

IPRU

INJURY PREVENTION RESEARCH UNIT
TE HUKA RAKAHAU ĀRAI WHARA

2010 ANNUAL REPORT

For the year ending 31 December 2010



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The goal of the Injury Prevention Research Unit is to contribute to reducing the incidence, severity and consequences of injury in New Zealand.

FURTHER INFORMATION ON ANY MATTER CONTAINED
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ISBN 0-908958-87-0



Major purchasers of the IPRU's research are
the Accident Compensation Corporation,
the Health Research Council of New Zealand,
the Alcohol Advisory Council of New Zealand
and the Road Safety Trust.

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FROM THE DIRECTOR



As the Injury Prevention Research Unit (IPRU) moves into its third decade we reflect on another body of work completed, exciting endeavours underway, and challenges we face with changes in core support.

Some of the memorable events this past year, my first full year as Director, were those involving farewells and partial goodbyes to the key people who made the IPRU what it is. One of the biggest farewells was to David Chalmers, retired in July after 19 years. His adroit scholarship will be sorely missed, but even more so his easy going support and collegiality. It also seemed this year as if almost every month I was attending a celebratory function for John Langley either focussing upon his accomplishments as IPRU's founding Director or his phased retirement. Fortunately John is still around on a much appreciated but reduced basis.



Another memorable event this year was IPRU's retreat held last July at the Otago Golf Club. In addition to team building exercises and preparing for the next Health Research Council (HRC) grant round, we talked about the range of research possibilities taken up by similar injury research centres around the globe. There is much being done at IPRU, an obvious conclusion as one peruses this annual report, but there is more we could do. From the straw poll we conducted, staff identified a number of areas where it was felt we could do more. Violence, programme evaluation, sports and recreation related injury, injury among older people, vulnerable road users, technology, home or rural injury, economics and traumatic brain injury in particular were noted. The challenge is to find or create funding opportunities and come up with timely and desirable research questions to explore the gaps in each of these areas.



In June, IPRU received a major and vital extension to its HRC programme grant, led by Dr Dorothy Begg. The original programme was awarded in 2007 to Dr Begg, Dr Sarah Derrett and Dr Shyamala Nada-Raja. Their projects address injury prevention and subsequent disability outcomes via two large national cohort studies that examine driving behaviours in young people, and identify outcomes of injury that includes disability; and a trial of online national interventions to reduce depression and self-harm. The new funds allow the completion of the original programme of research and for the researchers to extend aspects of their research. The results of the programme will contribute to: reducing the high rates of young people's injury and death, better outcomes for injured and disabled people and development of interventions that reduce the risk of self-harm and common mental health disorders, and improve well-being in our communities.

During the year, I was excited to learn that New Zealand was chosen by the World Health Organization (WHO) to host the 2012 World Conference on Injury Prevention and Safety

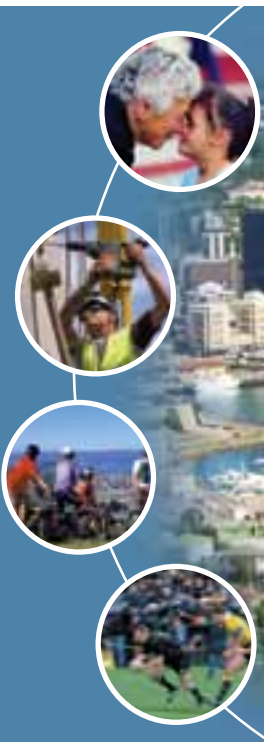
Promotion. Early in 2010, a strong collaborative effort by the Accident Compensation Corporation (ACC), the Safe Communities Foundation of New Zealand and IPRU was the winning bid. I am proud of this joint success and hope the New Zealand injury prevention sectors will benefit from this opportunity. There is an immense amount of work ahead to make these few days in Wellington a reality. Progress has been considerable with obtaining national support which is critical for the conference's success.

Not all went according to plan during 2010. After months of talks, ACC decided in June not to renew the IPRU contract. The loss of this long-standing relationship will impact adversely on research in New Zealand. Coming at a time when there is a shrinking research resource, nationally and internationally, IPRU will be adding to the competition among New Zealand health researchers in general as it seeks to maintain its dedicated and valuation workforce, without the support of dedicated injury prevention focused funding from ACC.

Regardless of these hurdles, there are considerable challenges to meet and new ways to approach old problems. Motor vehicle (MV) injury remains the leading cause of injury death in New Zealand. New Zealand adolescent drivers and passengers (15-19

years) continue to have the highest number of MV casualties, of all age groups. According to the New Zealand Transport Agency, New Zealand's 15 to 17-year-olds have the highest road death rate in the OECD. I see this as a major public health/road safety failure.

Progress has been made in addressing the adolescent MV crash injury pandemic, with the graduated driver licensing system (GDL) and other efforts. However, protecting New Zealand's youth on the road should also be examined in light of the growing recognition of the major adverse impacts of motor vehicle use on the environment, climate change, personal economic well-being, mental health, and health and fitness. I posit that reducing adolescent driving itself, by promoting active transport through mobility management programmes, may be considerably more beneficial to adolescents and society than traditional efforts aimed at making a risky and unhealthy activity marginally safer. Achieving transport modal shift through a variety of research-based interventions targeted specifically at adolescents offers a fresh new vision and paradigm for an apparently intractable, but hugely important, adolescent public health problem. I intend that IPRU face this challenge and become one of the leaders in this approach.



Safety 2012 World Conference

11th World Conference on Injury
Prevention and Safety Promotion
1- 4 October 2012
Wellington • New Zealand

www.safety2012.org.nz
info@safety2012.org.nz

20 YEARS OF IPRU

John Langley and David Chalmers

This annual report marks 20 years of operation of the Injury Prevention Research Unit (IPRU) and as such it's an appropriate time to record what led to the establishment of the IPRU, and some selected highlights in its history.

In the 1970s, the Medical Research Council's (MRC) Forward Planning Committee sought to encourage increased interest in injury prevention research. A key initiative was a 1979 Accident and Rehabilitation Symposium. In 1984 the committee sought to determine what significant developments had occurred since then. At that time John Langley argued that nothing short of a major review of the field would be likely to bring about significant change in the meagre research effort. The Committee accepted that advice and in 1985 commissioned a review, the costs of which were shared equally by MRC and the Accident Compensation Corporation (ACC). A key recommendation of the review was the establishment of a critical mass of researchers to undertake research and teaching funded jointly by MRC and ACC. This recommendation was accepted, and we were successful in our bid to establish such a group of researchers, and thus IPRU was born on 1 October 1990 with John Langley as Director and David Chalmers as Deputy Director.

This initiative undoubtedly provided a major impetus to injury prevention research in New Zealand and IPRU's efforts were recognised internationally in 1999 by being a featured programme in the journal *Injury Prevention*. IPRU's research has continued to be of national and international significance up to the present day. Indeed in several areas we have led the international research and prevention community. A relatively recent example of this leadership has been our initiative to develop and validate injury outcome indicators for the New Zealand Injury Prevention Strategy Secretariat (NZIPS). This initiative challenged the conventional wisdom among practitioners and researchers in terms of how we monitor progress in reducing injury. The injury outcome indicators IPRU developed have now been accepted by NZIPS Secretariat. Our international colleagues have been somewhat slower to adopt such an approach, nevertheless significant progress continues to be made. The task is far from complete, NZIPS Secretariat, and indeed the international community, require complementary indicators to those we have developed, namely, a suite of indicators which deal with disability. The need for these has never been more pressing. As rehabilitation services to the injured are reduced the need becomes greater to determine with valid indicators whether the rehabilitation outcomes are improving or worsening.

Another area where we continue to make a contribution nationally and internationally, is our work on injury to young drivers. Regrettably, New Zealand has been the international exception with its very low age of licensure. Proposals to raise the age of licensure have been debated repeatedly over the last twenty years and the debate persists to the present day. These proposals have been vigorously opposed by key sectors over the years. Research from IPRU and others has demonstrated that many of the arguments against raising the age are based on either no evidence or on misinformation. IPRU has also shown that New Zealand's graduated driver licensing system has resulted in a significant reduction in traffic crashes among young people.

IPRU has also taken a leadership role in research on sports injury. In 1992 it initiated a partnership with the New Zealand Rugby Union (NZRU) and the ACC to investigate the causes of injury in rugby. In 1993, the Rugby Injury and Performance Project commenced, with the purpose of identifying risk factors for rugby injury. From the preliminary results of that project, a stakeholder group developed the Tackling Rugby Injury prevention programme, which was implemented over the years 1995 to 1999. Over this period a decline in the incidence of injury in rugby was observed. Subsequently the NZRU, with the assistance of ACC, appointed an injury prevention manager (the first for a major sport in New Zealand) and instigated its RugbySmart injury prevention programme, which has become a routine part of rugby today.

The scope of IPRU's research has evolved significantly over the last twenty years. The MRC/ACC review and thus the initial focus of IPRU was on the prevention of unintentional injury. The analysis of IPRU and others has highlighted the enormous burden of intentional injury. Consequently IPRU established a significant programme on self-harm. While prevention research has represented the bulk of our effort over the last twenty years, we have made a significant effort in more recent times to develop a research capacity in injury disability/rehabilitation. Nationally and internationally, relative to injury prevention, this area has received meagre attention by the research community.

One measure of IPRU's success has been its ability to sustain itself entirely from research grants over a 20 year period. Given the competitive funding environment IPRU operates in, this speaks volumes to the academic quality of our work. However, like all organisations we are facing challenges in these times of financial restraint.

The MRC/ACC review identified workforce development as key factor in moving the area forward. IPRU has provided the critical mass to foster those wishing to develop a research career. This has been greatly aided by ACC training fellowships. Regrettably, these have been discontinued.

In the past decade, IPRU has embraced the internet as a potent research tool with a number of interventions being tested online. Examples include our tertiary student drinking project and interventions designed to reduce depression.

Publication in peer-review journals has, and will continue to be for the foreseeable future, the primary indicator that IPRU's research is quality assured. Nevertheless, IPRU is cognisant that this alone is inadequate in terms of ensuring our research findings are fed into the development of policy and practice. Since its inception, IPRU has been active in the many other forms of dissemination, for example: conference presentations, seminars, newspaper articles, radio interviews, and submissions on government bills.

Over the years IPRU has maintained an independent and critical watching brief on injury in New Zealand. The need for this to continue has never been greater with ACC's increasing focus on returns on injury prevention investments, where the concern is exclusively on costs and benefits to ACC. While other agencies, such as the Ministry of Health, can consider wider social costs in considering the merits of investing in injury prevention these agencies are also under increasing pressure to reduce their expenditure given the Treasury forecast for government income. It is at such times we have an even greater need for an evidence base to guide injury prevention investments which will have social and economic benefits for New Zealand.



Staff from IPRU's first decade



IPRU staff in 2010

IPRU STAFF, ASSOCIATES AND STUDENTS



HANK WEISS

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DIANNE CASEY

Administrative Assistant



JO-ANN BREMNER

Administrative Secretary since 1 December 2010



SUE WALKER

Secretary until 30 September 2010



LINDA HOLMAN

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JESSICA MIEKLEJOHN

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David McBride

Rob McGee

Charlotte Paul

Ngāi Tahu Māori Health Research Unit

Joanne Baxter

John Broughton

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Jules Keiser, *School of Dentistry*

Rob Lawson, *Marketing*

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Chekako van Koten, *Information Science*

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ROAD AND TRANSPORT SAFETY

Traffic crash injury is a leading cause of death and serious injury among adolescents and young adults in New Zealand. Since graduated driver licensing was first introduced in 1987, the rate of serious traffic injury has significantly decreased but in recent years this progress has remained stable. This shows that we need to enhance our strategies to modify the early driving experience of our young people, which is the time when they have the highest risk of being in a crash. Over the past few years, the main traffic-related project being undertaken at IPRU is the New Zealand Drivers Study. This study was specifically designed to provide scientific evidence that is directly relevant to the development of policy and programmes for newly licensed young drivers in New Zealand.

