

National Safety Council

Position/Policy Statement

The Older Drivers

The National Safety Council, the U.S. Congress and the Department of Transportation recognize that, as the U.S. population is living longer, there are many more Americans driving into their seventies, eighties and beyond. In 1988, the Transportation Research Board report, "Transportation in an Aging Society", cited that in 1940 – 7% of the population was 65 or older – by 2020, 17% of the population would be over 65, and almost half of these older persons would be 75 or older. It should be a major objective to promote the mobility and safety of these older drivers and to help ensure improved safety on our Nation's highways.

Therefore, the The National Safety Council supports programs and activities to improve the safety and mobility of older drivers and all drivers, provided such programs and activities:

- Recognize the older driver population with dignity, fairness, and sensitivity.
- Recognize and support the necessary research in this important area of motor vehicle transportation.
- Provide for a comprehensive approach which addresses all elements of driving, to include: — {remove dash} driver licensing, vehicle design, roadway design and operation, and effective and well maintained traffic control devices.
- Prevent unnecessarily restrictive practices on the basis of age alone. The Council endorses the graduated license concept as a means of achieving the best balance between the safety and mobility needs of the older driver.
- Wherever necessary, provide for alternative means of transportation.
- Encourage participation by all levels of the private and public sector: citizen groups, vehicle manufacturing and insurance industries, the media and all levels of government.
- Provide and offer training and educational programs to educate the driving public about the effects of aging and possible related driving performance decrements to include: and available alternatives to driving, and training programs that are designed for the needs of the older drivers.
- Wherever possible, design means to encourage and enable older drivers to self-regulate their driving based on their abilities.

Comment

There is no consensus on the definition of older drivers. The use of the term "varies not only across studies but also across different government reports". [Zhao, p.1] Different countries implement different policies and frameworks to assess the ability of older drivers. Even within a country such as the United States, each state has their own policy and framework on older drivers. [Mohammaddokht, p.2405] Toups et al. (2022) informed, "stark discrepancies remain among state renewal requirements, with some not having any age-specific policies at all." [Toups, p.7] Moreover, "There are currently no widely accepted definitions, conceptual models, or uniform set of analyses for conducting geriatric research that is focused on driving." [ibid., p.1] From a utilitarian view, an older driver may be considered as one whose ability to drive has been significantly reduced by their general mental and physical aging.

Older drivers have an increased fatal crash risk, "largely due to their increased susceptibility to injury, particularly chest injuries, and medical complications, rather than an increased tendency to get into crashes". [Toups, p.2] In addition, "geographical settings—urban, suburban, and rural areas - also contribute to the differences in fatal crashes among older drivers". [Payyanadan, p.1] The impact of the increased risk becomes greater with longer life spans of persons in society. For example, "Over 10,000 people a day turn 65 in the United States" [Toups, p.1], "In 2020 ... licensed drivers ages 65 and older in the United States ... a 68% increase since 2000" [CDC, 2022], "By the year 2030, one of every five drivers in America will be 65 years of age or older". [AAA, 2023], and "Japan will have an estimated 25% more older drivers by 2030". [Zhao, p.1]

Payyanadan et al. (2018) found, "common challenges faced by older drivers across the settings: behavior of other drivers on the road, placement of road signs, reduced visibility of road signs due to age-related decline, and difficulties using in-vehicle technologies." [Payyanadan, p.1] They informed, "age-related decline can increase difficulty conducting certain driving maneuvers such as left turns and intersection negotiations" [ibid., p.2] Depestele et al. (2020) reported, "Older persons had a more variable, less consistent driving simulator performance, such as more variable speed adaptation or less consistent lane keeping behavior." [Depestele, p.433] Huang et al. (2020) reported, "studies overwhelmingly report that older drivers tend to rate highly, and often overestimate, their driving abilities. They perceive their driving abilities to be better than themselves at a younger age, their cohorts, and all other drivers." [Huang, p.307] Hill et al. (2020) found a median of 7 medications reported by active drivers from age 65 to 79 years [Hill, p.5] "that may affect their driving safety". [ibid., p.1]

Fausto et al. (2021) found, "Physical retraining/exercise, visual-perceptual training, and combined intervention approaches demonstrated medium to large effects on on-road driving performance. Cognitive training approaches reduced at-fault crashes by almost 30%. Education and context-specific approaches were not efficacious to improve driving safety outcomes." [Fausto, p.1] They indicated, "combined intervention approaches improved on-road driving performance and reduced at-fault crashes". [ibid.]

