



# International Conference on Road Safety at Work

## Conference Book



**February 16-18, 2009**

**Marriott Wardman Park Hotel, Washington, DC USA**



World Health  
Organization



WORLD BANK GLOBAL  
ROAD SAFETY FACILITY



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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institute for  
Occupational Safety and Health  
Centers for Disease Control  
and Prevention (CDC)  
395 E Street, SW - Ste 9200  
Washington, DC 20201  
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February 16, 2009

Message from the Acting Director  
National Institute for Occupational Safety and Health (NIOSH)

Welcome to the International Conference on Road Safety at Work. It is my pleasure to welcome you to Washington, D.C. for this important event – the first international conference dedicated to the prevention of road traffic injuries in the workplace.

Road traffic crashes are a leading cause of workplace death, injury, and disability throughout the world. Because deaths or injuries of wage-earners affect the well-being of entire families, road traffic crashes are both a public health problem and an obstacle to economic development. It is therefore urgent that all parties with the knowledge and resources necessary to address the problem come together to discuss solutions.

The goal of the International Conference on Road Safety at Work is to provide a forum for delegates from around the world to exchange ideas and discuss strategies to prevent road traffic crashes at work. Your participation will be the key to the success of this conference. It is our hope that this conference will result in the creation of partnerships and collaborations that will continue far beyond our discussions here in Washington.

I would like to thank our conference co-sponsors and the Scientific Organizing Committee for their efforts in bringing us together at this conference. I also thank all the conference participants, many of whom traveled great distances to share their expertise. I wish you great success in your discussions over the next three days.

Christine M. Branche, Ph.D.  
Acting Director, NIOSH

# GENERAL INFORMATION

## Registration

Delegates may check in at the conference registration desk from 5:00 pm to 8:00 pm on Sunday, 15 February 2009, to pick up conference materials and name badges. General registration and check-in will also be available beginning at 6:30 am on Monday, 16 February 2009 and will continue throughout the conference.

Professional and Scientific Associates (PSA), the conference management contractor, will have staff available to assist you throughout the conference. PSA staff can be identified by their name badges. In addition to the PSA staff, other program staff and volunteers will be assisting with room monitoring, on-site registration, and other support tasks and can be identified by badge ribbons.

## Translation

Spanish translation will be available for the first day of the conference, 16 February 2009. If you would like to use this service, please inform the attendant when you check in at the registration desk.

## Posters and Exhibits

Posters and exhibits will be available for viewing in the Virginia Suite from 8:00 am to 8:00 pm on Monday, 16 February 2009.

## Networking Reception and Poster Session

Meet fellow conference participants and relax after a successful conference day! The networking reception will be held in the Virginia Suite from 6:00 pm to 8:00 pm on Monday evening, 16 February 2009. Poster authors will be available between 6:30 pm and 7:30 pm to discuss their research in an informal setting.

## Conference “Idea Board”

Share your ideas with conference organizers and other participants! If you have suggestions about possible research projects, safety promotion campaigns, or other activities that will help make the roads a safer workplace, please post your ideas on the board near the conference registration desk using the yellow Post-it™ notes provided. Ideas offered by attendees will be considered for incorporation into the conference proceedings.

## For More Information

For more information on post-meeting activities and updates, go to:  
[www.cdc.gov/niosh/programs/twu/global](http://www.cdc.gov/niosh/programs/twu/global)

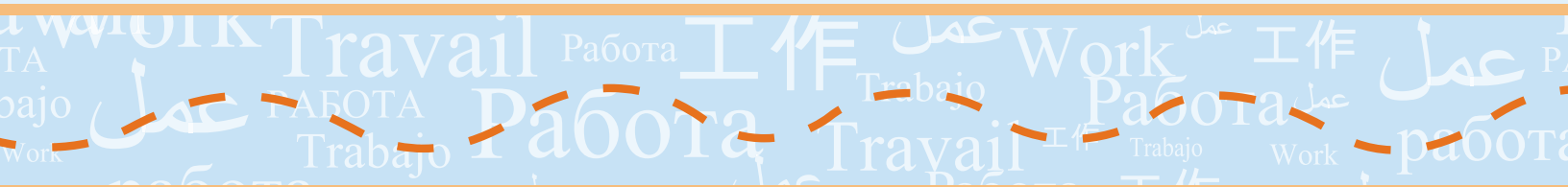


# AGENDA

## Monday, February 16, 2009 - Plenary Sessions and Panel Discussions

*Maryland Suite*

- |             |                                                                                                                                                                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:00-8:10   | <b>Introduction to the International Conference on Road Safety at Work</b><br><i>Max Lum, Ed.D., MPA</i> , Associate Director, Office of Health Communication and Global Collaboration, U.S. National Institute for Occupational Safety and Health (NIOSH) |
| 8:10-8:20   | <b>Welcome from the U.S. National Institute for Occupational Safety and Health (NIOSH)</b><br><i>Christine Branche, Ph.D.</i> , Acting Director, NIOSH                                                                                                     |
| 8:20-8:30   | <b>Welcome from the World Health Organization (WHO) and the United Nations Road Safety Collaboration</b><br><i>Etienne Krug, M.D., M.P.H.</i> , Director, Department of Injuries & Violence Prevention, WHO                                                |
| 8:30-8:40   | <b>Welcome from the International Labour Organization (ILO)</b><br><i>Sameera M. Al-Tuwaijri, M.D., M.P.H.</i> , Director, International Program on Safety and Health at Work and the Environment (SafeWork), ILO                                          |
| 8:40-8:55   | <b>Welcome from the Ambassador from Oman to the United Nations</b><br><i>His Excellency, Ambassador Fuad Mubarak Al-Hinai</i>                                                                                                                              |
| 8:55-9:25   | <b>Keynote Address #1</b><br><i>Karla González</i> , Minister of Public Works and Transport, Republic of Costa Rica                                                                                                                                        |
| 9:25-9:55   | <b>Keynote Address #2: Achieving Goal Zero in Road Safety</b><br><i>Sam Smolik</i> , Vice President - Global Downstream Health, Safety, Security and Environment, Shell                                                                                    |
| 9:55-10:15  | <b>BREAK</b>                                                                                                                                                                                                                                               |
| 10:15-10:45 | <b>The Status of Occupational Road Safety Globally: Capsule Presentation of Conference White Paper</b><br><i>Ed Dubens, C.E.O./President</i> , Interactive Driving Systems<br><i>Will Murray, Ph.D.</i> , Research Director, Interactive Driving Systems   |



