**. The term refers to the neighborhoods that comprise about 30% of Denver with lower incomes and vehicle ownership, and high numbers of seniors, people with a disability, schools, and community centers. Overlaying the Communities of Concern over their HIN showed that 39% of all traffic deaths and 47% of all pedestrian deaths occurred in Communities of Concern.

This term is similar to **Underserved Communities** or **Disadvantaged Communities,** which are used in the Justice40 Initiative and the USDOT Equity Action Plan. Underserved Communities are populations sharing a particular characteristic, as well as geographic communities that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. The U.S. Office of Management and Budget (OMB) provided interim guidance for definitions of Disadvantaged Communities.

Overlaying fatality and serious injury data with demographic data helps contextualize it.[37,38,39] When combined with community engagement, this helps provide a more accurate representation of the conditions of the road, how a community feels about specific corridors and intersections, and highlights corridors that may not meet the data thresholds to be considered risky but are of particular concern to the community.

Countermeasures

Safety countermeasures help reduce roadway fatalities and serious injuries. They vary in terms of cost and effectiveness and can be categorized into infrastructure projects, behavioral projects, and operational projects. Your Vision Zero Action Plan will largely focus on infrastructure improvements that can be implemented to create a safe roadway system, but these may be more effective and equitable when combined with behavioral and operational projects. Safety outreach campaigns, for example, can improve safety culture and make residents aware of traffic safety, but work in tandem with infrastructure and operational projects to educate the public on safety benefits associated with safer infrastructure or design or help people use new infrastructure or traffic technology.

Infrastructure Projects

Infrastructure projects are centered on creating physical improvements to the roadway system - by making streets safer by design. Many design strategies have been tested for effectiveness and appropriateness in different conditions. Resources like the Crash Modification Factors Clearinghouse, FHWA Proven Safety Countermeasures initiative, and various design guides produced by the National Association of City Transportation Officials are helpful when choosing and designing infrastructure projects.[40,41,42] These projects can generally be organized into two categories: projects that can be completed quickly with high impact, and more long-range projects that involve more extensive, capital infrastructure.

Quick-Build Projects

In the short term, these often low-cost projects can have an important safety impact and can be implemented within approximately one to two years.[43] Further, they can help demonstrate the effectiveness of a planned future change that will involve major construction or investment. A demonstration project serves the dual purpose of evaluating a long-term investment and building public support for the investment by illustrating the impact.

---

[37] City of Denver, "Denver Vision Zero Action Plan," October 2017, https://www.denvergov.org/content/dam/denvergov/Portals/705/documents/visionzero/Denver-Vision-Zero-Action-Plan.pdf

[38] USDOT, "Equity Action Plan," January 2022, https://www.transportation.gov/priorities/equity/equity-action-plan

[39] U.S. OMB, "Interim Implementation Guidance for the Justice40 Initiative," July 20, 2021, https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf

[40] University of North Carolina Highway Safety Research Center, CMF Clearinghouse, https://www.cmfclearinghouse.org/

[41] FHWA, "Proven Safety Countermeasures," https://safety.fhwa.dot.gov/provencountermeasures/

[42] National Association of City Transportation Officials, Design Guides, https://nacto.org/publications/design-guides/

[43] Vision Zero Network, "Cost References for Sample Quick-Build Traffic-Calming Treatments and Road-Safety Countermeasures," August 2022, https://docs.google.com/presentation/d/1saKQBszXz8pSqvMwx74XmKudjKlhT26-

Examples: Quick, Low-Cost Projects

These types of projects can be high impact and help shift public perception without the high price tag of major infrastructure investments.

Austin, TX: After implementing high-visibility crosswalks, curb ramp upgrades, and other pedestrian improvements, fatal or injury crashes involving pedestrians were reduced by 23%.[44]

Pinecrest, FL: There was an 85% crash rate reduction (5.7 to 0.9) after putting in a temporary roadway art installation at the intersection of intersection of Killian Drive and Southwest 67th Avenue. It is good practice to take caution when using crosswalk and roadway art to not cause further distraction or confusion for road users.[45]

Collaboration with traffic engineers across your Vision Zero team will help ensure that the projects meet design requirements. These projects often involve creative use of low-cost materials, so there are many options to pursue, but a few examples are listed below.

- Create protected bike lanes using plastic bollards or other low-cost materials.
- Narrow travel lanes and add curb extensions using textured paint, flexible bollards, planters, or other materials.
- Add high-visibility crosswalks or upgrade existing crosswalks with high-visibility material.
- Improve stop bar alignment to provide added protection for people walking.
- Reduce speed limits, particularly in targeted areas based on your HIN (for further reference on reducing speed limits, see the Policy section of this toolkit).

Capital Projects

Major investments in changing infrastructure may be required in areas where the existing infrastructure does not support road users' safe behaviors. These investments generally take more time for planning and investment, as well as identifying funding, as they are likely to be higher cost. Examples include:

- Road diets, which reduce and repurpose vehicle travel lanes to other uses, such as bus lanes, bike lanes, pedestrian space, or vehicular parking.
- Innovative intersections like roundabouts, which slow automobiles and reduce crash severity.
- Sidewalks where none exist or where wider sidewalks make pedestrian travel easier.
- Curb ramps that increase accessibility.
- Separated bike lanes with physical barriers and or/grade separation from vehicle lanes.

[44] Sam Schwartz, "Asphalt Art Safety Study: Historical Crash Analysis and Observational Behavior Assessment at Asphalt Art Sites," Bloomberg Philanthropies, April 2022, https://assets.bbhub.io/dotorg/sites/43/2022/04/Asphalt-Art-Safety-Study.pdf

[45] Austin Transportation Department, "Crash Reductions Seen at Austin's Major Intersection Safety Locations," July 2022, https://www.austintexas.gov/sites/default/files/files/Transportation/Vision%20Zero/Final_major%20intersections_VZ%20Analytics_20220718.pdf

Behavioral Projects

Behavioral projects are based on altering the behavior of road users. Their main purpose is to reinforce safe roadway habits for all users. Examples of behavioral projects include:

- High-visibility enforcement campaigns that target specific risky behaviors, such as impaired driving, seat-belt noncompliance, and speeding.
- Safety outreach campaigns featuring advertisements in mass media outlets, billboards, and in-person outreach at festivals, schools, workplaces, or public community events.
- Driver education curriculum updates to include safety for all road users.

