



THE CONSEQUENCES OF armed violence range from death to permanent disability or long-lasting pain to minor injury. For the victim, the outcome may be determined by a question of mere centimetres or minutes. Survival and recovery often depend on the availability and quality of medical assistance, a service in short supply in most cities, towns, and rural communities seized by armed violence.¹ And for each person killed, many more are injured or experience prolonged physical and psychological wounds.

The number of deaths is therefore only one indicator of the intensity and consequences of armed violence. But although many factors shape the characteristics and dynamics of armed violence, lethal violence can serve as an approximate measure for the scope and scale of other forms of victimization. Killing is treated seriously in all societies, which renders it more readily amenable to examination and measurement. From an administrative perspective, killing is also an important index of insecurity, since it tends to be recorded more systematically than other crimes. Vital registration systems, legal records, church registries, media dispatches, and oral traditions place more of a premium on documenting intentional death than many forms of assault, abuse, or sexual violence.

When it comes to documenting and recording lethal violence, analysts typically distinguish between ‘conflict deaths’ that occur during wars and ‘intentional homicides’ arising in non-conflict

settings (Collier and Hoeffler, 2004, p. 3). As shown in Chapter One, however, it is often difficult in fragile and post-conflict contexts to determine whether a death can be attributed exclusively to organized or interpersonal violence, or to political or economic motivations (A UNIFIED APPROACH). Killings that are believed to be motivated by political or economic objectives may be the result of both or neither. In countries ranging from Afghanistan and Yemen to Mexico and Nigeria, the merging of organized criminal violence with armed conflicts of varying intensity renders a simple binary distinction between ‘conflict’ and ‘non-conflict’ meaningless.

Instead of retaining the artificial distinction between the two categories, this chapter collapses available data on lethal violence across all settings. Although it draws on disaggregated data, it combines information on lethal violence to generate a single total. Such an approach allows for an overall portrait of the global burden of armed violence and facilitates a more comprehensive reading of trends at the regional and national levels. Drawing on the comprehensive GBAV 2011 database on lethal violence, which covers the years 2004–09, this chapter finds that:

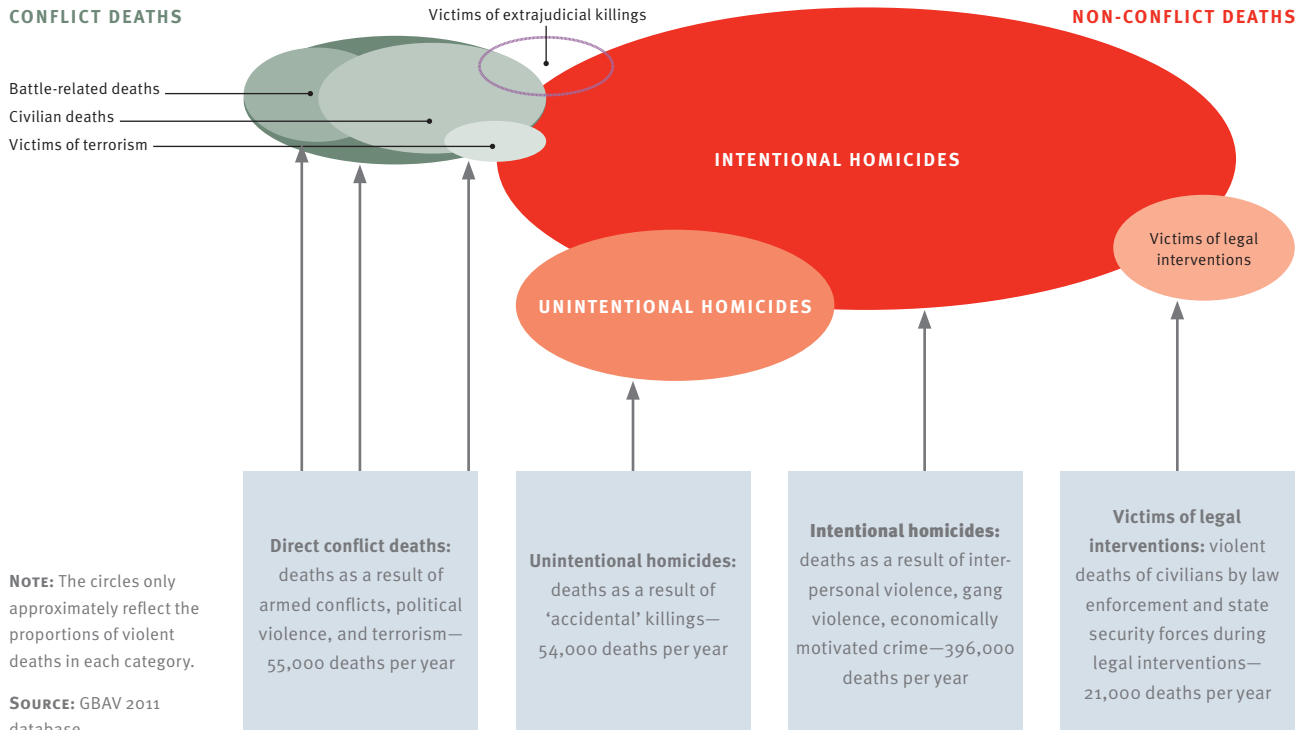
- At least 526,000 people are killed each year as a result of lethal violence. This includes an estimated 55,000 direct conflict deaths, 396,000 intentional homicides, 54,000 so-called ‘unintentional’ homicides, and 21,000 killings during legal interventions.²

- One in every ten of all reported violent deaths around the world occurs in so-called conflict settings or during terrorist activities.
 - The average annual global violent death rate between 2004 and 2009 was 7.9 per 100,000.
 - At least 58 countries exhibit violent death rates above 10.0 per 100,000. These countries account for almost two-thirds of all violent deaths (63 per cent) or 285,000 deaths.
 - El Salvador was the country most affected by lethal violence in 2004–09, followed by Iraq and Jamaica.
 - Middle and Southern Africa, Central America and the Caribbean, and South America are the regions that exhibit highest levels of lethal violence.
- The rates of both intentional homicide and direct conflict deaths are volatile. In 2006, the number of victims of intentional homicides dropped to around 368,000, while in 2009 this figure increased to around 423,000. After a dramatic increase in direct conflict deaths between 2005 and 2007—roughly 66,000 people died directly in armed conflict in 2007—the figure dropped to roughly 58,000 in 2009.

Explaining the framework

Whether focusing on the global or the national level, a comprehensive estimate of lethal violence necessarily relies on multiple data sources.

FIGURE 2.1 How violence is reported and recorded



It requires reconciling statistical information on deaths gathered from many disciplines, including criminology, epidemiology, and conflict studies. Because the researchers typically work in isolation from each another, they frequently only gather a partial image of the overall burden of lethal violence. The *Global Burden of Armed Violence 2011* thus introduces a unified framework for understanding lethal violence. While Chapter One highlights the challenges of achieving an integrated approach, this chapter works with data sources that distinguish between different forms of lethal violence in order to develop a comprehensive and integrated estimate of lethal violence.

Figure 2.1 outlines how lethal violence is recorded and reported within established categories in the criminal justice, health sciences, and conflict studies literatures. While it clarifies some aspects of lethal violence, the framework suffers from a few limitations. The sharp differentiation between conflict and non-conflict deaths betrays the complexity inherent in this dichotomy as well as the fact that distinguishing between the two categories is frequently a matter of interpretation. Nevertheless, the figure shows violent deaths compartmentalized into particular analytical categories, as routinely done by governments and non-governmental organizations, which often assume the categories to be mutually exclusive. While the figure acknowledges the way in which violent acts are reported and recorded, the reality of lethal violence is of course much messier.

Figure 2.1 provides a roadmap for estimating the global burden of armed violence. It demonstrates how direct conflict deaths and intentional homicide are often reported, given adequate data. With some exceptions, international bodies, national authorities, academic institutions, non-governmental organizations, and the media are

reasonably adept at defining and reporting these two phenomena across time and space. The determinations of what kinds of events are included or excluded in both broad categories are generally shared across different countries, thus facilitating cross-national comparisons.³ The analysis in this chapter does not include indirect (non-violent) deaths or excess mortality inflicted on civilian populations as a consequence of armed conflict, nor does it cover self-directed violence (suicide).

The framework also demonstrates how certain categories of violent death are merged together. For example, terrorism-related deaths are included in the ‘direct conflict death’ category since most of them occur in countries affected by or emerging from war and because most databases on direct conflict deaths already include victims of terrorism in conflict zones. Challenges in counting terrorism-related deaths and injuries arise partly as a result of the absence of a universally agreed definition of what terrorism actually entails. The concept has been applied to a wide range of countries and groups in different historical, social, and cultural contexts (Friedrichs, 2006, pp. 72–73; see Box 2.1).

On the other hand, unintentional homicides and killings during legal interventions are not generally included in homicide statistics. As a result, they are not analysed in detail in this volume, although they are incorporated into the overall count of lethal violence. Given the absence of comparable definitions, the poor quality of reporting, and the low reliability of data on unintentional homicide and deaths occurring during legal interventions, these figures have to be treated with caution. The final section of this chapter offers a detailed analysis of the challenges involved in gathering data on unintentional homicides and killings during legal interventions.

Box 2.1 Challenges in defining ‘terrorism’ and recording its victims

Defining what is terrorism and who is a terrorist is a delicate matter. For more than two millennia, the term ‘terrorist’ has been applied to a disparate assortment of groups—including the Sicarii in first-century Palestine, the Assassins in the 13th-century Middle East, and the so-called ‘Thugs’, who were active from the 7th to the 19th century in India, and enjoyed a heyday in the 13th century (Rapoport, 1984). More recently the label ‘terrorism’ was applied to the actions of the French revolutionaries at the end of the 18th century and to Russian and European anarchists during the 19th century. Likewise, a wide range of actors have assigned the label ‘terrorist’ to the activities of totalitarian states, such as Nazi Germany and the Soviet Union, anti-colonialist and leftist groups of the 1960s and 1970s, and extremist religious and environmental groups since the 1970s (Rapoport, 2002).

