

MOTOR VEHICLE-RELATED INJURIES

In the news:

August 2003 - An 18-year-old teen died recently in a motor vehicle crash on her last day of high school, just 10 days before her high school graduation.

August 2003 - A 10-year old Coshocton County boy died of injuries he suffered when his ATV rolled over on private farmland. He was alone when the incident occurred.

June 2003 - A Columbus man was killed in a head-on collision on Saturday as he and his wife traveled to celebrate Father's Day with relatives. Yesterday, family members instead mourned his death.

Defining The Problem

The mass production and widespread adoption of the gas-powered automobile, which occurred in the earlier part of the 20th century, signaled a major positive milestone in the history of mankind. The resultant convenience and rapidity of transport, however, has been accompanied unfortunately with high rates of injuries and death.

Goals

State Goals

The Governor's Highway Safety Office (GHSO) has set comprehensive state goals for indicators related to motor vehicle crashes (MVCs).² These goals are as follows:

1. **Reduce the rate of fatal, serious visible injury, and minor visible injury crashes. These rates are based upon 100 million vehicle miles of travel (VMT).**
 - a. Reduce the fatal statewide crash rate from a 1999 baseline of 1.21 to a projected 2010 value of 1.09
 - b. Decrease the statewide serious / visible injury from a 1999 baseline of 49.69 to a projected 2010 value of 37.19
 - c. Decrease the statewide death, serious / visible injury crash rate from a 1999 baseline of 50.90 to a projected 2010 value of 38.28
 - d. Decrease the death, serious / visible injury crashes per total crashes from a 1999 baseline of 14.0 to a projected 2010 value of 9.5
2. **Reduce the rate of deaths, serious visible injuries, and minor visible injuries per 100 million VMT.**
 - a. Decrease the statewide traffic death rate by 4% from the 1999 baseline of 1.34 to a projected 2010 goal of 1.12
 - b. Decrease the statewide serious / visible injury rate from the 1999 baseline of 63.73 to a projected 2010 goal of 49.33
 - c. Decrease the statewide death, serious / visible injury rate from a 1999 baseline of 65.08 to a 2010 goal of 50.45.
3. **Increase statewide safety belt use from a 2002 observed rate of 70.3% to a rate of 76.9% in 2004.**

National Goals

The Healthy People 2010 document, as well as the National Highway Traffic Safety Administration, have developed objectives and goals regarding MVC-related injuries and deaths. These goals are enumerated in Table 1 on the following page.

TABLE 1. Selected National Highway Traffic Safety Administration (NHTSA) Goals and Healthy People 2010 Objectives related to Motor-Vehicle Occupant Injury

NHTSA goal

Healthy People 2010 objective

General

Reduce the number of fatal and nonfatal injuries by 20% by the year 2008 (from 42,065 fatal injuries and 3,511,000 non-fatal injuries in 1996).

Reduce deaths caused by motor vehicle crashes from 15.0/100,000 persons (1998 preliminary data age-adjusted to the year 2000 standard population) to 9.0/100,000.

Reduce deaths from 2/100 million vehicle miles traveled (in 1997) to 1/100 million vehicle miles traveled.

Reduce nonfatal injuries caused by motor-vehicle crashes from 1,270/100,000 persons (in 1997) to 1,000/100,000 (21% improvement).

Child Safety Seats

Reduce child (aged 0-4 years) occupant fatalities by 25% by the year 2005 (from 653 fatalities in 1996)

Increase use of child restraint devices for passengers age 0-4 years from 92% (1998 preliminary data age adjusted to the year 2000 standard population) to 100%

Safety Belts

Increase national seat belt use to 90% by the year 2005 (from 68% in 1996).

Increase use of safety belts from 69% (in 1998) to 92% (33% improvement).

Alcohol-Impaired Driving

Reduce alcohol-related fatalities to \leq 11,000 annually by the year 2,005 (Achieving this goal will reduce deaths caused by drinking and driving by approximately 5,000 each year.)

