New Zealand Injury Prevention Strategy: significant shortcomings after 5 years

John Langley

Injury is a serious problem in New Zealand. It results in substantial mortality and morbidity and has significant social and economic costs.\(^1\) Historically, injury prevention efforts have been fragmented with various government agencies and non-government organisations addressing a wide range of issues, often without reference to one another. The introduction of New Zealand Prevention Strategy (NZIPS) in 2003 was an attempt to address this fragmentation. The NZIPS vision is “a safe New Zealand, becoming injury free”.\(^2\)

Several government agencies are involved in leading implementation of the Strategy and its six priority areas. The strategy is collectively owned by members of the Chief Executives Forum and supported by the NZIPS Secretariat. Individual government agencies have responsibility for specific priority areas and each priority area has its own strategy. The priority areas, the lead agency for each area, and the social and economic costs for each area are presented in Table 1.

This paper examines the performance of the lead agencies to date, and more generally, the future of injury prevention in New Zealand in terms of reducing important injuries namely those that result in death, represent a high threat to life, result in significant disability, or are a high cost to society.

The 5-year evaluation report for NZIPS was released in July 2010.\(^3\) The evaluation examined progress in terms of injury outcomes by comparing 2003 with 2006 data for fatal injuries. For serious non-fatal injury, namely injuries that have a 6% chance or more of resulting in death, data for 2003 were compared with data for 2009.

The evaluation report concludes that the gains that have been made in terms of deaths, in particular in areas such as road crashes and workplace, have been due to sustained activity and investment in injury prevention over time. For serious non-fatal injury outcomes, however, the indicators for “all injury” and for all priority areas show increases, most notably assault at 50% and self-harm at 45%.

The review suggests that this contrasting situation could be due to successfully reducing the severity of injury from fatal to serious and improvements in care that have resulted increased survivability of injuries. While these explanations may be valid they fall far short of fully explaining the difference since the number of fatal injuries is small relative to serious non-fatal injuries. For example, for every fatal road traffic crash there are four to five times as many serious non-fatal injuries.
Table 1. Summary of injury costs by cost capital and priority area. Base-case estimate using official transport sector VPF; 3% discount rate; NZ $M; June 2008 prices

<table>
<thead>
<tr>
<th>Priority Area</th>
<th>Lead Government Agency</th>
<th>Treatment and Rehabilitation (1)</th>
<th>Lost Economic Contribution</th>
<th>Human Costs (2)</th>
<th>Total Social and Economic Cost</th>
<th>% of Total Social and Economic Costs – All Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Weekly Compensation</td>
<td>Lost Income to Premature Mortality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assault</td>
<td>Ministry of Justice &amp; Ministry of Social Development</td>
<td>$2.5</td>
<td>$2.2</td>
<td>$47.9</td>
<td>$327.5</td>
<td>$379.6</td>
</tr>
<tr>
<td>Falls</td>
<td>Accident Compensation Corporation</td>
<td>$557.7</td>
<td>$241.6</td>
<td>$29.2</td>
<td>$928.7</td>
<td>$1,735.2</td>
</tr>
<tr>
<td>Drowning</td>
<td>Accident Compensation Corporation</td>
<td>$0.8</td>
<td>$0.3</td>
<td>$47.9</td>
<td>$246.4</td>
<td>$295.5</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>Ministry of Transport</td>
<td>$237.5</td>
<td>$266.4</td>
<td>$261.4</td>
<td>$1,477.0</td>
<td>$2,195.0</td>
</tr>
<tr>
<td>Suicide/Self Harm</td>
<td>Ministry of Health</td>
<td>$1.6</td>
<td>$0.5</td>
<td>$379.6</td>
<td>$1,787.4</td>
<td>$2,189.1</td>
</tr>
<tr>
<td>Workplace</td>
<td>Department of Labour</td>
<td>$349.5</td>
<td>$579.9</td>
<td>$59.3</td>
<td>$387.8</td>
<td>$1,347.5</td>
</tr>
<tr>
<td>Subtotal - Six priority areas</td>
<td></td>
<td>$1,143.6</td>
<td>$1,021.9</td>
<td>$831.4</td>
<td>$5,124.8</td>
<td>$8,121.8</td>
</tr>
<tr>
<td>Estimated “Non-priority” areas</td>
<td></td>
<td>$251.7</td>
<td>$139.2</td>
<td>$77.4</td>
<td>$1,087.1</td>
<td>$1,555.4</td>
</tr>
<tr>
<td>All injuries</td>
<td></td>
<td>$1,395.2</td>
<td>$1,161.1</td>
<td>$908.8</td>
<td>$6,211.9</td>
<td>$9,677.2</td>
</tr>
</tbody>
</table>