There is no international consensus on how ‘terrorism’ should be defined. In the 1970s the UN General Assembly’s Ad Hoc Committee on International Terrorism failed to arrive at a common definition, only to abandon its efforts in 1978 (UNGA, 1972). The goal of arriving at a universal definition was revived in 1996 with a new Ad Hoc Committee established by the General Assembly (UNGA, 1996).⁴ Despite a major effort to draft a comprehensive convention on international terrorism, the Committee has also failed to issue a definition or set of parameters that satisfy all members, and its draft definition remains provisional (UNGA, 2010a).

Despite the absence of an agreed definition, a number of databases provide annual estimates of terrorist victims, which vary widely in their estimates (see Table 2.1). In this context, the US-based National Counterterrorism Center (NCTC) reports are the most comprehensive as they specifically focus on terrorism rather than other kinds of political violence. Yet the NCTC also counts ‘military personnel and assets outside war zones and war-like settings’ as terrorism victims (NCTC, 2010, p. 4); this approach is



PHOTO ▲ Forensic experts investigate a bomb-destroyed bus following a coordinated attack on London’s public transport system, July 2005. © Kai Pfaffenbach/Reuters

TABLE 2.1 Reported number of victims of terrorism or one-sided violence

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------------------------------------|-------|--------|--------|--------|--------|--------|
| GTD | 5,520 | 6,007 | 8,988 | 12,620 | 8,753 | n/a |
| IISS international terrorism/al-Qaeda | 550 | 620 | 709 | 1,760 | 1,243 | n/a |
| NCTC | 7,474 | 13,889 | 20,453 | 22,719 | 15,709 | 15,311 |
| UCDP one-sided violence | 7,826 | 3,919 | 4,096 | 4,161 | 3,264 | n/a |

SOURCES: GTD (n.d.); IISS (n.d.); NCTC (n.d.); UCDP (n.d.b)

problematic since it risks over-counting victims by including military personnel outside war zones. According to the many analysts who view the targeting of civilians and non-combatants as a defining characteristic of terrorism, combatants and soldiers should be excluded as victims of terrorism, even though organizations designated as terrorist may injure or kill them (Flükiger, 2011). This point has been acknowledged by the authors of the NCTC 2008 and 2009 reports in the case of Iraq. They write:

The distinction between terrorism and insurgency in Iraq was especially challenging in previous years, as Iraqis participated in both the Sunni terrorist networks as well as the former-regime-elements insurgency (NCTC, 2009, p. 4; 2010, p. 5).

The Global Terrorism Database (GTD), run out of the University of Maryland, does not always distinguish between terrorism and other forms of violence either, including with respect to insurgencies. As is the case with the NCTC, the risk of over-counting also increases because the GTD counts military and civilian victims of terrorist attacks. Moreover, the GTD also suffers from data inconsistency, since it is made up of three different databases, one of which dates back to the 1970s and all of which apply different criteria for data inclusion and exclusion.

The London-based International Institute for Strategic Studies (IISS) Armed Conflict Database maintains a category on ‘international terrorism/al-Qaeda’. This database does not record all victims of terrorism, however; instead, it contains ‘battle-deaths’ occurring as a result of the armed conflict between the United States and its Coalition forces against the al-Qaeda network. Likewise, the battle-death dataset of the Uppsala Conflict Data

Program (UCDP) records deaths as a result of this armed conflict, although it does not use the term ‘international terrorism’ (UCDP, n.d.c).⁶

The IISS dataset records deaths in countries such as Afghanistan, Pakistan, Saudi Arabia, and Yemen. It is important to note that the victims of ‘international terrorism’ listed by IISS are also counted as ‘regular’ battle deaths in the countries in which they occur. These victims are counted exclusively in the category of international terrorism only if a terrorist act occurs in a country that is not engaged in active conflict as defined by IISS.

An additional dataset that may capture victims of terrorism is the UCDP ‘one-sided violence’ dataset. It defines one-sided violence as ‘the use of armed force by the government of a state or by a formally organized group against civilians which results in at least 25 deaths. Extrajudicial killings in custody are excluded’ (Kreutz, 2008, p. 2). The dataset is not entirely consistent, however, since it includes the 2004 Madrid bombings (191 victims) but does not count the victims of the 2005 London bombings (52 victims). Second, it only includes conflicts that claim ‘at least 25 deaths in a year’. A multitude of armed violence incidents could count as ‘terrorism’ and have not been defined as direct conflict deaths, especially if they claim only a few victims. For instance, the UCDP dataset on one-sided violence does not take into account small-scale—but lethal—terrorist incidents such as the attacks of al-Qaeda in the Islamic Maghreb in Mauritania in 2007–09.

A review of the GTD, NCTC, and UCDP one-sided violence datasets finds that the vast majority of casualties of terrorism are killed in conflict settings. For example, 98.2 per cent of all victims of terrorism reported by NCTC for the period 2004–09 were attacked in a ‘main armed conflict’⁷ such as in the armed conflicts in Afghanistan, Iraq, or Pakistan. To avoid double counting, terrorism victims listed in these three datasets have not been added to the regular ‘battle deaths’ in the GBAV 2011 dataset. Outside main armed conflicts, victims of terrorism are included on the basis of a review of the information provided by GTD, NCTC, and UCDP. They include, for example, the 191 people killed in the Madrid bombings in 2004; the 88 victims in Sharm el-Sheikh in 2005; and the 60 people killed in Amman in 2005 (Povey et al., 2009, p. 10).

Source: Flükiger (2011)

Explaining the data sources

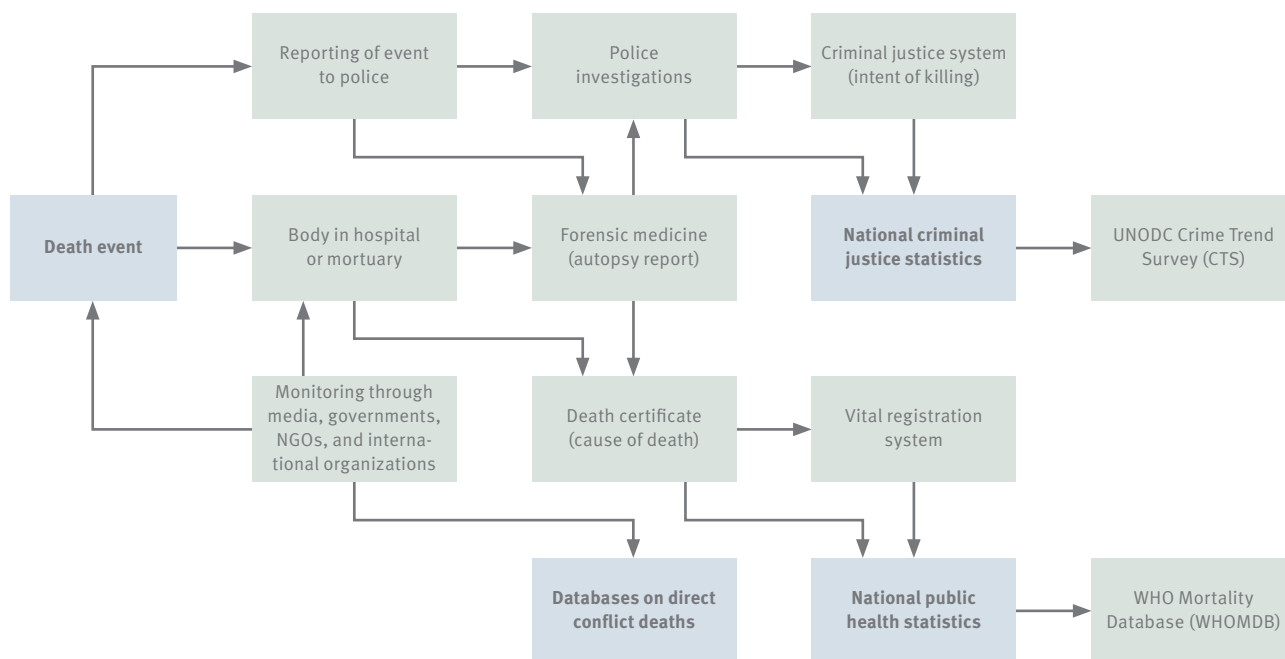
The *Global Burden of Armed Violence 2011* relies on multiple data sources to measure the scale and magnitude of lethal violence. Most of the data is derived from *incident reporting systems*. Incident reporting encompasses passive surveillance of the number of people reported to have died in violent events through hospital, mortuary, police, or criminal justice data collection.⁸ Figure 2.2 provides a graphic illustration of a common incident reporting data collection process, which typically results in three different types of databases: one for criminal justice statistics, one for public health data, and another focusing on direct conflict deaths.

The most reliable incident reporting mechanisms are frequently those connected to a country's public health system. This is because most coun-

tries legally require that every death be certified and registered by the public health authorities. The original data for such death certificates is typically sourced from hospitals, health clinics, emergency rooms, mortuaries, or autopsy reports of forensic institutes. In the best case, data is integrated into a national vital registration system that codes the causes of deaths according to the International Classification of Disease (ICD), currently in its tenth revision (WHO, n.d.a). At the international level, national data is aggregated through systems such as the World Health Organization's Mortality Database (WHOMDB), the single largest dataset on causes of death reported by national vital registration systems.