**Monday, February 16, 2009 - Plenary Sessions and Panel Discussions (Continued)**

- 10:45-12:00    Panel Discussion #1: Developed-economies Perspective**  
*Jeff Michael, Ed.D.*, Associate Administrator for Research and Program Development, National Highway Traffic Safety Administration  
*John Kennedy*, Executive Director for Driver and Roadway Safety, National Safety Council  
*Stephanie Pratt*, Research Health Scientist, NIOSH  
*Adrian Walsh*, Director, RoadSafe  
*LaMont Byrd*, Director of Safety and Health, International Brotherhood of Teamsters
- 12:00-1:30    LUNCH**
- 1:30-3:00    Panel Discussion #2: Emerging-market Perspective**  
*Tony Bliss*, Lead Road Safety Specialist, Energy, Transport and Water Department, World Bank  
*Fernando Cammarota*, CEPA  
*Simar Preet Kahlon*, Corporate SHE Manager, Nestlé India Limited  
*Ndeye Awa Sarr*, President, LASER International
- 3:00-3:30    BREAK**
- 3:30-4:00    State of Occupational Road Safety Globally: Industry Perspective**  
*Andrew R. Bradley*, Head of Group Risk Services, Nestlé SA
- 4:00-4:30    State of Occupational Road Safety Globally: Policy Perspective**  
*Claes Tingvall, Dr. Med. Soc.*, Director of Traffic Safety, Swedish Road Administration
- 4:30    ADJOURN**
- 6:00-8:00    Networking Reception and Poster Session**  
*Virginia Suite*



## Tuesday, February 17, 2009 - Breakout Sessions

|                                        | Track 1: Policy                                                                                                                                          | Track 2: Management and Interventions                                                                                                                                                                      | Track 3: Emerging Markets: Research and Practice                                                                                        |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Breakout 1</b><br>8:30—10:00 am     | T1.1 International initiatives<br><br>Maryland Suite A                                                                                                   | T2.1 Fleet risk management<br><br>Maryland Suite B                                                                                                                                                         | T3.1 Road safety initiatives for workers<br><br>Maryland Suite C                                                                        |
| <b>Moderator:</b>                      | Sameera al-Tuwaijri                                                                                                                                      | Ed Dubens                                                                                                                                                                                                  | Andrew Bradley                                                                                                                          |
|                                        | UN Road Safety Collaboration<br><b>Lori Mooren, University of New South Wales</b>                                                                        | The rationale for implementing fleet safety programs from a broad government/policy perspective<br><b>Roger Bibbings, Royal Society for the Prevention of Accidents</b><br><b>Paul Gallemore, Wolseley</b> | SAFE fleet at Johnson & Johnson—caring for people across the globe<br><b>Joseph Van Houten and Sandra S. Lee, Johnson &amp; Johnson</b> |
|                                        | Policy change and new perspectives on sharing responsibility for road safety<br><b>Matts-Åke Belin, World Health Organization</b>                        | Models for fleet safety interventions<br><b>Will Murray, Interactive Driving Systems</b><br><b>Adrian Walsh, RoadSafe</b>                                                                                  | Issues in implementing a global driver safety culture<br><b>Andy Stubbings, Wyeth</b><br><b>James Dorris, Cummins Inc.</b>              |
| 10:00—10:30 am                         | BREAK                                                                                                                                                    |                                                                                                                                                                                                            |                                                                                                                                         |
| <b>Breakout 2</b><br>10:30 am—12:00 pm | T1.2 Legal perspectives on fleet management<br><br>Maryland Suite A                                                                                      | T2.2 Driver-based interventions<br><br>Maryland Suite B                                                                                                                                                    | T3.2 Protecting drivers in emerging markets<br><br>Maryland Suite C                                                                     |
| <b>Moderator:</b>                      | Will Murray                                                                                                                                              | David Melton                                                                                                                                                                                               | Rochelle Sobel                                                                                                                          |
|                                        | Negligent entrustment — when is a license check not enough?<br><b>Paul Farrell, SafetyFirst Systems</b>                                                  | Using driver risk assessment methods to develop a crash-free culture<br><b>Tony Kaye, Thomas International</b><br><b>Michael Ferrara, Jr., FleetRisk Advisors</b>                                          | The Fleet Forum 'Fleet Safety Toolkit'<br><b>Rob McConnell, Fleet Forum</b>                                                             |
|                                        | Best practices in fleet risk management: avoid conflict with privacy regulations and driver expectations<br><b>Stanley Underwood North, LeClair Ryan</b> | Driver training — balanced overview<br><b>Eddie Wren, Advanced Drivers of America</b>                                                                                                                      | A comprehensive approach to vehicle safety<br><b>Ezana Wondimneh, National Highway Traffic Safety Administration (USA)</b>              |
| 12:00—1:30 pm                          | LUNCH                                                                                                                                                    |                                                                                                                                                                                                            |                                                                                                                                         |



