

CONROD NEWS

JULY 2009



Welcome to **CONROD News**; **CONROD's** news and knowledge hub. The Centre aims to distribute this informative newsletter on a regular basis to foster the ongoing support the Centre currently enjoys and to facilitate an even greater casting of our knowledge net.

CONROD Conference Connects

Participants and delegates attending *CONROD's* recent Annual Scientific Meeting enjoyed a plethora of informative presentations from those at the forefront of medical research.

The *CONROD* Annual Scientific Meeting was held at the Sofitel Brisbane on Friday 12 June, 2009. Guests were welcomed by *CONROD's* Director, Professor Nicholas Bellamy before the meeting was formally opened by Mr John Hand, Commissioner of the Motor Accident Insurance Commission. Professor Luke Connelly and Associate Professor Michele Sterling gave insightful presentations to all guests, in addition to concurrent research presentations.

They delivered cutting-edge research findings from topics including road traffic trauma, whiplash, health economics, post traumatic stress, the Queensland Trauma Registry and community based research initiatives.

The meeting was a great success with almost 100 registering for the event with positive feedback provided by many in attendance. *CONROD* wishes to thank those who supported the meeting, and extend an invitation to the next Annual Scientific Meeting, to be held on 4 June, 2010 - definitely a date claimer.



CONROD team published in prestigious journal

Dr Rasheda Khanam of the *ACERH* UQ team, Dr Son Nghiem of *CONROD*, and Professor Luke Connelly of *ACERH*, *CONROD* and the UQ School of Economics have had the honour of being published in the *Journal of Health Economics*.

Their article *Child Health and the Income Gradient: Evidence from Australia* builds on existing literature which has found a positive correlation between the health of children and family income.

Khanam, Nghiem and Connelly examined two waves of data from a Longitudinal Study of Australian Children to determine if the income gradient increases with children's age. Specifically they examined the overall health of children and the number of diagnosed chronic health conditions.

The paper identified three significant findings:

- An income – child health gradient does exist in Australia, despite universal health care financing and delivery. However, this gradient was significantly less marked than identified in previous literature.
- Parental health and child nutrition are strongly correlated with child health in Australia.
- Parental health, specifically mental and physical health, is the determining factor for a translation of low family income into poorer child health. This suggests that the effects of the income gradient are seen to occur through the health of the child's parents.

The results reflect recent findings from the UK, where it was identified that an income gradient did not exist, but that there was a correlation between maternal health and child health.

A Fresh Science Experience

By Dr Jim Elliott



Our last *CONROD* News shared the exciting information that I had been selected to participate in the Fresh Science Award, 2009. Fresh Science is a government supported national competition that identifies new and interesting research being undertaken by early-career scientists around the country, and releases their findings to the media.

Each year sixteen scientists are selected to participate in the Fresh Science experience and flown to Melbourne for intensive "boot camp" style training, to be instructed in techniques for communicating scientific information through the media.

The training included a day of teaching, followed by three days of implementing the teaching through public presentations of my own research findings to media, school students, the general public, other scientists, government and industry bodies.

The take-away from this experience was that:

- Presenting to media can be time consuming and risky,
- But, the media can be an effective way of reaching a large number of people with your message.

The experience allowed me to better understand the role of a journalist, whether it be print, radio or TV. Although few journalists understand the technical aspects of our research, they are able to translate the technical information and deliver it in a way that the audience can grasp.

Fresh Science helped me and my fellow participants to find ways to explain technical concepts in plain terms, such as drawing parallels with everyday objects or sketching simple diagrams.

For example, one of my colleagues ascertained it is better to say "I'm working to improve the quality of water in Adelaide by introducing a new way of purifying drain water in wetlands," rather than "I'm investigating transport processes of nutrients in low-salinity wetlands."

Our interactions with the journalists helped us to understand that journalists want to know how our research is going to affect the lives of ordinary people. What impact, if any, will our research have on Joe Citizen?

Overall, the week was a great learning opportunity and I encourage other young research scientists to apply for Fresh Science 2010. It is an experience you will neither regret nor forget!

