



road research

*The Newsletter of the Road Traffic Injuries
Research Network*

Road Traffic Injuries in Children MESSAGE FROM THE RTIRN BOARD!

Dear Colleagues,

Greetings! It is a great pleasure to introduce this newsletter of RTIRN focusing on road traffic injuries in children as the new Chair of RTIRN. I hope that this smooth transition from Professor Robyn Norton is a testimony to the success and strength of RTIRN's internal management processes and support of partners. I would like to profusely thank Robyn for her leadership and would like to announce her appointment as RTIRN's first "Chair Emeritus". And I hope to lead this Network together with all of you to work harder in promoting research and investments for road traffic injuries in low and middle income countries.



Road traffic injuries in children (defined by the United Nations as individuals who have not reached their 18th birthday) are a critical public health challenge globally. Unfortunately, irrespective of how you measure it, the rates of death, injuries and disability from road traffic injuries are very high in this age group; in fact WHO reports that 950,000 children die each year. As a result, focusing attention on road traffic injuries in our youngest citizens is important to promote investments for research and action.

In December 2008 WHO and UNICEF released the World Report on Child Injury Prevention. The report has a wealth of data not only on road traffic deaths and injuries in each but on other injuries that affected children. RTIRN congratulates WHO, especially Dr. Margie Peden (RTIRN Board member from WHO), and many other partners for contributing to this outstanding report and encourages all partners to study and use it for their work.

Thanks to the Global Road Safety Facility of the World Bank, RTIRN has the resources to strengthen capacity development in road traffic injury research around the world. RTIRN conducted its fourth capacity development workshop in Accra, Ghana on 02 December 2009 hosted by the Building & Road Research Institute of the Council for Scientific and Industrial Research Ghana. RTIRN partner Dr. Francis Afukaar helped organize this meeting which successfully transferred knowledge to over 40 participants.

This and other information is available on our website – and I hope that you have been visiting – www.rtirn.net – and especially the 'online forum' which offers the opportunity for us to discuss issues, ask questions and share our experience with colleagues from around the world.

Happy Holidays!

*Adnan A. Hyder, MD MPH PhD
Chair, RTIRN*

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MESSAGE FROM NEW RTIRN SECRETARIAT

Dear Partners,

We at the Entornos Foundation and the National Institute of Public Health (INSP) in Mexico are honored to have the opportunity of hosting the Road Traffic Injuries Research Network (RTIRN) Secretariat for next two years. We would like to thank all Board members for giving us this opportunity.



Entornos is an autonomous non-profit organization, created in 2006 by well-recognized academics under the leadership of Dr. Martha Híjar-Medina and Dr. Luis Solórzano-Flores current General Executive Manager (<http://www.fundacionentornos.org/eng/index.php>). Its mission is “to identify and propose, through research, solutions to major health problems generated by the urban growth; translating results of studies into better practices, healthier policies and in the increasing of resources destined to the planning of safer and harmonic environments”. Academics working at Entornos want to share the experience gained in public and research institutions; join efforts with national and international philanthropic organizations and contribute to confront the consequences that urban growth is having over the population’s health.

We believe that the combination of efforts, capacities and infrastructure with the INSP would synergy our work to contribute to the accomplishment of mission and objectives of the Network.

We would like to recognize the excellent work that last Secretariat team under the leadership of Dr. Junaid Razzak, has performed. Their work and professionalism gives us an incentive to do all our best in this next term. We wish them all the best in the future.

We have a lot of challenges to face in the future. As part of an effort to maintain and increase affiliation of RTIRN, the Network is committed to breaking down the language barrier to increase access to its information for non-English speaking partners. Board members and Secretariat are committed to translate our newsletter, webpage and other relevant information to other languages. Partners are also invited to join us in this task; so many other interested people could be benefited. In addition, future efforts of the RTIRN Secretariat would try to facilitate that all members know the other members in terms of research interests, experience, training skills as well as to promote academic discussions and stimulate academic feedback at all levels.

We would be happy to receive your feedback and support.