YOUNG DRIVERS

The New Zealand Drivers Study (NZDS): A Follow-up Study of Newly Licensed Drivers



The New Zealand Drivers Study is a prospective cohort study of 3992 newly licensed car drivers, 86% of whom are aged less than 20 years. The study participants are followed as they progress through the graduated driver licensing system (GDLS) to obtain detailed information on the driving and driving-related behaviours of novice drivers. This information is obtained in a series of interviews which are linked to the three licensing stages of the GDLS. Stage 1: Face-to-face recruitment of the study participants took place after passing the learner licence test, at which time signed consents and a baseline questionnaire were completed. Stage 2: The first follow-up interviews take place after the restricted licence test has been passed. This telephone interview includes items relating to driving behaviour and driving-related attitudes and experiences during the learner licence period, and expectations of the restricted licence stage. In addition, 1200 parents/caregivers of young drivers were interviewed at this stage to examine the role of parents/caregivers as the supervisor of a young learner driver. Stage 3: The second follow-up telephone interview corresponds to passing the full licence test. This interview includes items relating to experiences as a restricted licence driver. Consent was obtained from virtually all study participants to follow up their traffic records using national traffic crash and injury databases for ten years after they gain their full licence.



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Primary Aim:

To explore the relationship between a comprehensive range of driving and traffic safety-related factors, for example, driving experience, motivation for driver licensing, driver training, alcohol and drug use, risk-taking, and subsequent traffic crashes and convictions among newly licensed drivers; and from this, to identify specific areas that can be targeted to reduce traffic-related injury among this high-risk group.

Secondary Aims:

- ~ To examine this relationship specifically for newly licensed Māori drivers (see below);
- ~ To examine the role of parents/caregivers as supervisors of newly licensed drivers (see below); and
- ~ To evaluate the impact of current novice driver training programmes on driving-related outcomes (see below).

Project Team: Dorothy Begg, Rebecca Brookland, John Langley, John Broughton, Shanthi Ameratunga, Anna McDowell, Ari Samaranayaka, Pauline Gulliver, Gabrielle Davie, Hank Weiss

Funding: Health Research Council of New Zealand, Road Safety Trust

Additional Support: The Driver Licence Registry (DLR) maintains a database of the NZDS study participants and tracks their progress through the licensing system.

Progress: Stage 1, recruitment of the newly licensed driver cohort, was completed in January 2008. By the end of 2010 around 73% had passed their restricted licence test and 88% of these had completed stage 2, the first follow-up interview. Also, around 37% of the cohort had gained their full licence and 94% of these had completed stage 3, the second follow-up interview.

Throughout the year analysis of the baseline data has continued, and analysis of the first follow-up interview has commenced. Findings from this study have been requested by the Ministry of Transport and New Zealand Transport Agency to inform policy that is being developed for young drivers in New Zealand. Several papers are in preparation and some have been published, and findings have been presented at conferences and seminars. Further details for each of the objectives are given under their specific subject headings below. In addition, details are given of a study being undertaken to examine progression through the graduated driver licensing system. An application to the Health Research Council of New Zealand for a three-year extension within a programme grant was awarded in 2010.

Newly Licensed Rural and Urban Māori Drivers**Aim:**

To examine the experiences and opinions of newly licensed Māori drivers in New Zealand in order to identify some of the underlying behaviours and beliefs within this high-risk group.

Project Team: Anna McDowell, Dorothy Begg, Jennie Connor, John Broughton

Funding: Health Research Council of New Zealand, Road Safety Trust

Progress: A paper was accepted for publication and the dissemination of results continued in 2010. Study findings have been reported in previous annual reports.

Parental Influence on the Driving Experiences of Young Newly Licensed Drivers

Parents potentially play an important role in influencing adolescent driving experiences, given that the young driver may still live at home and parents are generally involved in the driving process from the beginning. For example, parents often teach adolescents how to drive and manage early driving experience by limiting vehicle access, placing restrictions on when, where, and with whom, driving may occur, and by modelling driving behaviours.

For the Parent Study, which is part of the NZDS, 1200 young drivers (aged 15-17 years at learner licence stage) and their parents were interviewed at the restricted licence stage. Data on young driver crashes, convictions, and infringements during their first 12 months of unsupervised driving have been obtained from national traffic crash and injury databases.

Aim:

To examine the influence of parents' driving related attitudes and experiences on driving experiences and the negative traffic-related outcomes of adolescents as newly licensed drivers.

Specifically this study aims:

- ~ To describe parents' knowledge, opinions, and experience with licensure;
- ~ To explore the relationship between parents' and young drivers' attitudes and behaviours relating to driving-related issues; and
- ~ To examine the influence of parental driving-related attitudes and behaviours on subsequent negative driving-related outcomes of young drivers (such as traffic violations and crashes).

Project Team: Rebecca Brookland, Dorothy Begg, John Langley, Shanthi Ameratunga

Funding: Health Research Council of New Zealand, Road Safety Trust

Progress: Analyses and writing up continued. Findings were presented at an international conference.

An Examination of Driver Education, Driver Training Programmes, Supervised and Unsupervised Driving Experience on Traffic Outcomes for Novice Drivers

Aim:

To examine the role of driver education, driver training and supervised driving experiences on the risky driving behaviour, offences and crashes among learner drivers.

Project Team: Pauline Gulliver, Dorothy Begg

Progress: Data from the stage 2 interviews were analysed and a paper is in preparation for submission to a peer-reviewed journal.

An Investigation into a Failure to Progress Through the Graduated Driver Licensing System

The reasons why a relatively large proportion of those who obtain a learner licence do not progress through the licensing system are not known. To shed light on this issue, interviews were undertaken with those who still held a learner licence despite having been eligible to progress to a restricted licence for at least two years.

Aims:

- ~ To compare non-progressors with progressors in terms of demographic characteristics, pre-licensing driving behaviour, health risk behaviours (e.g. alcohol, drug use), sensation seeking, impulsivity and aggression;
- ~ To determine why non-progressors chose not to progress; and
- ~ To determine whether, relative to progressors, the non-progressors had higher rates of traffic offences.

Project Team: John Langley, Dorothy Begg, Rebecca Brookland, Ari Samaranayaka, Hannah Jordan

Funding: Health Research Council of New Zealand, Road Safety Trust

Progress: Attempts have been made to contact 989 non-progressors. Of these, 47% have completed a brief telephone interview, 44% were unable to be traced, and 8% were traced but refused to be interviewed.



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DUNEDIN MULTIDISCIPLINARY HEALTH AND DEVELOPMENT STUDY (DMHDS)

The DMHDS is a longitudinal study of a birth cohort of 1037 people born in Dunedin between 1 April 1972 and 31 March 1973. This cohort was interviewed every two years from age 3 to 15 years, and again at ages 18, 21, 26, 32 and 38 years (currently underway).

Road safety research has been part of the DMHDS for many years, and the period from ages 15 to 26 years was a rich source of data providing the opportunity to continue exploring a range of topics on various aspects of road safety for young drivers. The aims and investigators for the various studies involved can be found in previous annual reports.

Progress: A paper on the attitudes of the study members' parents to the graduated driver licensing system (GDLS) was submitted to a peer-reviewed journal, and a seminar presented.

MOTORCYCLING INJURY

As in many other countries, in recent years there appears to have been a revival in motorcycling in New Zealand and motorcyclists are becoming more seriously over-represented in the traffic crash and compensation claims statistics. However, because of a lack of research, much of our knowledge about the nature and extent of this resurgence in motorcycling is anecdotal or speculative. To address those knowledge gaps IPRU undertook a programme of research that aimed to provide potential stakeholders with a sound evidence base for the development of policies and programmes to reduce motorcycling injury. This programme of research comprised a systematic literature review, a qualitative study of motorcycling culture, and an epidemiological investigation of serious motorcycling injuries. Much of this research is now completed (see previous annual reports for details) although some aspects are ongoing (see below).

Validity of Using Linked Hospital and Police Traffic Crash Records to Analyse Motorcycle Injury Crash Characteristics

Aim:

To assess whether a linked dataset (hospital discharge records and police traffic records) would provide unbiased information on motorcycle crash circumstances and injury outcomes for hospitalised cases.

Project Team: Suzanne Wilson, Dorothy Begg, Ari Samaranayaka

Progress: A paper has been submitted to a peer-reviewed journal.

Qualitative Study of Trends and Culture of Motorcycling in New Zealand

Aim:

To describe reasons for riding motorcycles, attitudes and behaviour towards safety, perception of risk, and predicted future trends for the motorcycling population in New Zealand.

Project Team: Jean Simpson, Suzanne Wilson

Progress: A paper is in preparation for submission to peer-reviewed journal.

PUBLICATIONS

Refereed Journals

RJ343 Ameratunga S, Tin Tin S, Coverdale J, Connor J, Norton R. Post-traumatic stress among hospitalized and non-hospitalized survivors of serious car crashes: A population-based study. *Psychiatric Services*, 2010, 60:3:402-404

RJ403 Weiss HB, Agimi Y, Steiner C. Youth motorcycle-related hospitalizations and traumatic brain injuries in the United States, 2006. *Pediatrics*, 2010, 126:1141-1148

RJ406 Weiss HB, Agimi Y, Steiner C. Youth motorcycle-related brain injury by state helmet law type: United States 2005-2007. *Pediatrics*, 2010, 126:1149-1155

RJ409 Brookland R, Begg D. Adolescent, and their parents, attitudes towards graduated driver licensing and subsequent risky driving and crashes in young adulthood. *Journal of Safety Research*, (in press)

Letter to the Editor

LE24 McDowell A, Begg D, Connor J, Broughton J. Road safety attitudes and opinions of newly licensed Māori car drivers: New Zealand Drivers Study. *Australian & New Zealand Journal of Public Health*, 2011 (in press)

Submissions

SUB106 Begg D, Langley J. Submission on AA Discussion Paper (3 August 2010) "Learner driver age: Road safety evidence", 21 September 2010

SUB107 Begg D, Langley J. Submission on the Land Transport (Road Safety and Other Matters) Amendment Bill. Government Bill (#213-1), 21 October 2010

Conference Proceedings

Australasian Road Safety Research Policing and Education
Conference, Canberra, Australia, 31 August – 3 September 2010

Dorothy Begg

Presentation

“Young unlicensed drivers: Are they impulsive, sensation seeking, aggressive, hazardous alcohol or other drug users?”

PRESENTATIONS OF NOTE

Safety 2010, 10th World Conference on Injury Prevention and
Safety Promotion, London, England, 21 – 24 September 2010

Rebecca Brookland

Poster Presentation

“Risk perception and risky driving behaviours of
adolescents and their parents: New Zealand
Drivers Study”

Research Seminar

Monash University Accident Research Centre, 6 September,
2010

Dorothy Begg

Presentation

“The Dunedin Multidisciplinary Health and
Development Study young driver research from phases
XV to XXVI”

SPORT AND RECREATION

Sporting and recreational activities account for almost one-fifth of all injury hospitalisations in New Zealand and account for a similar proportion of Accident Compensation Corporation (ACC) compensation claims. IPRU's sport and recreational injury research programme has three main objectives: to facilitate improvements in injury surveillance, identify risk factors and evaluate injury prevention measures.

SURVEILLANCE

Sport and Recreational Injury: Monitoring National Data

New Zealand has a number of national injury databases that can be used to describe the burden of injury occurring in sport and recreation. This project has built on IPRU's experience in working with national databases and has contributed to methodological developments in this area.

Aim:

To develop a means for routinely monitoring the incidence, nature, circumstances, severity and outcomes of sports injuries in New Zealand using routinely collected data.

Project Team: Pam Smartt, David Chalmers, Pauline Gulliver, Dave Barson

Progress: A paper was submitted to a peer-reviewed journal.

