



Where Does Vision Zero Stand in Maryland?

By **WES GUCKERT, PTP, PRESIDENT & CEO, THE TRAFFIC GROUP**

Too many people are continuing to die on our roads and highways. An estimated 31,785 people died in traffic crashes from January to September 2022 in the U.S. according to January projections from the National Highway Traffic Safety Administration (NHTSA).

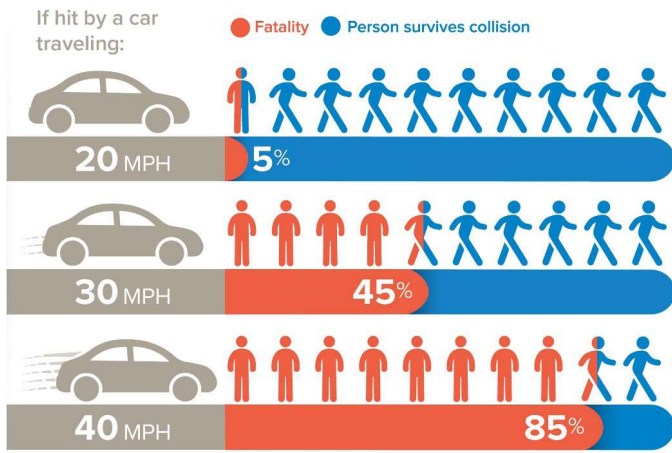
While the overall number of deaths from traffic crashes improved since 2020 when traffic deaths grew nationwide to 38,680, safety advocates note concerning trends faced by pedestrians and cyclists.

“A reduction in roadway fatalities is welcome, but the 0.2% decline announced by NHTSA follows an unprecedented two-year surge in roadway deaths and dangerous driving,” said Jonathan Adkins, executive director of the Governors Highway Safety Association. “Coupled with that is a continued rise in bicyclist and pedestrian deaths, underscoring the urgent need to ensure that road users not in vehicles enjoy the same protections as drivers and their passengers.”

The most recent data on pedestrian deaths dates back to 2020, when a total of 6,516 individuals were killed. Pedestrian fatalities increased 4% from 2019, and account for 17% of all crash fatalities.

In 2022, National Transportation Safety Board (NTSB) Chair Jennifer Homendy referred to the number of traffic fatalities as a “public health crisis.” She goes on to say the NTSB is “adamant on...ensuring that our roads are designed for those who use it. Not just the cars, not just the drivers — those that are walking, those that are biking, those that are rolling.”

By comparison, in 2019 Oslo, Norway suffered only one traffic fatality and achieved the goal of zero pedestrian or bicycle fatalities. Keep in mind, they have a population of 1,027,000! Oslo was the first ever municipality to adopt Vision Zero, a safety program originally developed in Sweden in 1994 with one fundamental goal: eliminating traffic deaths. The core strategies of Vision Zero either force drivers to slow down or create safe space for vulnerable road users, such as those on foot or bicycle.



National Traffic Safety Board (2017) Reducing Speeding-Related Crashes Involving Passenger Vehicles. Available from: <https://www.nts.gov/safety/safety-studies/Documents/SS1701.pdf>

In January 2022, U.S. Secretary of Transportation Pete Buttigieg announced a national Vision Zero goal, stating, “Our goal is this: Zero. Zero traffic deaths.” Furthering this goal, the government has allocated \$14 billion in new federal funding for roadway safety.

A LITTLE CLOSER TO HOME

The numbers paint a grim picture for the U.S. as a whole, and the numbers here in Maryland are not much better. There were 544 reported traffic fatalities statewide in 2022. This is only slightly better than 2021, where there were a reported 563 fatalities, and 2020, where there were 573 deaths involving a motor vehicle crash. Out of those 544 individuals killed in 2022, 139 were either pedestrians or cyclists.

In 2021, Montgomery County saw 40 pedestrian and bicyclist incidents. Only six weeks into 2022, the county experienced 50 incidents and two deaths. On the Eastern Shore in 2018, the most recent data available, seven people died in Wicomico County while 783 people were injured in crashes. Of the 17,888 car accidents reported in 2021, nearly 8,600 people were harmed in car accidents in Baltimore City. The injured included 937 pedestrians and bicyclists and 47 crashes involved at least one fatality.

