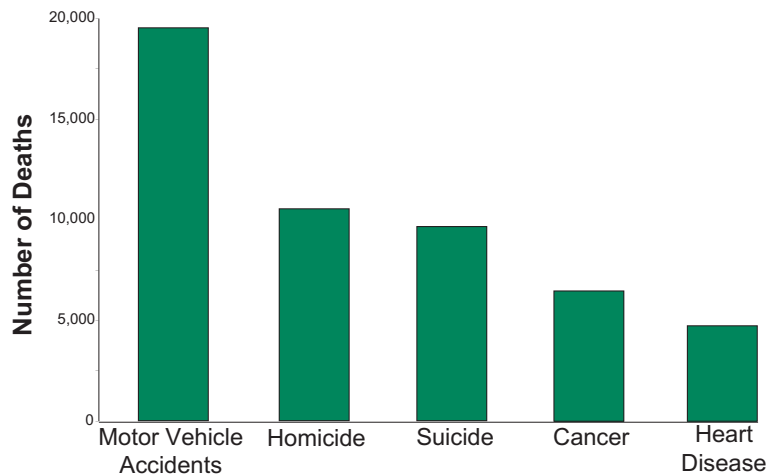


INTRODUCTION

Motor vehicle crashes are still the No. 1 cause of death by unintentional injury.
Centers for Disease Control and Prevention (CDC)

Leading Causes of Death for Americans Age 1–34*



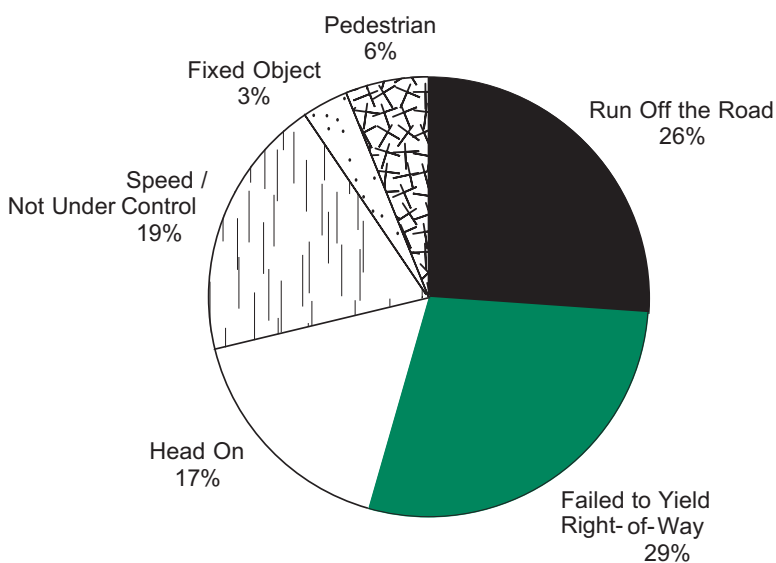
* 1998 data from the Federal Highway Administration and CDC.

THE EPIDEMIC-LEVEL LOSSES TO THE NATION

Motor vehicle crashes are the leading cause of death among Americans 1–34 years old (see chart).

The total societal cost of motor vehicle crashes in the United States exceeds \$1.25 trillion annually, according to the U.S. Department of Transportation.

Leading Causes of Traffic Crash Fatalities in Iowa



* 2000 data from the Iowa Department of Transportation (Iowa DOT) Office of Traffic and Safety.

