



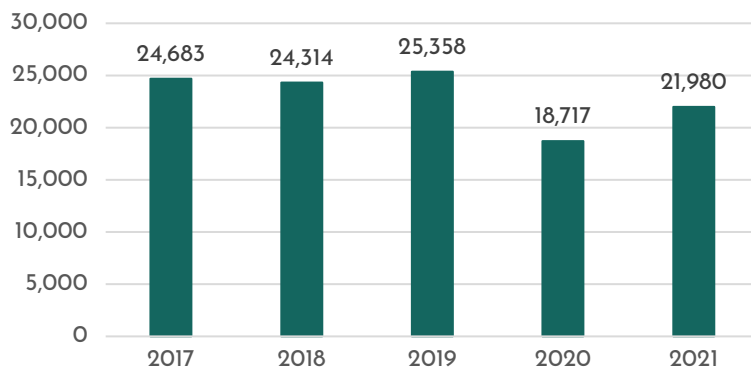
Safety Needs Assessment

Overview of Needs Analysis

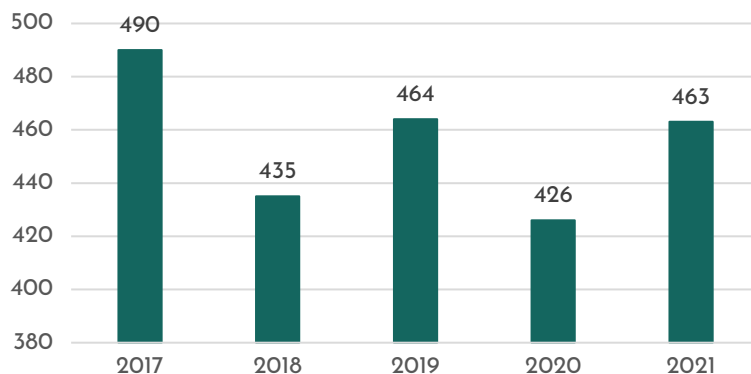
According to the National Highway Traffic Safety Administration, 42,795 people died in U.S. motor vehicle crashes in 2021, a 10.5% increase from the 38,824 fatalities in 2020. However, data estimates show the fatality rate for 2021 was 1.33 fatalities per 100 million Vehicle Miles Traveled (VMT), marginally down from 1.34 fatalities per 100 million VMT in 2020. The Bipartisan Infrastructure Law places a strong emphasis on improving safety and includes the new Safe Streets and Roads for All Program, which GVMC has received funding through to make a plan to reduce roadway crashes and fatalities in the region.

Over the last five years in the GVMC planning area, there have been an average of 23,010 crashes, 456 serious injuries, and 66 fatal traffic accidents per year. (See charts below.) A list of the top 50 crash intersections and segments within the MPO boundary ranked by the number of serious injury and fatality crashes, as well as by serious injuries and fatalities per vehicle miles traveled (VMT), can be found [here](#).

GVMC Total Crashes

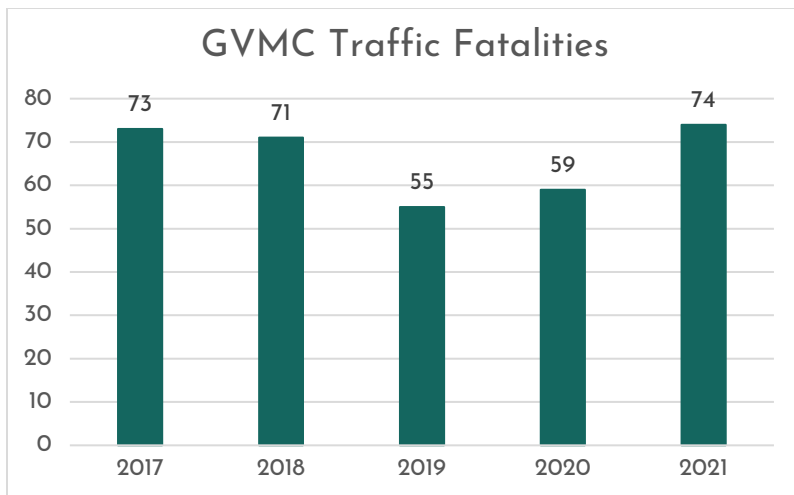


GVMC Traffic Serious Injuries



Safety Committee Members:

