

# A Matter of Survival

## NON-LETHAL FIREARM VIOLENCE

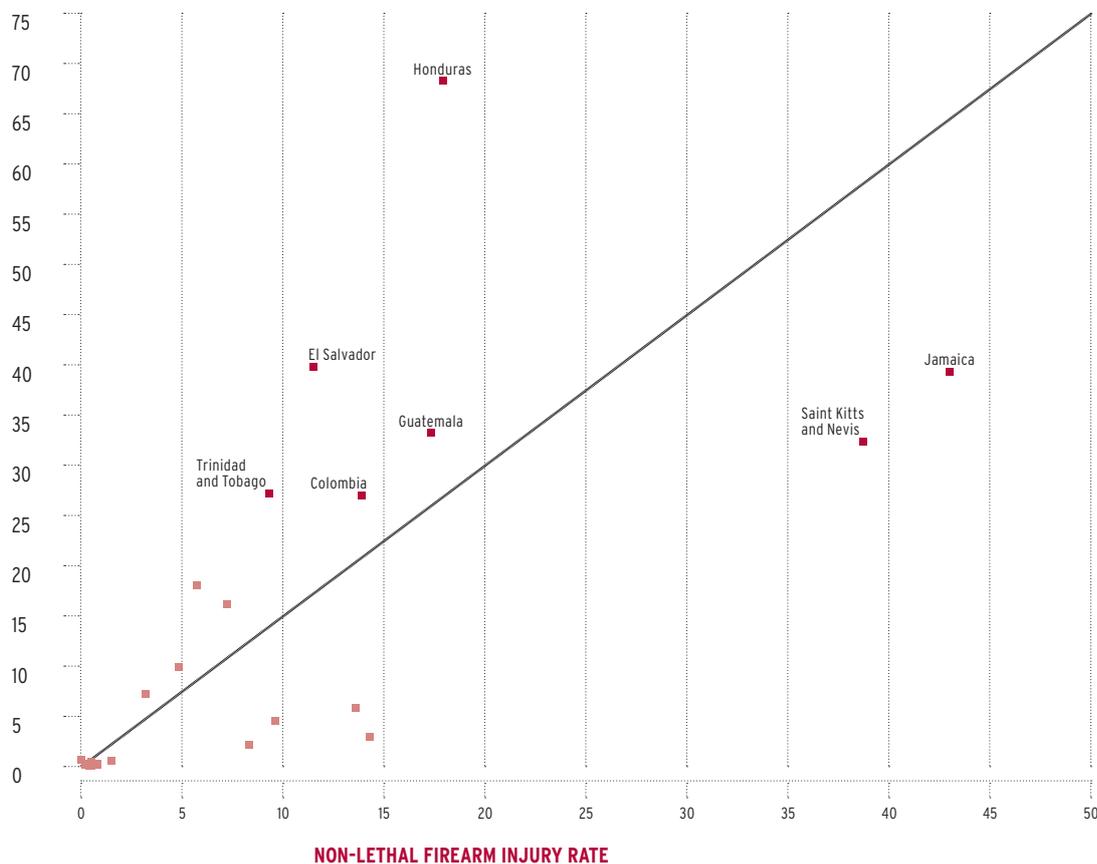
Gun violence does not always kill, yet relatively little information is available about gunshot survivors, the incidents in which they were shot, and the incidence of non-lethal firearm violence. This chapter considers available data, focusing on interpersonal assaults committed in non-conflict settings. It reviews non-lethal firearm rates for countries in which data collection is relatively robust, reflecting information from public health institutions, law enforcement, and victimization surveys. It also highlights the need for improved incident and trend monitoring.

The chapter’s main findings include the following:

- Worldwide, at least two million people—and probably many more—are living with firearm injuries sustained in non-conflict settings over the past decade.
- Gunshot injuries generate considerable direct and indirect costs, such as those incurred through treatment, recovery, and lost productivity.
- Available data suggests that shooting victims in countries with lower overall levels of firearm violence have a better chance of surviving their injuries.
- Robust data on non-lethal firearm violence is still relatively uncommon, and collected data rarely conforms to standardized coding protocol, limiting its comparability.

