

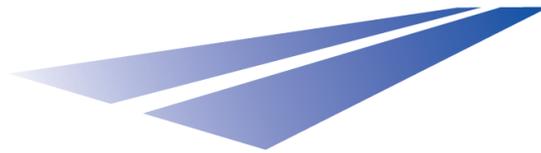
# *Providing Tools for Professional Responses to Drivers with Functional Declines*

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*Missouri Coalition  
for **Roadway Safety***



Washington University in St. Louis

SCHOOL OF MEDICINE

# Disclosures

## **Stowe**

Grants: State Farm, Missouri Department of Transportation (MODOT)

Speaker: Trauma Center Association of America

# Missouri Coalition for Roadway Safety



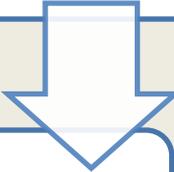
Membership: Federal, State, Local, Public and Private Organizations

## Executive Committee

(Chair, William Whitfield, Director of Highway Safety)



~ 10 Statewide  
Subcommittees



7 Regional  
Coalitions

# 7 Regional Coalitions



- Report to the Executive Committee
- Hold regular meetings
- Control formula-based budgets and grant mechanisms



# Subcommittee on Elder Mobility and Safety (SEMS)

- Responds to the Missouri's SHSP older driver section
- Dedicated MoDOT staff member for support/administration
- 36 confirmed members; ~20 regularly attend/contribute
- Statewide quarterly meetings

**You can plan for your future transportation needs...**

Learn about transportation & mobility options in your community:

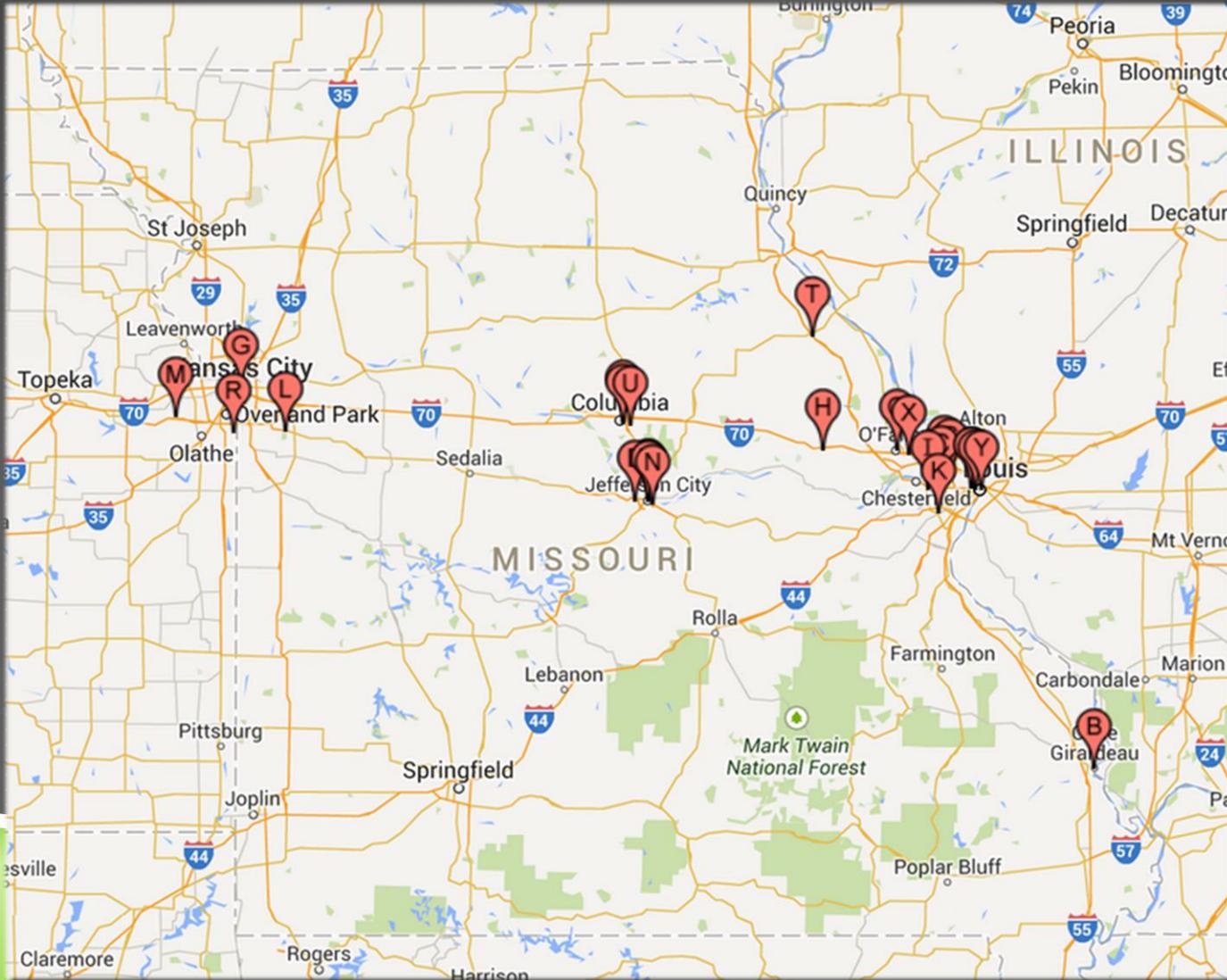
Contact your local Area Agency on Aging  
**Dial 2-1-1** or 1-800-427-4626  
[www.moaging.com](http://www.moaging.com)