Routine Surveillance of Injury and Safety Behaviour in Rugby Union Football and Soccer

In 2001 the New Zealand Rugby Union (NZRU) launched its injury prevention programme 'RugbySmart' but it lacked a means for routinely monitoring injury and safety behaviour among club level players at whom it was aimed. The development of a surveillance system to address this shortcoming builds on a decade of research on rugby injury undertaken by IPRU. More recently the system has been adapted for use in soccer.

Aim:

To develop and evaluate a method for undertaking routine surveillance of injury and safety behaviour in rugby as a model for other high risk sports in New Zealand.

Project Team: David Chalmers, Bronwen McNoe, Dave Barson, Ari Samaranayaka, Pauline Gulliver

Progress: Two papers have been submitted to peer-reviewed journals.



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WATER SPORT AND RECREATION

Identification of Risk Factors for Non-Submersion Swimming Injury

Swimming ranks second among the activities contributing to the incidence of aquatic recreational injury. While many risk factors for the injuries have been postulated in the literature, few have been confirmed through analytic studies. Therefore there is a need for well-designed analytic studies to confirm the significance and contribution of such risk factors.

Aim:

To identify risk factors for injuries in recreational swimming as a means of facilitating the development of targeted interventions aimed at reducing these injuries.

Project Team: David Chalmers, Pauline Gulliver, Bronwen McNoe, Gabrielle Davie

Progress: A paper was prepared for submission to peer-reviewed journal.

NON-ORGANISED SPORT

Extending the Reach of SportSmart: A Survey of ACC Sport and Recreation Claimants

In its sport and recreation injury prevention programme, the primary strategy adopted by ACC is coach education delivered through national sports organisations. Not all sport and recreational activities are carried out under the auspices of national sporting organisations however, and many participants in these activities cannot be reached through coach education programmes. The purpose of this project was to provide ACC

with a profile of claimants falling into this 'non-coached' category – variously labelled non-organised, social, casual or informal sport – so it can better target this large and potentially growing group.

Aims:

- ~ To determine the relative size and population characteristics of claimants who are reached, and not reached, through ACC's current methods of delivering injury prevention messages and programmes, for four popular sport and recreational activities (football, netball, equestrian activities, cycling);
- ~ To determine the relative size and characteristics of ACC claimants involved, and not involved, in organised activity for the nominated sport and recreational activities; and
- ~ To identify potential avenues through which to communicate ACC's injury prevention messages and programmes to those not reached through ACC's traditional approach for the nominated sport and recreational activities.

Project Team: Bronwen McNoe, Melissa Purnell, Pam Smartt, David Chalmers

Progress: Two papers were prepared for submission to peer-reviewed journals.

PUBLICATIONS

Refereed Journal

RJ398 McNoe B, Chalmers D. Injury in New Zealand community level soccer: Development of an injury surveillance system. *American Journal of Sports Medicine*, 2010, 38:12:2542-2551



CHILD SAFETY

Children under five years of age carry a disproportionate burden of injury. In New Zealand, of children aged 0-14 years, nearly a quarter are under 5 years, but this age group contributes half the injury deaths and over half of the injury hospitalisations for those under 15 years. IPRU research is focused on how to develop and implement effective interventions for this vulnerable group.

CHILD HOME INJURY RESEARCH PROJECT

Children under 5 years are often injured at home. While the mechanism of injury and the risk factors for injury may be known, the context and circumstances of the injury events, what affects parental decisions about safety and how to improve the management of risk, requires investigation.

Child Home Safety: An Ecological Approach to Reducing Child Injury in the Home Environment

Globally, unintentional injury to young children is a major public health issue. Existing interventions have been only partially successful, suggesting the problem is complex. Using ecological models and theories, this research examined a common injury problem, child home safety, through the eyes of parents and those who work with them in the community.

Aims:

- ~ To identify from the literature factors that may influence parental perception of, and response to, risk of unintentional injury among preschool children in the home environment; and

- ~ To explore aspects of these factors in depth to obtain an understanding from parents of how they aid or hinder perceptions and responses to risk.

Project Team: Jean Simpson, Rob McGee, Geoff Fougere, Chrystal Jaye

Progress: A PhD thesis has been completed and accepted. Papers are in preparation for submission to peer-reviewed journals.

Findings: Themes developed during the qualitative analysis confirmed that environment, behaviour, and relationships influenced carers in managing child home safety. Contemporary lifestyles may make child safety management harder. Potentially interactive relationships among diverse influences such as maternal fatigue, undervalued mothering skills, fathers' perceptions of injury risk for children, lack of training in parenting, and economic imperatives to work are revealed by the analysis. Fundamental to developing strategies for change is what influences a child's safety at home; in particular, does society value children and those who care for them?

PUBLICATIONS

Thesis

TH23 Simpson JC. Using the eyes in the back of our heads: An ecological approach to reducing unintentional injury to young children in the home environment. A thesis accepted for the degree of Doctor of Philosophy at the University of Otago, Dunedin, New Zealand, November 2010



PRESENTATIONS OF NOTE

University Club, Dunedin, 20 August 2010

Jean Simpson

Invited Speaker

"Child home safety: Are we tackling a 'wicked problem' with 'tame solutions?'"

ISCAIP Biennial Meeting, Bristol, England, 20 September 2010

Jean Simpson

Poster Presentation

"Methodology in an ecological framework: Hearing parents' voices on child home safety"

Safety 2010, 10th World Conference on Injury Prevention and Safety Promotion, London, England, 21 – 24 September 2010

Jean Simpson

Presentation

"Child home safety: Are we tackling a 'wicked problem' with 'tame solutions?'"

Poster Presentation

"Methodology in an ecological framework: Hearing parents' voices on child home safety"

"Challenging the Boundaries" International Qualitative Health Research Conference, Vancouver, 3 - 5 October 2010

Jean Simpson

Presentations

"Methodology in an ecological framework: Hearing parents' voices on child home safety"

"Child home safety: Are we tackling a 'wicked problem' with 'tame solutions?'"

Poster Award

ISCAIP Biennial Meeting, Bristol, England, 20 September 2010

Jean Simpson

Poster Award

"Methodology in an ecological framework: Hearing parents' voices on child home safety"

SURVEILLANCE

IPRU has two surveillance goals. The first is to improve New Zealand's ability to determine the incidence, circumstances, severity, and outcome of injuries. The second is to ensure that the Government, its agencies and other organisations with an interest in injury prevention, receive evidence-based advice for improving injury surveillance and for informing public policy and practice in injury prevention and treatment. In particular, IPRU has contributed to the New Zealand Injury Prevention Strategy (NZIPS). NZIPS is an expression of the New Zealand Government's commitment to improve the country's injury prevention performance.

IPRU's surveillance research has a methodological focus with an emphasis on the development of robust indicators for measuring performance in reducing injury. (see also Sport and Recreation and Occupational Injury for other surveillance projects).

INDICATORS

Probability of Admission: Empirical Validation of the NZIPS Serious Non-Fatal Injury Indicators

The NZIPS serious non-fatal injury indicators are based on counts of non-fatal incident cases discharged from hospital that have a serious injury as defined by an ICISS threshold (International Classification of Diseases (ICD) based Injury Severity Score). The threshold was set with the aim of counting only injuries with diagnoses that have a high probability of admission so that the effects of any extraneous influences on the hospital data-based indicator trends would be removed (for example, changes in health service provision). The ability of this process to achieve this end has not been tested empirically. Estimates of the diagnosis-specific probabilities of admission would increase our confidence in the NZIPS indicators, but require emergency department (ED) data that are accurately coded to ICD and are known to have resulted in subsequent admission to hospital. Because such data were not available in New Zealand, international partners for this project were sought.

Aims:

- ~ To validate the existing NZIPS serious non-fatal injury indicators;
- ~ To investigate the opportunity to develop serious injury indicators which capture a greater number of serious injuries; and
- ~ To develop methods for international comparisons.

Project Team: Colin Cryer, Pauline Gulliver, Brandon de Graaf, Gabrielle Davie, John Langley



Empirical validation of the New Zealand Injury Prevention Strategy indicators:

The identification of ICD diagnoses associated with a high probability of inpatient hospital admission

Injury Prevention Research Unit
MARCH 2011



**We want valid indicators
- indicators that measure what they
intend to measure**



Funding: Accident Compensation Corporation

Progress: Detailed methods and specifications for data extraction were circulated among the seven international collaborators, and data were received from each collaborating centre. Data checking and analysis were carried out, a draft report written, circulated to the collaborators and funder for comment, and an independent peer-review was obtained.

Impairment Indicators: Production of a Chartbook

The NZIPS serious non-fatal injury outcome indicators define 'seriousness' in terms of threat to life. Serious injuries should not, however, be considered only in terms of threat to life. Injuries that result in long-term disability and substantial cost are also serious. Relatively minor injuries in terms of threat to life may result in long-term disability without adequate management and rehabilitation.

Aim:

To produce a chartbook of impairment-related injury (annual frequencies and age standardised rates) for all hospitalised, non-fatal injury for each of the NZIPS priority areas.

Project Team: Pauline Gulliver, Colin Cryer, Gabrielle Davie

Funding: Accident Compensation Corporation

Progress: A literature review was conducted to ensure adequate scope of the injury-related impairment indicators originally developed in 2008. Additional diagnoses were identified, a draft chartbook was produced, and the prototype for a future injury-related impairment indicator chartbook developed.

Investigation of the Provisional Status of the NZIPS Serious Non-Fatal Self-harm and Assault Indicators

In 2004, IPRU developed a set of fatal and serious non-fatal indicators to monitor the implementation of NZIPS. Concerns were expressed, however, about the validity of the serious non-fatal indicators of injury incidence for assault and self-harm and IPRU recommended that these be designated provisional.

Aim:

To test the following hypotheses:

- ~ That there had been an increased likelihood of serious non-fatal self-harm cases being recorded with a principal diagnosis of a mental health disorder; and
- ~ Given that a serious non-fatal assault-related injury had occurred, that there had been an increase in the reporting of serious non-fatal assault related injuries.

Project Team: Pauline Gulliver, Colin Cryer, Gabrielle Davie

Funding: Accident Compensation Corporation

Progress: The provisional status of the indicators has been reviewed by assessing the proportion of people with key 'indicator' diagnoses that were recorded with a self-harm or assault external cause code over time (2001-2007). On the basis of feedback received, the draft report prepared was further reviewed. A final report was submitted to Statistics New Zealand and NZIPS Secretariat recommending that the provisional status of the serious non-fatal assault and self-harm indicators be removed. This recommendation was adopted in the 2010 chartbooks. A paper is in preparation for submission to a peer-reviewed journal.

SURVEILLANCE METHODS

Injury surveillance stands or falls according to the strength of the methods used. The following projects are directed at exploring improved case definitions of serious non-fatal injury, as well as assessing the accuracy of IPRU's hospital discharge readmissions indicator.

Case Definition of Serious Non-fatal Injury

Recent debate questions whether the operational definition of serious injury used in the specifications of the NZIPS indicators captures all cases of serious injury of interest recorded in the National Minimum Data Set (NMDS) of hospital discharges. This project sought to provide recommendations regarding the quality of existing indicators and possible changes that could be made.

Aims:

- ~ To evaluate alternative case definitions of injury for the NZIPS serious non-fatal injury outcome indicators; and
- ~ To seek agreement from stakeholders on a common definition of injury for the NZIPS serious non-fatal injury indicators applicable across the NZIPS Secretariat priority areas.

Project Team: Colin Cryer, Pauline Gulliver, Ari Samaranayaka, Gabrielle Davie, John Langley

Funding: Statistics New Zealand

Progress: Detailed methods for the study were developed and the analysis was completed. Two stakeholder meetings were held to discuss results and to agree a case definition. The report was drafted, shared with stakeholders and funders, peer-reviewed and finalised.

Accuracy of IPRU's Hospital Discharge Readmissions Indicator

IPRU relies heavily on an automated algorithm to identify first admissions from readmissions using variables in the NMDS. As IPRU and others depend on this code being accurate, this project aims to assess how well our readmissions code is working.

