

Safe Mobility of Older Persons

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Transportation Research Board
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Dear Colleagues,

TRB 2007 is fast approaching and I am looking forward to seeing you all January 21-26 in Washington, D.C. This issue is full of information regarding the TRB meeting, as well as other upcoming meetings where research on older drivers and the safe mobility of older persons is highlighted. We all owe our thanks once again to Kent Milton and John Eberhard for pulling all of this information together for us, and keeping us up to date on current meetings and projects through the newsletter. Thanks also to Rick Pain for his assistance in organizing the TRB program, and to everyone who helped in reviewing the paper submissions (more than 25 volunteers)!

This year the Committee meeting is scheduled for 7:30 to 9:00 p.m. Monday night. Everyone is welcome. If you have an item for the agenda please e-mail me at kball@uab.edu. If you have not already done so, please go to the TRB website to register (www.trb.org). The preliminary program is available for planning your own meeting schedule, and booking a hotel. While the Marriott and Omni Shoreham are full, there are still rooms available nearby at the Hilton Washington. Also note that the Human Factors workshops scheduled for Sunday require separate registration.

For those of you attending the Gerontological Society of America (GSA) meeting this week, please note that the Transportation and Aging Interest Group will offer both a program and a business session (Friday Nov. 17th from 5:30 to 7:00). Details of the meeting and program are provided beginning on page 4 of the newsletter.

If anyone has any questions or comments, please feel free to contact me, or catch me at the GSA meeting or in January.

Best regards,
Karlene



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Committee on Safe Mobility of Older Persons Newsletter

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86th Annual Event

Varied Older Driver Sessions Planned at TRB Conference

The Transportation Research Board's 86th Annual Meeting planned January 21-26 in Washington, D.C. will showcase a variety of sessions on older driver safety and mobility, beginning with an all-day Human Factors Workshop January 21 (Sunday) on options available to driver licensing authorities. James Langford from the Monash University (Australia) Accident Research Center will preside. The Committee on Safe Mobility of Older Persons (ANB60) is one of several co-sponsoring committees.

Titled *Licensing Authorities' Options for Managing Older Driver Safety—Practical Advice from the Researchers*, the workshop focuses on reality that despite the last decade's substantial advance in research findings relating to the assessment and management of older driver safety, many licensing authorities continue to implement the same procedures that have been in place for many years - at least some of which have been contradicted by the research. This occasional reluctance to respond to the latest knowledge can be attributed, at least in part, to the lack of clear messages from researchers. There is an urgent need for clearer communication from the research community to licensing authorities - specifically to provide practical advice about the assessment and management of older driver safety, based on the growing body of research knowledge.

The workshop will consist of these and related topics:

1. Consideration of how older drivers' high per-mile crash rates can be most meaningfully interpreted;
2. The role of reduced fitness to drive in explaining older driver crashes;
3. The current capacity of licensing procedures to identify older drivers who are unacceptably unfit to drive (however 'unacceptably unfit' might be defined);
4. Other outcomes associated with current licensing procedures;
5. Examining what is known about the validity of current individual protocols for assessing fitness to drive--more specifically, what are the

sensitivity and specificity measures, particularly when measured directly against crash risk?

6. Consideration of what meaningful messages researchers are currently giving to licensing authorities.

The workshop will offer, as a specific product, a concise communication to licensing authorities containing the best available practical advice about the assessment and management of older driver safety.

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Second Workshop on Sunday

A second human factors workshop of potential interest to professionals in the senior safety and mobility fields is titled *Transportation Issues for Elderly and Disabled Persons*, sponsored by the Accessible Transportation and Mobility Committee and the Paratransit Committee. Christopher Mitchell, United Kingdom, will preside at the 1:30-5 p.m. Sunday (January 21) session at the Hilton.

The workshop will present results of recent studies on the mobility of elderly and disabled persons in the U.S. and Europe. The tentative agenda lists topics as: results of a recent mobility survey of Americans with disabilities, effects of the aging population on future U.S. transit ridership, work by the European Conference of Ministers of Transport on how disabilities impact mobility, study of demographic changes in Europe that have implications for transit operators, and guidelines for accessibility of bus rapid transit in developed countries.

Other TRB sessions on senior mobility and safety include:

Monday, January 22

8 am-9:45 am, Marriott—*Part One: International Efforts to Provide Alternative Transportation for Seniors*

Dr. Desmond O'Neill, Dublin, Ireland, moderator. Sponsored by the Joint Subcommittee on Transportation Options for Seniors (ABE60-3), and Committee on Safe Mobility of Older Persons (ANB60). Speakers from Ireland, Australia and the United States will present various efforts to meet the growing mobility needs of the aging population. Three presenters will discuss macro level national or global efforts, while one will present a case study.

The Irish Response, Erin Cotter, RTI National Coordinator, County Kerry (presented by Miriam McKenna, Flexibus Meath Accessible Transport Project

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Ltd., County Meath). This presentation will examine current Republic of Ireland policy and experience, as well as consideration of how the Rural Transport Initiative (RTI) is performing. RTI is expected to evolve into a mainstream program next year to effectively meet the needs of older people.

Flexibus, County Meath, Ireland—a case study, Miriam McKenna. This presentation will detail the impact of Flexibus (a creation of RTI) on older people in one county over a period of three years. In 2005 the service provided 33,721 passenger trips of which 19,578 or 58% were older people. Flexibus employs 22 people and is a lively mix of drivers, passenger assistants and administration workers.

To Drive or Not to Drive? A Multi-Nation Survey of Older Driver Education Programs and Their Focus on Transportation Alternatives, Joseph F. Coughlin, MIT Age Lab. This presentation reviews a multi-nation survey of older driver education programs and focuses on their 'alternative transportation' content, e.g., mobility training, knowledge of public transportation and other options, and the preparation of transitioning from driver to walker and rider.

Transportation for seniors – integration or differentiation?, Martin Thomsett, Queensland Transport. This presentation outlines the Queensland, Australia approach to meeting transportation needs of non-drivers at two levels: the *mass* transit level, through initiatives aimed at making the mass transit system more senior-friendly; and the *micro* transit level, through seeking to integrate the provision of transportation services for seniors with the provision of transportation for other transport-disadvantaged groups within the community.

10:15 am-noon, Marriott—*Part Two: US Efforts to Provide Alternative Transportation for Seniors*

Bella Dinh-Zarr, MAKE ROADS SAFE, moderator. This session looks at three national efforts and one case study of a community effort to help address the growing need for mobility beyond the driving years.

Easter Seals—National Senior Technical Center—National Initiative, Dr. Al Abeson, Easter Seals. *Community Transportation Association of America (CTAA)*, Jane Hardin, CTAA. An overview and analysis of trends in community transportation: how community and public transportation providers are planning to meet

the challenges of an increasing aging population: new program models, innovative funding, new partnerships and coalitions.

ITNAmerica®—National Initiative, Katherine Freund, ITNAmerica. An explanation of the ITN model, which provides sustainable senior transportation 24 hours a day, 7 days a week, and is now spreading to communities throughout America.

Neighbor Ride, Inc. – a case study, Susan Thompson, Neighbor Ride, Inc., Columbia, MD. Description of a supplemental transportation program in a suburban county. Its mission is providing reasonably priced, reliable supplemental transport, using a mostly volunteer staff.

1:30 pm- 3:15 pm, Marriott--*Occupant Protection for Older Population*

T. Bella Dinh-Zarr, MAKE ROADS SAFE, presiding. Sponsored by Committee on Occupant Protection (ANB45) and Committee on Safe Mobility of Older Persons (ANB60)

Characteristics of Part-time Belt Users in the Aging U.S. Population, David W. Eby, University of Michigan Transportation Research Institute; *Addressing the Needs of the Older Driver in Crashworthiness Research*, Suzanne Tylko, Transport Canada; *Occupant Protection - Educating Seniors about Person-Vehicle Fit*, Elin Schold-Davis, American Occupational Therapy Association

3:45 pm- 5:30 pm, Marriott-- *Older Person Safety and Mobility Research*

Karlene K. Ball, University of Alabama, Birmingham, presiding. Sponsored by Committee on Safe Mobility of Older Persons (ANB60)

Differences in Perceptions of Driving Skills: Older Drivers and the Adult Children of Older Drivers in the United Kingdom, Sandra Rosenbloom, University of Arizona; *The Relationship Between Compensatory Driving Behaviors and Driving Performance in Aging and Early Alzheimer's Disease*, Matthew Rizzo, University of Iowa; *A Family Matter: Older Drivers and the Driving Decision*, Lisa D'Ambrosio, Massachusetts Institute of Technology (MIT); Joseph F. Coughlin, MIT; Maureen Mohyde, The Hartford Financial Services Group, Inc.; Jennifer Gilbert, James Madison University; Bryan Reimer, MIT.

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Assessing Mileage Exposure and Speed Behavior among Older Drivers Based on Crash Involvement Status, Jungwook Jun, Georgia Institute of Technology; Jennifer Harper Ogle, Clemson University; Randall Guensler, Georgia Institute of Technology; Johnell Brooks, Clemson University; Jennifer Lynn Oswalt, Clemson University; *Collisions and Driver Age in Canada*, Jean-François Lécuyer, Transport Canada; Aline Chouinard, Transport Canada.

Committee Sessions

7:30-9 pm, Monday (January 22), Marriott ---Meeting of the *Committee on Safe Mobility of Older Persons* (ANB60), Karlene Ball, chair

8-9:45 am, Tuesday (January 23), Marriott---Meeting of the *Public Relations Subcommittee* of ANB60, Kent Milton, chair

2:30-6 pm, Wednesday (January 24), Hilton---*Transportation Options for Seniors*, joint subcommittee meeting of ABE60, ANB60 and AP060

Special Event

1-6 pm Tuesday (January 23), Marriott---*Older Person Safety and Mobility Video Theatre*

Transport/Aging Interest Unit Meets During GSA Conference

The Transportation and Aging Interest Group of the Gerontological Society of America (GSA) will offer both a program and a business session during the GSA's 59th Annual Scientific Meeting November 16-20, 2006 in Dallas, Texas. The interest group's annual business meeting will convene from 5:30 to 7 p.m. Friday (Nov. 17), facilitated by Lisa Molnar, University of Michigan Transportation Research Institute (UMTRI), assisted by David Eby (UMTRI) and Bonnie Dobbs, University of Alberta. Among speakers will be Karlene Ball, chair of the TRB Committee on Safe Mobility of Older Persons, who will discuss current activities and future plans of the committee. Attendees will have an opportunity to talk about their research and program interests, and to explore ideas for collaboration among interest group members and with the TRB committee.

The interest group seeks to enhance the safe, effective, and accessible transportation of older people by facilitating communication and collaboration among

researchers and other professionals. The meeting will include a reception sponsored by the Beverly Foundation. Information is available from Lisa Molnar (ljmolnar@umich.edu), David Eby (eby@umich.edu) or Bonnie Dobbs (bonnie.dobbs@ualberta.ca).