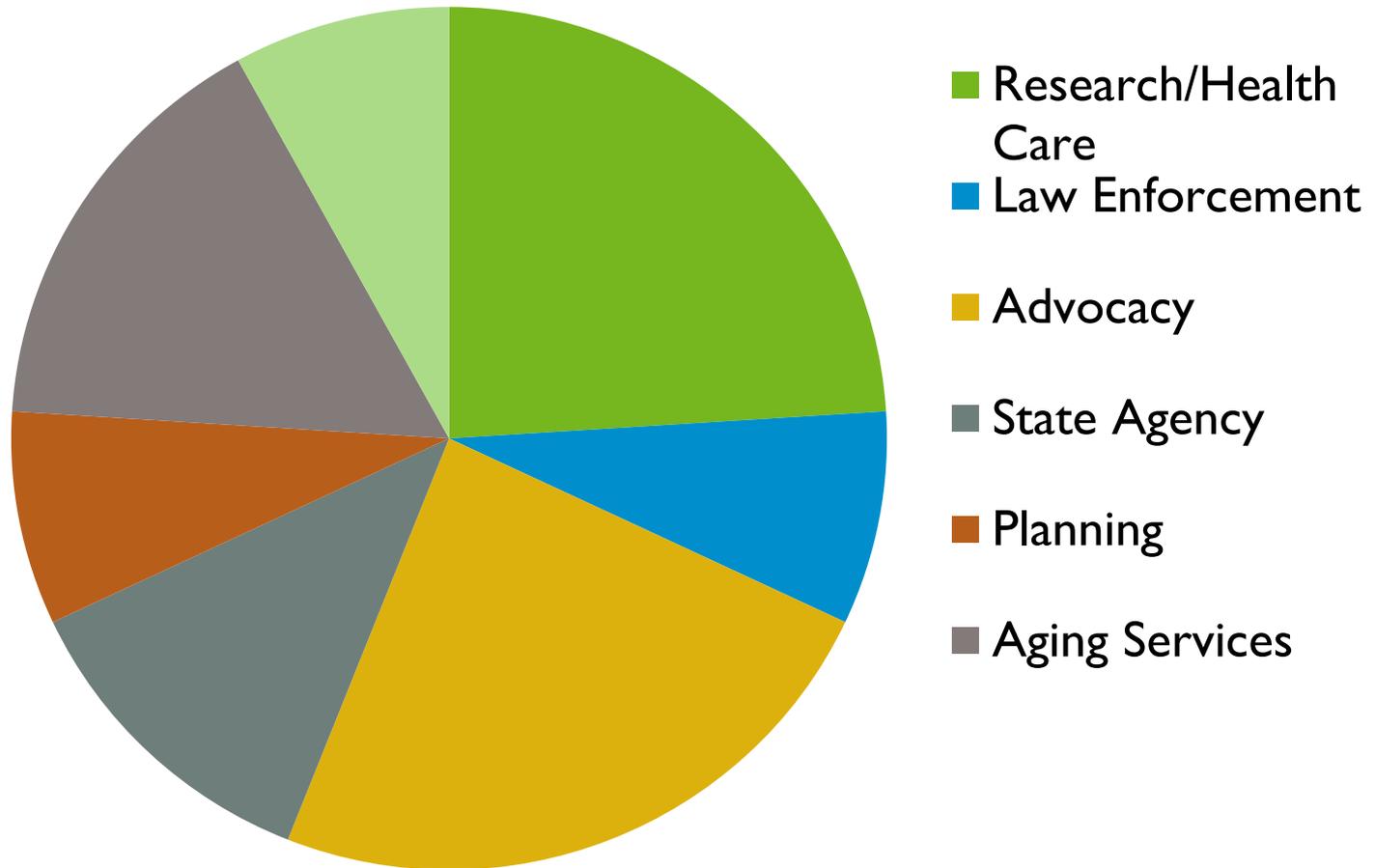
**Empower Yourself**  
for Positive, Safe Mobility for Life

[www.saveMOlives.com](http://www.saveMOlives.com) Poster by the Subcommittee on Elder Mobility & Safety (SEMS), Missouri Coalition for Roadway Safety

# SEMS MEMBER GEOGRAPHY – STATEWIDE REPRESENTATION



# SEMS Member Affiliation – Diverse interests, skills, knowledge



# Where are high-risk drivers?

Oftentimes, interacting with the following professionals:

- Law Enforcement
- License Office Staff
- Health Care

# Driver Orientation Screen for Cognitive Impairment-Missouri

- Initial Missouri training in 2014
- Missouri smartphone app under development
- OrientationScreen.org under development
- Pilot testing this year