**Tuesday, February 17, 2009 - Breakout Sessions (continued)**

|                                      |                                                                                                                                                                                                                      |                                                                                                                                                                                                     |                                                                                                                                                                                   |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Breakout 3</b><br>1:30 pm–3:00 pm | <b>T1.3 Labor relations perspectives</b><br><br>Maryland Suite A                                                                                                                                                     | <b>T2.3 Use of crash analysis and benchmarking to improve fleet safety</b><br><br>Maryland Suite B                                                                                                  | <b>T3.3 Regional focus I—Latin America and China</b><br><br>Maryland Suite C                                                                                                      |
| <b>Moderator:</b>                    | LaMont Byrd                                                                                                                                                                                                          | Sandra Lee                                                                                                                                                                                          | Eugénia Rodrigues                                                                                                                                                                 |
|                                      | Impact of regulation and deregulation, industry structure, pay structure, and hiring practices on road safety<br><b>Michael Belzer, Wayne State University</b>                                                       | Crash analysis and benchmarking as tools to improve fleet safety—presentation and discussion<br><b>Lynn Berberich, PHH Arval</b>                                                                    | Strategies to decrease the accidents and costs in a private fleet company<br><b>Miguel Angel Gonzalez Osuna, FEMSA</b>                                                            |
|                                      | Occupational road safety in India<br><b>Param Preet Ghuman, Employee State Insurance Corporation</b>                                                                                                                 | Evaluating the success of fleet safety initiatives: benchmarking metrics and program elements/identifying and sharing best practices<br><b>Jack Hanley, Network of Employers for Traffic Safety</b> | The current status of road traffic safety work in China and its countermeasures<br><b>Zhao Rui Ha, State Administration of Work Safety, China</b>                                 |
| <b>3:00–3:30 pm</b>                  | <b>BREAK</b>                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                   |
| <b>Breakout 4</b><br>3:30 pm–5:00 pm | <b>T1.4 Corporate social responsibility</b><br><br>Maryland Suite A                                                                                                                                                  | <b>T2.4 Organizational and technology-based interventions</b><br><br>Maryland Suite B                                                                                                               | <b>T3.4 Regional focus II—Vietnam and India</b><br><br>Maryland Suite C                                                                                                           |
| <b>Moderator:</b>                    | Jim Noble                                                                                                                                                                                                            | Matts-Åke Belin                                                                                                                                                                                     | Rohit Baluja                                                                                                                                                                      |
|                                      | GRSP: Business, government, and civil society contributing to road safety<br><b>Andrew Pearce, Global Road Safety Partnership</b>                                                                                    | Using technology to manage crash risk before the crash occurs<br><b>David Melton, Liberty Mutual Group</b>                                                                                          | Case Study - Vietnam<br><b>Greig Craft, Asia Injury Prevention Foundation</b>                                                                                                     |
|                                      | Organizational and technology interventions to improve safe and eco-driving<br><b>Paul Davis, Nestlé SA</b><br>Technology and environmental considerations can drive fleet safety<br><b>Inder Poonaji, Nestlé SA</b> | Sustaining safety in hard times/times of recession<br><b>Paul Gallemore, Wolseley</b><br><b>Dave Wallington, British Telecom</b>                                                                    | Road crashes involving heavy vehicles in Bangalore, India: challenges and strategies for prevention<br><b>G. Gururaj, National Institute for Mental Health and Neuro Sciences</b> |
| <b>5:00 pm</b>                       | <b>ADJOURN</b>                                                                                                                                                                                                       |                                                                                                                                                                                                     |                                                                                                                                                                                   |



Wednesday, February 18, 2009 - Breakout Sessions and Concluding Plenary Session

|                             |                                                                                                                      |                                                                                                                                                                   |                                                                                                                                                           |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Breakout 5<br>8:30-10:00 am | T1.5 Using research to promote policy change<br><br>Maryland Suite A                                                 | T2.5 Driver management approaches<br><br>Maryland Suite B                                                                                                         | T3.5 Regional focus III-Africa<br><br>Maryland Suite C                                                                                                    |
| Moderator:                  | Marilyn Fingerhut                                                                                                    | Adrian Walsh                                                                                                                                                      | Nancy Carter-Foster                                                                                                                                       |
|                             | Occupational light vehicle use<br>Rwth Stuckey, Monash University                                                    | Effectively managing 'gray fleet'/non-owned vehicles<br>Jim Noble, Zurich Services Corporation                                                                    | Occupational Road Safety in South Africa<br>Jace Naidoo, Eskom                                                                                            |
|                             | Influencing New Zealand commercial fleet managers<br>Debbie Stearns, Accident Compensation Commission of New Zealand | Chain of responsibility: Risk management of contractors, sub-contractors, and spot hire transport in the supply chain<br>Will Murray, Interactive Driving Systems | Road traffic safety: A big challenge in the developing world - a Uganda (East Africa) case study<br>Ronald Ssebunya, National Road Safety Concern, Uganda |

10:00-10:30 BREAK

10:30-12:00 Concluding Plenary Session: Findings and Next Steps  
*Maryland Suite*

12:00 ADJOURN

# CONFERENCE CO-SPONSORS



Centers for Disease Control and Prevention (CDC)  
Atlanta, Georgia, USA  
[www.cdc.gov](http://www.cdc.gov)



National Institute for Occupational Safety and Health (NIOSH)  
Atlanta, Georgia, USA  
[www.cdc.gov/niosh](http://www.cdc.gov/niosh)



World Health Organization (WHO)  
Geneva, Switzerland  
[www.who.int](http://www.who.int)



Pan American Health Organization (PAHO)  
Washington, D.C., USA  
[www.paho.org](http://www.paho.org)



International Labour Organization (ILO)  
Geneva, Switzerland  
[www.ilo.org](http://www.ilo.org)