Advances in computation-based technologies are expected to assist some older drivers. Hollman (2022) announced a "Safe Older Drivers Mobile App" developed by the American Geriatrics Society under agreement with NHTSA with, "the goal of helping health care practitioners prevent motor vehicle crashes and injury in older adults. The app offers assessment and counseling strategies that help clinicians better identify older drivers at risk for crashes, enhance driving safety, and ease the transition to driving retirement if and when it becomes necessary." [Hollmann, p.47] Son and Park (2020) conveyed, "Intelligent vehicles could help older populations by compensating for age-related difficulties." [Son, p.109] such as "diminished abilities in motion perception, peripheral vision, and selective

attention, and decreased speed of information processing and decision-making". [ibid., p.112] Payyanadan et al. suggested that technological advances in real-time routing applications provide support for drivers with route selection and avoidance, but that their design should encompass older drivers. [Payyanadan, pp. 7, 8 & 12].

Payyanadan et al. informed, "driving cessation can have a huge cost on personal well-being and quality of life, and reduce participation in social and leisure activities among older adults". [Payyanadan, p.2] Mohammaddokht et al. (2022) informed, "many psychological and social problems can be generated for them if they are deprived of driving" [Mohammaddokht, p.2413] and can reduce their quality of life and sense of independence. [ibid.] Toups et al. advocate, "Every effort should be made to help older drivers remain on the road as long as they safely can. Approaches using classroom-based, simulator-based, and on-road driving training have had some success in reducing risky driving behaviors among older adults with and without cognitive impairment". [Toups, p.8] Huang et al. (2020) recommend, "policy makers can also support legislation that require all automobiles, produced after a certain year, to be equipped with minimum assisted-driving and safety features and technologies that significantly benefit older drivers." [Huang, p.318]

References

AAA Foundation for Traffic Safety (2023),

Drivers 65 Plus: Check Your Performance. A Self-Rating Tool with Facts and Suggestions for Safe Driving.

Accessed Oct 12.

https://exchange.aaa.com/wp-content/uploads/2021/03/Driver-65-Plus.pdf

Centers for Disease Control and Prevention (CDC) (2022).

Older Adult Drivers,

Transportation Safety, June 28.

https://www.cdc.gov/transportationsafety/older adult drivers/index.html

Depestele, S., Ross, V., Verstraelen, S., Brijs, K., Brijs, T. van Dun, K. & Meesen, F. (2020).

The impact of cognitive functioning on driving performance of older persons in comparison to younger age groups: A systematic review,

Transportation Research Part F. 73, 433-452.

https://doi.org/10.1016/j.trf.2020.07.009

Fausto, B.A., Maldonado, P.F.A., Ross, Lavallière, M. & Edwards, J.D. (2021). A systematic review and meta-analysis of older driver interventions, *Accident Analysis and Prevention, 149, 105852*, 1-20. https://doi.org/10.1016/j.aap.2020.105852

Huang, G., Luster, M., Karagol, I., Park, W. & Pitts, B.J. (2020). Self-perception of driving abilities in older age: A systematic review, *Transportation Research Part F, 74* (2020) 307-321. https://doi.org/10.1016/j.trf.2020.08.020

Hill, L.L., Andrews, H., Li, G., DiGuiseppi, C.G., Betz, M.E., Strogatz, D., Pepa, P., Eby, D.W., Merle, D., Kelley-Baker, T., Jones, V. & Pitts, S. (2020).

Medication use and driving patterns in older drivers: preliminary findings from the LongROAD study,

Injury Epidemiology, 7:38, 1-11.

https://doi.org/10.1186/s40621-020-00265-y

Hollmann, P. (2022).

American Geriatrics Society Offers New and Updated Mobile Apps and Tools for Clinicians.