Pay special attention to the messaging used in safety outreach campaigns: avoid messaging that "victim-blame" vulnerable road users or focuses too heavily on single road users or behaviors, rather than acknowledging that we need to create safer systems. Safety campaigns can be scheduled in conjunction with larger State or National campaigns your State DOT or the USDOT is promoting, as well as through regional efforts with neighboring communities. In addition, peer-to-peer teen traffic safety outreach programs, such as Students Against Destructive Decisions (SADD), National Youth Leadership Council Project Ignition and others, have demonstrated effects on reducing traffic deaths, especially teen traffic deaths.[46,47] Illinois' Operation Teen Safety Driving helped reduce teen traffic deaths by 58.7%, in conjunction with the state's Graduated Driver License law.[48] The impacts of these measures can be measured through community engagement and follow-up surveys indicating changes in driving behavior, among others.

Operational Projects

Operational projects are used to enhance and improve the safety and efficacy of existing roadway infrastructure, with a focus on traffic operations. Operational projects should improve the safety of potential roadway conflicts and facilitate faster post-crash care. One of Washington, DC's Vision Zero Action Plan commitments to improve post-crash care is to conduct biennial reviews of travel times to ensure travel time consistency, enacting changes to reduce response times accordingly.[49] Other examples of operational projects include:

- Signal priority for emergency vehicles to improve response times and for transit vehicles to increase efficiency and encourage transit use.
- Signal phasing changes or removing permissive left turns to reduce turning movement conflicts at intersections.
- Leading Pedestrian Intervals and Protected Bike Signals at intersections.
- Enhanced emergency vehicle warning systems to improve the dissemination of information to all road users.
- Fleet safety technology, including driver alerts, smaller vehicles, telematics, and intelligent speed assistance.

[46] Students Against Destructive Decisions, https://www.sadd.org/
[47] National Youth Leadership Council, "Project Ignition," https://nylc.org/project-ignition/
[48] NHTSA, "Peer-to-Peer Teen Traffic Safety Program Guide," March 2019, https://www.nhtsa.gov/document/peer-peer-teen-traffic-safety-program-guide
[49] District DOT, "Vision Zero 2022 Update," October 2022, https://visionzero.dc.gov/pages/2022-update

Accessibility in Countermeasures

Proactive engagement with people with disabilities will help ensure that the Vision Zero countermeasures you undertake do not have adverse responses. For example, street designs to avoid risky conditions may incorporate features such as bike lanes, shared spaces for vehicles and pedestrians, or floating bus stops that people with visual or auditory disabilities may not be familiar with.[50] People with visual disabilities often rely on their memory of street conditions and conventional street designs and audible cues — changes, temporary or permanent, may affect their ability to navigate safely. People with auditory disabilities require space to communicate and visually and physically understand their surroundings.[51] It is also important to keep a variety of factors in mind when designing pedestrian corridors, including texture, and color, all of which can provide subtle clues to people with disabilities. In addition, solicit early and frequent feedback from disability advocacy groups to ensure street safety changes are inclusive to their needs.

Example: Considering Diverse Needs

When making improvements for the Walnut Ave. Bikeway, the City of Fremont, CA solicited feedback from students at the nearby school for the blind. The city looked for input to determine the correct number of truncated domes for blind users to avoid confusion and prevent them from getting stuck in the middle of an intersection when crossing.

[50] Montgomery County DOT, "Planning and Designing Streets to Be Safer and More Accessible for People with Vision Disabilities," October 2021, https://www.montgomerycountymd.gov/DOT/Resources/Files/MC%20Designing%20Streets%20for%20PVD%20Toolkit_20211007_ADA.pdf

[51] Alexa Vaughn, "DeafScape: Applying DeafSpace to Landscape," Ground UP, no. 07 (May 17, 2018): 104–7.

Section 3: Implementing Your Vision Zero Action Plan

Implementing a Vision Zero Action Plan reflects a paradigm shift on how your community addresses traffic safety and demonstrates a commitment to reaching zero fatalities and serious injuries. Your Action Plan is a living document, with yearly reports on progress made, evaluation, and consistent intervals for updates. Periodic evaluation of your Vision Zero efforts over time and communicating with stakeholders and the community at large about your Vision Zero progress can help increase support for and interest in your Vision Zero initiative.

Implementation

When developing your Vision Zero Action Plan, remember to develop SMART goals to support implementation. Some infrastructure improvements have very long planning and implementation timelines, so it is important to incorporate short-term projects and milestones that will both increase safety and demonstrate the impact of Vision Zero projects. Prioritizing and tracking projects early on is a good way to ensure that the work doesn't feel too overwhelming and allows you to focus on implementing those projects well to demonstrate the effectiveness of Vision Zero.

Highlight: A Tip from the Vision Zero Network

Identify a "Reach Zero Year" for your Vision Zero Action Plan. Doing this will help your organization set short-, medium-, and long-term Vision Zero goals and assign tasks to stakeholders along the way. Having a date by which you plan to "reach zero" will also ensure that you have developed a long-term strategy for eliminating fatalities and serious injuries on the roadways.[52]

For each strategy that you identify in your Action Plan, include any related action items, the estimated cost, an expected completion date, and a lead stakeholder responsible for oversight and management. Where possible, assigning specific budget sources to strategies can help encourage completion. You should be willing to revisit and evaluate strategies and action items as your plan moves forward and you gather additional information and feedback from stakeholders.

West Palm Beach, FL implemented three speed management projects, redeveloping the corridors and building bike lanes to better protect pedestrians and bicyclists. As part of project planning and implementation, the city conducted community engagement for all three speed management projects, ensuring that the community had a voice in the planning and implementation of the projects. Each project was different and met the needs of the surrounding community.[53]

One consideration is whether to prioritize quick-build projects for changes centered in the built environment. Quick-build street designs use low-cost materials, such as paint, plastic bollards, signs, and pavement markings, among others. This allows for faster implementation of infrastructure projects, allows for testing of new designs, and collection of data to determine effectiveness. Quick-build projects may also be used while designing and/or seeking funding for a more extensive infrastructure project.

---

[52] Vision Zero Network, "Vision, Strategies, Action: Guidelines for an Effective Vision Zero Action Plan," December 2017 (p. 7), https://visionzeronetwork.org/wp-content/uploads/2017/12/VZN_ActionPlan_FINAL.pdf

[53] FHWA, "Vision Zero Success Story — Infrastructure: Speed Management Projects — West Palm Beach, Florida," July 2020, https://safety.fhwa.dot.gov/zerodeaths/docs/WestPalmBeach_SpeedManagement_508.pdf

This may illustrate to the community what the project will look like, while also showing a commitment to addressing safety quickly while working on longer lead time projects.

Example: Arlington, VA's 3-Step Quick-Build Approach[54]

Step 1: Rank projects based on prioritization criteria

The county uses several variables, including:

- High-Injury Network
- Identified Hot Spot
- Recent Crash History
- Equity Emphasis Area
- School Zone
- Systemic Application
- Complexity of Implementation

Step 2: Request survey

Project specifications and feasibility for quick-build timeframe and budget are determined.