U.S. Department of State  
Washington, D.C., USA  
[www.state.gov](http://www.state.gov)



National Safety Council (NSC)  
Itasca, Illinois, USA  
[www.nsc.org](http://www.nsc.org)



World Bank Global Road Safety Facility  
Washington, D.C., USA  
[www.worldbank.org](http://www.worldbank.org)



# SCIENTIFIC ORGANIZING COMMITTEE

**Sameera M. Al-Tuwaijri, M.D., M.P.H.**  
Director, International Program on Safety and Health at Work and the Environment (SafeWork)  
International Labour Organization  
Geneva, Switzerland

**Matts-Åke Belin**  
Scientist  
Unintentional Injury Prevention  
Department of Violence and Injury Prevention and Disability  
World Health Organization  
Geneva, Switzerland

**Andrew R. Bradley**  
Head of Group Risk Services  
Nestlé SA  
Vevey, Switzerland

**LaMont Byrd, M.S., CIH**  
Director of Safety and Health  
International Brotherhood of Teamsters  
Washington, D.C., USA

**Nancy Carter-Foster**  
Senior Advisor, Health Affairs  
Bureau of Oceans, International Environmental and Scientific Affairs  
U.S. Department of State  
Washington, D.C., USA

**Ed Dubens**  
CEO/President  
Interactive Driving Systems  
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**Marilyn Fingerhut, Ph.D.**  
Coordinator, NIOSH Global Collaborations Program  
Consultant for NIOSH  
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**Jane Hingston, M.A.**  
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**John Kennedy**  
Executive Director for Driver & Roadway Safety  
National Safety Council  
Itasca, Illinois, USA

**Sandra Lee, M.P.H., C.H.E.S.**  
Director, Worldwide Fleet Safety  
Johnson & Johnson  
Manhattan Beach, California, USA

**Will Murray, Ph.D.**  
Research Director  
Interactive Driving Systems  
Nottingham, United Kingdom

**Jim Noble**  
Line of Business Director, Motor Fleet  
Zurich Services Corporation  
Risk Engineering  
Schaumburg, Illinois, USA

**Stephanie Pratt, M.M., M.A.**  
Research Health Scientist  
Division of Safety Research  
National Institute for Occupational Safety and Health  
Morgantown, West Virginia, USA

**Eugênia Maria Silveira Rodrigues, M.D., M.P.H., Ph.D.**  
Regional Advisor on Road Safety  
Sustainable Development and Environmental Health Area  
Pan American Health Organization  
World Health Organization  
Washington, D.C., USA

# FEATURED SPEAKERS



**Max Lum, Ed.D., MPA**

**Associate Director, Office of Health Communication and Global**

Dr. Max Lum is responsible for the NIOSH's initiatives in health communication, media relations and serves as team leader for the international program portfolio of the Institute. Dr. Lum began his government career as a White House Fellow assigned to the Executive Office of the President. In that capacity, he served as a technical writer and community involvement specialist, participating in numerous public and Congressional briefings. Before moving to Washington, D.C., he served with the Agency for Toxic Substances and Disease Registry, Centers for Disease Control, in Atlanta Georgia, as the Director of the Division of Health Education and Promotion, responsible for the Agency's activities in environmental community and health professions education.

Max is a native of Baltimore Maryland, receiving his Bachelors degree from the University of Maryland and a Masters degree in Public Administration and Doctorate in Education from the University of Southern California, where he did academic work in communication practice within the medical education program. Dr. Lum's background includes public health service in Micronesia and West Africa. He currently serves as the founding Chair of the Communications Network of the International Congress on Occupational Health (ICOH), Rome, Italy.



**Christine Branche, Ph.D.**

**Acting Director, National Institute for Occupational Safety and Health**

Dr. Branche began her career at the Centers for Disease Control and Prevention as an Epidemic Intelligence Service Officer in the U.S. Public Health Service in the Division of Injury Epidemiology and Control. Dr. Branche was the Director of the Division of Unintentional Injury Prevention in the National Center for Injury Prevention and Control. She has done extensive work in injury prevention including drowning, water recreation, fire-related injury prevention, motor vehicle-related injury prevention, and sports and recreation. Dr. Branche received her B.A. in biology from the University of Rochester in New York, and her M.S.P.H. and Ph.D. in epidemiology from the University of North Carolina at Chapel Hill. While completing her Ph.D., she worked as an epidemiology research associate at Burroughs Wellcome & Company (now Glaxo Smith Kline) where she gained expertise in pharmaco-epidemiology. Dr. Branche serves on the Fire Council of Underwriters Laboratory and previously served on the advisory boards for the University of Michigan Transportation Research Institute, the International Association of Firefighters, and the Center for Construction Research and Training.



**Etienne Krug, M.D., M.P.H.**

**Director, Department of Injuries & Violence Prevention, World Health Organization**

Dr. Krug has been the Director of the Department of Violence and Injury Prevention and Disability at the World Health Organization in Geneva, Switzerland, since 2000. He has coordinated the development of the WHO's first World Report on Violence and Health and the road safety portion of World Health Day 2004. He chairs the International Organizing Committee for World Conferences on Injury Prevention and Safety Promotion and the United Nations Road Safety Collaboration. Before joining WHO, Dr. Krug was an epidemiologist at the U.S. Centers for Disease Control and Prevention in Atlanta, Georgia, and before that he worked in war-torn countries for Médecins sans Frontières and the United Nations High Commissioner for Refugees. Dr. Krug holds an M.D. from the University of Louvain in Brussels, Belgium, and an M.P.H. from Harvard University.