Ricardo Perez-Nunez

RTIRN Secretary

NEW RTIRN EXECUTIVE MEMBERS

As of December 31, 2009, Dr. Robyn Norton has stepped down as RTIRN Chair upon completion of her term and has been selected by the RTIRN Board members for the honorary position of Chair Emeritus. With effect from January 01, 2010 Dr. Adnan A. Hyder, previous RTIRN Vice Chair, has been selected as the new RTIRN Chair in accordance with the RTIRN Rules and Regulations which state that “The Vice Chair is the designated ‘Chair Elect’ and takes over as the Chair at the end of the Chair’s term.” Dr. Olive Kobusingye, RTIRN Board member, with effect from January 01, 2010, has been selected by the Board members as the new RTIRN Vice Chair.

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Dr. Hamid Soori

Iran



Dr. Soori is a Professor of Epidemiology and Director of Safety Promotion and Injury Prevention Research Center in Tehran- Iran. He has 10 years experience as a Public Health Expert in the Ministry of Health of Iran and 20 years Academic experience in Iran as a Senior Lecturer and Researcher. He is a member of the editorial board for four scientific journals and Chair of research and ethical committees for the University of Shahid Beheshti (M.C), Iran. He has been the Research Director of the National Research Center of Medical Sciences of Iran from 2003 to 2005.

He has been the principal or co-investigator of over 30 research projects and published 70 international and national scientific papers in peer-reviewed journals, mainly in the field of road traffic injury prevention. Dr. Soori got his MPH in 1986 and was awarded PhD in Epidemiology in 1996 from the University of Newcastle Upon Tyne, UK.

He has been the Head of the Department of Epidemiology since 2006 and the Research Manager of the Shahid Beheshti Medical Sciences University since 2005. In 2001, he was awarded as the top most researcher in his country. He has written and translated 10 books on injury prevention and other relevant topics related to research methodology and epidemiology. Since 2008, he has been invited and worked as a Temporary Advisor at World Health Organization (WHO), Department of Violence and Injury Prevention and Disability, participating in the development of Global and Regional WHO publications.

Dr. Rebecca Ivers

Australia



Dr. Rebecca Ivers has been working in injury research for nearly 15 years and is currently Director of the Injury Division at the George Institute for International Health, and Associate Professor in the Sydney School of Public Health, The University of Sydney.

Her research program is centered on injury prevention, with a strong focus on prevention of road traffic injury. She is involved in a range of research studies in a diverse range of areas including child restraints, novice drivers, indigenous road injury, heavy vehicle crashes and motorcycle safety (including helmets and the effectiveness of protective clothing) in Australia as well as projects aimed at preventing injury in China, India and Vietnam. These include a trial of novice driver training and education in China, observational work on the cost of injuries in Vietnam and studies on burden and risk factors for various injuries in India. She also focuses on building research capacity and supervises PhD students from Australia, Taiwan, India and Vietnam.

She has a keen interest in working with colleagues from low and middle income countries on translation of known effective interventions for road safety into such settings, as well as working together to find new and appropriate ways to address the myriad issues faced in prevention of road traffic injury.



Shanthi Ameratunga is Professor in Epidemiology, and formerly, Director of the Injury Prevention Research Centre, at the School of Population Health, University of Auckland, New Zealand. Following her early education in Sri Lanka, Shanthi trained in pediatrics and public health at the University of Auckland and Johns Hopkins University, USA.

Over the past 15 years, she has developed a multi-disciplinary research program focusing on road traffic injuries and injury-related disability. Her research collaborations have identified important risk factors and disabling consequences of road crashes in New Zealand, Sri Lanka, and the Pacific Islands. She has employed her experience conducting epidemiological studies and health services research to identify opportunities to address inequalities in health, particularly those patterned along socio-economic lines.

The author of over 100 refereed publications, Shanthi has led several research initiatives funded by external grants. She currently directs the Traffic-Related In the Pacific (TRIP) Project funded by The Wellcome Trust and the Health Research Council of New Zealand. She has served on several research advisory boards and is an Associate Editor of Injury Prevention (BMJ Publishing Group). Over the years she has supervised postgraduate students from many parts of the world, a role she enjoys immensely given the rich opportunities for mutual learning. Shanthi has supported the vision and ideals of the RTIRN since its inception. She is delighted to serve on the Board and work with partners to meet the goals of the Network.