1) Treatment and rehabilitation costs of $14 billion, excluding GST, represents the economic costs for the purchase by ACC of these services.
2) Based on DALYs incurred from premature mortality and disability associated with injury.

There are many potential explanations for the observed trends, in part or in whole, and it is highly likely that their significance will vary by priority area. In the commentary for each of the priority areas, the evaluation report identifies some specific factors that might account for the trends.

Significant among them is that a number of lead agencies have only had implementation policies in place for a few years. Behavioural and environmental changes take time and, typically, the gains that might be expected for any specific strategy in an area may be modest. Consequently, in most cases it is too early to judge progress in terms of an indicator that seeks to capture the cumulative effect of a range of strategies in a priority area.

Irrespective of the date of implementation it is nevertheless important to determine the relevance of the policy to the outcomes being measured. It could be that strategies adopted by some of the lead agencies are not focused, or not sufficiently focused, on important injuries, or on the groups experiencing these injuries. Such an assessment was not undertaken by the evaluation.

The need for such an assessment is well illustrated by reference to the assault priority area in the context of serious non-fatal injury. Before doing this it is important to point out that the serious non-fatal injury outcome indicators for assault are labelled as provisional. This label is intended to reflect the concern that observed increases
might reflect higher levels of reporting as public awareness improves around the need to report violent acts, rather than any real increase in incidence.

Recent research suggests that there is no evidence to support this explanation and it has been recommended that the provisional status of the indicator be removed. In other words, the observed trends are considered highly likely to reflect the true trends in the incidence of serious non-fatal assault in New Zealand.

For the period 2000–2006 inclusive there were 5080 serious non-fatal assaults, 79% of which were to males. As noted in Table 1, the NZIPS lead agencies for assault are the Ministry of Justice (MoJ) and Ministry of Social Development (MSD). The specific strategies the MSD identifies for the priority area of assault is Te Rito: New Zealand Family Violence Prevention Strategy and Taskforce for Action on Violence within Families. The former was published in February 2002 and the latter has been in place since 2005.

The MoJ strategy is the Taskforce for Action on Sexual Assault, which has been in operation since 2007. The 5-year evaluation report notes that it is unclear how much co-ordination or overlap there is across these strategies.

It is difficult to see how collectively these strategies are going to make a significant impact on homicide and assault among males, where the major burden lies, given that most of this violence is not perpetrated in a family context or by a family member (the focus of the MSD strategies) and sexual assault is rarely involved (the focus of the MoJ strategy). Neither strategy makes specific reference to NZIPS.

In contrast, the Department of Labour’s 2005 Workplace Health and Safety Strategy (WHSS) specifically states that it contributes to two of the Government’s wider goals, one being implementation of NZIPS. The WHSS was reviewed in 2009. While the review report makes frequent reference to how the strategy fits under NZIPS, a supporting document presents an outcome monitoring framework that is silent on NZIPS injury outcome indicators.

Moreover, while the suggested fatality indicator aligns with that used for monitoring injury outcomes under NZIPS, the indicator suggested for the non-fatal injury, rate of work-related injury resulting in hospitalization per 100,000 workers, has been demonstrated as having major threats to validity. It was for this very reason that high threat to life indicators were chosen for the NZIPS chartbooks.