**Sameera M. Al-Tuwaijri, M.D., M.P.H.**

**Director, International Program on Safety and Health at Work and the Environment (SafeWork), International Labor Organization**

Sameera Al-Tuwaijri, M.D., M.P.H., is the director of the International Program on Safety and Health at Work and the Environment (SafeWork) at the International Labour Organizations (ILO) headquarters in Geneva, Switzerland. Under her leadership, the program has set an international agenda for promoting effective policymaking in the area of workers' health and safety. In 2008, she has been named one of the "50 Most Influential Environmental Health and Safety (EHS) Leaders" by EHS Today.

Prior to her appointment at the ILO, Dr. Al-Tuwaijri served as Regional Advisor on Reproductive Health Policy with the United Nations Population Fund (UNFPA) Country Support Team for Arab States in Amman, Jordan, where she strengthened national capacities to improve the effectiveness of health policy in countries of the region. Before that posting, she worked for other international organizations as a policy advisor on health and development.

Dr. Al-Tuwaijri is an obstetrician-gynecologist with several years of clinical experience practicing in Saudi Arabia. She holds a degree in Health Services Management from George Washington University and a M.P.H. from the Harvard School of Public Health. She has also completed a postdoctoral fellowship at the Johns Hopkins Bloomberg School of Public Health.



**His Excellency, Ambassador Fuad Mubarak Al-Hinai**  
**Ambassador from Oman to the United Nations**

H.E. Mr. Al-Hinai was appointed by His Majesty the Sultan of Oman as the Permanent Representative of the Sultanate of Oman to the United Nations in New York, with the rank of Ambassador Extraordinary and Plenipotentiary in August 1998. Concurrently, Ambassador Al-Hinai is Non-Resident Ambassador to Colombia, Cuba, and Venezuela. Before taking up his present appointment in August 1998, Ambassador Al-Hinai had served since 1994 as Deputy Chief of the International Conferences and Organizations Department in Oman's Ministry of Foreign Affairs. From 1992 - 1994, he was Deputy Chief of the Ministry's Training Department. Ambassador Al-Hinai's diplomatic career includes appointments as Counselor and Charge d'Affaires at the Omani Embassy in Brunei Darussalam from 1986 to 1992 and, from 1983 to 1984, as First Secretary at Oman's Permanent Mission to the United Nations in Geneva. From 1979 to 1982, Ambassador Al-Hinai served as First Secretary at the Oman Embassy in Cairo, Egypt. Ambassador Al-Hinai served as Second Secretary, then First Secretary at the Permanent Mission of Oman to the United Nations from 1974 to 1978. His experience at United Nations Headquarters includes election as Rapporteur of the General Assembly's Third Committee in 1977. In 2001, Ambassador Al-Hinai was elected Chairman of the Third Committee (Social, Cultural and Humanitarian Committee) at the 56th Session of the United Nations General Assembly. A long time runner, Ambassador Al-Hinai ran and finished the New York City Marathon in 2003. Ambassador Al-Hinai was instrumental in bringing to the attention of the International Community the tragic loss of lives in injuries on the roads worldwide and the need of action by the international community to find safer roads and cars. At the 62nd session of the General Assembly, a decision was taken to hold a ministerial meeting to discuss the issue of road safety in Moscow in 2009. Ambassador Al-Hinai is an Honorary Member of the Board of Trustees of the United Nations International School (UNIS).



**Karla González**

**Minister of Public Works and Transport, Republic of Costa Rica**

Karla González is Minister for Public Works and Transport for the Republic of Costa Rica. She is an attorney and former Vice-Minister for Transport. She played a key role in Costa Rica's international award winning seat belt campaign, Por Amor, and has helped to focus attention in Costa Rica on the importance of road infrastructure improvement and design for safety. Ms. González furthered the reform of the present Road Safety Law, which tries to establish effective mechanisms to diminish the mortality rate on roads and provide incentives for schools in Costa Rica to educate future drivers on road safety.



**Sam Smolik**

**Vice President - Health, Safety, Security and Environment, Shell Downstream, Inc.**

Sam Smolik is the Vice President of Global Health, Safety, Security and Environment for Shell Downstream, Inc. He joined Shell in 2004 and began his current assignment in September 2005. Prior to joining Shell, Sam spent 29 years at The Dow Chemical Company in a variety of international manufacturing, research and EH&S assignments.

Sam is actively involved in national and global activities. He currently serves on the Board of Directors for the World Environment Center, the University of Texas Engineering Advisory Board, the National Conservation Programs Committee for Ducks Unlimited, the Coastal Conservation Association development committee and is President of the Antwerp International School Foundation.

He is a graduate of The University of Texas at Austin with a degree in chemical engineering. He also has completed further management training at Michigan State University and Babson College in Boston, Massachusetts. Sam and his wife, Stephanie, live in Houston, Texas and have two grown children.



**Ed Dubens**

**C.E.O./President, Interactive Driving Systems**

Ed Dubens' experience as an 'agent of change' in client organizations includes the implementation of ISO 9000 and total quality management (TQM). His efforts led to the creation of Interactive Driving Systems, which specializes in helping businesses create a holistic approach to their road safety objectives. Interactive Driving Systems now has solutions in over 20 countries. Included in Interactive Driving Systems portfolio of tools is the world's first validated 'proactive' driver risk assessment tool as well as a Management Information System (U.S. Patent) that is able to target training and interventions at the persons most likely to be involved in an organization's next work-related motor vehicle collision..



**Will Murray, Ph.D.**

**Research Director, Interactive Driving Systems**

Will Murray has over 20 years successful experience in the transport, logistics, and fleet sector, helping organizations all over the world to enhance their brand value through improved road safety. Interactive Driving Systems is a leading fleet risk management specialist, undertaking many successful occupational road safety improvement programs with industry, government, and academia around the globe.