Step 3: Publish list

- Project list should include quick-build projects to be implemented in the next year or two.
- Projects that did not make step 1 remain in queue for future consideration.
- Projects deemed too complex for quick-build are recommended for the capital program.

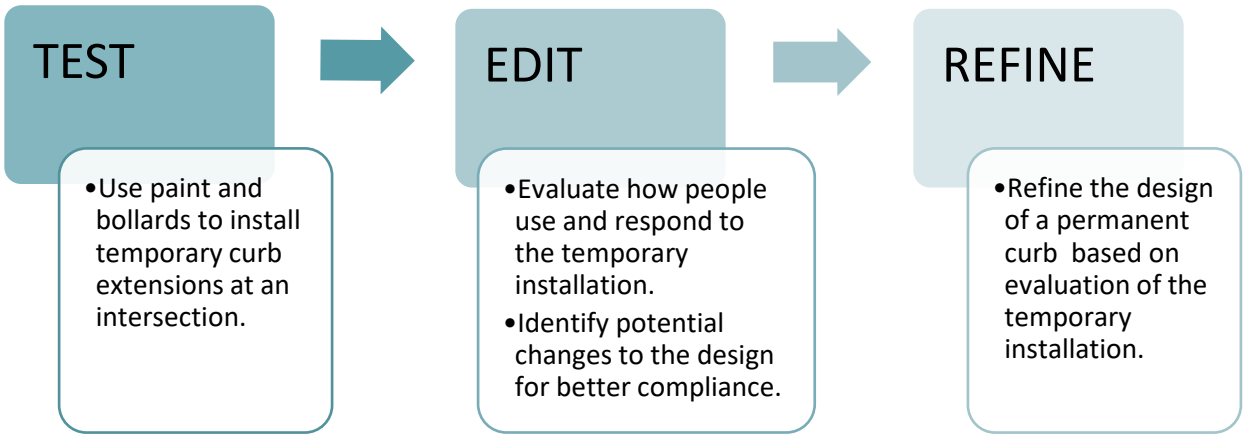
Do recognize that changes to the built environment outside of quick-build projects may not fit within the scope of short- or medium-term goals. Improving infrastructure that has a long history of putting all road users at risk may require long-term target dates. This may not reflect an unwillingness to address safety issues in your community, but rather an opportunity to implement proper investments to address extensive safety issues.

Evaluation

Evaluation is important to ensure your Vision Zero Action Plan is meeting your stated goals. Internal evaluation and published progress reports help inform the community at large of the successes, or areas to improve, of your Action Plan. Just as the work of achieving Vision Zero requires robust community engagement, communicating your progress requires multiple methods of engagement, from written reports to community forums, or other interactive ways to reach out to your community.

The graphic below illustrates how you might use evaluation to improve your strategies and projects. Short-term and quick-build projects are a great way to iterate on potential long-term, capital projects and improve safety impact.

[54] Arlington County Vision Zero, "Quick-Build Project Prioritization," https://www.arlingtonva.us/files/sharedassets/public/transportation/documents/quick-build-prioritization-1.pdf



Source: Volpe

Your Vision Zero Action Plan will help guide your evaluation process. Each of the actions stated in your plan needs to be evaluated on at least a yearly basis to determine impact and progress. Consider the following methods to evaluate your work, but other methods can also be used if you deem them appropriate:

- Crashes and killed or seriously injured: compare recent crash data with historical data. Consider including data regarding close calls, speeding, and risky driving (such as reckless driving or driving under the influence), as well as providing updates specific to your HIN.
- Enforcement: provide data on traffic violations that are directly related to risky driving behavior, including data from speed safety cameras or red-light cameras.
- Funding and resources: provide information on funding and other resources allocated to Vision Zero, as well as staffing updates.
- Community engagement and education: provide information on community engagement, including number of community-facing events, meetings with community representatives, and people reached. Also consider documenting how Black and indigenous people, low-income people, disability groups, and other minority populations in your community were engaged. Include feedback and data collected in public-facing events, interviews, surveys, and public comments.
- Transportation: track changes in traffic volumes and mode share. Where possible, incorporate roadway data that goes beyond commuting trips or peak hour volumes to gain a better understanding of the overall roadway system.
- Other metrics to consider monitoring include EMS response times, change in EMS equipment, roadway clearance times, school outreach, safety upgrades on fleet vehicles, and others.

In addition to system-wide evaluation, evaluate each of your projects and note what changes have occurred after implementation. This can determine if further refinements or additional improvements are needed to achieve your goals for that project. The Hillsborough County Metropolitan Planning Organization in the Tampa, FL area supported a project with the Hillsborough County Public Works Department to redesign a section of roadway on Fletcher Avenue that had known safety issues for pedestrians and bicyclists. After the redesign, crash data was analyzed for three years prior to and three

years after the redesign to establish whether reductions in fatalities and serious injuries occurred. The evaluation found that the redesign decreased travel speeds, increased walking and biking volumes, and decreased injuries and fatalities. The evaluation also made note of behavioral changes from the redesign, such as increased crosswalk and push-button use. Overall, the evaluation showed the project's impacts and created an example for future investments in similar projects in the surrounding region.[55]

Accountability and Transparency

Accountability and transparency are key components of a strong Vision Zero initiative. Measuring the effectiveness and publicly showing changes over time can provide stakeholders and community members with a sense of trust. Showing the processes of adopting and following through on meeting goals and timelines holds your Vision Zero stakeholders accountable.

Accountability and transparency can be provided to the public in multiple ways. Publicly available data websites that show categories such as crashes, fatalities, traffic stops, outreach activities, and funding can help the public understand the impacts of Vision Zero efforts. Establishing regular meetings with a Vision Zero Task Force and inviting members of the public to attend can also provide a way for the community to hold your team accountable.

Strategy: Hold Yourself Accountable

An important part of implementing Vision Zero is reporting on the outcomes of your Action Plan strategies. You can use this reporting to celebrate successes and identify opportunities to address barriers to progress. This kind of transparency will develop trust between stakeholders and your Vision Zero team.