ACERH Research Forum

Attendees of the recent *ACERH* Research Forum, centred on the theme of *Income, Chronic Conditions and Child Health*, were presented with a who's who of speakers of both international and local renown. *ACERH* was delighted to present Professor H. Shelton Brown III from the University of Texas as a guest speaker at the event.

Professor Brown presented on the topic of social networks and obesity among children, sharing his research into the cost-effectiveness of curbing childhood obesity through public health interventions.

Attendees were also treated to a presentation by Professor Luke Connelly, who delivered a summary of his recent research into the relationship between child health and the income gradient. Additionally Dr Rasheda Khanam of *ACERH* presented on the topic *Chronic Conditions and Child Health: Does Income Mediate?*

The presentations were followed by an insightful and engaging panel discussion. Panellists included Dr Rebecca Hill from the UQ Centre for Child Health Nutrition as well as Professor Justin Kenardy, a *CONROD* Deputy Director.

The forum program and presentation slides are available at www.acerh.edu.au.

Connelly addresses HPV Symposium

Team Leader of *CONROD*'s Health Economics programme, Professor Luke Connelly, was recently invited to present at the inaugural Symposium on Human Papillomavirus Vaccination. The symposium, organised by the International Vaccine Institute for the Asia-Pacific and Middle-East Regions, was held in Seoul on June 1 and 2, 2009.

Professor Connelly presented *Modelling the Cost-Effectiveness of JPV Vaccination: Evidence from High-Income Countries and Considerations for Low and Middle Income Countries*. His presentation discussed the effectiveness and cost-effectiveness of the HPV Vaccine, in addition to addressing various economic issues of vaccination for the virus.

The presentation is available to download by clicking [here](#) or as a video-on-demand at the International Vaccine Institute's [website](#).

Kenardy secures national grant

CONROD Deputy Director Professor Justin Kenardy was recently awarded a National Institutes of Health Grant to explore new ways of assessing psychological risk for children exposed to trauma.



The grant will allow Professor Kenardy to collaborate locally with Dr Robyne Le Brocque and Ms Joan Henrikz of CONROD as well as internationally with Nancy Kassam-Adams of the Children's Hospital of Philadelphia and Doug Delahanty of Kent State University.

Professor Kenardy will now be able to establish an international network for research into psychological risk assessment for children who have experienced trauma.

Whiplash trials making headway

CONROD is yet again proving its worth in the field of whiplash research. Two new treatments for whiplash pain are being trialled, with the aim of creating support for those for whom current treatments are just not cutting it.

The trials' Chief Investigator, Associate Professor Michele Sterling says as always the aim is holistic.

"We are hoping that by combining innovative and targeted treatment approaches that we will be able to decrease pain and disability for people with chronic whiplash," she said.

The first trial will investigate the combined effects of dry-needling and exercises, and will be conducted out of the CONROD research lab at the University of Queensland's Ipswich Campus. Participants in the trial will receive treatment provided by physiotherapists from the Physioactive Ipswich clinic.

A second trial, the result of a research collaboration between CONROD and the University of Sydney, will test the effectiveness of a comprehensive exercise program that integrates specific neck exercises with a whole of body program. Trial participants will receive treatment through a community of physiotherapist practises in the Brisbane region.

To achieve these aims, CONROD is currently recruiting participants for both trials. Sufferers of chronic whiplash who participate in the trial would receive professional treatment free of charge. Anyone who is interested in participating should contact Stephanie Valentin: s.valentin@uq.edu.au or 07 3636 4214.



International Honour

CONROD Deputy Director Associate Professor Michele Sterling has been privileged to receive an invitation to present at the 13th Biennial Conference for the International Association for the Study of Pain next year in Montreal.

Associate Professor Sterling will join the esteemed researchers Professor Sigfried Mense of the University of Heidelberg, Germany, and Professor Thomas Graven-Nielsen of Aalborg University, Denmark, to present the workshop *Mechanisms and Manifestations in Widespread Musculoskeletal Pain - New Translational Perspectives*.



QTR Advisory Board Assembled

CONROD's QTR Advisory Board was established in February 2009 to provide support and guidance for the Queensland Trauma Registry. The board will provide advice on the strategic focus of the QTR, while facilitating the development of collaborative research networks and partnerships.