Reduce deaths caused by alcohol-related motor-vehicle crashes from 6.1/100,000 person (1997 baseline) to 4/100,000.

Reduce injuries caused by alcohol related motor-vehicle crashes from 122/100,000 persons (1997 baseline) to 65/100,000.

Reduce the proportion of adolescents who report that during the preceding 30 days they rode with a driver who had been drinking alcohol from 37% (in 1997) to 30%.

Extend administrative license revocation laws or programs of equal effectiveness for persons who drive under the influence of intoxicants from 41 states (in 1998) to all states and Washington D.C.

Extend legal requirement for maximum blood alcohol concentration levels of 0.08% for motor-vehicle drivers aged \geq 21 years from 16 states (in 1998) to all states and Washington, D.C.



Data

Motor vehicle crashes (MVCs) are a leading cause of morbidity and mortality in the United States. In 2001, 3 million Americans were injured and 42,116 were killed in motor vehicle crashes.¹ MVCs remain the leading cause of death for persons aged 1 to 34 years in the U.S.

In Ohio during 2001, an average of more than 3 deaths and 380 injuries resulted from MVCs every day.²

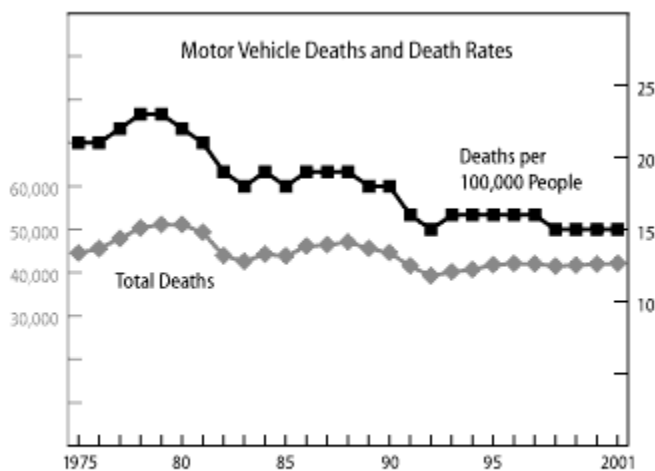
Ohio's MVC fatality rates are below the national average. Ohio's rate per 100 million vehicle miles traveled (VMT) in 2001 was 1.29, compared to the national rate of 1.51. Ohio's MVC fatality rate per 100,000 Ohioans in 2001 was 12.12, compared to a national rate of 14.79.

In Ohio, a total of 1,379 deaths and 138,847 injuries resulted from MVCs in 2001. This amount equals an average of more than 3 deaths and 380 injuries each day in that year.²

In spite of the aforementioned figures, there has been a progressive decline in MVC deaths and injuries nationally and in the state of Ohio. These decreases are due to several factors, including but not limited to, increased seat belt use, increased enforcement of motor vehicle-related laws, safer vehicles, safer roads, and improved prehospital care and trauma systems. This national trend, which is similar to the statewide pattern observed in Ohio, is depicted in Figure 1.

Most injuries and deaths resulting from MVCs are unintentional in nature. Factors such as age and use of alcohol and other drugs contribute

Figure 1: Traffic fatalities in the USA as of November 2002¹



to the severity of injury. Physical factors such as speed, restraint use, and environmental conditions, are similarly important.

In addition to automobiles, motorcycles and all terrain vehicles (ATVs) are considered motor vehicles. Tractors, snowmobiles, and personal watercraft are also similarly classified, however they will not be discussed in this document. Tractor-related injuries are discussed in the Agricultural-related injuries chapter.

