The Cochrane Injuries Group celebrates the publication of its 100th review: time to reflect on impact

In Issue 5, 2010 of the Cochrane Database of Systematic Reviews, the Cochrane Injuries Group (CIG) published its 100th systematic review. Such a milestone provides a good opportunity to reflect on the ways in which the Group's output may have influenced clinical practice, healthcare policy, and research since its inception in 1997.

Cochrane systematic reviews should be uniquely placed to influence policy, practice, and research as they provide a comprehensive critical summary of what is known about effectiveness on a given topic. In addition, Cochrane reviews are periodically updated in light of new evidence. Yet, it has long been recognised that the relationship between research and policy or practice is a complex one[1]; and that research may not always have the impact that researchers desire.[2] One reason for this is that research evidence is only one factor in shaping policy and practice. Decision makers are subject to many different influences including political imperatives, the media, non-research evidence, and powerful lobbying groups such as industry.[3 4] However, despite these potential barriers there is a clear indication that CIG reviews have had a demonstrable impact on policy and practice. The examples presented here have been generated through an impact assessment being undertaken by the author. This evaluation has focused on specific reviews only and there are undoubtedly other examples of impact not included here.

Injuries Group authors have made a significant contribution to injury prevention with the publication of over 30 reviews focused on injury prevention topics. This is a substantial body of work and many of these reviews have contributed to the formulation of guidelines and policy at both the national and international level. For example, World Health Organization (WHO) reports on the prevention of child injury[5] and road traffic injury[6] cite 15 and 9 Injuries Group reviews, respectively. There are also examples of CIG reviews being used to inform the development of international policy. These include:

- A review of safety education for pedestrians[7] highlighted the lack of evidence to support pedestrian education for children as a road safety strategy. This review was cited in reports in the UK, Europe, and North America and included in policy documents produced by the EU and the WHO.
- A review of traffic calming[8] was cited in a WHO report on traffic injury prevention[6] and fed into recommendations endorsed by member states.
- Reviews on the use of helmets for the prevention of injuries[9 10] have influenced the development of WHO policy on helmet laws[11]; legislation that is now being implemented widely in Asia and Africa.

As well as the prevention of injuries, the remit of the Group also includes treatment and rehabilitation. Analysis of the impact of five CIG reviews evaluating strategies for fluid resuscitation found evidence that they had influenced practice, policy, and research. Citation analysis revealed that the reviews had been widely cited, both in the UK and internationally, and were included in over 20 guidelines on fluid resuscitation. Two reviews[12 13] were particularly influential. The first[12] was instrumental in stimulating debate about fluid resuscitation, and the findings of the latter,[13] a review of human albumin for fluid resuscitation, led to a 40% reduction in the use of human albumin in the UK.[14]

Another consideration when evaluating the impact of research is whether it has played a part in the targeting of future research,[15] and indeed CIG reviews have been instrumental in shaping the research agenda. For instance, the authors of the human albumin review[13] highlighted the methodological weaknesses of the available studies and concluded that further well conducted studies in the area were essential. Australian researchers subsequently conducted a large randomised controlled trial (RCT) comparing albumin and crystalloid,[16] a study that provided vital evidence on the best strategy for fluid resuscitation of critically ill patients. In addition, CIG reviews have stimulated primary research in trauma care. A review on steroids in head injury[17] instigated a large multicentre RCT,[18] and reviews of anti-fibrinolytic drugs in surgical[19] and trauma patients[20] provided the stimulus for an RCT currently in progress (http://www.crash2.lshtm.ac.uk/).

Finally, it is worth considering how the work of the CIG may have contributed to the formulation of values and knowledge. The impact of research may not always be immediate or direct but instead is often cumulative or conceptual with ideas from research gradually filtering down into policy or practice.[21] Indeed, one of the roles of research may be to create debate and influence the policy agenda.[3] Impact at this level is, of course, difficult to demonstrate but it is likely that CIG reviews have played a role in changing ideas and attitudes and redefining research practices and beliefs. For example, the output of the CIG may have contributed to a shift in the road safety paradigm away from politically safe interventions, such as safety education where the onus is on the individual, by highlighting the need for more comprehensive population-based environmental and legislative strategies. In addition, the work of the CIG may have impacted upon research thinking, practices, and beliefs by promoting the use of systematic review methods and emphasising the value of using rigorous scientific methods for the evaluation of road safety interventions.

