

Motor Vehicle Crashes Among Nebraska Youth

According to the Centers for Disease Control and Prevention (CDC), motor vehicle crashes are the leading cause of unintentional injury related death for Nebraska youth ages 10-19.¹ In 2017, teen drivers ages 19 and younger were involved in 21% of all reported crashes BUT only represented 7.3% of all licensed drivers.² Also in 2017:

- 72.7% of the 22 teen traffic fatalities (drivers and passengers ages 13-19) were NOT wearing seat belts².
- The Nebraska Youth Risk Behavioral Survey (YRBS) reported that nearly half of students (48%) reported texting or emailing while driving in the past 30 days.³

Many factors play into teens having higher crash rates. These include inexperience, brain development, and exposure to driving in high risk situations such as driving at night, driving distractions, no seat belt use, speeding and alcohol use⁴. If the issue is not addressed, the progress shown by a 61% reduction of teen-driver related crashes since the implementation of Graduated Driver Licensing (GDL) laws in 1998 could be lost.⁵ If addressed, Nebraska could continue to see fewer teen crashes, injuries and deaths.

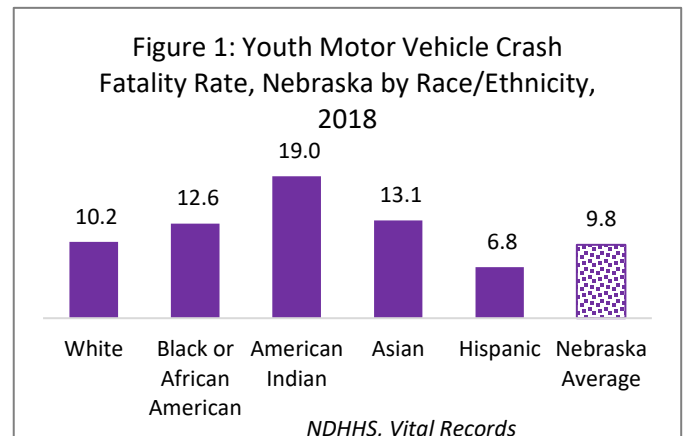
Criterion 1: Disparities Exist Related to Health Outcomes

A health disparity exists for American Indians (19.0/100,000), Asians (13.1/100,000) and Black or African Americans (12.6/100,000) in having a higher death rate than the state’s average at 9.8% (Figure 1).⁶

There are also differences when comparing drivers in urban to rural areas and when comparing drivers by gender.⁷ Rural areas of the state consistently have a lower seat belt use rate compared to urban areas. Male teen drivers are at higher risk because they are less likely to wear a seat belt, more likely to speed and engage in other high-risk behaviors compared to females. In 2018, males represented 56% of the drivers in all crashes and were involved in 72% of all fatal crashes.

Criterion 2: Data Exists to Document the Problem

Multiple qualitative and quantitative datasets exist that document teen driver safety:



1. Crash Data including contributing factors in a crash such as speeding, no use of seat belt and cell phone. The Nebraska Department of Transportation Highway Safety Office (NDOT HSO) maintains this data.
2. CODES (Crash Outcome Data Evaluation System) is a linked database which includes crash, Emergency Medical Services (EMS), hospital discharge, and death certificate data. The Nebraska Department of Health and Human Services (NDHHS)

Epidemiology and Informatics Unit created and has maintained this database since 1996.

3. Teen Driver Experiences Survey which collects data from junior and senior high schools participating in the Teens in the Driver Seat (TDS) program on behavior and knowledge around driving.
4. The Youth Risk Behavioral Survey (YRBS) surveys students on seat belt use, cell phone use and impaired driving.
5. NDHHS Vital Records houses death certificate data.
6. Child Death Review Data at NDHHS reviews each child death in depth, providing information on risk factors, preventability, and other data related to all deaths to children in the state.

Criterion 3: Alignment, use the priority to maximum advantage

The priority of teen driver safety aligns with national, state and local agencies and organizations.