The criminal justice system is another significant source of data on violent deaths in non-conflict settings, since these typically constitute the

FIGURE 2.2 Incident reporting of violent events leading to death



illegal killings of persons by other persons. For the purposes of this chapter, a homicide can be defined as an ‘unlawful death inflicted on a person by another person’ (Geneva Declaration Secretariat, 2008, p. 68). In most settings, homicides are reported by the police. Using forensic information from the autopsy reports, the police and the criminal justice system investigate the intent of the killing. Statistics on intentional and unintentional homicides usually emerge out of this process. And while intentional homicide statistics are routinely approached with scepticism owing to their partial coverage or politicization, the last few years have seen significant improvements in their availability and quality.

In conflict-affected settings, public health and criminal justice data is often unreliable, inadequate, or absent altogether. This data lacuna has been recognized since the middle of the 20th century. Indeed, military and defence strategists have long been preoccupied with understanding the lethal effects of armed conflict, especially on their own soldiers (Muggah, 2011). Likewise, a growing cadre of academic and independent research institutions is currently dedicated to the collection of data on conflict deaths, often drawn from health, human rights, NGO, and media reporting. Prominent examples of conflict death databases that make use of incident reporting are the different databases put together by UCDP and Iraq Body Count (UCDP, n.d.a; IBC, n.d.).

The quality and coverage of incident reporting systems vary widely around the world. Sophisticated and comprehensive vital registration data is available in all high-income regions and several low- and middle-income regions, notably in Latin America and the Caribbean. But in several regions, including most of Sub-Saharan Africa, South Asia, East Asia, and South-east Asia, the vital registra-

tion infrastructure is simply too weak to provide reliable, comparable data. To compensate for these chronic data gaps, WHO developed statistical models to estimate broad cause-of-death patterns. It provides country-level estimates on ‘violence’ (interpersonal) and ‘war’ (collective violence) for the years 2004 and 2008 (WHO, n.d.b).⁹

Incident reporting systems that draw on criminal justice data can also facilitate comparisons across countries. Indeed, with the notable exception of a number of countries in Sub-Saharan Africa, comparable intentional homicide data is available for most countries in the world (Harrendorf, Heiskanen, and Malby, 2010, p. 10). While definitions of what constitutes a ‘homicide’ often differ, it is nevertheless possible to triangulate sources and generate a fine-tuned analysis (CHARACTERISTICS OF ARMED VIOLENCE). This type of data is available as a result of cross-national crime data collection gathering initiatives such as the current United Nations *Survey of Crime Trends and Operations of Criminal Justice Systems* (UN-CTS), administered by the United Nations Office on Drugs and Crime (UNODC).

It is important to stress that *incident reporting* typically undercounts the number of violent deaths in any given situation (see Box 2.2). The reasons for this may be obvious. Any system depends on quality reporting and a minimum institutional capacity to monitor incidents. In certain cases, these basic requirements may not be met. As a result, especially in settings characterized by high rates of violence, randomized household surveys are often used to provide data on mortality, morbidity, and other indicators. Only in unusual cases is comparable survey data available within or across selected countries. Rather, household survey data often provides a narrow cross-sectional snapshot of a given situation.

Box 2.2 Why incident reporting provides conservative numbers

In theory, hospital records should be among the most reliable sources of information on violent deaths. In practice, however, particularly in countries with limited financial resources and in those affected by acute violence, health facilities rarely systematically capture the causes of injury and deaths. Rather, the priority is placed on the treatment of patients (Holder et al., 2001). Further, in countries with rudimentary public health surveillance systems, many deaths might not be recorded as ‘assault’¹⁰—which covers intentional homicides and ‘injuries inflicted by another person with intent to injure or kill’ (WHO, n.d.a)—but rather as ‘events of undetermined intent’,¹¹ which may or may not include intentional homicides. The latter category covers all deaths for which ‘available information is insufficient to enable a medical or legal authority to make a distinction between accident, self-harm and assault’ (WHO, n.d.a).

While often more easily available, criminal justice data is significantly more vulnerable to undercounting than public health data. Criminal justice statistics on intentional homicides frequently capture only events that are considered *unlawful*. Yet not all countries share categories of what is lawful. Indeed, legal definitions of homicide vary across countries and may or may not include assault leading to death, euthanasia, infanticide, or assisted suicide. What is more, criminal justice data often records homicide *events*. In other words, it does not account for the number of victims but rather the number of incidents. If several people are killed in one event, the number of victims is frequently undercounted.

Ultimately, the precision and reliability of criminal justice data—including homicide—is hostage to the willingness of people to report their experiences to the police or other authorities. If a person does not trust the government, he or she may be unlikely to report an event. Obviously, only relatives and witnesses—rather than the victims themselves—can report a homicide. If relatives act as perpetrators in a homicide—as may be the case in ‘honour’ killings, for example—they are not likely to report the incident to the authorities (Geneva Declaration Secretariat, 2008, p. 120).

Since the main characteristic of a homicide is a dead body, homicides are rarely recorded when the body is not found. Yet people who are reported ‘missing’ may well be victims of a homicide or forced disappearance, though other explanations may apply. Between 1980 and 2010, the UN Working Group on Enforced or Involuntary Disappearances transferred a multitude of cases of forced disappearances for clearance to governments such as Algeria (2,950 cases), Argentina (3,449), Colombia (1,236), El Salvador (2,662), Guatemala (3,155), Iraq (16,545), Peru (3,009), and Sri Lanka (12,230) (UNGA, 2011, pp.135–39).

Between November 2009 and 2010 the Colombian government cleared 211 cases, while non-governmental sources cleared the status of another 68 missing people. Of the 279 cleared cases, 35 per cent were confirmed as deaths (98 persons). In Mexico, an even higher proportion of missing people were confirmed dead. Of the 134 cases cleared by the Mexican government and the 24 cleared by NGOs, 63 were confirmed as deaths. In Guatemala, 25 per cent of the missing persons were confirmed dead (63 out of 256 cleared cases) (UNGA, 2011, pp. 136–37).

The report by the UN Working Group does not indicate whether all of these victims were intentionally murdered. Nor does it specify whether these deaths were later added to homicide statistics. However, the figures in the report highlight that if the tally of ‘missing’ who have been killed were to be included in homicides statistics, the number of documented homicides would increase significantly. Even in countries such as the Netherlands, ‘if all persons who were still missing after a year were victims of a homicide, the total number of homicides would increase by 5–10 per cent’ (Smit, 2011, p. 2).

In conflict settings the limitations of incident reporting are even more pronounced. Studies of undercounting in specific conflicts reveal that the number of direct conflict deaths could, in extreme cases, be between two and four times the level actually captured by passive incident reporting systems.¹² This partly explains the dramatic rise in field-based surveys in a growing number of countries affected by and emerging from war.

Trends in armed violence are thus more difficult to evaluate and data is seldom developed in ways that allow practitioners to design and measure the impact of armed violence prevention and reduction efforts.

For this edition of the *Global Burden of Armed Violence*, data was tabulated from a range of incident reporting systems. The selection of specific homicide rates was determined on the basis of a decision tree that draws on a combination of public health and criminal justice data from national sources. Likewise, 2004 and 2008 estimates generated by WHO were used selectively to fill key gaps. In a second step, the number of intentional homicides and direct conflict deaths were added.¹³ The final violent death rate—per year per 100,000 population—was calculated on the basis of annual population statistics. A number of smaller island states in the Caribbean and the South Pacific—many with populations of less than 100,000—were grouped together into the Lesser Antilles Region and the Micronesia Region so that rates would not skew the data.¹⁴

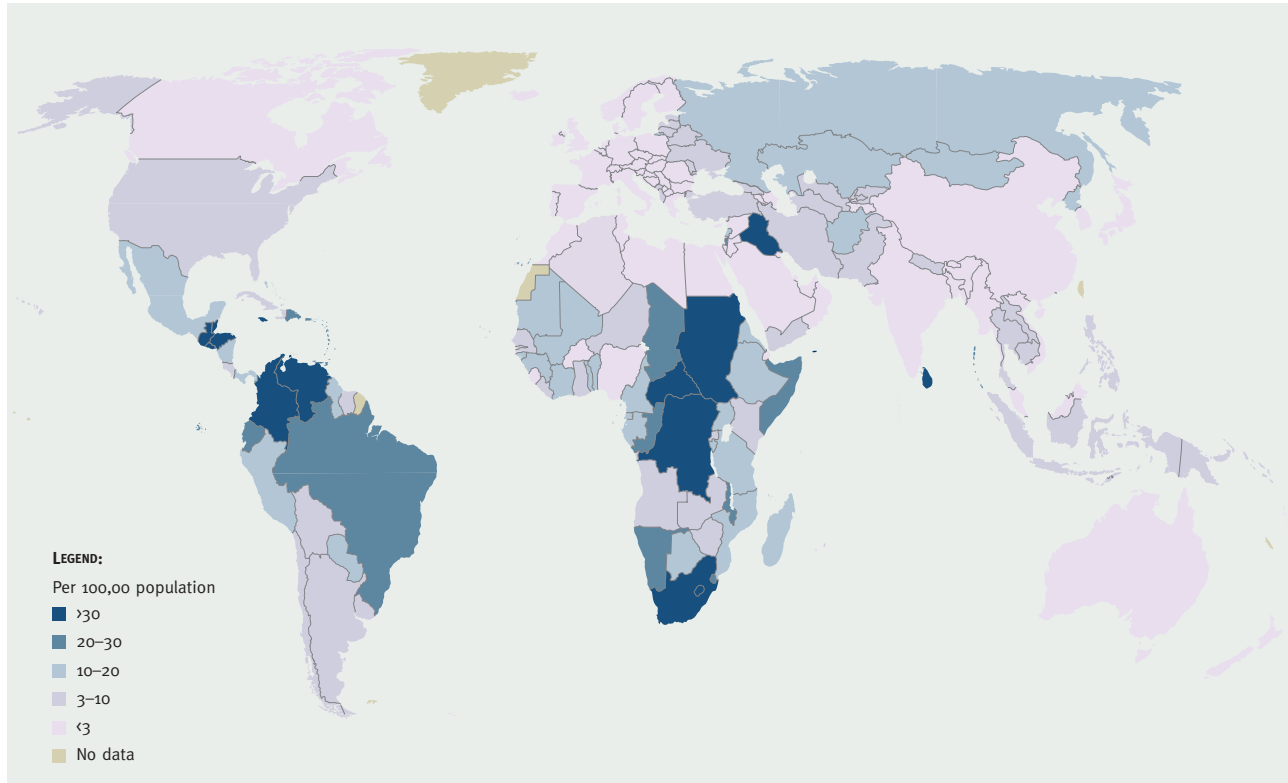
The resulting GBAV 2011 database on lethal violence provides wide coverage with a comparatively high degree of confidence. Time-series information (for 2004–09) was collected for a total of 186 countries,¹⁵ providing a useful starting point for examining changing patterns and trends of armed violence across the globe. Owing to a remarkable improvement in criminal justice data availability, this analysis relies less on public health data and WHO estimates. As a result of the increased use of criminal justice data, which runs a higher risk of undercounting (see Box 2.2), the figures for intentional homicides are somewhat lower than the figures on homicides presented in the first edition of the *Global Burden of Armed Violence*.