The interest group will sponsor a symposium, "*The Aging of the Baby Boom Cohort: Changing the Face of Transportation and Aging*," Friday (Nov. 17) from 10:30 a.m. to noon. Presenters include Bonnie Dobbs (Transportation Trends: An Overview of the Baby Boomer Cohort, Comparisons with Past Cohorts, and Projections for 2020+), Richard Marottoli (Implications of the Aging of the Baby Boom Cohort for Assessing Fitness to Drive), Geri Adler (New Strategies for Rehabilitating the Next Generation of Older Drivers), Oliver Page (Boom, Bust, Crash or What? Baby Boomers and Driving Cessation), and Andrew Kochera (Enhancing Mobility and Choice for the Next Older Generation: Policies and Programs to Expand Transportation Alternatives). The session will provide insights on how the baby boom cohort differs from current and previous cohorts of older drivers, particularly in its relationship to various aspects of transportation.

Other transportation-related sessions at GSA will include:

Friday, November 17

1:45-4:45 p.m.: *Mobility and Depression: A Cross-Sectional Study* (An examination of the mobility of older adults based on late-life depression and its treatment.)

Presenters include, Heather Kossick (primary author), Western Kentucky University; Gayla M. Cissell, Western Kentucky University; Daniel L. Roenker, Western Kentucky University; Melissa J. Mathews, University of Massachusetts Amherst; Leslie A. Sidebottom, Western Kentucky University; Karlene Ball, University of Alabama Birmingham; Jerri Edwards, University of Alabama Huntsville; Virginia Wadley, University of Alabama Birmingham, all participants-co-authors..

Saturday, November 18

9 a.m.-5 p.m. (Poster session chaired by Robert Maiden, Alfred University, to *Identify Issues facing older drivers and their caregivers, and the community response*)

Presenters include Thomas Meuser, David Carr, Marla Berg-Weger, Pat Niewoehner, Gadmundar Freyr Ulfarsson, Peggy Barco (Medical fitness to drive and a

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voluntary state reporting law); Helen Kerschner (Volunteer drivers: their economic and social contribution to older adults and themselves); Alan DeLaTorre (Sustainable development for an aging population: an example of planning in Portland, Or); Sarah Viamonte, Karlene Ball, Meredith Kilgore (Screening older drivers for functional impairment at license renewal is not cost-beneficial: an explanation and implications); Sharon K. Hermanson (Older car owners: the use of their cars by others).

9 a.m.-5 p.m. (*Transportation and Aging: Driving Decision-Making in Older Adults with Dementia*)

Presenter: Geri Adler (Report on 13 focus groups which included drivers with dementia, their spouses and relatives of former drivers).

Sunday, November 19

8:30-11:30 a.m. (Poster session chaired by Lawrence Schiamberg, Michigan State University: *To understand the factors involved in the driving cessation process*)

Presenters include Lisa Molnar, David Eby, Adam Nation, Jean Shope (Development and testing of a battery of health and driving assessments for use in a cohort study of older drivers); Sherrilene Classen, Orit Shechtman (Impact of roadway intersection design in driving performance of young and senior adults); Kezia Awadzi, Sherrilene Classen, Cynthia Garvan (Determinants of motor vehicle injuries among older drivers in the U.S.); Lidia Kostyniuk, Lisa Molnar (Driving cessation among older adults: A stress and coping approach); Anita Myers, Josee Paradis, Robin Blanchard, Nancy Pearce (Conceptualizing and measuring driving confidence in older adults); Lesley Ross, Olivio Clay, Jerri Edwards, Gayla Cissell, Daniel Roenker, Karlene Ball (Predictors of driving trajectories among older adults); Bonnie Dobbs (Driving cessation support groups: Results from a two-year Canadian study); Anne Dickerson, Leonard Trujillo, Page Riggs (Can older adult drivers be screened for behind-the-wheel assessments?)

8:30-11:30 a.m. (*Assessing relationships among performance-based cognitive measures and timer to motor vehicle crash: a prospective study*—lead author Tina JT Dube, University of Alabama at Birmingham)

Presenters include David L. Roth, University of Alabama at Birmingham; Daniel L. Roenker, Western Kentucky University; Virginia Wadley, University of Alabama Birmingham; Jerri Edwards, University of Alabama Huntsville; Gayla M. Cissell, Western Kentucky University; Sarah M. Viamonte, University of Alabama at Birmingham; Karlene K. Ball, University of Alabama at Birmingham, all participant/co-authors.

Noon-3 p.m. Poster session chaired by Donna Bliss, University of Minnesota: *To examine transportation issues in relation to older adults*).

Presenters include Carlos Fragoso, Katy Araujo, Richard Marottoli (Prevalence of insomnia, daytime drowsiness and sleep apnea risk in a cohort of older drivers); Sacha DuBois, Michel Bedard, Bruce Weaver (Impact of benzodiazepines on driving).

1:30-3:30 p.m. (*Social Engagement and Aging in Place in a Suburban Naturally Occurring Retirement Community, or NORC*—Dorothy Edwards, Washington University, primary author; Margaret Perkinson, Washington University, chair; Graham Rowles, University of Kentucky Sanders-Brown Center on Aging, discussant).

Presenters include Brian Carpenter, Sarah Buday (Understanding computer use—and nonuse—among NORC residents); Susy Stark, Amanda Landsbaum, John Morris, (How environmental modifications impact performance of older adults with disabilities); Joseph Pickard, Jing Tan, Nancy Morrow-Howell, Yunkyung Jung (Impact of driving and driving cessation in a NORC); Janice Palmer, Elizabeth Grant, Dorothy Edwards, John Morris (Sources of stress in residents of a suburban NORC); Peggy Neufeld (Evaluating the process of community engagement in a NORC)

Monday, November 20

8:30-10 a.m. (*International Aging and Migration: Psychological Aging in the Context of Australian Longitudinal Studies*—Mary Luszcz, Flinders University, primary author; Jacqui Smith, University of Michigan, discussant).

Presenters include Mary Luszcz (Two prospective studies of gaining in Australia); Kaarin Anstey, Tim Windsor, Bryan Rogers, Tony Jorm, Helen Christensen, Jerome Maller, Chantal Meslin, Wei Wen, Rajeev Kumar, Perminder Sachdev (Association between alcohol consumption and cognition and brain structure: initial

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cross-sectional findings from Path Through Life study); Tina Windsor, Kaarin Anstey, Peter Butterworth, Mary Luszcz, Gary Andrews (Control beliefs mediate depressive symptoms following driving cessation among participants in the Australian longitudinal study of aging); Mary Luszcz, Kaarin Anstey, Gary Andrews (Multiple paths to 13-year survival in the Australian longitudinal study of aging).

ASA-NCOA Conference to Offer Varied Transportation Agenda

Transportation issues will occupy a significant place on the agenda at the joint conference of the American Society on Aging and the National Council on Aging March 7-10 in Chicago. A wide range of subjects will be explored in workshops, panels and poster sessions. Times have not been established yet, but topics and presenters for the transportation track have been designated. They include:

Clearinghouse of Supplemental Transportation Programs (STPs) in California—Lecture Mini-Workshop

Presenter: Helen Kerschner, Beverly Foundation, Pasadena

Earlier this year the Beverly Foundation initiated a California Clearinghouse Project to gather information on STPs throughout the state with the intent of building a comprehensive web-based information site where seniors and their families could access data about these specialized transportation systems. The process also will provide Beverly with the basis to help other states build similar websites. This session will include a second lecture mini-workshop titled:

Taking a National Project on the Road: Hitting the Streets with Local Transportation Solutions for Seniors

Presenter: Lisa Peters-Beumer, Easter Seals Inc., Chicago

This project stemmed from a national initiative which helped three communities increase access to and availability of mobility options for seniors. Lessons learned in these models will be discussed as well as outcomes resulting from coordination, training, program and tool development.

Discussion of the Opinions of Experts in the Field of Community Transportation Coordination for the Elderly

Roundtable—Presenter: Santo Grande, Delmarva Community Services, Maryland

Open discussion on community transportation and its effect on the lives of seniors, including specific effects that the United We Ride movement and coordinated community transportation has had on service delivery for older persons. A previous n4a survey and updated questionnaires posed to experts in community transportation will inform the discussion.

Attitudes About Older Drivers—Poster Session

Presenters: Geri Adler, University of Houston; and Susan Rottunda, Minneapolis VA Medical Center

Review of healthy older drivers thoughts on re-examination of skills in both healthy elderly and people with Alzheimer's and Parkinson's disease. Preliminary findings suggest support for retesting of the Alzheimer's--Parkinson's cohort but less for retesting the healthy elderly.

Enhancing the Safety of Senior Drivers by Cognitive Training—Lecture Mini-Workshop

Presenter: Shlomo Breznitz, CogniFit, Israel

Presentation of current knowledge on role of cognition in safe driving and the potential threat of age-related cognitive decline. Will also look at cognitive training as an instrument of remediation or prevention, specifically focusing on Golden DriveFit, a training program using driving simulators—with resulting indications that cognitive training enhances safe driving. This session includes a second lecture mini-workshop: Cognitive remediation Therapy: Advances for Improving Neuropsychological Vitality in Older Adults

Estimating Transportation Dependence for Medical and Social Services—Research Applications

Presenters: Kiyoko Nitz, Consultant, Kailua, Hawaii; Lawrence Nitz, Professor, University of Hawaii

Presents measures to estimate unmet mobility needs of transportation disadvantaged elderly. Solutions appear to lie in matching people to trips, facilitated by the coordination of various types of transportation, as advocated by AoA and DOT.

Field testing of the DriveWell Toolkit: Safe Mobility Training in Massachusetts—Lecture/Mini-Workshop

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Presenters: Nina Silverstein, Professor, University of Massachusetts, and UM students Kelley Fitzgerald, Suzanne Gnospelius, Nancy Leeman, Jonathan McMullen, Marie Menard, Katie Speranza.

The DriveWell model was used to plan and evaluate five community training sessions. Sessions were well-received, but objectives less clearly met included the desire for more detailed discussion on self-screening and strategies to ease the transition from driving to other mobility options.

Older Driver Re-Education, Re-Fitting, Responding—Lecture/Mini-Workshop

Presenters: Fran Carlin-Rogers, Consultant; Nancy Ceridwyn, ASA; Jeff Finn, ASA; Essie Wagner, NHTSA.

Updates on DriveWell and CarFit programs will offer tips gathered from experiences around the nation. Participants in these interactive programs will gain insights on how to improve driver safety in their communities—both short-term and long-term.

Finding Extraordinary Volunteers in “Extra-Ordinary” Ways—Workshop

Presenters: John Eberhard, Howard County (MD) Commission on Aging; Katherine Freund, ITNAmerica; Jean Barrett Teel, West Austin (TX) Caregivers.

Information will be presented on successful volunteer recruitment practices and methods of program coordination that allow maximum use of volunteer resources. Three approaches will be presented, involving both public and private not-for-profit initiatives.