In conclusion, we have reason to believe that CIG reviews are a valuable resource for decision makers involved in the prevention, treatment, and rehabilitation of injury. The task of the CIG remains the facilitation of evidence-informed policy and practice through the production of high-quality reviews relevant to practitioners, policy makers, and the research community.

The CIG welcomes suggestions for new reviews. You can contact the Group through: www.injuries.cochrane.org. Membership is open to all, and volunteers are invited to work with the Group in a variety of roles.

The full text of all of the CIG's reviews is published in the Cochrane Database of Systematic Reviews (www.thecochranelibrary.com).

F Bunn

University of Hertfordshire, Centre for Research in Primary & Community Care, UK

Correspondence to F Bunn, University of Hertfordshire, Centre for Research in Primary & Community Care, College Lane, Hatfield AL10 9AB, UK; f.bunn@herts.ac.uk

Competing interests None.

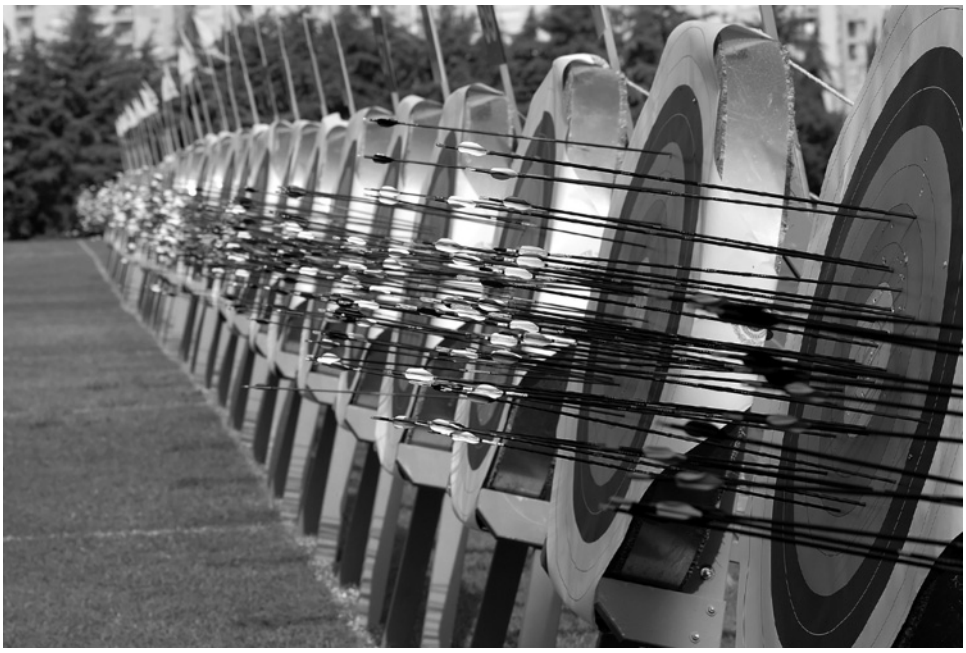
Provenance and peer review Commissioned; not externally peer reviewed.

Injury Prevention 2010;**16**:208–209. doi:10.1136/ip.2010.027136

Inj Prev: first published as 10.1136/ip.2010.027136 on 22 June 2010. Downloaded from http://injuryprevention.bmj.com/ on April 23, 2024 by guest. Protected by copyright.