For the latest information about RTIRN, updates on RTIRN events, announcements for upcoming RTIRN activities and to become a partner of the network, please visit our website at www.rtirn.net.

RTIRN REGIONAL WORKSHOP: PREVENTION OF MOTORCYCLE INJURIES IN AFRICA

The RTIRN Regional Workshop on the “Prevention of Motorcycle Injuries in Africa” was held on December 02, 2009 at Alisa Hotel in Accra, Ghana. It was jointly organized by the Building and Road Research Institute (BRRI) of the Council for Scientific and Industrial Research (CSIR), Ghana, and the Road Traffic Injuries Research Network (RTIRN) with funding support from the Global Road Safety Facility of the World Bank.



The workshop aimed at creating awareness on the global burden and risk factors associated with motorcycle injuries as well as to equip local and national participants with road safety knowledge and research skills in the prevention of motorcycle injuries. About 40 participants attended the regional workshop. The workshop was conducted in English with a parallel interpretation in French for the francophones.

Most of the presentations were delivered by RTIRN Board members and to bring the workshop in focus, Professor Robyn Norton, RTIRN Board Chairperson presented the overview of the workshop objectives and expectations, highlighting the strategic importance of research and collaborations to address the burden of road traffic injuries in low and middle income countries (LMICs). The challenges in addressing motorcycle injuries in Africa were presented by Olive Kobusingye whilst Wilson Odero and Francis Afukaar presented the different perspectives from Kenya (East Africa) and Ghana (West Africa), respectively.



Dr. A.B. Salifu, Director General of CSIR, Ghana, chaired the opening session whilst Dr. Phyllis Antwi, Public Health Specialist from Ghana Health Service, gave the opening address. The scientific sessions provided the opportunity for interactive discussions between speakers and participants and networking among researchers working in different fields in road safety in Ghana and in Francophone West Africa.

PARTNER CONTRIBUTIONS

Road traffic fatalities among children in Ghana

Ackaah Williams, Building and Road Research Institute, Kumasi, Ghana



Road Traffic Crashes (RTCs) have been identified to be one of the major causes of death in children (≤ 15 years) in Ghana. Over a five year period from 2004-2008, a total of 9,807 people were killed in road traffic crashes in Ghana of which 19% were children and majority (79%) of the children who died from these crashes were pedestrians.



Speed hump in a built-up area to calm down traffic

The child pedestrian alone constituted 34% of all pedestrian fatalities. It has been established that 76% of the children were hit mostly at the near side of the road while crossing the road. A very high number (57%) of child pedestrian deaths occurred at sections of the highways passing through village settlements as against 37% in the urban areas.

The children involved were generally more likely to be boys (54%) than girls (46%). Traffic calming measures have been provided on focus roads and highways to slow down vehicles in the built-up areas.

The National Road Safety Commission (NRSC) in collaboration with the Ghana Education Service (GES) has also been organizing workshops in first cycle schools to raise awareness among teachers, parents and pupils. Efforts are being made to incorporate road safety lessons into the basic education.



Demonstration of safe road crossing in a school program

For further information, please contact Ackaah Williams at ackaahwillie@yahoo.com

Make the RTIRN newsletter your own!!

- Have news of road traffic injuries research in your region?
- Intervention projects?
- Upcoming events or new publications?

Share it with us at the following address: administrator@rtirn.net

Safety of children riding in vehicles in Nigeria – time for action

Adesola O. Sangowawa, Institute of Child Health, Ibadan, Nigeria



Studies have shown that having children ride in the back seat and properly restrained reduces their likelihood of sustaining severe injuries or dying, if a crash occurs. Hence, many countries have laws that mandate child passengers to be restrained in age-appropriate seats and some have laws making it compulsory for children to sit in the rear seat if one is available.



A child restrained with adult seatbelt

Currently, there is no law in Nigeria mandating children to use age-appropriate restraints when riding in vehicles. Children often sit in the front, unrestrained or inappropriately restrained with adult seatbelts. Anecdotal reports have revealed that many parents are not aware of the importance of age-appropriate child seats. Child seats are quite expensive (about N 12,000 (USD 80) to more than N 35,000 (USD 233.33) [1 US Dollar: 150 Nigerian Naira] and are not always readily available.