National organizations that align include:

- National Highway Traffic Safety Administration,
- CDC,
- Governor’s Highway Safety Association,
- Mothers Against Drunk Driving, and
- TDS program housed within the Texas Transportation Institute.

State agencies in alignment are:

- NDOT HSO,
- NDHHS, and
- Nebraska State Patrol.

Other Nebraska alignment includes:

- Five local health departments,
- AAA Nebraska,
- State Farm Insurance, and

- 38 TDS schools.

Additionally, Drive Smart Nebraska, a statewide coalition of organizations and individuals focused on traffic safety issues, convenes quarterly to plan consistent messaging and leverage resources across the state to provide the biggest impact on traffic safety.

Criterion 4: Strategies Exist to Address the Problem/An Effective Intervention is Available

Research shows that GDL laws, parental involvement and peer-to-peer education are effective interventions in reducing teen driver crashes. These occur at higher rates for teens than for adults largely due to unsafe behaviors like driving inexperience, driving in high-risk situations and lack of safety precautions (e.g. seat belt).^{8,9,10,11}

- Comprehensive GDL laws greatly reduce teen driver crash deaths and injuries. Nebraska’s GDL law does not fully meet the Traffic Injury Research Foundation’s best practice requirements. Provisions of Nebraska’s GDL laws are secondary enforcement. Secondary enforcement means that a police officer may only stop or cite a driver if the driver first commits another primary violation such as speeding. They also fall short in licensing age, nighttime driving restrictions and requiring driver’s education.
- Supportive parental involvement can lower a teens’ crash risk by half. Parental involvement comes in many forms such as being educated about GDL, establishing rules through a parent-teen driving agreement and/or attending a driver’s education orientation program.
- Peer-to-peer education has practical implications for prevention and intervention among young drivers. TDS, a school based peer-to-peer traffic safety program, is being implemented in 38 schools across Nebraska. TDS addresses

the top five driving risks: alcohol use, low seat belt use, distracted driving, driving at night and speeding. This program is showing promising results based on the annual Teen Driver Experience survey. Of the 17 driving behaviors surveyed in 2019, 10 showed statistically significant improvement including compliance with GDL and increased seat belt use.¹²

- MADD’s Power of the Parent and Power of Youth are effective, evidence-based programs that focus on ending drunk driving and underage drinking.¹³ Presentations and materials are provided to schools, youth and parent groups. MADD provides the tools and skills needed prevent underage drinking and the consequences of it.

Criterion 5: Severity of Consequences

Motor vehicle crashes are the leading cause of death for youth ages 10-19.¹ Deaths are only the tip of the iceberg; for every fatality, there are approximately 100 serious injuries, 1,000 near misses, and 10,000 unsafe behaviors.¹²

From 2013-2017 an unrestrained teen in a motor vehicle crash had three times the medical charges compared to a restrained teen (\$13,012 vs \$4,805).¹⁴ Hospital inpatient charges were \$23,000 higher for unrestrained teens, and average emergency room charges were nearly twice as high (\$5,493 vs \$3,179).

The total projected cost estimate for Nebraska teen drivers involved in motor vehicle crashes in 2017 alone was \$78,232,200.¹⁵ The cost estimate includes wage and productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employer costs. However, the impact of teen driver crashes extends beyond financial costs as families and communities are greatly affected by these injuries and fatalities.

If this issue is selected as one of the Title V MCH priority needs in 2020, what do you expect this issue to look like five years from now? What kind of progress can you expect for the next five years?

If we focus on teen motor vehicle safety for the next 5 years, the number of fatalities and injuries will decrease and be sustained through evidence-based programming and policy adoption. Implementing evidence-based programming will increase parental involvement and communication with their teen through using a parent-teen driving agreement. Parental knowledge about GDL will improve and give parents the ability to better enforce GDL provisions. Upgrading Nebraska’s GDL laws to primary enforcement and improving provisions would likely result in fewer teen-related crashes, injuries and deaths in the next five years and beyond.

Also, more schools will be engaged in the education of their students about safe driving practices across the state. If the TDS program continues to expand over the next five years, Nebraska could expect to see fewer teen related motor vehicle crashes, injuries and deaths.