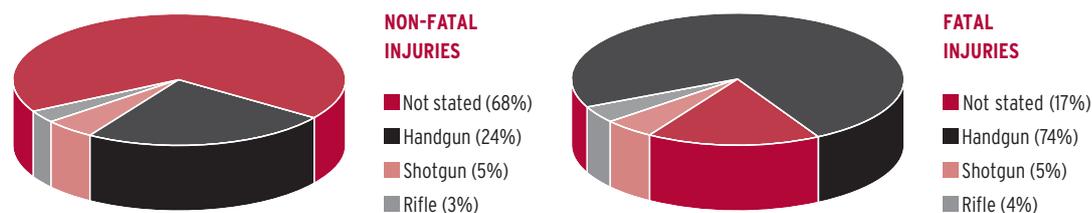
Figure 3.8 **Non-fatal firearm injuries and firearm homicides in 26 countries, latest available year**

### FIREARM HOMICIDE RATE



Source: Small Arms Survey (2011); UNODC (2011b)

Figure 3.10 **Non-fatal firearm injuries treated in hospital emergency departments and homicide victims in the United States, by type of firearm, January 2006–December 2008**



Source: ICPSR (2010, p. 28); FBI (2010)

The chapter examines data on intentional violence and assault from approximately 28 countries and territories and estimates national ‘case fatality rates’—the number of cases with a lethal outcome divided by the total number of lethal and non-lethal cases. If every gunshot were fatal (a 100 per cent case fatality rate), there would be no survivors. In contrast, low case fatality rates indicate larger numbers of gunshot survivors.

Data suggests that the higher a country’s firearm homicide rate, the higher its case fatality rate for all firearm violence. Countries such as Brazil, Colombia, and Mexico, which all show high rates of firearm homicide, exhibit a case fatality rate of around 70 per cent. The estimated average global case fatality rate for intentional, non-conflict firearm injuries is 48 per cent, or about one non-fatal injury for every fatal one.

As shown in Figure 3.8, there appears to be a correlation between lethal outcomes of firearm incidents and non-lethal firearm injuries.

**An estimated 500,000-750,000 people are injured by firearms every year.**

The severity of a gunshot injury—and the likelihood of death or permanent impairment—is affected by the technical specifications of the ammunition used; the injury’s location in the body; and the accessibility of emergency and trauma care services, particularly in rural and low-income areas, where only a minority of patients reach the hospital by ambulance.

Gunshot survivors face direct and indirect costs related to their firearm victimization experience. Direct medical costs for firearm injuries, including hospital stays, diagnostic procedures, surgery, and blood products, are substantial and often exceed the costs of treating other injuries and medical emergencies.

Injury data typically originates in medical services, which are well placed for capturing the number of patients treated for firearm-related injuries. Yet even relatively advanced systems can suffer from limitations in representativeness, coverage, and coding. For example, information on the type of firearm used (such as a handgun, rifle, or shotgun) is rarely coded. Figure 3.10 compares information regarding the type of firearms used in cases of fatal and non-fatal injuries in the United States. The figure reveals that about three-quarters of lethal firearm injuries are caused by handguns, whereas the types of firearm used in non-fatal injuries are largely unknown, as that information is not regularly available or coded.

According to an initial survey conducted by the Small Arms Survey, some form of injury data is collected in approximately 60 countries, but the vast majority provide little or no data on non-fatal violence, are unable to disaggregate data according to weapon type, and do not specify intentionality. Among the most significant obstacles to better surveillance are a lack of comprehensiveness and standardization, non-representative sampling, and data entry and computerization problems. Such obstacles may be particularly difficult to overcome in areas where violence is pervasive, and where surveillance is thus most needed.

**Very few countries have comprehensive data collection systems for firearm injuries.**

Ideally, hospital-based injury data collection systems should document firearm-related injuries within the framework of all-injury data collection systems. The World Health Organization’s International Classification of Diseases system provides a universally applicable scheme for coding non-fatal firearm violence, but its application is far from universal. Indeed, while simple forms and questionnaires for the purpose of injury surveillance have been designed on the basis of World Health Organization guidelines, many surveillance systems still lack the non-fatal component. ■