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Driver Medical Review Practices Across the United States

Introduction

There were 38.4 million licensed older drivers in 2014—a 31% increase from 10 years earlier (2005). Furthermore, older drivers as a percentage of all licensed drivers increased from 15% in 2005 to 18% in 2014 (National Center for Statistics and Analysis, 2016). As the driving population continues to age, medical conditions and associated impairments affecting driving abilities will become more prevalent, and State driver licensing agencies are likely to see driver medical review become an even more prominent part of their activities.

A previous NHTSA report, *Strategies for Medical Advisory Boards and Licensing Review*, highlighted similarities and differences in driver medical review practices across the United States (Lococo & Staplin, 2005). This present three-volume study builds upon the previous report by documenting strengths and limitations of the various approaches developed by the States to evaluate medical fitness to drive. Particular areas of interest included the methods States used to identify those most at risk, subsequent licensing actions, and the effects of these actions on individuals' licenses.

Classifying States' Medical Review Practices

As described in *Volume 1: A Case Study of Guidelines and Processes in Seven U.S. States*, the research team coded 38 data elements to capture medical review structures and processes that might set States apart from one another. After evaluating these factors, the researchers reduced the set to four structural components:

- presence of a Medical Advisory Board (MAB),
- whether the licensing agency had in-house medical professionals who performed case review,
- whether the MAB reviewed individual cases and contributed to the development of guidelines, *and*
- the breadth of the medical guidelines.

However, the distribution of the 51 jurisdictions across these four factors did not produce sufficient variation to perform meaningful analysis. The final categorization focused on the first two factors. Table 1 indicates the distribution of the jurisdictions across the four categories and the selected States. The final selection involved selecting two States within the three cells with more than two jurisdictions based upon representativeness and practicality. The final selection included Maine, North Carolina, Ohio, Oregon, Texas, Washington, and Wisconsin.

Table 1: Case Study Selection

	One or more medical professionals performing case review	No medical professionals performing case review
MAB	2 (ME & NC) of 6	2 (TX & WI) of 30
No MAB	1 (OR) of 1	2 (OH & WA) of 14

Effect of Structure on Processes and Outcomes

The research team solicited information from the case study States in 2013 using a 41-question survey. The team contacted the States initially by e-mail and followed by telephone and e-mail as needed for clarification and completeness. The instrument focused on the basic functions of identifying, assessing, and rendering licensing decisions on medically at-risk drivers. The study used the provided information to evaluate the processes and outcomes associated with these tasks.

The evidence suggests that having an MAB and having medical professionals on the case review staff convey some advantages. With respect to identifying at-risk drivers, the States with MABs or medical reviewers appeared to benefit from having medical professionals involved in the process. These States had more comprehensive medical guidelines in place and provided legal immunity to physicians who voluntarily reported an at-risk driver. In addition, one of the States had a mandatory physician reporting law.

With respect to assessment of referred drivers, the two States without MABs or medical professionals on staff relied heavily on the opinion of the drivers' physicians regarding fitness to drive, as well as testing carried out at local licensing offices. In contrast, States with MABs were more likely to base decisions on whether medical standards were met. The best approach to driver assessment probably involves a combination of input from drivers' physicians and licensing agency testing.

As far as rendering appropriately balanced decisions, results were mixed. States with MABs or medical professionals on staff generally had a broader range of available licensing outcomes. However, appeals were lowest in the States without MABs or medical professionals on staff. Finally, having an MAB or medical professionals on staff did not appear to be associated with higher overall program costs.

Medical Referrals and Outcomes in Six States

Volume 2: Case Studies of Medical Referrals and Licensing Outcomes in Maine, Ohio, Oregon, Texas, Washington, and Wisconsin presents an analysis of the referral sources, medical review requirements, and licensing outcomes for a random sample of 3,000 passenger vehicle drivers referred for initial medical review/reexamination in six States. Within each State, the researchers collected data on a ran-

dom sample of 500 drivers referred for initial medical review in the year 2012. Analyses identified the most common sources of driver referrals and licensing outcomes by referral source.

