



**MICHIGAN CENTER FOR ADVANCING SAFE  
TRANSPORTATION THROUGHOUT THE LIFESPAN**

**M-CASTL AND YOU: IMPROVING OLDER  
ADULT SAFETY AND MOBILITY**

**David W. Eby, PhD  
Head, UMTRI-Social and Behavioral Analysis  
Director, M-CASTL**



**UNIVERSITY OF MICHIGAN**



# What is the M-CASTL?

- **Competitive grant from the US DOT.**
- **One of 14 Tier 1 University Transportation Centers.**
- **60 centers sponsored at various levels in US.**
- **M-CASTL is housed at UMTRI**
- **3 year sponsorship from US DOT**
  - **August 1 to July 31 (in our second year)**
- **\$1 million/year from US DOT; \$1 million/year cost share:**
  - **Cost share comes from U-M, UMTRI, and other various sponsors.**



# What is the M-CASTL?

- The theme of the Center is:  
*Safety and Mobility throughout the Lifespan;*
  - Primary focus on older adult safety and mobility;
  - Secondary focus on young drivers.
- We chose this theme because:
  - Relevant to current societal problems;
  - UMTRI does work in these areas;
  - U-M has great expertise in these areas;
  - Aligned with US DOT strategic planning.



# What is the M-CASTL?

- **Center Staff**

- **Director:** *David W. Eby*
- **Assistant Director:** *Lisa J. Molnar*
- **Program Director:** *Jonathon M. Vivoda*
- **Administrative Associate:** *Amanda Dallaire*
- **Editor, business development, etc.**



- **Executive Committee**
- **Advisory Board**
- **Faculty**
- **Students**

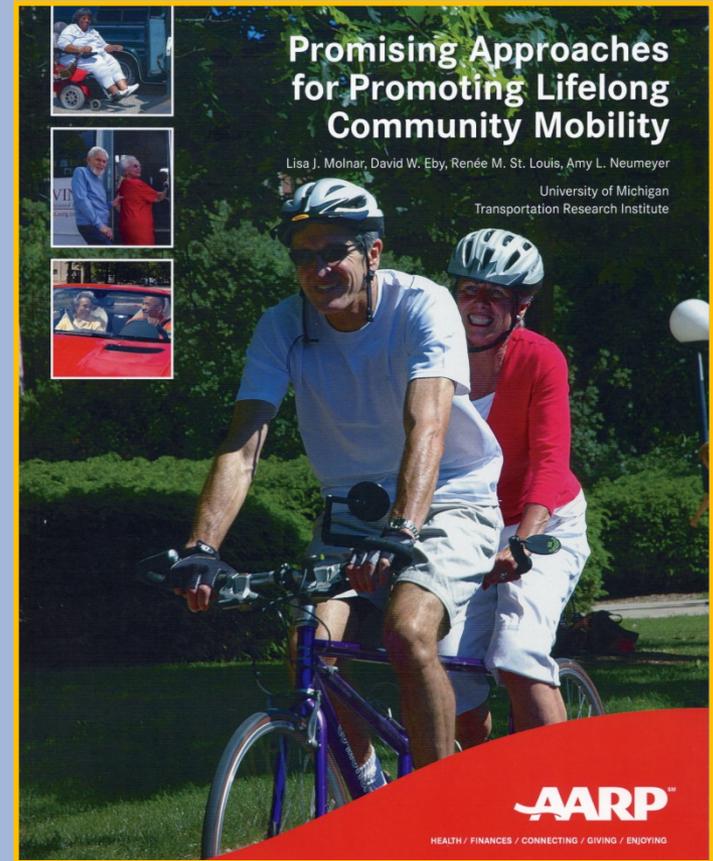
# M-CASTL and You

- **In addition to M-CASTL's commitment to furthering the educational and research missions of U-M and UMTRI, we also strive to be a resource for Michigan and others:**
- **M-CASTL and You**
  - **Information resource**
  - **Education resource**
  - **Research resource**