**Andrew R. Bradley**  
Head of Group Risk Services, Nestlé SA

Andrew Bradley is the Head of Group Risk Services (GRS) for the Nestlé Group based in Vevey, Switzerland, as well as Chairman of the Group's Safe Driving Committee. Prior to joining Nestlé, Andrew worked with Legal and General Insurance Company and Sedgewick Forbes in the United Kingdom. With Nestlé, Mr. Bradley has introduced centrally driven global insurance programs in a number of lines of business. The risk finance programs have been used as a tool to drive both loss prevention and risk identification. GRS has developed an Enterprise Risk Management and Business Continuity Management Concept for the Nestlé Group. As part of the "safe driving" program within Nestlé, Andrew Bradley, together with his team, has helped introduce web-based driver training tools and, in some countries, telematics, as well as establishing a "tool kit" to assist Nestlé operations around the world.



**Claes Tingvall, Dr. Med. Soc.**  
Director of Traffic Safety, Swedish Road Administration

Claes Tingvall is a Professor and Director of Traffic Safety at the Swedish Road Administration. Dr. Tingvall has held positions related to traffic safety since 1976, and has published mainly in the areas of injury epidemiology, vehicle occupant protection, and design methods for in-depth analyses of accident data collected in the field. Recently, Dr. Tingvall was Director of the Monash University Accident Research Centre, Australia, where he still holds a professorship. Since 2001, Dr. Tingvall has been the Director of Traffic Safety in Sweden. Since 2004, Dr. Tingvall has also been Chairman of the European New Car Assessment Programme (Euro NCAP).

# POSTER ABSTRACTS

## 1. Reducing Traffic Speed within Open Road Work Sites Using Obtrusive Perceptual Countermeasures

*Jesse A. Allpress, Louis S. Leland, Jr., University of Otago, New Zealand*

Excessive speed is currently the primary contributory factor in traffic accidents within New Zealand roadwork sites. The present study evaluated two novel interventions designed to control traffic speed within a roadwork site where drivers were required to decrease their speed from 100km/h to 50km/h. Drivers were required to pass through a passage of either evenly or decreasingly spaced cones. A multi-element baseline design was utilised. Both interventions were highly effective at reducing vehicle speed, with the greatest initial decrease in speed to 9.46km/h below Baseline for the Uneven arrangement. Both arrangements more than halved the proportion of 'dangerous' speeders travelling faster than 20km/h over the speed limit. It was concluded that either arrangement is likely to significantly, conveniently and cost effectively reduce the number of speed-related accidents within roadwork zones. The findings are discussed in relation to the perceptual mechanisms by which transverse and peripheral stimuli influence speed perception and driver behaviour.

Behaviour Analysis is a way of formulating and testing solutions to workplace challenges. Speeding was causing danger to workers and destruction to vulnerable roadworks in progress. Using a combination of 'single subject' multielement baseline design and scientific knowledge of perception we tested two cost effective solutions to such a challenge.

## 2. Hazards of the Highways: A Behavior-based Safety Intervention for New Zealand Truck Drivers

*Rebecca Everdon, University of Otago, New Zealand*

Trucking is a hazardous profession and drivers are particularly at risk, given their lone-worker status. Building upon driver input, we have designed a behavior-based safety intervention for New Zealand truck drivers. We expect this ongoing research to demonstrate an increase in safer driver behaviors ultimately resulting in fewer crashes, reduced injuries, and a decrease in social costs and in compensation expenses for the New Zealand government.



### 3. Avoiding Equipment-related Injuries in Work Zones

*Jennifer Beaupre*, National Institute for Occupational Safety and Health, United States

Between 1992 and 1998, the Census of Fatal Occupational Injuries (CFOI) reported 841 fatalities in the highway and street construction industry. The majority of fatalities occurred in work zones, with 95% involving vehicles and equipment, 38% of these fatalities involved a worker on foot being struck by a vehicle or equipment. The objective of this study is to evaluate the efficacy of proximity warning systems (PWS) and internal traffic control plans (ITCP) in reducing worker on foot exposure to vehicles and equipment at asphalt paving operations.

### 4. Drive Safely, Your Family Needs You

*Emmanuel Ansah*, AngloGold Ashanti Ltd., Ghana

A scenario of two drivers who work for a company

Picture 1 depicts an unsafe driver who thinks taking alcohol before driving makes him alert behind the wheel. Because he was under the influence of alcohol, he takes off without doing any prestart inspection and hits the road speeding unnecessarily. He is involved in an accident, dies, and leaves his family stranded. The picture shows his family mourning at the scene of the accident

Picture 2 depicts a driver who has a positive attitude toward safety and his work. He does a prestart inspection before setting off. He drives within the speed limits, taking into account the road and weather conditions. He arrives home to a joyous welcome from his family.

### 5. Emerging Markets in Road Safety Policies: Insurance Policies for Road Users in Developing Countries

*Tomukum Chia, Numfor Jackson, and Remigius Funwie*, Global Centre for Compliance, Hazards and Disaster Management, Office of Disaster Preparedness, Outer Space Application and Emergency Response, GLOCE-COHADIM, Cameroon

Road accidents constitute major threats and are quite intimidating in the developing countries and remain one of the uncertainties and tragedies confronting mankind. The magnitude and trend worldwide is no better. Man has become a driver of change through civilization and progress but the change is affecting mankind negatively. Regulations, policies and accidents including car theft situation has created a favorable situation for navigation, telemetric services, car tracking systems for security, traffic congestion and road safety. There are gaps in road safety research and hindrances. Management in road traffic accidents is another problem.