Youth will have positive peer interactions through the delivery of peer-to-peer traffic safety education. The positive peer education will facilitate improvements in safe driving behaviors such as increased seat belt use and lowered distracted driving. Ultimately, a societal and community shift can occur around teen driver safety, first from improvements to the state’s GDL laws followed by reduction in poor health outcomes related to teen-involved motor vehicle crashes.

¹ Centers for Disease Control and Prevention Web-based Injury Statistics Query and Reporting System (CDC WISQARS). 2020. Fatal Injury Data. Accessed March 27, 2020.

² Nebraska Department of Transportation Highway Safety Office (NDOT HSO). 2017 Nebraska Teen Driver Facts. Revised June 15, 2018. <http://dot.nebraska.gov/safety/hso>

³ Bureau of Sociological Research (BOSR) University of Nebraska-Lincoln. State of Nebraska 2017 Youth Risk Behavior Survey Results. Published December 2017. Accessed March 27, 2020. https://bosr.unl.edu/Nebraska2017PreliminaryYRBSR_eport_Final.pdf.

⁴ Teens in the Driver Seat (TDS). Website. Accessed March 27, 2020. <https://www.t-driver.com>.

⁵ Nebraska Department of Transportation Highway Safety Office (NDOT HSO). Fatal and Injury Crashes Before and After Graduated Licensing Law. Revised October 3, 2018. Accessed March 27, 2020. <https://dot.nebraska.gov/media/6613/tm16-17finjgdl.pdf>.

⁶ Nebraska Department of Health and Human Services (NDHHS) Division of Public Health. Vital Records. 2018.

⁷ Nebraska Department of Transportation (NDOT). Nebraska Strategic Highway Safety Plan Guidance for 2017-2021. Nebraska Interagency Safety Committee. March 2017. Accessed March 27, 2020. <https://dot.nebraska.gov/media/7839/2017-2021-nebraska-strategic-highway-safety-plan.pdf>.

⁸ Traffic Injury Research Foundation (TIRF). GDL Framework. Website. Accessed March 27, 2020. <https://gdlframework.tirf.ca/module/gdl-framework/>

⁹ Children’s Hospital of Philadelphia Research Institute (CHOP). Teen Driver Source. Parents As Role Models. Website. Accessed March 27, 2020.

<https://www.teendriversource.org/driving-alone/setting-house-rules/parents-as-role-models>

¹⁰ Fischer, P. March 2019. Peer-to-Peer teen traffic safety program guide (Report No. DOT HS 812 631). Washington, DC: National Highway Traffic Safety Administration.

https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/13905_peer2peerbrochure_031519_v4-blankpages-tag.pdf

¹¹ CHOP. Parent- Teen Interactions May Cut Teen Crash Risk In Half. Public Release.

https://injury.research.chop.edu/sites/default/files/documents/9_28_09_release.pdf

¹² Nebraska Department of Health and Human Services (NDHHS) Division of Public Health. February 2019. Nebraska Teen Driving Experiences Survey Five-Year Trend Report.

<http://dhhs.ne.gov/Documents/TDS%20Trend%20Report.pdf>

¹³ Children’s Safety Network Education Development Center. Child Safety Collaborative Innovation and Improvement Network. Evidence-Based Strategies and Readings for Child Safety CoIIN.

<https://www.childsafetynetwork.org/sites/childsafetynetwork.org/files/Evidence-Based%20Strategies%20and%20Readings%20for%20CS%20CoIIN.pdf>

¹⁴ Nebraska Department of Health and Human Services (NDHHS) Division of Public Health. Teen Driver Safety in Nebraska. Updated June 19, 2019.

<http://dhhs.ne.gov/Documents/Teen%20Driver%20Safety.pdf>

¹⁵ Nebraska Department of Transportation (NDOT). Nebraska Cost Estimate for Teen Drivers (15-19) Involved in Motor-Vehicle Crashes in 2017. Revised November 30, 2018.

https://dot.nebraska.gov/media/6593/tmallcrhcosts15_19.pdf