Lethal violence 2004–09: a snapshot

The GBAV 2011 database—a comprehensive database on lethal violence covering the years 2004–09—highlights that, on average, an estimated 526,000 people died violently as a result of conflict, intentional homicide, unintentional homicide, and killings during legal interventions each year between 2004 and 2009. This section presents a snapshot of the regional and national distribution of these deaths, focusing in particular on the total number of direct conflict and intentional homicide deaths (451,000).

Map 2.1 shows the global distribution of these deaths per 100,000 population, and Figure 2.3 ranks the top 58 countries experiencing the highest recorded levels of lethal violence. As a base of comparison, it may be useful to bear in mind that the overall global violent death rate is roughly 7.9 per 100,000 (including all four categories of violent deaths), around 6.8 per 100,000 excluding unintentional homicide and killings during legal interventions, and around 6.0 per 100,000 for intentional homicides only (excluding conflict deaths).

The first thing to note is that while violence experienced in wars from Afghanistan to Sri Lanka has featured in media headlines, the number of people dying violently in so-called non-conflict settings—such as in Central and South America and the Caribbean, and in parts of Sub-Saharan Africa—is far greater than the number killed in conflicts. Of the top 14 states most affected by armed violence (with violent death rates exceeding 30 per 100,000 population), only five have more than 1,000 conflict deaths in an average year (namely Colombia, the Democratic Republic of the Congo, Iraq, Sri Lanka, and Sudan).

MAP 2.1 Average annual violent death rates per 100,000, 2004–2009

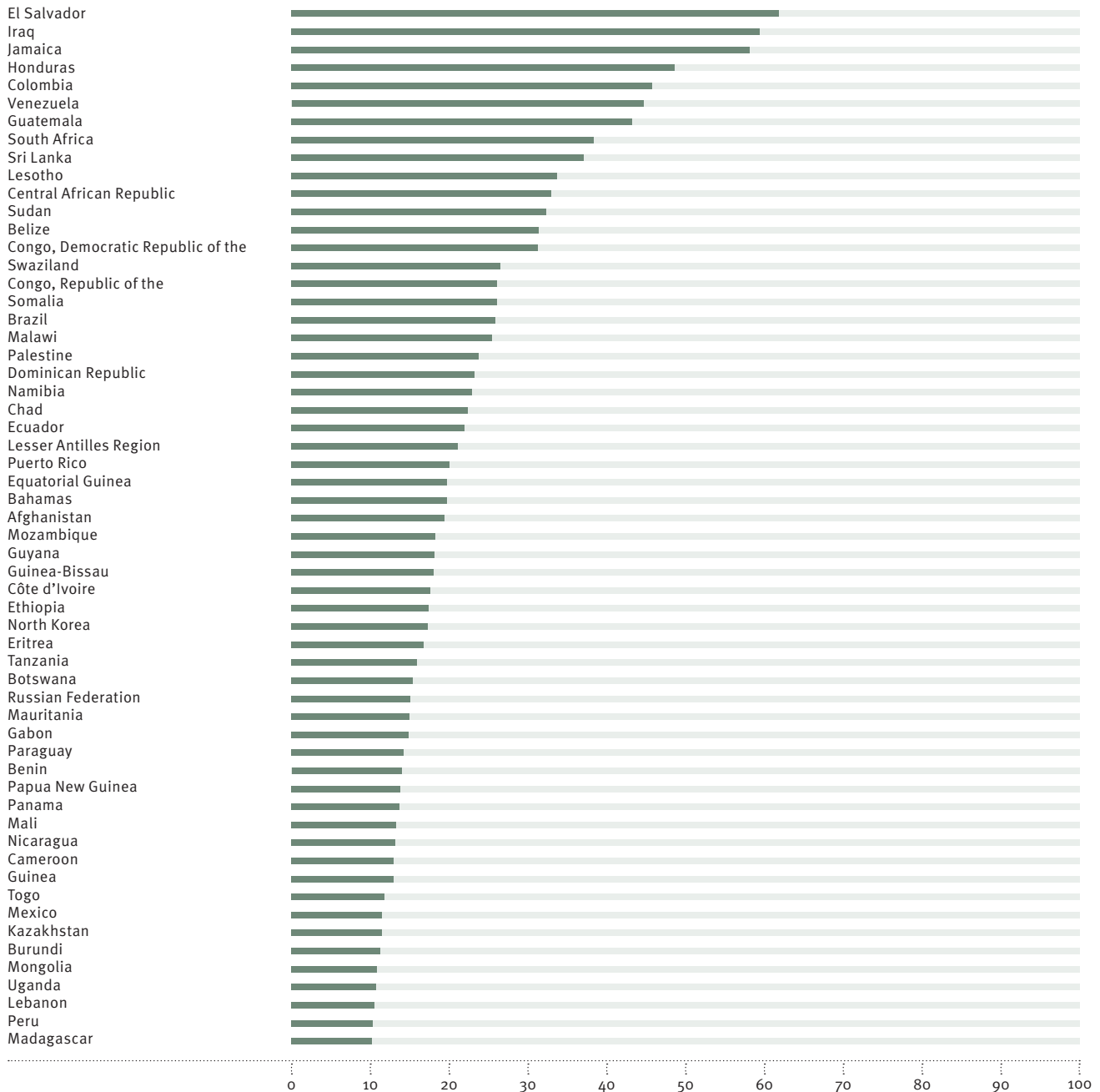
SOURCE: GBAV 2011 database

One-third of all countries with rates of lethal violence above 10 per 100,000 population (16 out of 58) are either experiencing a ‘main armed conflict’ or emerged from one between 2004 and 2009.¹⁶ Yet in only six of these countries—Afghanistan, Iraq, Lebanon, Palestine, Somalia, and Sri Lanka—do direct conflict deaths constitute the majority of all violent deaths. In the majority of the countries (ten) experiencing or having emerged from armed conflict, the incidence of homicide is actually greater than the number of direct conflict deaths. From among the 16 countries, three countries are considered post-conflict settings: Burundi, Côte d’Ivoire, and Lebanon.¹⁷

In the 186 countries under review, roughly 12.2 per cent of the lethal violence occurred in armed conflict settings and 87.8 per cent in non-conflict settings. This translates to 55,000 direct conflict deaths and 396,000 intentional homicide victims per year. The 55,000 average deaths per year in armed conflicts around the world can be compared to the estimated 48,800 people who die violently on average each year in Brazil.

Three Central American countries—El Salvador, Honduras, and Guatemala—display among the highest rates of lethal violence in the world. With a violent death rate of 61.9 per 100,000 in 2004–09, the people of El Salvador were more at risk of

FIGURE 2.3 Countries ranked by violent death rate per 100,000 population, 2004–09



SOURCE: GBAV 2011 database

PHOTO The bodies of unidentified homicide victims are buried in a mass grave at a cemetery in Tegucigalpa, November 2010. © Edgard Garrido/Reuters





dying violently than any population around the world. In comparison, in an average year between 2004 and 2009, Iraq had a violent death rate of 59.4 per 100,000. El Salvador and Iraq are followed by five other countries in Latin America and the Caribbean—in descending order, they are Jamaica, Honduras, Colombia, Venezuela, and Guatemala—all with violent death rates above 43 per 100,000. Overall, 14 countries have lethal violence rates of more than 30 per 100,000.

The country that recorded the highest number of conflict deaths in 2004–09 was Iraq, with an estimated annual average of 15,900 direct conflict deaths. Box 2.3 discusses some of the characteristics associated with lethal violence in Iraq. Conflict deaths for Iraq are estimated by totaling the civilian deaths recorded by Iraq Body Count and the fatalities of the Coalition forces recorded by iCasualties (n.d.). The figures in Box 2.3 (92,614 violent deaths occurring as a result of armed violence between mid-March 2003 and mid-March 2008) only include the Iraqi civilian deaths.

During the same period, eight countries recorded average annual numbers of violent deaths from intentional homicides that were higher than the number of direct conflict deaths in Iraq, although at times with relatively low homicide rates. Brazil recorded 48,800, India 32,700, the Russian Federation 20,700, South Africa 18,700, China 18,200, Colombia 17,500,¹⁹ and the Democratic Republic of the Congo and the United States both reported 16,800 intentional homicide victims. These figures merely demonstrate that countries with a large population but a relatively low rate of lethal violence may still weigh heavily in the overall global totals.

