

Safe Mobility of Older Persons

The National Academies
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Transportation Research Board
Committee ANB60

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November, 2007

Dear Colleagues,

The annual TRB meeting is once again approaching, and our Committee Activities will begin Jan. 12 with a Human Factors Workshop on "Evaluation of Evidence-Based Assessment Tools for Older Drivers." This will be followed on Monday with an extremely packed program, including two sessions commemorating the 20th Anniversary of Special Report 218, an afternoon symposium on Instrumented Vehicles, and a Poster Session. Special thanks to Ric Pain and John Eberhard for all their help in organizing this year's program, and to everyone who helped in reviewing the paper/presentation submissions (see details of program on pages 6-8).

The Committee Meeting will conclude Monday's activities, beginning at 7:30 p.m. Everyone is welcome. Please contact me with any items for the agenda. We are pleased to announce a new joint subcommittee (sponsored by ANB60 and ANB30) on "Driver Medical Review" chaired by Germaine Odenheimer and John Joyce (see page 8 for details). Subcommittees will be meeting on Tuesday and Wednesday at TRB.

For those of you attending GSA (Gerontological Society of America) next week, please note the extensive number of sessions related to mobility and transportation (see pages 2-6). In addition, the GSA Transportation and Aging Formal Interest Group will meet Sat., Nov. 17 at 6:00 p.m. (see page 2 for details of the program).

Once again, this newsletter is full of details on upcoming meetings, updates on completed and ongoing projects, items on transportation and mobility in the news

and around the world. Thanks again to John and Kent for pulling all this information together for us, and I hope to see everyone in January.

Warmest Regards,

Karlene



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Committee on Safe Mobility of Older Persons Newsletter

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<http://www.crag.uab.edu/safemobility>

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GSA Meeting Will Incorporate Diverse Transportation Panels

The Gerontological Society of America (GSA) will hold its annual scientific meeting in San Francisco November 16-20, 2007, offering an extensive array of sessions on transportation and community mobility. The GSA Transportation and Aging Formal Interest group meets November 17 in conjunction with the conference (see accompanying story).

Sessions directly related to mobility and transportation include:

Saturday, November 17, 10-11:30 a.m.

◇ *Automobile-based Alternative Transportation for an Aging Population—The Rubber Has Met the Road*
RICHARD FORTINSKI, Ph.D., Center on Aging

Considers how alternative transportation for seniors can influence transportation policy; travel patterns of older adults; how health care practitioners can better discuss driving concerns with older patients

◇ *An Entrepreneurial Approach to Senior Mobility: The Impact on Public Policy and Information Technology*
KATHERINE FREUND MA, ITNAmerica

Sustainability in a senior transportation program; discussion of policy efforts

◇ *ITNAmerica: The View from an Affiliate Community*
FRAN CARLIN-ROGERS, Senior Resource Alliance

A look at the community preparations necessary to establish transportation options; ITNAmerica is an example

◇ *Why Use ITN? Evidence on Where Older People Go When They Do Not Drive*
JACKIE VINE, ITNAmerica

The ITNAmerica data base reveals much about seniors' trip destinations

◇ *How Might ITNAmerica Help Healthcare Practitioners Discuss Driving with Older Patients?*
GERMAINE ODENHEIMER MD, University of Oklahoma Health Sciences Center

How availability of alternate transportation might affect physicians' willingness to address driving issues with patients

◇ *A Multi-site Evaluation of the AAA Roadwise Review Self-assessment tool for Older Drivers*
MICHELLE M. PORTER Ph.D., University of Manitoba

GSA Interest Group Will Meet During Course of Conference

The GSA Transportation and Aging Formal Interest Group will hold its annual meeting Saturday, November 17 from 6 to 7:30 p.m. in the Van Ness Room of the Hilton Hotel. The session will be held in conjunction with a reception hosted by the New England University Transportation Center of the Massachusetts Institute of Technology (Joseph Coughlin, director) and the newly funded Michigan Center for Advancing Safe Transportation throughout the Lifespan housed at the University of Michigan Transportation Research Institute (David Eby, director).

Interest group conveners are Lisa Molnar, David Eby, and Bonnie Dobbs. The group was formed to enhance the safe, effective, and accessible transportation of older people by facilitating communication and collaboration among researchers and other professionals. Anyone with an interest in the safe mobility of older adults is welcome to attend. Opportunity will be made available to discuss research and program interests, and to explore ideas for collaboration. An agenda will be distributed prior to the meeting.

The interest group will sponsor a symposium during the annual meeting entitled *Transportation and Aging: A Cultural Comparison*. (See the full conference transportation track summary for details) Information about the interest group is available from the primary convener Lisa Molnar (ljmolnar@umich.edu) or co-conveners David Eby (eby@umich.edu) and Bonnie Dobbs (bonnie.dobbs@ualberta.ca)

Report on an evaluation of Roadwise Review effectiveness

◇ *How Do Seniors in Different Settings Score on Roadwise Review?*

MICHELLE PORTER, University of Manitoba; HOLLY TUOKKO, University of Victoria; MICHEL BEDARD, Lakehead University; ANITA M. MYERS, University of Waterloo

How older drivers in different settings scored on the Roadwise Review self-evaluation

◇ *Experiences Doing the Roadwise Review as the Respondent and the Partner*

ANITA MEYERS, University of Waterloo; ROBIN BLANCHARD and LISA MacDONALD, University of Waterloo

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Observational data on seniors who took Roadwise Review

◇ *The Relationship Between Driving Performance and Scores on Roadwise Review*

MICHEL BEDARD; JULIE RIENDEAU and BRUCE WEAVER, Lakehead University

Seniors' performance on Roadwise Review was measured against on-road driving and UFOV tests

◇ *Transportation, Family Caregiving, and Nursing Home Care*

CHRISTINE BISHOP, Brandeis University

Poster Session--Various needs (met and unmet) of older adults and their families

◇ *Self-Regulation of Driving in Older Adults*

LINDA KOSTYNIUK Ph.D. and LISA J. MOLNAR, M.H.S.A., University of Michigan Transportation Research Institute (UMTRI)

Study of self-regulation among seniors, with attention to differences by gender—a telephone survey

◇ *Transportation Difficulties of Black and White Rural Older Alabamians*

NAN S. PARK, LUCINDA ROFF, FEI SUN, MICHAEL PARKER, DAVID KLEMMACK, University of Alabama; PATRICIA SAWYER, University of Alabama-Birmingham (UAB); RICHARD ALLMAN, Birmingham/Atlanta GRECC

Report on a study of transportation problems (prevalence and types) experienced by black and white older adults in rural areas

◇ *Safer Driving: Self-screening Based on Health Concerns*

DAVID EBY Ph.D. and LISA MOLNAR, UMTRI; PAULA J. KARTJE, University of Michigan Health System

A look at ways self-screening instruments can be improved by focusing on "health concerns."

◇ *Self-Rated Driving Ability and Crash Risk Among Older Adults*

LESLEY ROSS M.A., KARLENE BALL Ph.D., DAVID VANCE Ph.D., OZIOMA OKONKWO M.A., MICHELLE ACKERMAN B.A., UAB; JERRI EDWARDS Ph.D., University of South Florida

This study found that reliance upon self ratings by older drivers may not be an accurate indicator of driving skill

◇ *Comorbid Cardiovascular Disease Is Associated with Increased Driving Avoidance Among Older Adults*

SARAH VIAMONTE, OZIOMA OKONKWO, KARLENE BALL, UAB

Older people with heart disease and hypertension are more likely to modify driving behavior than seniors with only one of these conditions

Saturday, Nov. 17, 11:45 a.m.-1:15 p.m.

◇ *Transportation*

NINA SILVERSTEIN, University of Massachusetts, Boston

Board consideration of varied subjects: status of screening tools, pedestrian accident trends, effects of frailty, environmental impacts on safety and mobility

◇ *Predicting Driving Performance in Older Adults: The Mismatch Between Statistical and Clinical Significance*

MICHEL BEDARD, BRUCE WEAVER, Lakehead University; MICHELLE PORTER, University of Manitoba

How four specific measures fared in predicting driving performance.

◇ *Elder Pedestrian Accidents Across Two Decades: The 1990s and 2000s*

LAWRENCE H. NITZ Ph.D., University of Hawaii

An assessment of older persons' pedestrian accidents, in part to determine if the number is growing

◇ *Let's Go for a Walk—Evaluation of Outdoor Environment Measures Regarding Accessibility, Safety, Mobility for Seniors*

AGNETA STAHL and SUSANNE IWARSSON, Lund University

Evaluation of measures taken in a residential area to improve safety, accessibility and mobility for older people

◇ *Level of Frailty and Transportation Needs of Older Drivers and Non-Drivers*

JOAN JULIE BRANIN, University of LaVerne; HARRIET UDON ARONOW, Cedar Sinai; RYAN SAMPLES, DAVID MOORE, City of Rancho Cucamonga

How frailty levels affect transportation usage and needs of older adults

Saturday, November 17, 1:30-3 p.m.

◇ *Aging and Driving: The Development of a Curriculum to Benefit Law Enforcement*

MARIA BERG-WEGER, St. Louis University; PATRICIA NIEWOEHNER, St. Louis V.A. Medical Center; THOMAS MEUSER, DAVID CARR, Washington University

Consideration of a skills-based curriculum for peace officers who are responsible for identifying and initially assessing unsafe drivers.

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Saturday, November 17, 3:30-5 p.m.

◇ *The Importance of Cognitive Appraisals for Understanding Depressive Symptoms Among Adults with Physical Disability*

BRENT E. GIBSON, KATHRIN BOEMER, Lighthouse International; AMY HOROWITZ, JOANN P. REINHARDT, Jewish Home and Lifecare System

This study showed the importance of looking at multiple domains of functioning and cognitive appraisals to get a better picture of depressive symptoms

Sunday, November 18, 8-9:30 a.m.

◇ *An Evaluation of the 55 Alive Driving Program with an Added Road Test Video Feedback Component*

MICHELLE M. PORTER, University of Manitoba

This study looked at the potential benefit of adding a video/global positioning system instruction session to the 55 Alive program

Sunday, November 18, 1:15-2:45 p.m.

◇ *Assessing Livability in Seven Massachusetts Communities: What Every Town Planner Should Consider*

NINA SILVERSTEIN, University of Massachusetts, Boston; ELIZABETH JOHNS, JUDITH GRIFFIN, Gerontology Institute

Massachusetts communities were assessed on 10 domains, including transportation, driving and walking

Sunday, November 18, 3-4:30 p.m.

◇ *Transportation—Assessment. Needs and Abilities of Older Drivers and Non-Drivers*

VIRGINIA G. WADLEY, UAB

A look at transportation abilities, limitations and needs of seniors

◇ *A Controlled Study of Driving Performance in Individuals with Mild Cognitive Impairment*

VIRGINIA WADLEY, MICHAEL CROWE, OZIOMA OKONKWO, DAVID E VANCE, KARLENE BALL, JENNIFER ELGIN, UAB

A look at the effects of mild cognitive impairment on various driving skills

◇ *Relationships Between Older Drivers' Perceptions, Abilities and Behaviors*

ANITA MYERS, LISA MacDONALD, BLANCHARD, University of Waterloo; MICHELLE PORTER, University of Manitoba

This study looked at relationships between driving confidence, perceived and objectively measured driving-related abilities, and self-reported behavior.

◇ *Factors Associated with On-Road Driving Performance in a Cohort of Older Drivers*

RICHARD MAROTTOLI, KATY ARAUJO, PETER PEDUZZI, TERRENCE MURPHY, Yale University

Factors related to driving performance are analyzed

Freund to Present Pollack Award Lecture at GSA Conference in SF

Katherine Freund, MA, President of ITN America (Independent Transportation Network), will present the Maxwell A. Pollack Award Lecture at the 60th Annual GSA Meeting. The title of her presentation is: *ITN America: An Entrepreneurial Approach to Senior Mobility Practice, Policy and Research*. The presentation is scheduled for Sunday, November 18, at 3 pm in the California Room at the Hilton Hotel in San Francisco.

The Maxwell A. Pollack Award for Productive Aging recognizes instances of practice informed by research and analysis, research that directly improves policy or practice, and distinct work that bridges the worlds of research and practice. The award is sponsored by the Maxwell A. Pollack Fund of the New York Community Trust. Katherine Freund is a member of the GSA Transportation and Aging Formal Interest Group.

◇ *Use of an Occupational Therapy iADL Assessment for Screening Older Drivers*

ANNE DICKERSON, LEONARD TRUJILLO, TIMOTHY REISTETTER, East Carolina

Addresses use of AMPS (Assessment of Motor Practices and Skills) as a possible tool for screening driving abilities

◇ *Level of Frailty and Transportation Needs of Older Drivers and Non-Drivers*

JOAN JULIA BRANIN, University of La Verne; HARRIET UDON ARONOW, Cedar Sinai; RYAN SAMPLES, DAVID MOORE, City of Rancho Cucamonga

Consideration of how frailty affects the transportation needs of older drivers and non-drivers

Monday, November 19, 10-11:30 a.m.