Alpine Township
Association for the Blind and Visually Impaired
Caledonia Charter Township
City of Grand Rapids
City of Walker
City of Wyoming
Disability Advocates
Grand Rapids Public Schools
Grandville Police Department
GVSU Police / Public Safety
Kent County
Kent County Emergency Services
Kent County Department of Public Health
Kent County Road Commission
Kent County Sheriff's Office
League of Michigan Bicyclists
MDOT
Oakdale Neighbors/Boston Square Community Bikes
Plainfield Charter Township
Riding for Ryan
Roosevelt Park Neighborhood Association
Senior Neighbors
Tallmadge Charter Township
The Rapid
The Right Place
Walker Police Department
Williams and Works



Process for Determining and Addressing Needs

Collaboration with GVMC Safety Committee

In the spring of 2023, the GVMC Safety Committee was assembled to help with the process of assessing the regional safety needs for the development of the 2050 Metropolitan Transportation Plan (MTP) and steering the Safe Streets for All Action Plan Process. The Safety Committee consists of representatives from agencies and organizations in Kent and Eastern Ottawa Counties (see member list on the previous page). The Safety Committee met twice during the development of the 2050 MTP Safety Needs:

- Meeting #1 (April 2023): Introduction to the purpose of the Committee and overview of the 2050 MTP
- Meeting #2 (May 2023): Reviewed and provided feedback on the safety needs and deficiencies for the 2050 MTP and nominated a Chair and Vice Chair for the Committee

Safety Needs Analysis

GVMC staff analyzed the safety of the transportation system during a comprehensive needs analysis performed in May of 2023. The GVMC Safety Committee members were actively engaged in this process and identified additional safety needs that will be integrated into the Safety chapter of the 2050 MTP.

GVMC staff also conducted a Transportation Issues survey during the late summer and fall of 2022. There was one question in the survey related to safety, which was "How would you evaluate the safety of roads and intersections in Kent and eastern Ottawa Counties?" The results of this survey question were: 6.58% Very Poor, 26.60% Poor, 30.93% Neither Good nor Poor, 34.63% Good, and 1.26% Very Good. GVMC also received public comments about safety improvements through the Transportation Issues survey. Some examples of these comments include:

- "Intersections on streets that big schools are on. Hunsberger Ave 49525 is treacherous when school is starting and ending each day. No pedestrian crossing over Plainfield Ave at Hunsberger."
- "We should be striving for no serious injuries and deaths on our streets. Connections between urban and suburban areas need to be better and consistent, especially bicycling and walking facilities. Pedestrian access, even to transit, is quite poor unless you are in GR, Wyoming, and parts of Kentwood. Require all major developments to develop and implement travel management plans for their staff and operations. No mention of intercity bus service, van or carpooling, other small vehicles like scooters/skateboards. We're more interested in technology that manages traffic for safety reasons over driverless cars. Expand incentives for transit access, electric bicycle rebates, etc."
- "Look into stop lights and lights at intersections as drivers are distracted and 4 way stops are not as safe as they used to be."

Project-Level Safety Needs

While it is rare for our members to have a project that is purely safety-related, safety improvements are considered during the design phase for all projects. If changes can be made that improve safety, they are incorporated. All projects are also built according to the Association of State Highway and Transportation Officials (AASHTO)

standards, which include safety requirements.

Identified Needs

Need 1: Reduce Fatality, Serious Injury, and Vulnerable Road User Crashes

Reducing fatality, serious injury, and vulnerable road user crashes was a need identified by the Safety Committee and is also demonstrated by the fatality and serious injury crash rates for the GVMC region. The crash types listed below are areas where the GVMC region is performing worse than the state of Michigan as a whole. Charts and graphs showing data on these emphasis areas can be found [here](#).

