



ISCRR

Institute for Safety, Compensation
and Recovery Research



MAKING A DIFFERENCE *through* **RESEARCH**

ANNUAL REPORT 2014



WHAT WE DO

The Institute for Safety, Compensation and Recovery Research (ISCRR) is a research-policy partnership established in 2009 via an agreement between the Victorian WorkCover Authority (VWA), the Transport Accident Commission (TAC) and Monash University.

The three partner organisations provide support and funding. The partnership consists of staff located in our main office, researchers distributed across our Monash University network, and formal and informal links into our policy partners, the TAC and the VWA.

In early 2014, the partners entered into a new agreement, committing approximately \$29 million in funding and in-kind support to partnership activities over the period to 30 June 2018.

We aim to develop, conduct and translate research that has an impact and leads to positive change in practice or policy.

ISCRR supports the staff of ISCRR's main office to act as brokers between the end users of research and the academic community.

Our brokerage model seeks to involve all affected parties throughout the research initiative.

The core functions of the staff in the main office are as follows:

- **Research development** – working in conjunction with our partners to develop research questions that are aligned to TAC and VWA priorities.
- **Research translation** – helping our partners and their stakeholders to apply the research findings in a practical way. This may include improving or changing policies and practices and informing decisions about future initiatives.
- **Research platform management** – providing a number of research platforms that support research activities across our portfolio.

Our research network undertakes research in conjunction with our policy and practice partners. This research occurs across a range of areas that encompass the breadth of issues within the Victorian safety and injury compensation systems.

We also have a range of formal and informal engagement mechanisms with our policy partners including jointly appointed staff. These mechanisms are used to both ensure the relevance of our research and to promote the uptake of research findings by the TAC and the VWA.

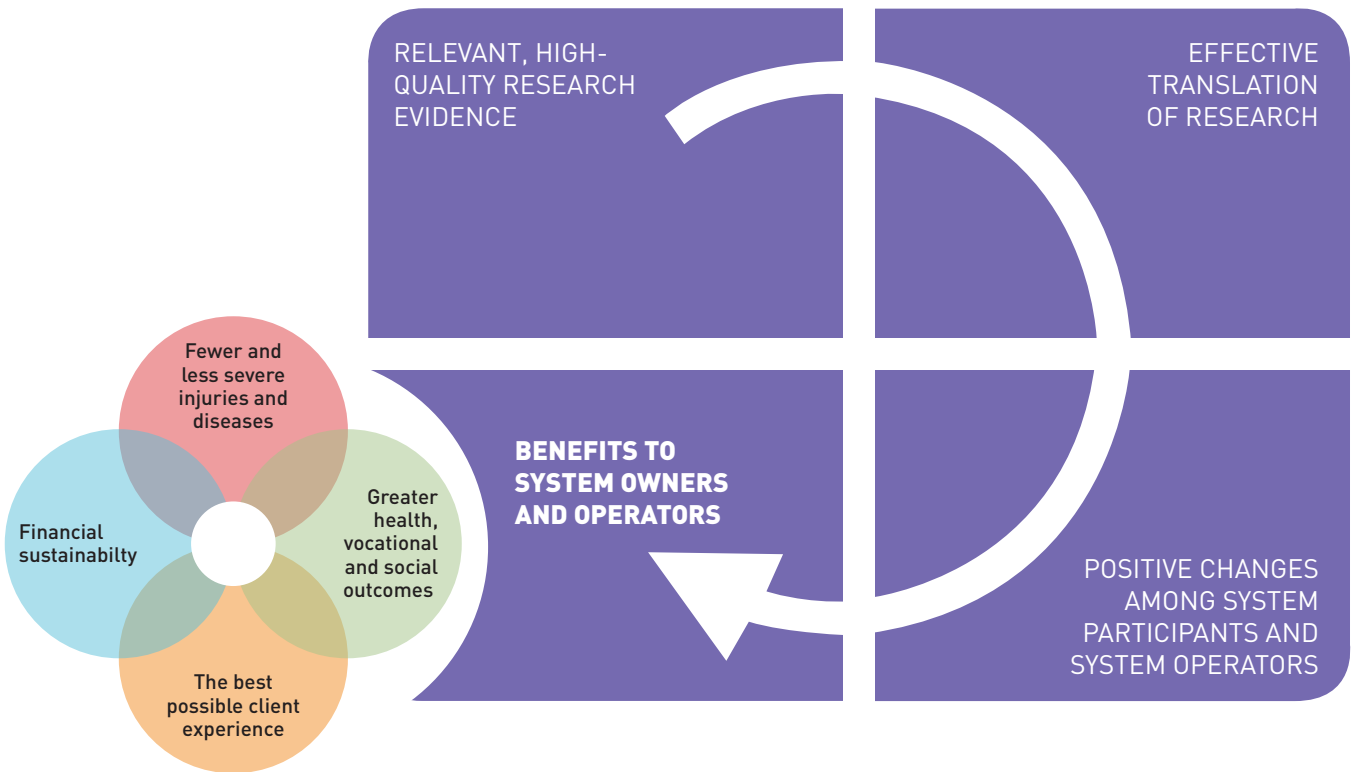
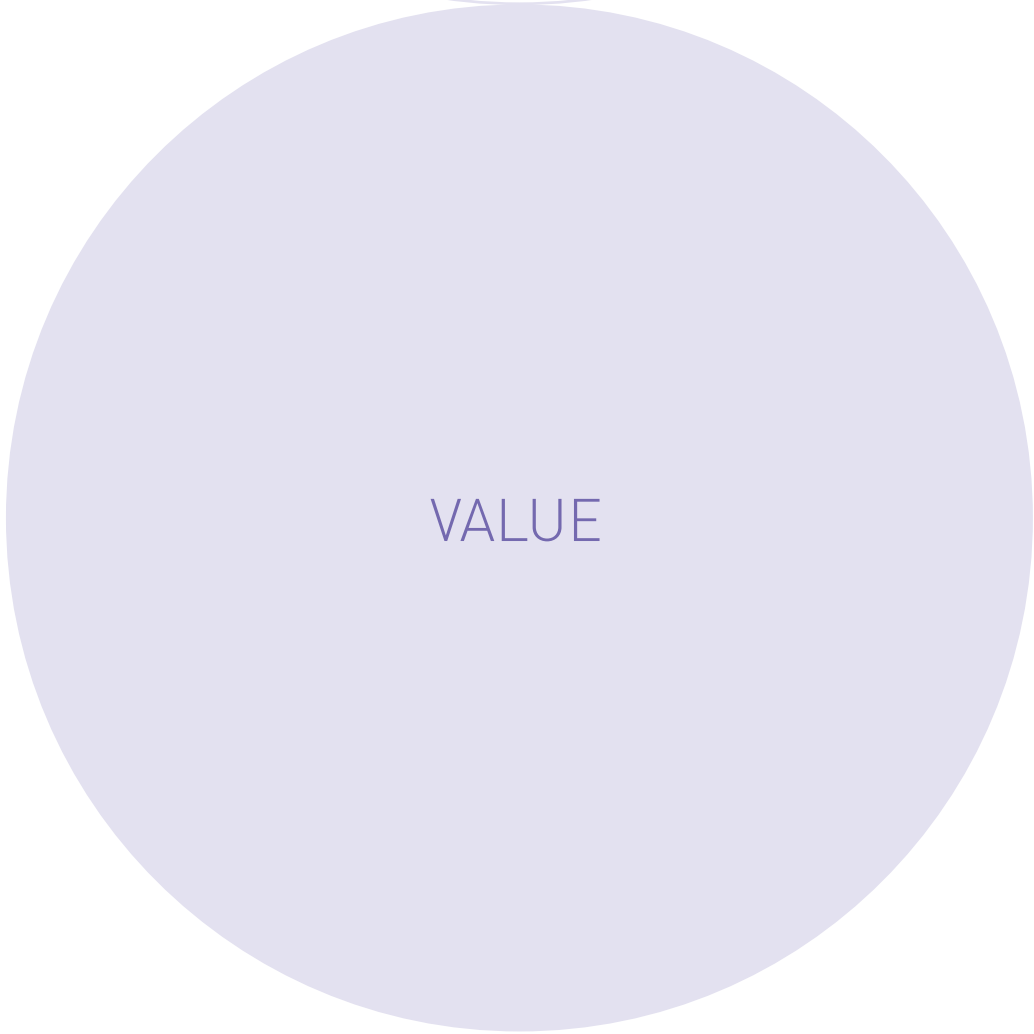
Using this partnership approach, we are able to design, deliver and translate research that leads to improvement in Victoria's safety and compensation systems for the benefit of the TAC and the VWA and the Victorian community generally.



MISSION



Collaboratively develop, execute and translate the highest quality research which helps the TAC and the VWA optimise their outcomes and those of their clients.



ISCRR delivers value to our three partners and the public in a number of ways.

Value for our partners – the TAC, the VWA and Monash University

For the TAC and the VWA, the partnership delivers value by:

- bringing in new insights to enable innovation
- positively influencing system participants by engaging them in the research activity and translation
- providing a resource and capability that can be directed to address complex, longer-term issues that require careful, evidence-informed responses, and
- assisting with the development, delivery and evaluation of programs within the TAC and the VWA.

For Monash University, ISCRR adds value by:

- building the university's capacity and capability in safety, compensation and recovery research
- contributing to the university's growing reputation of excellence in applied research that has a real impact on society, and
- providing a revenue stream that can be leveraged through nationally competitive grants.

Public Value

The public value is realised by helping the TAC and the VWA achieve their objectives of reducing workplace injury and illness, the impact of road traffic injury, improving client and injured worker outcomes and ensuring client satisfaction while maintaining financially sustainable systems.

This is achieved in two ways:

- **By directly engaging with the TAC and the VWA,** ISCRR can influence the policy and practice of those two organisations.
- **By engaging with individuals and groups involved in the Victorian safety and compensation systems,** ISCRR can influence the policy and practice of those system participants. Positive changes among those individuals and groups have an indirect but potentially meaningful impact on the TAC and the VWA.

While the partnership is focused on Victoria, ISCRR's research findings are of value to participants in the health, disability services and compensation sectors both nationally and around the world.

CHAIRMAN'S REPORT



I am delighted to present this year's Annual Report.

ISCRR is a substantial and unique asset for its three foundation partners – the TAC, the VWA and Monash University, and for the Victorian community generally. The Institute has been operating for five years and has established itself as a national and an international leader in occupational health and safety and injury compensation and recovery research.

This year, the Institute achieved some major milestones that reflect the confidence it enjoys from its partners and the value it has already delivered to them.

Perhaps most importantly the partnership in ISCRR was secured with the finalisation of a second Research Institute Collaboration Agreement including the commitment of substantial additional funding by the partners.

The new agreement includes allocation of a further \$29 million over the period to 2018 and followed a substantial review of the Institute's activities and its value. This should be considered a vote of confidence in the quality and relevance of research that ISCRR has delivered over its first five years.

During the year, we have consolidated work to transition the organisation to a more streamlined model that focuses specifically on the development and translation of high-quality research that delivers value to the TAC, the VWA and their clients.

This was the result of an internal review that refocused ISCRR's role as one of 'brokerage' – connecting end users with the academic community to achieve our goal of research with impact.

I commend CEO Alex Collie, the ISCRR leadership team and all staff for their role in helping us to transition to a leaner internal structure, enabling \$9 million of savings to be channelled into research programs.

New directions

As a maturing organisation, ISCRR has a firm sense of its value and role in shaping a research agenda in collaboration with our partners and in delivering a positive and measurable impact.

In June, the Board approved our new Strategy 2020. This arose following substantial consultation with our partners and the community between January and May 2014. The strategy provides a framework that will guide our activities over the coming six-year period as we seek to consolidate our approach and enhance the value of our activities.

One feature of the strategy is that it targets our research activity towards community-based partners engaged in Victoria's safety and compensation systems. Initially, this will occur via aggregation of research projects into five thematic areas that reflect major components of the safety and compensation systems: Safe and Healthy Workplaces; Primary Health Care; Improving Trauma Care; Evidence-Informed Claims Management; and Smart Independent Living Environments.

In this year's report, we have aligned current and completed research programs with these themes as an introduction to our future direction, while recording the research achievements of the last 12 months.

During the year, we have consolidated work to transition the organisation to a more streamlined model that focuses specifically on the development and translation of high-quality research that delivers value to the TAC, the VWA and their clients.

Acknowledgements

On behalf of the Board, I thank Professor Niki Ellis, who resigned as CEO during the year, and congratulate Professor Alex Collie on his appointment to the CEO role.

Alex has provided strong leadership during a period of intense change at ISCRR. The management team at ISCRR, working with our partners, has set in place an operating model to carry ISCRR forward to the next phase of our evolution.

I commend the research outlined in this report and look forward to seeing ISCRR continue as a valued contributor to our partner organisations.

Mr Paul Shannon
Chairman

CHIEF EXECUTIVE OFFICER'S REPORT



ISCRR is a unique research-policy partnership.

The Institute's research has the potential to affect the lives of millions of Victorian drivers and workers and thousands of employers. Through our partners, the TAC and the VWA, we can have a positive impact on the health, wellbeing, productivity and economy of the State. To enable this, we have access to an extensive array of expertise via our Monash University-based research network.

This year, our partners committed a further \$29 million in funding to the Institute, providing a secure revenue stream through to 2018. We have a committed Board, highly talented staff and a strong sense of purpose.

Few research organisations have such an enviable set of resources at their disposal.

Evolution

The past year has been one of transformation and evolution for ISCRR. We have worked hard to put in place the strategy, structure and people to derive maximum value from these resources.

Following an organisational review initiated by the Board in late 2013, we have refocused our internal operations on our core functions of developing and translating high-quality, highly relevant research. This led to a leaner operation model internally, with a consequent increase in the proportion of our funding available for the undertaking of research via our Monash University network.

I am pleased to report that most of the internal reduction was achieved via natural attrition; however, it is never easy to farewell talented and committed individuals. I extend my gratitude to all staff, both current and those who departed during the year, for their professionalism during a challenging period for ISCRR.

Research with impact

We want our research to make a difference. Over the past two years, we have developed and implemented an approach to assessing research impact. This has continued in 2014, and the report presents the highlights from our latest two impact assessment case studies. These assessed the value derived from two long-running projects, the Victorian Orthopaedic Trauma Outcomes Registry and our Evidence Review research platform.

The case studies describe substantial value arising from these projects, including changes in use of evidence among our policy partners, impacts on surgical practices at a major Victorian hospital, treatment payment policy changes in the VWA and the TAC, changes in the health outcomes of injured people and compensation system cost savings. These are powerful examples of research making a difference.

Our approach to assessing impact is also beginning to gain some recognition, at a time when determining the return on research investment is becoming increasingly important in the academic sector. A personal highlight of the year was the masterclass we convened on impact assessment during the National Health and Medical Research Council (NHMRC) research translation meeting in November.