With appointments now finalised, the QTR is honoured to announce the following board members:

Professor Michael Schuetz (Chairperson)

Chair Queensland Health Statewide Trauma Clinical Network and Director Trauma Services, Princess Alexandra Hospital

Adjunct Professor Graham Hughes AM

Chairperson, CONROD, School of Medicine, UQ

Mr John Hand

Commissioner, Motor Accident Insurance Commission (MAIC)

Dr Adrian Nowitzke

Chief Executive Officer, Gold Coast Health Service District, Queensland Health

Mr David Melville

Commissioner, Queensland Ambulance Service (QAS)

Mr Gary Fites

General Manager External Relations, Royal Automobile Club of Queensland (RACQ)

Professor Nicholas Bellamy

Director, CONROD, School of Medicine, UQ (ex-officio)

Associate Professor Cliff Pollard

Director, Queensland Trauma Registry, School of Medicine, UQ (ex-officio)

Ms Kathy Harvey

Manager, Queensland Trauma Registry, School of Medicine, UQ (ex-officio)

Committee called to drive QTR research

As reported in previous editions of *CONROD* News, the Queensland Trauma Registry has experienced positive growth in recent times. In order to drive its research agenda and advise the QTR Advisory Board, a research subcommittee will be convened in August.

The group will discuss protocols for handling requests for Registry data, and will inform the Board on research policy, strategy and future direction for trauma research.

The research subcommittee will combine the wisdom of a number of industry experts:

Professor Gerry FitzGerald (Chairperson)

Professor Public Health (Emergency and Disaster Management), School of Public Health, QUT

Associate Professor Vivienne Tippett

Director, Australian Centre for Pre-hospital Care Research, School of Population Health, UQ

Professor Narelle Haworth

Professor in Injury Prevention and Rehabilitation, Centre for Accident Research and Road Safety (CARRS-Q), QUT

Professor Jeffrey Lipman

Director of Burns, Trauma and Critical Care Research Centre, UQ and Director of Intensive Care Medicine, Royal Brisbane & Women's Hospital

Dr Don Campbell

Emergency Department Consultant, Gold Coast Hospital and Chair Gold Coast Hospital QTR Trauma Review Committee

Professor Nicholas Bellamy

Director, *CONROD*, School of Medicine, UQ (ex-officio)

Associate Professor Cliff Pollard

Director, Queensland Trauma Registry, School of Medicine, UQ (ex-officio)

Ms Kathy Harvey

Manager, Queensland Trauma Registry, School of Medicine, UQ (ex-officio)

Prof Michael Schuetz

Chair Queensland Health Statewide Trauma Clinical Network and Director Trauma Services, Princess Alexandra Hospital (ex-officio)

CONROD Director of Orthopaedic Trauma Surgery
(yet to be advised)

Queensland Health data release expert
(yet to be advised)

Bi-National Minimum Dataset for Trauma

A Bi-National Minimum Dataset for Trauma (Bi-NMDS), which will enable reporting of trauma data from Australia and New Zealand, is in the final stages of development.

Once completed, the data will be disseminated to stakeholders for trial, during which further data will be gathered to report on demographics, injuries, pre-definitive care hospital, definitive care hospital and outcomes.

The National Trauma Registry Consortium in conjunction with the dedication of Cameron Palmer has brought the Bi-NMDS to reality. Cameron Palmer, the Trauma Data Manager at the Children's Hospital Melbourne, has chaired a working party for Bi-NMDS. The working party has also included representatives from the New South Wales, Victorian, Queensland and South Australian Trauma registries as well as individual hospitals in Western Australia and New Zealand.

Preliminary data obtained from trials of Bi-NMDS will be presented to the American College of Surgeons National Trauma Data Bank in September. The Presentation will also coincide with the 43rd World Congress of the International Society of Surgery. The dedicated individuals involved in the development of Bi-NMDS hope that it will provide valuable information and expand our knowledge of trauma cases.

Elliott the busy beaver

Dr James Elliott has recently been busy collaborating on a number of Magnetic Resonance Imaging studies, several of which are currently under submission and review.