◇ *The Useful Field of View Test: Performance Over Time for Older Adults*

MELISSA LUNSMAN, JERRI EDWARDS, University of South Florida; DANIEL L. ROENKER, Western Kentucky University; KARLENE BALL, LESLEY ROSS, UAB

An exploration of how older adult performance on the Useful Field of View test changes over time

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Monday November 19, 1:30-3 p.m

◇ *Transportation and Aging, a Cultural Comparison*

BONNIE DOBBS, University of Alberta; DAVID EBY, LISA MOLNAR, UMTRI

Exploring the role that cultural differences play in maintaining safe mobility as people age

◇ *Aging in Black America: Cultural Practices, Challenges and Opportunities*

BEVERLY G. WARD, University of South Florida

A look at the unique challenges black people face as they age, including mobility lacks and access problems

◇ *The Effect of Culture, Mobility and Access to Transportation on Self-Assessed Well-Being Among Latino Elderly*

YEWOUBDAR BEYENE, University of California/San Francisco

The importance of mobility and access to transportation for Latinos sampled in a San Francisco research project

◇ *Aging and Mobility problems in Japan*

ETSUO HORIKAWA, Mobility Research Laboratory

Examination of licensing and mobility concerns experienced by older Japanese people

◇ *Technology Transportation: Applications and Implications*

KATHY SEGRIST, Ball State University

Discussion of barriers to transportation facing older adults

◇ *More Than Transportation: Older Adults' Driving Beliefs*

KATHERINE LOVETT, LAURA MARIE CANCRO, HEATHER CONNORS, Assumption College

A look at how healthy older adults make decisions about driving in later life

◇ *Getting Around Without Driving: An Exploration of Community Mobility Options*

NINA SILVERSTEIN, University of Massachusetts, Boston

Discussion of tools available for assessing senior-friendly transportation

◇ *Comparative Study of Drivers and Voluntary Ceasers Age 65 and Older: Barriers to Public Transportation and Access to Community-Based Services*

KATHLEEN SULLIVAN, MARGART NEAL, TYRAE MAHAN, Portland State University

New details provided on barriers to public transportation and access to local services

◇ *Attitudes and Practices Concerning Drivers with Dementia*

GERI ADLER, University of Houston

How health care professionals react to and deal with patients' dementia in relation to driving

◇ *Driving Cessation: Preliminary Findings on Psychological, Behavioral, Environmental and Social Factors*

JOANN REINHARDT, AMY HOROWITZ, Jewish Home & Hospital Lifecare System; KATHRIN BOERNER, BREMT GIBSON, Lighthouse International

Explanation of factors associated with driving cessation among disabled older adults

Monday, November 19, 3:15-4:45 p.m.

◇ *Fitness to Drive in Early Stage Dementia: An Interdisciplinary Approach to a Growing Challenge*

GERI ADLER, University of Houston

Critical behaviors that can be observed by instrumented vehicles can form the basis for an on-road driving assessment

◇ *Dementia and Driving: The Need for More Research*

DAVID EBY, UMTRI

Advancing research techniques open the door on better ways to assess driving ability

◇ *Identifying Critical Driving Skills Associated with Early-Stage Dementia: Findings from an Expert Panel*

LISA MOLNAR, UMTRI

A report on the views of an expert panel

◇ *Driving Decision-Making in Early Stage Dementia*

GERI ADLER, University of Houston

Overview of study which looked at components of driving assessment, behind-the-wheel behavior and approaches to conveying driving recommendations

◇ *Driving with Early-Stage Dementia: Using Naturalistic Driving Data to Assess Performance*

DAVID LeBLANC, UMTRI

Driving behaviors of persons with early dementia are examined

◇ *From Behavior Identification to Instrumentation (Phase 2)*

NINA SILVERSTEIN, University of Massachusetts, Boston

Explores feasibility of using in-vehicle, instrumentation to monitor driving actions

◇ *Health, Mortality, and Driving Status Among Older Adults*

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JERI EDWARDS, SANDRA REYNOLDS, JULIE O'LEARY, MELISSA LUNSMAN, LESLEY ROSS, MARTINQUE PERKINS, GAIL SCHUTZ, University of South Florida

Examination of driving status as a predictor of three-year mortality

TRB Agenda Offers Abundant Menu of Older Driver Panels

The annual Transportation Research Board conference in Washington, D.C., that opens January 13, 2008, will offer a rich selection of panels and meetings dealing with older the mobility and roadway safety of older persons. The week starts with a day-long human factors workshop on driver assessment tools, and proceeds through a full schedule the next 2 ½ days. The Committee on Safe Mobility of Older Persons (ANB60), chaired by **Karlene Ball**, University of Alabama, Birmingham (UAB), sponsors the panels and programs listed below.

A conference highlight will be formation of a new subcommittee, Driver Medical Review, jointly sponsored by ANB60 and ANB30. The subcommittee mission will be to identify and promote the adoption of best practices in the medical review of drivers by licensing authorities, including but not limited to Medical Advisory Board membership and credentials, duties, role with the licensing agency, development and application of generalized knowledge, and communication (see accompanying story).

The schedule follows:

Sun., January 13, 2008, 9 am- 5 pm, Marriott

◇ *Evaluation of Evidence-Based Assessment Tools for Older Drivers: Translating Research to the Roadway (Workshop requires separate registration and fee --coffee, luncheon and reception included in fee)*

KARLENE K. BALL, UAB; BETH STALVEY, Consultant, presiding

Research on the risk factors for unsafe driving practices and crash risk among older adults have led in recent years to the development of multiple driver assessment and training tools administered by individuals, clinics, and departments of motor vehicles. However, few tools have been evaluated for their validity in predicting driver safety. This workshop will summarize recent research on the linkages between evidence-based

assessment tools and actual driving behavior and on-road driving performance.

Mon., Jan. 14, 2008, 8- 9:45 am, Marriott

◇ *Twentieth Anniversary of Special Report 218: Transportation in an Aging Society--Where We Are and Where We Will Be (a two-part presentation—part 2 follows at 10:15 a.m.)*

KARLENE K. BALL, UAB, presiding

◇ *Genesis and Introduction to SR 218: Research and Developments in the 1990s and 2000s*

Stephen R. Godwin, Transportation Research Board

Donald Trilling, Consultant

Jane Hardin, Community Transp. Assn. of America

◇ *What Mobility Means to Older People and What Options Can They Use in Reality?*

Jon E. Burkhardt, Westat Inc.

Katherine Freund, ITNAmerica and Independent Transportation Network

William Millar, American Public Transp. Assn.

Helen Kerschner, Beverly Foundation

◇ *Are Older Drivers a Safety Problem?*

John W. Eberhard, Columbia, Maryland

James Langford, Monash University, Australia

Brian Fildes, Monash University, Australia

◇ *Role of Livable Communities and Aging in Place as Baby Boomers Age*

Elinor Ginzler, AARP

Jana Lynott, AARP

Douglas Beach, Florida Dept. of Elder Affairs

◇ *Driver Functional Assessment, Driving Enhancement, and Driver Licensing*

Loren Staplin, TransAnalytics, LCC

Elin Schold-Davis, Amer. Occ. Therapy Assn.

Mon.-Jan. 14, 2008, 10:15 am-noon, Marriott

◇ *Twentieth Anniversary of Special Report 218: Transportation in an Aging Society--Where We Are and Where We Will Be, Part 2*

JOHN W. EBERHARD, Columbia, Maryland, presiding

◇ *Highway Enhancement to Aid Older Road Users*

David Morena, Federal Highway Administration

◇ *Role of Health Services in Enhancing Safe Mobility of Older Drivers*

Germaine L. Odenheimer, University of Oklahoma

Richard Marottoli, U.S. Department of Veterans Affairs and Yale University

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◇ *Role of Social Services in Enhancing Safe Mobility of Older Drivers*

Nina M Silverstein, University of Massachusetts
Fran Carlin-Rogers, Carlin Rogers Consulting, LLC

◇ *Can Wellness Programs Help Older People Maintain Independence?*

Karlene K. Ball, University of Alabama, Birmingham
Jerri D. Edwards, University of South Florida

◇ *Panel Discussion: Required Activities Still Needed to Enhance Safe Mobility of Older People*

Marilena Amoni, National Highway Traffic Safety Administration

Charles R. Goodman, Federal Transit Administration
J. Peter Kissinger, AAA Foundation for Traffic Safety
Ann M. Dellinger, National Center for Injury Prevention

and Control

Elinor Ginzler, AARP

John Wren, Administration on Aging, Health and Human Services

Mon., Jan. 14, 2008, 1:30-3:15 pm, Marriott

◇ *Using Instrumented Vehicles to Study Driving and Dementia: The Next Frontier in Driving Behavior Research*

LISA J. MOLNAR, University of Michigan Transportation Research Institute, presiding

◇ *Fitness-to-Drive in Early-Stage Dementia: Two Instrumented Vehicle Studies*

DAVID W. EBY, DAVID LeBLANC, LISA MOLNAR, UMTRI; University of Michigan Transportation Research Institute; NINA M. SILVERSTEIN, University of Massachusetts; GERI ADLER, University of Houston

◇ *Technology to Assist in Assessing Driving Patterns in Older Drivers and Drivers with Cognitive Impairment*

SHAWN MARSHALL, University of Ottawa

◇ *Instrumented Vehicles and Aging Brains: Ten Years from 40,000 Feet*

MATTHEW RIZZO, University of Iowa

Discussant, KATHY SIFRIT, National Highway Traffic Safety Administration

Mon., January 14, 2008, 2:30-5 pm, Marriott

◇ *Older Driver Safety, Travel Behavior, and Policy (Poster Session)*

KARLENE K BALL, UAB, presiding

◇ *Comparative Study of Baby Boomers' Travel Behavior and Residential Preferences in Age-Restricted and Typical Suburban Neighborhoods (08-1316)*

CHRISTOPHER ZEGRAS, ERAN BEN-JOSEPH, FRANK HEBBERT, JOSEPH COUGHLIN, Massachusetts Institute of Technology

◇ *Trip-Chaining Behavior of Older People: Effects of Medical Conditions and Urban Form (08-0348)*

ROBERT B. NOLAND, JAN-DIRK SCHMOCKER, MICHAEL G.H. BELL, Imperial College London, United Kingdom

◇ *Age and Its Relation with Home Location, Household Structure, and Travel Behavior: 15 Years of Observation (08-1260)*

CATHERINE MORENCY, ROBERT CHAPLEAU, Ecole Polytechnique de Montreal, Canada

◇ *Policy Simulation Framework for Analyzing Elderly Mobility Issues Using IMPACT Decision Support System (08-0949)*

PAVLOS S. KANAROGLOU, RUBEN GERTES MERCADO, HANNAH MAOH, ANTONIO PAEZ, DARREN M. SCOTT, K. BRUCE NEWBOLD, McMaster University, Canada

◇ *Older Driver Actual and Perceived Behavior on Freeways (08-0672)*

SOPHIA VARDAKI, National Technical University of Athens, Greece

◇ *Contribution of Behavioral Aspects of Older Drivers to Fatal Traffic Crashes in Florida (08-0571)*

BHUIYAN MONWAR ALAM, University of Toledo
LISA K. SPAINHOUR, Florida A&M University - Florida State University

◇ *Effects of Age on Spinal Rotation During Driving Task (08-2600)*

JOHN DANIEL GRIFFITH, BRYAN REIMER, LISA D'AMBROSIO, JOSEPH COUGHLIN, ROZANNE M. PULEO, Massachusetts Institute of Technology; JACKLYN CICHON, Boeing Company

Mon., Jan. 14, 2008, 7:30- 9:30 pm, Marriott

◇ *Safe Mobility of Older Persons Committee*

KARLENE K. BALL, UAB, presiding

Annual business meeting of the ANB60 Committee

Tues., Jan. 15, 2008, 8 - 9:45 am, Marriott

◇ *Driver Medical Review Joint Subcommittee of ANB60, ANB30*

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GERMAINE ODENHEIMER, University of Oklahoma;
JOHN J. JOYCE, Maryland Motor Vehicle Administration,
presiding

First meeting of this new subcommittee.

Tues. Jan. 15, 2008, 10:15 am-noon, Marriott
Public Relations Safe Mobility of Older Persons
Subcommittee, ANB60 (1)

KENT R. MILTON, California Highway Patrol, presiding

Tues., Jan. 15, 2008, 1:30-5:30 pm, Marriott
Older Person Safety and Mobility Video Theater

KENT R. MILTON, California Highway Patrol, presiding

View videos and DVDs on diverse tapings about
older person safety and mobility. Loaned and/or donated
new materials are welcome.