Research with output

Statistics don't lie. By any measure it has been a productive year for our research network. The annual report includes a section listing the output produced during the year. It is substantial. Much of the output is published in quality peer reviewed journals and presented at national and international scientific meetings. But there are also many reports delivered directly to our policy partners, reflecting the focus we have on the research/policy interaction. This growth in productivity is a positive sign of a maturing institute and represents the early fruit of a substantial research portfolio established over the previous few years.

Thanks

The year started with my colleague Professor Niki Ellis in the CEO's chair. Niki was a terrific and tenacious advocate of ISCRR's role in occupational health and safety and injury compensation research, both in Australia and internationally. I would like to acknowledge and thank Niki for her contribution to the Institute over the previous four years.

I am delighted to have been given the opportunity to lead ISCRR through its next phase. Thanks also to the Board and my colleagues at ISCRR, the TAC, the VWA and Monash University for their confidence in me and our wonderful staff.

I am confident that we now have in place an approach and a strategy that will deliver even greater value for our partners and the Victorian community.

Professor Alex Collie
Chief Executive Officer

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HIGHLIGHTS 2013/14

\$5.6 million

Funding spent on research by ISCRR
(compared to \$6.7 million in 2012/13).

\$29 million

Amount of future research funding secured during the year.

77

Total number of projects active during the year.
This includes 28 projects completed and 49
which were active at the end of the financial year.

3rd Australasian Compensation Health Research Forum (ACHRF)

Organised by ISCRR in Sydney in October 2013.

34

Number of peer reviewed journal articles published.

145

Total number of research outputs during 2013/14.

HIGHLIGHTS
2013/14

WHO WE ARE

ISCRR is a research-policy partnership working across our three partner organisations and includes:

- a main office which leads the development and translation of research and maintains some research platforms
- a research network based at Monash University that undertakes research for the partnership, and
- partner staff of the TAC and the VWA engaged via formal and informal mechanisms to ensure the relevance of research and to promote its translation.

In addition to formally governing the partnership, ISCRR has a representative Board of Management with an independent chair and a Relationship Management Committee comprised of senior managers from the three partner organisations and chaired by the ISCRR CEO.

Board

ISCRR's governance model is overseen by a Board comprised of two representatives from each of our partner organisations and an independent Chairperson.



Mr Paul Shannon

Appointed Chairperson August 2013
Chair



Ms Janet Dore

Appointed Director April 2010
CEO, Transport Accident
Commission, and TAC
representative



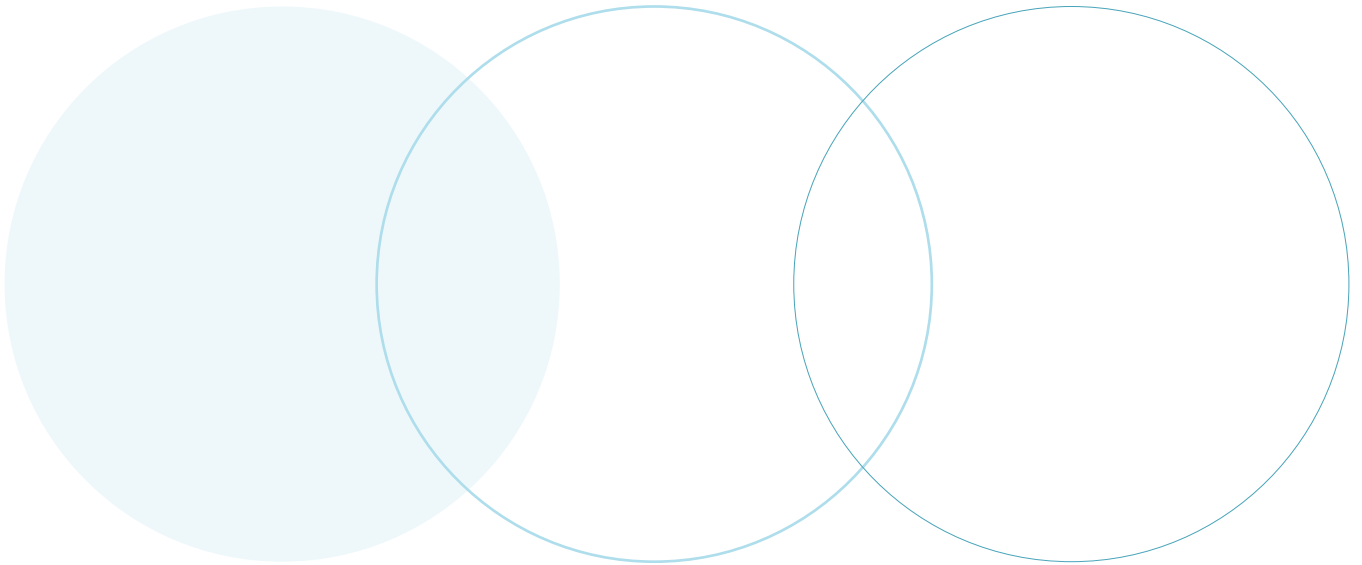
Dr Geoff Brooke

Appointed Director February 2012
Managing Director, GBS Ventures,
and VWA representative



Ms Denise Cosgrove

Appointed Director February 2013
CEO, Victorian WorkCover Authority,
and VWA representative



Professor Pauline Nestor

Appointed Director February 2013
Vice-Provost (Research),
Monash University,
and Monash University
representative



Mr Chris Latham

Appointed Director November
2010 (resigned August 2013)
Former Partner, Pricewaterhouse-
Coopers, and independent
representative



Associate Professor Andrew Way

Appointed Director August 2011
CEO, Alfred Health, and Monash
University representative

Management team at June 2014

Professor Alex Collie

Chief Executive Officer and Research Lead,
Evidence-Informed Claims Management

Mr Tony Tenaglia

Director, Operations

Dr Clarissa Martin

Research Lead, Primary Health Care
and Smart Independent Living Environments

Ms Verna Smith

Research Lead, Improving Trauma Care

Dr Anne-Marie Feyer

Research Lead, Safe and Healthy Workplaces

Ms Samantha Barker

Research Manager

RELATIONSHIP MANAGEMENT COMMITTEE

The Relationship Management Committee (RMC) is an important part of ISCRR's governance and provides a forum for engagement between senior executives of ISCRR and its three major partners. It is chaired by ISCRR's CEO and comprises representatives from the TAC, the VWA and Monash University.

The RMC supports ISCRR by:

- providing advice to the ISCRR Board and CEO regarding the strategic and major operational activities of ISCRR
- reviewing and providing endorsement and/or approval of ISCRR's research activities, within the limits of its delegated authority from the ISCRR Board
- continuing to build the partnership, share information and provide a forum for the partners to bring forward and consider ideas and capabilities, and
- collectively managing the Research Institute Collaboration Agreement.

During 2013/14, the following individuals represented their organisation on the RMC:

Transport Accident Commission

David Gifford
Joe Calafiore
Gillian Miles
Marion Nagle

Victorian WorkCover Authority

Clare Amies
Glenn Ockerby
Robin Trotter
Gillian Sparkes

Monash Univeristy

Sarah Newton

ISCRR

Alex Collie

Research leaders

The following individuals led projects as members of the ISCRR research network during the year:

Professor Amrik S. Sohal, Faculty of Business and Economics, Monash University

Ms Andra Morrison, Canadian Agency for Drugs and Technologies in Health

Professor Anthony LaMontagne, Deakin University

Professor Belinda Gabbe, School of Public Health and Preventive Medicine, Monash University

Dr Bianca Brijnath, School of Primary Care, Monash University

Professor Brian Oldenburg, Chair, International Public Health Unit, Monash University

Professor Christine Bigby, Faculty of Health Sciences, Social Work and Social Policy, Allied Health, La Trobe University

Professor Danielle Mazza, School of Primary Care, Monash University

Professor David Studdert, Melbourne School of Population Health, The University of Melbourne

Dr Di Winkler, CEO, Summer Foundation Ltd

Professor Fang Lee Cooke, Faculty of Business and Economics, Monash University

Ms Gillean Hilton, AQA Victoria

Professor Graeme Hodge, Monash Centre for Regulatory Studies, Law Faculty, Monash University

Dr Genevieve Grant, Faculty of Law, Monash University

Professor Helen De Cieri, Faculty of Business and Economics, Monash University

Professor Jamie Cooper, Australian and New Zealand Intensive Care Research Centre (ANZIC-RC), School of Public Health and Preventive Medicine, Monash University

Associate Professor Jane Maree Maher, Faculty of Arts, Monash University

Dr Janneke Berecki-Gisolf, Monash Injury Research Institute, Monash University

Professor Jennie Ponsford, School of Psychology and Psychiatry, Monash University

Professor Jenny Keating, School of Primary Health Care, Monash University

Associate Professor Jingxin Zhang, Faculty of Science, Engineering and Technology, Swinburne University

Professor Joan Ozanne-Smith, Faculty of Medicine, Nursing and Health Sciences, Monash University

Dr Jodi Oakman, Faculty of Health Sciences, La Trobe University

Professor John B Furness, Department of Anatomy and Neuroscience, The University of Melbourne

Professor Leanne Togher, Faculty of Health Sciences, University of Sydney

Professor Lesley Day, Monash Injury Research Institute, Monash University

Ms Libby Callaway, School of Primary Health Care, Monash University

Professor Malcolm Sim, Centre for Occupational and Environmental Health, Monash University

Dr Marilyn Di Stefano, Faculty of Health Sciences, La Trobe University

Professor Mary Galea, Florey Institute of Neurosciences and Mental Health, The University of Melbourne

Associate Professor Michael Fitzharris, Monash Injury Research Institute, Monash University

Associate Professor Murray J Fisher, Sydney Nursing School, University of Sydney

Associate Professor Natasha Lannin, Alfred Clinical School, Faculty of Health Sciences, La Trobe University

Professor Russell Gruen, Department of Surgery, Central and Eastern Clinical School, National Trauma Research Institute, Monash University, Alfred Health

Professor Nellie Georgiou-Karistianis, School of Psychological Sciences, Monash University

Professor Nigel Bertram, Faculty of Art Design and Architecture, Monash University

Dr Peter Batchelor, Florey Institute of Neurosciences and Mental Health

Associate Professor Peter Smith, School of Public Health and Preventive Medicine, Monash University

Ms Rebecca Wood, Summer Foundation Ltd

Dr Richard Cooney, Faculty of Business and Economics, Monash University

Dr Sarah Sinclair, Department of Chemical Engineering, Monash University

Professor Shane Murray, Faculty of Art Design and Architecture, Monash University

Professor Shanthakumar Wilson Rajaratnam, School of Psychological Sciences, Monash University

Dr Sharon Newnam, Monash Injury Research Institute, Monash University

Associate Professor Terence Haines, Faculty of Medicine, Nursing and Health Sciences, Monash University

Dr Venerina Johnston, School of Health and Rehabilitation Sciences, University of Queensland

Professor Malcolm Hopwood, Department of Psychiatry, The University of Melbourne

Professor Justin Kenardy, Faculty of Health and Behavioural Sciences, University of Queensland

Project sponsors from the TAC

At the TAC, the following senior managers were designated project sponsors during the year:

Bruce Crossett
Damian Poel
David Gifford
Doug McDonald
Fiona Cromarty
George Fedyszyn
Melinda Watt
Renee Handwerk
Robyn Canning
Barbara Hill
David Attwood
Alan Woodroffe

Project sponsors from the VWA

At the VWA, the following senior managers were designated project sponsors during the year:

Clare Amies
Coralie Hadingham
Glenn Ockerby
Len Boehm
Linda Timothy
Marion Nagle
Megan O'Halloran
Pam Anders
Ross Jones
Ross Pilkington
Simon Bailey
Anita Aiezza
Sandy Ashton

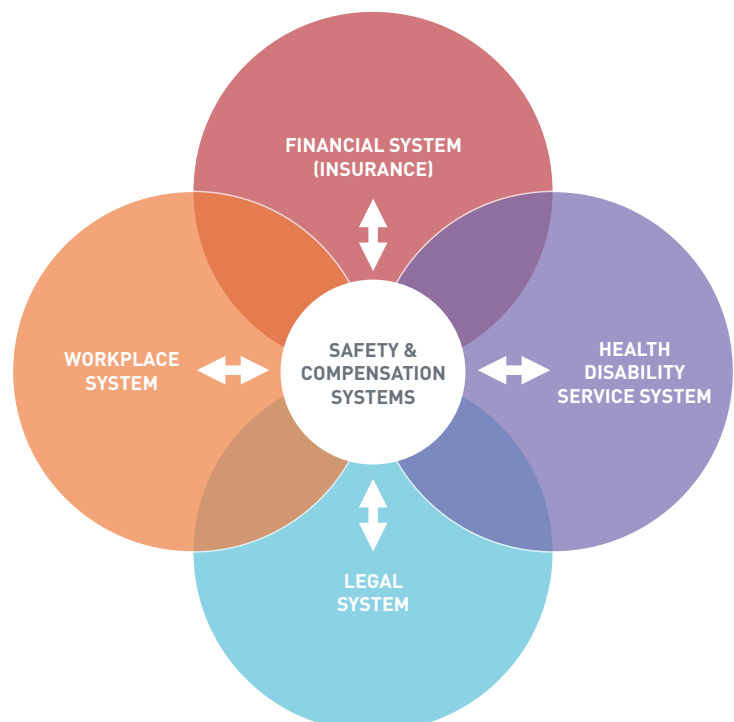
OUR STAFF

ISCRR works closely with our partners in developing research priorities and supporting our operational requirements. Our employees may be engaged in research and development, evidence review and database management, administration, communications or operations. As at June 2014, the Institute employed 20 staff in its head office.

RESEARCH

In previous years, ISCRR has aligned research activities around 'program' areas that broadly reflected the strategic business areas within the TAC and the VWA.

As part of ISCRR's Strategy 2020, we have refocused the research around five key themes which reflect not only the safety and compensation 'systems' (administered by the TAC and the VWA) but also the broader healthcare, disability, workplace and compensation systems they intersect with.



Our initial focus during Strategy 2020 will be on five thematic areas:



**Safe and Healthy
Workplaces**



**Evidence-Informed
Claims Management**



**Primary Health
Care**



**Smart Independent
Living Environments**



**Improving Trauma
Care**

SAFE AND HEALTHY WORKPLACES



The Safe and Healthy Workplaces theme focuses on the intersection of safety, compensation and workplace systems. It encompasses the entire value chain of prevention opportunities in the workplace:

- Primary – prevention of threats to health and supporting people at work before they need to enter a claims process
- Secondary – post-injury and ill-health prevention for workers
- Tertiary – preventing work-related disability

Over the past five years, ISCR has funded many studies focused on occupational health and safety (primary prevention), health promotion (primary and secondary prevention) and return to work (tertiary prevention) in the workplace. These have included initiatives to improve identification and management of work-related mental health conditions, evaluation of health promotion initiatives, studies of workplace safety culture and climate, and investigation of workplace based-interventions for return to work.