Aims:

- ~ To estimate the overall accuracy of IPRU's readmissions indicator;
- ~ To investigate how the accuracy of IPRU's readmissions indicator varies by diagnosis, external cause, and age group; and
- ~ To identify possible ways to improve the readmission indicator if the accuracy of the present indicator is found to be unacceptable.

Project Team: Gabrielle Davie, John Langley, Ari Samaranayaka, Dave Barson

Funding: University of Otago

Progress: A random sample of hospital discharges with a principal diagnosis of injury were classified as first admissions or readmissions by two independent coders blind to the readmission status allocated by IPRU's readmission code. A paper was prepared for submission to a peer-reviewed journal.

PUBLICATIONS

Refereed Journal

RJ381 Cryer C, Gulliver P, Langley J, Davie G. Is length of stay in hospital a stable proxy for injury severity? *Injury Prevention*, 2010, 16:254-260

RJ388 Gulliver P, Cryer C, Davie G, Langley J. An investigation into methods to develop indicators to measure injury related impairment. *Injury Prevention*, 2010, 16:240-246

Occasional Reports

OR084 Gulliver P, Cryer C, Davie G. A Chartbook of the Injury Related Impairment Indicators 2001-2008. Prepared for NZ Injury Prevention Strategy Secretariat, Accident Compensation Corporation. Injury Prevention Research Unit, Dunedin. Occasional Report Series OR084, 2010

OR085 Cryer C, Gulliver P, Samaranayaka A, Davie G, Langley J, Fowler C. NZIPS indicators of injury death: Are we counting all the cases? Report prepared for Accident Compensation Corporation. Injury Prevention Research Unit, Dunedin. Occasional Report Series OR085, 2010



International Collaborators Effort on Injury Statistics: Swansea 2010

PRESENTATIONS OF NOTE

Official Statistics Forum 2010, Wellington, 24-25 March 2010.

Colin Cryer

Presentation

"Does the current New Zealand case definition of serious non-fatal injuries miss a material number of serious injury cases?"

Royal Statistical Society International Conference, Brighton, England, 13-17 September 2010

Colin Cryer

Presentation

"Valid indicators of serious injury incidence: What can we learn from the New Zealand experience?"

International Collaborative Effort on Injury Statistics (ICE) Meeting, Swansea, England, 19 September 2010

Pauline Gulliver

Presentation

"Serious non-fatal injury: Are we missing a material number of cases?"

Colin Cryer

Presentation

"Minimising health service effects in international comparisons"

Safety 2010, 10th World Conference on Injury Prevention and Safety Promotion, London, England, 21 – 24 September 2010

Colin Cryer

Presentation

"Does the current New Zealand case definition of serious non-fatal injury miss a material number of serious injury cases?"

Poster Presentations

"Identifying injury diagnoses associated with a high probability of admission"

"Injury deaths: Are we missing a material number of cases?"

OCCUPATIONAL

Occupational injury is of considerable concern to various government agencies particularly the Department of Labour and the Accident Compensation Corporation (ACC). Some occupations are more hazardous than others, and in 2010, IPRU continued to focus on farming. Work has also continued on establishing a national surveillance survey of hazardous work and employment conditions, and health and safety outcomes in the New Zealand workforce.

In addition to identifying risk factors and patterns of exposure to known and suspected risk factors for work-related injury, IPRU also examined work disability as an outcome following injury. Information on this can be found in the Disability and Rehabilitation section of this report.

NEW ZEALAND WORK, EMPLOYMENT AND HEALTH SURVEY

Recent reviews of the state of occupational health and safety surveillance in New Zealand by the National Occupational Health and Safety Advisory Committee (NOHSAC) have revealed a woeful state of occupational hazard surveillance. This is a significant impediment to the progression of health and safety initiatives in New Zealand. This feasibility project

extends previous developmental projects by undertaking further work with a view to establishing a national survey aimed at determining the patterns of exposure to suspected and known occupational health and safety risks in New Zealand. This knowledge base will contribute to a broader understanding of the underlying causes of work-related injuries and disease and the possibilities for prevention.

Aim:

To develop a national survey to determine patterns of exposure to suspected and known occupational health and safety risks in the New Zealand workforce.

Project Team: Rebecca Lilley, Colin Cryer, Gabrielle Davie, Hilda Firth

Funding: Health Research Council of New Zealand Feasibility Grant, ACC Post-Doctoral Fellowship (Rebecca Lilley)

Progress: The feasibility project examined alternative sample selection, recruitment and interviewing methods to determine an optimal method of data collection. The feasibility of matching participants to electronic injury records held by the ACC for surveillance purposes was also investigated. Consultation was undertaken with key stakeholders.



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FARM OCCUPATIONAL INJURY

The risk of fatal and non-fatal injury to those living and working on farms in New Zealand is very high, yet there has been little progress in reducing these risks. The following projects seek to develop an understanding of factors that contribute to farm-related injury and to evaluate the effectiveness of farm safety interventions.

Effective Occupational Health Interventions in Agriculture

Occupational ill-health in agriculture is a serious problem and costs the country millions of dollars each year. Currently, there is insufficient knowledge of the best ways to prevent these problems and previous research is limited. This study sought to identify current understanding and generate new knowledge of the best way to address occupational ill-health in this sector:

Aim:

To provide an up-to-date knowledge base from which the ACC, Department of Labour and other stakeholders will be able to introduce or modify targeted interventions to reduce the rates of injury and other harm to members of the target population.

Project Team: Colin Cryer, Peter Davidson, Gabrielle Davie, Rebecca Lilley, Kirsten Lovelock, David McBride, Stephan Milosavljevic, Kate Morgaine

Progress: Papers were prepared for submission to peer-reviewed journals.

Saskatchewan Farm Injury Cohort Study¹

Farming is one of the most hazardous occupations in Canada, accounting for an average of 114 injury-related deaths and some 1400 traumatic hospitalisations annually. Despite its burden to public health, the aetiology of farm injury remains poorly understood. In this project, a large cohort of Saskatchewan farmers, farm workers and their families are being followed longitudinally to study the determinants of farm injury. The study is investigating the importance of operational risk factors as potential causes of injury with a particular focus on vulnerable groups within the farm population (children, farm owner/operators, young workers, and the elderly).

Aim:

To understand the individual operational risk factors and settings associated with agricultural injury, with the long-term goal of informing the development of interventions directed at the prevention of injury in both farm populations and agricultural production settings.

Project Team: William Pickett, James Dosman, Louise Hagel, Barbara Marlenga, Rob Brison, Trevor Crowe, Lesley Day, Punam Pahwa, Jay Biem, Neils Koehncke, Don Voaklander, Murray Purcell, Rebecca Lilley

Funding: Canadian Institutes of Health Research

Progress: Over 5,000 people were recruited from 2,422 farms in Saskatchewan. Papers on the results of the baseline data were prepared for submission to peer-reviewed journals.

¹ This is not managed by IPRU staff, however IPRU staff are scientific collaborators on the project.

PUBLICATIONS

Refereed Journals

RJ371 Lilley R, Feyer A, Firth H, Cunningham C, Paul C. Surveillance of working conditions and the work environment: Development of a national hazard surveillance tool in New Zealand. *International Journal of Public Health*, 2010, 55:1:49-57

RJ411 Lilley R, LaMontagne AD, Firth H. Combined exposures to workplace psychosocial stressors: Relationships with mental health in a sample of NZ cleaners and clerical workers. *American Journal of Industrial Medicine*, 2010, (in press)



A demonstration of how easily quad bikes can roll at the Department of Labour's quad bike safety campaign launch in November 2010.

INTENTIONAL INJURY

Self-harm, suicidal behaviours and assault continue to be important national health priorities in New Zealand. They have a major impact on the daily lives of individuals and their communities. A growing body of international evidence suggests that online interventions are effective in delivering therapeutic programmes to help reduce the risk of major risk factors (for example, mental disorder) for violence.

SELF-HARM

An Internet-Based Cognitive Behaviour Therapy Self-Help for Depression

Depression is a major risk factor for self-harm and the leading cause of disability. Online Cognitive Behaviour Therapy (CBT) has been demonstrated as being effective for overcoming depression.

This study, known as Recovery via Internet from Depression (RID), is using a randomised controlled trial to evaluate two promising interventions.

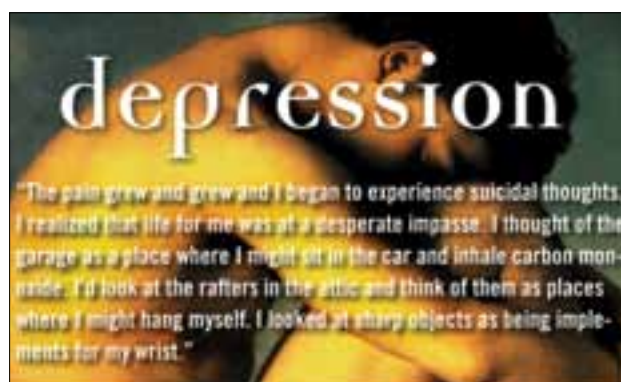
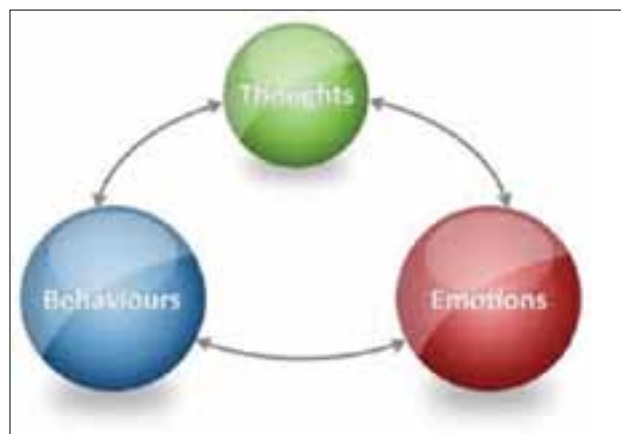
Aims:

- ~ To adapt two existing internet-based, interactive and personalised CBT and depression literacy programmes for depression and related problems;
- ~ To explore the acceptability of the two programmes for the population as a whole and for Māori;
- ~ To conduct a randomised controlled trial to test the effectiveness of both interventions; and
- ~ To promote the results through a variety of fora.

Project Team: Shyamala Nada-Raja, Rob McGee, Helen Christensen, Andrew Mackinnon, John Langlely, Dannette Marie, Claudia Ammann, Paul Garbett, Sheryll Malthus

Funding: Health Research Council of New Zealand, Accident Compensation Corporation, Ministry of Health

Progress: All participants received access to their 12-month online follow-up assessment (on mental health), nearly two thirds to their 18-month online follow-up assessment, and a third to their 24-month (final) online follow-up assessment. An application to the HRC for a three-year extension within a programme grant was awarded in 2010. Preliminary work commenced for two feasibility studies to assess online therapies for mental health and well-being in schools and tertiary students.



Protective Factors for Self-Harm

This study follows a birth cohort of individuals in the Dunedin Multidisciplinary Health and Development Study (DMHDS) from ages 26 to 32 years with respect to continuities and discontinuities in self-harmful behaviours, and risk and protective factors. The DMHDS is a longitudinal study of a birth cohort of 1037 people born in Dunedin between 1 April 1972 and 31 March 1973. The cohort members have been interviewed every two years from ages 3 to 15 years, and again at ages 18, 21, 26, 32 and are now being interviewed at age 38 years. Data were also collected on addictive behaviours including out-of-control sexual behaviours at the age 32 assessment.

Aims:

- ~ To examine patterns of self-harmful thoughts and behaviours from ages 26 to 32 years; and
- ~ To examine factors that may increase or mitigate risk of self-harmful thoughts and behaviours from ages 26 to 32 years.

Project Team: Shyamala Nada-Raja, Rob McGee, Keren Skegg, John Langley

Funding: Health Research Council of New Zealand

Progress: A paper was published and two further papers have been submitted to peer-reviewed journals.