HIGHWAY DEATHS, INJURIES, AND DAMAGE IN IOWA

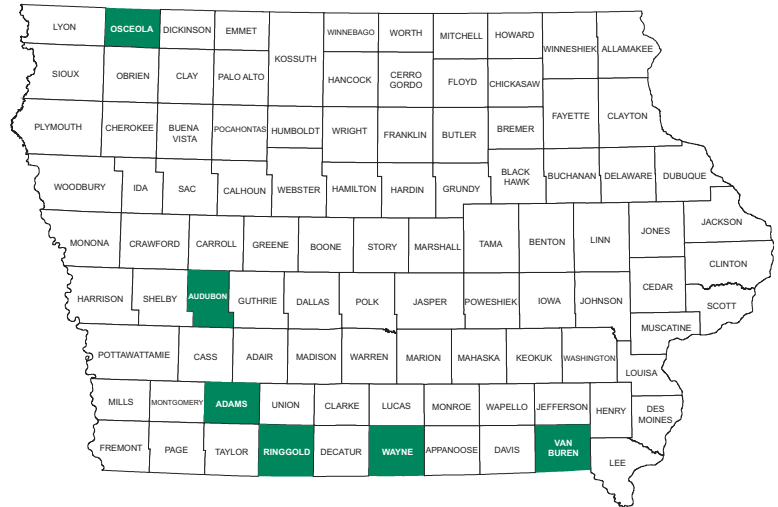
Despite reducing traffic deaths and injuries over the past 30 years, Iowa still experiences about 450 motor vehicle crash-related deaths each year. This is the tragic equivalent to Iowa having two major airline crashes with no survivors every year. Over 35,000 Iowans are injured—many seriously and permanently injured—every year in vehicle crashes on Iowa’s roadways.

See chart for leading causes of traffic crash fatalities in the state.

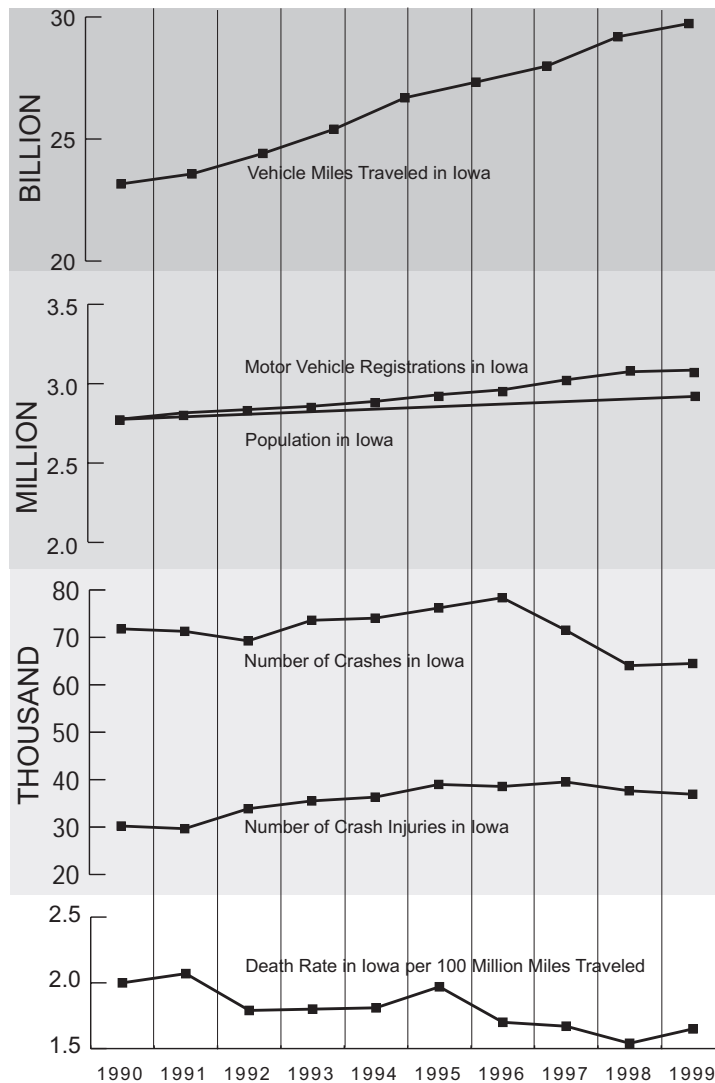
TRENDS IN IOWA

If current trends continue over the next 10 years (see chart of Iowa trends below), the number of Iowans who will die or be severely injured in vehicle crashes will be equivalent to every man, woman, and child living in the counties indicated in the map at right.