Motorcycles

Compared with automobile drivers per mile travelled, motorcyclists are 14 times more likely to be killed, and 3 times more likely to be injured in the event of a crash.¹ In 1999, there were 2,472 deaths and 50,000 injuries resulting from motorcycle crashes in the U.S. These deaths represented 6.3% of all traffic fatalities in that year.² Motorcyclists are overrepresented in vehicular mortality. In 1998 for example, motorcycles accounted for 2% of the nation's registered vehicles and 0.4% of miles travelled on the roadways, but contributed to 6.3% of all traffic fatalities.³



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In Ohio, over 115 motorcycle riders are killed and over 3,100 are injured each year on average. Of all motorcyclists involved in a crash in 2001, only one-third were known to be wearing helmets.²

All-Terrain Vehicles

ATVs have been observed to pose an increasing injury risk throughout the U.S., including Ohio, particularly to the pediatric population. The number of ATV-related injuries and risk of injury to riders has increased between 1997 and 2001, with children 16 years and younger continuing to account for a significant proportion of injuries and deaths. In that time interval, the number of ATV-related injuries requiring emergency room treatment increased by 104%. Injuries per 1,000 ATVs jumped 46%, and the number of injuries suffered by children 16 years and younger increased nearly 57% while their share of the riding population grew by only 9%.⁴

Costs & Consequences

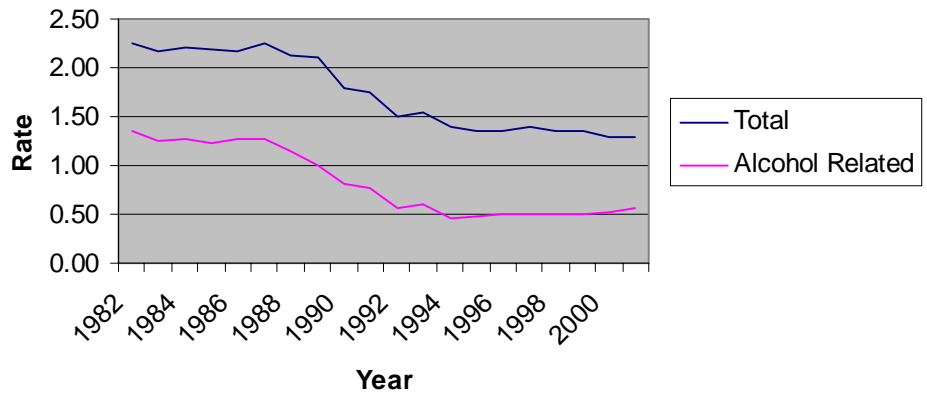


Coupled with the significant toll on human life, MVCs generate an enormous economic burden. In the year 2000, MVCs accounted for a total economic cost of \$230.6 billion in the US.¹ These costs are shared between health care costs, rehabilitation, and losses from diminished or absent productivity and lost wages. Legal fees and insurance costs also factor in.

The National Highway Traffic Safety Administration indicates that during 2000, MVCs in Ohio accounted for \$11 billion in economic costs. The 2000 census data indicates that approximately 11 million people live in Ohio. In order to cover the cost of MVCs, every Ohioan, regardless of age, would need to contribute \$1,000.

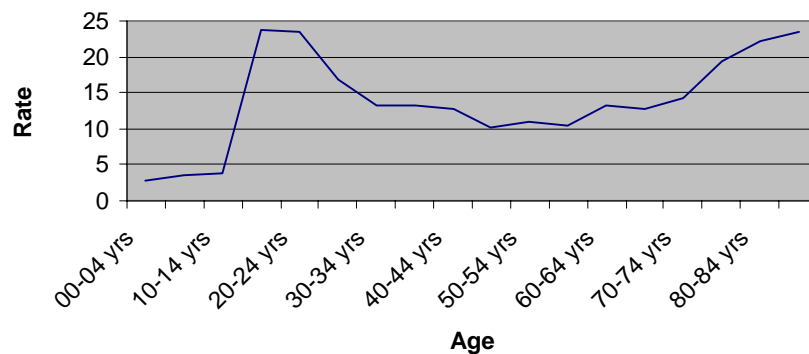
During 2000, MVCs accounted for 39,134 years of potential life lost before age 65 in Ohio and nearly 1.2 million in the U.S.

MV-Related Fatality Rates per 100 million VMT, Ohio, 1982-2001



During 2000, MVCs in Ohio accounted for \$11 billion in economic costs.