How Can We Provide Safe Mobility for Older Persons?—Symposium. Moderator: John Eberhard

Presenters: Michel Bedard, Lakehead University (Canada); Fran Carlin-Rogers, consultant; Sherrilene Classen, University of Florida; Elin Schold-Davis, American Occupational Therapy Association; Joanne Schwartzberg, American Medical Association; and John Eberhard.

Activities presently under way to enable safe mobility for seniors in later life will be addressed, including such programs as highway improvements, driver rehab, medical interventions and driver training.

Identifying Unmet Needs: Does Ethnicity Matter?—Poster Session

Presenters: Kiyoko Nitz; Lawrence Nitz

A Honolulu program is an example of how linking census geographic race/ethnic data to severity indicators in the Medical Expenditure Panel Survey allows examination of the ethnic distribution of disabilities and transportation dependence to enrich coordination planning. Such race/ethnic data is often critical in determining unmet transportation needs of minority elders.

Indicators of Future Demand for Senior/Elder Mobility Services and Technologies: A Demand Planning Tool—Lecture/Mini-Workshop

Presenters: Alice E. Smith, Clark University (MA); Warren K. Smith, Senior Mobility Initiative on Cape Cod. A concise set of senior/elder mobility indicators will be introduced, defining the needs and resultant demand for senior/elder mobility assistive devices, programs and technologies. These demand estimates are important to those in the business of providing senior services.

Innovative Technology Solutions—Lecture/Mini-Workshop

Presenters: Eric Donnelly, MJM Innovations, Baltimore; Tim Sheridan Riley, Synergy Software Technologies. Presentation by MJM of its management services, represented by its program to provide senior transportation and nutrition programs for the city of Baltimore and the State of Maryland. The company devised special technological tools to manage tracking, reporting and monitoring needs. This session includes a companion lecture/mini-workshop on Development of an *Evidence-Based, Electronic Record in a Vision Rehabilitation Setting*.

ITNAmerica: A Unified Approach to Senior Mobility—Symposium

Presenters: Fran Carlin-Rogers; Katherine Freund; Alan Fried, ITNAmerica; Germaine Odenheimer, Donald W Reynolds Department of Geriatric Medicine (Okla.)

An explanation of the ITNAmerica approach to developing a unified, national, non-profit transportation system for seniors. ITNAmerica focuses on choice, diversity, independence and innovation, a system designed to meet the needs of the older consumer.

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Living and Moving in 2021-Workshop

Presenters: Joseph Coughlin, MIT AgeLab; Lisa D'Ambrosio, MIT AgeLab; Rhonda Starr, Driver Safety Program

A look at 2021, when baby boomers will be the nation's seniors: how living arrangements, use of autos, and expectations of transit will have evolved.

Maintaining Elder Mobility: Driver Screening and assessment, Interventions and Driving Alternatives-

Lecture/Mini-Workshop. Presenter: Dennis McCarthy, University of Florida

Analysis of several projects, conducted by the University of Florida's National Older Driver Training and Research Center, to gain advanced understanding of screening, assessment, interventions and alternatives to the car. This session also includes Lecture/Mini-Workshops on *Reclaiming Independence: Staying in the Driver's Seat When You no Longer Drive*, and *Rethinking Driving and Dementia: Striving for Definitive Guidelines*. Presenter for the workshop on reclaiming independence will be L. Penny Rosenblum, University of Arizona and American Printing House for the Blind. She will explore strategies to prepare people for driving cessation and show a DVD from the Printing House.

Putting It Together: Incorporating Research in Driving Cessation into Recommendations for Support Services-

Symposium. Moderator and Presenter: John Eberhard
Presenters: Geri Adler, University of Houston; Matthew Baldock, University of Adelaide; Kathrin Boerner, Lighthouse International; Amy Horowitz, Lighthouse International; Elena Koulikov, Cal State-Dominguez Hills; Barbara J. Messinger-Rapport M.D., Cleveland Clinic Foundation; Joann P. Reinhardt, Lighthouse International

A discussion of current research on transitioning from being a driver to a non-driver, including a review of the roles that family and professional groups do or don't play.

Recommendations for Older Drivers: Follow-up Results After Road Test and Clinical Assessments-

Poster Session. Presenter: Cristina Posse, University of Florida
Results of a six-month follow-up on older driver compliance with recommendations made by driving rehab

specialists, and a review of how these seniors driving behaviors had changed.

Replacing the Blue Box: Age Norms for a New Brake Reaction Device-

Poster Session
Research on developing norms for a new brake reaction-time device will be presented

Recommendations for Policy: Skill-Building Information-

Session Abstract
Presenters: Anne Dickerson and Leonard Trujillo, East Carolina University

Recommendations for Policy: Skill-Building Information-

Session Abstract
Presenters: Kathy Laenhue, Wisner Now; James Vanden Bosch, Terra Nova Films
This session linked with sessions on Maintaining Elder Mobility and Reclaiming Independence

Visualizing Future Needs for Senior/Elder Mobility Assistance Services and Technologies: Mapping Future Demand-

Lecture/Mini-Workshop
Presenters: Alice E. Smith, Warren Smith
Presentation of new map-based tool to pinpoint "hotspots" of present and future senior/elder mobility assistive service and technology needs. This session is linked to a companion Workshop on Indicators of Future Demand for Senior/Elder Mobility Services,

Eye and the Auto Congress Scheduled for June in Detroit

The fourth biennial world congress known as the *Eye and the Auto*, organized by the Detroit Institute of Ophthalmology on the relationship between vision and the safe operation of a motorized vehicle, will address the theme: *Collision Avoidance – What Role Does Vision Play?*

The congress will be held June 14-16, 2007 In Detroit. The *Eye and The Auto* is held in association with the Eyes-On Design Car Show.

- Day One of the congress will focus on vision as it relates to the driver.
- Day Two will focus on the automotive industry and steps it has taken to overcome visual challenges for

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normal and other drivers.

- Day Three will discuss the milieu in which the operator and vehicle perform.

Previous congresses have proven so successful that organizers expect to open the podium to all voices wishing to be heard by way of an abstract process. As with each world congress, the Research Panel will be accommodated and brought to Detroit at the expense of the Detroit Institute of Ophthalmology. As always, the 20-minute presentations will be followed by a 10-minute discussion by attendees.

The organizers and abstract review group will be led by:

- Cynthia Owsley PhD, University of Alabama at Birmingham, (Owsley@uab.edu)
- Philip C Hessburg MD, President, Detroit Institute of Ophthalmology, Detroit, Michigan (pchessburg@mycomcast.com)
- Keith Cooley, CEO, Focus:HOPE (cooleyk@focushope.edu)

Deadline for submission of a title and abstract will be November 15, 2006. Research Panel selections will be made by December 1, 2006. Questions related to the process, subject matter, etc, may be addressed to either Drs Owsley or Hessburg.

TRANSED Conference Slated For June, 2007 in Montreal

The 11th International conference on Mobility and Transport for Elderly and Disabled Persons (TRANSED) will be held June 17-22, 2007 at the Palais des congrès de Montreal Convention Center, Canada. The conference has already received an unprecedented total of 270 abstracts for papers/posters from 18 countries, many dealing with aging and mobility. Theme of the 2007 event will be "Benchmarking, Evaluation and Vision for the Future."

The conference approach will incorporate review of advances in research, profiling of international breakthroughs and exploring perspectives for technological innovation—with the intent of responding to the mobility challenges of an aging population, as well as those faced by people with disabilities.

The TRANSED program, which begins June 17 with pre-conference workshops, is presently being arranged, and will include an aging and mobility track with panels and roundtable discussions. Topics range from safety and mobility needs of pedestrians, mobility options for

seniors in urban and rural areas, issues related to motorized mobility aids such as scooters, driving cessation and related subjects.

Other program elements include a Transportation Research Board committee meeting, a two-day exhibition to showcase innovations in the field of accessible transportation, three days of technical sessions, and visits to local transportation facilities.

The conference is still seeking exhibitors and sponsors (see www.tc.gc.ca/transed2007). Registration is also available through the website. April 15 is deadline for registration at a reduced figure. Lower rates also are available for students, seniors and NGO members.

Information is available at transed@tc.gc.ca or 1 800 665-6478 (Canada) or 1 613 942-0980 (elsewhere)

California Task Force Sponsors Senior Safe-Mobility Summit



Dr. David Manning, NHTSA regional administrator, was keynote speaker at the California Senior Safe Mobility Summit

California held its first-ever Senior Safe Mobility Summit October 26 in Newport Beach, bringing together state and national leaders who offered wide-ranging information about the vehicular safety and transportation needs of older people. Dr. David Manning, regional administrator for the National Highway Traffic Safety Administration, was keynote speaker, applauding task force efforts to bring older driver issues before the California public. The Older Californian Traffic Safety (OCTS) Task Force organized the Summit, in conjunction with the California Highway Patrol, the Automobile Club of

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Southern California, and the California Office of Traffic Safety..

Five speakers presented perspectives at the conference's lead-off "global overview" panel: Alice Bisno, Automobile Club of Southern California; Joan Harris, U.S. Department of Transportation; Cynthia Owsley, former chair of the Transportation Research Board Committee on the Safe Mobility of Older Persons; Sandy Markwood, CEO of the National Association of Area Agencies on Aging; and Nina Weiler-Harwell, AARP. All described the national implications of senior safe-mobility issues, suggesting the importance of California drawing upon known resources to build a solid approach in this state where senior drivers already number almost three million—a figure that will double by 2030.

Ms. Owsley described the four critical problem areas that must be addressed:

1. Perfecting the process of screening for licensure
2. Drawing the health care community (doctors, therapists, nurse-practitioners) into the solutions network
3. Devising interventions to reduce senior vehicle crashes and consequences
4. Expanding transportation options for seniors who no longer drive

Four California state officials representing the departments of motor vehicles, transportation, health services and aging defined their specific interests and responsibilities in dealing with older driver concerns. Two other panels dealt with the subjects of safety and mobility. Safety panelists were James Grisolia, California Medical Association and chair of the OCTS Task Force health services workgroup; Elin Schold-Davis, American Occupational Therapy Association; Dominick Albano, American Society on Aging; and California Highway Patrol Commissioner Mike Brown, chair of the OCTS Task Force.

Mobility panelists were David Koffman, Nelson/Nygaard Consulting Associates; Nina Silverstein, University of Massachusetts; Richard Smith, Partnership to Preserve Independent Living; and Peter Steinert, California Department of Transportation. Commissioner Brown closed the event, challenging Summit participants to aggressively pursue future progress.

National Transportation Center For Seniors Opens in Capital

A national center whose objective is increased capacity and use of person-centered transportation options that support community living for seniors nationwide has opened in Washington, D.C. under the administration of Easter Seals Inc. in conjunction with the National Association of Area Agencies on Aging (n4a). Known as the National Center on Senior Transportation, the coordinating agency is supported by a \$6 million Federal Transit Administration grant.