Activity during 2013/14 focused on five key areas:

Prevention of manual handling injuries, with completion of an evidence review focusing on implementation science to assist with the development of innovative strategies and a trial of a toolkit to assist employers with identifying risks and developing strategies.

Mental wellbeing in the workplace, with commencement of a trial and evaluation of an integrated approach (integrating strategies for management of work-related stressors and personal mental health in a single approach) to managing mental health issues in the workplace.

Integrated approaches to worker health and safety, with commencement of the WorkHealth Improvement Networks Program and its evaluation, the launching of a Cooperative Research Centre (CRC) for alertness, safety and productivity, and considering the influences of, and preparedness for, an ageing Victorian workforce.

Assessment of the feasibility and validation of a tool to measure leading indicators of safety for use in Victorian workplaces, with completion of data collection that included interviews with stakeholders, VWA inspectors, 50 workplaces and more than 2600 respondents. Analysis is under way, and final reporting is due in 2015.

Prevention of work-related disability, with several projects investigating workplace-based return to work being completed, including a systematic review and assessment of implementation of beneficial return to work practices in Victorian workplaces.

Research highlights

In 2014, **the evaluation of the WorkHealth Program delivered by WorkSafe over five years was completed**, and the evaluation framework for the next iteration of the WorkHealth program – the WorkHealth Improvement Networks – was commenced. Building the evaluations alongside the programs has allowed VWA to develop, deliver and evaluate a new area of intervention activity and ultimately to enhance its efficacy.

Development of evidence-based guidelines for use by employers and employees to better understand and manage mental health in the workplace was completed in 2014. The development of the guidelines provided an opportunity to engage system participants in the research and to enhance VWA's ability to begin to engage with a very complex issue that required careful, evidence-informed responses.

In collaboration with major industry partners, regulatory bodies and the Canadian Institute for Work and Health, a research team from Monash University has been **validating a measure of leading indicators of OHS performance** since late 2012. While the value of lead indicators as measures of safety is almost universally acknowledged, practical methods for measuring them have been lacking. It is expected that the outcome of this research will be to provide a simple, reliable and valid screening tool to assist Australian organisations to measure the presence of leading indicators of OHS in their workplaces.

A systematic review of workplace-based interventions for improving return to work after musculoskeletal and pain-related conditions with an international panel of experts was completed. The research found that a multi-component return to work program can reduce time lost from work post-injury, compared to control conditions. There was insufficient evidence that workplace-based interventions could improve health and quality of life outcomes.

Case studies



Integrated approach to worker health, safety and well-being

Dr Amanda Cooklin, Ms Eliette Husser, Ms Nerida Joss, Professor Brian Oldenburg
Global Health and Society Unit, School of Public Health and Preventive Medicine, Monash University

Total project cost: \$80,206

The project was designed to summarise the evidence on integrated approaches to worker health as a potential model for addressing a range of complex issues impacting Victorian workplaces, and to assist the VWA to build on the successes of the WorkHealth Program. The project comprised three components:

- A systematic review of empirical evidence.
- A framework and guideline review.
- Selected case studies drawn from the VWA's WorkHealth Program participants.

The research identified best practice principles for the implementation of integrated approaches to worker health, safety and wellbeing. It also provided workplace examples specific to the current legal, regulatory and workplace context in Victoria.

The findings were tabled in a summary report, accompanied by guidelines for the implementation of integrated approaches using examples from Victorian case studies. This report was published by the VWA for broad dissemination among Victorian workplaces. The ultimate outcome of the work was the design of a credible evidence-based program – the WorkHealth Improvement Networks Program – which has been endorsed for implementation.

Investigation of MSD toolkit risk and hazard measures in relation to claim rates and other indicators

Dr Jodi Oakman, Ms Katrina Lavender and Ms Victoria Weale, La Trobe University, with support from Professor Yvonne Wells, La Trobe University

Total project cost: \$54,996

A musculoskeletal disorders (MSD) risk management toolkit was previously developed in work undertaken by La Trobe University. This project took the survey component of the MSD toolkit and validated it against a range of claims-related measures in the residential aged care sector, enabling the survey measure to be further refined. This sector was chosen in consultation with the VWA, due to the high numbers of MSD claims.

Four aged care organisations were recruited. Using categories developed in collaboration with VWA technical experts, the organisations were classified as 'good' or 'poor' performers, based on their claims data. Two classified as 'good' performers while the other two classified as 'poor' performers.

The results were informed by data from interviews with managers and supervisors, a review of policies and procedures related to OHS and MSDs, and an employee survey at each site.

The survey measures previously developed and which formed a central part of a risk management toolkit for MSDs were confirmed as being ready for implementation and evaluation in workplaces. In particular, the results provided support for the use of self-reported discomfort levels in hazard identification activities.

Findings from this study may contribute to the development of new and more effective ways of managing MSDs ultimately leading to a reduction in MSD claims. The findings included the following:

- The outcomes from the survey measure can provide a basis for workplaces to accurately identify key hazard and risk factors for MSDs relevant to their own workforce, enabling them to develop risk controls based on these findings.
- Confirmation that comprehensive approaches to managing MSDs through regular hazard surveillance of all potential hazards and risks – both physical and psychosocial – are essential. The survey allows organisations to assess risks for MSD development more comprehensively.





PRIMARY HEALTH CARE

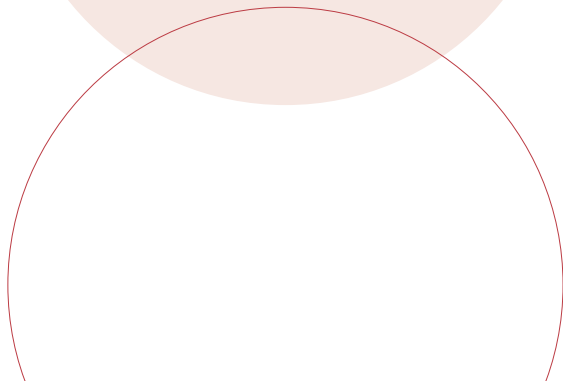
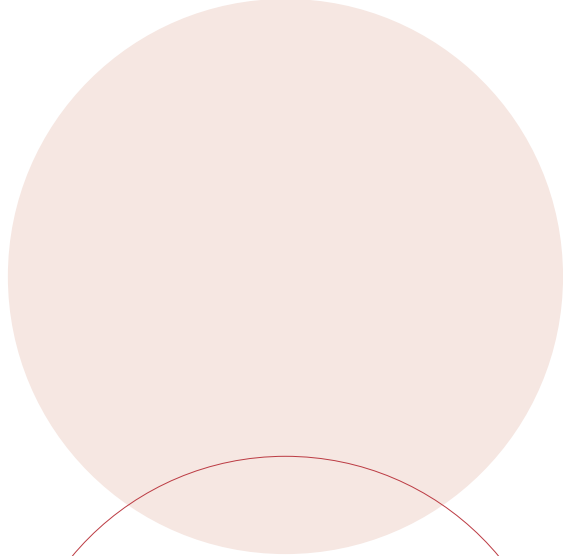
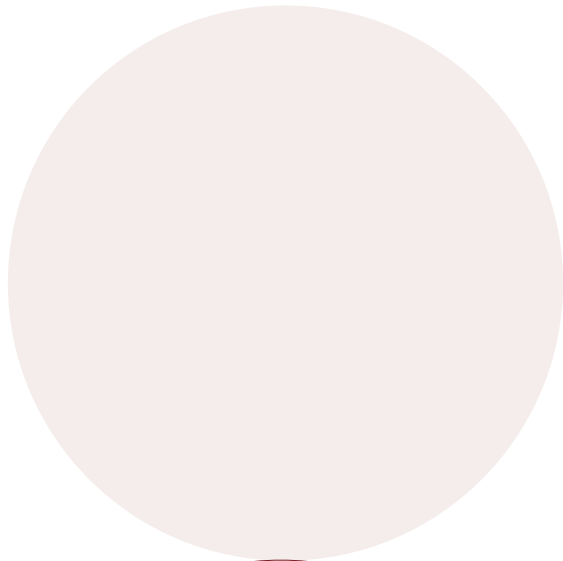


The Primary Health Care research theme has been developed to positively influence the clinical practice of primary care practitioners involved in treating TAC and VWA clients.

Primary healthcare practitioners play a significant role in the frontline management of injured workers and TAC clients, notably being responsible for work capacity certification. There is strong evidence to support the 'prescription' of safe work as an important factor in injury management. However, this evidence has not yet been embedded in daily clinical practice.

The initial priority of the Primary Health Care research theme is to understand the most effective means of changing the behaviour of general practitioners (GPs) and physiotherapists to apply an evidence-based practice model to the management of injured workers and work capacity certification.

ISCRR's Primary Health Care theme is relatively new, having emerged out of research conducted within the former Return to Work and Health and Disability Service Delivery programs during 2013/14.



Research highlights

A key highlight during 2013/14 was the completion of the **FIT to Work** project, which is outlined in more detail on page 23.

A further highlight was the development, approval and commencement of two new projects directly supporting VWA and TAC strategic initiatives:

- **Evaluation of the Health Benefits of Safe Work (HBoSW) initiative**, led by Professor Danielle Mazza, Department of General Practice at Monash University. This project uses a mixed methods approach to evaluate the HBoSW initiative, which comprises multiple concurrent interventions targeting change in GP work capacity certification.
- **The development of an online training package for physiotherapists** as part of the Early Intervention Physiotherapy Framework. This project, led by Professor Jenny Keating at Monash University, will develop, implement and evaluate an education package to support physiotherapist behaviour change through an incentivised provider registration initiative.

The Primary Health Care theme hosted the first ISCRR research forum for 2014, **21st century challenges for general practice**, with presentations from Dr Judith Smith, Director of Policy, the Nuffield Trust, London UK, Professor Danielle Mazza from the Department of General Practice, Monash University and Dr Bianca Brijnath, National Health and Medical Research Council (NHMRC) Early Career Public Health Fellow in the Department of General Practice, Monash University.

Case studies



FIT to Work: general practitioners (GPs) facilitating injured workers return to work

Professor Danielle Mazza, Dr Bianca Brijnath, Dr Agneizska Kosny, Department of Epidemiology and Preventive Medicine, Monash University, and Professor Alex Collie, ISCRR

Total project cost: \$149,965

Using a mixed methods approach, this study aimed to explore the current knowledge, attitudes and practices of GPs, injured workers, employers and compensation schemes in enabling GPs to facilitate injured workers to return to work. The findings of this project provide insights into the different perspectives on the barriers and enablers to the GP's role in return to work, why these barriers exist and how they might be overcome.

One of the key mechanisms for GPs to facilitate return to work is the issuing of a medical certificate. Quantitative analysis of VWA and TAC certificate data from 2003 to 2010 showed an increasing number of certificates being issued by GPs, and for longer durations of time. Most certificates issued were 'unfit' for work, suggesting that the injured person had no capacity for any type of work duties.

The main reasons for such high rates of 'unfit' certificates issued include:

- lack of a common definition on the GP's role in return to work
- heavy reliance only on injured workers' feedback on capacity to work, and
- the lack of availability of alternative/modified duties.

The outcomes of this project have been used to inform two recent TAC and VWA strategic initiatives – the redesign of the certificate of work capacity and the Health Benefits of Safe Work initiative targeting the role of the GP in timely return to work.

A process evaluation of the new certificate of capacity for compensation claims

Dr Bianca Brijnath and Professor Danielle Mazza, Department of General Practice, Monash University

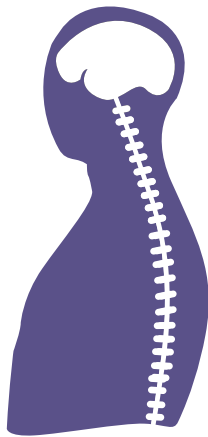
Total project cost: \$42,181

The project conducted a process evaluation of the TAC and the VWA redesigned certificates of capacity to determine the appropriateness of the content and assess its usability by GPs, compensation claims agents, employers and injured workers. The findings indicated that all stakeholders viewed the draft certificates as an improvement on the current certificates. Compensation agents and employers, in particular, appreciated the shift from focusing on incapacity to certifying based on capacity.

However, suggestions were made for improvement such as refining the sections on mental health assessment and making the certificate electronically available. These suggestions provided useful feedback to the TAC and the VWA and supported the further refinement of the certificate of capacity prior to roll out on 1 July 2014.

An impact evaluation has subsequently been developed to investigate the effect of the new certificate on the certification behaviour of GPs.

IMPROVING TRAUMA CARE



Improving Trauma Care focuses on those healthcare services that treat and rehabilitate people who are injured on the road or at work. This research is designed to:

- positively influence trauma treatment and rehabilitation
- improve the experiences and outcomes for traumatically injured people, and
- consider how compensation systems can better enable these treatment services to be provided to TAC clients and injured workers.

The research in this theme arises from the neurotrauma funding agreement for brain and spinal cord injury research which ISCRR entered into with the TAC in 2012 and thus reflects the priorities in the TAC/ISCRR Neurotrauma Strategy. ISCRR's approach aims to provide an evidence base for best practice in trauma care and trials of new types of treatment, including pioneering new patient-centered developments.

Research investigates services that span stages of a traumatic injury, from the instant an injury occurs to the paramedical assistance given, the emergency transport used, admission to emergency and intensive care units, through to surgery and treatment in the acute stages following injury. It includes stages of recovery and rehabilitation in hospital and after discharge. Research also explores ways to improve the treatment and management of the health complications caused by traumatic injury that are regularly experienced by people living with neurotrauma in the community.

ISCRR has collaborated with researchers from local, interstate and overseas universities and organisations to develop projects that will answer some of the most pressing research questions in this large field of enquiry. This enables the sharing of the costs of research targeted at improving trauma care, through collaboration with other funders and researchers doing similar work.

Research highlights

During 2013/14, ISCRR continued work on ground-breaking projects that aim to improve outcomes for people living with spinal cord injury and traumatic brain injury. ISCRR also supported an internationally unique trauma clinical data registry to measure and compare the quality and long-term outcomes for orthopaedic patients, which will make a real difference to patients receiving acute orthopaedic interventions.

In the last year, funding was provided for major projects which seek to improve outcomes for people with **spinal cord injury** including:

- research to test the use of roadside cooling and early decompression of the spinal cord of injured people to prevent further damage
- trialling of new treatments for improved bowel management
- investigation of factors affecting the health of the bladder lining and possible links to urinary tract infections, and
- improving guidelines for nerve transfers to restore upper limb functions.

In **traumatic brain injury**, the major projects funded included:

- design of an evaluation framework for a new rehabilitation facility for people with severe brain injury
- investigation of the trajectory of behaviours of concern in people with traumatic brain injury to identify what treatment or therapy has worked well and what has not worked well, and
- trial of early rehabilitation in people with post traumatic amnesia.

Each of these projects has the potential to deliver important new knowledge or treatments to improve the experience and outcomes for people with a traumatic injury, potentially increasing their independence in everyday living and better managing the costs of their treatment and support over time.

