



## The European Code Against Injuries (ECAI): translating evidence into practice

Eleni Th Petridou and Evi Germeni

*Inj. Prev.* 2008;14;282-283  
doi:10.1136/ip.2008.020073

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setbacks, the accommodations made and the (often heroic) efforts to maintain or salvage program fidelity in the face of changing circumstances could capture the gritty reality of making things work in real world settings. Such analysis blurs the boundary between transferable program components and specific contexts, but just as business students learn general principles from reading countless case studies, so too might the prevention community benefit from narrative retelling of successful—and not so successful—injury-control programs. In that vein, I encourage submission of additional qualitative analyses of injury-prevention initiatives to allow us to identify features that

make programs successful, accepted, scalable and generalizable.

**Competing interests:** None.

Accepted 18 August 2008

*Injury Prevention* 2008;**14**:281–282.  
doi:10.1136/ip.2008.020230

## REFERENCES

1. **Schwebel DC.** Remembering the victims. *Inj Prev* 2008;**14**:212.
2. **Hurwitz B,** Greenhalgh P, Skultans V, eds. *Narrative research in health and illness.* Oxford: BMJ Books, Blackwells, 2004.
3. **Steiner JF.** The use of stories in clinical research and health policy. *JAMA* 2005;**294**:2901–4.
4. **Leape LL,** Berwick DM, Bates DW. What practices will most improve safety? Evidence-based medicine meets patient safety. *JAMA* 2002;**288**:501–7.

5. **Onwuachi-Saunders C,** Forjuoh SN, West P, *et al.* Child death reviews: a gold mine for injury prevention and control. *Inj Prev* 1999;**5**:276–9.
6. **Marsh DR,** Schroeder DG, Dearden KA, *et al.* The power of positive deviance. *BMJ* 2004;**329**:1177–9.
7. **Dawes RM.** A message from psychologists to economists: mere predictability doesn't matter like it should (without a good story appended to it). *J Economic Behav Org* 1999;**39**:29–40.
8. **Bate SP.** Ethnography with attitude: mobilising narratives for public sector change. In: Veenswijk M, ed. *Organizing innovation: new approaches to cultural change and intervention in public sector organizations.* Amsterdam: IOS Press, 2006:105–32.
9. **McKee R,** Fryer B. Storytelling that moves people. *Harv Bus Rev* 2003:51–5.
10. **Shipton D,** Stone DH. The Yorkhill CHIRPP story: a qualitative evaluation of 10 years of injury surveillance at a Scottish children's hospital. *Inj Prev* 2008;**14**:245–9.

# The European Code Against Injuries (ECAI): translating evidence into practice

Eleni Th Petridou,<sup>1,2</sup> Evi Germeni<sup>1</sup>

Most European Union (EU) countries have enjoyed a downward trend in age-standardized unintentional injury mortality, making the Union one of the safest places to live worldwide.<sup>1</sup> Yet, injury ranks fourth among all causes of death and first in years of potential life lost.<sup>2</sup> The considerable variation in injury mortalities noted among the EU member states, ranging from 17/100 000 in countries such as the UK and the Netherlands to 100/100 000 in Latvia and Estonia, also points to opportunities for prevention. It has been estimated that 73 000 of the 165 000 annual unintentional injury deaths in the industrialized EU Region could be avoided were all member states to adopt policies and practices implemented in EU countries with the best injury-prevention records.<sup>3</sup>

Human behavior has been identified as an exclusive or partial contributor to the causation of the vast majority of injury. In

contemporary societies, injury prevention has relied preferentially on passive safety, with considerable attention paid to the identification of environmental risk factors and the development of effective safety technologies. Airbags, for instance, have been shown to substantially reduce the risk of fatal and severe injuries.<sup>4</sup> Even in this case, however, a behavioral component is evident, as their overall protective effect depends on factors associated with individual seat belt use.<sup>5</sup> In fact, as Gielen and Sleet have noted, “there is rarely an environmental change that does not require human adaptation.”<sup>6</sup>

In light of this integrated approach, the European Code Against Injuries (ECAI) was developed as a European Commission cofunded project aiming to compile “Strategies and Best Practices for the Reduction of Injuries” (APOLLO) that could be implemented across the EU. In addition to summarizing evidence-based injury-prevention practices, ECAI also sought to amalgamate experts' opinions in a set of public health recommendations that could be easily comprehended and eventually adopted by EU citizens. In this sense, ECAI represents an effort to “translate” effective practices into simple, appealing, and straightforward messages promoting injury prevention. Practices

relevant to one member state or to a specific population group may not apply to another; hence, attention was paid to develop messages likely to be acceptable across the multicultural EU milieu. In total, ECAI comprises 60 messages divided into eight prioritized unintentional injury types, plus a category on cross-cutting risk factors.