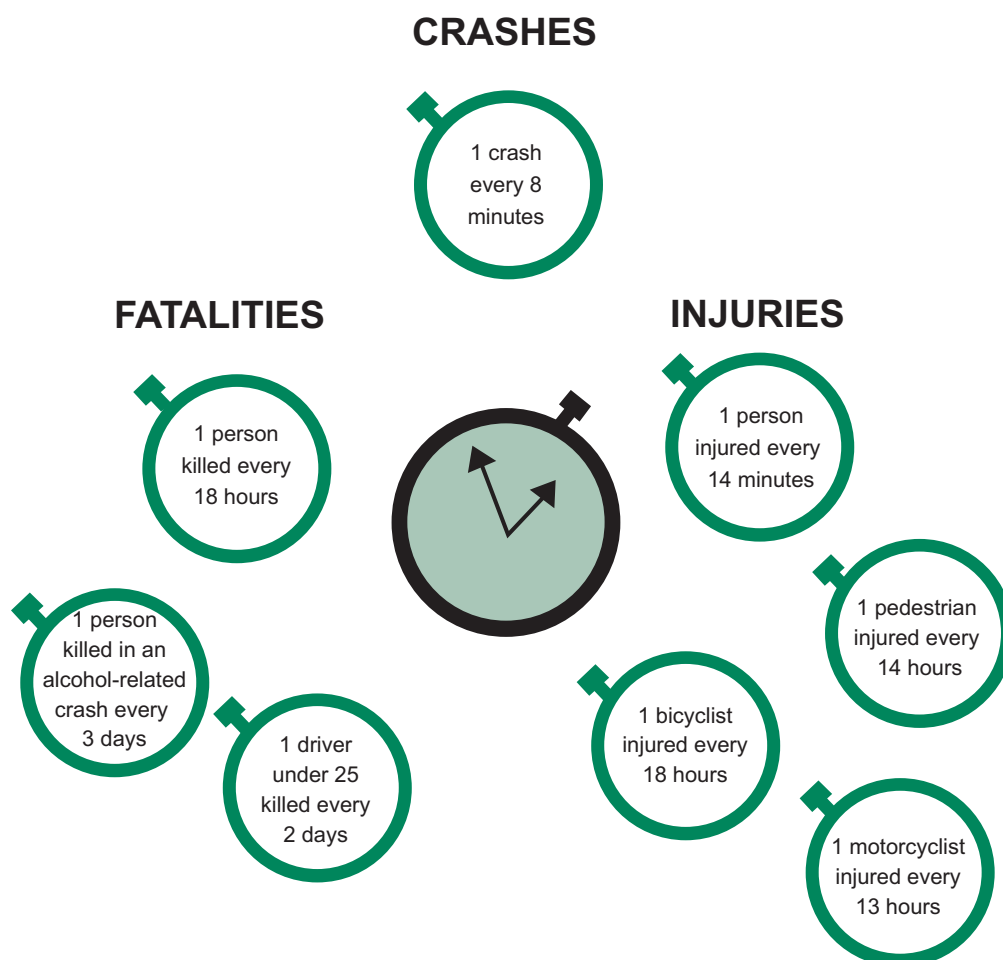
Iowa Population Victim of Crashes Over Next 10 Years



Iowa Trends



Iowa's Crash Clock*



*Based on data from Iowa DOT 1999 Iowa Crash Facts.

Iowa's crash clock will keep ticking faster and faster unless more is done to improve the safety of Iowa's highways.

