

CHAPTER 8

Sustaining Safe Mobility in Older Drivers

KEY TOPICS

- changing demographics
- driver assessment
- older driver crash ratios

GOALS

- Assist older drivers in sustaining proficiency and driving safely.
- Improve older drivers' awareness of their own capacity changes and appropriate driving pattern changes that can allow them to continue driving safely.
- Improve younger driver awareness and capacity for adapting to age changes in generations of Iowans before they grow older.
- Research and apply best practices and technologies for assisting older drivers.
- Assist drivers and their families or caregivers in making decisions that best use safe transportation options and help sustain the individual's self-determination, dignity, and quality of life.
- Identify, support, promote, and use appropriate alternative transportation options for older citizens.

BACKGROUND

When driver fatality rates are calculated on the basis of estimated annual travel, the highest rates are among the youngest and oldest drivers. On the basis of estimated annual travel, the fatality rate for drivers 85 and over is nine times as high as the rate for drivers 25 through 60 years old.

National Highway Traffic Safety Administration (NHTSA), *Traffic Safety Facts*



The ability to drive is deeply etched in most people's lifestyles, especially for older people. One survey of seniors indicated that the loss of the ability to drive ranked as the number one worry of persons over 65. There will come a time, however, when a person can no longer drive safely. At that point, it is important to have transportation options and support systems available to assist older persons with their mobility needs. See the chart for an illustration of how driver fatalities rates increase for older drivers as well as for young drivers.

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As with younger drivers, older drivers are associated with a distinctive set of safety issues and concerns that need to be addressed with a set of specific solutions. Older drivers often develop reduced visual and hearing capabilities, and all drivers begin experiencing an increasing loss of depth perception beginning around age 50. Some difficulties such as cataract formation and removal or stroke and recovery are temporary. Other conditions are progressive, and driver capacity diminishes in older drivers at different rates. These may include memory, physical and mental agility, and physical strength. Supporting older drivers in maintaining driving proficiency will help them to remain independent as long as possible. Deficiencies create safety issues that must be addressed to stem the growing number of older drivers injured and killed in traffic crashes.

Efforts to sustain safe mobility in older drivers may include roadway and vehicle design features such as increasing the size of standard sign lettering, reducing the number and complexity of sign messages, designing and building cars that older drivers can maneuver safely, and providing assessment tools and assistive technology to keep older drivers traveling safely. Roadway design is addressed in Chapter 20, Accommodating Older Drivers.

NATIONWIDE

As of 1999, there were 18.5 million older licensed drivers in the United States—39% more than a decade earlier. This number will only continue to increase as the huge baby boomer population begins to swell the ranks of older drivers. In contrast, the total number of licensed drivers increased by only 13%. Older drivers made up 10% of all licensed drivers in 1999, compared with 8% in 1989.

National Facts

NHTSA reported the following data for 1999 (*Traffic Safety Facts—Older Population*):

National Driver Fatality Rates by Age*



*Based on 1996 NHTSA data; MVMT = million vehicle miles traveled.

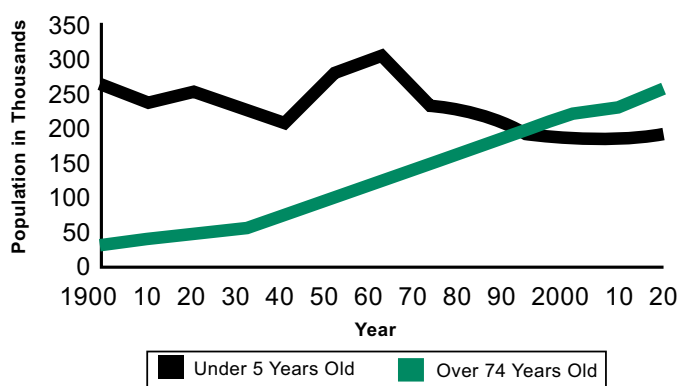
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- 3,307 older drivers were killed in traffic crashes.
- 13% of all occupants killed in traffic crashes were older individuals.
- 171,000 older individuals were injured in traffic crashes.
- 82% of the older driver traffic fatalities occurred during the daytime, 71% occurred on weekdays, and 75% involved another vehicle.
- In two-vehicle crashes involving an older driver and a younger driver, the older driver was turning left in 27% of the crashes—seven times more than the younger drivers.
- Older drivers involved in fatal crashes had the lowest proportion of intoxication of all adult drivers.

