

Firearms: the cost of inaction

Every day, an estimated 688 people die from firearm injuries around the world, thousands more are injured, and firearm-related violence darkens the lives of millions who have witnessed it, know victims who have suffered it, or those who simply fear it. Surprisingly, firearm-related violence is not mentioned in the health Sustainable Development Goal (SDG 3). One has to look to SDG 16—promoting peaceful and inclusive societies, for the mandate to reduce all forms of violence and related deaths. The public health community needs to reconcile this counter-productive dichotomy: firearm violence is a public health issue.

According to the Institute for Health Metrics and Evaluation, worldwide an estimated 251,000 people died from firearm injuries in 2016, with six countries (Brazil, USA, Mexico, Colombia, Venezuela, and Guatemala) accounting for over half of those deaths. In *The Lancet Public Health*, Anna Dare and colleagues dissect firearm mortality in four of these most affected countries, and report that firearms are a major cause of premature mortality in the USA, Mexico, Brazil, and Colombia, responsible for 2.5 million deaths from 1990–2015. Homicide was the intent in most cases in Mexico, Brazil, and Colombia; in the USA, it was suicide. More than half of these deaths—1.4 million—occurred in men aged 15–34 years. The authors estimate that if countries were able to achieve the same death rates nationally as in the lowest-burden states, 1.8 million firearm deaths could have been avoided.

Dare and colleagues expand their analysis by investigating the socioeconomic determinants and subnational geographical factors behind firearm mortality. Place of residence, race, and educational achievement were associated with an individual's risk of firearm death in all countries—they report about a 4-times higher risk of being killed by guns for young men (aged 25–34 years) in the lowest versus highest education groups. In the USA, poorly educated black men have an estimated 14-times higher risk of firearm homicide than did similarly educated white men. The association of race with risk was higher in the USA than in Brazil—where these large differences by race and ethnicity were not as prominent, education dominates. Educational attainment only partly protects young black men from firearm homicide in the USA; the risk of firearm mortality

was 3-times higher among black men with post-secondary education than among less educated white men, and 30-times higher than comparably educated white men. Failure to address firearms as a major cause of mortality might well hamper countries' ability to reduce health disparities and improve overall life expectancy.

Writing in an accompanying Comment, Sandro Galea makes a compelling case for a world without guns. "One of the greatest risk factors for firearm-associated deaths is owning a gun". Dare and colleagues' data "support the argument against civilian owned firearms, and prepare for a time when the question is not whether there should be a world without most guns, but simply how can this be achieved," he notes. From a public health perspective, reducing exposure seems a minimal requirement. Gun control, aimed at reducing the total pool of firearms, is an important public health harm reduction measure to limit gun violence, and should be part of the public health community's mandate in response to SDG 3.

Achieving legal controls on gun ownership are necessary steps in reducing the risks of gun violence, although they remain politically unpopular with large segments of the population, in the USA in particular. Gun ownership and exposure to gun violence are of course not only matters of law, but also cultural, social, and economic issues. Interventions that limit firearm access are important, but must be broadened to address the cultural, social, and economic factors that contribute to such striking risk differences.

Dare and colleagues' findings are a stark reminder of the broader social factors at play in determining people's unequal vulnerability to gun violence. Tackling disparities, in particular addressing the underlying factors of ethnicity and education identified here, through multisectoral approaches, will be crucial. Public health researchers need to reach out to wider disciplines. Controlling the flow of weapons must be a first step, but interventions that aim to change social norms around gun use, violence, and purchasing behaviour should also be developed. Firearm-related violence is a public health issue that must be tackled urgently by legislation, adequate research funding, and evidence-based prevention strategies. ■ *The Lancet Public Health*

Copyright © The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.



Published Online
May 21, 2019
[http://dx.doi.org/10.1016/S2468-2667\(19\)30085-4](http://dx.doi.org/10.1016/S2468-2667(19)30085-4)

See Online/Articles
[http://dx.doi.org/10.1016/S2468-2667\(19\)30018-0](http://dx.doi.org/10.1016/S2468-2667(19)30018-0)

See Online/Comment
[http://dx.doi.org/10.1016/S2468-2667\(19\)30021-0](http://dx.doi.org/10.1016/S2468-2667(19)30021-0)

For the **Institute for Health Metrics and Evaluation global firearms mortality data** see <http://www.healthdata.org/research-article/global-mortality-firearms-1990%E2%88%922016>