Other team-member organizations are the National Association of State Units on Aging (NASUA), the Community Transportation Association of America (CTAA), the American Society on Aging (ASA) and the Beverly Foundation. Guiding much of the work of the center will be a national steering committee of senior transportation services, non-profit agencies and professional associations experienced in senior transportation issues.

The center seeks to achieve these objectives:

- Greater cooperation between the aging community and transportation industry to increase the availability of more comprehensive, accessible, safe and coordinated transportation services;
- Increased integration of provisions for transportation in community living arrangements and long-term care for older adults;
- Enhanced capacity of public and private transportation providers to meet the mobility needs of seniors through available, accessible, safe and affordable transportation;
- Enhanced capacity of human service providers to help seniors and/or caregivers individually plan, create and use appropriate transportation alternatives;
- Increased knowledge about and independent use of community transportation alternatives by seniors through outreach, education and advocacy;
- Increased opportunities for older adults to obtain education and support services to enable the individuals to participate in local and state

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public and private transportation planning processes.

Assistant Director Sought

The National Association of Area Agencies on Aging (n4a) is seeking a highly qualified individual to serve as the assistant director of the National Center on Senior Transportation. Qualified candidates should have significant skills and experience in grants management, aging and senior transportation issues, communication--including written and oral presentations-- and supervision. For more information see the job posting on the n4a website, www.n4a.org.

The center expects to:

- Extend technical assistance through cross-agency and public/private collaboration to improve and increase mobility management for older adults through new or existing local and state coalitions;
- Extend technical assistance and other supportive services to communities, seniors, transportation and professional agencies and organizations, government, and individuals so they can effectively address barriers and/or respond to opportunities related to senior transportation;
- Create and disseminate products and training programs (e.g., brochures, workbooks, best-practice guides and self-assessments) to help transportation providers, human service agencies and older adults and their caregivers understand their roles and/or opportunities for increasing senior mobility options;
- Communicate via an 800-telephone line, web site, visual exhibit, newsletters and other means;
- Implement communication strategies to increase the profile of senior transportation on topics such as emerging best practices, advances in public policy, success stories and more;
- Facilitate and test new ideas to increase and improve community mobility for seniors through the administration and management of demonstration projects.

Information is available from the center at 202-347-3066.

Research Review

Visual Acuity Re-Screening of 80-Year-Olds to be Evaluated

Florida's three-year-old law requiring drivers age 80 and older to undergo visual acuity re-screening when applying for their next license renewal will be subject of a research project conducted by two investigators from the University of Alabama-Birmingham Department of Ophthalmology.

Cynthia Owsley PhD and Gerald McGwin PhD will examine the impact of the re-screening "intervention" on the safety of these older drivers, in a fashion that avoids methodological limitations of earlier studies. (See <http://www.hsmv.state.fl.us/ddl/vision/>).

In addition, several important questions about the process will also be addressed, including whether there is a reduction of drivers ≥ 80 years who seek renewal, the number and the characteristics of those who fail screening, the driving habits of drivers in this age group, and whether screen-failures seek eye care.

The study will be funded by the Insurance Institute for Highway Safety, with the cooperation of the Florida Department of Highway Safety and Motor Vehicles. Additional information is available from Dr. Owsley at owsley@uab.edu.

AAA Foundation Looks at Many Senior Driver Issues

In 1998, through a joint lobbying effort of AAA, Concerned Americans for Responsible Driving, Alzheimer's Association, Washington University in St. Louis, and other organizations, the Missouri Legislature passed a voluntary reporting law for potentially unsafe drivers. House Bill-1536 (HB-1536) allows physicians, other health professionals, law enforcement and license office personnel, social service professionals, family members, and others, to report potentially unsafe drivers for retesting and possible license revocation.

The law grants civil immunity from prosecution for breach of confidentiality, is nonspecific with regards to

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age (although the majority of those reported are older), and includes a Medical Advisory Board for review of complex cases. Researchers from Washington University (Thomas Meuser and David Carr) are partnering with officials from the Missouri Department of Revenue (the driver licensing authority in Missouri) and the Missouri State Highway Patrol (which conducts driver skills testing and tracks crash data) to develop a comprehensive characterization of HB-1536 with respect to the medically impaired older driver.

The investigators are developing an integrative relational database, including data pertaining to HB-1536 since implementation in 1999 (referral information, evaluation results, physician recommendations, licensing decisions). The database also includes citation and crash data back to 1993, thus allowing detailed retrospective and prospective analyses and of the precursors of being reported as medically unfit to drive and subsequent impacts for those who continued to drive (legally or not).

Answers to the following questions are expected:

Who uses HB-1536 to report drivers and what are the medical and demographic characteristics of reported individuals? What do physicians recommend with regards to continued driving and the license review process? How do specific test results (vision, written, on-road) relate to medical conditions of concern, overall health status, and licensing outcome? Is there any relationship between having been reported and motor vehicle crash risk? Does license revocation stop medically impaired elders from driving and being involved in accidents?

The project will be finished in late 2008. Contact is Scott Osberg: sosberg@aaafoundation.org, 202-638-5944 ext. 7

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Medications Use and Collisions

Most automobile drivers occasionally, or in some cases continuously, use medications that have the potential to impair their ability to operate their vehicles. Use of medications suspected of adversely affecting driver performance increases with age, and additional research indicates that over 80% of people 65 years and older take at least one prescribed medication daily. Medications commonly used by older drivers include analgesics (opioids), tranquilizers, antidepressants,

antihistamines, and anti-hypertensive and hypoglycemic drugs.

Rarely have studies provided sufficient information on the specific medication usage characteristics (i.e., dosage, frequency of use) to determine if these medications are compatible with driving. This project has two primary objectives: 1) To understand what people know and believe about the potential impact of medications on driving; and 2) To better understand the relationship between medications and driving risk.

This will be accomplished via a large retrospective cohort study (conducted by Gerald McGwin, Cynthia Owsley, and Paul MacLennan, University of Alabama at Birmingham) that will investigate the effects of specific medications on crash risk, and a survey of older drivers to assess their knowledge of the potential impacts of medications that they use on their ability to drive safely.

The study will yield new information about knowledge, beliefs, and behaviors of people age 50 and over with respect to medications and driving. Findings are also expected to yield new information about polypharmacy and whether certain medications, despite their safety with respect to driving when used alone, may increase crash risk when combined with other medications.

Results will be used to inform physicians, pharmacists, older adults, and their families about the potential driving-related risks associated with particular medications.

The project goes through 2008, possibly with earlier release of the survey findings. Contact is Scott Osberg.

Mobility Alternatives for Seniors

Many older drivers are reluctant to give up the keys, and families find that it is extremely difficult to discuss safe driving or the need to stop driving with their aging family members. Working with a DMV office in El Segundo, California, this project piloted ways to mobilize a network of local organizations to assist drivers who have lost their licenses. This pilot demonstrated ways in which a network of community organizations can ensure that seniors remain active and mobile despite "giving up the keys." Over five hundred older adults were served through the project. "Getting Around" (administered by Monika White, Center for Healthy Aging; Harry Wiland and Dale Bell, Wiland-Bell Productions) developed into

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an opportunity to fill an immediate need in the pilot community as well as create a model program that can be replicated throughout the nation.

Many positive outcomes were achieved by the *Getting Around* project, including the establishment of relationships with important partners; creating training curriculum for volunteer counselors; and integrating the program into senior services organizations already familiar to the community. The program described in this report continues to be operational at eight senior service organizations in Los Angeles County. What began as a pilot has now become a part of a regular array of services offered to seniors at each site.

A multi-media public education program has been developed, consisting of an interactive website and a video for PBS broadcast. The video examines the sometimes-difficult transition associated with driving cessation by addressing issues related to four major groups: state DMVs, medical professionals, families, and the affected individuals. The video is being bundled in DVD format along with AAAFTS' Older and Wiser Driver video. The project will be completed by May 2007 with projected television broadcasts in selected PBS markets. Contact is Jack Hoch: webmaster@aaafoundation.org 202-638-5944, x6.

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New AAA Foundation Products

The AAA Foundation's newest DVD combines a new video for senior drivers, *Getting Around: Alternatives for Seniors Who No Longer Drive*, and the popular, *The Older and Wiser Driver*. The DVD also contains a demonstration video on AAA's Roadwise Review, a self-administered driving test done right on a senior's home computer. An outstanding resource for people who have parents that are seniors or are seniors themselves, both programs offer practical information and suggestions for dealing with issues drivers may face as they and their loved ones grow older. Contact is Amy Saidman asaidman@aaafoundation.org, 202-638-5944 ext5.

Older Driver Crash Rates Studied by Team from University of Adelaide

sample of A study by a team (Matthew Baldock and Jack McLean) from the Centre for Automotive Safety Research at Australia's University of Adelaide presents

an analysis of claims that older drivers are over-represented in road crashes and an examination of the nature of the 'older driver problem' in so far as it exists. Four different types of crash rates (crash numbers, crashes per head of population, crashes per licensed driver, crashes per distance driven) are considered, with emphasis placed on problems in interpretation of the various crash rates and what information can be derived from each of them.

It is concluded that the crash rates of most importance are total crash numbers and crashes per licensed driver, neither of which were found to feature an over-representation of older drivers.

Also addressed in the report is the question of whether the increase in crash rates per distance driven might be a phenomenon associated with older drivers as a whole, or one associated with specific subgroups of older drivers whilst the remainder maintain the relatively low crash rates of middle-aged drivers.

Although there are arguments to support the claim that there are high-risk subgroups of older drivers, it is nevertheless concluded that high risk older drivers cannot be identified in mass crash data.

A third section of the report contains an analysis of a sample of crashes involving older drivers that were investigated as part of an in-depth study into rural road crashes.

Factors other than the driver which contributed to crashes are discussed, illustrating the importance of appropriate road infrastructure for reducing older driver crashes.

GAO Studying Older Driver Issues for Senate Committee

The Government Accountability Office (GAO) is undertaking a study of older driver safety issues at the request of the U.S. Senate Special Committee on Aging. Concerned that the aging process can impair driving ability and understanding that older drivers are more likely to be killed or injured in collisions than are drivers in most other age groups, the committee asked that GAO focus on:

- the extent to which the federal government has established standards and guidelines for road design and driver assessment practices to promote safety for older drivers, and how states

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are implementing those standards and guidelines

- leading practices states are implementing to improve the safety of older drivers; and
- the extent to which the federal government has provided funding to promote safety for older drivers.

GAO will engage federal government and partner nongovernmental organizations to assess their roles in promoting older driver safety. Additionally, GAO is visiting six states—California, Florida, Iowa, Maryland, Michigan, and Oregon—to determine what plans, programs, and initiatives to improve older driver safety are in place. These states were chosen for visits based on their initially being identified in National Cooperative Highway Research Program (NCHRP) Synthesis 348, *Improving the Safety of Older Road Users* (2005) as “good practice” states because of the comprehensiveness, innovation and long-term commitment of their older driver safety programs.