The Department of Labour is not alone in using an indicator that has a high threat to validity. In its ‘Safer Journey’s: New Zealand’s Road Safety Strategy 2010–2020, the Ministry of Transport, for one of its progress measures, uses serious injuries, defined as those hospitalised for one day or more. No reference is made to the NZIPS serious non-fatal outcome indicator. Length of stay is not a suitable proxy for severity of injury in terms of threat to life.

The failure of these recent policy-related documents to pay due regard to the NZIPS injury outcome indicators is surprising given that the NZIPS 2008–2011 Implementation Plan specifically states that “Initiatives focused on and delivered by the Chief Executives’ Injury Prevention Forum will address the issue of serious injuries…” (p12).
There can be no confusion as to what serious means in this context given that official indicators for monitoring progress in reducing serious non-fatal injuries are those that represent a high threat to life. 16

These examples of poor alignment of policy with NZIPS raise questions about the commitment of lead agencies to NZIPS. This concern is reinforced by the evaluation report that notes that limited priority is given to injury prevention by several agencies, as it is not considered core business. This is exemplified by poor attendance at the Chief Executives Forum and the Ministerial Committee that is responsible for overseeing Government's progress on the NZIPS strategy, with chief executives delegating representation to lower level officials who have no decision-making authority.

This situation contrasts with New Zealand’s Accident Compensation Corporation (ACC) where injury prevention is core business, mandated by legislation. ACC is the lead agency for the Falls and Drowning strategies. These strategies were developed by ACC specifically in response to the NZIPS. There is, however, a major barrier to ACC meeting its responsibilities under NZIPS.

ACC recently released its 2010–2013 Statement of Intent (SoI). 17 As that document states, ACC has a legislative mandate, independent of NZIPS, in promoting measures to reduce the incidence and severity of personal injury. There is, however, a significant qualifier, and that is that Section 263 of the Accident Compensation Act 2001 requires that such measures only be undertaken by ACC if they are expected to lead to cost-effective reduction in levy rates. This is a major barrier to reducing injury since the cost of injury to society may be high but the cost to ACC low. Two examples illustrate these points.

ACC is the lead agency for drownings but as Table 1 shows that the human costs (non ACC costs) for drowning and near drowning exceed treatment and rehabilitation and weekly compensation costs (ACC costs) by 224 times. This reflects two issues. First, the ratio of deaths to non-fatal injury is close to 1:1. In other words, you if you get into difficulties in water you will either die or survive, and if you survive there is high probability you will be largely unscathed. Secondly, deaths cost ACC relatively little.

ACC is also the lead agency for falls where the estimated human cost @ $928m exceed ACC’s costs @ $777.3m. The question thus arises as to how can ACC exercise its wider injury prevention responsibilities, that is, pay due regard to human costs, under NZIPS? For example, a prevention programme that brings about reduction in childhood falls may have minimal benefit for ACC in terms of treatment and rehabilitation costs (and thus levy reduction) but a significant benefit in terms of reducing serious injury and human costs.

The Review is inappropriately silent on this important issue. This issue has become very salient in recent times as ACC has, with the recent change of government sought aggressively to reduce costs. Human costs will inevitably be the loser to ACC costs in this environment. This is well illustrated by the ACC recently withdrawing from the Otago Exercise Programme, an evidence-based programme aimed at reducing falls in elderly people. 18 Given that the majority of elderly people are non-earners the impact of a falls reduction programme in this group would have a relatively small impact on weekly compensation, a major driver of levies.
Section 263 of the Accident Compensation Act, which places the levy restraint on injury prevention expenditure, also states that ACC can fund prevention activity if Parliament has appropriated money for such measures and they are included in the current service agreement. In the current economic climate such an appropriation seems very unlikely. How then is prevention expenditure which has a favourable benefit to cost ratio primarily in terms of human costs, that is minimal impact in terms of ACC costs, to be funded?

Since the inception of NZIPS, ACC has hosted and funded the NZIPS Secretariat. The authors of the evaluation report considered the appropriateness of this arrangement given that they considered the Secretariat needed to:

- Enhance its stakeholder management and information dissemination role;
- Adopt a whole-of-injury prevention policy function; and
- Design and implement strategies, policies and programmes for areas not covered by a lead agency.