Wed., Jan. 16, 2008, 2:30 - 6 pm, Hilton
Transportation Options for Seniors Joint Subcommittee of
ABE60, ANB60, AP060

KATHERINE FREUND, ITNAmerica and the
Independent Transportation Network, presiding

New Subcommittee to Study Medical Review Procedures

Driver Medical Review will be the title of a new subcommittee formed by the ANB60 Committee on Safe Mobility of Older Persons in collaboration with ANB30, Committee. Chaired by Germaine Odenheimer, University of Oklahoma, and John Joyce, the committee will conduct its first meeting during the January 2008 TRB conference. The committee objective will be to employ existing and future research to identify and promote adoption of best practices in the medical review of drivers by licensing authorities, including but not limited to Medical Advisory Board membership and credentials, duties, role with the licensing agency, development and application of generalized knowledge, and communication among the several jurisdictions for the purpose of fostering lifelong safe mobility.

Need for the subcommittee is based on the lack of uniformity among jurisdictions insofar as Medical Advisory Board makeup, duties, and role within the driver license agencies are concerned, and even less regarding credentials, continuing education, and application of medical judgments to individual licensing decisions. This probably is true generally in most of the industrialized world. All 51 driver licensing jurisdictions within the United States accept referrals of drivers with suspected

medical impairments for licensing determinations, usually under the auspices of an agency resource known by some permutation of "Medical Advisory Board." These boards vary both in function and effectiveness.

Driver licensing agencies suffer from the absence of clear, consistent, and evidence-based decisions to inform licensing regulation, even while the need for appropriate regulation is growing. Historically, rules and regulations have been applied to licensing populations without regard to variations among individuals. Developments in society including the ramifications of the Americans with Disabilities Act domestically, shifting demographics resulting from the Baby Boom, and increased dependence on automobiles for mobility the world over are fueling the need for each licensing agency to provide individualized review where medical impairments affect a person's driver license. These needs underlie the creation of the Subcommittee on Driver Medical Review. The subcommittee's scope will include all aspects of medical review of drivers by licensing authorities.

The overarching goal of the subcommittee will be to foster growth of knowledge and understanding about medical review of driver health, and to disseminate that knowledge and understanding in a manner to encourage its adoption by driver licensing authorities by way of the following initial objectives:

Gather and publish descriptive information on Medical Advisory Board membership qualifications, duties, and role within the licensing authority.

Develop a model Medical Advisory Board to assist licensing jurisdictions considering implementation of modern medical review process.

Gather and review existing model law proposals and publish them together with annotations.

Stimulate research into medical review efficacy costs and benefits.

Provide a venue for effective exchange of information and perspectives pertaining to medical review as a component of driver license regulation.

Specific Steps:

Convene a panel of interested and informed members to discuss the subcommittee's goals and objectives and formulate a plan.

Create a single source to which all interested parties can refer for current information on the subject of medical review by licensing authorities.

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Coordinate with other TRB committees whose interests are related to those of this subcommittee. Seek collaboration with outside entities for research and development funding to support the goals of this subcommittee.

ICADI Pre-Event Will Address Assembling Mobility Guides

Assembling mobility guides and strengthening community mobility programs will be the subjects of a day-long pre-conference intensive at the International Conference on Aging, Disability and Independence scheduled for late February in St. Petersburg, Florida. The pre-event runs from 8 a.m. to 5 p.m. February 20.

John Eberhard, Howard County (MD) Commission on Aging, will define how to disseminate information at the local level explaining ways to remain safely independent. He also will define mobility guides and why they are important. Participants will learn how to assemble the essential elements of a mobility guide for their community.

The emerging emphasis on mobility has been advanced by the Easter Seals/Beverly Foundation template, which the morning session will address as a building block to identify resources that help people

- drive as safely as possible
- assess, or have an expert assess, their driving and mobility
- identify ways to more readily and safely walk, ride public transportation, and access assisted or specialized transportation services

Gail Holley, Safe Mobility for Life Program and Research Manager, Florida Department of Transportation, will summarize her experiences in helping Florida communities build mobility guides, including her use of a web-based resource guide, and offer some evidence of program effectiveness.

The afternoon segment will turn to explanations of safety/mobility programs that might serve as models for communities seeking to improve or start such programs. The speakers' lineup includes:

Lisa Molnar, UMTRI, "Promising Approaches for Promoting Lifelong Community Mobility."

Frank Carroll, AARP Driver Safety and Mobility Options director, will address the AARP community options program.

Fran Carlin-Rogers, Carling-Rogers Consulting, will deal with social service programs to help insure safe mobility.

Nicole Kaplan, consultant on senior mobility issues, addresses the process of coordinating social services and DMV actions.

Barbara Huston, President, Partners in Care, will speak on how an innovative volunteer program provides transportation and builds community.

Jon Burkhardt, Westat, and **Jane Hardin**, CTAA, will discuss finding and enhancing transportation in rural areas.

Marilyn DiStefano, LaTrobe University, Victoria, Australia, takes the topic "Mobility Choices: Development and Trial of the TAC Community Mobility for Older People Program."

Bonnie Dobbs, University of Alberta, Canada, will define how support groups can aid seniors in the transition from driving.

Mary T. (Terrie) Terlau, American Printing House for the Blind, will talk on "Services Supporting Successful Transportation Utilization by Elders with Low Vision."

Kristi Ross, National Center on Senior Transportation, will speak on the role of her organization in fostering safe mobility at the local level.

John Eberhard will close the day with a discussion session for all conference participants that considers how they can apply what they have heard in conference sessions to assist them in developing programs to:

- Help seniors drive safely for more years
- Extend that assistance to the process of successful transition from driving to the most appropriate forms of transportation. Special attention will be given to securing resources to conduct mobility programs, and to the ongoing maintenance of programs.

Attendance at the full ICADI conference is not a requirement to attend the pre-conference. Registrations can be handled on the web at <http://www.icadi.php.ufl.edu/registration/index.php>

What's Going on in

The World of Research

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AAA Foundation Reports on

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Two Studies Involving Seniors

The AAA Foundation for Traffic Safety released two studies of senior safety and mobility in 2007:

Pedestrian Signal Safety for Older Persons, conducted in collaboration with the Institute of Transportation Engineers, examined the walking speeds of younger and older pedestrians in six communities across the country, and compared them to existing signal timing practices and federal guidance. The study found that pedestrian signals timed to accommodate pedestrians walking at speeds of 4 feet per second (the speed recommended for signal timing purposes in the current edition of the *Manual on Uniform Traffic Control Devices*) would accommodate the majority of younger pedestrians, and would accommodate an older pedestrian walking at an average speed, but would not accommodate an older pedestrian walking at the 15th percentile speed for older people.

The study also found that in many cases, when intersections are operating under unsaturated conditions, pedestrian clearance intervals could be modified to accommodate pedestrians walking at slower speeds, such as 3.5 feet per second, without causing substantial increase in vehicle delay. It is anticipated that the issue of walking speeds accommodated by pedestrian signals will be considered in the next revision of the *Manual on Uniform Traffic Control Devices*. The study is available on the web site of the AAA Foundation at: www.aaafoundation.org/resources/index.cfm?button=research.

Enhancement of Driving Performance among Older Drivers, by Dr. Richard Marottoli of the Yale University School of Medicine. The study employed a randomized controlled trial of the impact of a driver training intervention on the driving knowledge and performance of older drivers. The study included 126 drivers aged 70 years or older who recorded sub-optimal scores on initial on-road driving tests.

These drivers were then divided into two groups, with one group receiving eight-hours of classroom training plus two-hours of behind-the-wheel training, and the other serving as a control group and receiving an intervention unrelated to driving. Drivers who took the classroom and on-road training showed significant improvement in driving knowledge and behind-the-wheel driving performance. The AAA Foundation report of the study is available at:

www.aaafoundation.org/resources/index.cfm?button=research.

The study was also published in *The Journal of Gerontology Series A: Biological and Medical Sciences*, vol. 62, pgs. 1113-1119.

UNC, Transanalytics Partner On Three Research Programs

"Evaluation of State License Referral Programs for Older Drivers"

TransAnalytics, LLC in partnership with the University of North Carolina Highway Safety Research Center

Research sponsor: National Highway Traffic Safety Administration

Study period: September 2007 - August 2009

This new project for NHTSA will evaluate approaches undertaken in two study states, Virginia and New Jersey, to enhance the referral and control of older, medically at-risk drivers. The to-be-evaluated approaches are under development by the licensing authorities in each state, through cooperative agreements under a separate NHTSA solicitation.

The research team will document the history and assess the effectiveness of previous efforts to enhance medical referrals, then will collect and analyze data describing 1) changes in referral program implementation in the study state; 2) referral increases and other achievements of the program enhancements implemented in the study states, and in comparison states where no enhancements have been implemented during the study period; and 3) attitudes and perceptions of DMV staff, referral sources, and the public in response to changes in referral programs in the states. The effects and outcomes of the enhanced referral programs will be documented in a final report to NHTSA.

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"Taxonomy of Older Driver Behaviors and Crash Risk"

TransAnalytics, LLC in partnership with UNC Highway Safety Research Center and Dr. Jane Stutts (consultant)

Research sponsor: National Highway Traffic Safety Administration

Study period: September 2007 - August 2009

This project will identify risky behaviors, driving habits, and exposure patterns that have been shown to increase the likelihood of crash involvement among seniors, and to classify these crash contributing factors according to a set of underlying functional deficits specific to or more prevalent among older persons. Such deficits

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may result from normal aging, age-related medical conditions, or medication use. A further goal is to identify and critically examine behavioral countermeasures with the potential to mitigate functional loss and/or diminish the occurrence of risky behavior(s).

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RESEARCH UPDATE

"Educating Pharmacists About Medication-Impaired Driving"

TransAnalytics, LLC in partnership with Walgreen's Health Initiatives

Research sponsor: National Highway Traffic Safety Administration

Study period: September 2006 - May 2008

In this project, a curriculum that can be used as a continuing education course requirement for pharmacist re-registration with a state's Board of Pharmacy Registration has been designed by TransAnalytics with expert input and review by Dr. Renee Tyree, Dr. David Carr, Ms. Marcia Cunningham, Dr. Ann Marie Gordon, and Dr. David Shinar. The curriculum, while owned by NHTSA, is presently offered online to pharmacists and pharmacy technicians in a pilot implementation by Walgreen's, which also played a key role in curriculum development.

An ACPE license permits this course to be offered for 3 years; however, the course evaluation will consider data collected through January 2008. A process evaluation is planned, analyzing information describing the pre-and post-course understanding of medication-related impaired driving concerns, and frequency of counseling older customers about medication and driving issues. The target sample size for this is 1,000.

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"Revise the Highway Design Handbook for Older Drivers and Pedestrians"

UNC Highway Safety Research Center in partnership with TransAnalytics, LLC (subcontractors to VHB, Inc.)

Research sponsor: Federal Highway Administration

Study period: July 2007 - May 2008

The FHWA released the current version of the Highway Design Handbook for Older Drivers and Pedestrians in 2001. The Handbook has been a valuable resource concerning older road user issues, and these issues continue to be important to roadway safety. Since the release of the 2001 Handbook some of its recommendations have been incorporated into standards,

such as the Manual on Uniform Traffic Control Devices. New research has also been conducted and needs to be available to transportation professionals working on older road user issues.

FHWA's Office of Safety has initiated this project to 1) update the Handbook's technical content, and 2) design a new layout of the handbook such that transportation professionals can easily find the information they need, and it will be easier to update in the future as new standards and research findings emerge.

UMTRI Completes Web-based Self-Screening Tool for Seniors

The University of Michigan Transportation Research Institute (UMTRI) recently completed a project to create a web-based self-screening instrument to provide older drivers with individualized information to help them make better decisions about driving. NHTSA sponsored the project, known as *Development of a Self-Screening Tool for Older Drivers Based on Health Concerns*.

The project was intended to improve upon existing self-screening instruments by focusing on health concerns – that is, the symptoms people experience due to medical conditions, medications used to treat them, and the general aging process – rather than the medical conditions or medications themselves. Development of the self-screening instrument was based on a literature review and conduct of an expert panel and focus groups.

An evaluation/validation study was conducted using a sample of 68 older drivers who completed the self-screening instrument, as well as clinical evaluation and on-road driving assessment administered through the University of Michigan Drive-Ability program, a comprehensive driving assessment program.

Feedback obtained from subjects indicated that the self-screening instrument provided useful information and that subjects intended to make changes in their driving or seek further evaluation as a result of completing it. Overall, subjects' scores on the self-screening instrument were significantly correlated with the clinical evaluation scores and on-road driving performance scores. The self-screening instrument, called SAFER-Driving; The Enhanced Driving Decisions Workbook can be found at:

<http://www.um-saferdriving.org>

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Field Test of 3-Tier Complete; Evaluation Phase Begins Now

The California Department of Motor Vehicles' 3-Tier Driving Assessment System recently underwent a pilot application in selected DMV field offices, to be followed by a process evaluation that will describe the implementation of the 3-Tier pilot, the processing of drivers through the system, operational issues, the impact of the system on licensure, and other issues. A report describing this process evaluation is scheduled to be completed by November next year.