GAO plans to issue its report to Congress in spring 2007.

British Columbia Forum Looks At Revising Guide for Doctors

Top researchers, medical and legal professionals, and driver reassessment/rehab experts gathered for a midyear conference in British Columbia to initiate work on revising the *British Columbia Guide for Physicians in Determining Fitness to Drive a Motor Vehicle*. Sponsors were the Office of the Superintendent of Motor Vehicles (OSMV), Province of British Columbia, and the Traffic Injury Research Foundation (TIRF). OSMV and the British Columbia Medical Association (BCMA) are cooperating in the revision.

The current *Guide to Drive* is founded on a consensus of medical opinion regarding various medical conditions and their effect on driving. The OSMV and BCMA are replacing that model with an approach that bases the guidelines on the best available evidence and links the guidelines to functional driving ability.

Primary purpose of the OSMV/TIRF Forum was mobilizing the best available evidence respecting driving and function in order to provide a “first cut” framework that would both inform the revisions to the *Guide to Drive* and serve as a reference for the scientific and regulatory

community on, for example, areas worthy of future research.

The OSMV and BCMA are also developing a new “functional” chapter for the *Guide to Drive*. Bonnie Dobbs of the University of Alberta is currently working on a paper that will be used as the basis for this chapter. A copy of her paper will be posted on the TIRF website this fall.

Conference speakers included Bonnie Dobbs (*Functions and Driving: The Search for the Holy Grail*), Brian Fildes (*Functional Impairment and Crash Risk*), David Hennessy, (*Limitations Do Not Crashes Make: Bad Assumptions Result in Questions that Don't Make Sense*), Shawn Marshall (*The Physician's Perspective on Testing and Functional Impairment*), Matthew Rizzo (*Information Processing, Medical Disorders and Driver Errors; Measurements of Driver Performance and Safety Errors in Simulators and Instrumented Vehicles*), Diana Robertson (*Enabling the Occupation of Driving: The Occupational Therapy Perspectives*), Alison Smiley (*THE BASICS: Functions Needed for Driving and Models of Driving*). Loren Staplin (*Testing for Functional Impairment: Evidence-based Criteria for Medical Fitness to Drive*).

Speakers' presentations and workshop summaries can be viewed online on the TIRF website www.trafficinjuryresearch.com

Safety, Mobility of Seniors Subject Of New Peer-Review Publications

McGwin, G. Jr., Xie, A., Mays, A., Joiner, DeCarlo, D.K., Hall, T.A., Owsley, C. Visual field defects and the risk of motor vehicle collisions among patients with glaucoma. *Investigative Ophthalmology and Visual Science*. 2006;46: 4437-4441.

McGwin, G. Jr., Owsley, C. Risk factors for motor vehicle collision related eye injuries. *Archives of Ophthalmology*. 2005;123: 89-95

Owsley C, McGwin G, Scilley K, Girkin CA, Phillips JM, Searcey K. Perceived barriers to care and attitudes about vision and eye care: Focus groups with older African Americans and eye care providers serving their communities. *Investigative Ophthalmology and Visual Science*. 2006;47: 2797-2802.

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Des Moines Will Be Site of Two-Mile Corridor Project



Grand Avenue in Des Moines will be site of a two-mile corridor demonstration project with improvements designed to benefit motorists as well as pedestrians.

The Iowa Department of Transportation and the City of Des Moines have partnered for an older driver/pedestrian traffic safety enhancement project in Des Moines. The target is a two-mile corridor of Grand Avenue which runs through a scenic neighborhood adjacent to an older business district. It is lined with retirement condominium developments; single family and apartment housing; and often serves the governor as a tree-lined route from the Governor's mansion to the state capitol.

This corridor includes a mixture of schools, businesses, and residences, with resulting foot traffic. Traffic control consists of traffic signals, and two-way stop controlled intersections. To showcase older driver traffic initiatives, various technologies aimed at improving safety for both motorists and pedestrians will be installed and evaluated. The project includes the following tasks:

- Interviewing older residents living on Grand Avenue about their current driving and walking experiences
- Partnering with traffic control industry/vendors to demonstrate certain safety enhancement strategies
- Developing an implementation plan which includes a combination of pavement marking, signing and traffic control devices along the corridor. Anticipated treatments consist of 1.)

'Zebra' style crosswalk pavement marking at 9 locations, 2.) 6-inch centerline pavement marking (durable waterborne) for white skips and double yellow, 3.) Grooving of centerline skips, 4.) Installation of one pedestrian countdown signal, 5.) Installation of four illuminated street name signs at two T intersections, 6.) Installation of LED pedestrian-activated sign at one crossing, and 7.) Installation of new supplemental signing at crosswalks with larger text

Approximately six months after the safety enhancements have been installed the research team will conduct follow-up interviews and discussions with residents along the corridor to obtain new driving and walking perspectives. The project provides a spotlight for the use of safety strategies in an urban corridor for both motorists and residents. Corridor treatments and responses will be documented in a final report upon project completion. This demonstration project also provides an opportunity for other communities and policy makers to evaluate these treatments for possible adoption. (Project researchers are Hillary N. Isebrands P.E. and Neal Hawkins, P.E., Iowa State University, Center for Transportation Research and Education)

Project Will Create Curriculum on Medication-related Impaired Driving

A goal of NHTSA's Impaired Driving Division is to increase the number of health care professionals with an understanding of the effects of medications on driving. Health professionals such as physicians, nurses and pharmacists not only regularly interact with patients who use medications, but are a trusted source of information for the general public with a high degree of credibility.

Providing this group of professionals with up-to-date information about the types of driving impairment associated with different classes of drugs as well as patient information may assist in educating the public about this potentially dangerous mix, and prevent incidents of medication-related impaired driving. Project objectives are to: 1) create a curriculum on medication-related impaired driving for pharmacists and 2) implement the curriculum as a continuing education course offering, through an Accreditation Council for Pharmacy Education (ACPE) accredited provider. Kathy Lococo with Transanalytics is

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principal investigator for the project which extends until February, 2008.

Papers Sought for Publication On Driving and Impaired Vision

A call for papers on driving and vision loss has been issued by Visual Impairment Research for a special issue on driving and impaired vision to be published in August 2007. Eli Peli, Harvard Medical School and Schepens Eye Research Institute, Boston, is serving as guest editor.

The aim of this special issue is to highlight studies that provide empirical data on the relationship between various vision measures (i.e. visual acuity, visual field diameter, contrast sensitivity, glare susceptibility) and driving performance. The minimum visual acuity and horizontal visual field diameter for driver licensing are prescribed by law, but the cut-off values vary among countries and even among states or regions in the same country. Current driving licensure standards appear to lack scientific grounding (i.e. visual acuity and visual field diameter are only weakly associated with accident rates).

Additionally, the use of vision aids such as bioptic telescopes and emerging intelligent car systems (i.e. GPS and collision avoidance) might increase safety of driving with impaired vision. This special issue will include articles presenting the latest research results on topics related to driving with impaired vision including, but not limited to:

- Vision tests and accident rates
- Vision tests and assessment of driving skills
- Vision tests combined with other performance tests (i.e. neuro-psychological tests)
- Vision aids for driving
- Intelligent car systems relevant to drivers with impaired vision

Manuscripts submitted for this issue must be 3000-6000 words in length, and should comply with Visual Impairment Research's Instruction for Authors which can be accessed at <http://www.tandf.co.uk/journals/authors/nvirauth.asp>

Manuscripts should be submitted electronically (preferably in pdf format) by January 31, 2007 to Eli Peli: eli@vision.eri.harvard.edu (Notification of Acceptance: May 30, 2007)

Churchill Fellowship Studies Can Be Accessed on the Web

Robin Anderson, one of the recent Aging/Mobility Roundtable guest speakers, has now completed a detailed report on his Churchill Fellowship studies on older road users. The document comprises a 23-page basic report, plus a further 30 pages of appendices, which are the edited records of the meetings during his study tour.

The document can be found on the 'Reports' section of the NRMA-ACT Road Safety Trust website. See <http://www.roadsafetytrust.org.au>.

Summary Provides Overview Of Ongoing European Research

CAST – Campaigns and Awareness-raising Strategies in Traffic safety. This project studies the effects of road safety campaigns through mass media on road unsafety. Designing and implementing mass media campaigns and evaluating their (isolated) effect on traffic accidents and other performance indicators. Consortium of 19 European research centres, coordinated by the Belgian Road Safety Institute (ISBR-BIVV). <http://www.cast-eu.org>

ECBOS – Enhanced Coach and Bus Occupant Safety. Final Report available at <http://www.vsi.tugraz.at/ecbos>

EURORAP II – Provision of independent, consistent safety ratings of roads. Thousands of road stretches across Europe have been assessed already – and the methods used are already being applied in Australia through AusRAP and piloted in the USA through usRAP. <http://www.eurorap.org>

EURO-RS WEB – A website on awareness-raising campaigns in the field of road safety. <http://www.roadsafetyweb.net/>

GLARE – Relevance of glare sensitivity and impairment of visual function among European drivers. The occurrence of the most important types of visual impairment in drivers will be determined: visual acuity, visual field, and glare sensitivity. These visual functions, in particular glare sensitivity, decline with age. In order to decide if and on what ground (age) to assess specific visual functions for driving license applications, it is

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important to determine the prevalence of visual impairment as a function of age. <http://www.glare.be>

IMPROVER – A study to examine the following aspects of road safety :

- The impact on road safety due to the increasing use of sports utility and multipurpose vehicles
- The impact assessment of measures improving the road safety of light vans
- The impact of cruise control on traffic safety, energy consumption, and environmental pollution
- The harmonisation of road signs and road markings from a safety point of view

http://ec.europa.eu/transport/roadsafety/publications/projectfiles/improver_en.htm

IN-SAFETY – Infrastructure and Safety project which aims to use intelligent, intuitive and cost-efficient combinations of new technologies and traditional infrastructure best practice applications. <http://www.insafety-eu.org/>

PENDANT – Pan-European Co-ordinated Accident and Injury Database. In-depth crash and injury data relating to over 1,100 injured car occupants and pedestrians. <http://www.vsi.tugraz.at/pendant>

RANKERS – To develop scientifically researched guidelines on road infrastructure safety enabling optimal decision-making by road authorities in their efforts to promote safer roads and eradicate dangerous road sections.

http://ec.europa.eu/transport/roadsafety/publications/projectfiles/rankers_en.htm

ROSITA 2 – Evaluation of roadside oral fluid drug tests for the detection of drivers under the influence of drugs. US/European international study. http://ec.europa.eu/transport/roadsafety/publications/projectfiles/domain_en.htm

VERONICA – Vehicle Technology : Passive Safety. This study is to provide the European Commission with information on the feasibility of accident date recording technology in Europe. Relevant vehicle classes, technical specifications, harmonisation, medical and legal aspects and their impacts on prevention and traffic safety as well as the cost-benefit ratio will be examined. <http://www.siemensvdo.com/aboutus/projects/veronica/>

Additional information on transport research programmes and related projects is available on the Transport Research Knowledge Centre website of the European Commission's Europa server : <http://ec.europa.eu/transport/extra> In addition, a public e-mail enquiry service is available at helpdesk@transport_research.info Information on the wider transport activities of the European Union is available on the internet. It can be accessed through the Europa server : http://ec.europa.eu/comm/dqs/energy_transport/index_en.html

Documents are also available, sometimes downloaded free, from the European Bookshop :

http://bookshop.europa.eu/eGetRecords?Template=Test_EUB/en_index For example : Transport research in the European Research Area : A guide to national programmes ; Road safety ; Keep Europe moving : Sustainable mobility for our continent ; Driving licenses in the European Union and the European Economic Area ; Intelligent transport systems

California DMV Shifts Outlook To Serve Senior Drivers Better

The Department of Motor Vehicles has often been called the “face of state government” because it comes into contact with almost everyone. Considering that the fastest growing age group is drivers in their 80s, California's DMV sees this as a unique opportunity to be a major catalyst in assisting seniors with driver education, maintaining safe mobility, and acquiring other pertinent information.

