

## Injury control training in the USA: meeting the challenge

Creating a strong future for injury control in the USA requires adequate support for research, improved advocacy for injury control legislation and regulation, and effective translation of research into practice. Yet, none of these priorities can be pursued without a qualified injury prevention workforce. Scientific advancement in any field requires well-trained scholars who can apply rigorous methods to understand phenomena and develop innovative solutions to problems.

It is unthinkable for a school of public health to graduate students with no exposure to issues of chronic disease or infectious disease, yet most schools offer limited, if any, exposure to injury—the leading cause of death for Americans ages 1–44. As documented by the Association of Schools of Public Health inventory in 2002, there were 35 courses that focused primarily on injury and violence prevention in the 33 accredited schools of public health.<sup>1</sup> There were three injury-related doctoral programmes that required an injury course, but no masters programme that had any requirement of an injury course. Similarly, the American Association of Medical Colleges reported that students in US medical schools ‘receive limited exposure’ to injury prevention, with just over a quarter of schools requiring any such coursework.<sup>2</sup> To the extent key injury concepts are absent from Board exams, this content will not be a priority.

There has been some progress in injury training within the last decade, but much more needs to be done. The research and training centre grants, including the 17 Education and Research Centers of which only six have an occupational injury programme, the 10 Agricultural Safety and Health Centers of the National Institute for Occupational Safety and Health, the six Fogarty Trauma and Injury Research Training Centers funded by the National Institutes of Health (NIH) and 11 Injury Control Research Centers (ICRC) funded by the National Center for Injury Prevention and Control, all provide limited support to engage in education and training with graduate students and practising professionals. The National Training Initiative for Injury and Violence Prevention developed core competencies for practitioners and the PREVENT Training Program.<sup>3,4</sup> Professional organisations including SAVIR and Safe States offer webinars with both research and practice updates and several institutions offer summer workshops or certificate programmes. WHO created the TEACH VIP Program.<sup>5</sup> The injury prevention and acute care branch under development within the NICHD hopefully will provide new opportunities for interdisciplinary injury control training grants for both predoctoral and postdoctoral trainees and career development awards. This is good progress, but does not go nearly far enough.

All public health curricula should include injury content. In addition to training practitioners and researchers dedicated specifically to injury and violence prevention, we need to develop a broad base of injury and violence prevention knowledge among health professionals whose focus is not exclusively on injury. If attention to injury prevention is considered in accreditation reviews of schools of public health or incorporated into general certification testing for public health professionals, it will likely become a more central part of public health training. In many institutions across the country, efforts are being undertaken to create undergraduate public health programmes. Exposing undergraduates to injury control principles will elevate the public understanding of the issues and, in

the long run, should create support for injury control initiatives and lead to a reduction in morbidity and mortality from injuries.

Moving forward, to continue to advance the field of injury control, we urge consideration of the following recommendations:

- ▶ Funding should be sustained and increased for all the current training mechanisms. While new NIH training opportunities may be on the horizon, many existing programmes, such as ICRCs, Education and Research Centers and Ag Centers, have either experienced significant reductions in funding or are in jeopardy of being completely abolished. To assure a pipeline of trained injury professionals, we must advocate for federally funded injury training programmes.
- ▶ Schools of public health, medicine, nursing and other health disciplines should incorporate injury content into the curriculum for all students.
- ▶ Injury control research centres must continue and expand their efforts to train the existing public health workforce, including those in trauma centres, to achieve core competency in injury control so as to advance evidence-based practice.
- ▶ Federal agencies (eg, NIH and Centers for Disease Control and Prevention) should provide multiple training opportunities in the area of injury prevention and control to attract graduate students and postdoctoral researchers. This includes mentored career development awards (Ks) plus other funding opportunities to enable progression as an investigator in the field (eg, small grants (R03s) and (R21s) to facilitate building towards R01 level research).
- ▶ Injury control advocates should insist that training be included as a critical element of building the field.

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