These numbers are despite Maryland’s ongoing efforts to prevent deaths. To recap, in 2019, the Maryland legislature passed a Vision Zero bill that was later signed by Governor Hogan. The law set a goal of zero motor vehicle-related fatalities or serious injuries by 2030. Maryland’s Vision Zero law provides for an MDOT-designated coordinator to oversee the implementation of the plan, collaboration with other state agencies and local authorities, a state-funded budget, yearly reporting, and strategies to achieve established goals.

THE NEED FOR VISION ZERO IN SCHOOL ZONES

Often overlooked, pedestrian fatalities also occur in school

zones. According to the Transportation Research Board, more than 100 children are killed every year and 25,000 injured while walking to and from school. These numbers are simply unacceptable.

Until 2013, pedestrian deaths among children and teens were on the decline. Then, after almost 20 years, the rate of deadly pedestrian accidents among 12- to 19-year-olds climbed 13% in just two years to reach 284 deaths in 2015, the nonprofit organization Safe Kids Worldwide reported.

During school drop-off and pick-up times, the roadways in the immediate vicinity of schools are especially busy and there is usually a high level of vehicle, pedestrian, and cyclist activity. Within school zones, the drivers picking up and dropping off children, as well as teen drivers who drive themselves to and from school, often disregard traffic safety rules. This congestion and chaos, caused by parents and children arriving or leaving the school, leads to frustration from motorists and residents.

To further complicate the situation, school zones are unique and the accidents that happen near schools differ from traditional pedestrian accident cases in several key ways. For example, these accidents are most likely to occur on weekdays, specifically Wednesdays, rather than weekends. And typically, the accidents happen during the day, while lighting is bright and clear, versus nighttime when visibility is reduced.

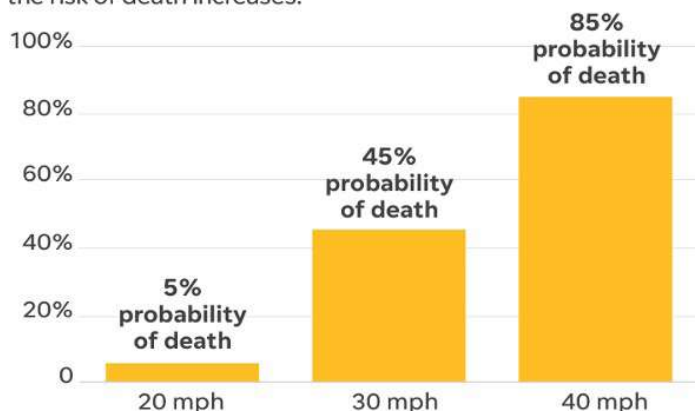
LEADING CAUSES OF CRASHES

Of course there are a variety of reasons why car accidents occur – from distracted driving to inclement weather. But the biggest challenge today is speed. Studies clearly show that higher speeds result in greater impact at the time of a crash, leading to more severe injuries and fatalities.

The other issue with higher speeds is that the risk of death for a pedestrian increases as speeds rise. A person has a 90% chance of survival when being hit in the 20 to 25 miles per hour range, but that drops to only a 50% chance of survival if being hit in the 40 to 45 miles per hour range.

Speed vs. risk of death

As the speed of any vehicle increases, the risk of death increases.