Non-Fatal Deliberate Self-Harm in the Community: Occurrence, Nature, and Risk Factors

Non-fatal self-harm is a very important risk factor for suicide. In recent years, studies have begun to explore the nature of non-suicidal self-harm in its non-fatal forms as a potential risk factor for suicidal behaviours and in relation to conventional risk factors for suicidality. Self-harm comprises all behaviours defined as 'intentional self-harm' in the International Classification of Diseases, including traditional methods of suicide, self-battery and intoxication by substances.

Aims:

- ~ To determine the frequency and nature of self-harm (suicidal, non-suicidal in intent);
- ~ To explore whether suicidal and non-suicidal self-harm are associated or whether they largely occur in separate populations;
- ~ To identify individual, familial, and social risk factors for self-harm in adulthood from self- and parent-report data gathered at previous phases of the DMHDS;
- ~ To determine which behavioural, social and environmental factors triggered or averted incidents of self-harm; and
- ~ To identify sources of help reported by individuals who engage in self-harm, their satisfaction with treatment received for deliberate self-harm (DSH) and barriers to seeking help.

Project Team: Shyamala Nada-Raja, Keren Skegg, John Langley

Funding: Health Research Council of New Zealand, Community Trust of Otago

Progress: A paper was accepted and a further paper was submitted for publication in peer-reviewed journals.

Development of a Usability Testing Scale as a Means of Website Evaluation¹

Many people these days access the internet for information on health. In New Zealand, nearly two-thirds of all households have access to the internet. It is therefore important that health websites are developed to be easily accessible for a variety of potential health consumers. Although there are several mental health websites, most have not been evaluated in terms of their content reliability and effectiveness. In New Zealand there has not been any examination of the usability of such sites, although they are an important component in e-therapy research for preventing mental health problems and related intentional injury.

Aims:

- ~ To develop a cost-effective methodology for measuring and improving the usability of three national depression literacy websites;
- ~ To assess the usability of the National Online Depression Initiative websites developed by the Ministry of Health and a depression literacy website developed by the Mental Health Foundation with local samples; and
- ~ To make recommendations to modify or further develop the sites to suit New Zealand users, thus making them easier to use.

Project Team: Karen Knightbridge, Rob Lawson, Ken Deans, Kirsten Robertson, Shyamala Nada-Raja

Funding: University of Otago

Progress: Data analysis was undertaken.

¹ This is not managed by IPRU staff, however IPRU staff are scientific collaborators on the project.



ASSAULT

I-MEDIC

Internet Medical Education for Doctors Reducing Intimate Partner Violence through Collaboration: I-MEDIC Study

Primary health care professionals are in a unique position to play a major role in preventing and managing intimate partner violence (IPV). Under the Violence Intervention Programme developed by the Ministry of Health, all New Zealand doctors are expected to screen women presenting to their practices or hospitals for IPV. This study explores practical aspects related to doctors' screening for IPV and the feasibility of providing doctors with better access to training programmes through the internet. These may complement existing training programmes on responding effectively to IPV in the clinical setting. A further component is trialing a survey that assesses patients' attitudes to being asked by their doctors about family/partner violence and their satisfaction with any support and treatment received.

Aims:

- ~ To examine Dunedin General Practitioners' (GP) and Trainee Interns' (TI) responsiveness to detecting and managing IPV;
- ~ To test and adapt an online continuing medical education intervention programme to measure changes in GPs' and TIs' educational outcomes in managing IPV;
- ~ To discuss with GPs and TIs the barriers they perceive in detecting and managing IPV;
- ~ To make recommendations to modify or further develop the tools to suit New Zealand GP standards and practices and the medical education curriculum; and
- ~ To use findings from this study to conduct a larger scale randomised control trial to test the adapted programmes.

Project Team: Shyamala Nada-Raja, Heather Dunn, Rob McGee

Funding: Dunedin School of Medicine Dean's Bequest Fund

Findings: The patient satisfaction survey completed by clients of local community groups indicated that many clients were supportive of doctors asking their patients about family violence issues as part of a routine consultation. However, there was a poor response from local doctors and trainee interns with regards to taking part in this feasibility study. This may have been partly due to some doctors' perceptions that community groups were in a better position to assess and manage partner and family violence.

Progress: A summary of findings was compiled for individuals and groups.

PUBLICATIONS

Refereed Journals

RJ362 Marsh L, McGee R, Nada-Raja S, Williams S. Text bullying and traditional bullying among New Zealand secondary school students. *Journal of Adolescence*, 2010, 33:237-240

RJ363 Skegg K, Nada-Raja S, Dickson N, Paul C. Perceived "out of control" sexual behavior in a cohort of young adults from the Dunedin Multidisciplinary Health and Development Study. *Archives of Sexual Behavior*, 2010, 39:968-978

RJ416 Nada-Raja S, Skegg K. Victimization, posttraumatic stress disorder symptomatology, and later non-suicidal self-harm in a birth cohort. *Journal of Interpersonal Violence*, (in press)

PRESENTATIONS OF NOTE

Video interview on "World Wide Web", 26 March 2010

Shyamala Nada-Raja

Invited Presentation

"The role of Health TV in RID and the implications for using Health TV by Primary Health Organisations in mental health promotion in primary care"

Department of General Practice and Rural Health, Dunedin, 8 July 2010

Shyamala Nada-Raja

Presentation

"Progress on Recovery via Internet from Depression (RID) trial and relevance for general practitioners"

Department of General Practice and Rural Health. Residential Colleges Professional Development Symposium "With your basket and my basket the people will thrive", Dunedin, 27 July 2010

Shyamala Nada-Raja

Invited Presentation

"Youth mental health and online interventions for depression and self-harm"

General Practice Symposium "Controversies in Health Care 2010: Mental health - are we on the right track?" Dunedin, 25-26 September, 2010

Shyamala Nada-Raja

Presentation

"The relevance of online therapy in primary care: Progress and examples from the RID trial"

Otago Counsellors Association, Dunedin, 4 November 2010

Shyamala Nada-Raja

Invited Presentation

"Online therapy for depression and its relevance for counselling practice"

ALCOHOL-RELATED HARM

2010 was a significant year for alcohol policy in New Zealand. In April, the Law Commission presented to Parliament its report, *Alcohol In Our Lives: Curbing the Harm*, a 514-page document including detailed recommendations for legislation to reduce alcohol-related harm. In November, the New Zealand Government introduced the Alcohol Reform Bill, which had its first reading in December and will be the subject of public submissions, Select Committee hearings, and a new Act in 2011. IPRU's programme of research on alcohol-related harm continues to inform public policy development through a range of projects including studies of risk factors for hazardous drinking, clinical trials of interventions, and evaluations of policy changes. A PhD thesis was completed on the community alcohol problem regulation and the implementation of a multi-centre randomised controlled trial of web-based alcohol screening and brief intervention for Māori and non-Māori university students.

DRINKING PATTERNS AND CONSEQUENCES

Gender, Drinking Patterns and Alcohol-Related Harm

Much of the burden of alcohol-related harm in interpersonal relationships is uncounted and poorly understood. In 2007, a nationally representative survey was conducted of 2000 adults using a postal questionnaire adapted from *Gender, Alcohol and Culture: An International Study* (GENACIS). This project examines gender differences in alcohol consumption and patterns of alcohol-related behaviour in close relationships.

Aims:

- ~ To measure alcohol consumption, drinking patterns, and drinking environments in a representative sample of New Zealanders (aged 18-70 years), and to compare patterns in men and women;
- ~ To examine the association of hazardous drinking patterns with attitudes to drinking and the presence or absence of informal controls on drinking;
- ~ To estimate the prevalence of alcohol-related problems with sexual health and behaviour; and aggression in the general population; and
- ~ To contribute data to *Gender, Alcohol and Culture: An International Study* (GENACIS).

Project team: Jennie Connor, Kypros Kypri, Kimberly Cousins, Jessica Meiklejohn

Funding: University of Otago Research Grant, Dunedin School of Medicine 'Start Up Award' and Bequest Funds, Alcohol Advisory Council of New Zealand Scholarship

Progress: A Master of Public Health thesis was approved and two papers were submitted to peer-reviewed journals. Findings of the response bias study and the partner aggression paper were presented at conferences. Data were used for the outlet density study (below) and several international comparative studies with the GENACIS group.

Findings: The investigation of response bias suggests non-respondents are likely to have similar or more extreme drinking behaviours than late respondents, and surveys underestimate the prevalence of binge drinking. There are substantial gender differences in the experience of partner aggression. The frequency of heavy drinking episodes is associated with aggression involving alcohol, and the involvement of alcohol is associated with increased severity, fear and anger, particularly for women.



ALCOHOL PROBLEM REGULATION

In the last two decades, local governments have borne most of the responsibility for preventing alcohol-related harm but have lacked regulatory powers and resources. There is little research evidence at present to guide the development of policy at the local level. The following are IPRU's ongoing projects examining policy development, physical availability of alcohol, and community interventions.

Local Government Alcohol Policy

Since 1989, local governments in New Zealand have been responsible for administering and enforcing aspects of legislation concerning the sale of alcohol. The rationale behind this devolution of responsibility from central government was that it would facilitate greater community control over the sale of alcohol. More recently, local governments were given the power to adopt bylaws to control alcohol in public places, protect the

public from nuisance, and protect and promote public health. These statutory responsibilities and legislative powers provide local governments with the opportunity to adopt policies to restrict the availability of alcohol in their communities. These can complement other local strategies aimed at reducing alcohol-related harm.

Aims:

- ~ To measure public sentiment towards alcohol issues in a diverse set of New Zealand communities;
- ~ To identify factors underlying public sentiment towards local government alcohol policies;
- ~ To examine the association between public sentiment and local government policies; and
- ~ To investigate local authority responses to alcohol issues in selected communities, and the process by which alcohol policies and strategies are developed and adopted.

Project Team: Brett Maclennan, Kypros Kypri, John Langley, Robin Room

Funding: Accident Compensation Corporation PhD scholarship (Brett Maclennan)

Progress: Final analyses were conducted on the community survey and key informant interview data. The results were submitted as part of a PhD thesis that was approved. Three papers have been submitted to peer-reviewed journals.

Findings: There is strong support in a heterogeneous set of New Zealand communities for local government policies that restrict the availability and promotion of alcohol. Respondents more exposed to, or aware of, alcohol-related problems in their community are more supportive of alcohol controls. Respondents whose drinking behaviour is more affected by controls, and those more tolerant of drunken behaviour are less supportive of controls. The policies of local governments are consistent with public opinion in some cases. The adoption of alcohol policies by local government appears to be influenced by the political mix of councillors and their ability to work effectively together. Well-organised and loudly-voiced opinion and an open agenda-setting process where no "gate-keepers" determine the local government agenda, are also important in shaping policy.

Alcohol Outlet Accessibility, Area Deprivation, and Adult Drinking Patterns

This project combined the geocoded alcohol outlet data with individual level data from the GENACIS project (above), to investigate harm associated with outlet density.

Aims:

- ~ To examine the association of outlet density with alcohol consumption and self-reported alcohol-related harm over the whole of New Zealand; and
- ~ To investigate the role of individual and neighbourhood socioeconomic status in these relationships.

Project Team: Jennie Connor, Kypros Kypri, Melanie Bell, Kimberly Cousins

Funding: Lottery Health

Progress: The primary analyses were completed. A paper was published in a peer-reviewed journal.

Findings: No statistically significant association was seen between outlet density and either average alcohol consumption or risky drinking. Density of off-licences was positively associated with binge drinking, and density of all types of outlet was associated with alcohol-related harm scores, before and after adjustment for socioeconomic status.