An observational study conducted in the Ibadan metropolis, South Western Nigeria found that about 28% of children (about 0 – 13 years) would sit in front, fewer children were restrained and most of them inappropriately restrained with adult belts.



A child in age-appropriate child seat

A multi-faceted approach is necessary to address this problem. Parents need to be educated about the risk that children sitting in front and unrestrained or improperly restrained are exposed to. Age-appropriate child restraints should be subsidized and made readily available. Finally, legislation and enforcement of this legislation are essential to ensure compliance and safety of all child passengers

For further information, please contact Adesola O. Sangowawa at daisyolu@yahoo.co.uk

Road injuries in children in Argentina: Contributions of the different sources from official data

Andrea Perinetti and Clotilde Ubeda, National Institute of Epidemiology, Argentina



Injuries by external causes constitute the first cause of mortality in minors of 15 years, and road injuries are the first cause in children of 5 to 15 years. The rate of mortality has shown a great diminution from 1997 and it stays stable to date (2.5 per 100.000 children).



Recreational vehicle without child safety devices

We have identified certain factors related to age, location of home and socioeconomic level which place the minors at increased risk of having road injuries. The entrance and exit points of school, use of recreational vehicles without appropriate safety devices during vacations, children who play in the street without any supervision and children who work.

The official registries of morbidity and mortality do not register the different risk situations. Injuries surveillance systems are useful to identify risk factors in this vulnerable population. In Argentina, SIVILE started working from 2004. It is based on sentinel units who collect the information. The report and the analysis are done by a Web-based system. This strategy complements the morbidity

and mortality registries in terms of contributing specific information as place of event (home, school, street), socioeconomic level, circumstances of the event, use of safety devices, nature and severity of injury, description of event, among others.

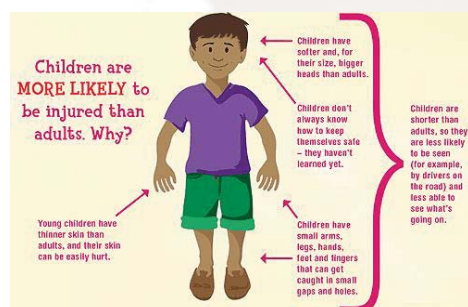
For further information, please contact Andrea Perinetti at andreaperinetti@yahoo.com.ar

Road traffic injury among children in India

Dr. Bhawna Gupta, India



India is home to nearly 500 million young people among whom children less than 15 years are 37% (370 million). A recent national review on burden of injuries in India revealed that, nearly 8.2% of deaths and 20-25% of hospitalizations occur among children.



The outcome from injuries is significant since it occurs in the younger age, thereby affecting long-term growth and development of children. Nonetheless, the socioeconomic hardships and psychosocial disabilities are huge and largely unmeasured.

The burden of road traffic injuries in India is not clearly known because of incomplete death registration and limitations in the availability and reliability of incidence data. In India, it is yet to be accepted that accidental deaths can be measured, predicted

and thereafter prevented by planning and implementing various injury prevention systems.

There is a need to adopt 'Haddon matrix' (multiple strategies for before, during, and after an injury event) supplemented by multifaceted, interdisciplinary approach to influence policy and legislation, changing organizational practices, fostering coalitions and networks, promoting community education, strengthening individual knowledge and skills.

To conclude, further qualitative and quantitative work is needed for the development of context-specific and culturally acceptable interventions and policies to reduce burden of injury among children.

For further information, please contact Dr. Bhawna Gupta at bhawna1974@gmail.com

Road traffic injuries among children in eThekweni Municipality, South Africa

Michelle Hobday & Nisha Nadesan-Reddy, University of KwaZulu-Natal, South Africa



In recent years, increasing disquiet has arisen concerning the high proportion of injuries and fatalities of pedestrians involved in motor vehicle collisions in South Africa. It is a major concern for the transport authorities. The city of eThekweni, situated on the east coast of South Africa in the KwaZulu-Natal province, has a population of 3 million people and is classified as a developing economy.

The eThekweni Transport Authority (ETA) collects data about road traffic collisions using information from Accident Report Forms completed by police officers. The Public Health Medicine of the University of KwaZulu-Natal has collaborated with the ETA to investigate this important Public Health issue.