IOWA

Iowa's population is aging. In 1990—for the first time in Iowa's history—the number of Iowans over the age of 75 had exceeded the number of

Age Trends in Iowa*



*Post-1990 data are projected. Based on *Iowa's Changing Population*, Iowa State University Census Services.

Iowans under the age of 5 (see chart). Iowa has approximately 741 individuals age 100 years and older. This indicates a marked change in Iowa's demographic makeup, and serious implications for those engaged in planning for the future needs of Iowans.

In 2001, Iowa has 347,397 licensed drivers over the age of 65. This is nearly 16% of all the licensed drivers in the state. The NHTSA *Research Notes* listed Iowa as having the fourth highest percentage in the nation of licensed drivers over the age of 65. Iowa ranks well above the national average in the ratio of older drivers to total population and in fatalities per

100,000 older population (see table). And the 65-year-old-and-older age group in Iowa is expected to increase by about 50% in the next 20 years!

Older Driver Ratios

Ratio	Iowa	United States
Older drivers to total population	16.0	13.0
Fatalities per 100,000 older population	16.5	12.2
Fatalities per 100,000 licensed drivers	3.6	2.3
Fatalities per 100,000 registered vehicles	2.2	1.9

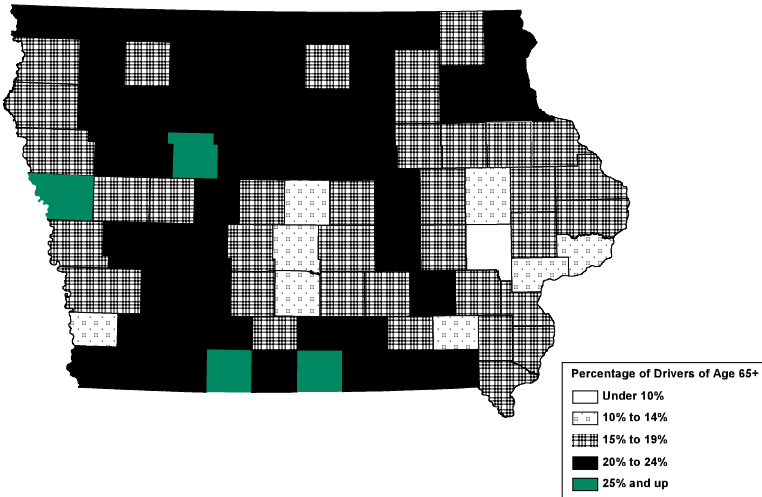
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The ratio of older drivers to the total population of licensed drivers is particularly high in Iowa's more rural, low-population counties. Iowa now has four counties where 25% of licensed drivers are aged 65 or older. In another 50 counties 20%–25% of licensed drivers are age 65 or older. This trend is demonstrated in the table with ratios of older drivers to total drivers by county and in the map of counties by percentage of drivers 65 or older.

Ratios of Older Drivers to Total Drivers by Iowa County

County	Percent of Older Drivers to Total Drivers
Wayne	25%
Ringgold	25%
Calhoun	25%
Monona	25%
...	
Warren	14%
Linn	14%
Scott	13%
Story	12%
Polk	12%

Percentage of Drivers 65 Years of Age or Older



Iowa Facts

The Iowa Governor's Traffic Safety Bureau (Iowa GTSB) reported the following data from the Iowa Department of Transportation (Iowa DOT) and NHTSA (*Traffic Safety Facts—Older Population*):

- During 2000, 90 people age 65 or older were killed in Iowa traffic crashes. Over 20% of all traffic fatality victims were age 65 or older.
- Since 1998, 285 people age 65 and older have died in Iowa traffic crashes—an average of 95 per year. Of these victims, 173 were age 75 or older.
- More than one Iowa driver in six is age 65 or older. Nearly 350,000 Iowa drivers are 65 or older.
- Iowa has the second highest percentage of licensed drivers over age 85, trailing only Florida.
- Drivers ages 85 and over, 75–84, and 65–74 represent Iowa's fastest, second fastest, and third fastest growing groups of drivers, respectively.