Consider the following ways to publicly provide information regarding your Vision Zero work:

- Vision Zero Update Reports
- Vision Zero Data Dashboard (including crashes and killed or seriously injured by travel mode, street safety projects, and other data to track implementation)
- Vision Zero Action Plan Progress Scorecards
- Outreach events at project locations to highlight the impact and gather feedback
- Vision Zero Town Halls

Advocacy organizations may publicly measure Vision Zero progress and report information. In one example, WalkDenver (now the Denver Streets Partnership), a coalition of advocacy groups for people-friendly streets, used annual report cards to call attention to Denver's progress toward Vision Zero goals. In 2018, the report card focused on one theme from the City of Denver's 2017 Vision Zero Action Plan: Build Safe Streets for Everyone. For scoring, WalkDenver focused on the HIN and Communities of Concern, as half of Denver's traffic fatalities occurred on 5% of the city's streets. WalkDenver gave the City of Denver a final score of C, which reflected the city's limited staffing for Vision Zero, and the report card information was released at a city-sponsored press conference. This provided the City of Denver with the impetus to reevaluate its internal processes and rethink how it measures impacts of infrastructure investments.[56] In 2021, the Denver Streets Partnership released a follow up report card. Though some of the results were impacted

[55] FHWA, "Vision Zero Success Story—Infrastructure: Fletcher Avenue Complete Streets Redesign, Hillsborough County, Florida," https://safety.fhwa.dot.gov/zerodeaths/docs/Hillsborough_CompleteStreets_Final_508.pdf
[56] Vision Zero Network, "Webinar Recap: Measuring Vision Zero from the Outside," May 2, 2019, https://visionzeronetwork.org/webinar-recap-measuring-vision-zero-from-the-outside/

by the COVID-19 pandemic, the report card noted that while the city's overall grade increased to a B-, some key areas like sidewalk improvements were still needed.[57] Report cards, and similar accountability tools, provide stakeholders with the impetus to continually strive for zero fatalities and serious injuries.

Embedding Organizational Practices

We know that Vision Zero cannot be achieved overnight and crashes and injuries may increase during implementation of Vision Zero, highlighting abnormal circumstances that may be reflective of wider trends beyond the limits of your community. During periods of success and struggle, it's important to remain consistently committed to your Vision Zero Action Plan. To achieve Vision Zero, cultural changes are required across different organizational levels. Communities engaging in Vision Zero can work to establish provisions that ensure continuity. Some methods to ensure this include identifying staff for promotion into Vision Zero-specific work and engaging new hires in safety initiatives at the start of their employment. In addition, the lead Vision Zero agency can help educate and encourage other agencies and stakeholders to integrate safety in their policies and programs.

Communication plays a major role in growing and sustaining a Vision Zero culture. Cities such as Boston, MA have noted that having an internal culture shift and securing buy-in across departments ensured that Vision Zero is prioritized. Boston, MA developed a regular check-in process to strengthen cross-departmental Vision Zero work, allowing public engagement to be more consistently applied across departments. Other cities have also developed specific internal communication materials to further inform and embed Vision Zero. These include brown bag presentations, discussions including senior leadership, citywide staff email blasts, and one-on-one conversations with key staff members in each city department. In addition, reorganizing departments can help in breaking down work silos in the name of Vision Zero. Positions that frequently work together, such as engineers and planners, can be housed in the same department and help facilitate the speed and efficacy of implementation. Also consider other roles that would help achieve Vision Zero in a holistic manner, such as public health professionals and communications experts, and incorporate their work into agencies tasked in implementing Vision Zero. Ongoing interagency meetings and trainings can also be effective ways to improve communications and collaboration.

Funding and Resources

Funding is a key component of a successful Vision Zero initiative and collaborating across departments or agencies to share costs can be an effective way to secure support and buy-in of Vision Zero. Vision Zero partners may have access to different resources that can be leveraged to support projects or initiatives. Traditional budgeting structures within government agencies may make it difficult to cost share across different departments or agencies, so it is important to maintain relationships with partner agencies, leadership, and financial management offices to support creative ways of funding Vision Zero.[58] For additional information, see Section 1: Building Support and Establishing Vision Zero.

Potential partners at local, regional, State, and Tribal levels include, but are not limited to:

[57] Denver Streets Partnership, "The Denver Streets Partnership Releases the 2020 Vision Zero Action Plan Progress Report Card," May 26, 2021, https://denverstreetspartnership.org/the-denver-streets-partnership-releases-the-2020-vision-zero-action-plan-progress-report-car/

[58] Vision Zero Network, "Joint Departmental Vision Zero Budget Requests: An L.A. Case Study," September 1, 2016, https://visionzeronetwork.org/joint-departmental-vision-zero-budget-requests-an-l-a-case-study/

- Transportation
- Public Works
- Transit
- Planning and Development
- Police
- Education
- Parks and Recreation
- Fire
- Housing
- Public Health
- Sanitation
- Emergency Management

Strategy: Engage New Partners to Support Vision Zero?

There may be departments that are unique to your locality that do not fall within categories listed that you may consider. This can include departments that oversee nightlife (including liquor licenses), immigration services, community development, or youth and senior programming, among others.

State DOTs are common sources of roadway project funding, and your State may have dedicated funds for projects that promote safety. These funds may come from Federal or State sources of funding and include programs like the Highway Safety Improvement Program (HSIP) and Surface Transportation Block Grant (STBG) Program. State-administered programs often require that projects be planned through local transportation planning processes, which are often coordinated by an MPO. It is useful to have partners in your State DOT and local MPO that may be able to provide guidance on State and Federal funding opportunities and requirements.

Federal-level Vision Zero funding opportunities also exist. Using the USDOT's Grants website and USDOT Discretionary Grants Dashboard, your community can search for applicable grants, such as the SS4A Grant Program, which provides funding for Vision Zero Action Plans and implementation of projects and strategies from existing eligible Action Plans.[59,60,61] The USDOT Navigator tool is also a valuable resource to help communities understand the best ways to apply for grants and plan for projects.[62] The USDOT Thriving Communities Program offers technical assistance and capacity building resources to improve and foster thriving communities through transportation improvements.[63] The USDOT has also created an in-depth chart detailing pedestrian and bicycle funding opportunities.[64]

Most USDOT grant programs require a local match, either in a form of cash or in-kind from other sources. Other grants, including those from States or advocacy organizations, may also have match requirements. It is useful to consider how Vision Zero partners may be useful in meeting match requirements. Staff time and other resources provided by partner agencies or organizations to support Vision Zero may count as match for a grant application if those efforts are tied to the project(s) included in the application.[65] Some grant programs allow reduced match when the grant program is targeting a

[59] USDOT, "Grants," https://www.transportation.gov/grants, accessed June 8, 2023.
[60] USDOT, "DOT Discretionary Grants Dashboard," https://www.transportation.gov/grants/dashboard
[61] USDOT, "Safe Streets and Roads for All (SS4A) Grant Program," https://www.transportation.gov/grants/SS4A
[62] USDOT, "DOT Navigator," https://www.transportation.gov/dot-navigator
[63] USDOT, "Thriving Communities Program," https://www.transportation.gov/grants/thriving-communities
[64] FHWA, "Pedestrian and Bicycle Funding Opportunities," https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.pdf
[65] USDOT, "SS4A Match and Cost Share Examples," https://www.transportation.gov/grants/ss4a/match-and-cost-share-examples

particular type of entity or issue. In some cases, urban, rural, or Tribal communities may qualify for match flexibility for certain grants.