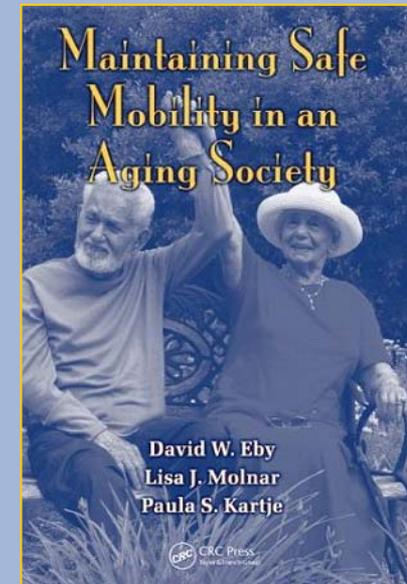
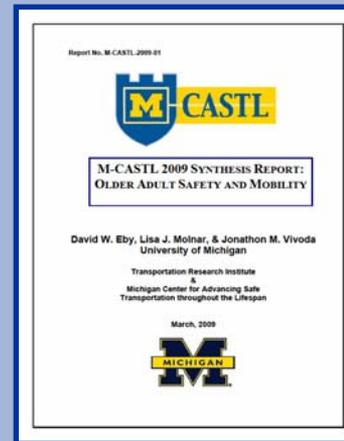
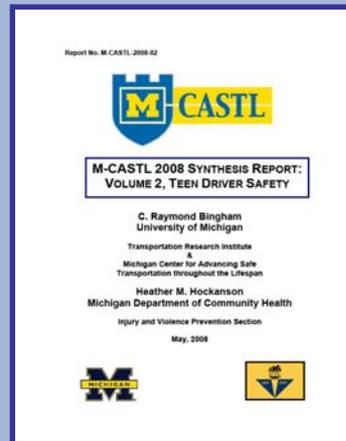
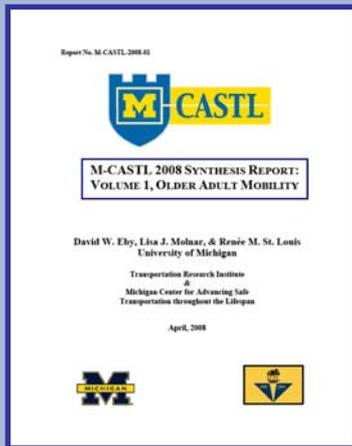
# M-CASTL: Information Resource

- Website: <http://m-castl.org>
- Frequently updated
- Content
  - Topical reports
  - Research reports
  - Conference video clips
  - Web briefings
  - Links to resources



# M-CASTL: Information Resource

- Website: <http://m-castl.org> Email: [m-castl@umich.edu](mailto:m-castl@umich.edu)
- Content continued:
  - Copies of M-CASTL Newsletter
  - Announcements
  - Annual research synthesis reports



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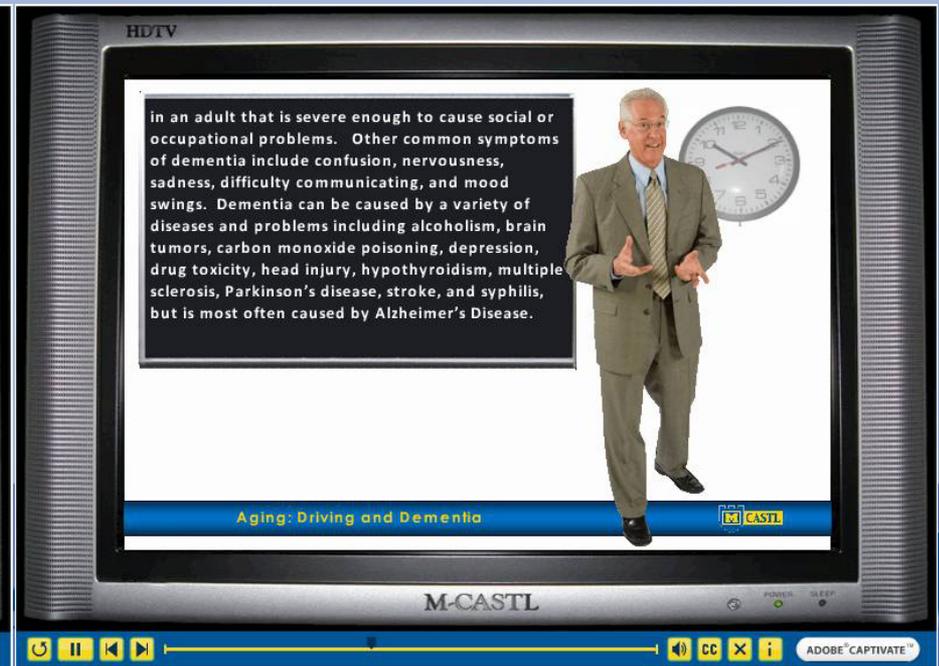
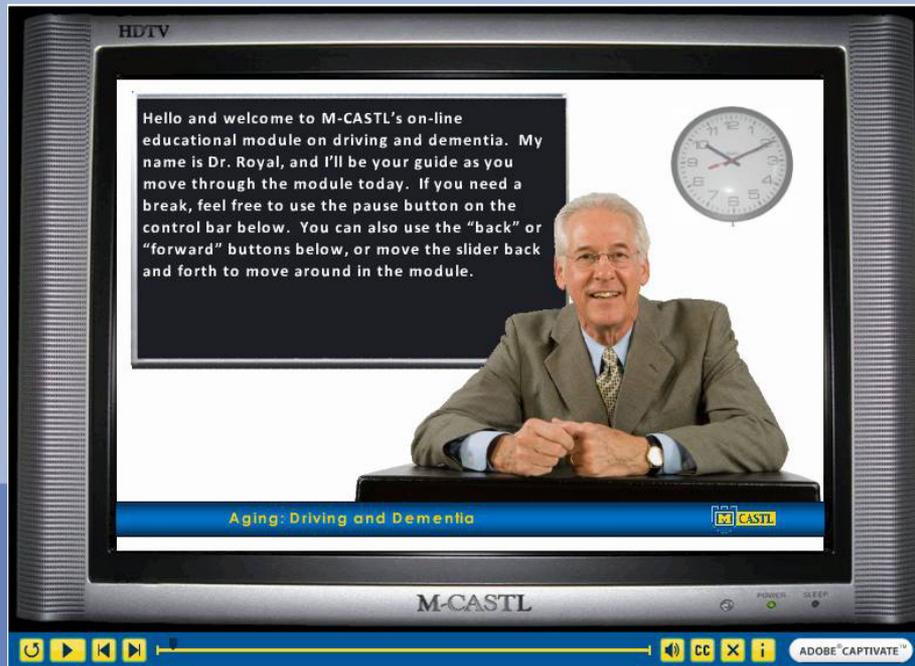
# M-CASTL: Education Resource