The report concluded that ACC has the most direct interest in injury prevention outcomes and therefore is likely to be best placed to host the Secretariat function. It noted, however, that it was important that any policy work undertaken reflected a sector wide view of injury prevention, rather than an ACC focused view.

The existing secretariat arrangement has recently been confirmed by the Associate Minister in charge of ACC. As with previous administrations this reflects the Government’s intention that ACC lead the NZIPS. But one has to wonder about the ability of ACC to act as the leader given its recently renewed interest in only investing in injury prevention programmes that are expected to lead to cost-effective reductions in levy rates.

The Government has also made it clear that it is favourably disposed to opening parts of the accident compensation scheme to competition. This means that for some areas of injury (e.g. work injuries) there will be providers other than ACC, and they will be in competition with ACC and one another. In such an environment it is difficult to see how ACC could perform its leadership role.

Another potential explanation for the poor progress in reducing injury, especially all-injury, is that there are some significant injury issues that may not receiving the attention they deserve. As mentioned at the outset, there are six priority areas in NZIPS. There are number of dimensions on which priority areas can be decided. Several key factors influenced the original choice of six.

First, was the traditional way of describing the distribution of the burden, namely by the International Classification of Disease external cause codes, which are mixture of mechanism (e.g. car crash) and intent (e.g. self harm). Secondly, were the government organizations that have a legislative mandate to deal with specific injury problems (e.g. Department of Labour: work-related injuries) and thus can be held to account to a Minister of the Crown. Third, was that, collectively the priority areas would account for a substantial proportion of the overall injury burden. Finally, was the concern that having too many priority areas would defeat the concept of setting priorities.
The choice of the final six inevitably resulted in some tensions with some parties advocating for more priority areas, most notably injuries to children and to Māori. The latter area being promoted, in large part, on the basis of Treaty of Waitangi obligations.

The evaluation report recommends that, as NZIPS has been in place for only 5 years, the existing priority areas be unaltered. It noted, however, that injury to children and alcohol-related injury cut across most, if not all, of the existing priority areas and that stakeholders considered there was an absence of accountability for them. In addition, Māori injury and community engagement were considered issues that would benefit from increased focus.

The report recommended these four issues become focus areas and that lead agencies be required to identify specifically in their action/implementation plans ways to address these them. Given the response of some lead agencies to NZIPS to date, this is a very optimistic expectation. It also seems that one key opportunity was lost - namely to designate alcohol-related injury as a priority area. New Zealand has an Alcohol Advisory Council (ALAC) that has a legislative mandate to reduce the harm associated with alcohol consumption.

A 2005 report on the burden of death, disease and disability due to alcohol estimated that injury accounts for 51% of all alcohol-related deaths and 72% of years of life lost in New Zealand. Clearly, if ALAC is to make a significant impact on alcohol-related harm overall, it must tackle issues relevant to reducing alcohol-related injury harm.

One other potential priority area which warranted consideration and on which the evaluation report makes no mention is sporting and recreational injury. IPRU, in its submission to the evaluation, pointed out that the impact of sport and recreation injury in terms of serious non-fatal injury numbers was similar to assault and substantially greater than self-harm and near drowning. Moreover, there was only a modest (approx 30%) overlap between sports and recreation injury and the falls priority area.

The establishment of NZIPS represented a bold and internationally unique approach to injury prevention. The 5-year evaluation has raised some serious questions about its implementation. The evaluation has, however, failed to adequately address some other fundamental issues. The resolution of these issues is critical if NZIPS is to make a significant impact on reducing important injury in New Zealand.

Competing interests: None.

Author information: John Langley, Director, Injury Prevention Research Unit, University of Otago, Dunedin

Correspondence: John Langley, Director, Injury Prevention Research Unit, University of Otago, PO Box 913, Dunedin. Fax: +64 (0)3 4798337; email: john.langley@ipru.otago.ac.nz

References: