



Injury prevention in Safe Communities

Brian D Johnston

Inj Prev 2011 17: 1-2

doi: 10.1136/ip.2011.031591

Updated information and services can be found at:

<http://injuryprevention.bmj.com/content/17/1/1.full.html>

These include:

References

This article cites 7 articles, 7 of which can be accessed free at:

<http://injuryprevention.bmj.com/content/17/1/1.full.html#ref-list-1>

Email alerting service

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:

<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:

<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:

<http://journals.bmj.com/cgi/ep>

Injury prevention in Safe Communities

Brian D Johnston

In this issue, Istre and colleagues report results from an intervention to increase child restraint use in a multi-ethnic Dallas neighbourhood (see page 3).¹ This was an impressive undertaking, couched in the theory and principles of community-based prevention interventions. Investigators conducted formative work with community stakeholders, some of which is detailed in a linked, online white paper. Modifications to intervention design based on these qualitative assessments included a focus on schools as points of neighbourhood cohesion and the use of car seats 'blessed' by local religious organisations.

The intervention was studied using a quasi-experimental design not uncommon in community-based efforts. As suggested by Langley *et al*, the outcomes of interest were not relatively rare injury occurrences, but rather the observed prevalence of important injury-risk reduction behaviours.² Results were based on almost 10 000 individual child restraint use observations. Analysis accounted for the clustered, multi-levelled nature of the intervention and data collection activities.³

The results are presented as an example of 'the Safe Communities model approach to injury prevention.' The Safe Communities movement is a worldwide effort through which several hundred cities or municipalities have been (or are working to become) certified as safe communities.⁴ In general, this requires communities to collect local injury data, use these data to engage broad cross-sections of society in the planning and execution of prevention programmes or policies, and evaluate the results of their interventions.⁵ Although based on principles that most would consider sound, the Safe Communities model struggles with the same challenges that other community-based health promotion schemes have faced—it is difficult to show that they actually work.^{6,7}

The question arises, then, as to whether Istre's work in Dallas adds to the evidence in support of the Safe Communities

approach. Certainly, the paper shows a positive result in a relatively well designed and executed study. The authors are careful to show that their work followed the prescribed 'model' promoted by Safe Communities for prevention interventions: essentially an injury-focused, community-based health promotion approach. But these are features of the specific programme, which are not necessarily attributable to its location in a designated Safe Community. One has to ask, to what extent was the success attributable to the Safe Community status that Dallas has enjoyed since 1996?

The intervention in Dallas (like many interventions designed in compliance with the Safe Communities model) was a well crafted, multi-pronged programme that used community input to identify strategies and locations to best engage a target population. Classes, seat checks, and awareness campaigns were designed to change individual behaviours. But what happened at the community level? Were policies or programmes created to promote restraint use across the community? Was there an effort to change behavioural norms and expectations? Was there, at least, evidence that programmes were easier to implement or more successfully conducted because of infrastructure attributable to the Safe Community? If not, then what exactly does the Safe Communities designation achieve in terms of individual safety?

One would like to believe (it seems to me) that a Safe Community would somehow value and promote safety in a manner that enhances, or at least facilitates, injury prevention interventions. More specifically, one should be able to identify and measure the contextual interventions and impacts that sit as the foundation of community-based prevention activities.⁸ Broadly considered, it also seems that 'safety promotion' should reach beyond injury control to engender a sense of safety that might manifest as engagement in activities, less anxiety about injury risk, and a greater perception of health, well being, and community investment.

But these outcomes are rarely measured. The benefits of the Safe Community are

boiled back down to a reduction of risk behaviours or injury occurrence. In fact, this may be a simple necessity. For all the intangible warmth of safety promotion as a concept, the tools we have to achieve this are very often targeted, discrete injury prevention interventions. And to be fair, many injury prevention strategies do reach 'upstream' in the causal chain and broadly out into the relevant environments to effect their change. In so doing, they must—to some extent—promote a safer community.

It remains plausible that there is another, largely untapped—or, at least, understudied—aspect of the Safe Community to consider. This is the opportunity to move entire communities, not just identified subpopulations, towards safer behaviours, practices, and policies. Why target communities? First, because some aspects of risk are mediated by conditions and influences quite distinct from individual behavioural decisions. Decisions made at a community level about zoning, traffic control, and recreational facilities influence injury risk in ecological domains that individuals simply cannot manipulate. Perhaps more importantly, even small reductions in risk applied over entire populations can have a dramatic impact on the total burden of disease or disability. The health of a population can improve through a gentle nudge in a positive direction, if this is taken up by a malleable majority. Impacts on health equity notwithstanding, the results of such intervention could dwarf those achievable through engagement only with targeted 'high risk' individuals.⁹