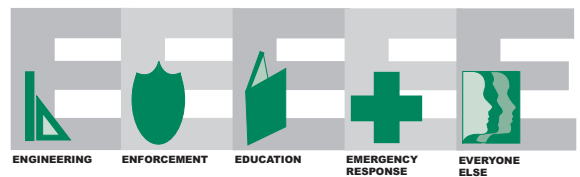
Certainly motor vehicle fatalities and injuries in Iowa represent an "epidemic-level" public health issue. In human terms, these numbers are compiled one fatality and one family's loss at a time—without complete realization of the great overall losses to individuals and communities. This tremendous loss to Iowans and their communities should not be taken lightly, especially when collaborative prevention efforts can help reduce these injuries and fatalities.

THE IOWA SAFETY MANAGEMENT SYSTEM

Iowa's highway safety professionals are determined to reduce the human suffering and economic losses resulting from crashes on Iowa's roadways. In the service of this cause, a multidisciplinary multi-jurisdictional group of leaders interested in highway safety have joined efforts under the banner of the Iowa Safety Management System (Iowa SMS).



The Iowa SMS Coordination Committee draws representatives from the “4 E’s” of highway safety: engineering, enforcement, education, and emergency response—as well as “everyone else”—to complete the five faces represented in the Iowa SMS logo.



Iowa SMS membership includes the following organizations (links to entity web sites are available at www.IowaSMS.org). See the table on the following page for Iowa highway safety responsibilities.

- AARP 55 ALIVE Driver Safety Program
- American Automobile Association (AAA) Minnesota/Iowa
- American Public Works Association (APWA)
- Cedar Rapids Police Department
- Federal Highway Administration (FHWA) Iowa Division
- Federal Motor Carrier Safety Administration (FMCSA) Iowa Division
- Highway Safety Engineering Consultants
- Iowa Association of Safety Education (IASE)
- Iowa County Engineers Association (ICEA)
 - Osceola County Engineer's Office
- Iowa Department of Education
- Iowa Department of Elder Affairs
- Iowa Department of Public Health
 - Bureau of EMS
- Iowa Department of Public Safety:
 - Iowa Fire Service Institute
 - Iowa Governor's Traffic Safety Bureau (Iowa GTSB)
 - Iowa State Patrol (ISP)
- Iowa Department of Transportation:
 - Data Services
 - Driver Services
 - ITS

- Local Systems
 - Modal Division/Public Transit
 - Motor Vehicle Enforcement
 - Program Management
 - Systems Planning
 - Traffic and Safety, Engineering Bureau
 - Transportation Data
- Iowa Motor Truck Association
- Iowa Northland Regional Council of Governments (INRCOG)
- Iowa State Sheriffs and Deputies Association
 - Story County Sheriff
- Iowa State University:
 - Center for Transportation Research and Education (CTRE)
 - Farm Vehicle Safety
 - Local Technical Assistance Program (LTAP) Safety Circuit Rider
- Iowa Traffic Control and Safety Association (ITCSA)
- National Highway Transportation Safety Administration (NHTSA) Region VII
- State Farm Insurance
- Transportation Safety Consultants
- Union Pacific Railroad

