

# Using health impact assessments to advance the field of injury and violence prevention

Injuries remain a leading cause of death and disability globally. A growing body of evidence shows that decisions made in sectors such as transportation, housing and urban planning affect injury risk. Health impact assessment (HIA) is a pragmatic process to identify the potential health risks and benefits of proposed policies and to inform decision-making. HIAs help policy-makers broadly weigh the trade-offs of proposals, for which health risks including injury and violence might not otherwise be fully recognised or addressed. The aim of this article is to describe HIA and its application to the field of injury and violence prevention.

In 2011, the National Research Council Committee on Health Impact Assessment presented a framework for HIA practice and a consensus definition of HIA: "A systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects."<sup>1</sup> As of November 2013, approximately 300 HIAs have been completed or are in progress in the USA, a dramatic expansion since the first HIA was completed in the country in 1999.<sup>2</sup> While findings from HIA evaluation research are still emerging, they indicate that HIAs have resulted in changes to proposals (by including ways to mitigate potential negative health effects and optimise positive ones); created new awareness of the social determinants of health among policy-makers; and fostered new and/or stronger cross-sector collaborations.<sup>3,4</sup>

The practice of HIA involves thinking comprehensively about the environmental, economic and social determinants of health, as well as engaging stakeholders and the impacted community throughout the process. For injury and violence prevention, broadly approaching risk factors and incorporating stakeholder input are already characteristics of the field. In fact, these elements are included in the field's core competencies.<sup>5</sup> HIA addresses these important elements of the competencies, and provides a systematic and evidence-based approach to considering how injury risk might be enhanced or mitigated for affected communities as part of an active decision-making process.

HIAs commonly address injury-related health pathways and metrics. For example, a HIA was conducted to inform the implementation of 'smart metering' technology that would allow an electric utility provider in Illinois to remotely connect and disconnect residential service. This HIA analysed health outcomes including the carbon monoxide poisonings, residential fire injuries and related deaths that could occur for low-income households if they were remotely disconnected from utility service and turned to alternative, high-risk sources for heat or light.<sup>6</sup> After testimony on the HIA findings and recommendations at a regulatory hearing, the Illinois Commerce Commission supported funding of consumer systems to educate and protect affected residents, and the development of metrics to monitor the impact of

the technology on resident health. Another HIA explored the issue of unintentional ingestions and poisonings in children by studying the potential health impacts of packaging regulations for medical and recreational marijuana.<sup>7</sup> This HIA recommended that the US state of Colorado adopt child-resistant packaging requirements to prevent unintentional ingestions of marijuana by children. These recommendations were evidence-based, incorporated feedback from a diverse group of stakeholders (including members of the marijuana industry) and were ultimately adopted by the state of Colorado. Many HIAs have also been conducted to inform transportation or land use decisions.<sup>2</sup> Recommendations from these HIAs help optimise health outcomes and minimise adverse impacts, recognising conflicts may occur. For example, a road with less than optimal pedestrian/bike intersection crossings may increase injury exposure risk and also encourage physical activity.

HIAs advance the field by illuminating the unintended injury and violence risks of proposals. Injury prevention professionals can contribute to HIAs by developing pathways that address important determinants of injuries; identifying national, state and local sources of injury data; determining appropriate metrics to measure the potential health effects and for monitoring; highlighting inequities; and crafting evidence-informed recommendations that promote health and mitigate the risk of injury and violence. Opportunities to learn about HIA exist around the country either as short trainings offered by institutions such as the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts, or as a course at several academic institutions.<sup>8</sup>

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**Contributors** KMP conceptualised the article, wrote the initial draft and revised it critically for important content. MLG contributed text on the HIA and the case examples, as well as critically reviewed the draft. GJT wrote the text for one of the HIA case examples and also critically reviewed the draft.

**Competing interests** None.

**Provenance and peer review** Commissioned; internally peer reviewed.

**To cite** Pollack KM, Givens ML, Tung GJ. *Inj Prev* 2014;**20**:145–146.

*Inj Prev* 2014;**20**:145–146. doi:10.1136/injuryprev-2014-041175

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### Driving safety measures in Quebec

Perhaps it is because Quebec has no-fault car insurance, on many road safety matters Quebec leads the pack in Canada. For example, in most of Montreal, we don't permit right turns on red lights or at stop signs. (But we also don't have enough speed or red light cameras). Quebec now wants all provinces to authorise random breath testing. This would follow the lead in Britain and parts of Australia where random testing has reduced drunk driving over a 5-year period between 19% and 35%! At present, the Canadian Charter of Rights and Freedoms requires police to have reason to stop drivers. (noted by IBP).

### Israeli child safety programme

In Israel, nearly 150 children are killed in preventable injuries in an average year, and 500 are treated in emergency rooms each day. Recently, the cabinet approved a plan to establish a comprehensive national programme to reduce injury deaths by 35% by 2020. Prepared in coordination with WHO and the European Union, the plan was announced at the First Child Safety Conference, organised by Beterem (the National Center for Child Safety and Health). Since Beterem was established in 1995, child injury deaths have declined by 30%. (noted by IBP).