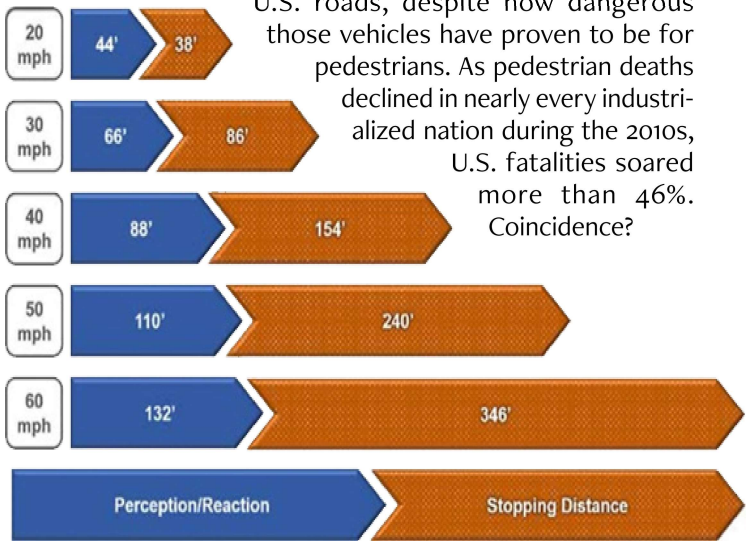


Most also neglect to think about the type of vehicles most Americans drive. SUVs are inherently deadlier if they strike a pedestrian. While a sedan would strike a pedestrian in the leg, or lower portion of the body, the higher front end of an SUV strikes a pedestrian in the upper torso. This is a difference between a broken leg or a crushed chest, making it two to three times more likely a person will die when hit by an SUV or a pick-up truck.

Traffic calming mainly consists of physical measures aimed at creating safe streets, including slowing drivers down, reducing collision frequency and severity, and reducing the need for police enforcement while increasing access for different modes of transport.

Proven engineering measures that work to slow traffic and save lives include:

SUVs and pick-up trucks have flooded U.S. roads, despite how dangerous those vehicles have proven to be for pedestrians. As pedestrian deaths declined in nearly every industrialized nation during the 2010s, U.S. fatalities soared more than 46%. Coincidence?



- Enhanced Delineation:** Also known as “rumble strips,” installing these high-friction surface treatments can allow for a 52% reduction in wet road crashes. On curves, the high-friction surface treatments can have a 24% reduction in curve crashes.
- Roadside Improvements:** By making improvements, it is possible to reduce fatal crashes at curves. 27% of all fatal crashes occur at curves and 80% of all fatal crashes at curves are roadway departure crashes.
- Traffic Signals:** Backplates with reflective borders have the potential to reduce crashes by 15%. Backplates added to a traffic signal indication improve the visibility of the illuminated face of the signal by introducing a controlled contrast background.
- Access Management:** Proper corridor access management can reduce total crashes along two-lane rural roads by up to 23% and reduce injury and fatal crashes up to 31% along urban and suburban arterials.

WHAT CAN BE DONE?

Countermeasures, such as traffic calming, are a combination of measures that reduce the negative effects of vehicles.



- **Turn Lanes:** Auxiliary turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent thru traffic at approaches to intersections. The safety benefit of left and right turn lanes is such that there could be a reduction of up to 48% in total crashes for left turn lanes and up to 26% in total crashes for right turn lanes.
- **Roundabouts:** The modern roundabout is a type of circular intersection configuration that safely and efficiently moves traffic thru an intersection. Changing a signalized intersection to a roundabout has resulted in a 78% reduction in severe crashes.
- **Road Diets:** A road diet typically involved converting an existing four-lane divided roadway to a three-lane roadway consisting of two thru lanes and a center two-way left turn lane. An overall crash reduction of up to 47% has been achieved along with a reduction of rear-end and left turn crashes with dedicated left turn lanes. A road diet can be a low-cost safety solution when planned in conjunction with a simple pavement overlay.

Finally, one of the best methods for slowing cars is speed cameras. While most are not wild about speed cameras, the reality is they help encourage motorists to slow down, particularly in high-risk areas such as school zones or popular pedestrian or cycling routes. Study after study has proven the effectiveness of speed cameras. Slowing cars down encourages safer driving and reduces crashes and injuries.

IN CONCLUSION

If there is truly a desire to implement Vision Zero, it will take a village - communities, school officials, and municipalities - to play a much bigger role and be serious about and committed to implementing Vision Zero policies, procedures, and design. Money and funding must be allocated. What remains unclear is how many Americans are prepared to fight to ensure that Vision Zero promises translate into action. Otherwise, Vision Zero programs throughout the United States and Maryland are likely to remain just that, a “vision.”

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The Traffic Group, Inc. is committed to being a part of the solution and has provided consultation to multiple communities in Maryland detailing traffic calming and safety measures that help to implement a Vision Zero plan on a community level.