Using data from the Victorian Orthopaedic Trauma Outcomes Registry to influence clinical management of open tibial wounds

The Victorian Orthopaedic Trauma Outcomes Registry (VOTOR) is a database managed in the School of Public Health and Preventive Medicine at Monash University by Professor Belinda Gabbe. It draws anonymised patient information from the State trauma and orthopaedic trauma registers and links it to the claims data held by the TAC. An example of research using the VOTOR database published during the year was 'Negative Pressure Wound Therapy in Open Tibial Fractures', ML Blum (Master of Surgery candidate). Using the VOTOR data from 220 cases, this study demonstrated that negative pressure wound therapy in open tibial fractures significantly lowered the rate of deep infection compared to patients receiving conventional dressings for these wounds. This demonstrates the value of the system in providing researchers with data that can lead to real change in clinical practice.

Case studies



Best practice models of care for people with catastrophic brain injury

Associate Professor Natasha Lannin, La Trobe University

Total project cost: \$418,033

The impact that a severe acquired brain injury (ABI) has on the person and their family and the community is significant. Until recently, the rehabilitation options for people with severe or catastrophic ABI in Victoria have been limited and the opportunities to maximise outcomes have been restricted. A new statewide specialist rehabilitation service for adults with severe ABI is opening at Alfred Health in 2014. This service will provide Victoria's first centre of excellence for clients with severe or catastrophic brain injuries requiring slow stream rehabilitation. During 2013/14, the first phase of a research program to support best practice in the new facility was completed. This involved gathering information about the currently available Victorian services for people with severe acquired brain injury and the outcomes achieved within the existing system. It has also reviewed evidence and provided advice supporting the development of the model of care for the new service.

Development of a rehabilitation intervention for people living with traumatic brain injury where behaviours of concern limit their social and vocational opportunities

Professor Jennie Ponsford, Professor Mal Hopwood, Professor Justin Kenardy – a partnership between Monash University, The University of Melbourne and the University of Queensland

Total project cost: \$196,699

Behaviours of concern following traumatic brain injury (TBI), including aggression, agitation, sexual inappropriateness and lack of initiation, present significant challenges for the person with TBI, the people who support them, service organisations and the wider community. These behaviours often result in social isolation, relationship breakdown and dislocation from accommodation. They create a significant burden for the person living with TBI and their families or other carers and represent the greatest source of stress to people with brain injury and caregivers over many years following injury. The broad objective of this project was to identify the factors underpinning chronic behaviours of concern in TAC clients as a basis for the development and evaluation of a program to alleviate these behaviours, improve client independence and reduce costs.





Trial of a new drug to improve bowel management after spinal cord injury

Professor John Furness, Dr Brid Callaghan,
The University of Melbourne

Total project cost: \$1.06 million

Following injury to the spine in which the spinal connections are severed, there is a loss of conscious control of the bowel, which can lead to accidents and cause great inconvenience and potential embarrassment. In the longer term, impaction of bowel contents, with associated weakening of the bowel wall, can require surgery to remove the bowel and lead to an ileostomy or colostomy, further compromising quality of life. This study involves clinical testing of a colokinetic drug with the aim of restoring bowel control following spinal cord injury, thus significantly reducing attendant care requirements and the eventual need for surgery. Treating the symptoms of bowel incontinence in people with spinal cord injury has the potential to greatly improve their quality of life and ability to participate in the community.

Trial of a new intervention to minimise the risks of spinal cord compression immediately following injury

Dr Peter Batchelor, Florey Institute of
Neuroscience and Mental Health

Total project cost: \$971,000

Traumatic injury to the spinal cord can occur not only from a sudden impact, but also from compression as a consequence of displaced vertebra or vertebrae. Animal and preliminary human data demonstrates that urgent relief of this compression appears to greatly improve outcome. However, urgent decompression in humans is difficult to achieve because of logistical challenges. Pre-clinical data demonstrates that hypothermia can suspend the progressive damage caused to the spinal cord by compression, thereby allowing decompressive surgery to be performed in a clinically achievable timeframe.

A multi-state, multi-centre clinical trial of immediate cooling followed by emergency decompression (ICED) has been funded to determine whether the combination of hypothermia and early decompression improves outcomes in patients with severe spinal cord injury of the neck. The trial involves the cooling of patients in the field by paramedics immediately following spinal cord injury, followed by rapid transportation to hospital to undergo surgical decompression. Specifically, this project aims to conduct the logistical and paramedic studies necessary to ensure feasibility of the procedure before commencing the trial.

EVIDENCE-INFORMED CLAIMS MANAGEMENT



Claims management is a central function in both the TAC and the VWA systems. Claims managers interact directly with injured people, their employers, healthcare providers and others involved in the recovery, return to work and care of those injured. Over the past five years, ISCRR has conducted a number of studies investigating and documenting the impact of claims management practices and processes on the health and wellbeing of injured people and their satisfaction with the service they receive.

The practice of claims management has developed over the course of decades, and there is substantial know-how and expertise within the transport and workers compensation systems. The Evidence-Informed Claims Management theme aims to support this field by developing a research evidence-base to support policy and practice in the 'front-line' of injury compensation systems – claims management organisations.

Research highlights

During the year, a number of major projects were completed and results were delivered to the TAC and the VWA. At the same time, we began to evaluate the impact of claims management interventions.

A systematic review of **injured workers' experiences in workers compensation systems** was completed and published in a leading international journal in the field. This review demonstrated that a proportion of injured workers report predominantly negative experiences with compensation systems across four continents (Australia, North America, Europe and Asia) and that these experiences can lead to the onset or exacerbation of mental health conditions.

Our **evaluation of the TAC 2015 Recovery and Independence initiative** entered its fourth year. This is a multi-component evaluation of a complex claims management intervention initiated by the TAC in 2010. The major piece of work completed in 2014 was an assessment of the health impact of the recovery claims initiative using data from the Victorian Orthopaedic Trauma Outcomes Registry linked to TAC claims data. Another major piece was a quantitative and qualitative evaluation of factors leading to common law claims lodgement in the TAC system.

Late in the year, we began an evaluation of the **VWA streamlined treatment request policy changes**. This initiative by the VWA seeks to reduce the time taken to process some commonly approved treatments for injured workers, in order to enhance the injured workers' experience of the compensation process. The evaluation will conclude in 2014/15, with a pre vs post comparison of the impact of the policy changes.

An Australian Research Council funded project entered its final year. This project seeks to examine the **individual, community and societal impacts of compensable injury**. The final stage involves detailed examination of the interactions between participants in compensation processes, including injured people and their family/carers, claims managers, healthcare providers and employers. The project is using a case study methodology to develop a comprehensive picture of the journey of an injured person through three participating compensation systems – the VWA, the TAC and Comcare. Final results are anticipated in late 2014.

Case studies



The health effects of compensation systems (HECS) study

Professor David Studdert and Dr Matt Spittal, The University of Melbourne, with Dr Genevieve Grant, Monash University, and Associate Professor Meaghan O'Donnell, Australian Centre for Posttraumatic Mental Health

Total project cost: \$439,126

This longitudinal study, led by Professor David Studdert from The University of Melbourne, assessed the health and well-being of a group of more than 330 people with compensable injury resulting in hospitalisation across Victoria, New South Wales and South Australia at six years post-injury. This was combined with a questionnaire about participants' experiences of the claims process.

The aim of the research was to investigate the relationship between stressful claims experiences and long-term recovery after injury among transport accident and workers compensation claimants. In addition, it explored the role of claimant vulnerability to stressful claims experiences to support the development of recommendations for change to improve claimant recovery.

The research found that there was a high level of diversity in claimants' perceptions of the claims process. Results demonstrated that more than one-third of people experienced compensation processes as stressful, and the study also identified an association between the stressfulness of the compensation process and negative health outcomes. There were 53% of claimants who reported moderate-to-high levels of stress associated with one or more of the elements of the claims experience (as presented in the survey).

The most frequently reported stressors were:

- understanding what the claimant needed to do for the claim (34% of claimants)
- the amount of time taken to deal with the claim (30% of claimants), and
- the number of medical assessments or examinations (27% of claimants).

Claimants who reported high levels of claim-related stress were at heightened risk of poor long-term recovery (with higher levels of anxiety, depression and disability). Associations between stressful claims experiences and poor health outcomes remained significant when the researchers adjusted for clinical and demographic factors that may have predisposed claimants to experiencing the claims process as being stressful. There was also a significant indirect relationship between post-traumatic stress disorder (PTSD), depression, claim-related stress and long-term disability.

A number of recommendations were made as a result of the findings of this study:

- The development of two complementary strategies that have strong potential for improving claimants' long-term recovery and saving resources.
- The introduction of interventions to boost the resilience of claimants at risk of stressful claims experiences.
- The redesign of claims procedures and processes to reduce their stressfulness, especially for vulnerable claimants.



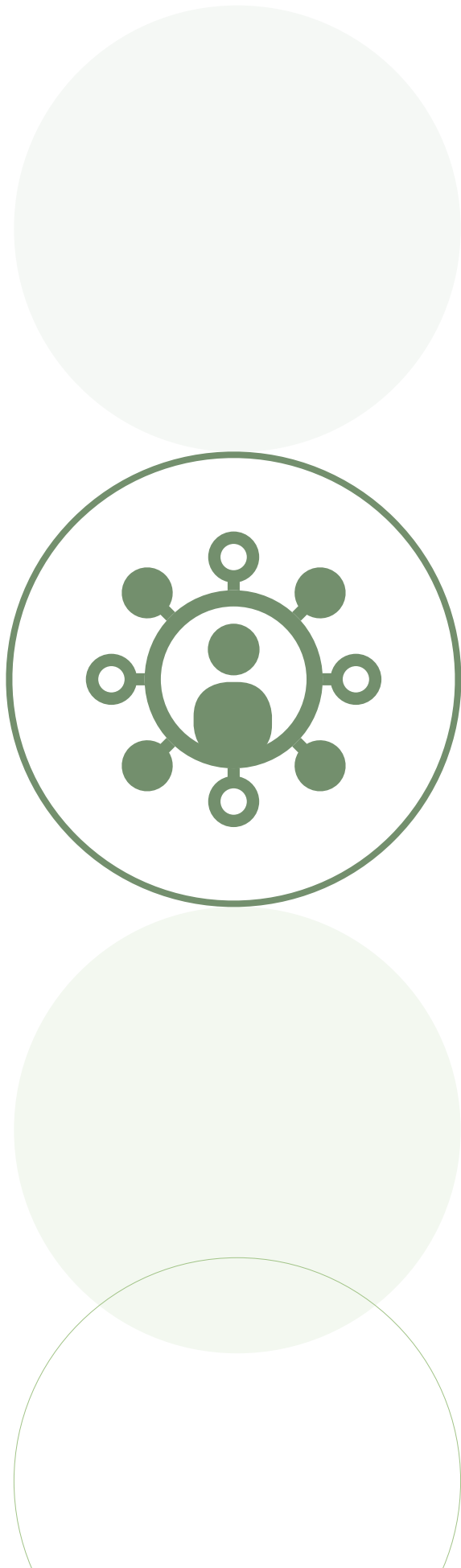


SMART INDEPENDENT LIVING ENVIRONMENTS

The Smart Independent Living Environments (SmILE) research theme aims to build an evidence base and positively influence policy and practice in lifetime support for people with high and complex care needs arising from traumatic brain and spinal cord injury. The key areas of priority in SmILE are accommodation, support services, assistive technology and community integration, as all of these issues have the potential to impact on the health, quality of life and independence of people living with disability.

SmILE is based on a co-design methodology where clients, carers, service providers, policy makers and academics work together in the development, analysis and translation of the research. This client-centred approach draws on the lived experience of stakeholders from the disability sector while engaging researchers from a range of disciplines (allied health, design and architecture, business and management). It adds diversity, inspires innovation and builds much-needed capacity in disability research.

In line with ISCRR's Strategy 2020, the SmILE research theme is targeted at addressing the needs of the end-user, in this case the clients, carers and services providers of the TAC. By influencing accommodation design and development, support service provision, uptake of assistive technologies and community integration opportunities for people living with disability, SmILE aims to deliver direct benefit to the TAC across its client outcomes and scheme viability indicators.



Research highlights

In 2013/14, our focus has been on building a multidisciplinary research team, fostering a co-design community to support SmILE and developing a number of projects aligned to the priorities of accommodation, support services, assistive technology and community integration.

Highlights over the last year include the following:

The development of a co-design community comprising clients, carers, service providers, policy makers (with representatives from the TAC, Department of Health, Department of Human Services and National Disability Insurance Agency), and a multidisciplinary research team. Representatives have participated in a number of SmILE forums and workshops, contributing to the development and prioritisation of research concepts. In addition, a smaller steering committee has been convened to oversee the strategic direction and integration of the SmILE projects and co-design process.

Co-design of a new project investigating the influence of design strategies on resident experience and outcomes across retrofitted and newly built environments, which builds on some pilot case studies of best practice in built environment design for people living with disabilities. This two-year project, which commenced in May 2014, is being led by Professors Nigel Bertram and Shane Murray from Monash University Art Design and Architecture and aims to produce a set of best-practice guidelines for design across a range of living environments.

Two other major SmILE projects were developed and approved and have recently commenced activity:

- **A pilot of the Person Centred Active Support (PCAS) model in shared supported accommodation services for adults with acquired brain injury**, led by Professor Christine Bigby from La Trobe University.
- **An investigation of innovative support service models from across and outside of the disability sector**, led by Professor Fang Lee Cook from Monash University's Faculty of Business and Economics.

These projects will make a significant contribution to the disability support service evidence base and have the potential to significantly influence practice in the delivery of high-quality support services to adults with high and complex care needs.

Case studies



RIPL project post-occupancy built and technology design evaluation

Libby Callaway, Monash University's School of Primary Health Care, and Kate Tregloan, Monash University's Faculty of Art Design and Architecture

Total project cost: \$111,834

This project involves the examination of the effectiveness for human users of occupied designed environments, which includes the many ways that physical and organisational factors enhance achievement of personal goals.

Residential Independence Pty Ltd (RIPL), owned by the TAC, offers new models of supported housing for clients and aims to use state-of-the-art technology and built environment design to assist in the delivery of support to residents. This project involved a comprehensive interdisciplinary evaluation of the first RIPL development, which opened in Abbotsford in September 2013. A customised Environment Experience Evaluation Framework was developed for the project and will be adapted for the evaluation of subsequent RIPL accommodation developments. The framework enabled an evaluation of the impact of the designed built and technology environments at RIPL Abbotsford on user experiences and outcomes, as well as informing recommendations for consideration in future RIPL developments.

A range of outputs from this project have been developed, including:

- a booklet
- an interactive 3D online environment simulation, and
- some guidelines for clients and their families for choosing and arranging furnishings to facilitate independence.

A post-occupancy evaluation project for the next RIPL accommodation development in Lilydale has recently been approved and will commence data collection in September 2014, with the aim of capturing pre-move data for the clients transitioning to this new residence.