Motor Vehicle Death Rates per 100,000 by age, Ohio, 1999-2000



Risk Factors

Impaired Driving

Driving under the influence of alcohol or other drugs is a risk factor. Alcohol was a factor in 27% of the deaths in Ohio in the year 2001.¹ This is lower than the national 2002 average of 42%.

Age

Young drivers (aged 15-24 years) and elder drivers (aged 80 years and older) have the highest MVC-related death rates.

- **Elder Drivers** – Older drivers are at greater risk of being involved in a crash than younger drivers.² Individuals in this population may have diminished reflexes and response times to acute adverse events on the roadways. Contributing factors include loss of clarity in vision and hearing, reduction in the ability to focus or concentrate, drowsiness due to medications and a lower tolerance for alcohol.³
- **Teenage Drivers** – Teenage drivers are generally inexperienced and frequently exhibit risky driving behaviors such as speeding, driving under the influence of alcohol and other drugs, lack of restraint use and lack of concentration.⁴

Lack of Appropriate Passenger Restraint Use

Individuals who do not use safety belts and age/size appropriate child restraints, are much greater risk for injury and death in the event of a crash.^{5 6} Safety belts are 45% - 60% effective in reducing deaths and 50 - 65% effective in reducing moderate-to-critical injuries.⁷ Children aged 8 years and younger restrained in seat belts instead of a car seat or booster seat are 3.5 times more likely to suffer a serious injury.⁸ In Ohio for 2001, seat belt use was estimated to be 67%, compared to a national average of 73% and the best state rate of 91%. Only 37% of fatally injured Ohio occupants were restrained in 2001.

Driver Distraction

The presence of cell phones, navigational systems and other potential distractions may affect concentration while operating a vehicle.⁹

Lack of Motorcycle Helmet Use

Non-helmeted victims of motorcycle crashes are 3.4 times more likely to die than their helmeted cohorts.¹⁰

Lack of ATV Helmet Use

ATV riders who do not wear helmets are at greater risk for injury and death. Helmet use reduces the risk of death by 42% during an ATV crash and reduces the likelihood that a given nonfatal crash will result in a head injury by 64%.⁴⁶

Other ATV-related injury risk factors include:

- Young age
- Male gender
- Children younger than 16 years riding an adult-sized ATV
- Riding 3-wheeled ATVs
- Riding on streets
- Riding for recreational use^{47 48}



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Policy Issues

National

The National Highway Traffic Safety Administration (NHTSA) was established by the Highway Safety Act of 1970 under the United States Department of Transportation. This organization is mandated to carry out safety programs under the National Traffic and Motor Vehicle Safety Act of 1966 and the Highway Safety Act of 1966. The Vehicle Safety Act has subsequently been recodified under Title 49 of the U. S. Code in Chapter 301, Motor Vehicle Safety. NHTSA also carries out consumer programs established by the Motor Vehicle Information and Cost Savings Act of 1972, which has been recodified in various Chapters under Title 49. Over the years, the US Congress has formulated policies and legislation with guidance from NHTSA to provide incentives for states to adopt different motor vehicle safety laws.

A list of current motor vehicle laws for all states can be found on the Governor's Highway Safety Association's website at http://www.ghsa.org/html/state_info/stateinfo_laws.html.

Safety Belt Use Laws

As at August 2003, forty-nine states (all except New Hampshire) and the District of Columbia have mandatory safety belt laws. In most states, these laws cover front-seat occupants only. Belt use laws in 19 states are standard, or primary, meaning police may stop vehicles solely for belt law violations. Police authority to enforce belt laws in the other jurisdictions is limited. Officers in these states must have some other reason to stop a vehicle before citing an occupant for failing to buckle up. These types of belt use laws are referred to as secondary seat belt laws. The state of Ohio currently possesses a secondary seat belt law which applies only to occupants aged 4 years and older who are seated in the front seat.¹ Furthermore, in some states, the safety belt defense is allowed. Damages collected by an individual in a crash may be reduced for failure to use a safety belt. This reduction is permitted only for injuries caused by nonuse of belts. In Ohio, seat belt use in 2002 was estimated to be 70.3%.²