Before turning to broader trends, it is worth underlining the uncertainties associated with the data presented in Figure 2.3, which ranks countries according to violent death rates. The main risk,

Box 2.3 Analysis of violent deaths of Iraqi civilians

Detailed analysis of civilian deaths during armed conflict can improve our understanding of the effects on civilians and specific vulnerable subgroups in the population, including women and children. A 2011 assessment of the 92,614 Iraqi civilian deaths that occurred as a result of armed conflict from mid-March 2003 through mid-March 2008, developed from the Iraq Body Count dataset, represents the most in-depth such study to date (Hicks et al., 2011, p. 1). Iraq Body Count is a non-governmental project that collates media reports of deaths of Iraqi civilians and cross-checks these reports against data from hospitals, morgues, NGOs, and government bodies.

The study finds that most of these violent deaths were inflicted by unknown perpetrators and consisted primarily of extrajudicial executions of captured individuals. Unknown perpetrators also frequently used small arms, suicide bombs, vehicle bombs, and mortars, which had highly lethal and indiscriminate effects on Iraqi civilians. Most of the Iraqi civilians who were killed by Coalition forces died during air attacks without ground fire, while fewer died from small arms gunfire. Of the 58,251 deaths attributed to a

single method and perpetrator in events lasting under two days, 10,599 (18 per cent) were directly attributed to small arms and a further 19,691 (34 per cent) were executions, of which the vast majority were perpetrated using small arms (see Table 2.2).

As shown in Figure 2.4, the researchers also calculated the number of women and children killed; Figure 2.5 shows the proportion of women and children among all civilian deaths identified as men, women, or children. Known as the ‘woman and child dirty war index’ (DWI), this indicator reflects the degree of indiscriminate lethal effects on a civilian population, from indiscriminate weapons or from the indiscriminate use of weapons in a conflict. The DWI scale ranges from 0 (no indiscriminate lethal effects) to 100 (extreme indiscriminate lethal effects). The most indiscriminate effect from weapons was from unknown perpetrators firing mortars (DWI = 79). Air attacks by Coalition forces (DWI = 69) and non-suicide vehicle bombs by unknown perpetrators (DWI = 54) also had highly indiscriminate effects on women and children. Indeed, ‘Coalition forces had higher Woman and Child DWIs than Anti-Coalition forces, with no evidence of decrease over 2003–2008, for all weapons combined and for small arms gunfire, specifically’ (Hicks et al., 2011, p. 1).

TABLE 2.2 Iraqi civilian deaths by type of perpetrator and method, mid-March 2003–mid-March 2008

| Method | Unknown perpetrator only | | Anti-Coalition perpetrator only | | Coalition perpetrator only | | Total |
|---|--------------------------|------------------|---------------------------------|------------------|----------------------------|------------------|---------------|
| | Civilian deaths | Mean death/event | Civilian deaths | Mean death/event | Civilian deaths | Mean death/event | |
| Execution, any | 19,321 | 7 (0.2) | 316 | 7 (1.2) | 54 | 5 (2.2) | 19,691 |
| Execution with torture | 5,697 | 8 (0.4) | 60 | 7 (1.6) | 0 | 0 | 5,757 |
| Small arms gunfire | 8,086 | 2 (0.03) | 1,526 | 2 (0.1) | 987 | 2 (0.1) | 10,599 |
| Suicide bomb | 5,363 | 19 (2.3) | 3,333 | 8 (0.5) | 0 | 0 | 8,696 |
| Suicide bomber in vehicle | 3,029 | 19 (3.7) | 2,370 | 7 (0.5) | 0 | 0 | 5,399 |
| Suicide bomber on foot | 2,320 | 19 (2.4) | 963 | 11 (1.5) | 0 | 0 | 3,283 |
| Vehicle bomb | 3,748 | 7 (0.5) | 1,612 | 5 (0.5) | 0 | 0 | 5,360 |
| Roadside bomb | 1,561 | 2 (0.1) | 1,293 | 2 (0.1) | 0 | 0 | 2,854 |
| Mortar fire | 1,763 | 3 (0.1) | 289 | 3 (0.2) | 19 | 2 (0.6) | 2,071 |
| Air attack without ground fire | 0 | 0 | 0 | 0 | 2,384 | 9 (0.9) | 2,384 |
| Bombs only | 0 | 0 | 0 | 0 | 479 | 17 (3.6) | 479 |
| Missiles only | 0 | 0 | 0 | 0 | 353 | 8 (2.4) | 353 |
| Air attack with ground fire | 0 | 0 | 0 | 0 | 213 | 13 (3.2) | 213 |
| Totals for single perpetrators, any method* | 44,750 | 4 (0.1) | 9,511 | 4 (0.1) | 3,990 | 4 (0.3) | 58,251 |

NOTE: * The total figures include deaths from events involving ‘other’, ‘unknown’, and ‘combined’ methods if attributable to a single perpetrator; these criteria are not shown in the single-method rows.

SOURCE: Hicks et al. (2011, p. 5)

FIGURE 2.4 Civilian violent deaths of Iraqi women and children from Coalition and anti-Coalition forces, mid-March 2003–mid-March 2008

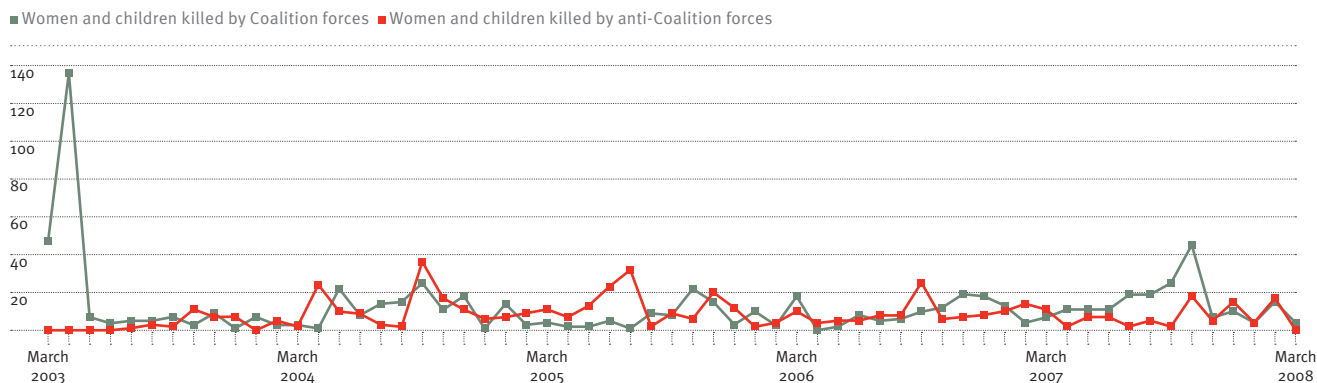
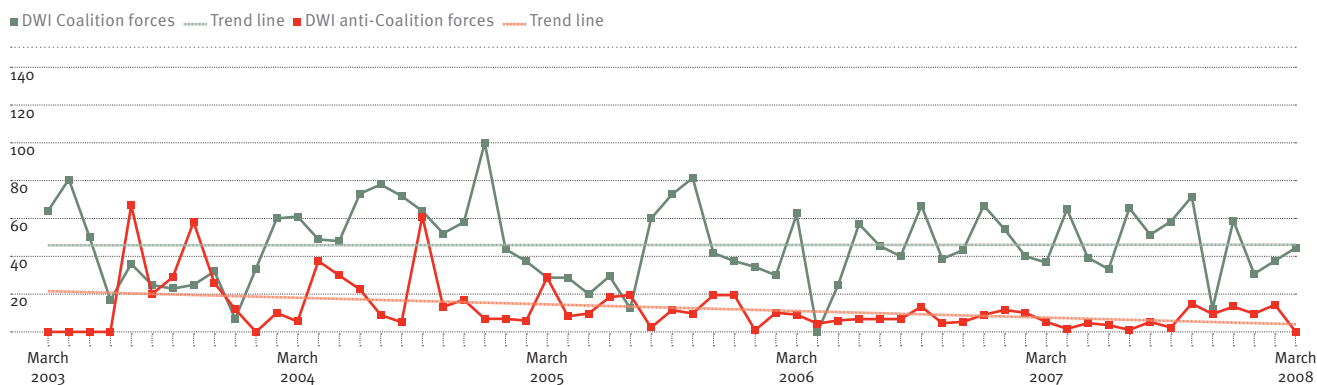


FIGURE 2.5 Woman and child dirty war index, mid-March 2003–mid-March 2008



as outlined in Box 2.2, is undercounting inherent in incident reporting of conflict deaths or inadequate national and international data collection systems. With better data, several states might move up in the ranking, but very few would be likely to see their rates fall. For example, it is entirely possible that the violent death rate for Somalia is higher than that reported for the Central African Republic, and quite possibly higher than that of Brazil, which follows Somalia in the list. It is also possible that lethal violence is much more prevalent in Afghanistan than in the Bahamas. Some states that are not in the

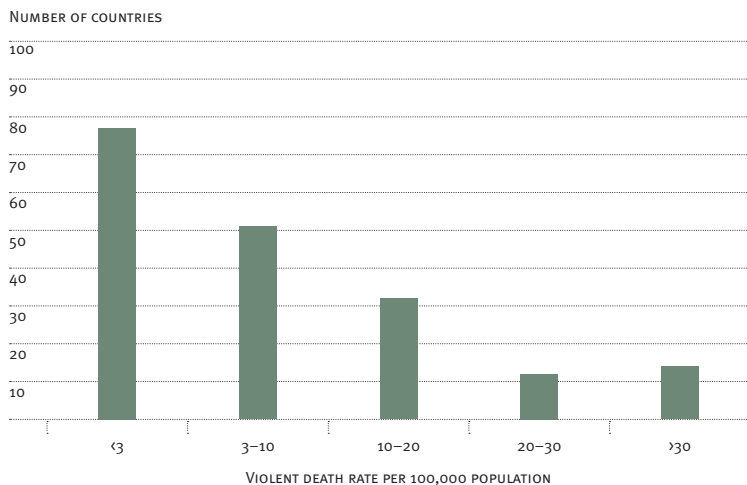
top ranking, such as Haiti, Nigeria, or Yemen, would probably move up if better data were available (see Box 2.5).