An interim outcome evaluation will be conducted in order to analyze the traffic safety impact of the 3-Tier program, based on one year of follow-up data on crashes and traffic convictions for drivers processed through the department's current system, and for drivers processed through the 3-tier pilot. A report of this interim evaluation is scheduled to be completed by December 2010

A second, and final, set of statistical analyses based on two years of follow-up data on crashes and traffic convictions will be performed. This longer follow-up period will allow a more definitive analysis, leading to a final report containing these analyses, which will be completed by December 2011.

Three-tier is a procedure for assessing driving-related physical, visual, and cognitive functional limitations in DMV field offices. During the pilot application driver license referral and in-office renewal candidates, regardless of age, were processed through the 3-Tier System. The effectiveness of this system in reducing crashes and prolonging safe driving years, most likely with restrictions to limited routes and conditions, will be evaluated. Following current California law, in-office renewals are required of drivers under 70 years of age with problem driving records and of all drivers 70 years of age or older.

Based on assessment tools that comprise the first two tiers of the 3-Tier System, renewal and referral candidates will have one of three outcomes. Those showing no driving-related functional limitations will pass and receive drivers' licenses after passing written knowledge tests. Those showing moderate limitations (called "somewhat limited") will receive education about their limitations and how to compensate for them in order to drive more safely, and then will receive drivers' licenses after passing written knowledge tests. Those

showing considerable limitations (called "extremely limited") will be required to take road tests (the 3rd tier) after passing written knowledge tests.

Road test examiners will identify those drivers whose limitations prevent safe driving and those whose limitations allow compensation for safe driving. Drivers failing their first drive test but whose limitations allow compensation for safe driving will be advised to take a subsequent drive test that, if passed, will either enable them to drive in all areas (with the possible exception of freeways) or in limited areas or routes around their homes. Drivers will decide which type of drive test to take. Both the area unlimited and the area limited drive tests have stringent requirements that must be met, consistent with the traffic safety requirements of the drivers' licenses that will be issued to those passing the test. Other limitations, such as no night driving, will be imposed where deemed necessary.

With completion of the pilot test, field offices where 3-Tier was given have returned to current licensing procedures while the effectiveness of the 3-Tier Driving Assessment System is being evaluated.

Study Measures Impact of Technology On Senior Safety

In recent years, the national debate on senior driver issues has increased substantially, with much of it focused on driver screening, training, and road improvements. In addition, vehicle manufacturers indicate they plan to accommodate the aging population, but many experts feel that progress has been slow and determination of whether emerging technological improvements are safe for seniors has been incomplete. When new in-vehicle technologies emerge on the market, they usually appear first on "top of the line" cars, which are often purchased by older drivers who can afford them. Thus, by default, a large proportion of drivers "testing" emerging in-vehicle technologies tend to be older, potentially creating a safety problem for this growing segment of the motoring public.

For this project, co-sponsored by the National Highway Traffic Safety Administration, the Automobile Club of Southern California interviewed over 20 top experts representing the automotive industry, senior service providers, traffic safety researchers, and other key stakeholders, to gain insight into how the aging population

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has impacted--or should impact--the development of new in-vehicle technologies.

In addition, thousands of drivers who have experience with selected technologies are being surveyed to gain insight into any age-related differences in their understanding, acceptance, and use of the technologies. The goals of this project are to increase expert and public understanding of the safety implications of new in-vehicle technologies and motivate automobile manufacturers to pay attention to what consumers want, need, and should have in their vehicles. (Steve Mazor, Steve Finnegan, Automobile Club of Southern California; Jim Jenness, Neil Lerner, Westat)
<http://www.aaafoundation.org/pdf/EnhancingSeniorDrivingPerfReport.pdf>

Study Looks at Association Between Driving Cessation and Consumption

This study examined the association between consumption and driving status among older persons within the context of selected variables, including self-rated health and functional status. The data were from the 1998, 2000, and 2002 Health and Retirement Study and the 2003 Health and Retirement Study Consumption and Activities Mail Survey. Researchers conducted Tobit regression analyses on five consumption categories of basic needs (such as food) and higher order needs (such as trips and dining out).

Consumption and driving status were significantly associated, showing that driving cessation was related to a 46% to 63% reduction in spending on trips, tickets, and dining out. Another significant relationship emerged between consumption and having never driven. Driving cessation was minimally related to consumption of basic needs (such as food and clothing) and was more strongly associated with higher order needs (such as trips).

Discussion-- The findings demonstrate the association between older people's driving status and consumption, specifically higher order activities. Older persons who drive and, presumably, have more opportunities to go to stores, restaurants, and other outside events, spend more on food, tickets, and dining out than those who cease driving or have never driven. Although the direction of causality remains unclear, these findings have implications for those concerned with alternative transportation resources for older adults.

Leading the study were *Hyungsoo Kim*, Department of Family Studies, University of Kentucky, Lexington; *Virginia E. Richardson*, College of Social Work, The Ohio State University, Columbus. Address correspondence to: Hyungsoo Kim, Department of Family Studies, University of Kentucky, 315 Funkhouser Building, Lexington, Ky 40506. E-Mail: hkim3@uky.edu

Recent Articles Describe Two Research Intervention Efforts

Two recent articles report the results of interventions to assist drivers with impairments or problematic driving histories. One involved an exercise program for drivers with physical impairments, the other a classroom and on-road training program for drivers with suboptimal driving performance. Both showed statistically significant improvements in driving performance compared to control groups on road tests—as well as knowledge tests in the second project.

References: Marottoli RA, Allore H, Araujo K, et al. A randomized trial of a physical conditioning program to enhance the driving performance of older persons. *Journal of General Internal Medicine* 2007; 22:590-7.

Marottoli RA, Van Ness PH, Araujo KLB, et al. A randomized trial of an education program to enhance older driver performance. *Journal of Gerontology: Medical Sciences* 2007;62A:1113-9. The latter is the primary results paper of the AAA FTS project, which is more fully described above. (See AAA Foundation report)

What's Going on

In the News

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ITNAmerica in Midst of Major Expansion Throughout the U.S.

ITNAmerica®, the national non-profit transportation network, is in the second year of its nationwide rollout through a grant from the Atlantic Philanthropies. The Independent Transportation Network® (ITN) uses automobiles and a combination of paid and volunteer drivers to provide door-through-door transportation 24/7 for seniors and the visually impaired.

Three ITN affiliates in addition to ITNPortland in Maine are now delivering rides: ITNSantaMonica, CA,

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ITNOrlando, FL, and ITNCharleston/Trident, SC. Three communities recently signed affiliation agreements: ITNNorthCentralConnecticut in Enfield, CT; ITNQuadCities, IA and IL; and ITNBluegrass in Lexington, KY.

Planning is under way in several communities, including San Diego, CA; Middlesex, CT; Chicago, IL; Dubuque, Iowa; and St. Louis and St. Charles, Mo. In addition, ITNAmerica is collaborating with the New York State Office for the Aging (NYSOFA), which is requesting applications for matching grants to establish four ITN affiliates in New York State. The Harry and Jeanette Weinberg Foundation has also offered grants for the selected New York ITN affiliates and for ITNAmerica's national VISTA program with the Corporation for National and Community Service. In Connecticut, the Department of Health and Human Services is now working with ITNAmerica on the second round of matching grants for new ITN affiliates.

Former Secretary of Transportation Norman Mineta has joined the ITNAmerica Council of Advisors; Clayton Fong of the National Asian Pacific Center on Aging and Bill Turenne of Turenne and Company consulting have joined the board of directors. ITNAmerica has received international media attention in the UK's "The Telegraph" and on the BBC's "The Woman's Hour."

ITNAmerica is on schedule to have 40 operating affiliates by 2010. The impact on the local business community of one ITN affiliate is between \$300,000-\$500,000 per year. By 2010, the expected annual economic impact of ITN affiliates will be as much as \$20 million.

ITNAmerica Research

The evaluation component of a four-year ITNAmerica rollout project funded by the Atlantic Philanthropies officially launched in May 2007. The first phase of the evaluation is designed to understand the impact of ITN on the quality of life for older adults who stop or limit their driving. Subject recruitment and baseline telephone interviewing is underway in four ITNAmerica affiliate communities: Charleston, South Carolina; Orlando, Florida; Portland, Maine; and Santa Monica, California. ITN affiliate members are eligible for the evaluation when they initially register to become involved with the local ITN program; follow-up telephone interviews are planned at six months and twelve months after baseline. Other phases of the evaluation will include interviews with family

members of ITN affiliate members, and with volunteer drivers in affiliate communities.

Doctor Willingness to Address Driving

Funded by a grant from the Silver Century Foundation, ITNAmerica initiated a pilot study to measure the impact of training on the knowledge, attitudes and practice behavior of health care practitioners regarding their elderly patients who drive. Dr. Germaine Odenheimer, a member of the ITNAmerica Research Group and an AMA designated trainer, presented AMA older driver materials and local alternative transportation options at the Maine Medical Center 'Geriatric Education Day' conference in April 2007. Pre- and post-test surveys were conducted onsite and a three month follow-up was conducted using a web-based survey and postal mail for those without email.

The objective is to learn how the availability of alternative transportation, such as the ITN, impacts the physician's willingness to address the driving issue with patients. Dr. Odenheimer plans to present findings from this project as part of an ITNAmerica symposium at the Annual Scientific Meeting of the Gerontological Society of America (GSA) this month.

Mobility Patterns

Older adult travel patterns are known, based on their driving experiences, but little is known about where older people go when they no longer drive or self-regulate their driving. Even less is known about how subgroups of older adults might differ in where they go under these conditions. When alternative transportation is readily available, where do older adults go, and to what extent are their choices influenced by gender and age?

For more than 10 years, ITNPortland has provided rides in greater Portland, Maine to older adults and people with visual impairments who have stopped or limited their driving. The organization's data base provides a unique opportunity to examine actual destinations from home of ITNPortland customers. Using the ITNRides data base, ITNAmerica is conducting research that will provide a portrait of mobility patterns among a cohort of older adults who stopped or limited their driving. Results from this research will be presented as part of an ITN symposium at the Annual Scientific Meeting of the GSA this month.

A Case Study

With a grant from the Silver Century Foundation, ITNAmerica is conducting exploratory research to "map"

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the older driver evaluation process. The objectives are: 1) to document how the driving evaluation process is presently carried out by three professional groups most frequently involved in the conduct of individualized driving evaluations with older adults—driver training instructors, occupational therapists, and geriatricians; 2) to determine when during this driving evaluation process it is most feasible to introduce information about alternative transportation options; and 3) to determine how the introduction of options affects older adults' acceptance of the transition to driving cessation.

Through these studies, ITNAmerica researchers expect that an important gap in knowledge transfer to older adults having driving difficulties will be directly and practically addressed, so that the transition to driving cessation can become a planned and supportive process for these older drivers and their family members. (*Questions about ITNAmerica can be directed to jackie.vine@itnamerica.org.*)

Safer Communities Goal of AARP, Engineer Partnership

AARP and the Institute of Transportation Engineers (ITE) joined to improve the accessibility and safety of several cities' intersections and sidewalks. As part of this effort, city officials, traffic engineers, AARP staff and AARP members recently participated in pedestrian mobility audits in Pittsburgh, PA on August 8 and Cambridge, MA on October 10.

Audits tested a number of factors, including pedestrian and vehicle traffic, crosswalk signage and the overall condition of the sidewalks and streets. The audits also identified positive aspects of the sidewalks and streets and helped frame a list of recommended improvements at each intersection.

Several intersections within the Pittsburgh and Cambridge areas, in neighborhoods with higher populations of older adults, were assessed. Both audits demonstrated that safe sidewalks and intersections are critical for older adults, as well as the population at-large. It was evident to audit participants that all intersections would greatly benefit from even minor repairs or upgrades to the traffic signals and crosswalks.

Findings of the Pittsburgh and Cambridge audits, along with short- and long-term recommendations for improved safety and accessibility, will be shared with local

city officials to help inform their transportation and city planning decisions in the future. AARP and ITE plan to work with transportation and traffic representatives in Pittsburgh and Cambridge to implement suggested improvements.

Glennan Evaluation Combines Cognitive and Simulator Tests

The need for clinical driving evaluation of older adults is a critical issue facing the medical establishment, state driving licensure agencies, patients, and their families. In response, the Glennan Center for Geriatrics and Gerontology of Eastern Virginia Medical School developed a clinical driving evaluation program in May, 2000, under the direction of Barbara Freund, Ph.D. Goal of the research program is assisting older adults to continue driving as late in life as possible, as long as they can do so safely. Here, patients evaluated for driving competence are classified as safe, restricted (conditionally safe), or unsafe based on medical history, neuropsychological testing, and simulated driving performance.