Child Restraint Laws

Child restraint laws require children to travel in approved child restraint devices. All 50 states and the District of Columbia have child restraint laws. Some states permit or require older children to use adult safety belts. The age at which belts can be used instead of child restraints differs among the states. In Ohio, all children younger than 4 years and less than 40 pounds are required to be restrained in an approved child safety device.³ The maximum fine for non-compliance with this statute is \$100, and points may be assessed on the offenders driving record.

As of April 2003, 16 states and the District of Columbia have child booster seat laws generally pertaining to children in the 4 – 8 year range. Ohio currently does not have a booster seat law. There is a clear gap in Ohio's restraint law for children older than age 4, especially for those who are seated in the rear of the vehicle.



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Impaired Driving

Driving under the influence of alcohol is one of the most common crimes in the United States. In October 2000, the FY 2001 DOT Appropriations Act was signed into law by the President. This is a provision making 0.08 Blood Alcohol Concentration (BAC) the national standard for impaired driving. States that do not adopt .08 BAC laws by FY 2004 would have certain highway construction funds withheld.

In Ohio, anyone operating a motor vehicle is assumed to have given implied consent to a chemical test or test of their blood, breath or urine. The BAC law was recently changed to 0.08 in keeping with the trend nationally. The legally permitted BAC level for individuals below 21 is 0.02 and for commercial drivers is 0.04. Offenders face stiff consequences ranging from suspension of driving privileges, community service and jail time. An emergency number exists for reporting suspected drunk driving – “*DUI” on cellular phones.

Teenage Driving

A Graduated Drivers Licensing (GDL) program exists in Ohio. Teenagers may obtain a probationary license at age 16 following the possession of an instruction permit and a training course. This license prohibits unsupervised driving between the hours 1 – 5 am. At age 17, an unrestricted license is granted if the teenager has remained free of alcohol and traffic violations for 12 months. This law has been effective. A January 2001 report by the Ohio Department of Public Safety (ODPS) estimated that 30 lives had been saved since the inception of the law in December, 1997.

Additionally, teen drivers' license suspension rates increased 261%. This study also reported a 23% reduction in crash rate among young drivers.⁴ GDL has also shown promise in other states.

Effective components of these programs generally include the imposition of curfews and prohibition of teen passengers.



Driver Distraction

Driver distraction is increasingly being recognized as a serious hazard and a contributor to MVCs. With rapid technological advancements including the boom of the mobile phone industry, internal distractions from electronic devices such as cellular phones, navigator systems and wireless computers raise issues that need to be addressed. An Australian study found that most distractions causing MVCs were internal as opposed to external.⁵ New York State recently enacted pioneering legislation banning outright the use of mobile phones while operating a vehicle on public highways. This law permits the use of hands-free devices. In many other states, similar bills are being considered. Individual jurisdictions have imposed such laws in several cities in the US. Several other nations including the United Kingdom, Italy, Switzerland and Singapore have enacted cell phone legislation similar to that of New York State. As of September 2003, Brooklyn, Ohio is the only jurisdiction in the state with a cellular phone ban while driving. The introduction of these laws does cause a decrease in mobile phone use as demonstrated in New York State.⁶



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Existing Programs

The Governor's Highway Safety Office (GHSO) of the Ohio Department of Public Safety (ODPS) has been involved in instituting and funding programs aimed at enhancing motor vehicle safety and reducing the risk of injury and death. Some of these injury prevention efforts include **annual traffic safety grants offered to state and local organizations, the Ohio Partnership for Traffic Safety (OPTS), Safe Communities coalitions, the "None for Under 21" Campaign, the "Sober Truth" Program, the "What's Holding You Back" Campaign and Cops in Shops.**

Complete descriptions of these programs are available on the ODPS website at <http://www.ohiopublicsafety.com>.