In the absence of administrative surveillance systems and the consequent lack of public health or criminal justice data, homicide rates for both Afghanistan and Somalia are based on WHO figures and are relatively low. While the 2008 WHO estimates were 2.6 per 100,000 for Afghanistan and 1.5 per 100,000 for Somalia, the overall violent death rates in both countries are probably much higher.²⁰ In contrast, the figures for the Bahamas and Brazil—as well as for most

of the states with high levels of violence—are largely reliable. So while the overall rankings might shift with better data, the reported rates for most states would not. The online methodological annex discusses in detail the confidence with which to read particular figures.

Figure 2.6 provides the overall distribution of countries according to their rates of lethal violence. Not surprisingly, a large number of countries—77 in all—have low rates of lethal violence (less than 3 per 100,000). Most of these countries are in Europe, Northern Africa, and East Asia. One noteworthy exception in Europe is the Russian Federation, which reported annual average violent death rates of 15.0 for 2004–09. Rates of violent death above 10 per 100,000 characterize 58 states—mostly in Middle and Southern Africa, and in Latin America and the Caribbean—with 14 countries featuring very high levels of armed violence (more than 30 per 100,000). These 58 countries account for around two-thirds of all

FIGURE 2.6 Distribution of violent death rates among 186 countries, per 100,000, 2004–09



SOURCE: GBAV 2011 database



PHOTO An investigator works near the body of a homicide victim in downtown Moscow, January 2009.

© Mikhail Metzel/ AP Photo



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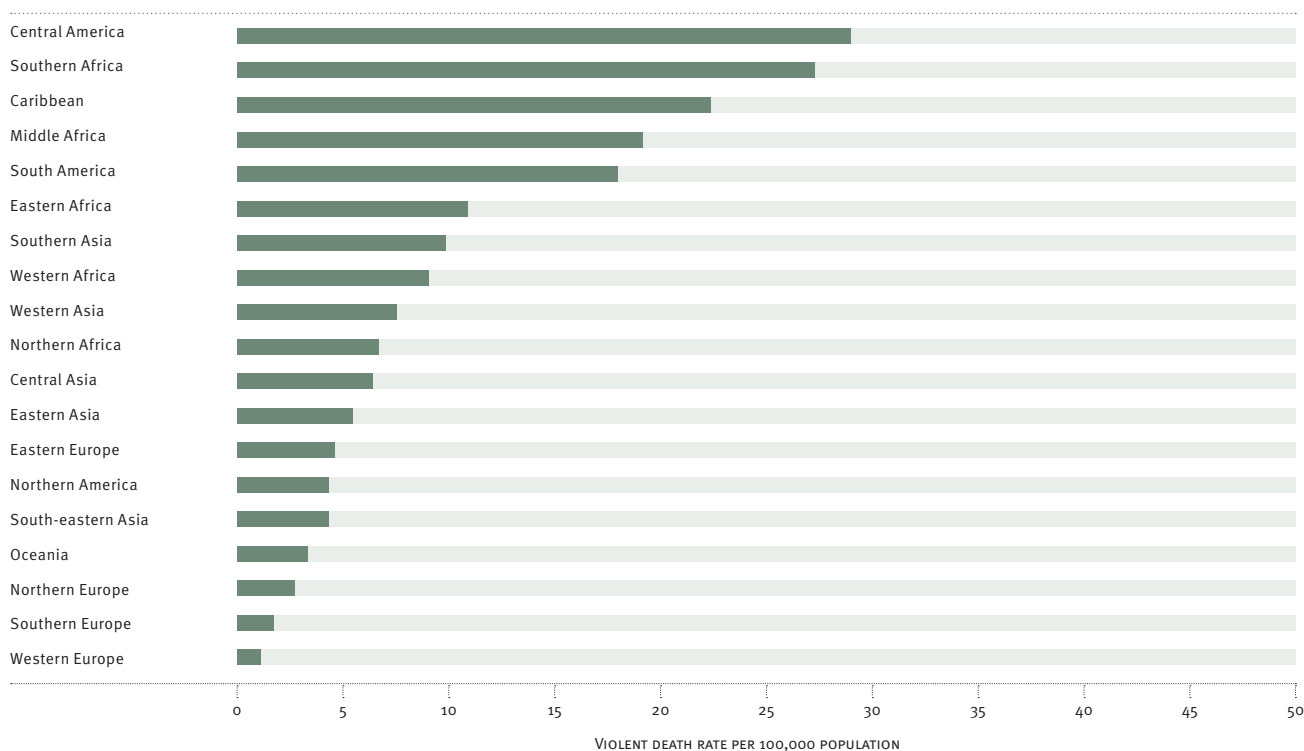
violent deaths (63 per cent); an estimated 285,000 people died violently each year in these countries. The 14 countries with annual violent death rates above 30 per 100,000 population account for an estimated 124,000 deaths. In other words, more than one-quarter of all deaths (27.5 per cent) occurred in 14 countries, where less than 5 per cent of the world's population lives. Targeted efforts to prevent and reduce the lethal impact of armed violence in these countries could significantly reduce the global burden of armed violence.

The uneven distribution of lethal violence is especially apparent at the regional level. Figure 2.7 aggregates the average national violent death

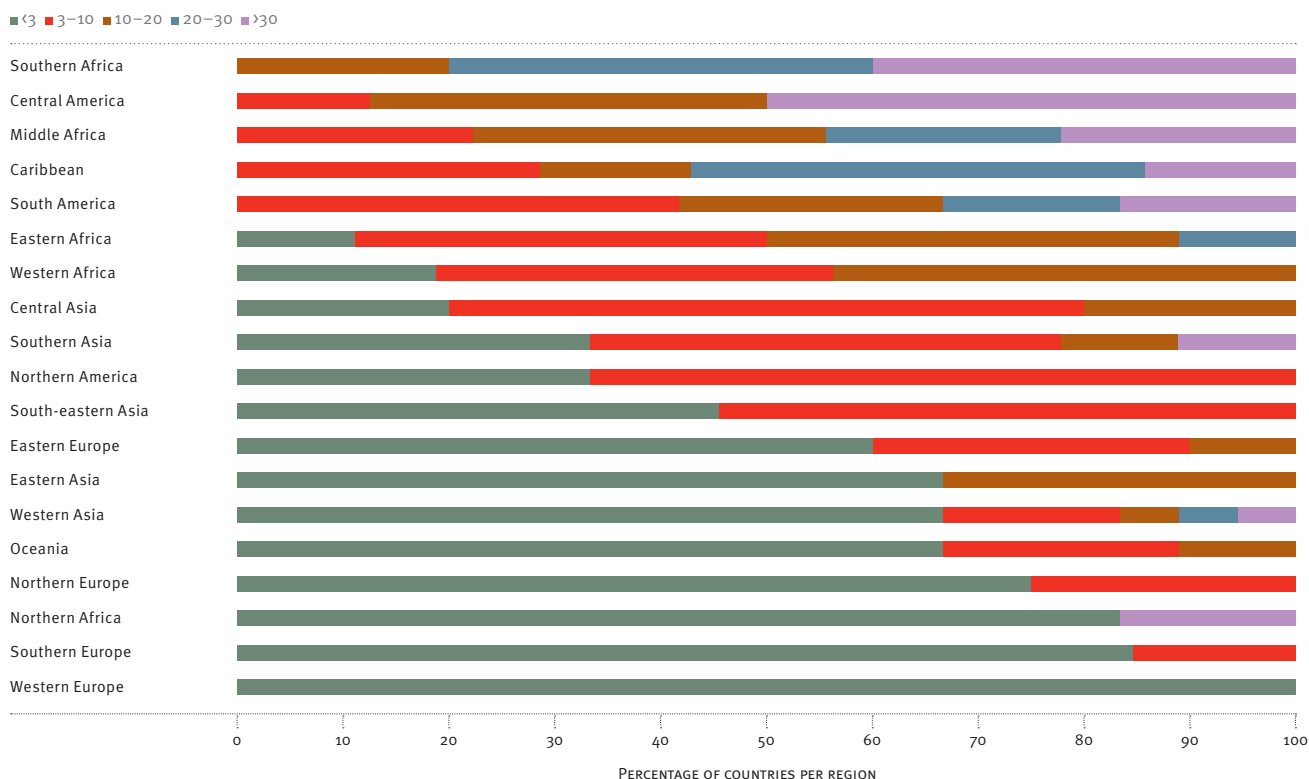
rates for 186 countries into regional groupings.²¹ The regions most affected by lethal violence are Central America, with an average regional rate of 29.0 per 100,000, followed by Southern Africa (27.4) and the Caribbean (22.4).

The variation between regions is also accompanied by considerable intra-regional heterogeneity in lethal violence. This is hardly surprising given countries' different historical, political, economic, and social experiences. Some regions show common patterns of lethal violence across countries while others exhibit a wide disparity in rates of lethal violence among states. Figure 2.8 displays the proportion of countries by region according to the categories of levels of lethal violence.