In 2007, male pedestrians aged 5 to 9 were at the highest risk of injury, more than 1.6 times that of other male pedestrians. This group also had the highest fatality risk which is double compared to the male child pedestrians of other age groups. Male drivers had nearly five times the risk of involvement in child pedestrian collisions compared to females. The highest proportion of fatal child pedestrian collisions involved buses and trucks.

ETA has developed interventions including education programs and has instituted traffic calming in the form of speed bumps outside schools. A recent study investigated the effectiveness of the latter intervention, comparing the number of collisions and injuries in children two years before and after the intervention. Roads next to the schools without the speed bumps have been used as controls. Data collected is currently being analyzed and will be reported at a later stage.

For further information, please contact Michelle Hobday at mbhobday@gmail.com

Child pedestrian safety interventions in South Africa

Najuwa Arendse, South African Medical Research Council, South Africa



In South Africa, the leading cause of non-natural or injury death amongst children up to 15 years of age is related to pedestrian injury. Here many dangerous road sites remain poorly maintained, increasing children's risk for injury as vulnerable road users. Other important risk factors for children are increase use of motor vehicle, use of improperly maintained vehicles, slippery roads, and inappropriate use of shorter routes across roads or highways to reach home to or from school.



Inappropriate use of shorter routes across roads

Despite national recognition of the child pedestrian injury and death burden, prevention strategies associated with road traffic injuries remain a public health issue. In this study, the status of child pedestrian safety interventions, both abroad and within South Africa, have been explored to evaluate the extent of child pedestrian injuries and deaths; to identify effective child pedestrian safety interventions and their suitability for implementation in South Africa. An in-depth search across all electronic databases for descriptive and evaluative

documentation on local road safety interventions was conducted.

This study reports on interventions to reduce child pedestrian death and improved pedestrian road safety behavior. Examples of effective interventions are: Child Pedestrian Injury Prevention Project, red-light cameras, curriculum-based educational interventions, and the Eldorado Park Project. Findings were significant and recommendations have been made. All results and discussion are communicated in the Crime, Violence and Injury Review Chapter named, 'Child pedestrian injury prevention responses: Towards prevention priorities for South Africa'. This chapter is currently under review.

For further information, please contact Najuwa Arendse at Najuwa.arendse@mrc.ac.za

Have you registered for the New RTIRN Online Forum?

The new forum enables RTIRN Partners to communicate more effectively, participate in online discussions and stay updated with current network activities.

Please visit www.rtirn.net/forum to register today!

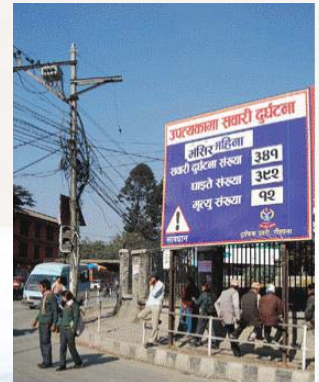


Road traffic injuries among children and young people in Nepal

Puspa Raj Pant, University of the West of England, Bristol, UK

Nepal has yet to establish an injury surveillance system and to recognize injury as a public health problem. There is a lack of studies on child injuries. However, other sources of information such as newspaper can give some insight into the scale of the problem.

New reports about accidents frequent in the Nepalese media. There were reports of about 200 injuries among school children resulting from school-bus accidents in 4 events which took place in the 12 months period in different parts of the country excluding many other accidents with injuries smaller in number. A study conducted among the teenagers in schools of Kathmandu found that road traffic related deaths are increasing by 4% per year in past two decades in the capital Kathmandu.



Traffic Police - Billboard caption
Traffic Accident in Kathmandu valley from
Nov 15 – Dec 15 2009
Total accidents: 341; Injuries: 392; Deaths: 12

Almost all hospital-based studies conducted in Nepal have found that road traffic injuries are the leading cause of hospital admissions. One-third of the emergency department cases in two hospitals of eastern Nepal who suffered road traffic accidents were below the age of 20 years. Although, clear-cut measure of RTI among children is not available in Nepal, there should also be attention on designing appropriate prevention initiatives urgently.

