

CORE ELEMENTS FOR VISION ZERO COMMUNITIES

INTRODUCTION

Vision Zero – the strategy to eliminate traffic fatalities and severe injuries – is being adopted by a growing number of communities across North America and beyond. While safe mobility is not a new concept, Vision Zero requires a shift in how communities approach decisions, actions, and attitudes around safe mobility.

A fundamental part of this shift is moving from a traditional approach to a Safe Systems approach toward traffic safety. A traditional approach accepts that a certain number of traffic deaths and severe injuries will occur as unavoidable consequences of mobility and focuses on changing individual behavior to reduce the frequency of these incidents. In contrast, Vision Zero is built on the basis that traffic deaths and severe injuries are preventable. Vision Zero emphasizes a Safe Systems approach, which acknowledges that people make mistakes, and focuses on influencing system-wide practices, policies, and designs to lessen the severity of crashes.

Approaching the issue of safe mobility in a new way can be challenging, even when everyone agrees on the ultimate goal – in this case, safety for all road users. One limitation to the success and proliferation of Vision Zero in this moment is the lack of a unifying definition and “best practice benchmark.” While an increasing number of jurisdictions may call themselves Vision Zero communities, the authentic and ongoing commitment to the fundamental shift in safety perspective can be uneven.

The Vision Zero Network, with support from partners, developed this set of Vision Zero Core Elements to help communities set priorities, work toward tangible results in promoting safety, and benchmark their progress relative to best practices. This resource encourages leaders to focus on the most impactful actions and helps hold them accountable to their Vision Zero commitments.

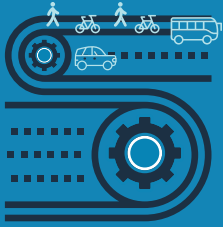
TRADITIONAL APPROACH

Traffic deaths are **INEVITABLE**
PERFECT human behavior
Prevent **COLLISIONS**
INDIVIDUAL responsibility
Saving lives is **EXPENSIVE**

VS

VISION ZERO

Traffic deaths are **PREVENTABLE**
Integrate **HUMAN FAILING** in approach
Prevent **FATAL AND SEVERE CRASHES**
SYSTEMS approach
Saving lives is **NOT EXPENSIVE**



CORE ELEMENTS FOR VISION ZERO COMMUNITIES

Leadership and Commitment

1. Public, High-Level, and Ongoing Commitment.

The Mayor and key elected officials and leaders within public agencies, including transportation, public health, and police, commit to a goal of eliminating traffic fatalities and serious injuries within a specific timeframe. Leadership across these agencies consistently engages in prioritizing safety via a collaborative working group and other resource-sharing efforts.

2. Authentic Engagement. Meaningful and accessible community engagement toward Vision Zero strategy and implementation is employed, with a focus on equity.

3. Strategic Planning. A Vision Zero Action Plan is developed, approved, and used to guide work. The Plan includes explicit goals and measurable strategies with clear timelines, and it identifies responsible stakeholders.

4. Project Delivery. Decision-makers and system designers advance projects and policies for safe, equitable multi-modal travel by securing funding and implementing projects, prioritizing roadways with the most pressing safety issues.

Equity and Engagement

Elevating equity and meaningful community engagement, particularly in low-income communities and communities of color, should be a priority in all stages of Vision Zero work.

Safe Roadways and Safe Speeds

5. Complete Streets for All. Complete Streets concepts are integrated into communitywide plans and implemented through projects to encourage a safe, well-connected transportation network for people using all modes of transportation. This prioritizes safe travel of people over expeditious travel of motor vehicles.

6. Context-Appropriate Speeds. Travel speeds are set and managed to achieve safe conditions for the specific roadway context and to protect all roadway users, particularly those most at risk in crashes. Proven speed management policies and practices are prioritized to reach this goal.

Data-driven Approach, Transparency, and Accountability

7. Equity-Focused Analysis and Programs. Commitment is made to an equitable approach and outcomes, including prioritizing engagement and investments in traditionally under-served communities and adopting equitable traffic enforcement practices.

8. Proactive, Systemic Planning. A proactive, systems-based approach to safety is used to identify and address top risk factors and mitigate potential crashes and crash severity.

9. Responsive, Hot Spot Planning. A map of the community's fatal and serious injury crash locations is developed, regularly updated, and used to guide priority actions and funding.

10. Comprehensive Evaluation and Adjustments. Routine evaluation of the performance of all safety interventions is made public and shared with decision makers to inform priorities, budgets, and updates to the Vision Zero Action Plan.

Read on for more information about implementing these Vision Zero Core Elements in your community.