Community integration outcomes: a comparison of people with traumatic brain injuries and non-disabled Australians

Di Winkler and Libby Callaway, Summer Foundation

Total project cost: \$55,654

The Community Integration Questionnaire (CIQ) is a well-known and widely reported measure of community integration for people living with disability. To enable meaningful comparisons between the scoring of individuals with disability on the CIQ and the general population, there was a need to establish a normative database of community integration outcomes of the non-disabled adult population. In addition, this project offered the opportunity to update the CIQ measure to incorporate electronic social networking as an additional tool for social contact and community integration, given that the CIQ was developed some 20 years ago, prior to the advent of mass social media channels.

Community integration data, including the newly developed electronic social networking items, were collected on a representative sample of 2,000 Australian adults of working age. The revised CIQ (CIQ-R) was then piloted with 20 TAC clients with traumatic brain injury. This project has established the CIQ-R as a meaningful and reliable measure of community integration outcomes for people living with disability. The TAC has expressed interest in adopting the CIQ-R into the independence plans for its clients with severe traumatic brain injury and spinal cord injury.



ISCRR RESEARCH PLATFORMS



ISCRR has two in-house research platforms – the Compensation Research Database (CRD) and the Evidence Review process – and these support ISCRR’s internal research function and create opportunities for greater collaboration between our in-house researchers. These platforms also support activity across our research portfolio and are a unique and value-adding component of ISCRR’s central activities.

The **CRD** contains a substantial volume of historical claims and administrative data from the TAC and the VWA. It provides a unique platform to support research into compensation health for both partner organisations, linking to other databases to expand research possibilities and as a foundation for comparative studies with other jurisdictions. ISCRR also makes anonymised CRD data available for use by external researchers, which helps expand compensation health research.

Evidence Reviews support the TAC and the VWA by summarising and synthesising the best available existing evidence to inform decision making. This is a cost-effective way to deliver relevant research findings for use in policy and practice decision-making. The Evidence Reviews delivered to date have already provided significant financial and non-financial benefits to our partners and the broader community, as highlighted by our Impact Assessment Project in 2012.

Research highlights

Key achievements for the CRD during 2013/14 included:

The CRD team led and coordinated studies linking VWA and TAC data to health and other relevant datasets. This important work enables sophisticated data analysis and research enquiries, based on the relationships between the datasets. Substantial progress was made on three core data linkage studies, which will continue into 2014/15:

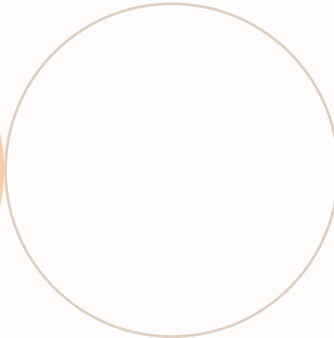
- **CRD data linkage with the Victorian Admitted Episodes Dataset (VAED) and the Victorian Emergency Minimum Dataset (VEMD).** The VAED and VEMD hold statewide hospital and emergency department episodes data and are maintained by the Department of Health.
- **TAC claims data linkage with data from the Victorian Orthopaedic Trauma Outcomes Registry (VOTOR) and the Victorian State Trauma Registry (VSTR).** These are two population-based clinical registries led by Professor Belinda Gabbe from Monash University that capture a majority of all major and orthopaedic trauma cases in the State.
- **Medicare Benefits Scheme (MBS) and the Pharmaceutical Benefits Scheme (PBS) linkage with the CRD data.** Led by Dr Janneke Berecki-Gisolf, Monash University, this study involved obtaining individual consent to permit the linkage of compensation claims records with MBS and PBS data. It provided a unique insight into the impact of pre-existing health conditions and a range of other system-level and individual-level characteristics on injury outcomes. The outcomes of this research to date are summarised as a case study in this report.

The breadth of activities and expertise within the CRD team has grown in 2013/14. Preliminary work commenced to conduct cross-jurisdictional comparative research to enhance understanding of occupational health and safety and workers compensation systems. The collaboration is bringing together users and researchers from Canadian provinces, Australian states and New Zealand. This includes access to the National Dataset for Compensation-based Statistics (NDS). In November 2013, the Board confirmed support for the development of a benchmarking capability within the CRD team. The team has also been asked to take on management of other databases, including the WorkHealth health check database, which will occur during 2014/15.

Key achievements for Evidence Reviews during 2013/14 included the following:

- During 2013/14, **seven evidence review projects were completed**, covering compensation systems, service delivery, rehabilitation and clinical interventions. Specific examples include user engagement in disability research, integrated workplace safety and health promotion, new employer incentive programs and the impact of counselling provider qualification on outcomes.
- **The development and pilot of ISCRR's new Horizon Scanning service model** is now well under way. This project is being delivered in partnership with international horizon scanning experts – the Canadian Agency for Drugs and Technology in Health (CADTH). When finalised, the new Horizon Scanning model will inform activity across ISCRR's research themes by providing regular updates on new and emerging technologies, services and treatments of relevance to compensation health. See the case study on page 36.

Case studies



The cost of comorbidity to the Transport Accident Commission Compensation Scheme

Dr Janneke Berecki-Gisolf with Dr Youjin Hahn and Professor Roderick J. McClure, Monash University, and Dr Behrooz Hassani-M, ISCRR

The aim of this study was to determine the impact of pre-existing health conditions on the cost of recovery after compensable road traffic injury. The data source was the Outcomes of Compensated Injury Study data, a previous ISCRR project. The study sample consisted of 738 TAC clients with approved claims for non-catastrophic injury that occurred between July 2010 and July 2012. Study participants gave informed consent to link their TAC claims and payments data to their Pharmaceutical Benefits Scheme (PBS) and Medicare records, provided by the Department of Human Services.

The findings included the following:

- In general, pre-injury health as indicated by Medicare and PBS items had a relatively minor effect on the total TAC cost, with the exception of pre-injury mental health service use, which was associated with increased total TAC cost. Notwithstanding this, several pre-injury health factors impacted individual TAC cost categories. For example, diabetes mellitus was associated with increased ambulance and hospital costs; cardiovascular disease was associated with higher TAC medical costs and home services costs; surgery in the year before the accident (not including minor surgery such as skin biopsy) was associated with higher post-injury hospital cost and home service costs; and back pain (indicated by pre-injury spinal X-rays and MRIs) was associated with higher post-injury physiotherapy costs.
- The study gave the TAC insight into which comorbidities impact the cost of recovery, which recovery costs are impacted most and recommendations on how best to collect comorbidities data. The findings will also enable the TAC to better forecast the cost and duration of recovery.

Horizon Scanning Service Model

ISCRR partnered with the Canadian Agency for Drugs and Technologies in Health (CADTH) to develop a horizon-scanning system of relevance to compensation health. The first of its kind in Australia, its purpose is to identify and track emerging health technologies, treatments and services that have the potential to improve the lives of TAC/VWA clients and their carers.

Healthcare horizon scanning programs that currently exist internationally use methods specifically designed for addressing the needs of their own constituencies (Agency for Healthcare Research and Quality, 2013) and sectors in which they operate. ISCRR's model, once finalised, will be tailored for horizon scanning that is relevant to the TAC and the VWA within the field of compensation health. A second phase of scanning will be conducted, and the pilot project will be completed in February 2015.

Since the project's commencement in early 2014 a range of stakeholder consultations were conducted to inform the development of the horizon-scanning model. The first phase of scanning produced 42 technologies of potential interest, which were reduced to 12 priority areas through the filtering and prioritising phases, and two outputs are under preparation – a newsletter with brief overview of the top 10 technologies and a bulletin that will focus on a specific technology. These will be finalised during 2014/15.

The expected impact from this new research project is significant. Findings will be used to inform the final model for delivering horizon scanning across ISCRR's research priority areas. The TAC and the VWA will be better able to make evidence-informed decisions that may improve client or worker outcomes and the long-term viability for both schemes. It will also provide insights into the health and disability landscape to inform future strategies and planning.



In 2012, ISCRR developed an Impact Assessment Framework which guides the evaluation of our research output and the use and impact of our research findings. To understand the impact that has been achieved, we need to examine how a particular research project has progressed through the stages of development, activity, output and adoption, and finally how it has impacted on the VWA, the TAC, their clients and the Victorian community. Understanding the impact of research and how it is achieved provides valuable information that is fed back into ISCRR’s research development and translation systems.

ISCRR’s Impact Assessment Framework

This year, we are applying our impact assessment methodology to two long-standing projects using a case study approach. These projects are the **Evidence Review Hub** and the **Victorian Orthopaedic Trauma Outcomes Registry (VOTOR)**. The analysis draws on formal, semi-structured qualitative interviews with key informants, analysis of project documents and research outputs and includes assessment of the financial impact of some findings produced by these projects.

Case study 1: Evidence Review Hub

The Evidence Review Hub produces reviews of published literature across ISCRR’s research themes. The Hub was developed early in the life of ISCRR and since 2010 has delivered 42 evidence reviews to the TAC and the VWA. Feedback provided by participants in Hub reviews, ISCRR staff and recipients of reviews at the TAC and the VWA indicates that the impact of the Hub has been substantial.

Perhaps most importantly, reviews produced by the Hub have:

- contributed to changes in the policy and practice of the VWA and the TAC
- influenced the use of services within the Victorian transport accident and workers compensation systems
- provided an evidence base for important treatment payment policy in the two systems, and
- contributed to positive financial outcomes.

Two examples of this are described in more detail below.

The impact of the Hub’s activity is evident in other ways. Those interviewed for the case study indicated that the independence of the reviews was important for the TAC and the VWA to establish a credible policy position. Because the reviews were often directly relevant to a policy or practice question within the two systems, they have contributed to a shift in culture within the agencies towards greater use of research evidence in decision making and have raised awareness of the potential value of research.

The process of developing and undertaking the reviews was considered to have built stronger, more collaborative relationships between the policy and research partners in ISCRR, and also at times among other key stakeholder groups such as healthcare providers.



Evidence reviews were also considered to be a cost-effective method of delivering relevant research evidence to policy makers and at times have provided direction for future primary research studies in areas where there was a lack of published research evidence.

The case study included more detailed examinations of two evidence reviews, in order to track the pathway from research development through to production of output, adoption and impact of research.

Review 1 – Models of Supported Accommodation for People with Traumatic Brain Injury

This review was commissioned by ISCRR to examine and describe models of supported accommodation available to people with traumatic brain injury (TBI). The review also sought to assess the effects of supported accommodation models on outcomes for people with TBI. The review was led by Ms Libby Callaway from the Department of Occupational Therapy at Monash University with a group of industry and academic colleagues.

The review identified gaps in the existing evidence base and that further research was needed around models which addressed the separation of the provision of housing and tenancy from support services. The research informed and challenged thinking within the TAC in relation to developing innovative models and cross-sectoral partnerships. Finally, the research contributed to the development of primary data collection studies that are evaluating different models of supported accommodation in Victoria. It is anticipated that these evaluation studies will provide an evidence base for future accommodation strategies for people living with TBI.

Review 2 – Lumbar Spinal Fusion Evidence Review

This review was commissioned by ISCRR (at the request of the TAC and the VWA) to determine whether spinal fusion is an effective treatment compared to non-surgical treatment in patients with chronic low back pain. The review was conducted by Ms Ornella Clavisi and her colleagues from the National Trauma Research Institute at The Alfred and Monash University.

The review found that limited evidence existed regarding the effectiveness of lumbar spinal fusion surgery in benefiting function, return to health or reduction in pain. Specifically, current evidence was inconclusive as to whether lumbar spinal fusion surgery led to better outcomes when compared with non-surgical interventions for degenerative spinal pain. This review is referred to by TAC and VWA on a case by case basis when determining if a funding request for lumbar spinal fusion surgery is adequate and appropriate treatment for an injured worker, and therefore reasonable to fund.

Case study 2: Victorian Orthopaedic Trauma Outcomes Registry

The Victorian Orthopaedic Trauma Outcomes Registry (VOTOR), via the Monash University Department of Epidemiology and Preventive Medicine, was initially funded by the TAC and is currently funded by ISCRR. Its purpose was to capture data on injury event, admission, diagnosis, management and long-term outcomes among a selected cache of Melbourne trauma centres. Since that time, VOTOR has developed into the comprehensive monitoring system for orthopaedic trauma in Victoria using a sentinel site approach. Feedback provided by participants in VOTOR reviews, ISCRR staff and recipients of reviews at the TAC, the VWA and in the clinical community indicated that the impact of VOTOR has been considerable. VOTOR-funded research projects have been contributing to significant changes and improvements in the policy and practice of the TAC and within the clinical environment. Two examples of this are described on page 39.

Those interviewed for the case study emphasised the importance of VOTOR as a credible and independent source of data with its provision of consistent 'clean' high-quality data over a lengthy time period. TAC staff highlighted the importance of using VOTOR data to inform understanding and thinking on a range of key issues, for example client outcomes, claims segmentation and management. Feedback from participants in the case study also noted the excellent relationship that existed between the policy and research partners in ISCRR. The formation of the VOTOR-TAC Liaison Group was noted as a key factor that contributed to the strong, collaborative relationship. VOTOR was considered to be a highly cost-effective project as researchers were able to utilise the infrastructure and data in the existing registries of VOTOR and Victoria State Trauma Registry (VSTR). This means that high-quality research can be undertaken by the VOTOR research team at a relatively low financial cost.

VOTOR projects were also considered to have effectively engaged the orthopaedic community and influenced and impacted on clinical practices in trauma hospitals and to have contributed to the establishment of research linkages with interstate and international research experts at trauma centres and hospitals. The case study included more detailed examinations of two VOTOR research projects, in order to track the pathway from research development through to production of output, adoption and impact of research.

Project 1 – Classification, Management and Outcomes of Severe Pelvic Ring Fractures

This VOTOR project sought to identify the variation in treatment practices and the impact on outcomes in relation to the classification, management and outcomes of severe pelvic ring fractures. While the total number of cases is relatively low per year in Victoria, the associated mortality rate and potential for poor patient outcomes are very high. Improved understanding of the long-term outcomes is important in establishing effective treatment and service delivery. The project was conducted by Professor Belinda Gabbe, School of Public Health and Preventive Medicine at Monash University, and academics and orthopaedic surgeons in the clinical trauma community.

The case study found that the Severe Pelvic Ring Fractures project had effectively engaged the orthopaedic community in Melbourne (The Alfred and The Royal Melbourne Hospital) in research which involved comparing practices and considering the impact of those practices. It identified variations in practice at the major trauma services with respect to the management of severe pelvic ring fractures. The case study also found that the project had contributed to financial savings as a result of changed practices. The estimated annual saving to the TAC in lifetime costs (based on 15 claims per year) is \$0.5 million. There is also a total payment saving in the first year post-accident of \$0.3 million.

