

U.S. Department of Transportation: Functional Ability and Crash Risk

This project identified screening tools that can be used in an office-based setting to determine whether a driver might be at risk for crashing. Results revealed that a focus on functional ability rather than age was an effective way to examine crash risk. Recommendations for driver licensing policy reflect the importance of functional ability in assessing fitness to drive.

Lead Agency:

U.S. Department of Transportation
National Highway Traffic Safety Administration (NHTSA)

Agency Mission:

Save lives, prevent injuries and reduce economic costs due to road traffic crashes through education, research, safety standards and enforcement activity.

Principal Investigator:

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Partner Agencies:

Maryland Motor Vehicle Administration

General Description:

This research project studied the feasibility as well as the scientific validity and utility of performing functional capacity screening with older drivers. A Model Program was described encompassing procedures to detect functionally impaired drivers who pose an elevated risk to themselves and others; to support remediation of functional limitations if possible; to provide mobility counseling to inform and connect individuals with local alternative transportation options; and to educate the public and professionals about the link between functional decline and driving safety-all within a larger context of helping to preserve and extend the mobility of older persons.

Early in this project, a questionnaire was developed and distributed to Driver License Administrators in the U.S. and Canada to broadly determine cost and time parameters, while identifying legal, ethical, or policy implications that could influence implementation of Model Program activities. Subsequently, a battery of functional tests

was developed and pilot tested in Motor Vehicle Administration sites, and in the community. A database of scores on functional ability measures, driving habits information, and crash and violation history was created for over 2,500 drivers in three samples drawn from license renewal, medical referral, and residential community populations. Cost estimates for functional capacity screening and related Model Program activities were developed for research and production settings. A set of guidelines for motor vehicle administrators was also produced to update the 1992 publication by NHTSA and AAMVA of the same title.

Excellence: What makes this project exceptional?

This research project is exceptional because it changed the dialogue within the Department from age-based testing to functional-ability based testing. The pivotal nature of this shift is reflected in all subsequent NHTSA research projects and in research conducted by outside organizations.

Significance: How is this research relevant to older persons, populations and/or an aging society?

The change in perspective to functional abilities influences the 29 million currently licensed drivers not only in their dealings with their state's driver licensing authorities, but with their medical providers, social services providers, and law enforcement officers.

Effectiveness: What is the impact and/or application of this research to older persons?

The findings from this investigation have been incorporated into educational materials for all of the people who help determine if an older driver is safe.

Innovativeness: Why is this research exciting or newsworthy?

By shifting the thinking about safety from age to ability, we have the opportunity to help older drivers stay behind the wheel as long as they are safe to do so.