Neuropsychological assessment plays a major role in the clinical driving evaluation because the cognitive function is so important to the driving task, and cognitive decline is associated with aging. Some individuals with poor cognitive functioning continue to drive, while others are forced to stop driving even though they may still be able to drive with some restrictions. These findings suggest great individual variability in the rate of decline in driving skills among the cognitively impaired.

Continued unrestricted driving of cognitively impaired individuals poses a safety threat, while full driving cessation may unnecessarily undermine independence. In some parts of the country, driving privileges are revoked based solely on the diagnosis of dementia or on the prescription of medication for dementia. This approach derives from uncertainty about the progression of decline and potential escalation of driving errors. Cognitive impairment is estimated to affect 10% of apparently healthy individuals over the age of 65 (Sager, 2003), but undiagnosed cognitive impairment is estimated in at least 25% of geriatric patients (Valcour, Masaki, Curb et al, 2000; Finkel, 2003; Ross, Abbott, Petrovitch et al, 1997; Callahan, Hendrie, Tierney et al, 1995), establishing the need for a comprehensive evaluation of

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neuropsychological health and driving ability for older adults whose driving skills are suspect.

The Glennan Center Driving Evaluation

Subjects undergo a 30-minute driving evaluation on a simulator as well as three cognitive tests; the Mini-Mental State Exam (MMSE), which is primarily a measure of attention and recall, the Clock Drawing Test (CDT), which measures multiple areas of cognitive function including comprehension, memory, visuospatial abilities, abstract thinking and executive function (Shulman, 2000) and Trailmaking Part A and B, a measure of attention and visual search.

Driving performance is tested utilizing a STISIM Drive™ simulator (Systems Technology, Inc., Hawthorne, CA). Driving simulation approximates real world driving and provides a safe, cost effective environment for mimicking driving tasks and is a sensitive method to evaluate driving performance (Cox, Quillian, Thorndike, Kovatchev, & Hanna, 1998; Cox, Taylor, & Kovatchev, 1999; Freund et al., 2001; Rizzo et al., 2001; Rizzo et al., 1997; Ponds, Brouwer, & van Wolffelaar, 1988; Quillian, Cox, Kovatchev, & Phillips, 1999). An advantage to driving simulation is that it allows for evaluation of risky situations that would be unsafe and often impractical to duplicate in on-road testing.

The STISIM Drive correlates with on-road testing (Lee, Cameron, & Lee, 2003; Freund, Gravenstein, Ferris, & Shaheen, 2002) in lane and turning position errors, decision-making errors (e.g., gap choice), and response to traffic lights (Freund et al, 2002). It is an interactive system, responsive to driver inputs (steering, throttle, brake) and generates realistic roadway images in real-time. The fixed base driving cab is built to industry standard with an adjustable car seat and seatbelt, accelerator and brake pedals, and dash with standard size steering wheel. Three ceiling mounted Epson 700c projectors display roadway images on three contiguous 4x8 ft screens, providing a 135° field of view.

Drivers are familiarized with the simulator during a ten-minute practice session, which in Glennan's experience is ample time for acclimation and within the ranges reported in other studies (McGehee et al, 2004; Rizzo et al, 2001).

For the actual test, subjects are instructed to drive the simulator as they normally would in their own vehicles through an urban course programmed with events encountered in everyday driving (e.g., changing traffic

lights, directional turns, interacting vehicular and pedestrian traffic) and including maneuvers known to be difficult for older drivers (e.g., unprotected left turns, stop sign controlled intersections).

Based on the test findings, drivers are classified as safe, restricted (conditionally safe) or unsafe. The three-tiered classification system provides recommendations based on both objective performance indicators and subjective observations.

Safe drivers are instructed to continue driving at normal or current level of activity. Unsafe drivers are instructed to discontinue driving at the current time. Restricted drivers are instructed to continue driving but only under certain circumstances or within specific time and distance parameters.

The restricted driver classification is important for public safety as well as policy implications. Many older driver evaluation services are designed to determine who is no longer safe to drive, providing documentation and legitimacy for forced or voluntary driving cessation.

The restricted classification acknowledges an intermediate level of driving skill and ability. Use of this classification is for piloting clinic-based driving optimization efforts. Additional investigation in determining the safety and durability of restrictions is currently under way, funded by a three-year grant from the Alzheimer's Association.

Driving in America is a key to independent function. Clinical and policy-related discernment of driving fitness must be guided by appropriate testing and screening methods.

As the older driver population increases, it becomes crucial to assist capable older adults to continue driving safely and ensure that only those who pose no risk to themselves or others continue to drive. (*More information is available from Barbara Freund, PhD, Associate Professor of Medicine and director of the Driver Evaluation and Research Laboratory, Glennan Center for Geriatrics and Gerontology, Eastern Virginia Medical School, 721 Fairfax Avenue, Norfolk, VA 23507.*)

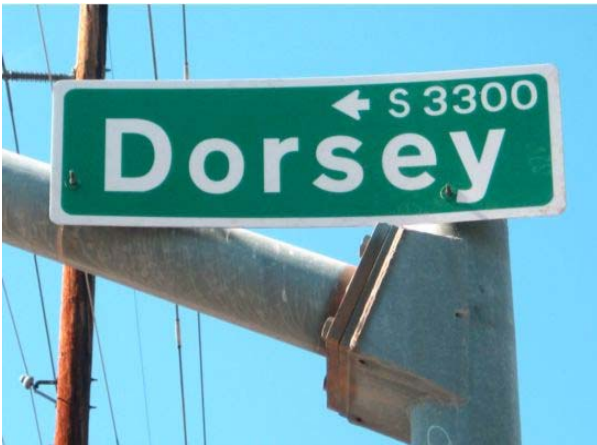
Foundation Report Now on Website

The AAA Foundation report "Enhancement of Driving Performance Among Older Drivers" can now be accessed on the web, along with a PowerPoint and press release: <http://www.aaafoundation.org/resources/index.cfm?button=research>

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Signing Improvements Under Way In Various Arizona Communities

These are examples of improved size, visibility and reflectivity of signs. They are located in Tempe, AZ. The Maricopa Association of Governments is overseeing the installation of improved signs in a number of Arizona communities.



Clearview font on mast arm. Note legibility of this type face.



Improved nighttime performance of high intensity prismatic (compared to engineering grade)

NHTSA Gives Status Update on

Programs, Research, Outreach

Guided by the *Older Driver Traffic Safety Plan* that was submitted to Congress in 2006, NHTSA divides its efforts into three separate sections: Research, Program, and Outreach. Research aims to fill knowledge gaps in older driver safety. Program aims to translate research into practice. Outreach aims to transfer program and research knowledge to the public. Although they operate independently, each office relies on the others for content, direction, and focus.

Research Projects--*Process and Outcomes Evaluation of Older Driver Screening Program* – UFL

This project is exploring the reliability and validity of a variety of screening tools, including the ADReS, which is outlined in the *Physician's Guide to Assessing and Counseling Older Drivers*, as measured against road tests. Analyses are ongoing.

Small Business Innovative Research: Develop and Test Prototype Seating Device for Short-Statured Older Adults – SAFE. Many after-market devices are available to raise drivers' seating position, enabling them to see the road better. However, safety testing of these devices has not been conducted. This project aims to develop a prototype device and conduct safety and usability tests on it.

Program Projects--*Enhancing Driver Fitness Programs* – AAMVA. The goal of this project is to develop science-based guidelines for States to use in making licensing decisions regarding drivers with medical conditions. Draft guidelines are expected in late Fall 2008.

Building Capacity for Assessment and Rehabilitation of Older Drivers – AOTA. Eliminating barriers to establishing and operating driver assessment and rehabilitation programs is a goal shared by NHTSA and AOTA. This project focuses on identifying program barriers and exploring the tools necessary to eliminate them.

Promote the DriveWell Toolkit Among the Aging Network – ASA. The DriveWell Toolkit is a guide that people can use to lead discussions on older driver safety for ten minutes or two hours. ASA and NHTSA have been working together to expand its reach, including a demonstration project in Missouri to unite its use with other older-driver-related materials.

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Demonstration Program to Establish and Implement Older Driver Safety Plans – FTA/NCST. The recent General Accountability Office (GAO) study on states' older driver safety efforts recommended that NHTSA explore ways to help States exchange information on the topic. This effort will help up to seven states develop and implement inter-agency plans to address older driver safety. The project will foster information exchange between and within participating states.

Pedestrian Safety for Seniors Workshop Curriculum – UNC-HSRC/PBIC. A workshop for seniors on addressing pedestrian safety issues in their communities is one way to reduce the staggering numbers of older pedestrian fatalities and injuries. Working with the Pedestrian and Bicycle Information Center (PBIC), NHTSA is developing a workshop curriculum to address this important need.

Pedestrian Safety for Seniors Demonstration Projects – Hendersonville, NC; Madison, WI; San Francisco, CA. These three communities had serious concerns about the safety of older pedestrians. The University of North Carolina worked in Hendersonville, NC to develop a workshop for seniors, engineers, and community leaders and to explore how infrastructure influences walking. In Madison, work focused on engaging commercial fleets and law enforcement in focusing on the importance of yielding to pedestrians. In the South of Market (SOMA) neighborhood of San Francisco, efforts have focused on establishing a community dialogue to protect the residents of the neighborhood as they walk through the heavy traffic volumes in their community. Final reports are expected soon on all projects.

Community-Based Approach to Promoting Older Driver Safety – N4A. This project has aimed to help local aging organizations to address older driver safety by developing resources and mentoring-channels. Highlights of the program include monthly newsletters to N4A members to keep the topic on the front burner.

State Licensing Programs to Increase Reporting of Medically At-Risk Drivers – NJ MVC; VA DMV

Two demonstration projects were recently awarded to increase reporting of medically at-risk drivers to the medical sections of licensing authorities. New Jersey will train judges and prosecutors within the state on making referrals. Virginia will conduct in-service training for the Medical Advisory Board and the referral staff, and will

also train law enforcement across the commonwealth on how to make good referrals to the DMV.

Evaluation of State Licensing Programs to Increase Reporting of Medically At-Risk Drivers – TransAnalytics. This effort supports the evaluation of the medical referral projects in New Jersey and Virginia. Staff will explore changes in referral patterns in the participating States and in matched States, and will provide technical assistance on data collection and maintenance.

Outreach Projects--Focus Groups With Older People On Transitioning From Driving – The Media Network. Reducing or eliminating driving is a very difficult decision, and transitioning to the passenger seat is the most common move. This project will explore the themes and messages that help drivers decide to make the transition. The product will be messages and materials supporting transitioning.

California Holds Safety Summit II



Nina Silverstein, University of Massachusetts, Boston, was a featured speaker at California's recent Senior Safe Mobility Summit II

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Dr. David Manning, regional administrator for the National Highway Traffic Safety Administration, provided the California Summit's keynote address. The Summit featured nine panels dealing with traffic engineering, law enforcement, doctors and health care experts, education, mobility and transitions—the latter being a look at the process of helping seniors move from driving to transportation alternatives. The Summit was sponsored by the Older Californian Traffic Safety Task Force and the California Highway Patrol.

Beverly Star Search for STPs Partners with *Faith in Action*

In early 2007, the Beverly Foundation partnered with the *Faith in Action* National Program Office at Wake Forest University to undertake the foundation's 2007 Star Search survey of Supplemental Transportation Systems (STPs) in America. Beverly Foundation performed the

major research activities of the partnership, while *Faith in Action* provided contacts with its members and transportation providers, mailed the survey and participated in selection of Star award winners

Surveys were mailed to 500 members of the *Faith in Action* network believed to sponsor and/or operate transportation programs. Responses were received from 225 programs in 42 states, the District of Columbia and Puerto Rico. A profile of respondents is displayed in the chart below

Number of Respondents	225
Represented States	42 + 2
Average Years In Operation	11
Median Budget	\$10,500
Area Served—Urban	42%, Suburban 47%, Rural 70%
Vehicle Ownership	
Driver's Vehicle s	96%
Program Owned/Leased	16%
Rider's Vehicle	14%
Total # Riders:	52,014
Total # Drivers	13,817
Drivers Age 65+	5671
Driver Type:	
Volunteer Only	86%
Paid Only	1%
Paid & Volunteer	13%
Relationships with:	
Human Services	avg. 6
Transit Services	avg. 1
Fee Structure:	No Fees 96%

Five major themes were noted in survey results, all consistent with themes associated with STPs in general. These are:

Universal Purpose—*Faith in Action* program focus on providing transportation so that people, especially seniors, can enjoy a dignified independence and remain in their homes and community.

Menu of Services—*Faith in Action* programs tend to offer a variety of services, only one of which is transportation.

Passenger Population—*Faith in Action* programs provide transportation to older adults but many also provide transportation to people with disabilities.