The image displays three overlapping screenshots of the Driver Orientation Screen for Cognitive Impairment (DOSCI) app interface. The top screenshot shows the title screen with the DOSCI logo, a steering wheel icon, and a clipboard icon. Below the title, it reads "Driver Orientation Screen for Cognitive Impairment" and "The Driver Orientation Screen for Cognitive Impairment (DOSCI) is used to help screen for cognitive impairment (problems with thinking or memory), which is one part of Medical Fitness to Drive (MFD)." A prominent "BEGIN" button is visible. The middle screenshot shows a question: "1 What is your date of birth? (Month, day, and year required; must match documents)". Below the question are two buttons: "CORRECT" and "INCORRECT". A "START OVER" button is also present. The bottom screenshot shows the "Results" screen. It displays "6 Incorrect: PRIORITY - Unsafe to drive" with a red border around the text. Below this, a list of 9 questions is shown with their status: 1. What is your date of birth? (Incorrect), 2. What is your full home address? (Correct), 3. What state are we in now? (Incorrect), 4. What city/town are we in now? (Incorrect), 5. Without looking at your watch, can you estimate what time it is now? (Incorrect), 6. What day of the week is it? (Incorrect), 7. What is the current month? (Correct), 8. What day of the month is it? (Incorrect), 9. What year is it? (Correct). A summary box on the right indicates: "5+ incorrect: Priority. Unsafe to drive; refer to department procedures for alternative transportation and vehicle removal." and "3-4 incorrect: Regular or Priority. Potentially unsafe to drive; consider totality of circumstances." and "0-2 incorrect: No Referral or Regular. Based on totality of circumstances." Below the results, there are "Additional Questions to Assist in Evaluation:" with three bullet points: "Where are you coming from and where are you going?", "Will you please spell your name?", and "Do you have an emergency contact? What is the name and phone number?". A "START OVER" button is at the bottom.

# EncountersTraining.org – For license office professionals

- Statewide release May 22, 2015
- Purpose: To identify clear symptoms of possible medical impairment during license renewal
- Offers simple modules and mastery quizzes



# Engaging Health Care



## DRIVING CONCERN INCREASES WHEN:

- ▶ A new condition is diagnosed...
  - ▶ Especially, for certain conditions like **dementia**
  - ▶ Especially, if other conditions are present
  - ▶ Especially, during advanced older age
  - ▶ Especially, if any condition(s) result in **great limitations** or **restrictions to everyday living**

# Step 1: Screen for Risk

- Health care professionals have requested simple, brief screens to identify patients who need further evaluation by a driving specialist.
- Carr's fitness-to-drive tool uses results from 3 screening tests that give the probability of the patient failing an on-road test. This patient appears fit – a 4% probability of failing.

## Probability of Failing Driver Test

	Intercept	trlA	AD8TOT	CDTf
coefficient	-1.7594	0.0283	0.5516	-0.3643

Observed Value	26.47	0	6
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Change values in box above.

score	-3.196099
exp(score)	0.0409215
probability	0.0393128

- Based on this patient's results, there is a 92% probability of failing an on-road test.

### Probability of Failing Driver Test

	Intercept	trlA	AD8TOT	CDTf
coefficient	-1.7594	0.0283	0.5516	-0.3643

Observed Value	120	4	4
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Change values in box above.

score	2.3858
exp(score)	10.867753
probability	0.9157381

# Which patients need further evaluation?

- 3 types of results come from screening:
  - 1) Clearly okay, no action needed
  - 2) Clearly unfit, intense rehab or driving retirement needed
  - 3) **Unclear**

Full evaluation and additional testing is needed for the "unclear" group

# Step 2: Try to keep patients driving

- Enhanced Medical Rehabilitation (Dr. Eric Lenze) may improve driving rehab outcomes
- Retirement **process** approach
  - The patient is supported from improving skills to successful driving retirement
- **Patient sets the goals**

# Future prospect: At-home training using game console simulation?

- Auto manufacturers use video game competitions to identify race car driver candidates.
- After a full evaluation, part of driving rehabilitation may be prescribed, at-home gaming to improve certain skills.

# Step 3: Driving Retirement

- Voluntary Reporting Law



- Reporting is necessary for patients who are unwilling to stop driving when needed

- Mobility management/coordination



- This approach solves the root problem of unsafe drivers...if there was an acceptable alternative, then giving up the keys would not be as painful

# What do you drive?

- Due to enhanced crash structures and collision avoidance technology, this question will increase in importance for those wishing to prolong safe driving.
- Can technology lower the functional threshold necessary to drive safely?

# Consumer Education

- Picking the safest vehicle is a strategy frequently missed by state-level safety coalitions/advocates.
- Missouri's Subcommittee is committed to pursuing programs that help drivers choose the safest vehicles, such as those identified by the Insurance Institute for Highway Safety.

# Take Home

- Stay behind the wheel, safely, for as long as possible
- Low-hanging fruit for older driver safety: Professionals who encounter medically impaired drivers
- Make/use things (tools, curricula, etc.): Avoid mere educational campaigns
- Form a diverse, committed coalition, and expect them work hard
- Leverage emerging technology



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