In the last few years, DMV has made significant progress in enhancing its efforts to help seniors continue to drive safely, as well as to provide them with alternative transportation information--- and equally important, to supply their families with helpful information relating to people who can no longer drive themselves.

Growth in the senior demographic will be fueled by the wave on the horizon---baby boomers start to turn 60 this year. In California, DMV records indicate a current total of 2.8 million licensed drivers who are 65 and over, and 44,000 licensed drivers over 90. Projections indicate that the size of the 65-and-over segment will reach six million by 2030. This wave will require extraordinary versatility to deal with the mobility needs of aging Californians. California DMV has initiated several programs in preparation for this demand. These are:

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- Enhancement of existing training programs to provide information to field office personnel, and continuation of ongoing training of Driver Safety Officers to better balance traffic safety considerations with mobility needs of senior drivers. The training specifically highlights how age and illness may affect driving ability, addresses sensitivity needs of older California drivers, and how to appropriately refer high-risk drivers for further evaluation.
- Provision of options to the driver safety staff that explore limited licensing, special instruction permits and restricted temporary licenses—in lieu of suspension or revocation—when appropriate. The procedures allow individuals with correctable driving errors to obtain professional driving education, and/or instruction, as well as supervised practice with other licensed adults who are 25 years of age or older, and the application of area restrictions to licenses to reduce or eliminate situations that an older driver may find unduly challenging.
- Significant expansion of the DMV senior website to include internet links that provide information pertinent to senior drivers such as the importance of regular eye exams, the continued application of safe driving techniques, alternative modes of transportation, and other relevant information directly applicable to senior drivers.
- Completion of a survey of all DMV field offices to determine the number of older drivers who have been stranded because their driver license has been suspended or revoked leaving them with no immediate way to return to their homes. The Automobile Club of Southern California has expressed an interest in establishing a pilot program to transport those drivers and provide free towing services for their vehicles. Also, DMV is looking to expand a statewide program that provides localized alternative transportation information for seniors. (Currently, the department has a pilot program under way in the Sacramento area.)
- Investigation of the possibility that DMV might work with Auto Clubs in northern and southern California to implement the successful CarFit

program as part of all department drive-test procedures.

DMV is now introducing the three-tier license testing procedure on a pilot basis in Northern California. And most recently, DMV has assigned a Senior Ombudsman who deals with individual drivers and their issues as well as the fairness and equity of department review policies and procedures. Among his many responsibilities, the ombudsman will also conduct surveys to assess customer perception or DMV's service level to identify case-specific problems. Eventually, it is the department's intent to establish a senior advocate in most DMV offices who would provide information about additional local senior services and mobility options for older Californians.

California DMV has recognized the challenges presented by the growing senior demographic, broadening its vision relating to seniors by adopting programs, policies and procedures to maximize its level of service-- not only for seniors but for all DMV customers. –
(Anthony J. Mongalo)

Virginia Commission Studies Senior Transportation Needs

The Northern Virginia Transportation Commission (NVTC) has released its study *Meeting the Transportation Needs of Northern Virginia's Seniors*. Its purpose was to identify, by jurisdiction and land use type, gaps in coverage of existing and future services, and to better equip public transit operators and social service providers with detailed knowledge of this important and growing market.

The report provides considerable data on trip selection and other details for persons 65 and over as well as those 75 and over, the latter based on a survey of over 1600 persons, with follow-up focus groups. Emphasis was placed on the relationship between senior mobility and type of community (i.e., urban, suburban, rural) and one finding is that seniors aged 65 and over from walkable, mixed-use urban and town areas take 20 percent more trips each week than those from suburban and exurban areas.

The NVTC area includes 1300 square miles, and in 2005 the 75+ age group took about 720,000 fixed route transit trips and 360,000 specialized transit trips. Overall, about 13 percent report having used public transportation in the past month, with 95 percent taking three or more

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trips each week. Most fixed route users drive for a portion of the trips they take each week. They are not dependent on public transportation but rather they clearly choose to use it when it meets their travel needs.

The report identifies specific measures for public transportation systems to better serve the mobility needs of seniors. It recommends that Northern Virginia encourage and support increased use of fixed-route transit by seniors, encourage supplemental specialized services for seniors unable to use fixed-route service, and address land use and community design to reduce auto dependency and facilitate aging in place.

The report may be found at www.thinkoutsidethecar.org. Additional information is available from Jana Lynott, Director of Transportation Planning, Northern Virginia Transportation Commission, 4350 North Fairfax Drive, Arlington Virginia 22203, (703) 524-3322, e-mail NVTC@nvtcd.org.

Around the World **Policy Framework Laid Out by European Transport Ministers**

Last May, European Ministers of Transport agreed on the policy messages (set out in a document by the European Conference of Ministers of Transport – ECMT) for improving transport accessibility for all, in particular the *Priority Areas for Further Government Action*.

Accessibility to transport services and infrastructure is an important factor in ensuring a high-quality, efficient, sustainable transport system. Accessible transport has often been characterized as an issue of concern to only a minority of transport system clients. It is increasingly recognized, however, by transport authorities, service providers and operators, that improvements to the accessibility of the transport system as a whole mean a better quality of transport for all users of the system.

A higher quality transport system (in terms of vehicle design, infrastructure, driver training, information and many other factors), means a more equitable system, and in this way, accessibility is a key element in ensuring the social sustainability of the transport sector. As in the U.S., populations of Europe are getting older. The proportion of the population over 65 will increase by 40 per cent in the next 30 years and the share of all people over 80 will double.

It is well-acknowledged that a strong correlation exists between age and disability: two-thirds of disabled people are older, and over half of the population over 75 has some form of disability. The growing imbalance between working age and older people will have profound economic and social implications – the former increasingly too small to support an older population that is not self-sufficient. Mobility in general and ability to use the transport system in particular are crucial to maintaining self-sufficiency and independence.

The impact of these demographic trends must be considered alongside the already significant number of individuals with disabilities and/or mobility problems. Recent studies suggest that between 20 and 30 per cent of people traveling have a mobility difficulty at any given time. Until barriers to mobility in the transport system and surrounding environment are overcome a substantial and growing proportion of the population will continue to be at a disadvantage – unable to get around as they need to, and consequently limited in their ability to participate fully in society.

This is not only a significant social issue for governments; it is also an economic concern. Without independent mobility, people are unable to access education, medical facilities or find employment; likewise, they are not able to be self-sufficient in terms of shopping and other necessary activities. There is a very substantial cost in most societies for providing the care and support that is needed to compensate for these losses. There is also a correlation between loss of mobility and physical and mental health and well-being. Among older people in particular, loss of even local outdoor mobility can trigger a significant decline in health, leading, again, to heavy costs for governments as well as a heavy social penalty in terms of quality of life for disabled and older people and their families.

In 2001, a body of work examining transport issues as they relate to older people was agreed on by Transport Ministers, setting out the need for, among others, systematic safety and accessibility audits of transport and land use plans – particularly with impacts on older people in mind. A transport chain approach was recommended, including accessibility improvements for all modes of transport and their interchange points; and the need for guidance on a variety of issues important to older people, including neighborhood-based living for less car

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dependency, the function and design of the road system, and effective driver evaluation.

In 2003, European Transport Ministers agreed on a set of joint recommendations with the International Public Transport Association (UITP) on what authorities and public transport operators can do together to promote better access in public transport systems. Recommendations centered *inter alia* on better cooperation between authorities and operators regarding vehicles, stations and stops; forward planning of 5 and 10 years for accessibility improvements with careful monitoring of progress toward objectives; consultation and collaboration with disability organizations at all stages of the planning and implementation process; consideration of all types of disability (physical, sensory, cognitive); disability awareness training for all public transport personnel; the need for up-to-date information on transport services in appropriate formats for disabled people; recognition of the financial benefits from increased patronage of the public transport system that accessibility improvements can make.

In some countries barriers persist to implementing good practice. These problems include:

- Low government priority : accessibility remains in many countries on the margins of transport policy and not yet considered to be an integral part of a quality transport system and transport decision-making
- Inadequate regulatory and legal frameworks and technical standards
- Insufficient monitoring and evaluation of implementation. In many countries evaluation is at an early stage – if practiced at all – and as a result there is often inadequate understanding of the impacts of policies on improving accessibility
- Lack of familiarity with international good practice

As a result of these barriers, accessibility improvements are often considered too late or not at all in the decision-making process or are regarded as an optional extra, which can be dropped when there is pressure on budgets. Financial and other resources necessary for these improvements are often therefore not committed early enough in the transport planning process. This can mean high retrofitting and ex-post investment costs in addition to the indirect economic costs described above that can result from a loss of

independent mobility. On top of these can then accrue more costs engendered by the need to provide separate specialized transport for disabled and older people unable to access public transport.

Including accessibility considerations upstream in the transport planning and decision-making process can allow costs to be spread out over the investment period. In addition, with better accessibility, economic benefits for transport companies can be seen because more people are able to use public transport (including those who need to travel with small children or heavy luggage as well as those who are disabled). And with reduced boarding times due to accessibility improvements can come lower operating costs.

There are also significant cost savings that can accrue outside the transport sector from the provision of accessible transport. These include reducing or postponing the need for domiciliary or residential care for older people who lose their independent mobility, and increasing the opportunity for younger disabled people to return to economic activity through better access to employment. These cross-sector benefits, though difficult to quantify directly, should be taken into account when assessing the economic case for accessibility improvements.