Terminology—*Faith in Action* programs tend to be more comfortable with human service terminology (e.g. quality of life and assistance) than with transportation terminology (e.g. one-way rides and trip chaining).

Relationships—*Faith in Action* programs tend to have a variety of linkage relationships with human service

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providers, but very few linkages with transportation providers.

Outcomes—Several recommendations that address the organization and operation of senior transportation services resulted from the survey. They related to transportation philosophy, reporting, scheduling rides, managing volunteer drivers, providing assistance, securing insurance, generating financial resources, and linkage relationships. The Beverly Foundation conveyed two Star Awards for Excellence for the “best of the best” services and 10 Special Recognition awards. In addition to a September webinar for *Faith in Action* programs. The foundation will present a Transportation 101 course at the annual *Faith in Action* conference in February 2008.

NCST Accepting Requests for Grants to Abet Senior Mobility

The National Center on Senior Transportation (NCST) is soliciting proposals from aging/human service agencies, tribal organizations, faith-based organizations, units of state and local government, public and private transportation providers and other entities interested in developing and implementing innovative approaches to increasing senior transportation options and improving older adult mobility.

Successful projects will be collaborative, replicable, and consistent with senior transportation-related goals of the national United We Ride initiative of the Federal Transit Administration. The goals are to:

- Increase transportation options for older adults
- Simplify older adults' access to transportation services
- Increase the quality of transportation services for older adults

Successful applicants will receive grant awards ranging from \$50,000 - \$90,000 and 24 months of individually tailored technical assistance. Higher or lower amounts may be awarded based on specific proposals.

Proposals are due by 11:59 p.m. Eastern Standard Time, Monday, Dec. 17, 2007, and should be submitted electronically via email to twilson@n4a.org or using the online form which can be reached through the center's Web site (www.seniortransportation.net). Electronic or online submission is preferred but hard copies will be accepted. Hard copy of the proposal must be received on or before Dec. 17.

The mailing address is Tabitha Wilson, Assistant Director, NCST, 1730 Rhode Island Ave., NW, Suite 1200, Washington, D.C. 20036. A copy of the RFP and further information are available at the center's web site--www.seniortransportation.net. Questions related to the solicitation may be directed to Ms. Wilson at the above email address or by phone, (202)872-0888.

AAA Foundation, CHA Partner On 'Getting Around' Program

In 2003, when an 86-year-old Santa Monica man crashed into a crowded farmers market, killing 10 and injuring more than 50, the relationship between aging and driving came sharply and stunningly into public focus. Four years later, the issues related to senior safety and mobility are still as important as ever.

Starting in 2004, the AAA Foundation for Traffic Safety partnered with the Center for Healthy Aging (CHA) in Santa Monica, CA to pilot “Getting Around,” a program that would provide seniors with alternatives to driving. The project – funded by the AAA Foundation – evaluated the effectiveness of a program designed to help older residents of Southern California who had just lost their licenses. A supplemental video, similarly entitled “Getting Around,” was broadcast on PBS stations across the nation. In addition, it has been bundled on DVD with the AAA Foundation video, “The Older and Wiser Driver” and is available from the Foundation's product catalog.

The program consists of a transportation support and information network and a public education campaign. With a focus on counseling and mobility planning, the video is intended to specifically address the needs of those seniors who will no longer drive, rather than those who can still prolong their safe driving years.

The primary objectives were to:

- Develop a Transportation Support and Information Network
- Build community capacity through an advisory board
- Involve relevant organizations to establish strong relationships
- Train volunteers to counsel older drivers about transportation options
- Develop a video for broadcast on public television

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Hard copies and electronic versions of the findings can be requested via the Foundation Website, www.aaafoundation.org. Additional information is available from Allison Soule at asoule@aaafoundation.org.

Non-Driver Mobility Remedies Subject of Video Presentation

Faced with the reality of no longer being able to drive, many older adults experiencing vision loss become angry, depressed, and isolated. Although these feelings may be appropriate initial responses to such major life changes, these older adults can learn new skills that will help them reclaim control of their transportation and their independence.

In 2002, Drs. Anne Corn and L. Penny Rosenblum published findings of a study in which they gathered information from 162 adults over age 60 living in 31 states. All participants had to stop driving because of vision loss. Almost 70% made the decision to stop driving on their own. Although 3 out of 4 participants had transportation options in their communities (including public transportation, taxis and paratransit), only about 1 in 3 participants used any of these options regularly. Most primarily relied on family and friends for transport and consequently experienced a decrease in their spontaneity and independence. Some participants did find advantages to no longer driving including saving money, walking more, and socializing with drivers. The researchers recognized that attitude and knowledge are powerful tools in paving the way to future independence as a nondriver.

The findings from the 2002 study led to the development of a new video and resource guide. "Reclaiming Independence, Staying in the Driver's Seat When You No Longer Drive" features six diverse elders who had to stop driving because of gradual vision loss. They tell their stories and demonstrate their new methods for travel to work, shop, and socialize in rural, suburban, and urban communities. Viewers experience their initial grief and hopelessness, their search for solutions, and the new discoveries and skills that helped them build active lives as nondrivers. As Josephine, 81, stresses, "You can do the things that I can do."

Throughout the video, viewers witness a variety of transportation options that may work for them in their own

communities. In rural North Dakota, Gary negotiates rides with his wife and friends to get to work and to social events; and on an island in rural Maine, Josephine uses the ferry and community buses to get to stores and doctor's appointments. Although Wilbert and Syd both live in the suburbs, Wilbert uses a combination of taxis, buses, and rides from family and friends, but Syd is more likely to plan her trips using paratransit. In urban areas, Johnny walks extensively, takes buses, and uses light rail, and Blanche gets rides and uses paratransit.

In the 2002 study, Corn and Rosenblum found that not all participants were aware of services such as orientation and mobility instruction and low vision therapy. In "Reclaiming Independence" viewers hear first-hand from older adults about these services and how they can impact one's ability to travel independently. Viewers learn how to locate and utilize clinical low vision evaluations, independent living and vocational rehabilitation programs, and Veterans Administration rehabilitation services.

The video is available on DVD and VHS, and is fully accessible to persons with vision or hearing loss. Both versions have closed captions, and the DVD menus speak aloud what is displayed on the screen so that persons with low vision can use the menus. The Resource Guide that accompanies the video provides detailed information about transportation options, rehabilitation services, and strategies for finding appropriate programs. Provided in print, on cassette, and in electronic formats, this Resource Guide is also fully accessible to persons with vision or hearing loss.

"Reclaiming Independence" can help viewers who must give up driving realize that they can develop new ways of meeting their transportation needs by obtaining rehabilitation services and finding alternate transportation options. It can be used by those who run support groups for older adults, by optometrists and ophthalmologists who must tell older adults that it is no longer safe for them to drive, by families of these individuals, and by older adults themselves. Although this product features individuals with vision loss, anyone who is making, or has made the transition to nondriving, can learn from the experiences of the individuals featured here. As Syd says, "I think that we should seek help, any place we can find it, and then pass it on." (*Reclaiming Independence, Staying in the Driver's Seat When You No Longer Drive* is available from the American Printing House for the Blind (www.aph.org, 800-223-1839)

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TIA Partners with Ford Fund To Offer Hospital Workshops

The Traffic Improvement Association (TIA), headed by Frank Cardimen, will partner with the Ford Motor Company Fund to bring TIA's Mature Driver Workshop to four hospital rehabilitation centers in Michigan. The pilot project intends to increase the number of older drivers who can self-evaluate and improve their driving skills.

"TIA is excited to partner with the Ford Motor Company Fund (philanthropic arm of Ford Motor Company) to help the growing number of senior drivers," said Cardimen. "Creating these workshops is a hospital environment will allow the older driver more opportunities to evaluate driving skills and get additional rehabilitation from the medical community if needed," he said.

TIA's voluntary, confidential workshops were first offered in southeast Michigan in 1989 funded by a NHTSA grant. Since then TIA has offered more than 200 workshops. The four-hospital venture will provide training for two personnel to become AAA certified instructors, and make available program manuals, workshop marketing tools, a new Useful Field of View (UFOV) evaluator at no cost, and up to 50% of the cost for a new driver simulator.

Traffic Control Improvement Projects Planned by Iowa DOT.

The Iowa Department of Transportation is funding an older driver/pedestrian traffic control enhancement demonstration projects in Des Moines. A corridor heavily populated with high-rise senior apartments and retirement communities was chosen as the project site. The department first advised residents what would be coming and received suggestions as well as reactions

The project scope involves improving the signing, pedestrian crosswalks and pedestrian signal activation, installing larger, brighter street name signs, improving the signals, installing advance flashing LED lighted pedestrian crossing signs which are activated by the pedestrian, improving sidewalks and adding countdown pedestrian indicators.

A similar project is contemplated in Iowa City.

The demonstration project will be used to "market" the concepts and encourage other communities to install similar improvements. The department hopes to get

media coverage of the demonstration project to help with the marketing. A follow-up with residents is also planned.

TRB Says SR218 Now Scanned And Available in Full on the Web

The Transportation Research Board has finished scanning SR 218, *Transportation in an Aging Society*, the document which undergirds the nation's efforts to assure the safety and mobility of seniors, and placed it on the web. Look for the full text on these two sites:

Conference Proceedings 27, Transportation in an Aging Society: A Decade of Experience

http://www.trb.org/news/blurbs_detail.asp?id=3745

and *Conference Proceedings on the Web 2, Safe Mobility for Older Americans*

http://www.trb.org/news/blurbs_detail.asp?id=5565

Rick Pain also reports that about 200 copies have been located in the warehouse, so hardcopies can still be purchased.

What's Going on

Around the World

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European Union Summarizes Senior Transport Innovations

In the Finland city of Jyväskylä, the Department of Sport and Physical Activity Services, the transport sector and the day centers for elderly people established infrastructural measures combined with a publicity/motivational campaign to promote active mobility. Older people receive weekly free-of-charge transport between suburbs and the public swimming pool and other sports facilities. The day centers for the elderly were included in the planning process, contributing to the planning of activities and informing their customers about the new offers. The amount of instructed physical activity for elderly people has doubled and five new water fitness groups (30-40 people per group) have been established. In addition, more people participate in individual and group gym exercises.

Exercise while waiting for the bus

Users of public transport tend to perceive even short waiting times as too long, but the Liechtenstein brochure "Fit in Travel" helps them shorten that subjective waiting

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time and make good use of it. This, in turn, makes using public transport even more attractive. The "Fit in Travel" brochure contains nearly thirty exercises—all can be performed while waiting for the bus—to improve concentration, eyes and good posture. It also gives tips for relaxation, stress reduction and selected tips for healthy nutrition.

Door-2-Door Transport in Northern Ireland

Door-2-Door Transport is a new urban transport service for older people and people with disabilities. The service fulfils a function similar to regular bus town services by enabling people, who might otherwise find it difficult or impossible accessing local facilities/services, to get out and about. It can take members to local shops, the town centre, to work, the hairdresser, the local bank, the doctor, or even just to visit family or friends. Members are advised to book their trip at least 24 hours in advance but can book up to the time of travel, subject to availability. There is no membership fee.

Call a Bus Service in Switzerland

PubliCar is a fully flexible demand-responsive door-to-door minibus service in Switzerland, which can be booked via call centers. The scheme is seen as either supplementary or alternative public transport and as an element to optimize the whole public transport system. In many cases the flexible scheme provides a basic service which covers larger areas. During peak hours it is frequently augmented by traditional bus lines. It has developed a franchising system that makes it possible to assign the service to regional or local private transport companies or private vehicle owners.

Furthermore, it has also aimed at the integration of small settlements into the public transport network that were previously insufficiently served, or not at all. The project has proved to be very successful and is now available in 32 regions of Switzerland. Users call a free number to order the services of the PubliCar call centre which bundles demand where possible. Minibus drivers are informed via mobile phone/SMS about the requested trips. Depending on the situation and complexity of the specific PubliCar service (e.g. served areas and users, number of vehicles in an area), different disposition systems are in use. In the simplest case, the driver decides himself how to arrange a tour. In other cases the optimal route is calculated with a special software in the call centre. Stakeholders in the implementation and operation of the services are the transport operator

PostAuto, as well as the government at federal and cantonal level, as funding sources.

Call a Bus Service in Germany

The MultiBus is operating a call-a-bus service that provides (nearly) door-to-door services in Heinsberg, Germany. The minibus takes the travelers to any destination within the service area and also connects to the main public transport network. MultiBus is a pilot project within the research program "Public transport for the region" of the German Federal Ministry of Education, Science, Research and Technology that aims to support sustainable transport solutions in low density areas.

A target group survey at the beginning of the pilot project showed that core user groups would be seniors, families and children. Before introduction of the demand-responsive service these user groups frequently complained about a low service quality of the public transport system in the region and many people were dependent on being taken to their destination by a car driver. The service quality of the conventional bus routes (which required public funding) was low, offering only infrequent services that did not cover the whole area. The MultiBus project involves an innovative instrument of social marketing, trying to reach potential users by appealing to their emotions and values. The service has been frequently promoted using concepts of event marketing.