For further information, please contact Pusparaj Pant at Pant.Puspa@gmail.com

New RTIRN Partners!

We welcome the new partners who have recently joined RTIRN:

- Australia:** Kerry Armstrong
- Cameroon:** Missimikim Martial
- Congo:** Tshienda Muana
- Ghana:** Victor Owusu, Jack Lewis, Daniel Atuah, May Obiri-Yeboah, David Adonteng, C.W.Musah, George Ashue, Ampadu Emmanuel, Isaac Kofi Yankson, Daniel Avorga, Abdullah Billeh, Joseah Addison, Patience Onny, Magnus Quarshie, Phyllis Antwi, Kobby Amoah-Mensah, Deborah Addison Campbell, Alhaj Saaka Dumba, Cheetam Bartels, Mark Amoamah, Kissah Korsahk, Williams Aguemag, Appul Kubi, Esther Achiaa, A.B.Salifa, Eugene Atiemo, Diokson Badu-Tawia, Bernana Arthur, Nana Yaw Cobbina, Prosper Agbenyega, Christian Ahodie, Eunice Asante, Peter Paul Asante, Ben Aianah, Simon Sika, Thomas Amoabeng, Yeboah Asante, Osei Oxlugu Frank, Adam Hyder, Patricia Sefer Fisher, Evelyn Osafo, Beatrice Dede Asiedu
- India:** Sumit Malhotra
- Iran :** Roksana Mirkazemi, Medhi Fallah Tafti, Elaheh Ainy, Hamidreza Hatamabadi, Iranfar Manijeh, Soad Mahfoozpour, Saeid Pour Doulati
- Kenya:** Geoffrey Maina
- Nigeria:** Olusegun Ogungbemide, Olamide Olawepo
- Norway:** Hallvard Gjerde
- Pakistan:** Shahzad Ali Khan, Najia Ali
- Peru:** Luis Huicho
- Sudan :** Nathan Atem
- Togo:** Kolou Dassa

List of Latest publications:

- Dandona R., Anil Kumar G., Ameratunga S., Dandona L., (2009), Road use pattern and risk factors for non-fatal road traffic injuries among children in urban India., *Injury* (Available online, in press)
- Donroe J., Gilman R.H., Brugge D., Mwamburi M., Moore D.A., (2009), Falls, poisonings, burns, and road traffic injuries in urban Peruvian children and adolescents: a community based study., *Injury Prevention* Vol. 15 No. 6, pp. 390-6
- Fatmi Z., Kazi A., Hadden W.C., Bhutta Z.A., Razzak J.A., Pappas G., (2009), Incidence and pattern of unintentional injuries and resulting disability among children under 5 years of age: results of the National Health Survey of Pakistan., *Paediatric and Perinatal Epidemiology*, Vol.23 No.3, pp.229-38
- Gill M., Goldacre M.J., (2009) Seasonal variation in hospital admission for road traffic injuries in England: analysis of hospital statistics., *Injury Prevention* Vol. 15 No. 6, pp. 374-8
- Jaung M.S., Yu S., Stallones L., Xiang H., (2009), Road traffic injuries among middle school students in a rural area of China., *Traffic Injury Prevention*, Vol.10 No.3, pp.243-51
- Mashta O., (2009), Children in deprived areas at most risk of road injuries, *British Medical Journal* Oct 26;339:b4397. doi: 10.1136/bmj.b4397.

Save the dates!!

February 22-24, 2010, Stratford-upon-Avon, United Kingdom

RoSPA - 75th Road Safety Congress 2010

www.rospa.com/road/index.htm

March 22-24, 2010 - Abu Dhabi, United Arab Emirates

15th International conference ROAD SAFETY ON FOUR CONTINENTS

www.vti.se/templates/Page___1111.aspx

June 6th-9th, 2010 - Baltimore, MD, USA

The 18th Annual Summer Institute: Principles and Practice of Injury Prevention

www.jhsph.edu/injurycenter/training/Summer_Institute

September 21-24, 2010 – London, UK

10th World Conference on Injury Prevention and Safety Promotion

www.safety2010.org.uk

To become a partner of the network, please visit our website at www.rtirn.net

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