LEADERSHIP AND COMMITMENT

1. Public, High-Level, and Ongoing Commitment. The Mayor and key elected officials and leaders within public agencies, including transportation, public health, and police, commit to a goal of eliminating traffic fatalities and serious injuries within a specific timeframe.

- Leadership across these agencies consistently prioritizes safety via a collaborative working group and other resource-sharing efforts

High-level leadership and sustained political commitment are essential to Vision Zero success. The Mayor and other key elected officials must set the tone and direction for Vision Zero and back up their words of commitment with action, reflected in spending decisions, policies, and practices that prioritize safety (even when this means a shift from the status quo). Following from this, the leaders of the public health, police, and transportation agencies should be closely involved with the day-to-day work of Vision Zero and ensure consistent interagency coordination. In short, a Vision Zero commitment is only as strong as it is demonstrated in the [actions of the city's leadership and staff](#).

Setting an explicit timeline for Vision Zero is part of this core element because it underscores the urgency of the issue, provides measurability, and incorporates the fundamental [Safe Systems](#) principle that these traffic tragedies are preventable.



2. Authentic Engagement. Meaningful and accessible community engagement toward Vision Zero strategy and implementation is employed, with a focus on equity.

- Engage the community in meaningful, culturally-relevant ways and support involvement by respected community leaders
- Prioritize support of communities most impacted by traffic crashes and most traditionally underserved by safety efforts

Vision Zero efforts should meaningfully engage the community and prioritize equitable processes and outcomes. This is especially true in neighborhoods that often bear the brunt of high-injury streets and where community members may be grappling with the results of historic underinvestment in safe mobility, as well as a multitude of other, interrelated systemic inequities. Community input should be valued and incorporated into Vision Zero planning and implementation.

This includes:

- » Engaging sincerely and with cultural competence, recognizing and respecting the history, culture, and expertise of local communities.

- » Collaborating with community members who are genuinely engaged in neighborhoods and who have strong connections with and respect of locals. These community leaders are likely to convey the experiences, hopes, and concerns of long-time residents in ways that traditional planning processes have not.
- » Using this collaboration to inform project design and implementation, not just as a “listening exercise”.
- » Recognizing that coordination is work, for which community groups deserve compensation to support time commitment, expertise, and long-term engagement. [Additional resources are included in Vision Zero Equity Strategies.](#)

3. Strategic Planning. A Vision Zero Action Plan is developed, approved, and used to guide work. The Plan includes explicit goals and measurable strategies with clear timelines, and it identifies responsible stakeholders.

- The Action Plan and corresponding strategies are built on the Safe Systems approach by designing and maintaining a transportation system where human error does not result in loss of life or severe injury
- Leadership across these agencies consistently prioritizes safety via a collaborative working group and other resource-sharing efforts

The core element for leadership and commitment recognizes that Vision Zero – starting with the Action Plan – is built on the Safe Systems approach, which recognizes that people will make mistakes and that it is the responsibility of system designers and policymakers to set practices and policies to lessen the severity of inevitable crashes.

The Action Plan should include an explicit commitment and related actions to prevent

Vision Zero efforts from resulting in unintended consequences, such as racial profiling or inequitable treatment of communities of color.

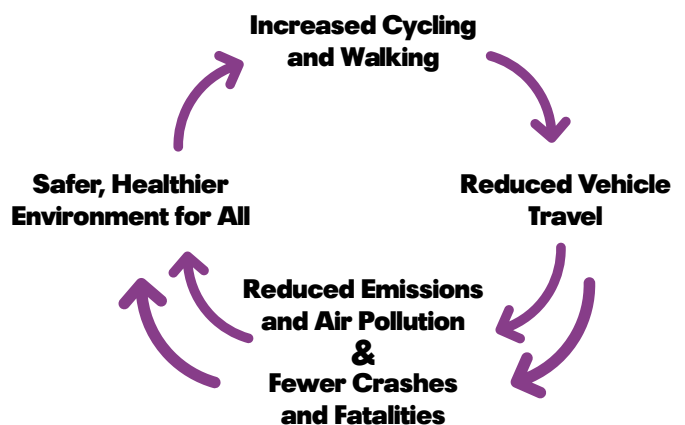
Clear ownership of Action Plan strategies is important to achieving accountability and trust for Vision Zero’s principles and outcomes. More about actionable strategies that have led to Vision Zero success in other cities are included in the [Vision Zero Action Plan Guidelines](#).

4. Project Delivery. Decision-makers and system designers advance projects and policies for safe, equitable multi-modal travel by securing funding and implementing projects, prioritizing roadways with the most pressing safety issues.