- *Professional Education Program*
  - Education of various transportation safety and mobility practitioners
  - Multiple media outlets
  - Stakeholder Survey
    - Sent to about 300 stakeholders
    - Full results at <http://m-castl.org/files/ProfEdReport.pdf>
  - M-CASTL welcomes requests



# M-CASTL: Education

- *Global Education Program*
  - Web-based training and education modules
    - (i.e., dementia and driving).
  - Emphasis will be on quality multimedia, timely topics, and sound educational principles.



# M-CASTL: Research Resource

## Research Excellence Program

- M-CASTL supports a vigorous program of basic and applied research to improve safety and mobility for young people and older adults
- Responsive to areas identified by US DOT, U-M, Advisory Board, and community
- Peer-review grant competition
- Three research thrusts:
  - the changing perceptual, cognitive, and psychomotor abilities of older drivers;
  - the transportation needs of young people and older adults when they are unable or choose not to drive themselves;
  - the elevated crash risk of young drivers.



# M-CASTL: Research Resource

## Eligibility Requirements

- Eligibility by academic and research faculty submitting proposals to serve as Principal Investigators at U-M;
- Focus on one or more of the M-CASTL priority research topics;
- 75 percent non-federal cost match/share;
- Use of “quad-team” approach by investigators;
  - Must have a non-University partner.
- Budget not to exceed ceiling direct costs;
- Proposed project period of 1 year.



# First Round Selected Projects

- *Youth, Age, and Transportation Accessibility: An Intermetropolitan Comparison*
  - PI: Jonathan Levine (Urban Planning)
  - Co-investigators: Joe Grenges (Urban Planning), Lidia Kostyniuk (UMTRI), Laurie Wargelin (Abt-SRBI, Inc.)
  
- *A Behavioral Model of Driving Reduction and Cessation*
  - PI: Lidia Kostyniuk (UMTRI)
  - Co-investigators: Cathleen Connell (School of Public Health), Patricia Carrow (Michigan Office of Highway Safety Planning)

# First Round Selected Projects

- *A New Approach to Assessing Self-Regulation by Older Drivers: Development and Testing of a Questionnaire Instrument*
  - PI: David Eby (UMTRI)
  - Co-investigators: Lisa Molnar (UMTRI), J. Scott Roberts (School of Public Health), Gary Bubar (AAA Michigan)
  - International Experts: Jim Langford (MUARC), Sean Marshall (University of Ottawa)

# Second Round Selected Projects

- *Cognitive Training as an Intervention to Improve Driving Ability in the Older Adult*
  - PI: Rachael Seidler (U-M Kinesiology)
  - Co-Investigators: John Jonides (U-M Psychology); Martin Buschkuehl (U-M Psychology); Susanne Jaeggi (U-M Psychology); Jessica Bernard (U-M Psychology); Pamela Hall (Michigan Office of Services to the Aging); Peggy Brey (Michigan Office of Services to the Aging).
- *Young unlicensed drivers: Four Studies to Understand the Association of Lifestyle and Area Associated Risk*
  - PI: C. Raymond Bingham (UMTRI)
  - Co-Investigators: Ana V. Diez-Roux (U-M School of Public Health); Christian L. Hanna (Michigan Public Health Institute).