Transportation Options for Older Iowans

In Iowa, public transportation is primarily available only in metropolitan areas. The availability of transportation and local rural transit programs varies greatly among Iowa's communities and counties. One of Iowa's most complex transportation challenges is sustaining an adequate network of transportation alternatives in rural areas.

Organizations Providing Support for Older Iowans

Transportation for elders wishing to remain at home, or those residing in nursing facilities, is a growing concern for older Iowans. Area agencies on aging are available for assisting older persons and their families with decisions when a determination is made that an older individual can no longer drive safely. The agencies can help to identify transportation alternatives, as well as other services that may be needed to support the individual in maintaining their independence. When it is time to transition from driving, older persons can continue to be mobile and be active contributing members of our communities with the compassionate support of family/friends and the access to supportive services.

Iowa Public Opinion

Iowa SMS Public Opinion Survey

The 1999 Iowa SMS *Iowa Strategic Highway Safety Plan* included a number of potential strategies for dealing with these safety elements. The Iowa SMS public opinion survey asked over 1,000 Iowans whether they would support these strategies.

Goals:

- 55% said ensuring “older drivers are able to drive safely” should receive high emphasis over the next five years.

Strategies:

- 72% supported “requiring insurance discounts for older drivers who complete a certified driver education refresher course.”
- 84% supported “measuring physical and mental health when renewing licenses.”

Comments:

- This is a sensitive issue for Iowans, and many of those commenting on the Iowa SMS survey were concerned with the balance between rights and responsibilities, self-determination, dignity, and the available transportation options in Iowa's diverse urban and rural settings.

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POTENTIAL STRATEGIES

Legislation, Policy, and Enforcement

- Increase the use of graduated (restricted) licensing for older drivers to make sure that each license allows driving within the driver's capabilities.
- Improve medical and vision reporting standards and reporting forms.
- Work with medical and law enforcement professionals to further standardize and improve the process for reporting and testing drivers who may be incapable of driving safely.
- Coordinate with existing medical assessment and rehabilitation resources to help assess and appropriately retain licensing for drivers recovering from illness and temporary or permanent impairments.
- Provide statewide training and tools on older driver issues for state and local law enforcement.
- Monitor the impact of Missouri's recently passed anonymous reporting capable driver law.
- Allow enforcement officers to anonymously request driver re-examinations.
- Continue training for county-based license examiners in identifying and assessing decreased mental or physical capacities in drivers and applying appropriate restrictions.
- Research the effect of mandatory driver insurance discounts in other states (for completing older driver training courses). Implement mandatory driver insurance discounts if safety benefits are supported by data.
- Require completion of a refresher workshop for drivers at a certain age (without threat of license loss for test failure) and develop other outreach strategies.
- Work with the Older Iowans Legislature (OIL) in drafting proposed legislation (see Successes and Strategies Implemented section in this chapter).
- Review requirements and limits for reporting unsafe drivers for various persons (e.g., medical, law enforcement, clergy, caretaker, and anonymous).
- Provide and use a series of assessment and decision making tools (e.g., a decision flowchart) in license stations (see Successes and Strategies Implemented section in this chapter).



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- Explore long-range demographic changes and the impact on licensing and support systems to assist decision makers in incremental developments.
- Utilize American Association of Motor Vehicle Administrators (AAMVA) research and best practices.
- Consider a special licensing program for certain medical conditions. (Utah modal: Utah has a special licensing program developed under the Utah Medical Advisory Board for drivers who have certain medical conditions. The program was developed to create the least restrictive license eligibility standards that would still protect public safety and limit risk to an acceptable range. In addition, this program helps address the fact that it is unlawful for any state to discriminate against a qualified person with a disability on the basis of those disabilities.)
- Review related strategies in Chapter 5, Ensuring Drivers Are Fully Licensed, Competent, and Insured.

Education and Public Awareness

- Sponsor a multidisciplinary older drivers conference for seniors, professionals, and groups with related interests and expertise (see Successes and Strategies Implemented section in this chapter).
- Promote older driver training and retraining.
- Promote and support voluntary programs such as AARP 55 Alive to help older drivers compensate for diminishing capabilities and stay abreast of current laws and roadway design features (see Successes and Strategies Implemented section in this chapter).
- Research existing training courses and assimilate a report of best practices for safer older driver training courses.
- Inventory which insurance companies offer discounts for driver improvement courses and make findings available to the public.
- Develop a series of assessment and decision making tools for drivers and their families/caregivers. Multidisciplinary development should include all aspects of health, capacity, assistive technology resources, and quality of life. (See Successes and Strategies Implemented section in this chapter.)
- Partner with community colleges to develop lifelong learning courses that address aging population driving as a health and quality-of-life subject (see Successes and Strategies Implemented section in this chapter).