Federal grants are generally announced through a Notice of Funding Opportunity (NOFO), which will define eligible costs that can be covered by the grant, as well as match requirements. It is important to understand these requirements, which may vary across grant programs.

For Federal grant programs, other federal funds generally cannot be used to meet match requirements. This does not mean, though, that matching funds must come from your jurisdiction's budget. A non-local entity, such as the State, may provide matching funds on behalf of the local jurisdiction, as long as those funds do not originate from a Federal source. Note that there are some Federal grant programs that do allow "federal fund braiding," which allows funds from one Federal program to meet the match requirements of another.[66]

Strategy: Understand Match Requirements

When thinking about applying for a grant, review the match requirements and consider various resources that you may be able to leverage. In general, match can be provided in the form of **cash** and/or **in-kind resources**. You may be able to get creative and work with your partners to put together your match.

Cash match is a portion of the total project cost that comes from somewhere other than the Federal grant source. Work with your partners, as these funds might come from your jurisdiction or a partner jurisdiction, the State, or the private sector or a non-profit partner.

In-kind match may be more complicated, but also may provide more flexibility for communities with limited available funds. In general, you will estimate the cash value of in-kind resources and count that toward your match. Depending on the grant, in-kind match may include:

- **Personnel:** Staff hours dedicated to project implementation or grant management. Volunteer hours from community groups may count toward match.
- **Goods:** Materials used for engagement or implementation. Donated materials and materials provided by partners may count toward match.
- **Services:** Purchased or donated services provided by third parties, which may include design work, community engagement support, or data analysis.
- **Space/Utilities:** Cost of space and any related utilities used for the project. Consider space rented or donated for community engagement efforts.

Improving Communications

Through Vision Zero, there is an opportunity to reframe conversations around traffic safety, which may also lead to behavioral changes. Consider the various ways you will share Vision Zero messaging and the communities you would like to reach. Social media may be an effective method to reach youth, while utilizing radio or print advertising may reach more older adults. Also, importantly, translate and

[66] USDOT, "Understanding Non-Federal Match Requirements," January 12, 2023, https://www.transportation.gov/grants/dot-navigator/understanding-non-federal-match-requirements

disseminate your communications materials for non-English speakers as well, using the demographics of your community as a basis for translations.

Cultural change also requires collaborating with and conducting outreach to different groups. Some stakeholders may already understand the importance of traffic safety for their community; however, for others, more education and a cultural shift may be necessary. Communications trainings for members of your Vision Zero team and media toolkits are an important tool to prepare stakeholders to share Vision Zero plans and strategies and frame discussions around traffic safety.[67] Messaging will shift over time as the community's understanding of Vision Zero shifts and the Action Plan steps are implemented.

Strategy: Reframing the Narrative Around Traffic Safety Culture

When crafting the narrative of your traffic safety problem, remember that language plays an important role in safety culture. Here are some tips:

- **Use "crash," not "accident"**
  Traffic crashes, injuries, and fatalities are preventable. The word "accident" leads the public to interpret crashes as inevitable, or an event that occurs by chance.
- **Create community accountability and emphasize shared responsibility**
  It is easy for people who rarely walk or bike to ignore messaging about protecting people walking and biking because they don't see themselves as impacted. Messaging that includes all members of your community in Vision Zero can increase accountability.
- **Acknowledge universal benefits**
  Investments in infrastructure for a particular user group (like people biking or walking) may create an "us vs. them" or "bikes vs. cars" mentality. Identify and communicate benefits to other road users or positive impacts to the local economy that may come from a particular investment to include the whole community in the improvement.
- **Report on fatalities with a public health lens**
  Deaths due to traffic crashes are not singular, isolated events. Each crash is part of a larger public health issue. To contextualize each incident, reference local data on crashes, injuries, and fatalities.
- **Look closely at counterfactual statements**
  Statements that infer what could have happened under other circumstances may shift blame. One example of this is focusing on a pedestrian who was hit wearing headphones or dark clothing, rather than focusing on other factors, like lighting or roadway design, that led to the crash.

In one example, Richmond, VA hosted a kick-off event for their Vision Zero Action Plan in 2017 to bring together community and governmental partners to commit to the shared vision of zero fatalities and serious injuries. Richmond's strong partnerships in the community helped integrate a culture of safety and Vision Zero practices across various governmental departments and within the community. Internally, to start leveraging and building partners, the Richmond Engineering Department reached out to all departmental leadership to emphasize how Vision Zero fit into each department's mission, and to

[67] Delaware Valley Regional Planning Commission, "Reporting Traffic Crashes," https://www.dvrpc.org/Reports/PM21007.pdf

brainstorm ways to include tailored messaging that linked Vision Zero directly to the departments' missions.[68]

For additional information on communications and collaboration, refer to Cooperation, Collaboration, and Community Engagement in Section 1.

Meaningful Community Engagement

Engaging with the community should occur through all phases of Vision Zero, as evidenced by the community engagement in Sections 1 and 2 of this toolkit. However, it is also important to remember that the community can become "burned out" on engagement if they feel that they are consistently being asked for feedback, but no visible actions are resulting from it. Though implementing Vision Zero takes time, being transparent with the community with regular status updates on Vision Zero can help them understand that their input matters and is making a difference in the process. In order to continually engage with the community on Vision Zero, consider the following:

- Hold meetings at various days and times to engage people with different work and family schedules.
- Use community spaces such as churches, libraries, community centers, schools, and parks to be closer to where people live, work, and play.
- Find locations near transit, with accessible sidewalks and walking access, and/or near bike trails or roads with bike lanes.
- Attend events and meetings held by other agencies or organizations to avoid schedule conflicts.
- Attend and participate in community events where people already are.
- Train community leaders to facilitate public-facing events such as workshops, meetings, informational pop-ups, etc.
- Conduct surveys with online or in-person options.
- Provide interpretation and translation of resources and engagement tools (flyers, handouts, presentations, follow-up materials, etc.) into common languages in your community. This includes captioning and American Sign Language interpretation.
- Use language and terminology that is easy to understand for people without a background in transportation planning.
- Consider how to reach people with limited internet access. Identify community organizations that can host "watch parties" and encourage people to use resources like community centers and libraries to access the internet.

Including Multilingual and Multicultural Outreach and Educational Programming

Understanding your community's needs is essential to ensure your messaging reaches across different languages and cultures. For example, Philadelphia, PA has partnered with local community organizations such as the *Asociación Puertorriqueños en Marcha* to organize community walks and engage the Spanish-speaking community in their Vision Zero efforts and encouraged participation on the task force.