Ohio has 16 local SAFE KIDS coalitions, and a statewide coalition. These coalitions work to prevent unintentional injuries to children 14 years and younger in their communities. Many SAFE KIDS coalitions focus efforts on child passenger safety and they offer child safety seat distribution and checkup services.

Other privately-run programs present nationally and in Ohio include **Thinkfirst, Risk Watch, and Boost America** among several others.

The National Highway Traffic Safety Administration (NHTSA) of the U.S. Department of Transportation is the primary government organization addressing traffic safety at the national level. <http://www.nhtsa.dot.gov/>

Discussion of Recommended Prevention Strategies

Motor vehicle safety has received considerable attention as a priority area in the State of Ohio. The declining rate of deaths and injuries in the state, which mirrors national trends, is a tribute to this fact. The gallant efforts of government agencies such as the Ohio Department of Public Safety, Ohio Department of Health, and Ohio State Department of Transportation are recognized.

Organizations such as Safe Communities and SAFE KIDS, among others have played vital roles in various facets of this broad area. Continued efforts are necessary to maintain declining trends and achieve the stated national and state goals. Additionally, more investment in prevention programs (new and current) locally and nationally would help to realign the current strategic goals and reduce mortality and injury for all ages.

Recommendations highlighted by The Task Force on Community Preventive Services are incorporated below. This group was an independent panel of community health experts who issued recommendations based on evidence of the effectiveness of various strategies from reviews coordinated by Centers for Disease Control.¹ Several of the following recommendations are a compilation of ideas based on the current data and programs currently existing, with the addition of new ideas to further help reduce injury and mortality from MVCs in Ohio. Injury patterns in the state generally mirror national trends.



Safety Belts

The adoption of primary seat belt legislation in Ohio is a strongly recommended measure. Safety belts are 45% - 60% effective in reducing deaths and 50 - 65% effective in reducing moderate-to-critical injuries.² Primary seat belt laws have shown superior effectiveness when compared with secondary laws.^{3 4} Enhanced enforcement of existing measures is specifically effective with regard to seatbelt compliance.

The continued support of nationwide programs such as "Buckle Up America" and state initiatives such as the "What's Holding You Back" campaign is imperative for maintaining and improving the current level of seat belt use. All these measures will aid in obtaining the stated Healthy People 2010 and Ohio State seat belt use goals.

Impaired Driving.

The enactment of a 0.08% BAC (blood alcohol concentration) law is a strong recommendation which was recently adopted in Ohio. In states where this BAC law has been enacted, there have been reductions in the proportions of fatal crashes involving drunk drivers and a reduction in casualties from MVCs.^{5 6} States that do not enact a .08 law by 2004 will experience a withholding of a portion of highway construction funds. To avoid sanctions for FFY 2004, a state must have a .08 law in effect by October 1, 2003. Over time, the effect of this legislation is expected to be seen.

The current minimum legal drinking age law of 21 in Ohio has been deemed to be a strongly recommended intervention and should be



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maintained. Zero tolerance for young drivers is a useful measure.⁷

The increased use of sobriety checkpoints – both random and during holiday periods is a highly effective intervention that should be escalated.

Training programs for servers of alcohol beverage is another effective intervention that should receive continued attention and funding.

Child Safety Restraints

When correctly used and installed, child safety seats are highly effective in preventing deaths⁸. They can reduce the risk of death by 71% for infants and 54% for children aged 1-4 years. They also reduce the need for hospitalizations by 69% for children aged 4 and younger.⁹

The presence of a child safety seat use law, as is present in Ohio, is a strongly recommended intervention. Although all 50 states and the District of Columbia have child restraint laws, 60% of children who are killed as occupants in motor vehicle crashes are unrestrained at the time of the crash.

Observational and survey studies indicate that most infants are appropriately restrained, but seat use decreases rapidly with age.