- Decision-makers provide leadership on policy reforms needed to prioritize safety
- System designers are supported by city leaders to advance safety projects
- System designers and decision-makers advance crosscutting measures to reduce car dependence, improve transit, and support safe walking and biking

Vision Zero requires more than incremental, individual behavior change. It requires political backbone to advance projects and policies that are proven to improve safety – particularly redesigning roadways and managing speeds – even in the face of opposition to change (e.g., removing parking spaces or reducing speeds for safety benefits).

Moving past the business-as-usual approach also means evolving beyond the cars-first attitude that has dominated transportation policies and practices in the past half-century. [Research shows](#) that encouraging multi-modal transportation reduces Vehicle Miles Traveled and Vehicles per Capita, the two strongest predictors of traffic fatalities. Cities serious about Vision Zero and livable communities are working to increase the proportion of non-auto trips by improving and incentivizing [public transit](#), walking, bicycling, and ridesharing.



This will take a carrot-and-stick approach: investing in strong public transit systems and safe, interconnected bicycling and walking networks; while disincentivizing single occupancy vehicle trips with such strategies as congestion pricing and smart parking pricing.

SAFE ROADWAYS AND SAFE SPEEDS

5. Complete Streets for All. Complete Streets concepts are integrated into community wide plans and implemented through projects to encourage a safe, well-connected transportation network for people using all modes of transportation. This prioritizes safe travel of people over expeditious travel of motor vehicles.

- Multimodal street design and countermeasures prioritize safety over speed
- Safety improvements to roadways are prioritized for people walking and biking and in historically underserved communities

Prioritizing proven engineering countermeasures and multimodal street design is essential to safety.

Examples include:

» Using safe design measures such as advance stop or yield lines, high visibility crosswalks, lane narrowing, pedestrian refuge islands and medians, and physically separated bikeways. More measures – and examples from cities that have implemented them – are described in [NACTO design guides](#), the [Traffic Safety Best Practices Matrix](#), and the [FHWA Achieving Multimodal Networks](#) resource.

» Creating **Slow Zones** in areas with high volumes of children, seniors, public transit users, commercial activity, pedestrian/bicycle activity. Along with lower speeds, self-enforcing traffic calming measures help mark these areas as different and thus encourage safe behavior.

Work toward Complete Streets should prioritize the protection of physically vulnerable road users and investment in historically disadvantaged communities. Performance measures for Complete Streets should include consideration of these communities of concern. Read more on the fundamentals of [Complete Streets elements](#) from the Complete Streets Coalition.

6. Context-Appropriate Speeds. Travel speeds are set and managed to achieve safe conditions for the specific roadway context and to protect all roadway users, particularly those most at risk in crashes. Proven speed management policies and practices are prioritized to reach this goal.

- Roadways are designed (or redesigned) to prioritize safety over speed
- Speed limits are lowered where data and community experience show need
- Automated speed enforcement is implemented where needed, with strategies to address disproportionate impacts on low-income communities

High speeds make crashes more likely and more likely to be deadly. An effective Vision Zero program must manage speed in order to reduce severe and fatal traffic injuries. Efforts to influence individual behavior primarily with education and enforcement campaigns have fallen short.

Addressing speed requires changing organizational practices and reforming policies. Existing practices, such as designing roads for inappropriately high speeds and setting speed limits too high, often prioritize moving more cars over the safety of road users.

Vision Zero calls on system designers and policymakers to better align our systems and policies with goals of safe speeds, including:

- » Measure and analyze the scope of problem related to inappropriate speeds, share this data to raise awareness, and develop measurable improvement strategies with timelines for action.
- » Implement infrastructure changes to prioritize safety over speed. Examples include reducing travel lanes

and adding self-enforcing traffic calming measures to encourage safe travel speeds.

- » Change policies to align with safety goals, including setting appropriate speed limits, particularly where motor vehicle traffic is mixing with those walking and biking.
- » Implement automated speed enforcement where needed, incorporating strategies to measure and address disproportionate impacts on low-income communities and others who may be overly burdened.
- » Raise awareness about speed as a primary factor in traffic deaths and injuries, similar to increased awareness about drunk driving.

In many cases, State and Federal agencies influence speed limits either directly or indirectly. While speed management efforts may be time-consuming and politically challenging, it is critical to Vision Zero success. Cities facing barriers from other levels of government need to make the policy, legislative, or other changes required to advance proven speed management strategies.

DATA-DRIVEN APPROACH, TRANSPARENCY, AND ACCOUNTABILITY

7. Equity-Focused Analysis and Programs. Commitment is made to an equitable approach and outcomes, including prioritizing engagement and investments in traditionally under-served communities and adopting equitable traffic enforcement practices.

