NTSB Public Forum on Safety, Mobility, and Aging Drivers

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Washington, DC
November 9 & 10, 2010
A Focused and Integrated Approach
(Dobbs, 2008)

Identification
• Broader Involvement
  Medical Community
  Law Enforcement
  Individual
  Families and Friends
  Community At-Large
  Licensing Authorities
• Evidence-Based Screening Tools
• Coordinated System

Assessment
• Functionally-Based Assessments
• Evidence-Based, Standardized Protocols
  – Protection of those who are safe to drive
  – Protection from those who are unsafe
  – Risk Management/Legal defensibility

Support
• Assist with transition (Individual and family)
• Alternate Mobility
  – Awareness
  – Implementation
• Driving Cessation Support Groups for Individuals and Caregivers

The Medically At-Risk Driver Centre
University of Alberta
www.mard.ualberta.ca
Transportation for Seniors

Transportation for Seniors
Family

Private Vehicle

Public Transit
- Bus
- LRT
- Taxis
- DATS

Paratransit

Alternate Transportation for Seniors
- Formal
- Informal

The Medically At-Risk Driver Centre       University of Alberta       www.mard.ualberta.ca
## Types of ATS Service Provision

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curb-to-Curb</td>
<td>Curb-to-curb transportation services offers transportation from curbside of place of origin to curbside of destination. This type of service is likely to be inappropriate for seniors with deficits (e.g., sensory, motor, or cognitive impairments).</td>
</tr>
<tr>
<td>Door-to-Door</td>
<td>Door-to-door transportation services offers transportation from the door of place of origin to door of destination. Although this type of service is more appropriate for seniors with deficits, it still is not ideal.</td>
</tr>
<tr>
<td>Door-through-Door (Arm-to-Arm)</td>
<td>Door-through-door transportation services offer personal, hands-on assistance, providing ‘escorted’ services that serve to enhance the safety and mobility of the vulnerable segments of the senior population.</td>
</tr>
</tbody>
</table>

What is Important in Alternate Transportation Provision for Seniors?

Availability

Transportation services are provided to seniors and those services are available when needed (e.g., days, evenings; weekdays, weekends)

Acceptability

Service quality is acceptable in terms of advance scheduling; vehicles are clean and well-maintained; service providers provide driver ‘sensitivity to seniors’ training

Accessibility

Service providers provide ‘door-to-door’ and ‘door-through-door’ transportation; service providers provide transportation to essential and non-essential activities

Adaptability

Transportation can accommodate riders wanting to make multiple stops (trip chaining); allows for different types of routes (fixed vs. client response) and passenger service (single vs. group); can accommodate wheelchairs and walkers; escorts can be provided

Affordability

Cost of transportation is affordable (e.g., uses volunteer drivers to reduce costs; vouchers or coupons available, etc.)

The Beverly Foundation (2001)
Older Driver or Medically At-Risk Driver Problem?

• Sensory, motor, cognitive abilities needed for ‘safe’ driving
• All change with age
• However, normal age associated changes are unlikely to affect driving competency except at the extreme upper age range
• Presence of a medical condition and/or treatments for those conditions an important factor in driving competency
• Many are age-associated
Increased At-Fault Crash Risk: Selected Medical Conditions

## Relative Risk of Medical Conditions on Driving

<table>
<thead>
<tr>
<th>Main Group</th>
<th>Vaa 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision impairment</td>
<td>1.09</td>
</tr>
<tr>
<td>Hearing impairment</td>
<td>1.19</td>
</tr>
<tr>
<td>Locomotor disability</td>
<td>1.17</td>
</tr>
<tr>
<td>Cardiovascular diseases</td>
<td>1.23</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>1.56</td>
</tr>
<tr>
<td>Neurological Diseases</td>
<td>1.75</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>1.84</td>
</tr>
<tr>
<td>Depression</td>
<td>1.67</td>
</tr>
</tbody>
</table>

Concerns about Dementia

• 1 in 7 Americans have a dementia (3.4 million Americans 71 and older)

• Prevalence projected to increase seven fold with aging of the baby boomers

• All drivers with progressive dementia will become unsafe to drive

Source: [http://www.nia.nih.gov/NewsAndEvents/PressReleases/PR20071030ADAMS.htm](http://www.nia.nih.gov/NewsAndEvents/PressReleases/PR20071030ADAMS.htm)
The SIMARD MD

A Scientifically Based Screening Tool for the Office Based Identification of Cognitively Impaired Drivers

Driving Cessation Competency Framework (Dobbs & Dobbs, 2000)

<table>
<thead>
<tr>
<th>Perceived Competency</th>
<th>‘Real’ Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Appr. Cont’d Driving</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Inappr. Driving Cessation</td>
</tr>
</tbody>
</table>