The MultiBus service operates on demand with modern minibuses. It is integrated into the regional public transport system, and users pay the normal fares. Approximately 2,900 people use the MultiBus service each month. The system is publicly financed and replaces in its operational area a conventional bus service. MultiBus users order the service at least half an hour before the trip by contacting a call centre, which uses a software to optimize the routing of the minibuses. The call centre agents tell the user the approximate times of pick up. The driver of the minibus receives by SMS the final routing information for the trip. MultiBus seems to be financially attractive and its cost efficiency may even be increased by the addition of a parcel delivery service (currently being implemented).

Mobility Card combines public transport offers

A private car makes place-to-place transport easy, but with public transport there are sometimes gaps and barriers. Additional offers such as CarSharing, bicycle rentals or delivery services are sometimes missing or

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unknown, and the transport services differing fare structures make a combined use very complicated. The Mobility Card is a way to solve these problems and make public transport a straightforward and comfortable way for users to travel.

The Mobility Cards pioneered in Freiburg and Hannover, Germany, has been a success, especially concerning customer satisfaction. Various transport companies, the German railways and other mobility services have agreed on a common fare management system so the users do not have to think about different payment scales. Regional public transport, CarSharing, bicycle parking and rentals, taxis, car and truck rentals, and vacation vehicle rentals now form the huge public transport network for Freiburg and Hannover. The annual fee includes the Mobility Card and the CarSharing membership.

The City Ticket (now available in 67 different cities in Germany) is another way to simplify the use of public transport because when a person buys a railway ticket for a journey of at least 100 km he or she is allowed to use other public transport modes to reach the final destination.

Flemish company starts SMS-ticketing

In September 2007, the Belgian public transport company "De Lijn" started a pilot project offering its customers in the cities of Ghent and Antwerp the possibility of buying their bus or tram ticket by SMS. The public transport company aims at selling half a million such tickets by September 2008. Buying a ticket by means of SMS has a number of advantages. Not only is the ticket cheaper compared to buying a ticket from the driver. It also implies an improved timetable and service because drivers do not waste time selling tickets on bus or tram. Passengers simply text the message 'DLA' (in Antwerp) or 'DLG' (in Ghent) to a central number and receive their ticket by SMS. The ticket is valid during one hour throughout the public transport city network.

Smartcards for older and disabled people

From 1 April 2008 older and disabled people can have free off-peak bus travel throughout England. Currently people of 60 and over and eligible disabled people are entitled to free off-peak bus travel within their own local authority area. But from April next year the British Government will extend the scheme to include off-peak local bus travel anywhere in England. The new bus passes will also incorporate ITSO smartcard technology

(a national smartcard specification developed by industry and the government) to help minimize fraud and ensure that the number of journeys made by passholders are accurately recorded for reimbursement purposes between local authorities and bus operators.

Smartcard ticketing offers the prospect of greater convenience for passengers and lower administrative costs for local authorities and operators, helping them offer fast, friendly and efficient services for everyone. They have a number of advantages over traditional paper-based passes. When used on smart readers, they are highly resistant to fraudulent replication. They speed up boarding, helping to reduce bus journey times. And in addition to use as concessionary travel passes, smartcards could be used for commercial ticketing on other transport services and additional services at local authorities' discretion, such as allowing access to leisure or library services.

Best Road Safety Practices Studied By European Group

An 18-month European Commission-financed project to collect and publish best road safety practices has produced a listing of 25 such practices for application at the national level, and nine more identified for use at the European Continental level. Known as SUPREME, the reports include several best practices that would assist older drivers. These are :

Specific driver training programs for older drivers :

- Mobi+ (Belgium)
- Driver 65+ (Norway)
- Be alive – drive daily: special course for elderly drivers (Slovenia)
- Testing elderly drivers: Fitness to drive assessment (Belgium)
- Driver improvement course for drivers with offenses (interventions for experienced drivers--Germany)

The project was headed by the Austrian Road Safety Board, and involved 31 national and international road safety organizations. The project looked for science-based examples of best practice from around Europe in the following areas:

1. Education and campaigns
2. Driver education, training and licensing
3. Rehabilitation and re-licensing

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4. Vehicles (incl.ITS)
5. Infrastructure (incl.ITS)
6. Enforcement
7. Statistics and in-depth analysis
8. Institutional organization of road safety
9. Post accident care

Three major reports were completed:

- The Country handbook : best practice measures for implementation at national level
- The European handbook : best practice measures for implementation at supranational level
- Thematic reports: individual reports on best practice and other measures for each of the nine road safety categories.

The crucial task of the project lay in the sound identification of best practices from the vast amount of available measures. To facilitate this process, a set of tools for collection, classification and selection of measures has been developed, along with guidelines for the assessment process at country level. As the common basis of all further activities, a list of eight best practice criteria was developed and transferred into a questionnaire.

An extensive procedure was followed to decide whether a measure could be qualified as a best, good or promising practice. It started with formulation of the criteria for best practice. These were strictly drawn, including, among other things, scientifically proven effects on road safety, a positive cost-benefit ratio, expected sustainability of effects, public acceptance for measures, and good transferability to other countries.

An excerpt from the Country handbook makes an important point: *Beware of the danger of reading an overview of separate measures. It might invite people to go out shopping, just to pick out one or two measures that seem interesting and easy to realize. That's not what road safety work is all about and certainly not what efficient road safety work entails. Road safety work needs to be based on a thorough analysis of existing safety problems, on a clear strategic view of what problems need to be tackled and by which type of measures, preferably on the basis of a vision about the long term aims and the role of the various components of the traffic system. Only then, is it time to examine this document to see what other countries did to tackle a similar problem. In all cases, consideration must be given*

to local conditions and, if appropriate, measures must be customized to those local conditions.

And this excerpt from the Thematic Report refers to post-crash psychological effects, not often calculated among the costs of an accident: A paramedic told this story of a 'woman saved out of an inferno, who was burned very badly. After some weeks of medical treatment she was getting back to life. After one year she was dead – committed suicide by jumping from a balcony. All other wounds were healed, but not the inner, psychological wounds.' This has a specific relationship to older people who suffer crash trauma, particularly those who live alone. Life quality can suffer significantly from such psychological wounds.

http://www.cieca.be/news_en.pp?id=221

http://ec.europa.eu/transport/roadsafety/publications/projectsfiles/supreme_en.htm

Diagnostics for Older Drivers Contained in SUPREME Study

The SUPREME Project's Thematic Report on Rehabilitation and Diagnostics concerned older drivers. For example, the section on relevant risk factors placed the focus squarely on chronic impairment due to the natural aging process, physical handicap or chronic disease. It discussed the effectiveness of diagnostic interventions performed within the framework of population screenings in order to detect the most severe forms of driver impairment and identify the individuals at risk whose driving license should be withdrawn.

These diagnostic interventions give rise to several questions. What does 'driver impairment' mean? Can a screening procedure make a good contribution to preventing accidents? And are there tests that can reliably establish if a person is fit to drive or not? What is the cost of such a procedure?

Many studies have been conducted to establish the accident risk associated with various medical conditions. The European project IMMORTAL (Impaired Motorists, Methods of Roadside Testing and Assessment for Licensing) investigated 'the influence of chronic and acute impairment in order to make a more accurate risk assessment to recommend criteria for high risk categories, and to provide key information to support EU Policy on licensing and roadside testing'. Other studies

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focus on older drivers, their medical condition and their driving competence.

In fact, aging is related to higher rates of diseases that have an impact on the fitness to drive. Arthritis, heart disease, arterial hypertension, diabetes and dementia are examples of age-related conditions that affect functional ability. According to Ewert, the most significant age-related losses of physical and cognitive skills in terms of road safety are associated with eyesight disorders, dementia, diabetes and the use of medication (e.g. sleeping tablets or sedatives).

Vaa comes to the conclusion that a driver with a given medical condition has a 33% higher risk of accident involvement than a driver without that given condition. But he points out that age and gender play an even more important role: young male drivers (aged 16-19) have a relative risk of being involved in an injury accident about 7 times higher than the male group with the lowest risk (aged 45-54). The relative risk of accident involvement of young female drivers (aged 16-19) is about 3 times higher than that of the female group with the lowest risk (aged 35-54). The relative risk of drivers aged 75+ (male as well as female) is also about 3 times higher compared to groups of males and females with the lowest accident risks.

As demonstrated in different studies, the relative risk of older drivers can be explained by their particular frailty. Older drivers have a "greater vulnerability to injury, due especially to reductions in bone strength and fracture tolerance" (Langford). However, the fact that some medical conditions or advanced age (or youth) are associated with a higher relative risk of accident involvement does not mean that every individual who has a given illness or who happens to be over 80 is not fit to drive. It depends, for example, on the stage of the illness contracted (e.g. dementia), on the diverse possible pathological evolutions of a given illness, on the side-effects of medication which can differ from one person to another, on the number of disorders a person is suffering from at the same time, or on the aptitude of the person to adopt specific compensation strategies.. Concerning older drivers, it has been observed, for instance, that they tend to avoid driving in difficult conditions, such as darkness, slippery roads, peak hours, and other stress-inducing situations (Hakamies-Blomqvist).

Seen from a theoretical viewpoint, a screening procedure is more effective if both the prevalence of a

given impairment and the risk associated with this impairment are high. Theoretical reflections point out the limited safety benefit of screening procedures: even under unrealistically 'good' conditions (high prevalence of impairment, high risk associated with impairment, test specificity and sensitivity of 100%) in 6 out of 7 drivers the license withdrawal would not have any effect on road safety.

More realistic examples show that the results would be even worse as many false positive results would be produced. Also, the real-life experience in Finland has shown that population screening for elderly drivers might even have negative effects: no safety benefits among car drivers could be assessed, whereas the risk of fatal injuries among the older, vulnerable road users increased.

Consider dementia: an estimation of the prevalence in older persons is available in the 2006 study by Ewert: 9-11% of persons over 70 years suffer from dementia. The relative risk calculated by Vaa for mental disorders is 1.72. These figures indicate the percentage of accidents prevented is much lower (only 16% of the accidents among the elderly) and the number of persons whose driving license has to be withdrawn to prevent one accident is 89. This would only be true if all the people suffering from dementia were still active drivers, which, of course, is not the case in reality.

Moreover, Ewert demonstrates that when there is a relatively low prevalence of impairment in the population, a serious risk exists that a false diagnosis (false positive) is made during screening – even with the use of good neuropsychological test procedures. In his example, he shows that, with a 10 % prevalence of dementia among all drivers over 70, and using one of the best screening tests available (e.g. the Mini Mental State-Test, MMST) with a sensitivity of 90% (proportion of truly diseased persons who are so identified by the diagnostic test) and a specificity of 90% (proportion of truly non-diseased persons who are so identified by the diagnostic test), 50% of the persons diagnosed with dementia are in fact not ill with dementia (false positive).

False positive results can lead to distress, possible unnecessary treatment, the withdrawal of the driving license, probable decrease of mobility and possible decrease of quality of life. False negative results (persons diagnosed healthy are in fact ill) can also occur – although to a much lesser degree – and lead to false

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reassurance by both patients and doctors on the one hand and to a general safety problem on the other.

The Thematic Report commented favorably on two Belgian diagnostic measures submitted:

1. Fitness to drive assessment for elderly drivers 65+
2. Fitness to drive assessment for people with special needs (PSN), defined as people with a medical condition that has or may have an effect on their fitness to drive.

For example, measure n° 1 contains the following positive aspects complying with the best-practice guidelines regarding diagnostics: the intervention only concerns drivers over 65 years of age who have been referred by a doctor or an insurance company.

In a few cases, elderly people have been checked on their own initiative, or the initiative of relatives. Cognitive functions known to be related to fitness to drive are assessed. Moreover, the tests are comprehensive, including not only medical aspects, but also neuropsychological aspects as well as a practical fitness to drive.

The assessment is multi-tiered: on the basis of the provided medical information (self declaration form), it is decided which class of tests will be necessary.

On the other hand, in the case of a negative decision, little advice seems to be given to the impaired driver; this could be one explanation why so few people decide to have themselves checked on their own initiative.

A fitness to drive assessment should be uniform across all member states of the EU. The assessment should be multidisciplinary - based on medical, neuropsychological and practical fitness to drive evaluations.

The driving license should not be an all-or-nothing decision; limited driving licenses, also partly based upon the person's situation, should be available.

Europe Considers the Problem Of Medicines' Effect on Driving

Society's advancing age dictates an ever-increasing need of medicines, suggesting a parallel expansion of those who drive after taking medicine. However, a large proportion of the population already habitually drives while ingesting medicinal drugs (either in acute or chronic use). While medicines are not the main factor to be

considered when looking at the causes of road collisions, their importance is large and continually growing, enough so that the issue is mentioned in the European Commission's White Paper entitled "European Transport Policy for 2010 : time to decide" which aims to reduce the crash mortality rate by 50% by 2010.