ECAI was developed in successive stages, following identification of the top injury priorities in the EU.<sup>7</sup> Along with associates from the Center for Research and Prevention of Injuries (CEREPRI) in Greece, principal collaborators were: Denise Kendrick and Malcolm Barrow (UK), Giuseppe Masanotti and Eva Negri (Italy), Karl Kuhn (Germany), Maria Segui-Gomez (Spain), Maria Benyi (Hungary) and Yousif Rahim (Norway). Susan Scavo Gallagher (USA), a renowned injury expert, was a consultant. Two members of the ECAI team (EP and EN), as well as Carlo La Vecchia and Dimitrios Trichopoulos, drew from their experience with the European Code Against Cancer, a previously developed awareness-raising tool.<sup>8</sup>

Specifically, injury experts: (1) identified via literature reviews effective injury-preventive practices by prioritized injury type; (2) “translated” effective individual-level practices into health education messages targeting the general public; (3) modified key messages to enhance population effectiveness; and (4) customized the messages for EU member states. For instance, the message promoting helmet use is meant not only for two-wheelers but also for horse riders, the latter constituting a relatively sizeable group in some countries such as the UK, although practically nonexistent in others. ECAI was modified based on comments by WHO injury experts and national journalists, before being pilot-tested

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among population groups in Greece, Hungary, and Spain. Pilot testing aimed to assess ECAI comprehension by different population segments, as well as to explore their willingness to adopt the safe practices. Thereafter, several messages were rephrased or even eliminated. Before being finalized, the ECAI was also reviewed by potential disseminators and end users, such as the European Federation of Road Traffic Victims (FEVR) and the European Public Health Association (EUPHA).

It may seem utopian to claim that adoption of safer behaviors could be accomplished only by raising individuals' awareness. However, experience with the European Code Against Cancer, which, like ECAI, was introduced as a series of simple and comprehensive recommendations, is encouraging; its contribution to the impact of the Europe Against Cancer program in reducing cancer mortality and creating within the member states an environment where cancer control activities could flourish has been substantial.<sup>9-10</sup> Realistic and tangible changes can be expected when the dissemination of ECAI includes a systematic and consistent activity plan. The official launch of ECAI is scheduled during the 2nd European Conference on Injury Prevention and

Safety Promotion (Paris, October 9–10, 2008). A dissemination strategy for ECAI, which has already been translated in 11 languages, is planned (<http://www.euroipn.org/apollo/WP3.htm>)

Recent injury mortality statistics show that strong socio-economic and cultural differentials persist in the EU. These might be diminished through incorporation of awareness-raising activities along with passive prevention measures. Indeed, experience gained in ECAI development confirms the existence of wide knowledge gaps regarding easy-to-adopt prevention measures. This creates a great public health challenge for injury researchers, practitioners, and policy makers. Expression of interest from countries, such as South Africa or Turkey, to customize and evaluate ECAI in their own settings, suggests that the messages have potential worldwide relevance. The main problem of implementing injury prevention, in every society, remains the translation of evidence into effective practice.

**Competing interests:** None.

► An additional appendix is published online only at <http://injuryprevention.bmj.com/content/vol14/issue5>

Accepted 6 August 2008

*Injury Prevention* 2008;**14**:282–283.  
doi:10.1136/ip.2008.020073

## REFERENCES

1. **Center for Research and Prevention of Injuries.** *Injury statistics portal mortality data.* [http://www.euroipn.org/stats\\_portal/](http://www.euroipn.org/stats_portal/) (accessed 20 Jul 2008).
2. **Peden M, McGee K, Krug E, eds.** *Injury: A leading cause of the global burden of disease, 2000.* Geneva: World Health Organization, 2002.
3. **Petridou ET, Kyllekidis S, Jeffrey S, et al.** Unintentional injury mortality in the European Union: how many more lives could be saved? *Scand J Public Health* 2007;**35**:278–87.
4. **Segui-Gomez M.** Driver air bag effectiveness by severity of the crash. *Am J Public Health* 2000;**90**:1575–81.
5. **Stewart TC, Girotti MJ, Nikore V, et al.** Effect of airbag deployment on head injuries in severe passenger motor vehicle crashes in Ontario, Canada. *J Trauma* 2003;**54**:266–72.
6. **Gielen AC, Sleet D.** Application of behavior-change theories and methods to injury prevention. *Epidemiol Rev* 2003;**25**:65–76.
7. **Alexe DM, Skalkidis I, Petroulaki K, et al.** Delphi technique as a tool in assessing injury priorities and actions for injury prevention in the European Union. *Afr Saf Promot* 2006;**4**:119–29.
8. **Boyle P, Autier P, Bartelink H, et al.** European Code Against Cancer and scientific justification: third version (2003). *Ann Oncol* 2003;**14**:973–1005.
9. **Boyle P, d'Onofrio A, Maisonneuve P, et al.** Measuring progress against cancer in Europe: has the 15% decline targeted for 2000 come about? *Ann Oncol* 2003;**14**:1312–25.
10. **Petridou E, Skalkidis Y, Pailopoulos V, et al.** Adaptation of the "European Code Against Cancer" (ECAC) to the cultural needs of low income women in Greece: comparative effectiveness of health education approaches. *Soz Praventivmed* 1990;**35**:220–4.



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