



Countermeasures That Work – Older Drivers

The National Highway Traffic Safety Administration has published its 10th edition of *Countermeasures That Work* (Venkatraman et al., 2021). The guide is a basic reference to assist State Highway Safety Offices (SHSOs) and other highway safety professionals in selecting effective, evidence-based countermeasures for traffic safety problem areas. This *Traffic Tech* highlights the effective countermeasures from Chapter 7, “Older Drivers.”

Background

In 2018 some 52.4 million people, 16% of the U.S. population, were 65 or older, almost twice as many as in 1982 when they comprised 12% of the population. By 2030 all baby boomers will be older than 65, expanding the size of the older population to an expected 73.1 million, or about 1 in 5 residents. Many older Americans depend on driving to maintain their mobility, independence, and health. People in much of the country have few transportation options beyond driving.

As the number of older adults increases, the licensed older driver population likely will grow. In 1982 some 16.8 million people 65 or older held driver licenses – 11% of all licensed drivers. By 2018 the total number of older licensed drivers increased to 45.2 million – 20% of all licensed drivers. The percentage of people 65 and older who were licensed rose from 63% in 1982 to 86% in 2018. Per *Highway Statistics 2018* (Office of Highway Policy Information, 2020)

- 93% of people 65 to 69 were licensed,
- 91% of those 70 to 74,
- 87% of those 75 to 79,
- 81% of those 80 to 84, and
- 62% of those 85 and older.

While age itself does not determine whether someone is safe to drive, age changes physical and cognitive abilities, as well as driving behaviors. Increased fragility makes older adults more vulnerable to serious injury or death in a crash, and older adults’ injuries take longer to heal. The challenge is to balance older adults’ mobility with their safety, and the safety of all road users.

In 2018 there were 7,316 older drivers involved in fatal crashes, which was 14% of all drivers in fatal crashes (NCSA, 2020). As seen in the following table, the percentage of drivers 65 or older involved in fatal crashes has increased over the years in line with the increases in the population and in licensed drivers.

Older adults’ most frequent driving errors include failure to yield right-of-way, inadequate surveillance, and misjudgment of gaps. Older drivers are more likely to be involved in angle

People 65 and Older: Number and Proportion of Total Populations

Year	Population		Licensed Drivers		Drivers in Fatal Crashes	
	Million	%	Million	%	N	%
1982	26.8	12%	16.8	11%	3,894	7%
2009	39.6	13%	32.9	16%	5,436	12%
2018	52.4	16%	45.2	20%	7,316	14%
2030	73.1*	21%*	?	?	?	?

*Estimated.

collisions, overtaking- and merging-related collisions, and crashes in intersections than younger drivers. That said, most older adults drive fewer miles as their lifestyles change with age. Many avoid driving at night, on high-speed roads, or in unfamiliar areas.

The crash rate *per licensed driver* is lower for older than for younger drivers; however, the average fatal crash rate for drivers 70 and older *per mile traveled* is higher than for all age groups except teenage drivers (16 to 19). This is largely due to older adults driving fewer miles (less exposure) but being more susceptible to injury as they age (more fragile), and being less likely than younger people to recover from crash-related injuries (more frail).

Effective Older Driver Countermeasures

The following sections discuss the four behavioral countermeasures for older driver safety that are supported by research as effective in certain situations (★★★★), or promising/likely effective (★★★). (There were no 5-star countermeasures for older drivers.) For more information on these countermeasures, their effectiveness, cost, use, and time to implement, see the full *Countermeasures* report.

Countermeasure	Effectiveness
2.1 License Screening and Testing	★★★★

State licensing agencies vary in their driver **license screening and testing** processes for identifying those whose driving should be limited. While some functional declines associated with normal aging may affect driving, there is no consensus on the age at which drivers should be screened or tested. Regardless, licensing decisions should be based on functional performance, not driver age. NHTSA recently published evaluations of State driver medical review practices (DOT HS 812 403, 2017). States that enlisted medical professionals as part of their review processes benefitted from their insights, particularly on referrals by drivers’ physicians.

Countermeasure	Effectiveness
2.2 Referring Older Drivers to Licensing Agencies	★★★★

States accept re-evaluation referrals for drivers of any age. Among those **referring older drivers to licensing agencies**, law enforcement, medical professionals, and family and friends account for about 85% of referrals. The remainder come from crash and violation record checks, courts, self-reports, and other sources. All States *permit* physicians to report medically at-risk drivers; some States *require* them to do so. Establishing and publicizing effective referral procedures has demonstrated effectiveness in increasing referrals from physicians. Missouri saw a decrease in crashes among reported drivers after enacting a voluntary reporting law, while Oregon found that only 10% of referred drivers regained their licenses.

Countermeasure	Effectiveness
2.3 License Restrictions	★★★★

If a State licensing agency determines through screening, assessment, medical referrals, road tests, or other means that a driver poses excessive risks, but only in certain situations, the driver can be issued a **license with restrictions**. This process preserves the driver's mobility while protecting the driver, passengers, and others on the road. Common license restrictions include driving only in daylight and limiting driving to a defined area around the driver's home or to low-speed roadways. Several studies have shown that driver license restrictions lower crash risk for older drivers, though their risk is still higher than that for similar-age drivers with unrestricted licenses.

Countermeasure	Effectiveness
3.1 Law Enforcement Roles	★★★

Law enforcement officers play many roles in improving the safety of older drivers. They enforce seat belt laws, which can increase belt use among older occupants. Officers can learn to recognize when an older adult's behavior, while driving or during a traffic stop, suggests possible impairment, and refer them to the licensing agency. Additionally, they can work with public and private organizations to promote safe driving. The International Association of Directors of Law Enforcement Standards and Training offers a course for law enforcement instructors at <https://www.iadlest.org/training/older-driver-law-enforcement-training>. This course aims to train instructors to provide law enforcement officers with the information they need to effectively interact with and evaluate older drivers. NHTSA also provides a series of video- and web-based resources for law enforcement officers on ways to interact with older drivers (See *Law Enforcement: Cite and Refer Medically Impaired Drivers* (NHTSA, 2017a) at www.youtube.com/watch?v=0aShDPSbJls&feature=youtu.be and *Cues for Law Enforcement* (NHTSA, 1998) at <http://one.nhtsa.gov/people/injury/olddrive/lawcues.html>).



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Conclusion

Many countermeasures can promote the safety of older drivers, and, consequently, all road users. The most effective programs aim to identify risky older drivers and either limit their driving to contexts that meet their abilities or move them to other transportation methods so that they can retain the quality of life that mobility provides.

NHTSA research suggests that States may be missing opportunities to improve older driver safety. Two effective, low cost countermeasures, **referrals to licensing agencies** and **license restrictions**, are rarely used. Less than half a percent (0.4%) of older licensed drivers are referred each year. The number of referrals varies across the States, from a few hundred to 50,000. While most States can restrict licenses of at-risk drivers, research in this area is limited to a few jurisdictions. However, it suggests that States that use restrictions most broadly impose, at most, a few hundred license restrictions per year. Programs that increase referrals, particularly from physicians, and programs that encourage appropriate use of license restrictions by licensing agencies would likely improve older driver safety.

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