

## NHMRC Targeted Calls for Research

**Submission title:** Creating a safer Australia: the need for injury prevention research

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### **Question 1: What is the research gap you consider to warrant a TCR?**

Injury prevention.

Every day, 26 people in Australia die following an injury and over 1200 people are hospitalised. Injury is no accident; we know that injuries can be prevented through evidence-based interventions, developed and implemented in partnership with communities, practitioners and policy makers.

The Australasian Injury Prevention Network (AIPN) is the peak national body advocating for injury prevention and safety promotion in Australia (and New Zealand). The AIPN are currently working with the Australian Government Department of Health and The George Institute for Global Health to develop the Australian National Injury Prevention Strategy: 2021-2030. The National Injury Prevention Strategy has identified 50 key research gaps that are needed to reduce the burden of injury in Australia. There has been no targeted call for researcher-driven injury prevention research from any Australian funding body for more than a decade, and this may be contributing to the large number of research gaps in this area. The launch of the Strategy in 2021, combined with an NHMRC Targeted Call for Research, provides an ideal platform to create a step-change in knowledge and implementation of injury prevention interventions, to reduce the burden of injury and create a safer Australia.

Broadly there is a paucity of evidence for effective intervention for many common injury mechanisms, and where evidence exists there is often a complete lack of implementation evaluation. This has resulted in failure of broad scale roll out of many promising interventions and is a primary contributor to a lack of progress in reducing the burden attributed to many types of injury.

### **Question 2: How significant an issue is this proposed topic?**

Injuries are THE LEADING CAUSE OF DEATH for Australians aged 1-44 years and are responsible for approximately 9% of the total burden of disease in Australia. Each year, over 13,000 Australians die from injury and over 500,000 are hospitalised. These numbers are also growing. From 2007-08 to 2016-17, hospitalisations due to injury increased by an average of 1.2% per year. Furthermore, ONE in every FOUR presentations to emergency departments are due to injury, equating to over 2 million presentations each year. Without a change in injury prevention approaches, the burden attributed to injury will continue to grow. The size and growing nature of the injury problem in Australia, and the demand that this places on our healthcare system, urgently needs addressing.

The impact of injury extends well beyond hospital. We know that the majority of survivors of serious injury report significant problems with mobility, usual activities, self-care, pain/discomfort, and anxiety/depression at 3-years post-injury, demonstrating that injury is a chronic disease. Furthermore, the impact injury can have on the life course of injury survivors also contributes to injury as a determinant for many other chronic diseases, including mental illness.

In addition to the physical, emotional and cultural aspects of harm attributed to injury, the economic costs of injury in Australia are remarkably high. In 2015-16, the estimated total expenditure on injuries was \$8.9 billion, reflecting 8% of total disease expenditure. While these figures reflect the known costs associated with health care expenditure, the economic cost of injury goes well beyond these in terms of time lost from work, loss of productivity, and costs associated with recovery and living with acquired disability. This is particularly costly to society given the high involvement of young people who would otherwise be moving into or in the prime of their productivity.

Injuries can happen to anyone, but some population groups are at higher risk of experiencing injury. This includes people who live in areas that are rural or remote, or have a lower socioeconomic position, Aboriginal and Torres Strait Islander people, and older adults. Specifically, Aboriginal and Torres Strait Islander people have two times the rate of injury deaths compared to non-Indigenous Australians, people living in remote areas are twice as likely to die from an injury than people in major cities, and people living in areas of most socio-economic disadvantage are 1.4 times more likely to be injured than those in areas with least disadvantage.

It is difficult to truly measure the full impact of an injury. The burden of injury goes beyond death and hospital admission statistics. Loss of income, reduced quality of life, post-traumatic stress, and the emotional impact of grief on families, are some of the additional burden that are not well measured. To quote a major trauma patient at 3-years post-injury, “The impact of my injuries on my life has been massive. It’s changed everything. It’s changed my career path, it changed in my romantic path, it changed my relationship with everybody, not just my family, my friends. It’s massive.”