FIGURE 2.7 Average violent death rates by region, per 100,000 population, 2004–09



SOURCE: GBAV 2011 database

FIGURE 2.8 Percentage of countries per violent death rate per 100,000, 2004–09

SOURCE: GBAV 2011 database

Within certain regions the incidence of lethal violence is comparatively homogenous across countries. For example, the five countries in Southern Africa all feature annual violent death rates above 10 per 100,000 population. With the exception of Costa Rica, all Central American countries exhibit violent death rates of more than 10 per 100,000, and in the Caribbean region, only Cuba and Haiti experience violent death rates below 10 per 100,000. All other countries suffer from high to very high levels of lethal violence, with violent death rates ranging from 19.7 per 100,000 in the Bahamas to 58.1 per 100,000 in Jamaica (see Box 2.4). In Middle Africa and South America most countries display elevated

levels of armed violence (above the global average). At the other end of the spectrum, all Western European countries experience annual violent death rates below 3 per 100,000 population. Similarly, in Southern and Northern Europe, South-east Asia, and Northern America, all countries have violent death rates below 10 per 100,000.

While many regions are relatively homogenous, some regions feature highly unequal distributions of lethal violence among countries. A case in point is Southern Asia, where numerous countries have violent death rates below 10 per 100,000, although Sri Lanka suffers from rates of more than 30 per 100,000; Afghanistan also records high levels of lethal violence with a rate just below 20 per 100,000

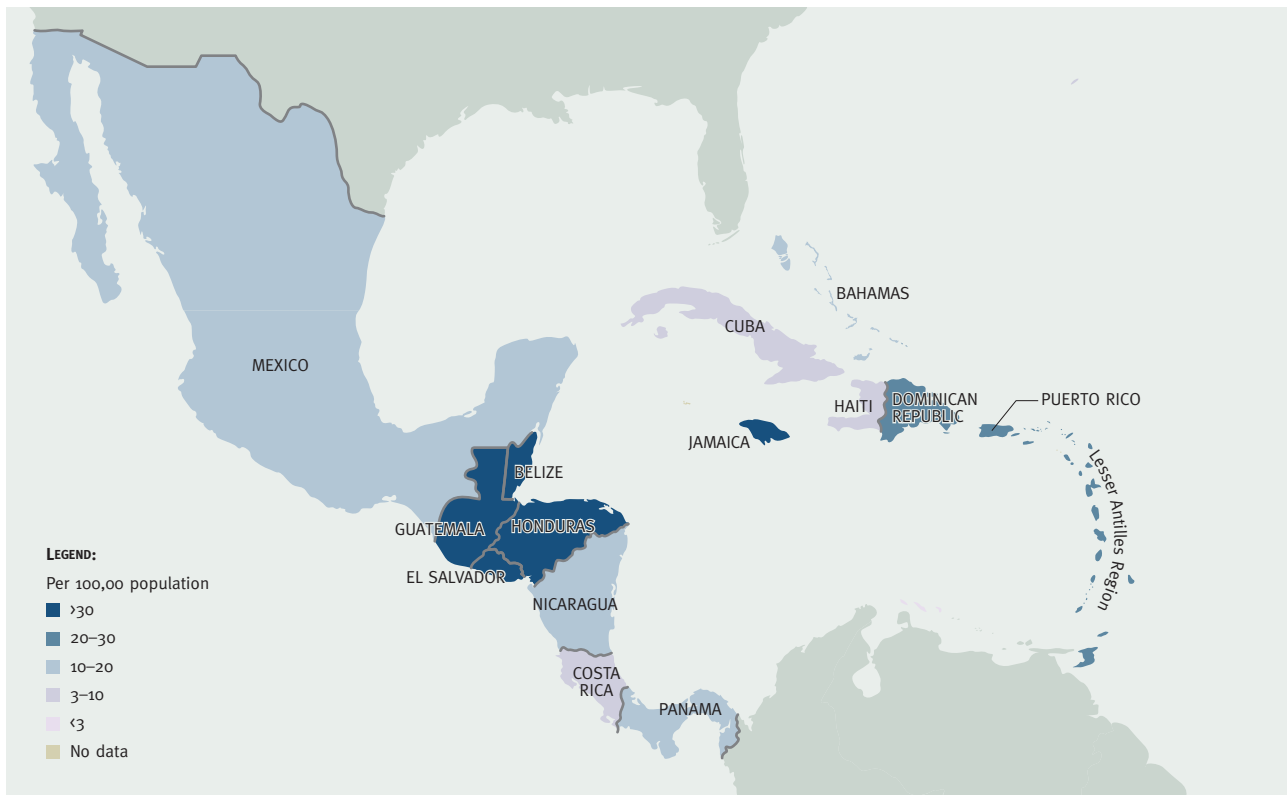
Box 2.4 Violent deaths in Central America and the Caribbean

The intensity of armed violence across Central America and the Caribbean is several times the global average, with a few exceptions. The extent of lethal violence in these states has led to concerns that it is contributing to the erosion of the rule of law and social order. Many analysts underline the fact that homicide casualties as a result of urban violence in El Salvador, Guatemala, Honduras, and Jamaica have surpassed the number of deaths in classic conflicts (Seligson and Booth, 2010; Rodgers, 2010; Zinecker 2008); some have actually likened the characteristics of violence to that of an outright armed conflict (Manwaring, 2007). Indeed, governments in North America and Western Europe have started to initiate military and security support strategies to these countries to prevent the deepening of armed violence and contagion across borders.

(a figure that probably suffers from undercounting of homicides due to limited institutional capacity, as noted above). Likewise, with the exception of Sudan, Northern Africa exhibits low levels of armed violence. The so-called ‘Arab Spring’ that swept across Bahrain, Egypt, Libya, Syria, Tunisia, and Yemen in 2011 may yet reveal dramatic changes in reported violence and victimization. In any case, the considerable variation between and within regions—and the different factors that may account for it—highlight the importance of not generating overly simplistic conclusions from the data.

Although the data for countries with high levels of violence is relatively robust, a number of

MAP 2.2 Average annual violent death rates per 100,000 in Central America and the Caribbean, 2004–09



SOURCE: GBAV 2011 database

Box 2.5 Violent deaths undercounted in Yemen

After 20 years as a unified state, Yemen is embroiled in social and political turmoil. It is also afflicted by a number of interlocking armed conflicts, ranging from separatist political clashes between state security forces and protesters to all-out civil war and terrorism, which has prompted the United States, the United Kingdom, Saudi Arabia, and other states to become involved.²² Since the 1994 civil war, which claimed an estimated 1,500 lives, different forms of armed violence in Yemen have simmered at low intensity, often without catching the public's attention or even being recorded (UCDP, n.d.c).²³

Publicly available security and justice data records an average of 919 deaths per year due to 'intentional murder' (875 deaths), 'assault leading to death' (30 deaths), and 'the origin kill the branch' (14 deaths) between 2004 and 2009 (CSO, n.d.). Missing in this figure are an additional average 163 'unintentional murders' that are reported for the same period (CSO, n.d.). More importantly, an unpublished report of the Yemeni government acknowledges that an average of 4,000 people are killed each year due to 'land disputes' with underlying political and economic motivations (Small Arms Survey, 2010b); none of these deaths appear in the most common international statistics on armed conflicts and thus they are not integrated into the GBAV 2011 database. Clearly, Yemen is witnessing manifestations of violence that deserve close attention and inclusion in one or another dataset on armed violence, but which are counted in neither armed conflict nor homicide statistics.

The Yemeni example suggests that there is probably significant underreporting of both interpersonal and conflict-related violence in some regions or countries. A Yemeni government official suggested three reasons for undercounting deaths related to land or water disputes. First—and most importantly—many such cases are dealt with by customary rather than formal state mechanisms.²⁴ Moreover, in many cases the military is used to intervene, raising sensitivities about the impact of state actions. Finally, the tribal nature and dynamics of many such conflicts can make it impossible to identify who killed whom,

reducing the likelihood of prosecutorial involvement (Small Arms Survey, 2010b). If the 4,000 'land conflict' deaths were added to the Yemeni data, the country's overall violent death rate would increase to 26.2 per 100,000, which would be comparable to the rate of 26.0 per 100,000 reported in Somalia.

Sources: Small Arms Survey (2010a; 2010b)



PHOTO ▲ An armed tribesman guards Yemeni opposition tribal chief Sheikh Sadiq al-Ahmar as he inspects his damaged residence in Sana'a, June 2011. © Mohammed Huwais/AFP Photo

countries are not included in Figure 2.3 although they have either recently experienced armed conflicts or are believed to have high levels of violence. Countries such as Burundi, Haiti, Kenya, Liberia, Nepal, Nigeria, Pakistan, and Yemen have each featured chronic and acute outbreaks of violence in their capitals or other prominent cities in the prelude and wake of elections or are affected by armed conflicts. And yet all of these countries actually report lethal violence rates below the global average.

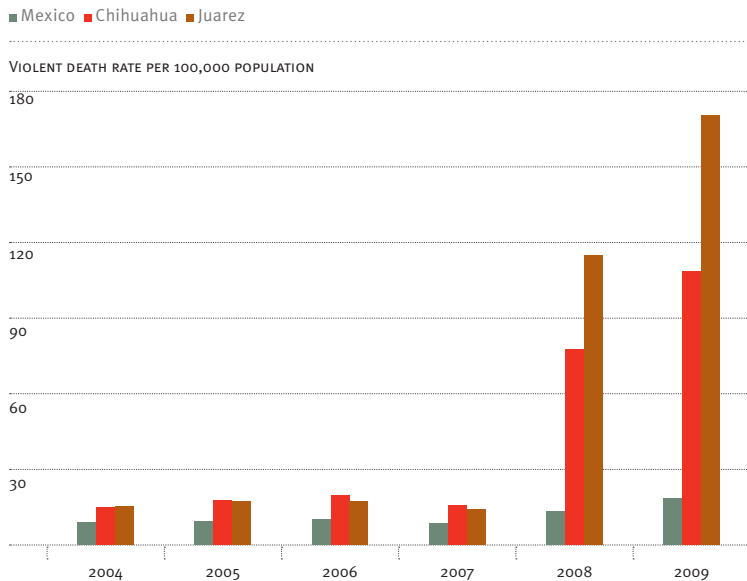
For example, despite recently emerging from a decade-long civil war in 2006, Nepal's average national violent death rate is reported at 6.2 per 100,000; it thus figures in the category of countries with a medium level of armed violence. The country's lethal violence rate is estimated on the basis of data on intentional homicides reported by Nepal's Central Bureau of Statistics and direct

conflict deaths reported by the news portal INSEC and the IISS Armed Conflict Database (CBS, 2009, s. 17.4; INSEC, n.d.). For 2004–09, Nepal—along with Afghanistan, Iraq, Palestine, Somalia, and Sri Lanka—reported more direct conflict deaths than intentional homicides. In war-affected societies, administrative sources typically lack the capacity to record all intentional violent deaths. As such, there are reasons to suspect that the information reported by Nepal's Central Bureau of Statistics undercounts the number of victims. Another case of potential undercounting—Yemen—is highlighted in Box 2.5.

