

★ ★ ★ ★ Senior Safety & Mobility

The Problem

- Over 27 million Americans are 70 years old or older.
 - An estimated 20 million of them are licensed drivers.
 - Over 500,000 drivers aged 70 and older were involved in police-reported motor vehicle crashes in 2006—including 4,265 fatal crashes.
 - The U.S. Census Bureau estimates that there will be 50 million Americans aged 70 and older by the year 2030.
- Although 44 of 50 states have some form of voluntary reporting to identify drivers at risk for crashes and other safety concerns due to changes in health and function, no law is as comprehensive or detailed as Missouri's, which allows confidential reporting for anyone doing so in good faith and provides people reporting with civil immunity from prosecution.

The Current Study

- Missouri House Bill 1536, effective January 1, 1999, provides a legal process whereby police officers, medical professionals, and family members can report a driver, believed to be unable to drive safely, for medical and driving re-evaluation and possible license restriction, suspension, or revocation. The reporter's identity is maintained as confidential. The law provides civil immunity protection from prosecution for any person who makes a report in good faith, as well as legal penalty for intentionally filing a false report (See www.drivingsafe.org/mo_law.htm).
- The research team reviewed case materials for 4,100 individuals, aged 50 and older, reported in years 2001 through 2005 under this law. Over 15,000 document pages were extracted from microfilm, printed, reviewed, and the data hand entered to an integrative database over a 9-month period in 2007. Their driving records were also compared to those of an age- and gender-matched sample of Missouri drivers who had not been reported.
- This study was designed to evaluate the existing law and associated system, and answer the following kinds of questions:
 - What driver safety stakeholders file reports under such mechanisms?
 - To what extent are family members and health professionals involved in making reports?
 - Are drivers reported before on-road safety becomes an issue or after a crash has occurred?
 - What medical conditions are of greatest concern? What happens to drivers after they have been evaluated by the system?

Seniors face serious driving safety and mobility issues.



Key Findings

- Missouri's voluntary reporting law is effective in moving those reported as potentially unfit into driving retirement. Roughly half of those reported in 2001-2005 retired after receiving official notice from the State, either by voluntarily surrendering their licenses or by failing to have a required physician evaluation submitted. Of the 2,028 individuals who saw their physicians, most were deemed at-risk drivers due to frailty, medical compromise, observed problematic driving behaviors, and crash history. Just 144 individuals (3.5% of those originally reported) retained a valid license to drive following medical evaluation and on-road testing (if required).
- Missouri's voluntary reporting law was developed, in part, to encourage identification and reporting of *medically-at-risk* drivers by physicians and other health professionals. Yet during 2001-2005 almost 60% of all reports were submitted by police officers (30%) and license office staff (27%). Physicians (20%) and family members (16%) were the sources for most other reports. Seven of every eight police-initiated reports were made pursuant to a crash, dangerous action, and/or traffic violation. Public safety was already compromised in many instances but, even so, the HB-1536 process did effectively move these individuals into driving retirement. In the future, an increase in reports from family members and health professionals would likely further enhance public safety by identifying at-risk drivers who are not as medically compromised, but are still deemed unsafe to drive.
- Reported drivers in this sample were quite old, with an average age of 80 years, and disproportionately male (55%), when compared to the much higher proportion of females in the older population. Half (49%) of these individuals were involved in at least one crash as a driver between 1993-2006 and almost two thirds (64%) of these had crashes within 0-6 months of being reported. In other words, crash was a precipitating factor for reporting in many cases.
- Our data suggest that dementia is a top public health concern with respect to fitness to drive in older adults. Almost half (45%) of this sample of reported drivers had an indication of dementia and/or cognitive impairment in their records. Vision problems were a distant second in prevalence, possibly because systems are already in place to address vision loss. Dementia and other forms of cognitive impairment, in contrast, can be difficult to identify, especially in those experiencing the early stages of decline. Some of those reported under Missouri's voluntary reporting law surely passed over this line and drove too long into the progression of their disease. Organizations, such as the Alzheimer's Association, have devoted significant resources to educating the public and family caregivers about dementia and driving. Our data suggest that such education is critical and can enhance public safety.
- The majority of older drivers are safe behind the wheel, but as a group they are at higher risk for driving-related problems because they have more health conditions and functional impairments. Voluntary reporting laws play an important role in helping to identify the increasingly large proportion of people who are unsafe to drive at advanced ages.
- The research team is currently following up with Missouri officials to enhance the medical review process under Missouri's voluntary reporting law and to develop targeted educational interventions to enhance stakeholder knowledge and use of this legal mechanism.