This, at least, is the theory. Only a few investigators have carefully specified an ecologically based theory of injury causation, defined measures to operationalise the concept, and tested prevention interventions against that theory (see Pickett *et al*,¹⁰ for example). We need more studies to explicitly test community-focused injury prevention programmes, looking for an interaction between Safe Communities designation and the success, reach, and sustainability of these programmes. Where there are successes, we need to know how these were achieved. Was community participation an important component? What about policies and legislation? Was inter-sectoral collaboration involved? Was an 'all injury' approach taken or were injury issues isolated, segmented, and targeted? Finally, can we see a spillover effect? Does success in one area of injury prevention lead to

Correspondence to Dr Brian D Johnston, University of Washington, Harborview Medical Center, 325 Ninth Avenue, PO Box 359774, Seattle, WA 98104, USA; ipeditor@bmjgroup.com

successes in other injury or non-injury health domains? And if we are to believe, as I do, that safety is more than an absence of injury, we need to be able to describe and measure this concept as the ultimate and most appropriate outcome of a Safe Community initiative.

Provenance and peer review Commissioned; not externally peer reviewed.

Injury Prevention 2011;**17**:1–2.
doi:10.1136/ip.2011.031591

REFERENCES

1. **Istre GR**, Stowe M, McCoy MA, *et al.* A controlled evaluation of the WHO Safe Communities model approach to injury prevention: increasing child restraint use in motor vehicles. *Inj Prev* 2011;**17**:3–8.
2. **Langley J**, Simpson J. Injury surveillance: unrealistic expectations of safe communities. *Inj Prev* 2009;**15**:146–9.
3. **Coupland C**, DiGuseppi C. The design and use of cluster randomised controlled trials in evaluating injury prevention interventions: part 2. Design effect, sample size calculations and methods for analysis. *Inj Prev* 2010;**16**:132–6.
4. **WHO Collaborating Centre on Community Safety Promotion**. *Institutionen För Folkhälsovetenskap: Karolinska Institutet*. http://www.phs.ki.se/csp/who_safe_communities_network_en.htm. (accessed 15 Dec 2010).
5. **Welander G**, Svanström L, Ekman R. *Safety Promotion—An Introduction*. 2nd (revised) ed. Stockholm: Karolinska Institutet, 2004.
6. **Merzel C**, D’Afflitti J. Reconsidering community-based health promotion: promise, performance, and potential. *Am J Public Health* 2003;**93**:557–74. doi: 10.2105/AJPH.93.4.557.
7. **Spinks A**, Turner C, Nixon J, *et al.* The ‘WHO Safe Communities’ model for the prevention of injury in whole populations. *Cochrane Database Syst Rev* 2009;(3):CD004445.
8. **Nilsen P**. The theory of community based health and safety programs: a critical examination. *Inj Prev* 2006;**12**:140–5.
9. **Rose G**. Sick individuals and sick populations. *Int J Epidemiol* 1985;**14**:32–8.
10. **Pickett W**, Hagel LM, Day AG, *et al.* Determinants of agricultural injury: a novel application of population health theory. *Inj Prev* 2010;**16**:376–82.

Thanks to our reviewers

Peer review remains at the heart of biomedical publication. As problematic and flawed as the process may be, careful scrutiny of your work by intelligent and supportive peers is a stalwart defense against mediocre science and a reasonable antidote to poor writing. We owe a debt of gratitude to all who are willing to undertake this task.

Injury Prevention counts on a cadre of dedicated and diligent reviewers to help us develop the papers we publish. Our editorial board, of course, does the lion’s share of the work. But there are others whose contributions we need to formally acknowledge. In particular, these individuals each reviewed 3 or more times for us over the last 12 months: Carol Berkowitz, Ruth A Brenner, Mariana Brussoni, Nicola Christie, Theresa Covington, Beth E Ebel, Robert Ekman, Kitty J Hendricks, John D Langley, Ronan A Lyons, Robyn N Norton, Eleni T Petridou, Fred Rivara, David C Schwebel, Gordon S Smith, Rebecca Spicer, Steve Wirtz, and Motao Zhu.

A full listing of our reviewers for 2010 is available on the website: *Injury Prevention* 2011; 17:e1.

Brian Johnston

Correspondence to Brian Johnston, University of Washington, Harborview Medical Center, 325 Ninth Ave - Box 359774, Seattle 98104, USA; ipeditor@bmjgroup.com

Competing interests None.

Provenance and peer review Not commissioned; not externally peer reviewed.

Injury Prevention 2011;**17**:2. doi:10.1136/ip.2010.031450