REFERENCES

1. **Weiss C.** Using research in the policy process: potential and constraints. *Policy Studies Journal* 1976;**4**:224—8.
2. **Lomas J.** Using Linkage and exchange to move research into policy at a Candian foundation. *Health Aff (Millwood)* 2000;**19**:236—40.
3. **Black N.** Evidence based policy: proceed with care. *BMJ* 2001;**323**:275—9.
4. **Campbell S,** Coates E, Davies P, *et al*. *Analysis for policy: evidence-based policy in practice*. London: Government Social Research Unit, 2007.
5. **Peden M,** Oyegbite K, Ozanne0Smith J, *et al*. *World report on child Injury Prevention*. Geneva: World Health Organization, 2008.
6. **Peden M,** Scurfield R, Sleet D, *et al*. , eds. *World Report on road traffic injury prevention*. Geneva: WHO, 2004. http://whqlibdoc.who.int/publications/2004/92415609.pdf.
7. **Duperrex OJM,** Roberts IG, Bunn F. Safety education of pedestrians for injury prevention. *Cochrane Database Syst Rev* 2002;(2):CD001531. doi:10.1002/14651858.CD001531.
8. **Bunn F,** Collier T, Frost C, *et al*. Area-wide traffic calming for preventing traffic related injuries. *Cochrane Database Syst Rev* 2003;(1):CD003110. doi:10.1002/14651858.CD003110.
9. **Thompson DC,** Rivara F, Thompson R. Helmets for preventing head and facial injuries in bicyclists. *Cochrane Database Syst Rev* 1999;(4):CD001855. doi:10.1002/14651858.CD001855.
10. **Liu BC,** Ivers R, Norton R, *et al*. Helmets for preventing injury in motorcycle riders. *Cochrane Database Syst Rev* 2008;(1):CD004333. doi:10.1002/14651858.CD004333.pub3.
11. *WHO Helmets — a road safety manual for decision makers and practitioners*. Geneva, World Health Organization, 2006.
12. **Perel P,** Roberts I, Pearson M. Colloids versus crystalloids for fluid resuscitation in critically ill patients. *Cochrane Database Syst Rev* 2007;(4):CD000567. doi: 10.1002/14651858.CD000567.pub3.
13. **Alderson P,** Bunn F, Li Wan Po A; **The Albumin Reviewers**, Human albumin solution for resuscitation and volume expansion in critically ill patients. *Cochrane Database Syst Rev* 2004;(4):CD001208. doi:10.1002/14651858.CD001208.pub2.
14. **Roberts I,** Edwards P, McLelland B. More on albumin. Use of human albumin in UK fell substantially when systematic review was published. *BMJ* 1999;**318**: 1214—15.
15. **Buxton M,** Hanney S. How can payback from health services research be assessed? *J Health Serv Res Policy* 1996;**1**:35—43.
16. **Finfar S,** Bellomo R, Boyce N, *et al*. A comparison of albumin and saline for fluid resuscitation in the intensive care unit. *N Engl J Med* 2004;**350**:2247—56.
17. **Alderson P,** Roberts I. Corticosteroids for acute traumatic brain injury. *Cochrane Database Syst Rev* 2005;(1):CD000196. doi:10.1002/14651858.CD000196.pub2.
18. **Edwards P,** Arango M, Balica L, *et al*. Final results of MRC CRASH, a randomised placebo-controlled trial of intravenous corticosteroid in adults with head injury-outcomes at 6 months. *Lancet* 2005;**365**:1957—9.
19. **Henry DA,** Carless PA, Moxey AJ, *et al*. Anti-fibrinolytic use for minimising perioperative allogeneic blood transfusion. *Cochrane Database Syst Rev* 2007;(4): CD001886. doi:10.1002/14651858.CD001886.pub2.
20. **Coats T,** Roberts IG, Shakur H. Antifibrinolytic drugs for acute traumatic injury. *Cochrane Database Syst Rev* 2004;(4):CD004896. doi:10.1002/14651858.CD004896.pub2.
21. **Weiss C.** Have we learned anything new about the use of evaluation? *American Journal of Evaluation* 1998;**19**:21—33.



Inj Prev: first published as 10.1136/ip.2010.027136 on 22 June 2010. Downloaded from http://injuryprevention.bmj.com/ on April 23, 2024 by guest. Protected by copyright.