Car seat distribution coupled with education programs is also effective and similarly strongly recommended. Other programs such as community-wide information with enhanced enforcement campaigns and incentive/educational programs are also recommended. There is insufficient evidence to evaluate education alone programs. Currently most of the Children's Hospitals in the state of Ohio, usually in concert with SAFE KIDS Coalitions, Safe Communities Coalitions and similar community-based organizations, implement comprehensive education and distribution programs. Maintenance of these programs, continued funding and constant reevaluation is imperative.

Recent studies have demonstrated that booster seats reduce the risk of injury to children in MVCs.^{10 11} The introduction of a

booster seat law for children in the 4 – 8 year range (40 – 70lbs) is needed in the state of Ohio to strengthen the current child restraint law and improve safety in this age group.

Additionally, identifying the potential hazards of airbag deployment to children, a law to restrict children younger than 12 years old from being front seat passengers in cars with airbags is needed.



Education on the proper fitting of child restraints is important as there is a high rate of misuse of these devices.¹² According to a recent National SAFE KIDS study, over 80% of child restraints in Ohio and nationwide are installed or used incorrectly.

Internal Driver Distractions: Cell Phone Use

It is recommended that the effects of restricting cellular phone use on public highways in other states and jurisdictions be closely observed. If clear benefits are demonstrated, Ohio should adopt similar legislation. The utility of hands-free devices in decreasing the risk of crashes should also be assessed.

It is also recommended that legislation mandating the statewide collection of data on cell phone use in police crash reports be enacted. This aids in identifying the true scope of the problem.

Speed Curtailing Measures

Speed is a well-recognized contributor to both fatal and non-fatal crashes. Continued enforcement of the current speed limits is needed. Radar is the most widely used method to detect speeding vehicles in Ohio as well as the rest of the nation. Widespread introduction of novel technologies not requiring increased personnel such as "intersection cameras" which are usually radar activated is recommended. These cameras have been used for more than 20 years in a number of countries including Australia, Austria, Canada, Germany, Greece, Italy, the Netherlands, Norway, New Zealand, South Africa, Taiwan and the United Kingdom. These have been shown to aid in reducing speed in drivers on public highways.^{13 14} Other new technologies that have been developed for this purpose should be considered including

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Laser, LIDAR (Light Distance and Ranging) devices, VASCAR (Vehicle average speed calculator and recorder), and aerial speed measurement using light aircrafts. Electronic roadside signs displaying vehicle speeds could also be effective.

Older Adult Driving

The provision of driving assistance programs for older drivers who need help physically or cognitively is necessary. Programs such as the American Association of Retired Persons (AARP) endorsed 55-Alive program and the D.R.I.V.E. Program in Delaware County, Ohio are examples of these. The AARP Driver Safety Program is a classroom driver refresher course designed for motorists age 50 and older. It is intended to help older drivers improve their skills while teaching them to avoid crashes and traffic violations.

Educational efforts like this and others have been clearly demonstrated to be of benefit.¹⁵ Older drivers who have extreme difficulty due to severe cognitive or sight impediments should have their privileges discontinued. The driving license renewal process offers a form for identification of such individual. Recently, in Florida, a bill was signed into law that will require Floridians aged 80 and older to have their vision tested when they review their driver's licenses. In the same state, legislation is being considered to have all seniors have their cognitive functions and reflexes tested prior to being permitted to renew their driver's license. Such steps however mandate the provision of transportation alternatives for affected seniors. This will enable older drivers with impaired ability to decrease or discontinue driving past. Currently, many such individuals affected have no alternatives. Encouraging, establishing and funding alternatives such as Car pooling programs, nonprofit/private organization van

pools, share-ride taxis and expansion of fixed route transit services are all possibilities to be explored. Rural populations may present unique challenges in this endeavor.

Motorcycle Helmet Use

The reintroduction of a mandatory motorcycle helmet law is recommended. This issue remains controversial, and Ohio has since 1978 weakened its mandatory helmet laws. Helmet use has been demonstrated in multiple studies to be beneficial in reducing the risk of injury and death in the event of a motorcycle crash. Non-helmeted victims of motorcycle crashes have been shown to be as much as 3.4 times more likely to die than their helmeted cohorts.¹⁶ National Highway Transportation Safety Administration (NHTSA) data show that helmet use results in an estimated 29% reduction in mortality¹⁷ and a 67% reduction in head injury¹⁸ in the event of a crash.