[68] FHWA, "Promoting Vision Zero: Case Study from Richmond, Virginia," June 20, 2023, https://highways.dot.gov/safety/zero-deaths/promoting-vision-zero-case-study-richmond-virginia

In addition, the task force partnered with non-profit organizations to distribute and translate surveys into Spanish, Chinese, and Russian.[69]

Communities of color are not only disproportionally impacted by traffic injuries and fatalities, but they are also underrepresented in traditional community engagement methods, such as community meetings and task forces. These traditional community engagement methods are often held in the afternoons and evenings during the week, which is more accessible for people with job flexibility and those that typically work during the weekday but may not be accessible to people who work evening and weekend shifts or who care for children or older family members in the evenings.

To reach a wider audience, consider incorporating engagement methods that meet people where they are, including intercept surveys, engagement at community events such as street festivals, places of worship, commercial areas, and transit stops.

Example: Reaching People Where They Are

When Anchorage, AK began creating a Vision Zero Action Plan, they recognized the inherent difficulties of reaching traditionally underserved Black, Indigenous, and People of Color (BIPOC) residents and households with limited English proficiency, low-income, and limited vehicle access, among others.

To incorporate more equitable Vision Zero strategies and evaluation measures, Anchorage's Vision Zero team talked to more than 150 people near transit stops. Most respondents surveyed identified themselves as people who are Indigenous, American Indians, or Alaska Natives (40%). When compared to the city's Indigenous, American Indian, or Alaska Native population (7.5%), it demonstrates the effectiveness of reaching to BIPOC communities in non-traditional ways.[70]

The Pueblo of Laguna, a federally recognized Tribe in New Mexico, tasked their Community Bicycling and Walking Advisory Group (CBWAG) to create a community engagement plan to gather input from Tribe members about their needs, with the goal of reconnecting the Pueblo's six villages with pedestrian and cycling infrastructure. The Pueblo hosted workshops and open houses with over 230 participants, as well as creating focus groups to represent the most vulnerable people in the community (elders, youth, CBWAG, and people with disabilities) to allow for their direct input through the entire process.[71] The process resulted in a road diet and the addition of a bike lane on a State highway within the Tribal lands.[72]

[69] Kathleen Ferrier, "The Secret to Great Data in Vision Zero?" Vision Zero Network, January 29, 2018, https://visionzeronetwork.org/secret-to-great-data-the-community/

[70] Municipality of Anchorage, "Anchorage Vision Zero: Year One Update," September 2019, https://www.muni.org/Departments/OCPD/Planning/AMATS/Documents/Vision_Zero/2019/Anchorage_VZ_Annual_Report%20Dec%202019.pdf

[71] Alta Planning + Design, "Bicycle and Pedestrian Route Plan Pueblo of Laguna," Pueblo of Laguna, May 2012, https://www.lagunapueblo-nsn.gov/wp-content/uploads/2021/02/Pueblo-of-Laguna-Bike-and-Pedestrian-Route-Plan-2012.pdf

[72] National Center for Safe Routes to School, "Walking and Bicycling in Indian Country: Safe Routes to School in Tribal Communities https://www.tribalsafety.org/walking-and-bicycling-in-indian-country-safe-routes-to-school-in-tribal-communities

Engaging Multi-Generational Age Groups in Planning and Policy

Youth and older adults offer unique needs and perspectives on safety. Consider the context for each group in your community and engage with them in ways that make sense based on the issues they are facing. For example, if older adults are disproportionately represented in pedestrian crashes, work with local organizations on pedestrian safety initiatives for older adults and work with the community to find ways to address their issues.

Youth provide a unique perspective for Vision Zero. As a population that either travels independently without a car or relies on others for transportation, their direct engagement can be a valuable resource in achieving Vision Zero. Meaningful engagement with youth involves including them as partners in planning, policy, and design of activities for Vision Zero. This provides youth with the power to help shape the transportation safety system and can create a future generation of transportation leaders.[73]

Strategy: Engage Youth

Direct involvement with younger residents can provide a different perspective on traffic safety. Ways to engage with them include:[74]

- Interviews
- Focus groups
- Youth advisory boards or committees
- Youth and adult-led initiatives
- Youth and student-led groups
- Opportunities for project leadership

Consider collaboration with student-led or -centered organizations, including:

- National Organization for Youth Safety[75]
- Students Against Destructive Decisions[76]
- Teens in the Driver Seat[77]
- Vision Zero for Youth[78]

Other organizations to consider partnering are available can be found at NHTSA's Peer-to-Peer Teen Traffic Safety Program Guide.[79]

In what other ways do you plan to engage with youth in your Vision Zero work?

[73] Jacob Smith, "Bring Youth Power into Local Transportation Safety Efforts," National League of Cities, August 1, 2022, https://www.nlc.org/article/2022/08/01/bring-youth-power-into-local-transportation-safety-efforts/
[74] Jessica Shakesprere, Mica O'Brien, and Eona Harrison, "Youth Engagement in Collective Impact Initiatives: Lessons from Promise Neighborhoods," Urban Institute, December 2020, https://www.urban.org/sites/default/files/publication/103408/youth-engagement-in-collective-impact-initiatives_2.pdf
[75] National Organization for Youth Safety, https://www.noys.org/
[76] Students Against Destructive Decisions, https://www.sadd.org/
[77] Teens in the Driver Seat, https://www.t-driver.com/
[78] Vision Zero for Youth, https://www.visionzeroforyouth.org/
[79] NHTSA, "Peer-to-Peer Teen Traffic Safety Program Guide," March 2019, https://www.nhtsa.gov/document/peer-peer-teen-traffic-safety-program-guide

There are multiple ways to involve youth in Vision Zero. For example, the Montgomery County, MD DOT has a Vision Zero Youth Ambassador Program that selects local high school students as ambassadors to participate in an eight-week program that teaches different aspects of Vision Zero and take part in Vision Zero projects in Montgomery County. The students develop leadership skills to address the traffic safety concerns of their community.[80]

In addition, youth engagement strategies require dedicated staff members, materials and meeting space, and funds for travel, training, and events. Since 1996, the City of Hampton, VA has employed youth planners as staff members of the City's Planning Division, with access to all resources a city employee has. Youth planners have developed the city's youth component of their comprehensive plan.[81,82]

Older adults are another group that can provide a unique perspective. People aged 50 and over are overrepresented in pedestrian fatalities, with people over 75 years old being the demographic group with the highest proportion of pedestrian fatalities.[83] Meanwhile, current projections estimate that by 2030, one in five Americans will be older than 65 years old.[84] Addressing traffic safety issues for older adults now will ensure that the increase in aging population will not result in higher numbers of traffic fatalities or injuries.