### **Question 3: How would research on this topic benefit the health of Australians?**

The vision of the Australian Government is to ensure that “Australia is a nation where everyone is equally safe to live, work, and play”. The current lack of evidence for prevention of many common forms of injury and widespread failures in implementation of actions known to be effective in reducing many common types of injury is a significant barrier to Australia realising this vision.

Prevention is the best form of cure. Research enabling widespread adoption of effective prevention solutions will improve the health of hundreds of thousands of Australia by preventing injury. In turn this will not only change acute outcomes for those who would otherwise have been injured but will also reduce the burden associated with disability following injury. This includes reductions in risk for mental health and development of other chronic disease. Importantly, reducing the burden of injury on the health system will free health resources for other health conditions.

### **Question 4: Would a TCR on this topic build on existing research or government initiatives?**

The aim of the Australian National Injury Prevention Strategy (2021-2030) is to reduce the rate and severity of injury in Australia and address inequities that contribute to the disproportionate impact of injury experienced by specific population groups. The overall target of the Strategy is to reduce the rate of injury deaths and hospitalisations in Australia by 30% by 2030. To achieve this ambitious target, the Strategy calls for a systems approach to developing and delivering evidence-based programs, trialling innovative programs, partnering with communities, practitioners and policy makers, a focus on implementation science, and targeted funding to achieve these objectives. This NHMRC TCR acts as the ideal platform to support increasing Australia’s capability to develop new and innovative countermeasures to injury, and to understand the barriers and enablers of

translating research evidence into policy and practice. Further, by targeting a call to areas of greatest need (evidence and implementation), and conducting research in partnership with communities, practitioners and policy makers, the outcomes of the research will be immediate and impactful.

Given the multi-sectorial nature of injury, a TCR on injury prevention would also address a number of key national strategies. These include the National Aboriginal and Torres Strait Islander Health Plan, the National Alcohol Strategy, the National Falls Prevention for Older People Plan, the National Men's Health Strategy, the National Plan to Reduce Violence against Women and Their Children, the National Preventive Health Strategy, the National Road Safety Strategy, the National Women's Health Strategy, the National Mental Health and Suicide Prevention Plan and the Australian Work Health and Safety Strategy.

In addition to the importance of injury at a national level, the burden of injury and the paucity of evidence on successful interventions and implementation evaluation is recognised at a global scale. The World Health Organisation (WHO) recognise injury as a global public health problem, with more than 5 million people dying from injury each year. This accounts for 9% of the world's deaths; nearly 1.7 times the number of fatalities that result from HIV/AIDS, tuberculosis and malaria combined. The WHO note: "despite growing awareness of the magnitude of the problem, attention to injury and violence prevention and control among policy-makers and those funding global public health programming remains disproportionately low." The WHO also note that, where effective injury countermeasures exist, the cost-effectiveness of these interventions is extremely high. For example, a study in the United States found that every dollar spent on smoke detectors save \$US28 in health-related expenditure. Furthermore, injury prevention is included in the United Nations (UN) Sustainable Development Goals (SDGs) agenda (e.g. SDG 3.6 and SDG 11.2).

**Question 5: Who and how have you consulted or collaborated with in identifying this research gap?**

The Australasian Injury Prevention Network (AIPN) is an independent, non-government network representing all-age, all-cause injury prevention and safety promotion in the Australasian region. The AIPN is the region's key professional body for practitioners, researchers, academics and allied professionals working in injury prevention and safety promotion. It has a broad-based membership from all sectors of the injury prevention and safety promotion community including research, health, transport, emergency services, crime prevention, education, sport and recreation, planning, industry, policy makers and regulators. This submission is made on behalf of all AIPN members, and the inter-disciplinary and multi-sectorial domain that is injury prevention.

The National Injury Prevention Strategy has been developed in collaboration with this vast array of government and non-government stakeholders, and the community, to highlight the significant burden of injury, and create a national focus on preventing injury among Australians.

**Question 6: Research keywords/phrases**

1. Injury prevention
2. Injury control
3. Injury
4. Public health
5. Public health policy

6. Health economics
7. Implementation
8. Community
9. Aboriginal health
10. Equity