MRI and cervical extension exercises: Dr Elliott collaborated locally with Dr Shaun O'Leary, Dr Barbara Cagnie, Ms Gail Durbridge, Professor Lieven Daneels and Professor Gwen Jull in addition to colleagues from the University Ghent, Belgium, to complete a study entitled *Muscle functional magnetic resonance imaging of the cervical extensor muscles during different cervical extension exercises*.

Quantifying muscle changes in the pelvic floor of healthy females: Dr Elliott travelled to Denver, Colorado, USA, last month to contribute to a magnetic resonance imaging study in collaboration with Dr Laura Krum of Regis University. Together they developed a new technique to quantify pelvic floor muscle changes, which will now be applied to females who have given birth. Locally Dr Elliott's team includes Dr Fiona Mack, Ms Gail Durbridge, Professor Paul Hodges and Dr Ruth Sapsford.

MRI measurement of muscle fat in necks of whiplash patients: Dr Elliott, Associate Professor Michele Sterling and Ms Joan Hendrikz from *CONROD*, as well as Dr Shaun O'Leary, Professor Gwen Jull and Mr Ashley Pedler have completed a study of whiplash patients entitled *MRI findings of fatty infiltrates in the cervical flexors in chronic whiplash*.



Safety on our roads?

As regular readers of *CONROD News* will know, the centre is committed to sharing informative and valuable research data with the wider community when ever an opportunity presents itself. As such, please find following some intriguing, if not a little worrying, QTR data about head injuries and Road Traffic Crashes (RTC).

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All QTR cases

Total cases = 14,314
 Total major cases (ISS > 16) = 1,755
 Total deaths = 341 (2.4%)
 Major deaths = 241 (13.7%)

Head injuries (Intracranial injuries)

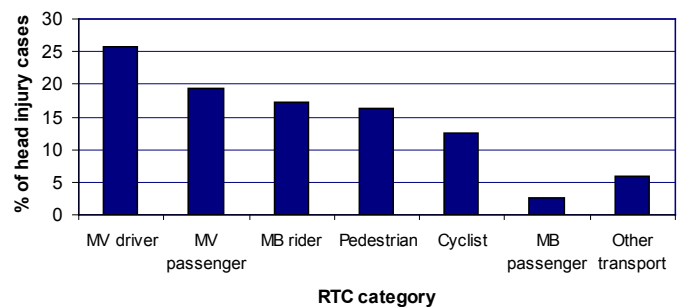
Total cases = 1,287 (9% of 14,314 cases)
 Major cases = 931 (53% of 1,755 cases)
 Total deaths = 134 (39% of 341 cases)
 Major deaths = 134 (56% of 241 cases)

External cause of head injury cases

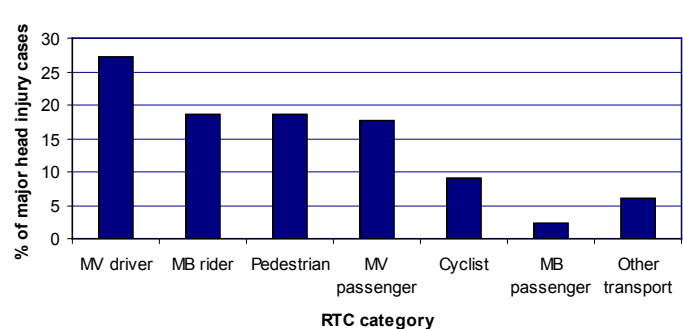
Road traffic crashes (RTCs) were the second most common cause of head injury (32 per cent) behind falls (43 per cent). A similar pattern was seen for major head injury cases, with 32 per cent injured in an RTC and 46 per cent injured in a fall.

RTC categories for head injury cases

All cases (n = 416):



Major cases (n = 294):



Key findings:

- Head injury is the most common injury occurring in major cases (and the fourth most common injury for all cases)
- More than half of major injury cases who died had sustained a head injury
- RTCs are the second most common cause of head injury overall and for major cases
- Motor vehicle drivers most commonly sustained a head injury following a RTC compared to other groups of road users. This was true for major cases and for all cases overall.