Beyond including representatives of older adults in Vision Zero-specific committees and working groups, it is important to implement engagement tailored toward seniors to integrate them into your Vision Zero plan. Engaging them at senior centers, religious institutions, and senior housing complexes will allow for direct engagement opportunities. Coordinating with local non-profits and local chapters of national senior advocacy groups can also provide ways to learn more on issues related to older adults.

Consider traditional and ethnic media outlets as well: the City of Seattle had more than 18 million impressions in a two-year span by placing ads in print and online newspapers targeting elderly African American, Vietnamese, and Somali communities.[85]

Reaching People with Disabilities

When hosting community meetings, it is important that locations are compliant with the Americans with Disabilities Act (ADA) and that sign language interpreters and other alternate formats are provided when possible. For meetings using remote platforms such as Zoom, providing live captions and American Sign Language interpreters is preferred over auto-generated captions.[86]

---

[80] Montgomery County DOT, "Montgomery County Youth Vision Zero Ambassador," https://www.montgomerycountymd.gov/DOT-pedsafety/VZYA/

[81] City of Hampton, "Youth Planners," https://hampton.gov/1787/Youth-Planner-Program

[82] City of Hampton, "Youth Component of the Community Plan," https://hampton.gov/2314/Youth-Component-of-the-Community-Plan

[83] Smart Growth America. "Dangerous By Design 2021," https://smartgrowthamerica.org/wp-content/uploads/2021/04/Dangerous-By-Design-2021-update.pdf

[84] Jonathan Vespa, Lauren Medina, and David M Armstrong, "Demographic Turning Points for the United States: Population Projections for 2020 to 2060," U.S. Census Bureau, February 2020, https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf

[85] City of Seattle, "Vision Zero 2017 Progress Report," https://www.seattle.gov/Documents/Departments/beSuperSafe/VZ_2017_Progress_Report.pdf

[86] Alexa Vaughn-Brainard, "The Insensitivity of Sensitivity Studies," Ground UP, no. 10 (July 2021): 80–85.

Some communities have an accessibility specialist or liaison that can be engaged in Vision Zero. Ideally, this person would work in the agency tasked with implementing Vision Zero, but they may work in a different department, which is a great opportunity for broader partnerships. For example, in New York City, the DOT's Chief Accessibility Specialist ensures that people with disabilities are present and engaging in their safe streets work by hosting meetings with disability advocates on a quarterly basis. The Chief Accessibility Specialist offers a direct line to the mayor for community members with disabilities and can provide updates and solicit information from both the community and the mayor. This has created a space where community members have the chance to speak with planners, engineers, and policy makers about the policy and design decisions that affect them.[87]

In addition to a position like Accessibility Specialist, there are other creative ways to engage people with disabilities. One option is to work closely with volunteers that can represent and serve as a link to people with disabilities in your jurisdiction. The Greater Portland Council of Governments (GPCOG) in Portland, ME engages volunteer mobility liaisons through their Community Transportation Leaders Program. These liaisons have personal experience with mobility and transportation challenges due to a range of factors, including disabilities, and can describe the challenges faced by themselves and their peers. They work with GPCOG to solve issues faced by their community through training, skill-building, and involvement as committee members of Portland Area Comprehensive Transportation System, the region's metropolitan planning organization. Their work has led to improvements such as the installation of an audible pedestrian signal at a key location and advocating for the adoption of Vision Zero in the region.[88,89]

[87] Quemuel Arroyo, "People with Disabilities in the Conversation," Vision Zero Cities Journal (blog), October 10, 2019, https://medium.com/vision-zero-cities-journal/people-with-disabilities-in-the-conversation-f8dcc5006ef1
[88] Greater Portland Council of Governments, "Mobility Liaisons," https://www.gpcog.org/182/Mobility-Liaisons
[89] Zoe Miller, Kate O'Brien, Kathryn Violette and Marcel Ntagora, "Community Transportation Leaders Program Handbook," 2022, https://www.gpcog.org/DocumentCenter/View/2310/Community-Transportation-Leaders-handbook

Section 4: Continuing Your Vision Zero Journey

Next Steps

Establishing and implementing Vision Zero will take time, but with resources, commitment, and patience it will pay off in the long run. The City of Oslo, Norway began working toward Vision Zero goals in the 1990s, redeveloping streets to become more pedestrian- and bicyclist-friendly and implementing policies that made it difficult to drive in certain parts of the city. These changes helped Oslo reach their zero goal in 2019.[90,91] Closer to home, Hoboken, NJ officially adopted Vision Zero in 2021 with a goal of eliminating traffic-related injuries and fatalities by 2030.[92] Hoboken's initial adoption and implementation was heavily influenced by community input. And, although they formally adopted their Vision Zero Action Plan in 2021, Hoboken had already recorded zero fatality years since 2019. To do that, Hoboken implemented quick build projects and created more pedestrian- and bicycle-friendly infrastructure to make the city more pedestrian-oriented, which decreased pedestrian, bicycle, and vehicle crashes.[93,94]

Many resources are available to guide you through the process of developing, implementing, and evaluating your Action Plan. The FHWA Vision Zero Community of Practice (VZ CoP) provides a compilation of technical resources to assist communities in achieving zero fatalities, including a list of resources related to funding Vision Zero efforts.[95,96] As part of the VZ CoP, FHWA also offers a Vision Zero Community Pairing Program (Pairing Program), matching communities in peer or mentor/mentee pairs. The Pairing Program provides Vision Zero communities at various stages of adoption a platform for sharing information and experiences, assessing strategies and actions, and forging beneficial learning relationships among Vision Zero peers. The Pairing Program is for Vision Zero communities at all stages – from establishing to implementing.[97]

As you work through your journey to establish, develop, and implement your Action Plan, refer back to this document and reach out to your peer communities that are listed as examples to learn more about their experiences.