Common sources of referrals for medical review or reexamination included self-referral where a driver acknowledged a condition or impairment during licensing, physicians, license agency employees, law enforcement, family members, concerned citizens, other medical professionals such as physical therapists, and crash reports. Table 2 provides the most common referral sources and corresponding percentages within each State.

Table 2: Most Common Referral Sources

	One or more medical professionals performing case review	No medical professionals performing case review
MAB	ME: Self (91%)	TX: Crash Report (29%) & Law Enforcement (28%) WI: Law Enforcement (66%)
No MAB	OR: Physician (74%)	OH: Self (59%) WA: Physician (33%) & Law Enforcement (28%)

Contrary to expectations, States with MABs do not appear to have a higher proportion of physician referrals than States without MABs. In the State with medical professionals but no MAB, the mandatory physician reporting law likely contributed to physicians being the most common referral source.

The researchers also identified eight licensing outcomes, which were then grouped into three broad categories.

- *licensing action based on medical guidelines, opinion of the treating physician, or licensing agency test performance*
- *opt out of licensure*
- *no change in license status*

Comparing results across the six States, in two States (Oregon and Texas) almost every case (greater than 99%) resulted in a change of license status regardless of referral source. In the remaining four States, physician referrals resulted in a change of status ranging from 90% to 97%. For the three States with a significant number of law enforcement referrals, the change of status ranged from 77% to 84%. The two States with a significant number of self-referrals resulted in a change in status 70% and 78% of the time.

While one of the project goals was to describe strengths and limitations of each broad structure, there were several barriers to achieving this goal. One barrier was the small sample representing each structure. Another barrier was that the structural variables did not adequately differentiate the processes such that States with different structures had similar processes. A related concern was that processes not captured by the structural components explained differences in outcomes. Finally, some States did not provide the ability to sample from all referral sources.

Guidelines Across the United States

Volume 3: Guidelines and Processes in the United States and District of Columbia documents each jurisdiction's medical review structure and processes used in licensing drivers with medical conditions or impairments in their abilities needed to drive safely. With the assistance of the American Association of Motor Vehicle Administrators, research staff e-mailed a survey (OMB No. 2127-0705) to Medical Review or Driver Reexamination staff in January 2015 to collect the information. In total, 49 of the 51 driver licensing agencies responded. The report contains 5- to 10-page summaries for each jurisdiction and tables comparing the survey responses.

Conclusions

Overall, the results indicate benefits of having medical professionals integrated into driver medical review practices.

Having one or more medical professionals on staff or available through an MAB may help clarify information provided on medical forms, improve assessments and lead to more comprehensive medical guidelines. It may also help promote policies that increase physician referrals, which are the referral source most likely to result in a change in license status. However, just having an MAB may not be enough. For example, among the 32 States that reported having an MAB, only 17 said they advise on procedures. In addition, efforts to increase physicians' awareness and understanding of their State's process may increase their willingness to refer their functionally and medically impaired patients to the licensing agency.

References

Lococo, K., & Staplin, L. (2005, July). *Strategies for medical advisory boards and licensing review.* (Report No. DOT HS 809 874). Washington, DC: National Highway Traffic Safety Administration.

National Center for Statistics and Analysis. (2016, May). *Older population: 2014 data.* (Traffic Safety Facts. Report No. DOT HS 812 273). Washington, DC: National Highway Traffic Safety Administration.

Report Access

For a copy of the research reports *Medical Review Practices for Driver Licensing Volume 1* (DOT HS 812 331), *Volume 2* (DOT HS 812 380) or *Volume 3* (DOT HS 812 402), visit www.nhtsa.gov. Kathy J. Sifrit was the NHTSA Project Manager for this project.

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