Project 2 – Exploring Patient Perceptions of Barriers and Facilitators of Recovery Following Trauma

This research study aimed to identify the facilitators and barriers to recovery for trauma survivors by exploring the individual and societal impacts of trauma as experienced by survivors of serious injury. The project collected information from 120 participants, half of whom were TAC clients and half of whom had non-compensable injuries. Information on the patients' experiences and interactions with the healthcare system and compensation providers was also examined. The project was conducted by Professor Belinda Gabbe, Department of Epidemiology and Preventive Medicine at Monash University, with a team of academics and researchers.

The case study found that there have been changes in practice to improve service delivery and patient care experiences as a result of the research findings. These included introducing more effective communication and service delivery practices. The case study informed the TAC of valuable insights into the clients' experiences of the recovery journey, which has subsequently influenced decision making within the TAC. The research has also been attributed with generating a number of research linkages and outputs on critical issues identified in the project, for example issues concerning patient care, outpatients and discharge planning.

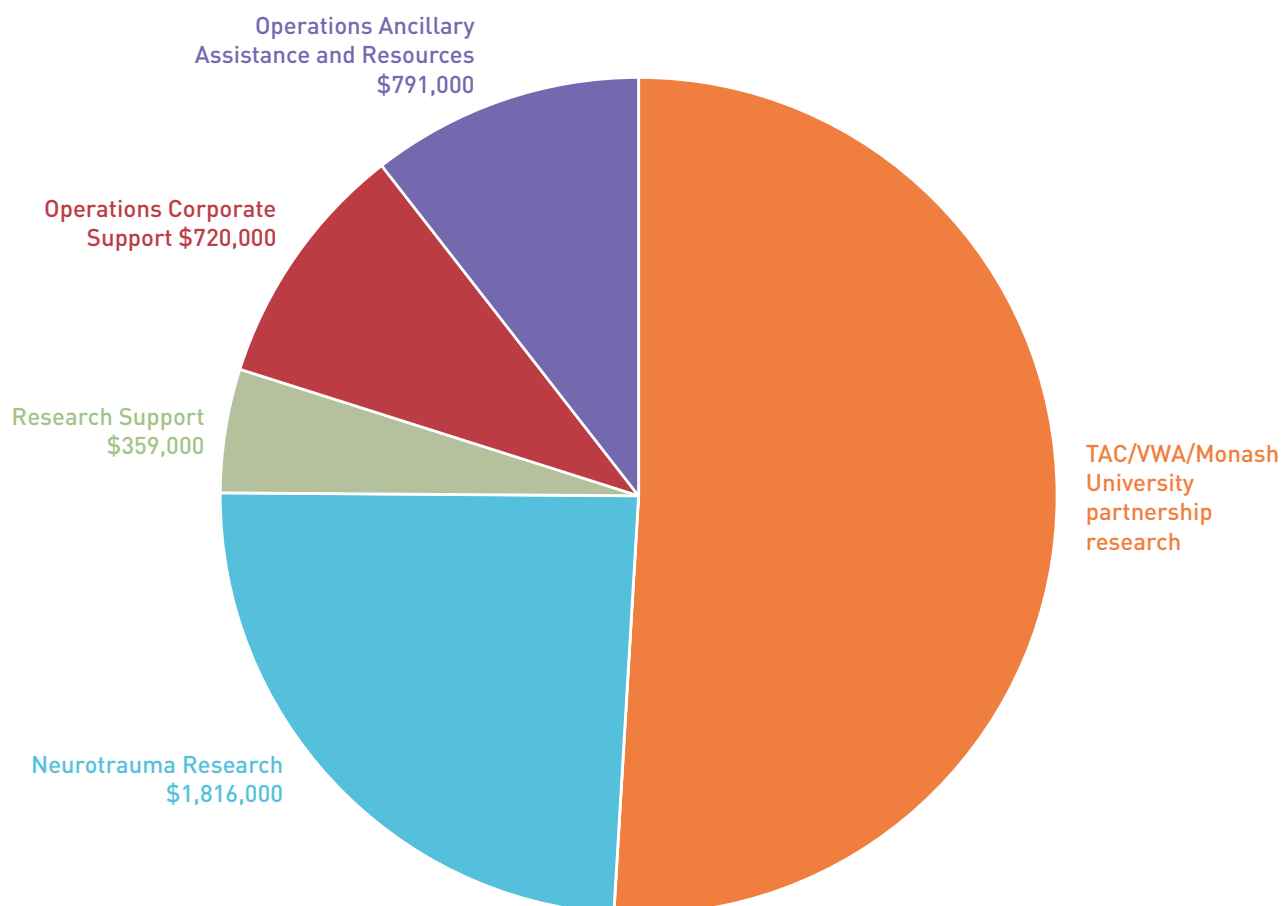
**SUMMARY OF REVENUE
AND EXPENDITURE FOR
THE FINANCIAL YEAR
ENDED 30 JUNE 2014**

Statement of Income and Expenditure	Core Funding	Neurotrauma Funding	2014 Total	2013 Total
	\$'000	\$'000	\$'000	\$'000
Revenue				
Funding Revenue	6,536	1,924	8,460	9,801
Monash Ancillary Contribution	400	80	480	480
Interest Income	61	25	86	74
Total Revenue	6,997	2,029	9,026	10,355
Expenditure				
Research Projects	3,828	1,816	5,644	6,729
Research Support	326	33	359	705
Corporate Support	710	10	720	1,070
Ancillary Assistance and Resources	718	73	791	702
Total Expenditure	5,582	1,932	7,514	9,206
Unspent funds for the financial year	1,415	97	1,512	1,149
Brought forward unspent funds	1,187	939	2,126	977
Accumulated Unspent Funds Carry Forward	2,602	1,036	3,638	2,126

The Institute for Safety Compensation and Recovery Research (ISCRR) was established in April 2009 under the Research Institute Collaboration Agreement (the 'Agreement') as a research collaboration between the Transport Accident Commission (TAC), the Victorian WorkCover Authority (VWA) and Monash University. A new Agreement was signed by the three parties for the period from 1 January 2014 to 30 June 2018. In addition, the TAC and Monash University entered a neurotrauma research agreement in 2012, with ISCRR as the party responsible for managing the TAC's investments in neurotrauma research.

Operationally, ISCRR is part of Monash University and is located within the Office of the Provost and Senior Vice President. Monash University provides the ancillary assistance and resources towards the conduct of ISCRR activities and is responsible for the accounting function.

The following chart describes ISCRR's expenditure during the 2013/14 financial year.



Research comprises the bulk of ISCRR's expenditure. The orange and blue shaded areas refer to the cost of research that has been funded from the original Agreement, the new Agreement and from neurotrauma funding.

RESEARCH OUTPUTS





Evidence-Informed Claims Management

Journal Article

Collie A, Prang KH. Patterns of health-care service utilisation following severe traumatic brain injury: An idiographic analysis of injury compensation claims data. *Injury*. 2013 Nov; 44(11):1514–20.

Grant GM, O'Donnell ML, Spittal MJ, Creamer M, Studdert DM. Relationship between stressfulness of claiming for injury compensation and long-term recovery: A prospective cohort study. *JAMA Psychiatry*. 2014 Apr; 71(4): 446–53.

Kilgour E, Kosny A, Collie A. Healing or harming? Healthcare provider interactions with injured workers and insurers in workers' compensation systems. *J Occup Rehabil*. 2014 May 29; [Epub ahead of Print] DOI: 10.1007/s10926-014-9521-x.

Kilgour E, Kosny A, McKenzie D, Collie A. Interactions between injured workers and insurers in workers compensation systems: A systematic review of qualitative research literature. *J Occup Rehabil*. 2014 May 16; [Epub ahead of Print] DOI: 10.1007/s10926-014-9513-x.

Presentations

Grant GM. Bureaucratic justice in injury compensation. Presentation at the Canadian Institutes of Health Research Strategic Training Program in Work Disability Prevention, Dalla Lana School of Public Health, University of Toronto; 2014 Jun 4; Toronto, Canada.

Grant GM. Paperwork, processes and proof: Civil justice and injury compensation in Australia; Presentation at the Civil Justice Research and Teaching Conference, University of Tasmania; 2014 Feb 18; Hobart, TAS.

Grant GM. Stress, Disability and the injured body. Paper presented at Health, Technosciences and the Human Body: Socio-Legal Perspectives Workshop, Monash University Faculty of Law; 2014 Feb 26; Melbourne, VIC.

Grant GM. The health impacts of stressful compensation claims. Presentation at Law Faculty Staff Seminar Series, Monash University; 2013 Oct 8; Melbourne, VIC.

Grant GM. The health impacts of stressful compensation claims. Presentation at the Common Law Bar Association (Victorian Bar); 2014 Feb 13; Melbourne, VIC.

Grant GM. The health impacts of stressful compensation claims. Presentation at Division of Insurance Medicine, Karolinska Institutet; 2014 May 22; Stockholm, Sweden.

Kilgour E. Injured worker experiences with healthcare providers and workers' compensation systems. Presentation at La Trobe University (Graduate Diploma Rehabilitation Counselling students); 2013 Sep 12; Melbourne, VIC

Kilgour E, Kosny A, McKenzie D, Collie A. Interactions between claimants and insurers in workers' compensation schemes: A systematic review. Paper presented at the Public Health Association of Australia 42nd Annual Conference; 2013 Sep 16–18; Melbourne, VIC.

Kilgour E, Kosny A, McKenzie D, Collie A. The experiences of injured workers in workers' compensation systems: A systematic review of international literature. Presentation at an ISCRR Research Symposium; 2013 Sep 20; Melbourne, VIC.

Kilgour E, Kosny A, McKenzie D, Collie A. The experiences of injured workers in workers' compensation systems: A systematic review of international literature. Presentation at a Peninsula Psychology Regional Group Professional Development Meeting at Baxter Psychology; 2013 Nov 27; Baxter, VIC.

Kilgour E. The experiences of injured workers and psychologists in workers' compensation systems. Presentation at the Rehabilitation Psychology Interest Group Workshop, University of Sydney; 2013 Oct 18; Sydney, NSW.

Ruseckaite R, Collie A, McLeod FJ. Opportunities and challenges in cross-jurisdictional comparison of compensation schemes. Paper presented at the Injury Schemes Seminar; 2013 Nov 10–12; Gold Coast, QLD.

Research Report

Collie A, Newnam S, Vogel A, Keleher H, McClure R, Petersen A, Ellis N. Determining the impacts of compensable injury. ISCRR research report for VWA/TAC; 2013 Aug; Melbourne, VIC.

Fitzharris M, Liu S, Shourie S, Collie A. Factors associated with common law claims lodged to the Transport Accident Commission. ISCRR research report for VWA/TAC; 2013 Nov; Melbourne, VIC.

Gargett S. Incentive programs for new employers to hire previously injured workers. ISCRR research report for VWA/TAC; 2014 Jan; Melbourne, VIC.

Grant GM, O'Donnell ML, Spittal MJ, Studdert DM. The health effects of compensation systems (HECS) study: summary. ISCRR research report for VWA/TAC; 2014 Jan; Melbourne, VIC.

Lui S, Kerr E, Fitzharris M, Collie A. Effectiveness and application of remote mental health interventions towards compensable injury recovery. ISCRR research report for VWA/TAC; 2013 Sep; Melbourne, VIC.

Shourie S, Fitzharris M. Perception and attitudes before and after the implementation of the new TAC 2015 independence model: comparison of I, II & III survey findings report. ISCRR research report for VWA/TAC; 2014 Jun; Melbourne, VIC.

Shourie S, Fitzharris M. Perception and attitudes before and after the implementation of the new TAC 2015 recovery model: Comparison of I, II & III survey findings report. ISCRR research report for VWA/TAC; 2014 Jun; Melbourne, VIC.

Shourie S, Fitzharris M. Perception and attitudes of staff in the Recovery Division of the TAC toward current work practice under the new TAC 2015 Recovery Model: Phase 3 survey summary report. ISCRR research report for VWA/TAC; 2014 Apr; Melbourne, VIC.

Shourie S, Fitzharris M. Perception and attitudes of staff in the Independence Division of the TAC toward current work practice under the new TAC 2015 Independence Model: Phase 3 survey summary report. ISCRR research report for VWA/TAC; 2014 Apr; Melbourne, VIC.

Conference Poster

Chang VC, Ruseckaite R, Collie A, Colantonio A. Examining the epidemiology of work-related traumatic brain injury through a sex/gender lens: Analysis of workers' compensation claims in Victoria, Australia. Poster presented at the 10th World Congress on Brain Injury; 2014 Mar 19–22; San Francisco, United States of America.

Kilgour E, Kosny A, McKenzie D, Collie A. Healthcare provider interactions in workers' compensation schemes: Implications for injured workers. Poster presented at the Australasian Compensation and Health Research Forum; 2013 Oct 10–11; Sydney, NSW.

**Improving Trauma Care****Journal Article**

Batchelor PE, Skeers P, Antonic A, Wills TE, Howells DW, Macleod MR, Sena ES. Systematic review and meta-analysis of therapeutic hypothermia in animal models of spinal cord injury. *PLoS One*. 2013 Aug 9; 8(8): e71317.

Batchelor PE, Wills TE, Skeers P, Battistuzzo CR, Howells DW, Macleod MR, Sena ES. Meta-analysis of pre-clinical studies of early decompression in acute spinal cord injury: A battle of time and pressure. *PLoS One*. 2013 Aug 23; 8(8): e7265.

Gabbe BJ, Esser M, Bucknill A, Russ MK, Hofstee DJ, Cameron PA, Handley C, de Steiger RN. Imaging and classification of severe pelvic ring fractures: Experiences from two Level 1 trauma centres. *Bone Joint J*. 2013 Oct; 95-B(10):1396–401.

Gabbe BJ, Hofstee DJ, Esser M, Bucknill A, Russ MK, Cameron PA, Handley C, de Steiger RN. Functional and return to work outcomes following major trauma involving severe pelvic ring fracture. *ANZ J Surg*. 2014 May 30; [Epub ahead of Print] DOI: 10.1111/ans.12700.

Gabbe BJ, Lyons RA, Harrison JE, Rivara FP, Ameratunga SA, Derrett S, Polinder S. Validating and improving injury burden estimates study: The injury-VIBES study protocol. *Inj Prev*. 2014 Jun; 20(3):e4.

Gabbe BJ, Simpson PM, Lyons RA, Polinder S, Rivara FP, Ameratunga S, Derrett S, Haagsma J, Harrison JE. How well do principal diagnosis classifications predict disability 12-months post-injury? *Inj Prev*. 2014 Mar 26; [Epub ahead of Print] DOI: 10.1136/injuryprev-2013-041037.

Gabbe BJ, Sleney JS, Gosling CM, Wilson K, Sutherland A, Hart M, Watterson D, Christie N. Financial and employment impacts of serious injury: A qualitative study. *Injury*. 2014 Jan 30 [Epub ahead of print] DOI: 10.1016/j.injury.2014.01.019.

Grant GM, Ponsford JL, Bennett P. Goal attainment scaling in brain injury rehabilitation: Strengths, limitations and recommendations for future applications. *Neuropsychol Rehabil*. 2014 May 1 [Epub ahead of print] DOI: 10.1080/09602011.2014.901228.