---

[90] Jessica Murray, "How Helsinki and Oslo Cut Pedestrian Deaths to Zero," The Guardian, March 16, 2020, https://www.theguardian.com/world/2020/mar/16/how-helsinki-and-oslo-cut-pedestrian-deaths-to-zero

[91] Terje Elvsaas, "Best Practices: How Oslo Reached Vision Zero (And How Your City Can, Too!)," Streetsblog USA, October 16, 2020, https://usa.streetsblog.org/2020/10/16/best-practices-how-oslo-reached-vision-zero-and-how-your-city-can-too/

[92] Hoboken Vision Zero, https://www.vzhoboken.com

[93] Eve Kessler, "Eyes on the Street: How Hoboken Has Eliminated Traffic Deaths," Streetsblog New York City, April 6, 2021, https://nyc.streetsblog.org/2021/04/06/eyes-on-the-street-how-hoboken-has-eliminated-traffic-deaths/

[94] Megan Lim, "A New Jersey City Achieved 0 Traffic Deaths in 4 Years with Quick, High Impact Ideas," NPR, August 25, 2022, https://www.npr.org/2022/08/25/1119110757

[95] FHWA, "Vision Zero Community of Practice," https://highways.dot.gov/safety/zero-deaths/vision-zero-cop/vision-zero-community-practice

[96] FHWA, "Funding," https://highways.dot.gov/safety/zero-deaths/vision-zero-cop/funding

[97] FHWA, "Vision Zero Community Pairing Program," https://highways.dot.gov/safety/zero-deaths/vision-zero-cop/community-pairing-program

Additional Resources

Getting Started and Vision Zero Action Plan Development

FHWA, "Lessons Learned from Development of Vision Zero Action Plans," January 2021, https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA-SA-20-073_Lessons_Learned_from_Development_of_Vision_Zero_Action_Plans.pdf

FHWA, "Transportation Safety Planning and the Zero Deaths Vision: A Guide for Metropolitan Planning Organizations and Local Communities," https://safety.fhwa.dot.gov/tsp/fhwasa18024

UNC Highway Safety Research Center, Collaborative Sciences Center for Road Safety (CSCRS), "Guide to Developing a Vision Zero Plan," August 2020, https://www.roadsafety.unc.edu/wp-content/uploads/2020/08/CSCRS_VZGuide_FINAL.pdf

Vision Zero Network, "Moving from Vision to Action: Fundamental Principles, Policies & Practices to Advance Vision Zero in the U.S.," February 2017, http://visionzeronetwork.org/wp-content/uploads/2017/01/MinimumElements_Final.pdf

Vision Zero Network, "Vision, Strategies, Action: Guidelines for an Effective Vizion Zero Plan," December 2017, https://visionzeronetwork.org/wp-content/uploads/2017/12/VZN_ActionPlan_FINAL.pdf

Vision Zero Network, "Where to Start on the Road to Vision Zero," April 21, 2023, https://visionzeronetwork.org/where-to-start/

FHWA, "The Safe System Approach Presentation," January 24, 2023, https://highways.dot.gov/safety/zero-deaths/safe-system-approach-presentation-0

FHWA, "Zero Deaths and Safe System," https://highways.dot.gov/safety/zero-deaths

National Safety Council, "Safety for All Roadway Users," https://www.nsc.org/road

ITE Safety System, https://www.ite.org/technical-resources/topics/safe-systems/

UNC Highway Safety Research Center, "Collaborative Sciences Center for Road Safety, Creating Safer Systems and Healthier Communities: Resource Hub," https://www.roadsafety.unc.edu/profdev/resource-hub/

Vision Zero Network, "Shifting to a Safe System for Everyday Transportation," https://visionzeronetwork.org/shifting-to-a-safe-system-for-everyday-transportation/

Equity and Engagement

FHWA, "Equity in Roadway Safety," https://highways.dot.gov/safety/zero-deaths/equity-roadway-safety

Manal Aboelata, Elva Yanez, and Rebekah Kharrazi, "Vision Zero: A Health Equity Road Map for Getting to Zero in Every Community," Prevention Institute, January 2017, https://www.preventioninstitute.org/publications/vision-zero-health-equity-road-map-getting-zero-every-community

National Center for Safe Routes to School, https://www.saferoutesinfo.org/

USDOT, "Promising Practices for Meaningful Public Involvement in Transportation Decision-Making," October 2022, https://www.transportation.gov/priorities/equity/promising-practices-meaningful-public-involvement-transportation-decision-making

Vision Zero Network, "Elevating equity in Vision Zero communications: A white paper framing the challenges & opportunities," November 2016, https://visionzeronetwork.org/wp-content/uploads/2017/01/VZ-Equity-White-Paper-FINAL.pdf

Vision Zero Network, "Prioritizing Health Equity in Vision Zero Planning," September 2023, https://visionzeronetwork.org/wp-content/uploads/2023/09/Prioritizing_Health_Equit_in_Vision_Zero_Planning.pdf

Countermeasures

Centers for Disease Control and Prevention, "Active Communities Tool Assessment Modules," https://www.cdc.gov/physicalactivity/community-strategies/active-communities-tool/assessment-modules.html

FHWA, "Pedestrian and Bicycle Safety," https://safety.fhwa.dot.gov/ped_bike/

FHWA, "Proven Safety Countermeasures," https://safety.fhwa.dot.gov/provencountermeasures/

FHWA, "Improving Safety for Pedestrians and Bicyclists Accessing Transit," https://safety.fhwa.dot.gov/ped_bike/ped_transit/fhwasa21130_PedBike_Access_to_transit.pdf

FHWA, "Safe System Roadway Design Hierarchy," https://highways.dot.gov/sites/fhwa.dot.gov/files/2024-01/Safe_System_Roadway_Design_Hierarchy.pdf

National Association of City Transportation Officials, Urban Street Design Guide, https://nacto.org/publication/urban-street-design-guide/

NHTSA, "Countermeasures that Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices," Eleventh Edition, https://www.nhtsa.gov/sites/nhtsa.gov/files/2023-12/countermeasures-that-work-11th-2023-tag_0.pdf

NHTSA, "Enforcement & Justice Services," https://www.nhtsa.gov/enforcement-justice-services

Evaluation

Kathleen Ferrier, "Measuring Success in Vision Zero: Examples from Seattle & NYC," Vision Zero Network, June 5, 2017, https://visionzeronetwork.org/measuring-success-in-vision-zero-examples-from-seattle-nyc/

NYC DOT, "Safety Treatment Evaluation (2005-2018)," 2022, https://www.nyc.gov/html/dot/downloads/pdf/safety-treatment-evaluation-2005-2018.pdf

Technical Assistance and Capacity Building

FHWA, "Civil Rights Title VI Toolkit," https://www.fhwa.dot.gov/civilrights/programs/title_vi/toolkit.cfm

FHWA, "Highway Safety Programs: Local Road Safety Plans," https://highways.dot.gov/safety/local-rural/local-road-safety-plans

FHWA, “Highway Safety Programs: Resources,” https://highways.dot.gov/safety/zero-deaths/resources

FHWA, “Transportation Safety Planning and the Zero Deaths Vision: A Guide for Metropolitan Planning Organizations and Local Communities,” https://highways.dot.gov/safety/zero-deaths/tsp-and-zero-deaths-vision-guide-metropolitan-planning-organizations-and-local-2

FHWA, “Vision Zero Community of Practice,” https://highways.dot.gov/safety/zero-deaths/vision-zero-cop/vision-zero-community-practice

USDOT, “Key Notices of Funding Opportunity,” https://www.transportation.gov/bipartisan-infrastructure-law/key-notices-funding-opportunity0