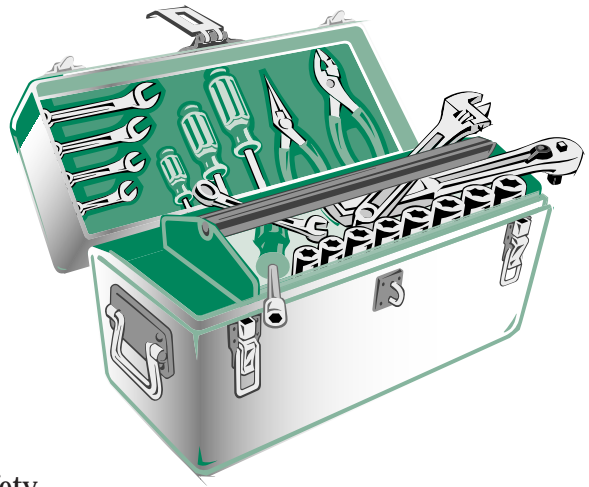
Iowa Highway Safety Responsibilities*

IOWA DEPARTMENT OF TRANSPORTATION (IOWA DOT)		IOWA DEPARTMENT OF PUBLIC SAFETY (IOWA DPS)	OTHER ENTITIES: FEDERAL, STATE, LOCAL, AND PRIVATE
Motor Vehicle Division	Highway Division	Iowa Governor's Traffic Safety Bureau (Iowa GTSB)	Federal Agencies
Office of Driver Services -Iowa crash records -FARS and CVARS -Driver research and statistics -National Model-TRACS -CODES -Driver licensing -Driver files -Driver improvement -Driver education -Motorcycle/Moped education -Public awareness	-District Safety Engineers	-Governor's Program Director	-Provide funding and/or technical assistance and serve on many safety committees
	Office of Traffic and Safety (TAS), Bureau of Engineering -State Safety Engineer -State Traffic Engineer	NHTSA Programs	Federal Highway Administration (FHWA)
	Iowa Safety Management System (Iowa SMS) -Committee Chair -Program Coordinator	Iowa's Governor's Representative's Highway Safety Plan -Management Systems Advisory Committee Member	National Highway Safety Administration (NHTSA)
	Crash records analysis, tools, and training distribution	411 Traffic Record Data Improvements Program -Statistical data	Federal Motor Carrier Safety Administration (FMCSA)
	Statewide Traffic Records Advisory Committee (STRAC) -STRAC Co-Chair	Statewide Traffic Records Advisory Committee (STRAC) -STRAC Co-Chair	Iowa Department of Education -Driver Education -School Bus Safety
Office of Motor Carrier Services -PRISM		402 grants used in 22 problem counties for enforcement, education, and engineering	Iowa Department of Public Health -EMS Records -CODES -Hospital Costs -Bicycle Safety -Injury Prevention
Office of Motor Vehicle Enforcement	Traffic Engineering Assistance Program (TEAP) -402 and DOT funded	Local multidisciplinary safety groups support	Iowa Department of Emergency Management -Haz. Mat.
Office of Vehicle Services	Local multidisciplinary safety groups support	SAFE Communities Program	Iowa Department of Elder Affairs
Planning and Programming Division -District Planners	Traffic Safety Improvement Program (TSIP) -0.5% of Iowa Road Use Tax Fund	Special Traffic Enforcement Program (STEP)	Judicial Entities
Office of Systems Planning	Hazard Elimination Safety (HES) Program -Top 200 crash locations	157 Seat Belt Incentive	Regents University of Iowa -Public Policy Center
Office of Program Management -SMS funds origin	Resources for district and local offices	405a and 2003b Child Seat Programs	University of Northern Iowa -Research and Education
Office of Transportation Data	Signs, signals, work zone safety, pavement markings, advertising management, research, safety studies, audits, ITS, speed studies, and AG litigation support	410 Alcohol Incentive Program	Iowa State University -Center for Transportation Research and Education (CTRE) -Local Technical Assistance Program (LTAP)
Modal Division		Drug Recognition Expert Program	Local County and City Practitioners
Office of Aviation		Police Traffic Services	Local Multidisciplinary Safety Teams
Office of Public Transit		Training and public service announcements	Private Organizations and Businesses
Office of Rail Transportation		Iowa State Patrol (ISP) Division -Enforcement -Accident reconstruction -Police communication -Impaired driving -Child seat training -Seat belts	
Information Technology Division (ITD) -GIS		State Fire Marshall Division -Fire Service Training Bureau	
Research Management Division -ITS and AASHTO projects		Criminal Investigation Division -Criminalistics Lab -Evidential breath testing -Records and identification	

* Primary safety program management and safety data entities are shaded.