The prescription of medicinal drugs is an everyday factor in clinical practice, and even though safer and more effective medicines are being commercialized every day, some of them can deteriorate psychomotor performance, which can affect a person's ability to drive safely.

Europe is studying the issue through a research project known as DRUID –driving under the influence of drugs, alcohol and medicines. The study objective is building scientific support for the EU effort to achieve the 2010 road safety target by establishing guidelines and measures to combat impaired driving. Thirty-six research institutes from 18 countries are involved. The project started in October 2006 and will last two years.

Reducing the number of victims by that proportion requires the inclusion of all factors which affect not only the vehicle and roadway issues, but performance of the driver as well. Whereas substantial progress has already been made in education and training, knowledge about the impact of psychoactive substances on traffic safety is limited. The scientific discussion is dominated by the problem of drinking and driving.

A huge body of knowledge about alcohol effects, about the circumstances of drinking and driving, and about effective countermeasures has been accumulated. The result of these efforts is convincing despite the fact that the alcohol problem remains virulent in traffic; its impact has substantially decreased in EU member states. But an equivalent amount-- if not more – of other psychoactive substances has appeared in road traffic situations; that is, illegal drugs and medicines with impairing effects.

DRUID project tasks include the following:

- Conduct reference studies of the impact on fitness to drive for medicines, alcohol, and illicit drugs and give new insights to the real degree of impairment caused by psychoactive substances and their actual impact on road safety
- Establish an appropriate classification system of medicines affecting driving ability; give recommendations for its implementation and

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create a framework to position medicines according to a labeling system

- Generate recommendations for the definition of analytical and risk threshold
- Define strategies of driving bans, combining road safety objectives with the individual's need for mobility.

The DRUID project is a comprehensive effort, including past experiences and conduct of studies answering the new questions. DRUID therefore looks at the entire class of psychoactive substances, medicines as well as alcohol and illicit drugs. The intent is to understand all facets of the problem: consumption, impairing effects, accident risk, detection, deterrence, rehabilitation and prevention.

Special emphasis is given to the question whether either substance effects or countermeasures are different for subgroups of drivers. This especially holds true for novice-drivers, young drivers, for professional drivers, and of consequence--the growing group of elderly drivers.

In addition, the special problems of ill drivers and their medication are being taken into account. This differential look at subgroups is guiding efforts in the different working packages and will therefore deliver a rational basis for decisions, starting from setting thresholds up to designing specially tailored preventive measures.

Health care professionals need to be informed about the potential risk associated with the use of any kind of psychoactive substances. Guidelines to make them aware of their role and to provide them with relevant information need to be developed as well as professional standards to address the role of physicians and to involve European professional organizations of physicians. These measures will be supported by adequate training activities.

Information about medicines that are likely to affect driving performance, and thus result in an increased crash risk, must be communicated to patients in a manner that ensures the information is fully understood. In order to make patients aware of this system, new information leaflets, public campaigns and websites have to be developed using multimedia techniques.

A major part of DRUID is development of an empirically based classification and categorization system which allows a consistent labeling of medicines with respect to their impact on driving. This classification work

package will have an output both for physicians/pharmacists and other health professionals, as well as the patients taking these medicinal drugs, by two major actions:

- categorization of the medicinal drugs on driving ability
- appropriate labeling systems regarding medicinal drugs and driving

Four objectives are involved:

1. review the existing i) classification/categorization systems, and ii) labeling systems regarding medicinal drugs and driving
2. propose and agree on the criteria and the methodology for establishing an improved European i) classification/categorization system and ii) labeling system of medicinal drugs and driving
3. develop a methodology to continuously update both systems
4. propose a classification/categorization system for the relevant therapeutic groups of medicines available in the market.

To achieve these objectives, the research will

Review existing classification efforts, establish criteria for a European categorization, based on expert consensus, and establish a framework for classification/categorization and labeling of medicinal drugs and driving

Other tasks in the DRUID project include:

- Driving performance of medicated and unmedicated patients with sleep/anxiety disorders (Maastricht University, Netherlands)
- State of the art of the problem of impaired drivers (Danish Transport Research Institute)
- Motives behind risky driving (VTI – Swedish National Road and Transport Research Institute)
- Report (plus CD or DVD) with examples of ICT supported protocols for prescribing and dispensing of medicines affecting driving performance, and for informing patients who use other psychoactive substances than medicines (Groningen University, Netherlands).

http://cordis.europa.eu/germany/presidency/showcases-transport2_en.html

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Europe Green Paper Looks at Urban Mobility Improvement

"Towards a new culture for urban mobility" is the title of the Green Paper adopted in 2007 by the European Commission to open a debate on the key issues of urban mobility: an urban transport which is accessible, safe and secure for all European citizens, free-flowing, assuring greener towns and cities, and smarter urban mobility. With this Green Paper the commission wants to identify, in partnership with all parties, what obstacles to successful urban mobility exist and how to remove them.

The Green Paper will focus European attention on the urban dimension of transport policy and put the spotlights on innovative policies which pioneering cities throughout Europe are putting in place. It presents a set of policy issues for urban mobility and includes 25 open questions addressing these options. For example: how the quality of collective transport can be improved, how the rights of collective transport passengers can be protected, how the use of clean and energy-efficient technologies can be increased, and how walking and cycling can be promoted.

To support the preparations of the Green Paper, the European Commission organized an intensive consultation of stakeholders between January and June 2007. This included two stakeholder conferences, four technical workshops and an Internet consultation. Among the contributions received were the following:

- Accessibility is a key idea, not only for older and disabled people, but also for people living in outer districts of towns and cities. Everything needs to be "Intelligent": cars, infrastructure, and bus stops. More trams and trains are needed, and public transport must be high quality, clean and punctual
- Personal mobility is the key to independence, in particular for people with reduced mobility (such as older people, disabled people, people encumbered with luggage, shopping or pushchairs.....)
- Many contributors asked for a reduction in the use of cars within urban areas. Public transport could play a role here, according to a large proportion of organizations. They recommended buses on-demand, the taxi bus, or innovative car

hire. The potential of taxis in urban passenger and freight transport should be better exploited. Some contributions suggested that taxis could be part of the solution: taxi drivers should be educated and encouraged to drive "green" (ecologically) in clean vehicles, not only accommodating passengers but also delivering freight to the inner city. There could be dedicated lanes for delivery and collection vehicles ("bus for goods" ; "bus for people")

- Demographic trends and social dimensions have to be considered for sustainable transport. Social inclusion should be delivered at local level, but policy, legal frameworks and guidance are needed
- The integration of different policies (land use, housing policy, etc.) and measures is the key to better and cleaner transport in European cities. The Leipzig Charter on Sustainable European Cities gives good recommendations for integration
- Travelers' rights in urban (public) transport were raised as an issue.

More information on the Green Paper and the consultation process can be found at:

http://ec.europa.eu/transport/clean/green_paper_urban_transport/index_en.htm

European Union Will Require Brake Assist Systems by '09

To reduce the number of fatalities on European roads, the European Commission on October 8 proposed that passenger cars need to be fitted with Brake Assist Systems (BAS) as early as 2009. If the complete European car fleet was outfitted with BAS, as many as 1100 pedestrian lives might be saved annually.. The use of BAS can considerably reduce the stopping distance of a vehicle in an emergency situation, with the effect that a collision with a pedestrian could be avoided altogether or would occur at least at a far lower speed. The proposal is part of a larger package of measures for pedestrian protection. The implications for older persons are significant because the fragility of their bodies subjects them to more severe—and often fatal—injuries.

A Commission study shows that the requirements for pedestrian protection can be significantly improved by use of a combination of active and passive safety measures.

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Passive measures help to reduce injury levels on impact by provision of softer surfaces. Active measures alleviate the conditions under which impact may take place, e.g. by reduction of impact speed. Such a combination of measures will afford an 80% higher level of protection than the previously existing provisions, in particular, as a result of the use of active safety systems. Again, seniors will be among principal beneficiaries.

New vehicles are required to pass a number of performance tests in two phases: phase I (based on recommendations from the European Joint Research Centre) which started in October 2005, and a revised phase II (based on European Enhanced Vehicle-Safety Committee recommendations), which is the main subject of the present proposal.

The new regulation will lay down requirements for the construction and functioning of vehicles and frontal protection systems to reduce the number and severity of injuries to pedestrians and other vulnerable road users. Manufacturers must ensure that vehicles placed on the market are equipped with a verified Brake Assist System, and manufacturers shall ensure that frontal protection systems, either fitted as original equipment to vehicles placed on the market or supplied as separate technical units, comply with the requirements of the proposed regulation. (*Reports on European Union research and programs supplied by Danae Penn*).

UQDrive Initiative Available Now Throughout Australia

The University of Queensland Driver Retired Initiative, known as UQDrive, is now available throughout Australia following extensive research which led to the development of a series of resources for individual and group settings. The initial PhD research project investigated the needs and experiences of older people when they retire from driving. A research team involving Dr. Jacki Liddle, Associate Professor Kryss McKenna, Dr. Glenys Carlson, and Dr. Merrill Turpin from the Division of Occupational Therapy, and Dr. Robyn Findlay and Professor Helen Bartlett from the Australasian Centre on Aging at the University of Queensland was formed.

The research indicated that the process of driving cessation exhibited different needs occurring at different phases (predecision, decision and postcessation). In addition, the outcomes and expectations of driving

cessation were found to centre on transport needs and beliefs, role participation, time use, and life satisfaction.

Older people, family members and health professionals were also surveyed about their needs and preferences for support programs. Analyzed qualitatively, five themes emerged: planning and preparation (increasing awareness and planning about driving cessation), respect and control (a sensitive, respectful approach which focused on the retiring driver maintaining control), peers and experts (the involvement of experienced retired drivers and 'experts,' including health professionals, transport providers and government representatives), content suggestions and format suggestions. The need for an adaptable, individual focused program with information specific to the immediate local area and the health and social needs of older people was emphasized.

A series of resources was developed to be used either individually or in group settings. Awareness raising resources were developed for older current drivers (predecision) and intensive support resources were developed for older retiring and retired drivers (decision and post-cessation phases). These were piloted in Queensland, Australia in 2004 and following support and investment from the School of Health and Rehabilitation Sciences at UQ, were developed into a format where they could be used in other geographic locations and other health needs. The resources are described in Table 1 and available to health professionals for purchase following completion of required training.

Example of the content and activities of UQDRIVE resources

Resource Type-- Awareness raising (talk and brochure)

Example of content, activities-- Content: Driving in later life, Tips from retired drivers about planning for driving cessation, Local transport information. Activities: Discussion about local transport

Intensive group or individual program

Module 1: Growing older. Content: Changes with normal ageing, Successful ageing strategies.

Activities: Discussion of ageing experiences

Module 2: Driving later in life. Content: Driving rights and responsibilities, Safe Driving. Activities: Guest speakers; Group discussion about own and others' driving

Module 3: Adjusting to losses and changes. Content: Coping strategies, grief, and depression Activities:

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Cognitive behavioral techniques, problem solving activities

Module 4: Experiences of retiring from driving. Content: Experiences of others Activities: Narrative techniques of own experience

Module 5: Alternative transport. Content: Local transport options, pedestrian safety issues. Activities: Group outings, safety audit of local area.

Module 6: Lifestyle planning Content: Ageing well, setting goals, energy conservation. Activities: Setting individual transport and lifestyle goals

Module 7: Advocacy and support. Content: Advocacy; Worldwide advances in transport. Activities: Providing feedback to local transport services, forming a local network

Currently a randomized controlled trial is being conducted on the intensive group program. It is funded by the National Health and Medical Research Council in Australia, is being run by the Division of Occupational Therapy and School of Psychology at the University of Queensland and is due for completion in 2010. Additional research projects investigating the experiences and needs related to driving cessation of other groups (people who have experienced a traumatic brain injury, people after stroke, and people with dementia) are being conducted with the aim of developing new resources or adapting current UQDRIVE resources. (Additional information is available from Dr Jacki Liddle, j.liddle@uq.edu.au)

Relevant publications

Liddle, J. (2005). The impact of driving cessation on older people: Developing a framework to facilitate adjustment. Unpublished PhD, University of Queensland, Brisbane.

Liddle, J., Carlson, G., & McKenna, K. (2004). Using a matrix in life transition research. *Qualitative Health Research*, 14, 1396-1417.

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Liddle, J., McKenna, K., & Bartlett, H. (Online Early Articles) Improving outcomes for older retired drivers: The UQDRIVE program *Australian Occupational Therapy Journal* doi:10.1111/j.1440-1630.2006.00614.x

Liddle, J., McKenna, K., & Broome, K. (2005). Older road users: From driving cessation to safe transportation. Canberra: Australian Transport Safety Bureau.