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Evaluation of *Campus Watch*

Campus Watch, a community-based initiative implemented by the University of Otago, commenced in 2007 to improve the safety of the North Dunedin area by reducing alcohol-related harm and social disorder. This evaluation, which includes process, impact and outcome measures, compares the programme implementation area (North Dunedin) with similar high-risk communities across the country (other university campus areas), as well as with South Dunedin, a non-student area. Surveys of North Dunedin residents and businesses and South Dunedin residents were conducted in 2008 and repeated in 2009.

Aims:

To determine:

- ~ How the initiative has been implemented;
- ~ What the mechanisms are by which the initiative has affected the behaviour of individuals and the safety of the community as a whole; and
- ~ What impact the initiative has had on specific outcome variables of alcohol-related harm and social disorder.

Project Team: Kimberly Cousins, Jennie Connor, Kypros Kypris

Funding: Accident Compensation Corporation PhD scholarship (Kimberly Cousins); National Drug Policy Discretionary Fund, Interagency Committee on Drug Policy; Alcohol Advisory Council of New Zealand

Progress: A national web-based survey of university students was conducted in 2009, with participants from seven universities (ten campuses). The survey included questions on alcohol consumption and alcohol-related harms as well as a module for Otago students on their experiences and perceptions of Campus Watch. Two waves of community surveys were conducted in 2008 and 2009. Data on fire call-outs from 2005-2010 from the New Zealand Fire Service were obtained for North and South Dunedin. A paper summarising the project's rationale and methods was presented at two conferences and published in a peer-reviewed journal.

THE MINIMUM ALCOHOL PURCHASE AGE

Since the New Zealand Parliament lowered the minimum purchase age for alcohol from 20 to 18 years in 1999, there has been a fairly constant public and political debate on the merits of returning the age to 20. Debate has been partly informed by IPRU research on the effects of that law change on traffic crash injury rates. In November 2010, the government introduced a Bill to split the purchase age, retaining a limit of 18 for on-license purchase and consumption, while increasing the off-license purchase age to 20. The Bill will be the subject of public submissions and Select Committee hearings in 2011 and it is to be hoped that IPRU research will inform the policy debate.

Submissions on the Sale of Liquor Amendment Bill to Increase the Minimum Alcohol Purchase Age¹

In 2005 a Bill was introduced to the New Zealand Parliament to increase the minimum purchase age for alcohol from 18 to 20 years, and submissions were invited from interested parties. This study sought to characterise the arguments tendered for and against the proposal according to who made them.

¹ This is not managed by IPRU staff, however IPRU staff are scientific collaborators on the project.



Jim Hubbard – Cartoonist

Aims:

- ~ To determine the degree of support in submissions for increasing the minimum purchase age; and
- ~ To characterise arguments used for and against the law change according to who made them.

Project Team: Kypros Kypri, Bob Voas, John Langley, Luke Wolfenden

Funding: National Institute for Alcohol Abuse and Alcoholism, USA

Progress: Independent raters examined all 178 submissions, and coded them according to the source, whether for or opposed, and the arguments employed. A paper was prepared for submission to a peer-reviewed journal.

Effects of New Zealand's Lowering of the Minimum Alcohol Purchase Age 10 Years on

A previous study examined the incidence of traffic crashes involving alcohol impaired 15-24 year-old drivers in the four years before and after the law change. Compared with 20-24 year-old alcohol impaired drivers, rates of people (of all ages) injured in crashes in which a 18-19 year old or a 15-17 year old was driving increased after the law change. This study has been extended by examining outcomes using 10 years of post-change data.

Aims:

- ~ To analyse outcomes from the previous study's results for pre-post legislative change with an age-group control (as in the previous study);
- ~ To conduct a multiple time series analysis for the three age groups; and
- ~ To examine the findings in terms of the New Zealand Government's current proposal to split the minimum purchase age.

Project Team: Kypros Kypri, Gabrielle Davie, Jennie Connor, Patrick McElduff, John Langley, Bob Voas

Progress: Data were extracted and preliminary analyses conducted.



SCREENING AND BRIEF INTERVENTION FOR UNHEALTHY ALCOHOL USE

e-SBI National Trial

When delivered in the university student health service, web-based alcohol screening and brief intervention (e-SBI) has been shown to be effective in reducing unhealthy alcohol use for at least 12 months. A trial of e-SBI conducted at an Australian university showed that e-SBI was effective when administered pro-actively, i.e. on the basis of invitations to participate in screening delivered by e-mail. This approach creates an opportunity for broad implementation but it is not known whether e-SBI is effective across a range of campus settings and among both Māori and non-Māori students in New Zealand.

Aim:

To determine the effectiveness of e-SBI at multiple universities for Māori and non-Māori university students.

Investigators: Kypros Kypri, Jim McCambridge, John Cunningham, Hank Weiss

Funding: Alcohol Advisory Council of New Zealand

Progress: Two parallel trials were undertaken involving seven New Zealand universities. More than 5,200 hazardous drinkers (1,789 Māori and 3,422 non-Māori) were randomly allocated to a control group who received no further contact until follow-up, or to an intervention group, who completed an assessment of their drinking and received personalised feedback. Follow-up assessments were conducted five months later, with more than 70% of participants using the Internet. The trial was completed, and data were cleaned and prepared for analysis.

PUBLICATIONS

Refereed Journals

RJ382 Kypri K, Langley J, Connor J. Alcohol in our lives: A once-in-a-generation opportunity for liquor law reform in New Zealand. *Editorial – Drug and Alcohol Review*, 2010, 29:1-4

RJ384 McGee R, Williams S, Kypri K. College students' readiness to reduce binge drinking: Criterion validity of a brief measure. *Drug & Alcohol Dependence*, 2010, 109:236-8

RJ392 Kypri K, Paschall M, Langley J, Baxter J, Bourdeau B. The role of drinking locations in university student drinking: Findings from a national web-based survey. *Drug and Alcohol Dependence*, 2010, 111:38-43

RJ395 Connor J, Gray A, Kypri K. Drinking history, current drinking and problematic sexual experiences among university students. *Australian & New Zealand Journal of Public Health*, 2010, 34:5:487-494

RJ399 Cousins K, Connor J, Kypri K. Reducing alcohol-related harm and social disorder in a university community. A framework for evaluation. *Injury Prevention*, 2010, 16:e1. doi:10.1136/ip.2010.027961

RJ400 Connor J, Kypri K, Bell M, Cousins K. Alcohol outlet density and alcohol-related harm in New Zealand: A national study. *Journal of Epidemiology & Community Health*, 2010. doi:10.1136/jech.2009.104935

RJ407 Kypri K, McCambridge J, Cunningham J, Vater T, Bowe S, De Graaf B, Saunders J, Dean J. Web-based alcohol screening and brief intervention for Māori and non-Māori: The New Zealand e-SBINZ trials. *BioMed Central: Public Health*, 2010, 10:781

Letter to the Editor

LE22 MacLennan B, Kypri K, Langley J. Distributing surveys: Postal versus drop-and collect method. *Epidemiology*, 2010, (in press)

Theses

TH24 MacLennan B. Local Government alcohol policy: Community sentiment and the policy development process. A thesis accepted for the degree of Doctor of Philosophy at the University of Otago, Dunedin, New Zealand, December 2010

TH25 Meiklejohn J. Drinking patterns, drinking in partnerships and informal social controls on drinking in New Zealand. A thesis accepted for the degree of Master of Public Health at the University of Otago, Dunedin, New Zealand, April 2010

PRESENTATIONS OF NOTE

Research Seminars

New South Wales Bureau of Crime Statistics and Research, Sydney, Australia, 25 November 2010

Kypros Kypri

Presentation

"Minimum purchase age as a strategy to reduce alcohol-related injury"

Centre for Behavioural Research in Cancer, Victoria, Australia, 7 December 2010

Kypros Kypri

Presentation

"Host, agent and environment in the aetiology and prevention of alcohol-related harm"

BIOMECHANICS OF INJURY

All mechanical injury arises from the body's incapacity to handle forces and motion imposed on tissues. Biomechanics, the study of forces and motion in the human body, allows us to understand the injury process and can lead to alternative means of assessing risk factors and developing new injury prevention strategies. At IPRU, this approach contributes to several areas of research including intentional injury, child and adolescent injury, sport and recreational injury.

FORENSIC BIOMECHANICS

The main goal of forensic biomechanics is to interpret the circumstances of an injury after the event. One of the major challenges in this is to distinguish whether the death or injury was unintentional, intentional or suicidal. There is growing recognition of the need to be able to more rigorously analyse the roles of individuals implicated in the injury or death, the circumstances of the injury, and the degree of force required to produce the injury to identify intent. One specific example is how analysis of blood backspatter patterns (where biological material is expelled backwards through the bullet entry hole) is used by crime scene investigators to infer information on the wounding event. There is growing interest in improving scientific understanding of this phenomenon to underpin more robust forensic testimony.

Aim:

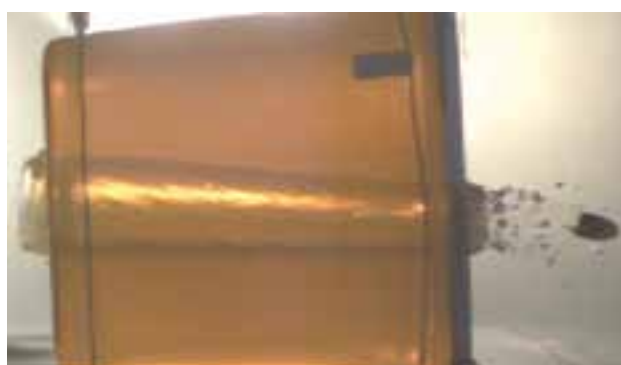
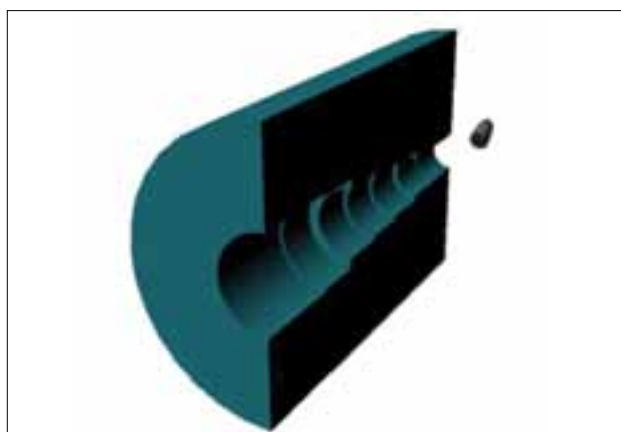
To explore the use of biomechanical techniques to recreate impact injury events and determine method and intent of injury.

Project Team: Peter Davidson, Michael Taylor, Suzanne Wilson, Jules Kieser

Funding: Dunedin School of Medicine Bequest Fund, Environmental Science and Research Capability Fund,

Progress: During 2010, the generation of gunshot backspatter was examined. Two rounds of tests involving shooting enclosed gelatine blocks with different calibre bullets were undertaken and analysis of high-speed videos of these shooting events was almost completed. A simple rheological disc model for gelatine displacement was developed and its ability to replicate the motions of the gelatine assessed. Two papers were prepared for submission to peer-reviewed journals.

Findings: A measurable parameter related to backspatter was identified which potentially may enable investigators to distinguish between different bullets and tissues. The rheological disc model did not fully replicate some of the observed gelatine movements. This finding suggests that it may be necessary to also model the temporary cavity produced within the gelatine as the bullet passes to further characterise the process, perhaps using a fluid dynamic model.



BIOMECHANICAL ANALYSIS OF ARM FRACTURE AND PLAYGROUND SURFACES

Injuries resulting from falls from playground equipment are an ongoing public health concern. Fractures of the distal forearm are the leading type of paediatric fracture and the most common fall-related playground injury. Despite efforts to reduce their incidence, including the introduction of playground surface standards requiring surfaces to meet a Head Injury Criterion (HIC) score, the occurrence of such arm fractures is increasing. The current research programme utilises a computer simulation model to enhance our understanding of the impact process and to identify aspects of impact that contribute to injury risk. This approach is expected to lead to more effective methods for controlling the risk of arm fracture.