Journal of Gerontological Nursing, 48(1), 47-48.

https://doi.org/10.3928/00989134-20211207-02

Mohammaddokht, S., Saadati, M., Kashefimehr, B. & Azami-Aghdash, S. (2022). Assessing and Improving Fitness to Drive in the Elderly People: A Scoping Review of Policies and Guidelines.

Iran Journal of Public Health, 51(11), 2404-2416.

https://doi.org/10.18502/ijph.v51i11.11158

Payyanadan, R.P, Lee, J.D. & Grepo, L.C. (2018).

Challenges for Older Drivers in Urban, Suburban, and Rural Settings,

Geriatrics, 3, 14, 1-15.

https://doi.org/10.3390/geriatrics3020014

Son, J. & Park, M. (2020).

Intelligent Vehicles and Older Drivers,

Olaverri-Monreal, C., García-Fernández, F. & Rossetti, R.J.F. (eds.),

Human Factors in Intelligent Vehicles, Ch. 6, 109-124.

River Publishers, Gistrup, Denmark.

https://www.routledge.com/Human-Factors-in-Intelligent-Vehicles/Olaverri-Monreal-Garcia-Fernandez-Rossetti/p/book/9788770222044

Toups, R., Chirles, T.J., Ehsani, J.P., Michael, J.P., Bernstein, J.P.K, Calamia, M., Parsons, T.D., Carr, D.P. & Keller, J.N. (2022).

Driving Performance in Older Adults: Current Measures, Findings, and Implications for Roadway Safety

Innovation in Aging, 6(1), 1-13.

https://doi.org/10.1093/geroni/igab051

Zhao, Y. & Yamamoto, T. (2021).

Review of Studies on Older Drivers' Behavior and Stress - Methods, Results, and Outlook,

Sensors, 21, 3503, 1-17,

https://doi.org/10.3390/s21103503

Other References for Further Policy Considerations

Bellet, T., Paris, J-C. & Marin-Lamellet, C. (2018).

Difficulties experienced by older drivers during their regular driving and their expectations towards Advanced Driving Aid Systems and vehicle automation, *Transportation Research Part F, 52*, 138-163.

https://doi.org/10.1016/j.trf.2017.11.014

Betz, M.E., Omeragic, F., Meador, L., DiGuiseppi, C.G., Fowler, N.R., Han, S.D., Hill, L., Johnson, R.L., Knoepke, C.E., Matlock, D.D. & Moran, R. (2021).

The Advancing Understanding of Transportation Options (AUTO) study: design and methods of a multi-center study of decision aid for older drivers,

Injury Epidemiology, 8:23, 1-13.

https://doi.org/10.1186/s40621-021-00310-4

Carr, D.B. & Grover, P. (2020). The Role of Eye Tracking Technology in Assessing Older Driver Safety, *Geriatrics*, *5*, *36*, 1-14. https://doi.org/10.3390/geriatrics5020036

Dickerson, A.E., Molnar, L., Bedard, M., Eby, D.W., Classen, S. & Polgar, J. (2019). Transportation and Aging: An Updated Research Agenda for Advancing Safe Mobility, *Journal of Applied Gerontology, 38(12)*, 1643-1660. https://doi.org/10.1177/0733464817739154

Gasne, C., Paire-Ficout, L., Bordel, S., Lafont, S. & Ranchet, M. (2022). Takeover performance of older drivers in automated driving: A review, *Transportation Research Part F: Psychology and Behaviour, 87*, 347-364. https://doi.org/10.1016/j.trf.2022.04.015

McCloskey, K. & Webb, M. (2021).

Driving in Older Adults: A Literature Review of Interventions to Promote Safety and Independence,

New Zealand Journal of Occupational Therapy, 68(2), 4-10.

https://www.proquest.com/openview/6042e988f119e62e8c8f641d87f3fcea/1?pqorigsite=gscholar&cbl=706374

Selander, H., Stave, C., Willstrand, T. & Peters, B. (2019).

Driving simulator-based training to improve self-rating ability of driving performance in older adults – a pilot stud,

European Transport Research Review, 11:35, 1-7.

https://doi.org/10.1186/s12544-019-0372-6

ADID Draft Edit – November 30, 2023

This position statement reflects the opinions of the National Safety Council but not necessarily those of each member organization. Approved by Board of Directors, May 6, 1994