Supporting injury prevention research: taking stock and moving forward

Deaths from car crashes plummeted in earlier decades because research demonstrated how to build safer cars and roads and documented the impact of policy. Research has documented the value of smoke alarms and home sprinklers, pool fencing, building designs that minimise fall risk and the efficacy of childproof packaging of medications. Research has revealed the burden of injuries and the cost-effectiveness of addressing injury prevention and helped maximise impact from different approaches. But support for injury research has not kept pace with our need and our potential to reduce the burden of injuries.

A recent study examined the relationship between the amount of National Institutes of Health (NIH) funding and the burden of disease for 27 leading causes of death and disability. Among all of these conditions, the spending compared with burden was most disparate for injuries.[1] Although many agencies support aspects of injury research, funding has never been commensurate with the size of the problem, as first pointed out in the 1985, Injury in America report.[2]

Three decades ago, the Centres for Disease Control and Prevention (CDC) became the lead federal agency for injury, with its National Centre for Injury Prevention and Control (NCIPC) created in 1992. Since then, we have seen significant progress in the injury field without commensurate growth in funding. Though the CDC has funded 19 different institutions as Injury Control Research Centers (ICRC) since 1987, there are currently only 10. Funding for independent research grants has waxed and waned, with consistently more opportunities for violence research than unintentional injury, though the current opioid epidemic has resulted in a shift in that balance. Training grants have not been funded through the NCIPC, though theICRCs have each developed strong efforts to prepare professionals.

Injury research has an unusual position within the world of health research because the federally appointed lead agency, the CDC, has a mission that is not primarily focused on research. Other agencies, such as National Highway Traffic Safety Administration, the National Institute of Justice and the NIH do fund injury research, but none addresses comprehensive injury prevention as their priority. NIH increased its focus on child injury when it launched the Paediatric Trauma and Critical Illness Branch of the National Institute of Child Health and Human Development. However, these advances are far from sufficient to realise the potential impact that injury research could have on reducing the global burden.

The advances we have celebrated remain vulnerable each fiscal year. For example, recent funding challenges to the ICRC programme suggest a lack of understanding at the federal level of the important role that research in general and ICRCs specifically play to provide an integrated programme of research and training, integrated with engagement of practitioners and stakeholders throughout the nation. Despite early plans to have ICRCs regionally distributed, funding for this programme has eroded each year, leading to cuts in the number of ICRCs and the operational budget for each one. The westernmost ICRC is now in Iowa, yet injury rates remain high in the West, limiting the regional pipeline of emerging professionals and opportunities for collaboration and continuing education.

We must invest in a robust injury and violence prevention research and training agenda. Maintaining vitality in injury research funding and continuing to attract the best scientists is imperative for improving health status in the USA and globally. We need to address new challenges that stem from trends such as increased motorisation globally, increased firearm ownership nationally, threats of trauma from natural disasters spurned by climate change as well as the current prescription drug overdose epidemic. We also must address increases in injury rates from long-known causes such as occupational exposures and falls, especially among our ageing population, child maltreatment and suicide. To meet these challenges, a trained workforce working throughout multiple sectors who can rely on a strong evidence base to maximise impact is imperative to ensure translation of findings into practice. It also supports the infrastructure in which practice informs research development.

Corinne Peek-Asa,[1] Carol Runyan[2]

[1]Injury Prevention Research Center, College of Public Health, University of Iowa, Iowa City, IA, USA
[2]Department of Epidemiology, University of Colorado- Anschutz Medical Campus, Aurora, Colorado, USA

Correspondence to Dr Corinne Peek-Asa, Injury Prevention Research Center, College of Public Health, University of Iowa, Iowa City, IA, USA; corinne-peek-asa@uiowa.edu

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