ATV Use

The use of helmets while operating ATVs is recommended.¹⁹ Additionally, introduction of a law in Ohio prohibiting sale and use of ATVs to children under 16 should be introduced. Children under 16 constitute over 50% of ATV related injuries.²⁰ The consent decree restricting access of children less than 16 years of age to purchase ATVs was largely ineffective and expired in April 1998. State certification following safety training using ATVs is also recommended.

Educational endeavors to ATV users to address issues like where to ride ATV's, understanding their designed, the importance of riding without intoxication among other points are needed. Existing training programs like the 4-H Community ATV Safety Program should be encouraged³



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Recommendations to Prevent Motor Vehicle-Related Injuries

Increase the use of safety belts

1. Enact statewide primary restraint legislation for all motor vehicle occupants and support enforcement.
2. Continue to provide support for public awareness and education campaigns such as “Buckle Up America” and “What’s Holding You Back”, and evaluate their effectiveness.

Reduce impaired driving

3. Support enhanced enforcement of Ohio’s recently enacted 0.08% BAC law.
4. Support increased use of sobriety checkpoints, both random and during holiday periods.
5. Continue to support training programs for servers of alcoholic beverages.
6. Increase penalties for driving under the influence of alcohol and other drugs.
7. Increase penalties for underage alcohol drinkers, their parents, and those who provide alcohol to underage drinkers.

Increase the use of child safety restraints

8. Provide increased support of child restraint distribution, installation and education programs.
9. Support programs that teach parents, child care providers and other caregivers how to properly install child restraints.
10. Support statewide incentive and enforcement campaigns directed at child restraint use, and evaluate the effectiveness of these strategies.
11. Enact a statewide booster seat law for children in the 4 – 8 year old range.
12. Enact a statewide law restricting children younger than 12 years old from being front seat passengers in vehicles with airbags, unless there is no alternative seating.

Decrease internal driver distraction:

13. Require law enforcement traffic crash reports to collect information on potential distractions.
14. Observe effects in other states restricting cellular phone use on public highways, and if effective in reducing crash incidence, enact similar legislation in Ohio. Conduct a study to assess the effects of hands-free devices in decreasing risk of a crash.

Support speed curtailing measures

15. Support continued enforcement of the current speed limits.
16. Support introduction of novel technologies not requiring increased personnel to detect speed.
 - “Intersection cameras” have been effective in other countries.
 - Other new technologies that should be considered include Laser, LIDAR (Light Distance and Ranging) devices, VASCAR (Vehicle Average Speed Calculator and Recorder), and aerial speed measurement using light aircraft.
 - Electronic roadside signs displaying vehicle speeds may also be effective.

Address older adult driving

17. Provide driving training programs for older drivers who need help physically or cognitively. Support programs such as the AARP-endorsed 55-Alive program and local programs.
18. Discontinue driving privileges for older drivers who have extreme difficulty due to severe cognitive or sight impediments.
19. Encourage, establish and provide funding to support driving alternatives such as car pooling programs, non-profit/private organization van pools, share-ride taxis and expansion of fixed route transit services to serve older drivers who have diminished ability to drive. Develop solutions for rural populations.

Increase Motorcycle Helmet Use

20. Enact a stronger motorcycle helmet law that applies to riders of all ages. (Current law applies only to riders younger than age 18).

Address ATV use

21. Enact legislation mandating the use of helmets while operating or riding an ATV.
22. Enact statewide legislation prohibiting the sale and use of ATVs to children under 16.
23. Encourage the development of educational and training programs on ATV safety issues such as where to ride ATV’s, understanding their design, and the hazards of impaired ATV operation.
24. Require safety training and state certification for ATV drivers.

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