The paper seeks to examine the scope of road accidents by analyzing the situation of road safety and insurance policies in Central and West Africa with the case and practice in Cameroon and Nigeria. It would involve the role of decision makers, road users, technical advisers, evaluation, engineering services, construction, management, inspection, repairs, emergency clearance of debris for reconnaissance of the damage areas and passage of emergency personnel and supplies. Focus would be on heavy duty vehicles. The concepts of operation involves SSA to provide public work and support that will assist emerging markets in road safety policies and insurance in life saving and life protecting support needs prior to, during and immediately after a major accident. Recent road accidents have demonstrated that good progress is made in saving lives and reducing injuries because of good safety policies and planning. However, the economic and financial risk reduction has been less than desirable. There is an urgent need for a more dynamic and integrating insurance policies for all road users. The magnitude and trends is heart-breaking and has continued to outstrip all efforts and standard policies to curtail it. Planning is essential for road safety strategy and involves coordination, funding, crash data system, traffic law enforcement and road safety engineering. The components of road safety planning are based on target and performance indicators. Initially two concepts are practice: the Vulture and Eagle concepts-One is proactive allowing for appropriate forecasting and use of space application whereas the other is not.

#### **6. Road Traffic Safety: A Big Challenge in the Developing World A Uganda (East Africa) Case Study**

*Ronald Ssebunya*, National Road Safety Concern, Uganda

Africa's road fatality share is three times as large as its motor vehicle share. The road fatality toll has grown by over a quarter in most African countries over the past seven years. Efforts to prioritize road safety by African governments have to be stepped up.

#### **7. The Health and Safety of Transport Workers in the European Union: Findings of the European Agency for Safety and Health at Work (EU-OSHA)**

*Sarah Copsey, Elke Schneider, Xabier Irastorza, Véronique de Broeck, Marthe Verjans*, European Agency for Safety and Health at Work (EU-OSHA)

Our poster presents first findings from the EU-OSHA risk observatory regarding conditions of work and exposures of transport workers to hazards and their health outcomes. Also included are details of on-going projects to collect and disseminate examples of good practice to prevent risks to workers in the road transport sector, from both intermediate and workplace levels. Note: The complementary poster presentation of Seppo Olkkonen, Finnish Institute of Occupational Health, will present some examples from Finland of the above-mentioned good practice.



#### 8. Successful OSH and Safety Interventions of Road Haulage Drivers in Transport Companies\*

*Paula Kärmeniemi, Jari Stengård, Seppo Olkkonen, Riia-Liisa Pulkkinen, and Aira Ylä-Outinen, The Finnish Institute of Occupational Health*

The Finnish system aims to create collaboration between employers and occupational health service providers or other experts in order to promote the health, safety, and well-being of employees. We briefly present the Finnish Occupational Health Care System and give three examples of good practice in its implementation in middle-sized transport companies: (1) A Driver's Manual, delivered to all company drivers, (2) an Operational Online Management System and (3) a Faultless Condition for Truck Drivers Project.

\*The intervention cases include the TCWE WP 2008 Good Safety and Health in Road Transport Sector Program, to be published later in 2009 [http://fi.osha.europa.eu/good\\_practice](http://fi.osha.europa.eu/good_practice)

#### 9. Traffic Deaths at Work in Finland 2001-2005

*Seppo Olkkonen, Simo Salminen, Paula Kärmeniemi, Finnish Institute of Occupational Health*

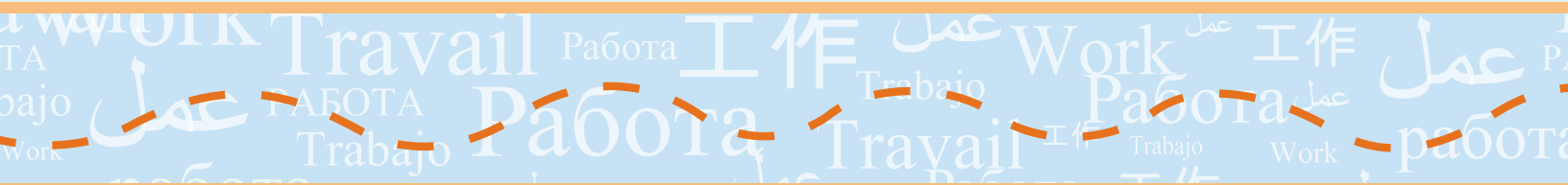
*Esa Rätty, Traffic Safety Committee of Insurance Companies, Finland*

Our poster presents a review of the national statistics and analysis concerning fatal traffic accidents among professional drivers and work-related traffic accidents. Traffic is a significant cause of accidental deaths at work: work-related road crashes caused 28.5% of traffic deaths in Finland in 2001-2005. We describe the risk factors of these accidents and the interventions for improving companies' personnel traffic safety.

#### 10. Safe and Healthy Professional Drivers-Recommendations for Occupational Health Care Services

*Aira Ylä-Outinen, Paula Kärmeniemi, Jaana Laitinen, Jari Latvala, Seppo Olkkonen and Markku Saino, The Finnish Institute of Occupational Health*

We present the new content and model of the occupational health care guide prepared by FIOH in 2007-2008 for professional drivers' occupational health care units. Attention should be paid to the first, however slight, signs of cardiovascular disease risk factors, as well as alertness and sleep disorders, as these demand early intervention. Improving the lifestyle of professional drivers involves addressing issues such as exercise, smoking, healthy meals, alcohol consumption, and sleep debt.



### 11. Prevalence of Non-Standard Safety Helmet Use among Food Delivery Workers in Malaysia

*Kulanthayan K.C. Mani*, University Putra Malaysia, Malaysia

In Malaysia, nearly 50% of all vehicles on road are motorcycles. In 2007, Police reported 6282 traffic fatalities and 51% of them were motorcyclists. 65% of reported serious injuries were related to head injuries. This study aims to determine factors influencing the use of standard or non-standard helmets among food delivery workers.