Therefore, the following issues emerge as needing priority attention from governments to ensure that progress toward better transport accessibility continues across countries :

- Accessibility is no longer merely an option for governments. It is a clear economic and social imperative and should be seen as an integral part of a policy framework to promote a high-quality, efficient and sustainable transport system. The *ECMT Guide to Good Practice on Transport Accessibility for All* is a potentially valuable resource in helping to reach those goals as well as those set out below.
- Whilst many countries have taken strong initiatives to improve transport accessibility through legislation, regulation and other types of support and incentive, many others continue to regard accessibility as low priority – a problem of only a minority of transport system clients, notably those with disabilities. This approach demonstrates a lack of recognition of :

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1. the importance of accessibility to a sustainable transport system as described above ;
2. the growing proportion of older people in the population across countries and implications of this demographic shift in terms of an increasing need for better transport accessibility ;
3. the potential benefits to be accrued from improved accessibility to all transport system stakeholders and clients – not just those with disabilities.

Accessibility issues requiring the particularly close attention of Governments at this time include :

- Training for transport personnel, especially drivers. Driver training and the availability and accessibility of information are fundamental to giving disabled and older people the confidence to travel. This is particularly important at present in most countries in order to better address sensory and cognitive disabilities as well as mental health problems; these disabilities continue to be under-represented in accessible transport policy. Disability comes in many forms: it is not enough to pay attention only to the needs of those in wheelchairs or with walking difficulty. People with a loss of vision or hearing (both very commonly associated with the aging process) and those with intellectual disabilities or mental health problems also have particular needs that can be addressed without significant cost. The ECMT-UITP publication on *Improving Access to Public Transport: Guidelines for Transport Personnel* provides helpful guidance on ways to interact with disabled and older passengers on public transport.
- Separate and specialized door-to-door transport: whilst the need for these services should diminish if fully accessible transport systems are in place, there will remain some need for such services, for example in isolated rural areas and for those individuals whose disability may always preclude them from using public transport.
- Taxis have a key role to play in the provision of door-to-door services for disabled and older people. However, the predominant design of vehicles used for this purpose in most countries

remains difficult for many people to use. Joint work currently in progress between ECMT and IRU (International Road Union) in collaboration with the major European vehicle manufacturers is helping to address the vehicle design problem. A general two-tiered approach to vehicle design, based on both numerical and performance criteria, has been agreed within the joint ECMT-IRU Task Force and reactions from industry are now being solicited. The basic approach is to have two design levels :

Type One - Wheelchair Accessible Taxis : accessible vehicles capable of carrying the majority, but not all, passengers who travel in their wheelchair as well as people with other disabilities.

Type Two – Standard Taxis : vehicles with features designed to make use by disabled people easier, but which would only be able to carry a wheelchair user who can transfer to a taxi seat.

It is recommended that fleets of taxis used for regular services should be composed of a combination of these two types of vehicle. The proportion of each type within the taxi parc is likely to vary from place to place. This is a matter for decision by central and local governments. (Danae Penn) <http://www.cemt.org>

Canadian Automobile Association Opens Website for Senior Drivers

The Canadian Automobile Association (CAA) has launched "Helping Aging Drivers," an interactive website aimed at senior drivers and their families. The website provides educational material and techniques to recognize driving ability and limitations, and help through the transition when it becomes time to reduce or stop driving. The site features online tools and resources for drivers to stay mobile behind the wheel for as long as is safely possible, including CarFit, an interactive guide to adapting an existing vehicle for older drivers.

The site also has a quiz that permits drivers to gauge their driving performance, and an online survey. CAA is a federation of nine automobile clubs serving 4.8 million members through 140 offices across Canada. www.caa.ca/agingdrivers/

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European Commission Seeks To Halve Road Crash Deaths

In its efforts to halve the number of European road fatalities by 2010, the European Commission on October 5, 2006, adopted two proposals for directives, the first one aiming at improving safety on the major roads through infrastructure measures and better engineering, and the second one providing for existing heavy vehicles to be equipped with "blind spot mirrors" in order to reduce the number of accidents involving (in particular) cyclists and motorcyclists. The commission is proceeding on the basis that many crashes could be avoided (and many lives saved) if existing road infrastructure was managed according to the best available know-how on safety engineering.

The first draft directive aims to bring road safety management to higher standards throughout the EU. It defines guidelines and best practices for all stages of infrastructure management, including road safety impact assessments, road safety audits, network safety management and safety inspections.

The commission estimates that the proposed measures, if applied to the major roads, could reduce the number of crashes-with-injuries by 7,000 and avoid the loss of 600 lives every year. With the second directive on retrofitting existing heavy vehicles with "blind spot mirrors", it is estimated that 1,200 more lives could be saved on European roads up to 2020. Compared to the average costs of a retrofit (100-150 euros per vehicle), the benefit for society will be much higher. An existing EU directive already requires that new heavy-duty vehicles of more than 3.5 tons will have to be equipped with blind spot mirrors starting in 2007. This will, however, not reduce the risks stemming from the existing fleet of heavy goods vehicles – hence the proposal regarding retrofitting. http://ec.europa.eu/transport/roadsafety/index_en.htm

Europe Sees Land Use as Major Factor in Transport Demand

While land use policies lie outside the scope of most national transport ministries, they have a significant impact on the demand for transport. If new developments are at lower density, remote from public transport and provided with extensive parking, they will attract longer journeys, predominantly by car. Conversely, higher

density-mixed developments are more likely to facilitate shorter journeys, more of which will be made by public transport, walking and cycling.

Road space needs to be managed more effectively, by allocating appropriate priority between general traffic, public transport, walking and cycling, frontage access and public space. While most urban streets will be multi-functional, a balance should be determined for each street between its link status and its place status.

Walking and cycling are important modes in most European cities, and can provide for a significant proportion of journeys. They offer an effective alternative for many car journeys, provide access to public transport, and may also help relieve congestion on more heavily used public transport corridors. They need to be fully integrated into the overall strategy by providing for them effectively in land use plans and in the reallocation of road space.

Public transport services can be improved most effectively by increasing service levels, improving reliability and operating speeds, reducing and simplifying fares, and enhancing the quality of the vehicles, supporting infrastructure, interchange options and information systems. Further research is needed on a number of issues, including understanding the costs of urban sprawl and exploring the impact of new transport modes on land use patterns. <http://ec.europa.eu/transport/extra/web/brochures.cfm?color=blue>

Europe Seeks Improved Crash Compatibility of Cars, Trucks

Traffic-related accidents are still a major threat to life in the European Union. One in 80 European citizens will end his or her life too early in a road crash. Of those fatalities, 50-65% are car occupants, and 50-60% of those (i.e., 15,000 people) die in car-to-car/car-to-truck collisions. The VC-COMPAT project was commissioned to develop a suite of crash test procedures which once implemented will lead to an improvement in vehicle frontal crash compatibility in both cars and heavy trucks.

Studies have suggested that improved compatibility could reduce the number of serious injuries and fatalities by as much as a third in accidents where a car collides with another vehicle. It is also expected that the resulting structural improvements will increase protection in many

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single-vehicle accidents. As regards car-to-truck collisions, an EEVC study indicated a 20-30% reduction in fatalities where the trucks are equipped with a rigid or energy-absorbing under-run device.

Project tasks

Regarding car-to-car impact :

1. to draw up a suite of draft test procedures and associated performance criteria for car-to-car impacts;
2. to build a framework for a crash compatibility rating system;
3. to improve the understanding for vehicle crash compatibility with general recommendations for the design of compatible cars

Regarding car-to-truck impact :

1. to set up test procedures and associated performance criteria to assess and control truck frontal structures for frontal impact compatibility with cars;
2. to identify suggestions for improving rear and side under-run safety.

An overall goal is an indication of the benefits and costs of improved compatibility for both car-to-car and car-to-truck impacts.

The project's final workshop took place October 17-18, 2006 in the DAF Museum at Eindhoven (Netherlands). The car and truck industries discussed outcomes, including the possibility of aligning both (completely different) road users. In separate sessions for passenger cars and for trucks the results of the project and results from research in the US and Asia were presented in more detail. <http://vc-compat.rtdproject.net>

Data Gathering Will Improve Via New European Observatory

A new European Road Safety Observatory (ERSO) eventually serving all 25 member states (and some nations outside the EU) will be established to harmonize data at several levels. It will support all aspects of road and vehicle safety policy development at European and national levels; it will make new proposals for common European approaches in several areas; it will extend the CARE database, and it will develop new statistical methods that can be used to analyze combined macroscopic and other data.

The European Commission decided to initiate the development of ERSO by funding the SafetyNet project. 22 institutes from 17 countries co-operate in this project.

The ERSO-SafetyNet website has just added three new sections: novice drivers, older drivers, post impact care.. There is a useful diagram and summary about older drivers which includes:

- The older driver grouping has a higher fatality rate than average. This has to do with their vulnerability. The crash type 'turning off at an intersection' is also overrepresented in this group.
- The road safety of older drivers is to a large extent determined by two factors: functional limitations and physical vulnerability.
- What factors will influence the future numbers of crashes and fatalities?
- What can be done to change the future number of crashes and casualties ? (Different types of measures are available).
- Safety versus mobility and quality of life

Regarding the safety/mobility issue, a test procedure which results in people losing their driving license when they can still safely drive a car is undesirable for a variety of reasons. First, the fatality rate for older cyclists and pedestrians is many times larger than that for older car drivers.

Consequently, they are safer in a car. In addition, older people often have already stopped cycling, partly because of loss of balance.

Saying farewell to their car often is also a farewell to part of their social lives. As a result, the loss of driving privileges can cause considerable distress and a lowering of self-esteem and dignity, as well as create difficulties for daily activities, shopping and social contact.

The availability of means of transport other than the car is one of the most important ways to maintain mobility for older people. However, no single form of transport provides mobility for everyone under all circumstances.

Therefore, a family of services is needed that enables travelers to select the one that best suits their requirements for a particular journey.

These services include: public transport, bus service routes, taxis, door-to-door services, and an accessible pedestrian infrastructure for journeys on foot or by wheelchair or scooter.

<http://www.erso.eu>

<http://www.erso.eu/safetynet/content/safetynet.htm>

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Good Communications Vital For User-Friendly Transport

In September, European road transport stakeholders presented a consultation paper to the European Commission concerning the formation of a work programme on Information and Communications Technology (ICT) on Mobility. The eSafety Forum Working Group RTD identified mobility services for people as a priority for ICT.

Two different aspects are involved : users need to know about the services and to understand the services. Thus, both availability and capability knowledge (i.e. user friendliness) are needed. Wide offering of mobility services is also needed. One of the key issues to be addressed is the functional coexistence of free of charge web content and marketable content with additional value. Furthermore, content must be accurate, reliable, relevant, complete and free from redundant and distracting information. Focus should be on people and on urban situations.

Public transport information is not enough to attract people to use public transport – frequency, coverage, comfort and cost are critical factors. One solution could be logistics software to pool together statutory transport (health, elderly, education, etc.) with commercially provided transport services. Another way could be to investigate how to make the whole area of public transport provision more reactive to network conditions, by (for instance) dovetailing real-time and predictive information with public transport operations.