Gregório GW, Gould KR, Spitz G, van Heugten CM, Ponsford JL. Changes from pre- to post-injury coping styles in the first three years after traumatic brain injury and the effects on psychosocial and emotional functioning and quality of life. *J Head Trauma Rehabil*. 2014 May–Jun; 29(3): E43–53.

Kimmel L, Holland A, Simpson P, Edwards E, Gabbe BJ. Validating a simple discharge planning tool following hospital admission for an isolated lower limb fracture. *Phys Ther*. 2014 Apr 17 [Epub ahead of print] DOI: 10.2522/ptj.20130413.

Papachristos A, Edwards E, Dowrick A, Gosling CM. A description of the severity of equestrian-related injuries (ERIs) using clinical parameters and patient reported outcomes. *Injury*. 2014 May 2 [Epub ahead of print] DOI: 10.1016/j.injury.2014.04.017.

Ponsford JL, Downing MG, Olver J, Ponsford M, Acher R, Carty M, Spitz G. Longitudinal follow-up of patients with traumatic brain injury: Outcome at two, five, and ten years post-injury. *J Neurotrauma*. 2013; 31(1): 64–77.

Ponsford JL, Spitz G, Gifford D, Cromarty F. Costs of care after traumatic brain injury. *J Neurotrauma*. 2013 Sep 1; 30(17): 1498–1505.

Ponsford JL, Spitz G. Stability of employment over the first 3 years following traumatic brain injury. *J Head Trauma Rehabil*. 2014 May 8; [Epub ahead of Print] DOI: 10.1097/HTR.0000000000000033.

Ponsford JL. Factors contributing to outcome following traumatic brain injury. *NeuroRehabilitation*. 2013; 32(4): 803–15.

Schönberger M, Ponsford JL, McKay A, Wong D, Spitz G, Harrington H, Mealings M. Development and predictors of psychological adjustment during the course of community-based rehabilitation of traumatic brain injury: A preliminary study. *Neuropsychol Rehabil*. 2014 Feb 18 [Epub ahead of print] DOI:10.1080/09602011.2013.878252.

Tee JW, Chan CH, Gruen RL, Fitzgerald MC, Liew SM, Cameron PA, Rosenfeld JV. Early predictors of health-related quality of life outcomes in polytrauma patients with spine injuries: A level 1 trauma center study. *Global Spine J*. 2014 Feb; 4(1): 21–32.

Willmott C, Ponsford JL, Downing MG, Carty M. Frequency and quality of return to study following traumatic brain injury. *J Head Trauma Rehabil*. 2014 May–Jun; 29(3): 248–56.

Presentation

Alway Y, Gould KR, Johnston L, McKay A, Ponsford JL. Post-traumatic stress symptoms following moderate to severe traumatic brain injury: A prospective study. Paper presented at the 37th Annual Brain Impairment Conference; 2014 May 8–10; Perth, WA.

Batchelor PE. Early decompression in acute SCI: A battle of time and pressure. Paper presented at the Australian Neurotrauma Symposium; 2013 Oct 24; Hobart, TAS.

Batchelor PE. Immediate cooling and early decompression for the treatment of spinal cord injury. Presentation at the Spinal Research Institute/ISCRR Forum; 2014 May 16; Melbourne, VIC.

Batchelor PE. Immediate cooling and early decompression for the treatment of spinal cord injury: Time to translate. Presentation at Queensland Spinal Cord Injury Research Showcase; 2013 Nov 15; Brisbane, QLD.

Callaway L, Winkler D, West K, Lannin NA, Morarty J. The pathways from acute care of young people with acquired brain injury at risk of placement in residential aged care: A pilot study. Paper presented at Research to Action: Centre for Applied Disability Research Conference; 2014 May 26–27; Sydney, NSW.

D'Cruz K, Lannin NA, Unsworth C, Roberts K, Morarty J, Turner-Stokes L, Wellington-Boyd A, Matchado J. Patient centred goal setting in acquired brain injury: Experience of patients and families. Paper presented at Australasian Society for the Study of Brain Injury Conference; 2014 May 10; Fremantle, WA.

Desneves K. Assessing nutritional status in patients with spinal cord injury. Paper presentation at the Spinal Cord Injury Research Forum; 2014 May 16; Melbourne, VIC.

Gabbe BJ, Hart M. Patient perceptions of discharge planning and post discharge care following serious injury. Paper presented at the 4th Annual Reducing Hospital Readmissions and Discharge Planning Conference; 2013 Jul 25–26; Melbourne, VIC.

Gabbe BJ, Simpson P, Attwood D, Karstens G, Gifford D, Watt M, Woodroffe A, Collie A. Association between fault status and patient-reported outcomes following orthopaedic trauma. Paper presented at the Australasian Compensation Health Research Forum; 2013 October 10–11, Sydney, NSW.

Gould KR, Ponsford JL, Johnston L, Alway Y, Spitz G. The contribution of cognitive impairment to anxiety disorders following traumatic brain injury. Paper presentation at the 10th Conference of the Neuropsychological Rehabilitation Special Interest Group of the World Federation for Neurorehabilitation; 2013 Jul 8–9; Maastricht, Netherlands.

Lannin NA, Laver K, Gill L. Models of care for people with severe acquired brain injury: A systematic review and practical application to the development of a new unit. Paper presented at the Australasian Society for the Study of Brain Injury Conference; 2014 May 10; Fremantle, WA.

Mosley I. Pre Hospital and emergency care of patients with acute spinal cord injury. Paper presented at Conference Symposium. Paramedics Australasia Conference 2013; 2013 Oct 17–18; Canberra, ACT.

Mosley I. Spinal cord injuries and future research. Paper presented at Ambulance Victoria Grand Rounds, Austin Health; 2013 Nov 28; Melbourne, VIC.

Ponsford JL, Downing MG, Spitz G, Olver J, Ponsford M. Outcome 2, 5 and 10 years following traumatic brain injury. Paper presented at the 37th Annual Brain Impairment Conference; 2014 May 8–10; Perth, WA.

Ponsford JL, Downing MG, Stolwyk R. Sexual changes following traumatic brain injury. Paper presented at the 37th Annual Brain Impairment Conference; 2014 May 8–10; Perth, WA.

Ponsford JL. It's not only the injury that matters, but also the kind of head. Keynote Presidential Address presented at the Tenth World Congress on Brain Injury, of the International Brain Injury Association; 2014 Mar 20–23; San Francisco, United States of America.

Ponsford JL. It's not only the injury that matters, but also the kind of head. Presidential Address presented at the Mid-Year Meeting of the International Neuropsychological Society; 2013 Jul 10–13; Amsterdam, Netherlands.

Ponsford JL. Sexual changes following traumatic brain injury: A much ignored problem. Paper presented at the Eighth World Congress for Neuro-Rehabilitation; 2014 Apr 8–12; Istanbul, Turkey.

Ponsford JL. Long-term outcome following traumatic brain injury. Paper presented at Third Scientific meeting of the European Federation of Neuropsychological Societies; 2013 Sep 12–14; Berlin, Germany.

Ponsford JL. Sexuality following traumatic brain injury: A much-ignored problem in neurorehabilitation. Paper presented at the 10th Conference of the Neuropsychological Rehabilitation Special Interest Group of the World Federation for Neurorehabilitation; 2013 Jul 9–10; Maastricht, Netherlands.

Ponsford JL. Traumatic brain Injury: The challenge to improve outcome. Keynote Presidential Address presented at the 42nd Annual meeting of the International Neuropsychological Society; 2014 Feb 12–15; Seattle, United States of America.

Ponsford JL. Traumatic brain injury: The challenge to improve outcome. Presentation at the Service de Readaptation en Neurologie et Paraplegie, Clinique Romande de Réadaptation; 2014 May 27; Sion, Switzerland.

Ponsford JL. What influences outcomes? Paper presented at the St Andrew's Healthcare Fifth National Brain Injury Conference; 2013 Sep 12–14; Nottingham, United Kingdom.

Stolwyk R. A longitudinal comparison of patient and close other reports of neuropsychological change 1 to 5 years following traumatic brain injury. Paper presented at the 10th Conference of the Neuropsychological Rehabilitation Special Interest Group of the World Federation for Neurorehabilitation; 2013 Jul 9–10; Maastricht, Netherlands.

Van Zyl N. Nerve transfers in SCI. Paper presented at the Spinal Cord Injury Research Forum; 2014 May 16, Austin Health, Melbourne, VIC.

Research Report

Berlowitz DJ, Graco M. Development of an integrated, distributed clinical research database for spinal cord injury. ISCRR research report for VWA/TAC; 2013 Oct; Melbourne, VIC.

Gabbe BJ, Simpson P. VOTOR-TAC linkage report. ISCRR research report for VWA/TAC; 2014 Feb; Melbourne, VIC.

Gabbe BJ, Slaney JS, Gosling CM, Wilson K, Sutherland A, Hart M, Watterson D, Christie N. Financial and employment impacts of injury: A qualitative study. ISCR research report for VWA/TAC; 2013 Sep; Melbourne, VIC.

Holland A, Kimmel L, Gabbe BJ, Olver J, Unsworth C, Lannin NA. Who gets into rehabilitation and why? A qualitative survey of decision making. ISCR research report for VWA/TAC; 2013 Nov; Melbourne, VIC.

Lannin NA, D'Cruz K, Morarty J, Turner-Stokes L, Roberts K, Unsworth C. Understanding experiences of goal setting and planning for patients with severe acquired brain injury and their carers. ISCR research report for VWA/TAC; 2014 Feb; Melbourne, VIC.

Lannin NA, Laver K. Models of care for people with severe acquired brain injury: A systematic review. ISCR research report for VWA/TAC; 2013 Aug; Melbourne, VIC.

Ponsford JL, Spitz G. Outcomes for independence and recovery clients. ISCR research report for VWA/TAC; 2013 Nov 18; Melbourne, VIC.

Conference Poster

Dahm J, Ponsford JL. Comparison of long-term outcomes following traumatic brain injury and orthopaedic trauma. Poster presented at the 42nd Annual meeting of the International Neuropsychological Society; 2014 Feb 12–15; Seattle, United States of America.

Gabbe BJ, Simpson P, Attwood D, Karstens G, Gifford D, Watt M, Woodroffe A, Collie A. TAC2015 Recovery Model: Has it made a difference to 6-month client outcomes? Poster presented at Australasian Compensation Health Research Forum; 2013 Oct 10–11; Sydney, NSW.

Gabbe BJ, Slaney JS, Gosling CM, Wilson K, Hart MJ, Sutherland AM, Christie N. Patient perspectives of care in a regionalized trauma system: Lessons from the Victorian state trauma system. Poster presented at 2013 Australia and New Zealand Orthopaedic Nurses Association Conference; 2013 Oct 30 – Nov 1; Melbourne, VIC.

Maller JJ, Huet O, Vallance S, Fedi M, Rosenfeld JV, Varma D, Cooper DJ. Quantitative measurement of brain injury with a focus on post-decompression craniectomy: Pilot study. Poster presented at the 11th Symposium of the International Neurotrauma Society; 2014 Mar 19–23; Budapest, Hungary.

Ponsford JL, Gould KR. A longitudinal examination of positive changes in quality of life after traumatic brain injury. Poster presented at Epworth Research Week; 2014 May 26–30; Melbourne, VIC.

Winkler D, Callaway L, West K, Lannin NA, Morarty J. The pathways of young people with acquired brain injury at risk of placement in nursing homes. Poster presented at Victorian Allied Health Research Conference; 2014 Mar 28; Melbourne, VIC.

Other Research Outputs

Ponsford JL. Monash Epworth Rehabilitation Research Centre Longitudinal Head Injury Outcome Project Outputs and Translational Opportunities report: Jul 2012 – Dec 2013. Presentation at the TAC Steering Committee; 2014 Apr 30; Melbourne, VIC.

Ponsford JL. Short and long-term outcomes in survivors of traumatic brain injury. In: Levin HS, Shum DHK, Chan RCK, editors. Understanding traumatic brain injury: Current research and future directions. New York: Oxford University Press; 2014.

Willmott C, Ponsford JL, Downing MG, Spitz G. Frequency and quality of return to study following traumatic brain injury. Presentation at Mid-year meeting of the International Neuropsychological Society; 2013 Jul 10–13; Amsterdam, Netherlands.



Smart Independent Living Environments

Presentation

Callaway L, Tregloan K, Meyer B, Wood R, Iannello N, Williams G, Clark R. Post-occupancy built and technology evaluation: An interdisciplinary approach. Paper presented at the 37th Annual Australasian Society for the Study of Brain Impairment Conference; 2014 May 8–10; Fremantle, WA.

Callaway L, Winkler D, Sloan S, Moore S, Hopwood M, Tate R. Quality of life evaluation of people with traumatic brain injury living in supported accommodation. Paper presented at the 37th Annual Australasian Society for the Study of Brain Impairment Conference; 2014 May 8–10; Fremantle, WA.

Callaway L, Winkler D, Sloan S, Moore S, Hopwood M, Tate R. Quality of Life outcomes of people with traumatic brain injury living in shared supported accommodation. Paper presented at the Australasian Society for the Study of Brain Impairment Conference; 2014 May 9; Perth, WA.

McLoughlin I, Bojakhi SB, Purushothaman K, Sohal A. The informational requirements of delivering client-centred disability care: problems and prospects in Australia. Presentation at the National Forum on Improving Health and Care Services, Workforce Engagement and Client Outcomes; 2014 May 12–13; Melbourne, VIC.

Murray S, Bertram B, Murphy C, Pasman R, Rowe D, Tregloan K. Design Contributions to lifetime care. Presentation at SmILE Co Design Forum; 2013 Sep 23; Melbourne, VIC.

Winkler D, Callaway L, Tippett A, Herd N, Willer B. Measuring electronic social networking. Paper presented at the 37th Annual Australasian Society for the Study of Brain Impairment Conference; 2014 May 8–10; Fremantle, WA.

Winkler D, Callaway L, Tippet A, Herd N, Willer B. The community integration questionnaire: Australian normative data for adults of working age. Paper presented at the 37th Annual Australasian Society for the Study of Brain Impairment Conference; 2014 May 8–10; Fremantle, WA.

Research Report

Sohal A, McLoughlin I, Cooke FL, Prajogo D, Cooney R, Lu CY, Purushothaman K, Bayati-Bojakh S. New models of care: Developing a better coordinated, high quality system of care for people with disabilities. ISCRR research report for VWA/TAC; 2013 Jul; Melbourne, VIC.



Safe and Healthy Workplaces

Journal Article

LaMontagne AD, Martin A, Page KM, Reavley NJ, Noblet AJ, Milner AJ, Keegel T, Smith PM. Workplace mental health: Developing an integrated intervention approach. *BMC Psychiatry*. May 2014; 14:131;1–11.

Smith PM, Black O, Keegel T, Collie A. Are the predictors of work absence following a work-related injury similar for musculoskeletal and mental health claims? *J Occup Rehabil*. March 2014; 24(1): 79–88.