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- Study the economic and safety impact of other states' laws that require insurance companies to offer discounts to older drivers who complete a certified older driver training course. Publish the findings.
- Continue Iowa DOT license examiner visits to senior citizen centers and congregate meal sites. Expand this outreach into other venues.
- Create/revise and distribute older driver videos for public-service viewing in senior centers, driver's license stations, and elsewhere. Develop a series of short videos with policy and lifestyle information. (See Successes and Strategies Implemented section in this chapter.)
- Explore local educational development for aging citizens and their caretakers/families with healthcare and other medical entities.
- Support the Alzheimer's Association (and other) training for law enforcement identification of dementia and related reduced mental capacity conditions in drivers. Expand the Alzheimer's Association's efforts.
- Design and execute a public information campaign to educate and raise awareness of adult children and community support entities in helping assess and maintain older driver capability.
- Improve awareness and utilization of restricted licenses and nondriver identification cards.
- Promote safer driving patterns that allow qualified seniors more opportunities to use the roads safely by avoiding traffic congestion times and locations, planning their routes, and using appropriate license restrictions.

Design and Technology

- See Chapter 20, Accommodating Older Drivers, for roadway design strategies.
- Support national efforts—through comments, committees, or funding—to simplify the driving task for older drivers.
- Pursue state-level transportation system design efforts that address older drivers.
- Simplify the tasks of driving by applying revised roadway and signing standards that better accommodate older drivers (see Successes and Strategies Implemented section in Chapter 20, Accommodating Older Drivers).
- Find ways to assist qualified seniors in making decisions to plan their driving patterns in urban settings to avoid traffic congestion times and routes.

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- Support assistive technology use for drivers. Support use of devices aiding dexterity, seating position, hand controls, etc.
- Assess the feasibility of advanced traveler information systems (ATIS) and advanced vehicle control systems (AVCS) for sustaining mobility and enhancing proficiency.
- Evaluate intelligent transportation systems (ITS) to determine whether they can be refined to help safely sustain mobility and enhance proficiency for the older drivers without distracting or confusing them.
- Encourage car sales businesses to include a complete review of vehicle features and practical technology explanations for older car buyers with every sale.

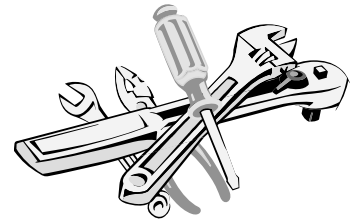
Other Initiatives

- Identification and development of alternative transportation and services:
 - o Support programs that provide transportation options for older Iowans, especially in rural areas.
 - o Develop a support services reference guide for transportation and related services and referrals. Make this widely available. (See Successes and Strategies Implemented section in this chapter.)
 - o Develop a handbook and frequently asked questions (FAQ) sheet for improving local transit options through such entities as local agencies on aging (see Successes and Strategies Implemented section in this chapter).
 - o Encourage and market use of alternative transportation as a respectable and responsible alternative to unsafe driving.
 - o Monitor the development and availability of technology innovations for driver capacity assessment and link these assessment outcomes to alternative transportation and support decisions.
 - o Review alternative transportation and services use, systems, and trends in five years.

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SUCCESSES AND STRATEGIES IMPLEMENTED

- Iowa SMS commissioned its Older Driver Task Force early in 2000.
- Iowa SMS Older Driver Task Force members made initial contact with community college deans and directors to begin forward thinking for lifelong learning in this area in December 2000.
- Iowa SMS approved funding in January 2001 for the development of an older drivers video through the Iowa DOT Office of Driver Services for use in license stations and other venues.
- An Iowa SMS sponsored multidisciplinary older drivers conference is being planned for spring 2002. Funding was approved in April 2001.
- Iowa SMS approved funding in April 2001 for a decision making guide for older drivers.
- Iowa SMS approved funding in April 2001 for a FAQ handbook for improving rural transit.
- Iowa SMS includes representatives from OIL and the Iowa Department of Elder Affairs (which coordinates the legislature) in its membership.
- Iowa's restricted licensing allows drivers to limit their driving to fit their abilities and needs voluntarily. License examiners accommodate drivers through individual assessment and appropriate mandatory accommodations.
- Iowa DOT examiners receive extensive training in identifying and accommodating driver limitations.
- Iowa DOT licensing offices provide information, equipment, and speakers for AARP 55 Alive and other driver refresher courses.
- The Alzheimer's Association and others are conducting training and outreach to law enforcement regarding dementia and Alzheimer's disease.
- Iowa DOT license examiners visit senior citizen centers and congregate meal sites.