Straightforward navigation is needed for things like: how/when/where to go, options for traveling/transport, options in problematic situations, options for access and routes, information about the environment, locations etc. The mobility services should provide a seamless user experience. Regular commuters as well as elderly and disabled people, as well as road users who are not familiar with the area, have to be covered to make these mobility services a success. One of the main requirements is thus a very well defined and managed customization of service packages for every person.

Applications should concentrate on new generation driving support, emergency maneuvers and collision mitigation through novel and intelligent actuation concepts. The quality of these applications needs to be ensured by formalized and commonly agreed procedures,

as is the case with passive safety systems. The safety and security systems in the vehicle must be dependable. Thus, the vehicle infrastructure must support the operation and availability of these systems, e.g. dependable power supply for safety and security critical systems.

Regarding core technologies, the focus is on enhanced and new sensors and sensor systems with more reliable perception of the driving environment and the capability to deal with complex scenarios such as intersections, detection and recognition of vulnerable road users, adverse and nighttime driving conditions. Among research and development topics identified are :

- Journey planning and "through ticketing" systems
- Standardized format for mobility information
- Addressing specific accessibility and other needs of elderly and disabled people and utilize these as incentives for innovation
- Safe in-vehicle use whilst driving
- New ICT solutions to deliver better and cheaper public transport
- Description and modeling of driver behavior and capabilities
- Warning and automation strategies
- Human factors issues linked to drive-by-wire technologies

The research and deployment of an intelligent road – traffic – transport system (including drivers – vehicles – infrastructure and other road users) requires well trained and educated researchers, engineers and other capable staff.

Thus a critical issue is preparing the next generation of focused research scientists for industry and academia. Special actions should be taken to fulfill this future need and the available European research programme instruments should be explored for this purpose.

Development of relevant course material in automotive engineering, electrical engineering, information sciences, human factors, traffic and transport engineers should be encouraged.

http://www.europa.eu.int/information_society/activities/esafety/index_en.htm

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Ontario Introduces Revised Education Program for Seniors

In July 2005, the Ontario Ministry of Transportation (MTO) successfully completed the rollout of Ontario's revised curriculum for Group Education Sessions (GES) for senior drivers age 80 and older. Ontario is the only Canadian jurisdiction to require senior drivers 80 and older to attend a driver education session.

MTO's senior driver license renewal program requires seniors 80 and older to renew their driver's licenses every two years by successfully completing a vision test, a written knowledge test, a review of their driving record and a Group Education Session lasting about 90 minutes. Some seniors may also have to complete a road test, but only if an MTO counselor deems it necessary or the driver's record indicates demerit points. This program was introduced in 1996, replacing Ontario's annual road test for drivers in this age group. Since that time, there had been no changes to the GES component of the program although the percentage of seniors aged 80 and older holding an Ontario driver's license had almost doubled, growing from 28 per cent in 1996, to 49 per cent in 2004.

In December of 2003, MTO commissioned experts in gerontology and adult education to review the GES curriculum to ensure that this critical piece of Ontario's senior driver program met the needs of today's seniors. The consultants' report was delivered in March 2004, and MTO immediately began to revise the GES curriculum to reflect the consultants' recommendations.

Based on the consultants' report, the GES curriculum was revised to provide more information on age-related changes that affect driving, high-risk driving situations specific to seniors and ways that seniors can adapt their driving habits to better meet these challenges. New presentation materials, a new knowledge test and a take-home booklet were developed to improve senior's understanding and retention of the information provided in each GES. MTO driver improvement counselors were retrained with an emphasis on encouraging a friendlier and more comfortable environment for seniors attending the GES. At the same time, MTO invested in improved facilities for these sessions and new vision testing equipment.

The improved GES provides senior drivers in Ontario with more information that is relevant to seniors' driving

habits in a manner that makes it easier for seniors to retain this information. The redesigned presentation materials use larger fonts, more color and animation to illustrate proper driving techniques in a positive manner that emphasizes self-awareness and self-regulation. To date, the enhanced GES curriculum has been well received throughout Ontario. A copy of the take-home booklet developed for GES attendees can also be downloaded in pdf format. Additional information about the revised curriculum is currently available on-line at: <http://www.mto.gov.on.ca/english/dandv/driver/senior/senior.htm>

Personal Navigation Systems Assist the Visually Impaired

NOPPA is a personal Electronic Traveling Aid (ETA) navigation and information system to help the visually impaired access public transport. It is designed to offer passenger and route information, providing an unbroken trip chain for a pedestrian using buses, commuter trains and trams. It is based on an information server concept, which has a user-centered and task-oriented approach for solving informational needs of special user groups. The information server with speech-user interface acts as an interpreter between the user and different information databases. Use of commercial information databases and web services ensures that the visually impaired persons get the same up-to-date information as other citizens.

In studies about visually impaired persons' navigation it has been noted that even a small amount of extra information about the environment makes a remarkable increase in performance. Also it seems that a good traveling aid should produce only *small amounts of meaningful information* and the ETA should not block hearing or other senses so that visually impaired people can still use their traditional methods of acquiring information about the environment. If the user needs to concentrate heavily on using the ETA, he or she has no capacity left for normal environmental perception. Therefore, instead of trying to develop ETAs to replace primary traveling aids, *complementary* systems should be developed.

Navigation systems have usually worked well in small-scale implementations, but a large-scale implementation may be extremely expensive - especially

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with beacon-based navigation systems. The number of visually impaired people in the population is small (less than 1.6%) and therefore large investments in special infrastructure are not sensible.

Problems experienced by the visually impaired person using public transport can be categorized as follows (some variance based on means of transport) : trip planning – finding a stop/station – finding an entrance to the station – navigating inside the station – finding the right platform and waiting place – knowing when the right vehicle arrives – finding a vehicle entrance – payment – finding a seat – departing at the right stop – navigating inside the station – finding the exit of the station – finding the destination. Most of these tasks are trivial for the sighted, but very difficult for visually impaired people.

To produce an unbroken trip chain for visually impaired people means switching seamlessly between different modes of operation. This requires that the system must be context aware to recognize transition points and change its mode of operation automatically.

The NOPPA approach is to improve public transport accessibility by creating access to passenger information with a personal mobile device rather than building physical infrastructure. NOPPA is based on commercial information services, mobile Internet and high-end mobile devices with capabilities for speech user interface and satellite positioning. The design goals of the system were :

Easy and fast to use; Affordable to the user; Access to public transport and passenger information systems; Applicable both indoors and outdoors; Integration of products and services for personal navigation; Modular, easy to update, easy to add functions; Speech user interface. <http://www.vtt.fi/noppa/noppaeng.htm>

New Car Assessment Program Helps Europe Achieve Safer Motor Vehicles

Over the past few years cars and trucks have become increasingly safer. Automotive manufacturers have worked to protect car passengers and also third parties in case of a crash ("passive safety"). This has been achieved through European Union type-approval legislation and also through market-based efforts of industry, such as the EuroNCAP (New Car Assessment Program) initiatives which provide a safety rating for new passenger cars, based on crash tests.

EuroNCAP provides motoring consumers with a realistic and independent assessment of the safety performance of some of the most popular cars sold in Europe. Established in 1997 and now backed by the European Commission, five European Governments (France, Germany, Netherlands, Sweden, UK), and motoring and consumer organizations in every EU country, EuroNCAP has rapidly become a catalyst for encouraging significant safety improvements to new car design.

Active safety devices are conceived to avoid an accident, using state of the art information technology within the car and also in communication with other cars or infrastructures. Many of these new technologies are developed, demonstrated and deployed within the European eSafety initiative. Further advanced systems are being put in place to speed up rescue efforts after an accident, via the eCall project.

http://ec.europa.eu/transport/roadsafety/vehicle_safety/projects_en.htm

http://ec.europa.eu/transport/roadsafety/vehicle_safety/introduction_en.htm

Europe Plans to Promote Advantages Of Intelligent Vehicle System Design

On September 28, 2006 the European Commission announced a major new drive for improving awareness of intelligent vehicle systems and their road safety benefits. This new platform to promote awareness brings together stakeholders from the public sector, automotive suppliers and users, because there is concrete evidence that users' knowledge of new technologies needs improving.

The Platform for User Awareness, called eSafety Aware, will focus on pre-commercial promotion campaigns. It will be chaired by the Foundation of the International Automobile Federation (FIA) and has 26 founding members representing automotive suppliers, automotive clubs, road safety authorities, road operators, insurance industry and service providers.

The Platform will launch public awareness campaigns to catch the attention of the public at large, making them aware of the benefits and why they should use these technologies. The first will be on *Electronic Stability Control (ESC)*, which has been shown to reduce accident risk by 20%. This campaign will be launched in April 2007.

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Stability control electronically senses when a driver is about to lose control by detecting differences between a car's course and the driver's intended direction. By selectively applying the brakes to individual wheels, stability control helps the driver maintain control of the car and to steer safely.

The statistics are compelling. Several studies have now shown that cars fitted with stability control are significantly less likely to be involved in accidents than those that are not, and Euro NCAP strongly recommends that consumers buy cars fitted with stability control. http://www.euroncap.com/content/safety_ratings/recommendation.php

European Union Urban Areas Seek To Ease Vehicle Pollutant Emissions

More than 75% of the European Union population lives in urban areas. Thus urban transport accounts for a significant part of total traveling and an even greater proportion of damage to the health of citizens and to buildings. Urban transport contributes to global warming. More than 10% of all carbon dioxide emissions in the EU come from road traffic in urban areas, and motor vehicles are also the main source of carbon monoxide and fine particulates in European cities.

Emissions pollute the immediate area and pose serious health hazards. The challenge for future urban transport systems will be to meet the demand for accessibility for all people, including people with reduced mobility, while at the same time minimizing the impacts on the environment and safeguarding the quality of life. The European Union is taking a multi-stranded approach including:

- Promoting efficient public transport modes to people with reduced mobility
- Supporting integrated land-use and urban transport planning to minimize the need to drive and to facilitate collective transport
- Supporting and promoting cycling

People with reduced mobility represent an important proportion of the EU population (about 35-40%). They are principally elderly and disabled, but also people with a large amount of luggage or shopping bags, people with children in buggies, people with temporary injuries. The European Commission has developed and is currently

promoting a series of initiatives aiming to facilitate and improve accessibility to public transport for these citizens.

One of these initiatives is the CIVITAS programme. In September, Burgos (Spain) hosted the fourth annual meeting of cities taking part in CIVITAS. Over 200 city-representatives, including 20 transport councilors and mayors, debated the role that cities can play in achieving sustainable mobility in Europe. To date, 36 European cities have received aid through CIVITAS and the European Commission has provided 100 million euros in co-financing.

An example of a CIVITAS project aimed at helping elderly people is the Security Action Plan for the Stuttgart suburban railway system. This project will concentrate on the development of an integrated public transport security concept for the suburban railway in Greater Stuttgart. The approach is to ensure the combined use of new and existing means of communication between passengers themselves and between passengers and public transport operators' staff or other authorities in charge. <http://www.civitas-initiative.org>