### 12. Evaluating the Effectiveness of Guidance on the Management of Work-related Road Risk-an Initiative by Great Britain's Department for Transport

*Britta Lang*, Transport Research Laboratory, United Kingdom

The poster summarizes the development and evaluation of the Work-Related Road Safety (WRRS) CD-ROM, a guidance resource aimed at managers with responsibilities for staff driving for work.

Qualitative and quantitative data collected across all hierarchy levels of the participating 37 public and private sector organizations in a pre-/post longitudinal design indicated improvements in WRRS-related policies, greater awareness for WRRS in managers and drivers and some safer driving-related attitudes and behaviors at trial end. Lack of support from senior management, lack of resources and of dedicated staff were cited most frequently as reasons for the lack of improvement in management systems and safety culture.

Recommendations resulting from the trial comprise the inclusion of work-related road accidents in the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) and the development of targeted communication programs for small private and large public sector organizations to encourage further adoption of good practice.

### 13. Increasing Road Worker Safety in The Netherlands

*Anita Venema*, TNO Work and Employment, The Netherlands

*Berend Brinkhuis*, Van den Berg Infrastructures, The Netherlands

During 2006 and 2007, a study was performed in The Netherlands in order to better understand the crash risk for road construction workers during road works. The study aimed both at the magnitude of the problem and at clarification of accident causation. An accident model was developed during the study; accident data were studied, and road workers were questioned and observed during actual road works. Results and conclusion will be presented as well as some preventive actions that were taken after the study.



## 14. Road Safety at Work Data in The Netherlands

Anita Venema and Maartje Bakhuys Roozeboom, TNO Work and Employment, The Netherlands

A description is given on available databases in The Netherlands with regard to traffic-related work accidents and injuries. Traffic-related work accidents are not always fully included in these databases, depending on whether it was known that the victim was working at the time of the accident. An overview is given of the characteristics of the worker and the work involved in traffic-related accidents. The most important risk factors for traffic-related work accidents are presented.

## 15. Using Crash Outcomes Data Evaluation System (CODES) to Analyze Work-related Motor Vehicle Crashes

Steven M. Thygeson, Brigham Young University, United States

This poster will present current research conducted using probabilistic record linkage databases. The Crash Outcomes Data Evaluation System (CODES) has not only demonstrated the feasibility of probabilistic record linkage using large, statewide databases, but also quantified the risk of not wearing a seatbelt as it pertains to being treated by emergency medical services, treated at the emergency department, admitted to a hospital, and killed as a result of a motor vehicle crash.

## 16. A Review of Fatigue Risk Management Systems and their potential for managing fatigue within the UK Road Transport Industry

*Carina Fourie, Alexandra Holmes, and Paul Jackson*, Clockwork Research Ltd.

In 2008, the UK Department for Transport (DfT) commissioned an international study to explore researchers', operators' and regulators' experiences of Fatigue Risk Management Systems (FRMS) in the transportation industry. The research consisted of a literature review, a survey and in-depth interviews with individuals and organisations with experience of FRMS. Overall, the research concluded that FRMS, as an addition to prescriptive limits on driving and work hours, has the potential to meaningfully enhance protection against fatigue risk in road transport. The reported advantages of FRMS included enhanced safety, increased operational flexibility and increased awareness of fatigue as a source of impairment. Among the reported problems associated with FRMS were a lack of guidance material provided by the regulator and the challenge of moving from a prescriptive to an outcomes-based approach. Of note, several regulators and researchers from Australia commented that the recent introduction of chain of responsibility legislation, which extends the liability for driver fatigue and other offences up the supply chain, will be integral to effective fatigue management in their country. Initial consultations with UK road transport operators and unions found support for FRMS, with some operators volunteering to be involved in future FRMS research. The final report provided a number of recommendations, including initiating research on FRMS in the UK. Consequently, in 2009 a sample of road transport operators will be invited to trial FRMS and an objective assessment of the benefits and disadvantages for safety and productivity will be undertaken.

# PLEDGES FOR ACTION TO IMPROVE ROAD SAFETY FOR WORKERS

The organizers and co-sponsors of the International Conference on Road Safety at Work hope that conference delegates will undertake a wide range of actions toward improving road safety for workers after they return to their home countries and organizations. The list below offers some ideas. Because conference delegates represent many types of organizations, not all these ideas will be appropriate for everyone. It is our hope, however, that all who have participated in the conference are encouraged to consider new strategies to make roads a safer place to work.

- Drive less in 2009 to reduce crash risk, save fuel, and protect the environment.
- Put in place a regular program of data collection so that my organization's road safety performance can be monitored over time.
- Encourage senior managers to support and champion road safety programs.
- Review my organization's fleet safety policy.
- Focus on improving driver attitudes, behaviors, and skills.
- Improve direct communications to drivers on worker safety and health issues.
- Begin license history checks using information from our government's driver and vehicle licensing agency.
- Implement a driver risk assessment program.
- Engage our motor fleet insurer as a partner in developing strategies to reduce road risk.
- Fully implement road safety interventions in our organization, and make sure that we are collecting the data needed to evaluate the effectiveness of these interventions.
- Take advantage of opportunities to collaborate with other organizations on research projects that will test the effectiveness of road safety interventions in the workplace.
- Work with government agencies such as law enforcement and regulatory agencies to develop policies that will promote safety of workers who drive while doing their jobs.
- Support and promote government initiatives to promote road safety for all - these initiatives will also make roads safer for workers.
- Purchase the safest fleet vehicles available, and encourage vehicle manufacturers to include more safety features.

Based on what I have learned at the conference, I pledge to:

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We will follow up in 1 month, 6 months, and 12 months by email to check on progress.



## Floor Plans

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