TOOLBOX OF HIGHWAY SAFETY STRATEGIES

The Iowa SMS *Toolbox of Highway Safety Strategies* is developed as a compilation of problem definitions, data, and potential solutions. The purpose of the toolbox is to assist and inspire Iowa's highway safety professionals, policy makers, and citizens in implementing ways to improve highway safety, thereby reducing death, injury, and economic loss on Iowa's roadway system. This document draws from goals and models of the Federal Highway Administration, National Highway Traffic Safety Administration, and American Association of State Highway and Transportation Officials (AASHTO) to cover a wide range of highway safety issues. (The AASHTO plan's goal is to reduce the number of highway deaths nationally by 5,000–7,000 each year.)



Iowa SMS encourages us to develop partnerships among state and local governments, community groups, and the media to achieve a safer transportation system. Iowa SMS utilized discussion groups, research, a public opinion survey, and citizen feedback in the process of compiling this toolbox. The range of solutions reflects the multidisciplinary expertise of its authors as well as the concerns and ideas of the general public and the policy makers who responded to the *Iowa Strategic Highway Safety Plan* draft offered for comment late in 1999. With a shared commitment, this toolbox of strategies can provide a range of potential tools that will effectively improve Iowa's highway safety in the targeted areas.

The Iowa SMS toolbox reinforces the safety goals, policies, and actions of highway safety agencies and practitioners by identifying many alternative actions that could be considered for implementation over the next 10–20 years and by identifying some specific implementation steps that could be completed sooner. It should be noted that the implementation of the strategies is dependent upon the availability of financial resources and the support of Iowa's residents and policy makers.

The toolbox offers a range of potential solutions to Iowa's identified safety problem areas. The types of strategies presented in the toolbox include the following:

- Law, policy, and enforcement changes
- Education and public awareness to impact driver behavior
- Roadway design changes systemwide or in high-crash-incident locations/segments
- Technology applied to assist drivers or enhance roadways
- Emergency and medical service availability and delivery
- Data collection and analysis
- Planning and management

The toolbox challenges us to continue the current effective programs, extend successful local initiatives statewide, and implement new initiatives. It recognizes that safety is a community issue and confirms that Iowa's highway safety community, including federal, state, and local agencies, should continue to guide and support local agencies and volunteer groups interested in improving the safety of the roadway, changing driver behavior, and improving vehicle safety.

Iowa SMS and its participating members recognize that Iowa's population is changing and that its transportation needs are changing too. As we move into the 21st Century, improvements in highway design, applied technology, and integrated modes must increase the safety and utility of transportation to meet the varied needs of Iowans and contribute to the overall quality of life for citizens of the state.

This document is organized into the following parts:

- Potential Strategies for Highway Safety Improvement, organized into chapters on drivers, other users, highways, emergency response, and planning and management
- Resources, including primary contributors and key organizations
- Appendices providing graphs and trends of Iowa crash data and summary findings of the Iowa SMS Public Opinion Survey

A summary of this toolbox, *Highway Safety Strategies for Iowa*, is also available with this document, at www.iowasms.org, or from an Iowa SMS member.

DISCLAIMER

The potential strategies listed in the Potential Highway Safety Improvement Strategies part of this document do not represent specific recommendations of the Iowa SMS Coordination Committee or any agency, group, or individual represented by Iowa SMS. The strategies represent a range of alternatives for legislators, department or agency directors, local governments, and citizen groups to consider when they elect to address a specific highway safety concern.

As a living document, this toolbox will continue to provide information, direction, and ideas for highway safety decision makers. Any strategies selected for implementation by Iowa SMS or any other entity will require further development through identifying potential partners, entities impacted, potential funding, steps for implementation, evaluation, and other pertinent tasks. After the initial publication of this document, comments can be submitted to the toolbox at anytime through the Iowa SMS web site at www.IowaSMS.org.



This toolbox is a living document. Last updated November 2001.