# M-CASTL: Annual Conference

- **Most important way to interact, help guide M-CASTL activity/priorities, stay informed about important developments is through the annual conference.**
- **Conference Website: *<http://m-castl.org/node/49>***
- **Research & Education Conference**
  - **April 7, 2009 at the Michigan Union Ballroom**
- **Serves to set our priority areas for the coming year.**
- **Conference is followed by Executive Committee/Advisory Board Meeting**



# Annual Conference: Featured Speakers

- **Dr. James Jackson**. Director, U-M Institute for Social Research: *The value and need for multidisciplinary research and education.*
- **Dr. Richard Marottoli**. Medical Director, The Dorothy Adler Geriatric Assessment Center, Yale School of Medicine: *Medical conditions, medications, and driving.*
- **Dr. Joseph Coughlin**. Director, Massachusetts Institute of Technology AgeLab and New England University Transportation Center: *New transportation demands of an aging America.*

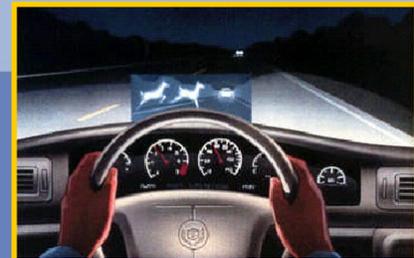
# Conference Sessions

- **Licensing Issues:**
  - *Dr. Jean T. Shope*, UMTRI, U-M School of Public Health (Graduated Licensing)
  - *Ms. Lisa J. Molnar*, UMTRI, M-CASTL (Outcomes of the North American License Policy Workshop)
  - *Dr. Marianna Spanaki*, Henry Ford Health System (Physician reporting and immunity)
  - *Ms. Anne Corgan*, Michigan Department of State, Legal and Regulatory Services Administration (Licensing of young and older drivers)



# Conference Sessions

- **Vehicle-Based Technology**
  - *Dr. C. Raymond Bingham, UMTRI, M-CASTL (Technology for monitoring young drivers)*
  - *Dr. John M. Sullivan, UMTRI (Night vision enhancement for young and older drivers)*
  - *Dr. Frank Schieber, Heimstra Human Factors Laboratories, University of South Dakota (Eye scanning behavior of young and older drivers)*
  - *Dr. Tao Zhang, Telcordia (Industry perspective on vehicle-based technology)*



# Conference Sessions

- **Education/Training**
  - *Ms. Paula Kartje*, U-M Medical School, DriveAbility Program (Assessing driving)
  - *Dr. Rachael Seidler*, U-M Psychology, U-M Kinesiology (Cognitive retraining for improving driving)
  - *Dr. Rob Foss*, University of North Carolina, Highway Safety Research Center (Driver education)
  - *Dr. Richard Backs*, Central Michigan University, DEER Center (Education and training of older drivers)



# Conference Sessions

- **Distracted Driving**
  - *Dr. Paul A. Green*, UMTRI, M-CASTL (New research on distracted driving)
  - *Dr. David LeBlanc*, UMTRI (Research on distraction management systems)
  - *Dr. Louis Tijerina*, Ford Motor Company (Research on Ford's SYNC™ and driving distractions)



# Conference Sessions

- **Roadway Design**

- *Dr. Sherrilene Classen, University of Florida* (Instrumented vehicle testing of intersection improvement for older adults)
- *Mr. Dave Morena, Federal Highway Administration* (Roadway design and aging drivers)
- *Dr. Dominique Lord, Zachry Department of Civil Engineering, Texas A&M University* (Improving roundabouts for older drivers)



# Conference Sessions

- **Transitioning**
  - *Dr. Lidia P. Kostyniuk*, UMTRI (Family and self-regulation issues in transitioning)
  - *Ms. Karen Kafantaris*, AARP (AARP and the transitioning process)
  - *Ms. Tina Abate-Marzolf*, Michigan Area Agency on Aging (Resources for transitioning)



# THANK YOU

<http://M-CASTL.org>



Photography by Gregory Kostyniuk



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