



Book

The public health approach to paediatric firearm injury

Here is where most Americans agree: we want to keep ourselves and our families and communities safe from firearm injury. But beyond that, the USA is rife with disagreement about firearm injury. We argue about what causes it, how to prevent it, and even how common it is.

The source of this disagreement and failure can be traced to two big problems. First, back in the 1970s and 1980s, some political advocacy groups in the USA created a connection between the reasonable acknowledgment that firearms can cause harm and the extreme suggestion that guns should be banned. In the USA context, banning firearms is infeasible not only constitutionally but also culturally. As detailed in a new textbook, *Pediatric Firearm Injuries and Fatalities: The Clinician's Guide to Policies and Approaches to Firearm Harm Prevention*, edited by Lois K Lee and Eric W Fleegler, about 40% of American households have a firearm, with the number of households and number of guns in private hands surging during the COVID-19 pandemic. Moreover, the history of public health shows how it is possible to decrease harm from consumer products, such as cars and electric appliances, without outright banning the product. But we cannot make progress if we do not admit that guns can cause harm.

The second and equally harmful problem is that, during the mid-1990s, those same advocacy groups, particularly the National Rifle Association, stifled research on firearm injury prevention in the USA. The now infamous Dickey Amendment, passed in 1996, did not explicitly ban federally funded research on gun violence; instead, it banned using US Centers for Disease Control and Prevention (CDC) funds to "advocate or promote" gun control, which was already illegal.

But when the Dickey Amendment was passed, all the money that the CDC had been spending on firearm injury prevention research was taken away, and other federal investment in this work also dried up. As a result, over about the past decade, paediatric firearm injury has received only 3.3% of the federal funding provided for research on other diseases of similar mortality burden.

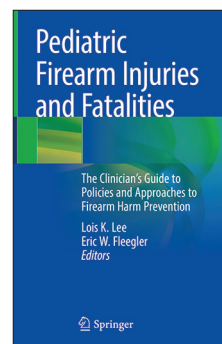
"Lee, Fleegler, and their excellent team of expert authors, ranging from epidemiologists to trauma surgeons to emergency physicians, have done an impressive job of presenting the facts. If you are interested in knowing the truth about paediatric firearm injury, this is the place to go."

The inadequate funding for research on firearm injury prevention has made it difficult for evidence to inform the public's perceptions of "gun violence". The US public generally lack consensus on even the definition and frequency of firearm injury, much less what firearm injury prevention looks like. Indeed, if you ask people about gun violence, many are likely to talk about gangs and school shootings. They are unaware that about two-thirds of adult firearm deaths, and an increasing proportion of paediatric firearm deaths, are caused by suicides; that firearm injury is the second leading cause of death for American youth; and that most mass shootings are related to domestic violence, not schools. Americans from both sides of the political spectrum also often default to talking about policy rather than looking at the full spectrum of interventions and preventive solutions that are needed to stem this uniquely American epidemic.

Policy is important but it is only part of the solution. For example, policy on stricter regulations on access to firearms for people convicted of domestic violence is effective, but its effectiveness depends as much on enforcement as on the presence of a law.

This new textbook is an essential start in advancing knowledge about firearm injury prevention among children. The book moves us toward a true public health approach, in which we have, first, accurate data about the epidemiology of paediatric firearm injury; second, development and evaluation of interventions to reduce children's risk; and finally, the scale-up of solutions that work. Shared facts are the bedrock of the public health approach. If we don't understand the drivers of injury, we can't hope to reduce it. Lee, Fleegler, and their excellent team of expert authors, ranging from epidemiologists to trauma surgeons to emergency physicians, have done an impressive job of presenting the facts. If you are interested in knowing the truth about paediatric firearm injury, this is the place to go.

The first section of the book articulates in clear and compelling detail the currently known facts on paediatric firearm injury, its risk factors, and how to protect



Pediatric Firearm Injuries and Fatalities: The Clinician's Guide to Policies and Approaches to Firearm Harm Prevention
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youth from risk of firearm injury. It describes the basic epidemiology of paediatric firearm suicide, assault, school shootings, and unintentional injury. It explicitly acknowledges and describes the importance of discussions of structural racism and other inequities, such as geography, that perpetuate or worsen firearm injury among kids. And it provides a useful overview of the basics of safer firearm storage. The chapters also present important but not well known information, such as that firearms are the only consumer product that are not regulated by the US Consumer Product Safety Commission, which helps explain how the USA got to where we are today. Other key facts include a series of studies showing that most adolescents who carry a firearm, irrespective of ethnicity or urbanicity, do so out of a desire for “self-protection”. The authors also present data on how almost three-quarters of children, regardless of age, say that they know where their parent’s firearm is stored and how to access it. This knowledge can help us design more effective and appropriate interventions to reduce injury.

The second section of the book accurately summarises the state of the knowledge on the types of clinician-led interventions that can make a difference. For example, when paediatricians both counsel their patients on the importance of safe storage and provide a gun lock, rates of use of gun locks increase. Similarly, some hospital-based and community-based violence intervention programmes decrease rates of overall firearm injury. The most successful paediatric firearm injury prevention efforts include community collaborations to improve safe storage, improve access to mental health care, and beyond—they are multifactorial, culturally competent interventions that address the multiplicity of drivers of firearm injury among young people.

But this section of the book also describes how far we have to go. The

limited funding for firearm injury prevention research over the past two decades means that our knowledge about clinician-led interventions remains in its relative infancy. And although the book has a couple of chapters that describe advocacy efforts, the focus is mainly on advocacy for policy change. Although policy is important, there could have been more discussion of how to create culture change—an equally important and effective part of public health, as my own involvement in the #ThisIsOurLane social media campaign showed in 2018.

The book itself is nuanced, providing thoughtful insights on how clinicians’ perspectives need to be different from those of pure advocates, acknowledging that legislation is a necessary but not sufficient part of our injury prevention work. However, because of the choice of a subtitle, which leads with policies, the textbook perpetuates the notion that policy is the primary goal. Policies are part of any successful injury prevention strategy—and the USA has been remiss in applying policies that work—but they are never enough in and of themselves. They must be accompanied by education, culture change, changes in engineering, and more. Furthermore, the history of public health shows that some policies can have unintended consequences. A useful resource for those who are interested in policy change is RAND’s gun policy database that provides up-to-date evidence on which types of laws improve outcomes.

Additionally, this textbook is incomplete simply because it was published in 2021. Our knowledge about the causes and prevention of paediatric firearm injury is still far from settled. New research continues to emerge that expands our knowledge. For instance, recent research suggests that state levels of firearm ownership may be less important than state poverty levels as a correlate of firearm injury rates. This

finding is important, because it points to the need to address structural inequities just as much as firearm ownership itself. And the book is also incomplete because although it gives a hat-tip to community voices, few community insights are included in the chapters. This is understandable in a book that describes itself as a clinician’s guide. But the leadership of community members and firearm experts in this conversation is vital to the success of firearm injury prevention interventions. Harm reduction is about meeting people where they live, understanding what the needs and concerns are in different communities, and then collaborating together with them to move towards safety.

As Frederick Rivara, one of the early leaders of this field, acknowledges in the book’s foreword: “Firearm injuries and the policies governing firearm access are complicated. The issues can’t be summarized on a bumper sticker or a tweet regardless of where a person stands on the political spectrum.” My hope is that we will create greater consensus on how to get past the sense that this is complicated. The work of the authors of this textbook, along with the efforts of many leaders, families, community members, and researchers across the USA, has started to shift Americans’ conception of what paediatric firearm injury is. The facts are part of this, but story-telling, new community groups, and sheer persistence will also be needed. Textbooks like this one are part of the journey, but only a beginning.

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