- Explicit commitment and actions prevent Vision Zero efforts from increasing disproportionate enforcement levels in communities of color
- Any enforcement efforts within Vision Zero are focused on dangerous moving violations, as identified by quality data analysis

Data and experience reveal that low-income communities and communities of color carry a disproportionate burden of traffic-related injuries and fatalities in the U.S. This is not arbitrary; it reflects patterns of historic under-investment and racial bias in some communities, particularly black, brown and immigrant communities, as well as low-income communities. Vision Zero leaders need to recognize these disparities and to center equity in their work in clear and measurable ways to prevent traffic safety efforts from having unintended, harmful consequences.

The realm of traffic enforcement is a particularly timely and urgent area of attention. It is important that promoters of Vision Zero acknowledge that officer-initiated traffic stops allow for higher levels of individual discretion and unintended gateways to racial bias and even aggressive police action. The broader Vision Zero community has a role and responsibility in improving, not exacerbating, these problems.

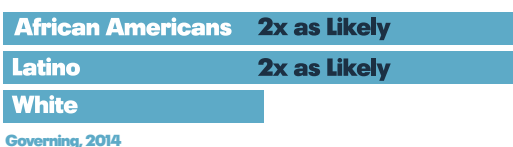
Vision Zero focuses on Safe Systems, not more traffic stops. Cities such as Portland, Oregon are working to prevent over-policing or racial bias from becoming unintended byproducts of their Vision Zero efforts. Portland limits enforcement actions in order to reduce the possibility of racial profiling and disparate economic impacts. [Portland's Vision Zero Action Plan](#) explicitly excludes increased enforcement by police officers. It also offers education classes as alternatives to increased penalties for first time offenders.

Similarly, any enforcement efforts included in Vision Zero strategies should focus on the most dangerous violations. An example is San Francisco's [Focus on the Five](#) program, which commits officers to focus on the five top roadway dangers, such as speeding and violating pedestrians' right of way, rather than on "nuisance" issues such as broken taillights or tinted windows.

Other examples of focusing on equity concerns within Vision Zero efforts include:

» Requiring transparency, including analyzing and sharing data on how traffic funding is spent and how traffic stops are conducted and citations issued, including disaggregating stop and citation data by race.

People Killed While Walking:



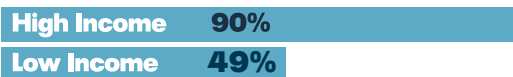
[Governing, 2014](#)

People Killed While Walking:



[Governing, 2014](#)

Communities With Sidewalks:



[Bridging the Gap, 2012](#)

Chance of Being Stopped and Searched:



[New York Times, 2015](#)

» Encouraging accountability by requiring regular discussions amongst policymakers and the public to address equity disparities in efforts and results.

» Requiring equity-based trainings of Vision Zero staff, including law enforcement officials, and including equity-based measurements of their efforts.

» Investing in automated speed enforcement's proven safety effectiveness and lower risk of racial profiling. Efforts should be made to avoid disproportionate impacts of fines on low-income communities, such as setting up alternative fee structures.

» Recognizing that we cannot enforce (nor educate) our way out of today's traffic safety problems, so we need to better design roadways and manage speeds for safety.

[Additional resources are included in Vision Zero Equity Strategies.](#)

8. Systemic, Proactive Planning. A proactive, systems-based approach to safety is used to identify and address top risk factors and mitigate potential crashes and crash severity.

- Data is used to identify trends of problems, which are addressed systematically rather than as isolated incidents

Vision Zero's Safe Systems approach means moving from purely rearward crash map reviews to more forward-facing identification of problem areas and working to prevent severe crashes before they happen. This means determining, analyzing, and addressing the underlying risk factors that influence dangerous actions: the where, how, and why serious crashes happen.

For example, based on analysis showing a trend of left-turn vehicle movements being particularly dangerous on certain types of streets, New York City's Department of Transportation is proactively addressing areas with proven countermeasures, rather than reacting to each individual problem after serious crashes occur. More examples of proactive approaches to addressing top risk factors are shared in this [summary and webinar](#).

9. Responsive, Hot Spot Planning. A map of the community's fatal and serious injury crash locations is developed, regularly updated, and used to guide priority actions and funding.

- Top risk factors and locations of serious traffic crashes are identified, mapped, and utilized
- Quality data on traffic deaths and serious injuries are posted publicly and updated regularly

The community should develop a High Injury Network (HIN) derived from quantitative ("hot spot" problem locations) and qualitative data (based on community input) to inform its prioritization and implementation.