- **Young Driver Crashes**
 - Young drivers lack basic driving experience and are more likely to engage in risky and aggressive driving behaviors like speeding and tailgating. They also tend to have more passengers in their vehicles. Therefore, young drivers are much more likely than other groups to be involved in violent traffic crashes. In the GVMC region, young drivers under age 24 were involved in 36.12% of all traffic crashes and 34.93% of fatal and serious injury crashes between 2017 and 2021.
- **Distracted Driving Crashes**
 - With the advent of smart devices, distracted driving has received an increased emphasis from transportation agencies across the United States. There were 1,740 distracted driving crashes in 2021 within the MPO boundary. Distraction is not just limited to drivers, but also affects pedestrians, where studies have shown mobile phone use is correlated and parallels the same increased crash risk experienced by motorists. Due to the variety of distractions affecting motorists, the true impact of distraction in crashes is generally considered as underreported since pre-crash distractions often leave no evidence to observe. This is compounded by the fact that drivers are typically reluctant to admit distraction as a cause for a crash.
- **Pedestrian and Bicycle Crashes**
 - On average, 164 bicycle crashes and 201 pedestrian crashes occur in the MPO region each year. Of this, an average of 16 bicycle crashes and 45 pedestrian crashes result in a fatality or serious injury. While pedestrian and bicycle crashes account for a small portion of all crashes in the region at just 2%, vulnerable road users like pedestrians and cyclists are significantly more likely to suffer injuries or death as a result of a crash with a vehicle. Therefore, in locations where bicycle and pedestrian crashes occur, safety interventions should be investigated.
- **Intersection and Corridor Crashes**
 - In the GVMC region there were 8,638 intersection crashes in 2021, representing nearly 40% of all reported crashes. In 2021, these intersection crashes within the GVMC region resulted in 27.03% of all roadway fatalities and 49.24% of all roadway serious injuries. To determine corridor needs, GVMC employed a ranking process similar to the one used for intersections. Region-wide crash data from Roadsoft (software developed and maintained by Michigan Technological University) for the years 2017-2021 were obtained and used for the analysis.
- **Impaired Driver Crashes**
 - On average, drunk driving accounts for 21.62% of all crashes causing serious injury or fatality in the GVMC region though it only accounts for an average of 3.88% of total crashes. Drug involved crashes account for an average of 9.52% of all crashes causing serious injury or fatality in the GVMC region though it only accounts for an average of 0.89% of total crashes. Drug involved crashes are harder to track due to the lack of tools for enforcement, and therefore often considered underreported.
- **Wrong-Way Crashes**
 - According to Michigan State Police data, the number of wrong-way traffic crashes in Michigan hit a five-year high in 2021, with 421 reported. Wrong-way drivers were discussed by the Safety Committee as a growing concern for the region, especially on highways.

Need 2: Increase Safety Education

The GVMC Safety Education and Outreach program aims to educate all users of our transportation system, including pedestrians, bicyclists, and motorists, about ways to stay safe and visible while on the road. Increasing safety education was identified as a need by the Safety Committee, especially in regard to informing the public on the rights and responsibilities assigned to each mode of transportation, appropriate use of facilities, and emerging technology.

Need 3: Increase Regional Coordination

Increased collaboration amongst MPO members to facilitate a more consistent user experience across jurisdictions was a need identified by the Safety Committee. A unified and normalized approach to issues such as infrastructure design and rules and regulations would contribute to a safer and consistent transportation system throughout the region.

Need 4: Understand, Identify, and Leverage Data

Identifying and leveraging additional data sources to improve traffic safety was identified as a need by the Safety Committee. Collaborating and sharing data sources across jurisdictions within the MPO was also suggested as a need by the committee.

Need 5: Safety Action Plan

GVMC was approved for a federal Safe Streets and Roads for All Grant and will be developing a regional Safety Action Plan which will cover all GVMC jurisdictions. At the end of the process, there will be a list of safety projects and strategies, and each community can then apply for implementation funds to help fund those projects. Work for this is expected to begin in Fiscal Year 2024.

Need 6: Additional Funding

Extensive additional funding is needed to address safety needs in the future, but the exact amount is yet to be determined. As an MPO, GVMC does not have a separate allocation of safety-specific funding that we control for our region. It is programmed through the local safety program run by MDOT.

Costs to Address the Recommendations

In the GVMC area, the average number of traffic fatalities from 2017 to 2021 was 66, while the average number of serious injuries during this period was 455. Considering a reduction of 20% in both fatalities and serious injuries, there would be 13 fewer fatalities and 91 fewer serious injuries annually in the GVMC area.

In addition, the 2023-2026 Transportation Improvement Program (TIP) for the GVMC region has designated approximately \$9.8 million for a range of safety-related projects. An additional safety education campaign is estimated to be \$5 million, and \$300,000 is needed for a safety action plan.