Aim:

To improve the effectiveness of risk control methods, such as playground surfaces, with a view to reducing the arm fracture risk for children falling from playground equipment.

Project Team: Peter Davidson, Suzanne Wilson, David Chalmers, Barry Wilson, Andrew McIntosh, David Eager

Funding: Health Research Council of New Zealand, New Zealand Lottery Grants Board

Progress: A paper was published in a peer-reviewed journal, and a second one submitted.

Findings: Study findings have been reported in previous annual reports.

PUBLICATIONS

Refereed Journals

RJ373 Davidson PL, Wilson SJ, Wilson BD, Chalmers DJ.
Energy analysis of wrist impact and surface rebound. *Computer Methods in Biomechanics and Biomedical Engineering*, 2010, 13:5:559-566

DISABILITY AND REHABILITATION

The burden of injury in terms of deaths and disability is considerable with the World Health Organization (WHO) attributing 9% of deaths and 12% of the 'burden of disease' to injury. Unintentional injury has been found to cause 13-18% of all disabilities world-wide. Much research has focused on the accurate description of the causes of injury, and the identification and evaluation of strategies for reducing injury and improving survival. Increasingly researchers, and the communities supporting their research, are interested in evaluating and understanding the physical, psychosocial and environmental consequences, and personal and health service costs, of injury for injured survivors and their families. This approach reflects IPRU's research focus for disability and rehabilitation.

PROSPECTIVE OUTCOMES OF INJURY STUDY (POIS)

To investigate the consequences of injury, POIS sought to recruit 2500 New Zealanders soon after they had been injured. Recruitment was through the Accident Compensation Corporation (ACC) entitlement claimant register. Participants are being followed-up 24 months after injury to describe their experiences and outcomes. Analysis will determine the factors predicting outcomes after injury.

Aims:

- ~ To quantitatively determine the injury, rehabilitation, personal, social and economic factors leading to disability outcomes following injury in New Zealand; and
- ~ To qualitatively explore people's lived experiences and perceptions of injury-related disability outcomes.

Project Team: Sarah Derrett, John Langley, Brendan Hokowhitu, Shanthi Ameratunga, Paul Hansen, Gabrielle Davie, Emma Wyeth, Rebbecca Lilley, Mary Butler, Radilaite Delaibatiki, Sarah Colhoun and Suzanne Wilson

Funding: Health Research Council of New Zealand; Accident Compensation Corporation; Health Research Council of New Zealand Eru Pomare Post-doctoral Fellowship (Emma Wyeth); Accident Compensation Corporation PhD Fellowships (Rebecca Lilley and Mary Butler)

Progress: Recruitment ended in 2010 with 2856 people participating in the study, of which 20% are Māori. Interviewers used computer-assisted telephone interviews (CATI) to collect information at times approximately 3, 5 and 12 months after the injury. The "24 months after" interviews commenced and data analysis and preparation of papers was ongoing. A three-year extension to the HRC programme grant was awarded.



DISABLED BY ILLNESS OR INJURY: DOES IT MATTER?

This project investigates discrepancies in levels of health and social service provision and income support available to individuals in New Zealand who have a disability caused by illness, compared with individuals who are disabled as a result of an injury. The effects of this discrepancy on the economic and social outcomes of the two groups will be compared and described. Participants, aged 18-64 years, living in Auckland, Manukau, Gisborne, Otago and Southland with a diagnosis of stroke are interviewed at 3 and 12 months after stroke onset. This information is compared to that obtained from a matched sample from the Prospective Outcomes of Injury Study (POIS) who have had an injury. Questionnaires are sent to nominated main informal carers living in the same household as the person with the disability who requires personal care, 12 months after the critical event.

Aims:

- ~ To describe the health care, social services and income support received by people who (a) are admitted to hospital with stroke only; or (b) have an injury resulting in a similar level of functional impairment, over a 12 month period;
- ~ To compare the effect of different levels of support received by people with stroke or injury, at 12 months, in terms of socioeconomic conditions of the individual and family, and life satisfaction; and
- ~ To compare the effects of different levels of support received by people with stroke or injury as seen by their informal carers at 12 months, in terms of socioeconomic situation and personal wellbeing.

Project Team: Sue McAllister, Sarah Derrett, Rick Audas, Charlotte Paul, Peter Herbison, Valery Feigin

Funding: University of Otago Research Grant, Dunedin School of Medicine Deans Bequest Fund, Health Sciences Opportunity Fund, University of Otago Health Sciences PhD Scholarship (Sue McAllister)

Progress: The study has 119 participants with recruitment for those 'injured' being complete. Sixty-five carers of people with moderate to serious injury are taking part.



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LONGITUDINAL STUDY OF THE LIFE HISTORIES OF PEOPLE WITH SPINAL CORD IMPAIRMENT¹

About 70-80 New Zealanders per year suffer spinal cord impairment (SCI): two in every three due to injury, and one in three due to disease. This study is prospectively investigating the life histories of people who have such impairment. All New Zealand residents/citizens aged 16-64 years admitted to either Burwood or Auckland Spinal Unit on or after 1 August 2007 are eligible to participate in this study, where the cause of SCI was either an injury or disease process (for example, embolism or cancer).

Aims:

- ~ To explore the interrelationship(s) of body, self and society for people with SCI and how these interrelationships shape their life chances, life choices and subjectivity; and
- ~ To investigate how entitlement to rehabilitation and compensation through ACC (where injury was the cause of SCI) affects socioeconomic and health outcomes compared to outcomes for people not covered by the ACC (for example, where disease/illness was the cause of SCI).

Project Team: Martin Sullivan, Charlotte Paul, Sarah Derrett, Peter Herbison, Peina Tamou, Maureen Crawford, Karla Cooper, Karen Marshall, Carolyn Beaver, Pamela Fergusson

Funding: Health Research Council of New Zealand

Progress: Recruitment for the quantitative component of this study was completed with 118 participants. The final 24-month interviews were almost completed.

¹ This is not managed by IPRU staff, however IPRU staff are scientific collaborators on the project.

INTERNATIONAL SURVEY OF MUSCULOSKELETAL DISORDERS AND RELATED DISABILITY¹

Musculoskeletal disorders (MSDs), including back, neck and arm pain, are the most frequently occurring occupational diseases in New Zealand. This project comprises the New Zealand arm of an international study: The International Survey of Cultural and Psychosocial Influences on Musculoskeletal Symptoms and Disability (CUPID).

Aims:

- ~ To identify the prevalence of MSDs in three occupational groups (nurses, postal and office workers) in New Zealand, and to examine the association with risk factors; and

- ~ To identify factors associated with both ongoing disability, and new MSDs, over the course of one year.

Project Team: David McBride, Sarah Derrett, Helen Harcombe, Peter Herbison, David Coggon

Funding: Health Research Council of New Zealand, STAR Project (Strategy To Advance Research) PhD Scholarship (Helen Harcombe)

Progress: Analysis was undertaken on the baseline data. Follow-up survey data were collected and analysis commenced. This component of the study had an 87% follow-up rate.

¹ This is not managed by IPRU staff, however IPRU staff are scientific collaborators on the project.

EQ-5D GENERAL HEALTH STATUS MEASURE



The EQ-5D is widely-used, nationally and internationally, as a measure of general health status. It is one of the measures internationally recommended for use in studies of injury outcome.

EQ-5D-5L Translation into *Te Reo Māori*

The Prospective Outcomes of Injury Study (POIS) developed questionnaires for administration in *Te Reo Māori* (the Māori language). Formal translation of the EQ-5D 3-level measure was required by the EuroQol Group Translation Committee and was undertaken in 2010. A new 5-level version of the EQ-5D, the EQ-5D-5L, is being translated.

Aims:

- ~ To develop a *Te Reo Māori* version of the EQ-5D-5L; and
- ~ To have the 5 level version approved as an official translation by the EuroQol Translation and Executive Committees.

Project Team: Sarah Derrett, Megan Ellison and Emma Wyeth

Funding: University of Otago

Progress: The translation process commenced.

MOTORCYCLE INJURY OUTCOME STUDY (MINOS) PUBLICATIONS

There is a clear indication that both rates and costs of motorcycle injury have increased significantly in recent years. This developmental study aimed to recruit more than 300 New Zealanders from a random sample of 1000 motorcyclists around the country who were injured in a motorcycle crash during 2007. Recruitment was through the Accident Compensation Corporation (ACC) entitlement claimant register for motor vehicle crashes.

Aims:

- ~ To increase understanding of the outcomes of motorcycle injury and the impact that this has on participation in paid employment and other valued activities;
- ~ To understand factors influencing riding and return to riding after a motorcycle crash; and
- ~ To develop new questions for inclusion in subsequent surveys of injured motorcyclists.

Project Team: Mary Butler, Sarah Derrett, Dorothy Begg

Funding: Accident Compensation Corporation Post-Doctoral Research Fellowship (Mary Butler)

Progress: 441 people participated in the study. Data analysis is underway.

Refereed Journals

RJ364 Derrett S, Davie G, Ameratunga S, Langley J. Capturing outcomes following injury: A New Zealand pilot study. *New Zealand Medical Journal*, 2010, 123:1316:1-9

RJ375 Harcombe H, McBride D, Derrett S, Gray A. Physical and psychosocial risk factors for musculoskeletal disorders in New Zealand nurses, postal workers and office workers. *Injury Prevention*, 2010, 16:2:96-100

RJ387 Wyeth E, Derrett S, Hokowhitu B, Hall C, Langley J. Rangitiratanga and Ōritetanga: Responses to the Treaty of Waitangi in a New Zealand study. *Ethnicity and Health*, 2010, 15:3:303-316

RJ397 Sullivan M, Paul C, Herbison GP, Tamou P, Derrett S, Crawford M. A longitudinal study of the life histories of people with spinal cord injury. *Injury Prevention*, 2010, 16:6:1-9

RJ410 Butler M. Care ethics and the payment of family carers: Implications for occupational therapy. *World Federation of Occupational Therapists (WFOT) Bulletin*, 2010, 62:46-52

Thesis

TH26 Black J. Quality of life after injury: An IPD meta-analysis. A thesis accepted for the degree of Master of Public Health at the University of Otago, Dunedin, New Zealand, March 2010.



PRESENTATIONS OF NOTE

Hui Whakapiripiri, Rotorua, July 8-9 2010

Emma Wyeth

Presentation

"Working collaboratively towards understanding Māori injury outcomes within a national cohort study"

International Conference on Work and Disability Prevention and Integration. France, 2 – 3 September 2010

Rebecca Lilley

Poster Presentation

"Return to work and work ability after injury: Results from the Prospective Outcome of Injury Study"

Australia and New Zealand Spinal Cord Society Symposium: Bridging the Gap: Translational Research in Spinal Cord Injury, Adelaide, Australia, 3 September 2010

Sarah Derrett

Presentation

"Early outcomes following SCI: Preliminary results from a longitudinal cohort study"

Martin Sullivan, Sarah Derrett

Presentation

"Experiences following SCI: Preliminary results from a sequential qualitative study"

"Shifting Sands" New Zealand Association of Occupational Therapists Conference, Nelson, 7-10 September, 2010

Mary Butler

Presentation

"Head on to..... : A visual portrayal of and by artists with brain injury"

Safety 2010, 10th World Conference on Injury Prevention and Safety Promotion, London, England, 21 – 24 September 2010

Rebecca Lilley

Poster Presentation

"Return to work and work ability after injury: Results from the Prospective Outcome of Injury Study"

Sarah Derrett

Presentation

"Disability outcomes following injury: Results from phase one of the Prospective Outcomes of Injury Study (POIS)"

Emma Wyeth

Poster Presentation

"Indigenous engagement and experiences in a national injury study"

"Challenging the Boundaries" 16th Qualitative Health Research Conference, Vancouver, Canada, 3-5 October, 2010

Mary Butler

Presentations

"The prospective outcomes of injury study: Results from phase one of the Qualitative research"

"Head on to..... : A visual portrayal of and by artists with brain injury"

International Collaborative Effort on Injury Statistics (ICE Meeting, Swansea, England, 19 September 2010

James Black

Presentation

"EQ-5D reported outcome after injury: An individual patient data meta-analysis"

Mobilities Research Symposium, Transitions, Connections and Mobilities Research Group, University of Otago, 15-16 November 2010

Mary Butler

Presentation

"Rhythms and temporalities: Explorations of mobility and disability after injury"

Research Seminars

Student Research Seminar, Department of Preventive and Social Medicine, University of Otago, August 2010

Helen Harcombe

Presentation

"Survey design: What matters to participants?"