Recommendations include:

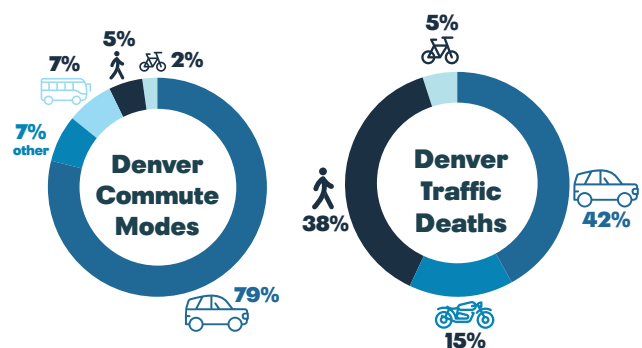
- » Identify top risk factors and locations of serious traffic crashes.
- » Include equity-driven data (such as locations of low-income communities and communities of color) and commit to prioritizing actions and funding in areas of overlap with the HIN.
- » Include speed as a data layer. A large proportion of serious crashes occur on roads with higher speed limits – often arterials and state-owned roads – which require the aforementioned work on speed.
- » Collaborate within and between city agencies. Work to address problems on the HIN is an important place to involve the Vision Zero Taskforce.
- » Utilize this information and coordination to prioritize and implement strategies.
- » Post and regularly update data on traffic deaths and serious injuries – beyond police reports.

of physically vulnerable populations and communities traditionally underserved by traffic safety efforts. Police-collected data should be supplemented with information gathered by hospitals and emergency medical services. Analysis shows that people involved in traffic crashes who are part of systemically marginalized communities are less likely to report traffic crashes and that, when they do, their reports are less likely to be treated adequately. Increasingly, communities are supplementing their police crash records with public health data for a fuller picture, as described [here](#).

For more information, see this [Vision Zero Network case study](#) and [webinar](#).

Data analysis and public input should highlight unsafe locations, and this should be overlaid with locations

Data can help identify disproportionate safety impacts



50% of Denver's traffic fatalities occur on just 5% of their streets

10. Comprehensive Evaluation and Adjustments. Routine evaluation of the performance of all safety interventions is made public and shared with decision makers to inform priorities, budgets, and updates to the Vision Zero Action Plan.

- Regular progress reports are produced and shared publicly
- Use of pilot implementation and community feedback shape safety efforts

Monitoring efforts and impacts, updating and sharing data regularly, and institutionalizing Vision Zero in the city's systems will help build trust and set expectations for accountability between key stakeholders.

This includes:

- » Proactively monitor, evaluate, and share progress, including regular public progress reports, such as these from [New York City](#) and [Seattle](#).

- » Use comparative data to link social and environmental factors with traffic injury data to better understand connections and strategies for improvements.

- » Use temporary pilot programs or projects to test strategies within shorter timeframes and for less cost investment.

NEXT STEPS

We share these Core Elements recognizing the urgency of the issue before us: an average of 100 people lose their lives each day in this nation in traffic crashes. This loss and suffering is preventable, and we have a responsibility to prevent these tragedies.

We also recognize that resources, time, and political will are all limited. What we do matters. Vision Zero is not just a tagline, not even just a program, but rather a fundamental shift in how our communities approach the issue of safe mobility. To make a real difference, it will take a firm commitment to change.

Implementing Vision Zero requires 1) leadership and commitment to safety, 2) implementing safe roadways and safe speeds, 3) ongoing transparent use of data, and 4) centering equity and community engagement throughout.

Committing to and meaningfully incorporating these Core Elements can help Vision Zero communities prioritize efforts, benchmark progress, set expectations, and ensure accountability. Each Core Element is important to advance the ultimate goal of safe mobility for all.

ACKNOWLEDGEMENTS

We are honored to support the work of public sector staff and community-based leaders and advocates around the country to reduce traffic deaths and severe injuries. We appreciate valuable input from many partners, including Clay Veka, Dana Weissman, Jeff Lindley, Jeff Paniati, Lainie Motamedi, Megan Wier, Meghan Mitman, Nicole Ferrara, Richard Retting, Stacy Thompson, and Veronica Vanterpool. This report's primary authors are Jenn Fox and Leah Shahum. Graphic design is by Rachel Krause of Banjo Creative.

The Vision Zero Network is a nonprofit project committed to advancing Vision Zero in the U.S. We are proud to support the life-saving efforts of the dedicated policymakers, implementers, and community leaders working toward safe mobility for all.

[Learn more at VisionZeroNetwork.org](http://VisionZeroNetwork.org).