Presentation

Joss N, Wright C, Keleher H. Creating capacity in workplaces to improve employees health and wellbeing. Paper presented at International Union for Health Promotion and Education Conference; 2013 Aug 26; Pattaya, Thailand.

Smith PM. Understanding influences on return to work: A feasibility study. Presentation at the RTW and Compensation Systems Program Advisory Group; 2014 Jun 16; Melbourne, VIC.

Vu T, De Cieri H, Yee B. Safety culture: We have to talk about definitions. Paper presented at the 11th Australasian Injury Prevention and Safety Promotion Conference; 2013 Nov 11–13; Freemantle, WA.

Research Report

Cooklin A, Husser E, Joss N, Oldenburg B. Integrated approaches to worker health, safety and wellbeing. ISCRR research report for VWA/TAC; 2013 Dec; Melbourne, VIC.

Cooklin A, Husser E, Joss N, Oldenburg B. Integrated approaches to worker health, safety and wellbeing: Guide-book. ISCRR research report for VWA/TAC; 2014 Jun; Melbourne, VIC.

Cooney R, Sohal A. The implementation of beneficial return to work practices in Victorian organisations: Policy and governance considerations. ISCRR research report for VWA/TAC; 2014 May; Melbourne, VIC.

De Cieri H, Shea T, Cooper B, Sheehan C, Donohue R. Leading indicators of occupational health and safety: A report on stakeholder interviews. ISCRR research report for VWA/TAC; 2014 Mar; Melbourne, VIC.

De Cieri H, Shea T, Cooper B, Sheehan C, Donohue R. Leading indicators of occupational health and safety: Individual level views (preliminary report). ISCRR research report for VWA/TAC; 2014 Mar; Melbourne, VIC.

De Cieri H, Shea T, Sheehan C, Cooper B, Donohue R. Leading indicators of occupational health and safety: A report on the Worksafe Week 2013 Survey. ISCRR research report for VWA/TAC; 2014 Mar; Melbourne, VIC.

Joss N, Brand M, Oldenburg B. Evaluation of the WorkHealth Coach program. ISCRR research report for VWA/TAC; 2013 Dec; Melbourne, VIC.

McKenzie D. The impact of mediation in resolving workplace relationship conflict: A review of the literature. ISCRR research report for VWA/TAC; 2013 Jun; Melbourne, VIC.

Oakman J, Lavender K, Weale V. Investigation of MSD toolkit risk and hazard measures in relation to claim rates and other indicators. ISCRR research report for VWA/TAC; 2014 Apr; Melbourne, VIC.

Oldenburg B. Integrated approaches to worker health, safety and wellbeing – Full Report. ISCRR Report for VWA; 2013 Dec; Melbourne, VIC

Ozanne-Smith J, Davis MC, Kitching F. Preparedness of industry for the safety of the ageing workforce: A worker perspective. ISCRR research report for VWA/TAC; 2013 Sep; Melbourne, VIC.

Page K, Reavley N, Allisey A, Milner A, Tchernitskaia I, Martin A, Noblet A, LaMontagne AD. Developing an integrated approach to workplace mental health in Victoria Police. ISCRR research report for VWA/TAC; 2014 May; Melbourne, VIC.

Reavley N, Page K, Milner A, Tchernitskaia I, LaMontagne AD. Guidelines for the prevention of workplace mental health problems: Adaptation to the veterinary sector. ISCRR research report for VWA/TAC; 2013 Oct; Melbourne, VIC.

Smith PM, Saunders R, LaMontagne AD. Developing a framework for understanding and measuring occupational health and safety vulnerability. ISCRR research report for VWA/TAC; 2013 Nov; Melbourne, VIC.

Vu T, De Cieri H. Defining safety culture from a regulator's perspective: A scoping study. ISCRR research report for VWA/TAC; 2013 Oct; Melbourne, VIC.

Vu T, De Cieri H. Safety culture and safety climate definitions suitable for a regulator: A systematic literature review. ISCRR research report for VWA/TAC; 2014 Apr; Melbourne, VIC.

Conference Poster

Berecki-Gisolf J, Smith PM, Collie A, McClure R. Gender differences in occupational injury rates. Poster presented at the Australasian Epidemiological Association Annual Scientific Meeting; 2013 Oct 20–22; Brisbane, QLD.



Primary Health Care

Journal Article

Berecki-Gisolf J, Collie A, McClure RJ. Prescription opioids for occupational injury: Results from workers' compensation claims records. *Pain Med.* 2014 Mar 18; [Epub ahead of Print] DOI: 10.1111/pme.12421.

Berecki-Gisolf J, Collie A, McClure RJ. Reduction in health service use for whiplash injury after motor vehicle accidents in 2000–2009: Results from a defined population. *J Rehabil Med.* 2013 Nov; 45(10):1034–41.

Brijnath B, Mazza D, Singh N, Kosny A, Ruseckaite R, Collie A. Mental health claims management and return to work: Qualitative insights from Melbourne, Australia. *J Occup Rehabil.* 2014 Mar 20; [Epub ahead of Print] DOI: 10.1007/s10926-014-9506-9.

Collie A, Ruseckaite R, Brijnath B, Kosny A, Mazza D. Sickness certification of workers compensation claimants by general practitioners in Victoria, Australia 2003–2010. *Med J Aust.* 2013 Oct; 199(7): 480–3.

Clay FJ, Berecki-Gisolf J, Collie A. How well do we report on compensation systems in studies of return to work: A systematic review. *J Occup Rehabil.* 2013 Nov; 24(1):111–24.

Koppel S, Kuo J, Berecki-Gisolf J, Boag R, Hue YX, Charlton JL. Examining physiological responses across different driving maneuvers during an on-road driving task: A pilot study comparing older and younger drivers. *Traffic Inj Prev.* 2014 Jun; 20:0.

Prang KH, Newnam S, Berecki-Gisolf J. The impact of family and work-related social support on musculo-skeletal injury outcomes: A systematic review. *J Occup Rehabil.* 2014 May 21; [Epub ahead of Print] DOI: 10.1007/s10926-014-9523-8.

Presentation

Brijnath B, Mazza D, Singh N, Kosny A, Collie A. Results from a mixed methods study on managing mental health compensation claims in Victoria. Paper presented at the Primary Health Care Research and Information Service Conference; 2013 Jul 10–12; Sydney, NSW

Collie A, Ruseckaite R, Brijnath B, Kosny A, Mazza D. Sickness certification of injured and ill workers by general practitioners in the state of Victoria, Australia. Paper presented at the Royal Australasian College of Physicians Future Directions in Health Congress; 2013 May 26–29; Perth, WA.

Ruseckaite R, Collie A. Quantitative insights to sickness certification practises of injured workers by general practitioners in Victoria, Australia. Paper presented at the Australasian Compensation Health Research Forum; 2013 Oct 10–11; Sydney, NSW.

Ruseckaite R, Collie A, Bohensky M, Brijnath B, Kosny A, Mazza D. Trends in medical certification of injured workers by general practitioners in Victoria, Australia. Paper presented at The Public Health Association Australia 42nd Annual Conference; 2013 Sep 16–18; Melbourne, VIC.

Ruseckaite R, Collie A, Brijnath B, Kosny A, Mazza D. Sickness certification of injured and ill workers by general practitioners in the state of Victoria, Australia. Paper presented at the Public Health Association Research Conference; 2013 Sep 16–18; Melbourne, VIC.

Research Report

Brijnath B, Mazza D, Singh N. A process evaluation of the new certificate of capacity for compensation claims 2013. ISCR research report for VWA/TAC; 2013 Dec; Melbourne, VIC.

Mazza D, Collie C, Brijnath B, Kosny A, Ruseckaite R, Singh N. FIT to work: General practitioners facilitating injured workers return to work institute for safety. ISCR research report for VWA/TAC; 2013 Sep; Melbourne, VIC.

Conference Poster

Mazza D, Collie A, Brijnath B, Kosny A, Ruseckaite R, Singh N. Certification practices of the GP in return to work: Qualitative insights from Victoria. Poster presented at the Primary Health Care Research and Information Service; 2013 Jul 10–12; Sydney, NSW.

Ruseckaite R, Collie A, Bohensky M, Brijnath B, Kosny A, Mazza D. Trends in medical certification of injured workers by general practitioners in Victoria, Australia. Poster presented at the 23rd International Conference on Epidemiology on Occupational Health; 2013 Jun 18–21; Utrecht, Netherlands.

Ruseckaite R, Collie A, Bohensky M, Brijnath B, Kosny A, Mazza D. Trends in medical certification of injured workers by general practitioners in Victoria, Australia. Poster presented at the Primary Health Care Research and Information Service Conference; 2013 Jul 10–12; Sydney, NSW.

Ruseckaite R, Collie A, Brijnath B, Kosny A, Mazza D. Sickness certification of injured and ill workers by general practitioners in the state of Victoria, Australia. Poster presented at the Primary Healthcare Research Conference; 2013 Jul 10–12; Sydney, NSW.

Other ISCR Research Outputs

Journal Article

Jagnoor J, Blyth F, Gabbe BJ, Sarah D, Boufous S, Dinh M, et al. Factors influencing social and health outcomes after motor vehicle crash injury: An inception cohort study protocol. *BMC Pub Health.* 2014 Feb 25; 14(1):199.

Zardo P, Collie A, Livingstone C. External factors affecting decision-making and use of evidence in an Australian public health policy environment. *Soc Sci Med.* 2014 Mar 1; 108C: 120–27.

Zardo P, Collie A. Measuring use of research evidence in public health policy: A policy content analysis. *BMC Public Health.* 2014 May 23; 14: 496.

Presentation

Collie A, Zardo P, Gifford D, Evans J. Assessing research impact in a research/policy partnership: A case study. Paper presented at the 2nd annual National Health and Medical Research Council Translation Symposium; 2013 Oct 3; Sydney, NSW.

Collie A. A systems approach to return to work after injury: Challenges and opportunities. Paper presented at Centre on National Research on Disability and Rehabilitation (CONROD) symposium; 2014 May 30; Brisbane, QLD.

Collie A. Stuck in the middle: A qualitative study of the experiences of case managers in personal injury compensation schemes. Presentation at the Injury Schemes Seminar; 2013 Nov 12; Gold Coast, QLD.

Collie A. What works (and doesn't) for return to work: A tour of the research evidence. Keynote presentation at the Comcare National Conference; 2013 Sep 15; Canberra, ACT.

Collie A. What works (and doesn't) for return to work: A tour of the research evidence. Keynote presentation at the Territory Insurance Office 2nd Annual Conference; 2013 Oct 30-31; Darwin, NT.

Martin C. Learning from ISCRR's research translation experience. Invited presentation at the Centre for Applied Disability Research (CADR) "Research to Action" Conference; 26-27 May 2014; Sydney, NSW.

Martin C. Hearing the voice of people with high & complex care needs in research: What is meaningful engagement & how can it be done?. Invited presentation at the 3rd Annual Younger People with High and Complex Care Needs Conference; 19-20 Jun 2014; Melbourne, VIC.

Research Report

Douglas J. Provider performance measurement and management – external environment scan. ISCRR research report for VWA/TAC; 2013 Jul; Melbourne, VIC.

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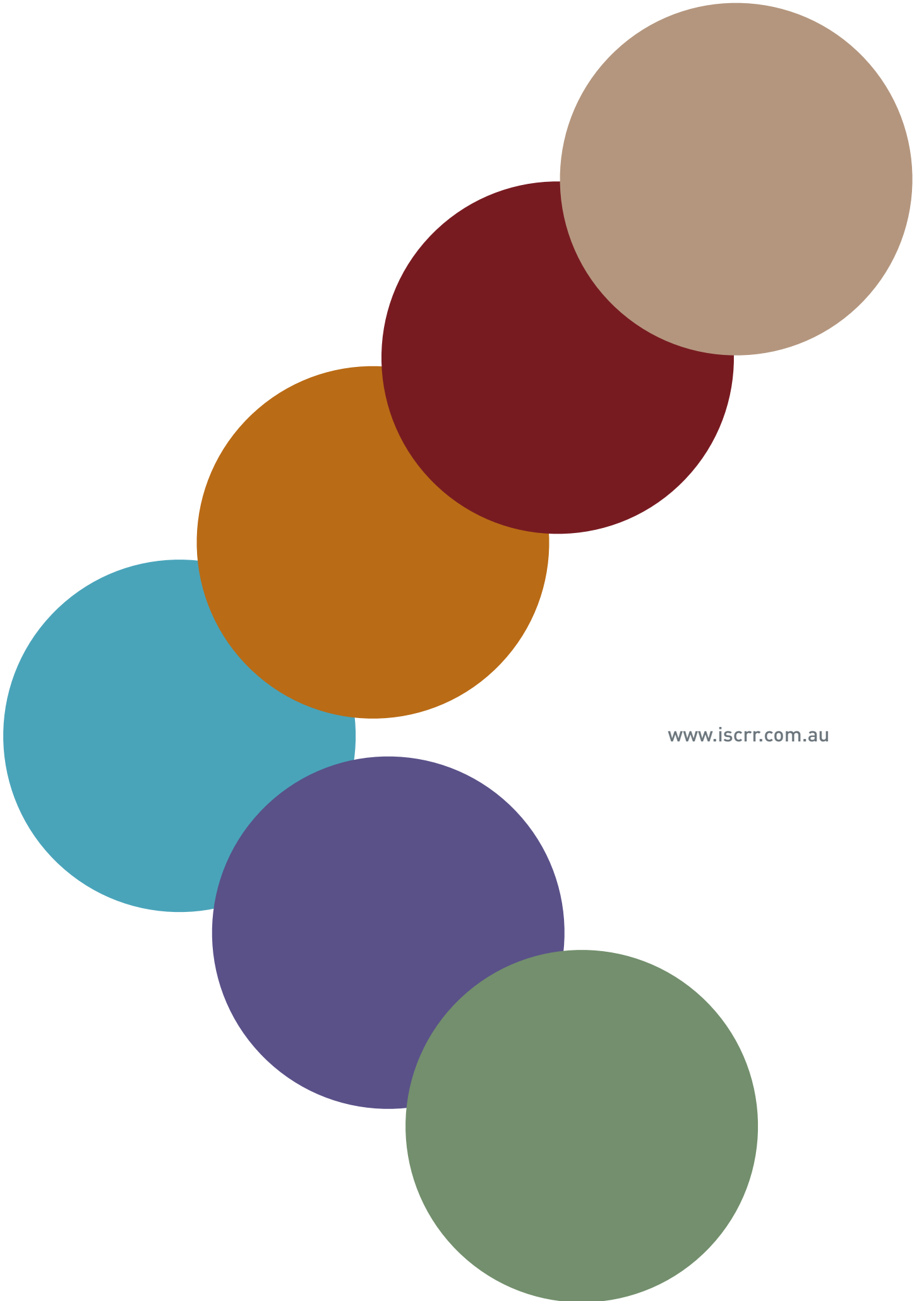
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