Student Research Seminar, Department of Preventive and Social Medicine, University of Otago, October 2010

Susan McAllister

Presentation

"Sickness and invalid's benefits in New Zealand: Possible explanations for the rise in numbers"

CONTRIBUTIONS TO INJURY CONTROL AND PUBLIC HEALTH

IPRU's research related to specifically funded project areas has been presented earlier in this report, however some of its work is outside these. Other contributions relate to the public health community's need for reliable information on injury, the importance of maintaining a dialogue on injury prevention in relation to other health issues, and working internationally on injury prevention as a whole. IPRU staff have contributed directly to organising conferences, presenting seminars and lectures, serving on boards and on advisory panels both at a national and international level, and collaborating in other areas of research.

PUBLIC INFORMATION, ADVICE AND SUPPORT

IPRU Website: www.otago.ac.nz/ipru

IPRU website provides access for New Zealand practitioners, researchers and policy makers to current research being undertaken at the IPRU. It also provides access to Health Information Service injury data. Links to other sites, both national and international that are relevant to injury prevention, are also available on-line.

NIQS

NIQS, IPRU's National Injury Query System, provides accessible search facilities for consistent injury data from the New Zealand Ministry of Health. Visitors to the site can select attributes about which they want information regarding New Zealand injury statistics for minor research, policy and programme development. There are a number of limitations in using the injury data available and IPRU has been pleased to be able to offer its years of experience in working with this dataset through this contract with the Ministry of Health.

StatsEnquiry@ipru.otago.ac.nz

A few of the queries that practitioners, policy makers, students and members of the public have cannot be answered directly from NIQS. Requests can be sent to StatsEnquiry@ipru.otago.ac.nz for personalised assistance. Again, IPRU is able to assist through a contract with the Ministry of Health.

Project Team: Jean Simpson, Gabrielle Davie, Dave Barson, Brandon de Graaf, Ari Samaranyaka

NEW ZEALAND INJURY PREVENTION STRATEGY CHARTBOOKS OF SERIOUS INJURY OUTCOME INDICATORS 1994-2009

The New Zealand Injury Prevention Strategy (NZIPS) Secretariat commissioned IPRU to produce Chartbooks that would provide trends for fatal injury indicators and for serious non-fatal injury in New Zealand on an annual basis. The all population Chartbook was first produced and published in January 2006. Subsequently, Chartbooks for children and for Māori have been produced. Annual updates and additional Chartbooks (for example, injury-related impairment in 2010) were funded through a contract with the ACC.

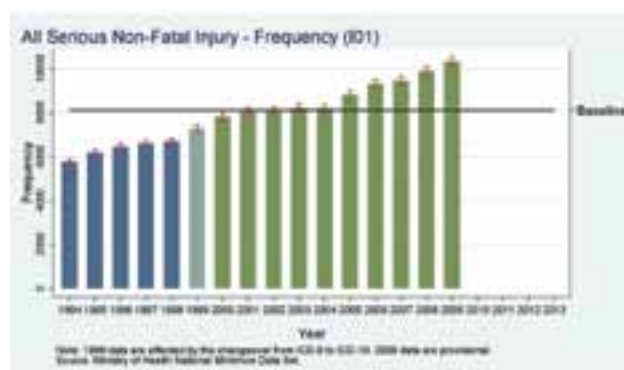
Project Team: Colin Cryer, Pauline Gulliver, Gabrielle Davie

The following 2010 reports are available from the NZIPS website: <http://www.nzips.govt.nz/resources/publications.php>:

Chartbook of the New Zealand Injury Prevention Strategy Serious Injury Outcome Indicators: 1994-2009

Chartbook of the New Zealand Injury Prevention Strategy Serious Injury Outcome Indicators for Children: 1994-2009

Chartbook of the New Zealand Injury Prevention Strategy Serious Injury Outcome Indicators for Māori: 1996-2009



PUBLICATIONS OF INTEREST

Most of IPRU's publications have been identified with specific research projects, but the following lie outside those areas.

Refereed Journals

RJ376 Tin Tin S, Woodward A, Thornley S, Langley J, Rodgers A, Ameratunga S. Cyclists' attitudes toward policies encouraging bicycle travel: Findings from the Taupo Bicycle Study in New Zealand. *Health Promotion International*, 2010, 25:1:54-62

RJ390 McClure C, Katz K, Patrick T, Kelsey S, Weiss H. The epidemiology of acute poisonings in women of reproductive age and during pregnancy, California, 2000-2004. *Matern Child Health Journal*, 2010, DOI 10.1007/s10995-010-0571-1

RJ391 Sauber-Schatz E, Markovic N, Weiss H, Bodnar L, Wilson J, Pearlman M. Descriptive epidemiology of birth trauma in the United States in 2003. *Paediatric and Perinatal Epidemiology*, 2010, 24:116-124

RJ394 Derrett S, Darmody M, Williams S, Rutherford M, Schollum J, Walker R. Older peoples' satisfaction with home based dialysis. *Nephrology*, 2010, 15:4:464-470

RJ402 Langley J. New Zealand Injury Prevention Strategy: Significant shortcomings after 5 years. *New Zealand Medical Journal*, 2010, 123:1327:1-7

RJ404 Sanchez AI, Krafty RT, Weiss, HB, Rubiana AM, Peitzman AB, Puyana JC. Trends in survival and early functional outcomes from hospitalized severe adult traumatic brain injuries, Pennsylvania, 1998-2007. *Journal of Head Trauma Rehabilitation*, (in press)

PRESENTATIONS OF NOTE

Most of IPRU's "Presentations of Note" have been identified with specific research projects, but the following lie outside those areas.

Safety 2010, 10th World Conference on Injury Prevention and Safety Promotion, London, England, 21 – 24 September 2010

Hank Weiss

Presentations

"Temporal trends in hospital mortality and early functional outcomes associated with severe traumatic brain injuries in children, Pennsylvania 1998-2007"

"The sunset of cheap energy: Grey skies and silver linings for injury prevention and public health"

"Survival and early functional outcomes at hospital discharge after severe adult traumatic brain injury: Sex and race disparities"

VISITOR SEMINARS

IPRU was delighted to host the following visitors who presented the following seminars:

Professor Greg Larkin, Yale University
Seminar on March 5 2010

"Helping in Haiti: Yale's global health and disaster medicine response"

Dr Paul G. Quinnett, University of Washington School of Medicine Seminar on March 8 2010

"Oh let's just not talk about it: Challenges and opportunities in preventing patient suicide"

Dr Amritha Sobrun-Maharaj, University of Auckland Seminar on August 26 2010

"Asian immigrants: Healthy, wealthy, and educated?"

Dr Lou Gallagher

Seminar on December 15 2010

"Chemical suicide deaths in New Zealand: Implications for practice"

Professor Gordon Smith, University of Maryland IPRU 20th Anniversary Seminar on November 19 2010

"Shaking up our understanding of alcohol and injuries: Hangovers, biomarkers, and translational research"

Dr Lesley Day, Monash University

IPRU 20th Anniversary Seminar on November 19 2010

"Evaluation of WorkSafe Victoria's employer performance management program"

VISITORS

IPRU were delighted to welcome other distinguished visitors, they were:

New Zealand Roding Police 27 October 2010

Superintendent Paula Rose

National Manager, Road Policing, Police National Headquarters

Inspector Andrew Burns

Road Policing Manager, Dunedin Central Police Station

South Korean Delegation 31 November – 2 December 2010

Professor Lee Gang-hyeon: Emergency Medicine, Wonju-Yeonseu University Severance Hospital, Center for Injury Surveillance System Management and Cooperation

Professor Tak Yang-ju: Emergency Medical Service in Chungju National University, Center for Injury Surveillance System Management and Cooperation

Dr. Yun Seon-hwa: Co-Representative of Korean Association of Safety Communities, Center for Injury Surveillance System Management and Cooperation

Dr Jang Hyeon-gap: Department of Health Policy and Management, Center for Injury Surveillance System Management and Cooperation

CONTRIBUTIONS TO TEACHING

IPRU is a research unit, but staff also contribute to teaching within its own and other academic departments.

Sarah Derrett

Dunedin School of Medicine – Fifth Year Medical Students Public Health Course
“Prioritising health care”
31 March, 10 June, 19 August and 26 October 2010

Dunedin School of Medicine – Trainee Intern Health Care Evaluation Project “Clinical audit of follow-up of colorectal cancer patients following curative resection”
July – August 2010

Rebecca Lilley

Department of Preventive and Social Medicine: Health Promotion (HEAL202)
“Developing an intervention for the prevention of injury in agriculture”

Shyamala Nada-Raja

Department of Preventive and Social Medicine: Foundations of Epidemiology (HEAL 192)
“Prevention of suicide and self-harm”
11 October 2010

Department of Preventive and Social Medicine: Epidemiology of Major Health Problems: Mental Disorders (HEAL 211)
“Interventions for self-harm and suicide”
30 March 2010

Jean Simpson

Department of Women's and Children's Health: Community Child Health (CHHX701)
“Unintentional child injury”
April 21 and August 4, 2010

Department of Women's and Children's Health: Fifth Year Integrative Day “Childhood injury prevention”
April 14, 2010

EXTERNAL REPRESENTATION

Dorothy Begg

Member of Editorial Advisory Board: Accident Analysis and Prevention

Member of the Editorial Board: Journal of Safety Research
National Executive Member: Australasian College of Road Safety: New Zealand Chapter

Colin Cryer

Statistical Editor: Injury Prevention journal
Member of the Steering Committee: International Collaborative Effort on Injury Statistics (ICE)

Peter Davidson

Honorary Advisor: Royal Society of Prevention of Accidents, Playsafe, United Kingdom
Member of the Editorial Board: Journal of Science and Medicine in Sport
Research Associate: Institute of Sport and Recreation Research New Zealand, AUT

Sarah Derrett

Member of the Editorial Board: International Journal of Health Planning and Management
Member of the Management Committee: University of Otago Rehabilitation and Disability Research Theme
Member: Ministry of Health Lower South Regional Ethics Committee
Member: Scientific Committee EuroQol Group

Pauline Gulliver

Executive member: Australasian Mortality Data Interest Group
Member: Statistics New Zealand Data Documentation Work Group
Member: Statistics New Zealand Injury Outcome Monitoring Work Group

Kypros Kypri

Advisor: World Health Organization Reference Group on Alcohol Epidemiology
Associate Editor: Alcohol and Alcoholism journal

Shyamala Nada-Raja

Member of Advisory Group: Australian National Epidemiological Study of Self-Injury
Member of Advisory Group: Otago District Health Board Suicide Prevention Action Plan Project
Member: Technical Advisory Group, Suicide Prevention Information New Zealand (SPINZ)

Melissa Purnell

Member: Drowning Prevention Council Research Advisory Committee

Jean Simpson

Vice President: Board of the International Society for Child and Adolescent Injury Prevention (ISCAIP)

Member: Otago Child and Youth Mortality Group

Chairperson: Otago/Southland Public Health Association

Emma Wyeth

Member: Ngāi Tahu Research Consultation Committee

Hank Weiss

Member: 2012 World Safety Conference National Organising Committee

Chairperson: 2012 World Safety Conference Scientific Organising Committee



FOR FURTHER INFORMATION CONTACT

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ISBN 0-908958-87-0