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NOTE

The potential strategies in this chapter do not represent specific recommendations of the Iowa SMS Coordination Committee or any agency, group, or individual represented in 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.

This toolbox is a living document that 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.

RESOURCES

Information in this chapter is drawn from many individuals and sources. Known sources are listed here. **Contributors:** Kim Snook (primary), Mary Ann Young (primary), Jennifer Balis, Scott Falb, Ed Green, Kay Green, Becky Hiatt, Walt McDonald, Jerry Roche, Mary Stahlhut, Bob Thompson, Daron Van Helden, Terry Voy, and Tom Welch.

AAA Foundation for Traffic Safety

Senior Driver Website
seniordrivers.org

Administration on Aging

1998 Census Estimates of Older Population for the States:
www.aoa.dhhs.gov/aoa/stats/98pop/rankxpercent.html

Alzheimer's Association

www.alz.org

American Association of State Highway and Transportation Officials

Strategic Highway Safety Plan (Sept. 1997):

A comprehensive plan to substantially reduce vehicle-related fatalities and injuries on the nation's highways.

safetyplan.tamu.edu/plan/toc.asp

Centers for Disease Control

Motor Vehicle-Related Deaths Among Older Americans Fact Sheet:
www.cdc.gov.ncipc/factsheets/older.htm

Iowa COMPASS, University of Iowa

Iowa's program for assistive technology.

Iowa Department of Elder Affairs

www.state.ia.us/elderaffairs/

Iowa Governor's Traffic Safety Bureau

Older Drivers Fact Sheet (April 2001)

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Iowa Safety Management System

www.IowaSMS.org

Iowa Strategic Highway Safety Plan (Aug. 1999):

www.iowasms.org/pdfs/ishsp.pdf

Iowa Strategic Highway Safety Plan Goals and Strategies: Statewide Survey of Adults (Oct. 2000):

www.iowasms.org/pdfs/publicopinionsurveyexecsumm.pdf

Iowa State University

Structural Changes in the Iowa Economy 1992:

A publication of the Agriculture and Home Economics Experiment Station and Cooperative Extension Service.

Iowa State University Census Services

Iowa's Changing Population: A Brief Review of Trends (Mar. 2001):

<http://www.soc.iastate.edu/census/Data/Iowa/Iowa%20Trends%20Mar%202001.pdf>

National Highway Traffic Safety Administration

www.nhtsa.dot.gov

NHTSA Facts—Mature Drivers: Traffic Safety Tips (Summer 1996)

Older Driver Fatality Rates by State (1998)

Traffic Safety Facts—Older Population (1999):

www.nhtsa.dot.gov/people/ncsa/pdf/older99.pdf

Traffic Tech, NHTSA Technology Transfer Series No. 197 (April 1999):

www.nhtsa.dot.gov/people/outreach/traftech/pub/tt197.html

Traffic Tech, NHTSA Technology Transfer Series No. 205 (July 1999):

www.nhtsa.dot.gov/people/outreach/traftech/pub/tt205.html

Research Notes (Nov. 2000)

Evaluating Drivers Licensed with Medical Conditions in Utah, 1992–1996:

www.nhtsa.dot.gov/people/injury/research/Utahdrivers/Utahmedconditions.html

Safe Mobility for Older People—Notebook:

This notebook is intended as a resource. Topics covered include identification of high-risk older drivers, counseling and remediation of at-risk drivers, public information and education tools, and mobility options and alternative transport programs.

www.nhtsa.dot.gov/people/injury/olddrive/safe/

Oregon Department of Transportation

Report of the Older Driver Advisory Committee:

www.odat.state.or.us/comm/news/2000092001.htm