Lethal violence is unevenly distributed not only across countries, but also within them. Both Mexico (with an estimated 74,000 violent deaths between 2004 and 2009) and Pakistan (with 90,000 victims of homicide and armed conflict over the same period) have medium lethal violent death rates. Mexico's annual violent death rate averaged 11.5 per 100,000 between 2004 and 2009, although some states have much higher rates; in 2009 the violent death rate in the most affected region, Chihuahua state (with three million inhabitants), was 108.0 per 100,000 (see Box 1.4, A UNIFIED APPROACH). Armed violence is even more concentrated in certain cities. In Ciudad Juarez, a city of just over 1.3 million inhabitants, 2,399 people were killed in 2009, which translates into a murder rate of 170.4 per 100,000 (see Figure 2.9).

As in Mexico, the number of violent deaths in Pakistan appears to have increased significantly since 2004. Owing in part to the escalation of violence mainly on the Afghanistan–Pakistan border, the number of annual violent deaths in Pakistan has increased from around 10,500 in 2004 to 24,500 in 2009. Despite this escalation, the national violent death rate in Pakistan in an

FIGURE 2.9 Violent death rates per 100,000 in Mexico, Chihuahua, and Ciudad Juarez, 2004–09



SOURCE: Small Arms Survey elaboration based on INEGI (n.d.)

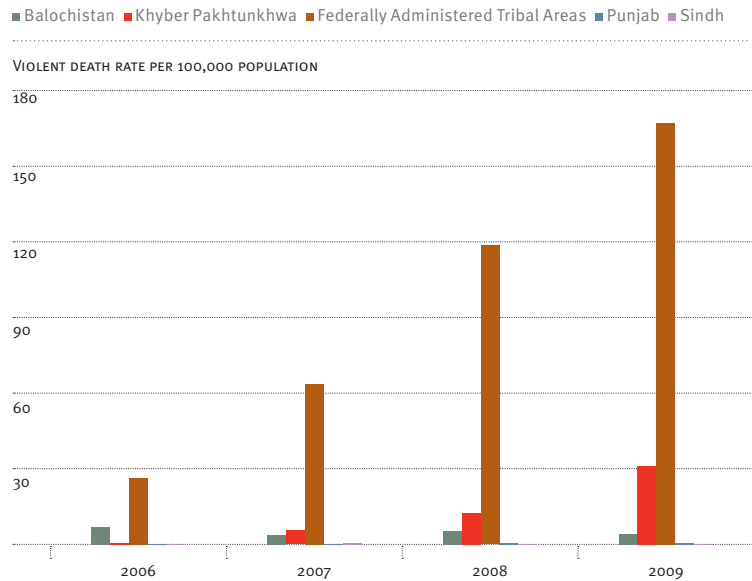
average year between 2004 and 2009 was roughly still only 8.6 per 100,000, though the violence is unevenly distributed and certain regions in the country are more affected than others. Figure 2.10 highlights the direct conflict death rates between 2006 and 2009 in Pakistan.²⁵ The Federally Administered Tribal Areas in the north-western region between Pakistan and Afghanistan reportedly had 5,304 direct conflict deaths in 2009 alone. With a population of just over 3.1 million people (1998 census), this figure would represent a direct conflict death rate of approximately 167.0 per 100,000 in 2009 (GoP, 1998; see Figure 2.10).

Trends in lethal violence, 2004–09

Although six years of data is not enough for detailed trend analysis, it is possible to tease out some possible patterns. First, the global violent death rate in 2009 stood at 7.0 per 100,000, as compared to 6.8 per 100,000 in 2004 and 6.4 in 2006. While seemingly rather stable across longer periods of time, rates of lethal violence can fluctuate dramatically on an annual basis and in particular countries. The number of victims of intentional homicides dropped from 397,000 in 2004 to 368,000 in 2006, while in 2009 these figure increased to 423,000.²⁶

Direct conflict deaths are more volatile. After a decrease from 46,000 in 2004 to 40,000 in 2005, direct conflict deaths increased to 66,000 in 2007. In 2009 they dropped again to roughly 58,000. The changes in direct conflict deaths are largely a result of the ebb and flow of armed conflicts in Iraq, Pakistan, Somalia, and Sri Lanka, all described in greater detail below.

FIGURE 2.10 Direct conflict death rates per 100,000 in Pakistan's provinces, 2006–09



SOURCE: Small Arms Survey calculation based on conflict deaths figures provided by SATP (2011) and GoP (1998)

Sufficiently comprehensive and coherent time series data exists for only 40 countries with violent death rates higher than 10 per 100,000 in any given year between 2004 and 2009, and they are the focus of attention in this section.²⁷ A number of these countries had significant changes in violent death rates between 2004 and 2009, as shown in Figure 2.11.²⁸ It reveals that in 2009 Sri Lanka experienced the highest violent death rate and the greatest increase since 2004, mainly due to the intense armed conflict that year. Other countries that had significant upward shifts between 2004 and 2009 were Afghanistan, Honduras, Iran, Mexico, Pakistan, Palestine, Panama, Peru, and Uganda. The violent death rates in these countries were at least twice the rates of 2004.

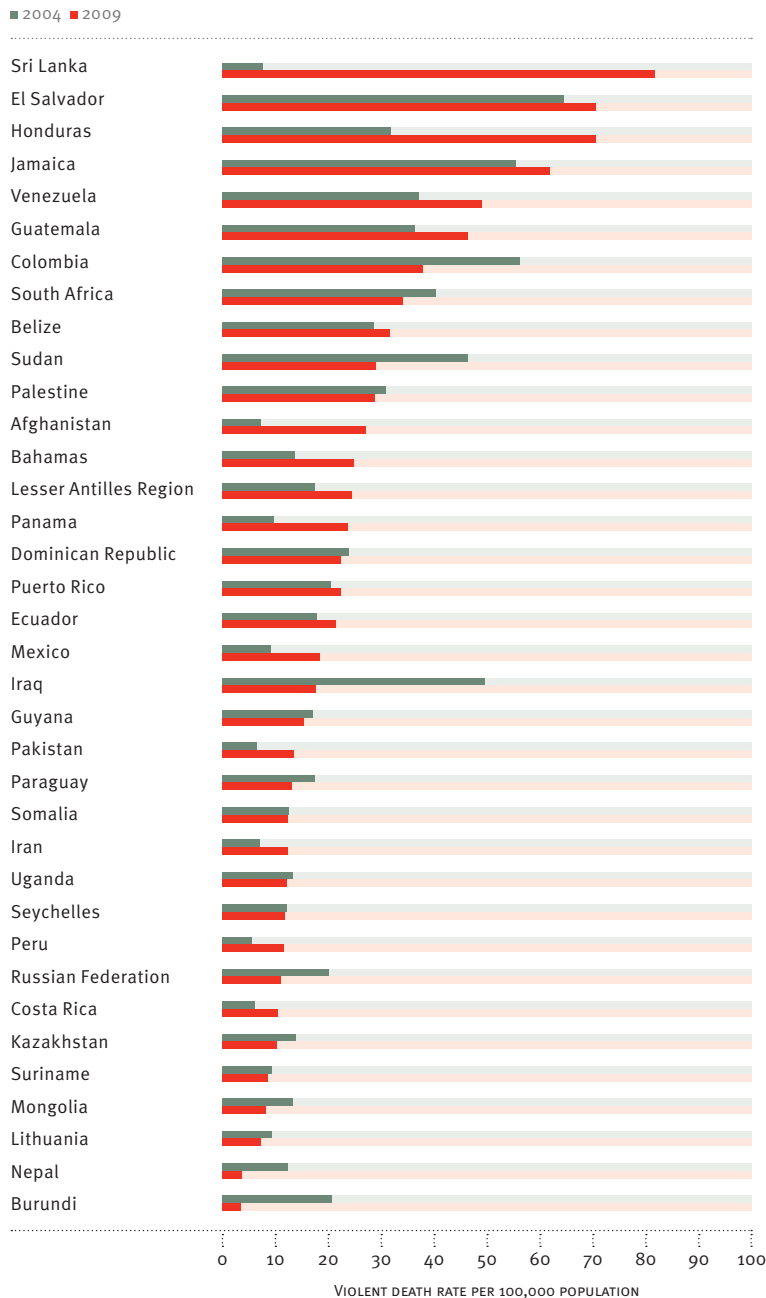
Figure 2.12 tracks ten of the 40 countries under review whose violent death rates for 2009 are



PHOTO ▲ Tamil families use old artillery shell boxes to navigate their way through mine fields as they return to homes they were forced to leave due to fighting, Palampiddi, Sri Lanka, July 2010. © Patrick Brown/Panos Pictures



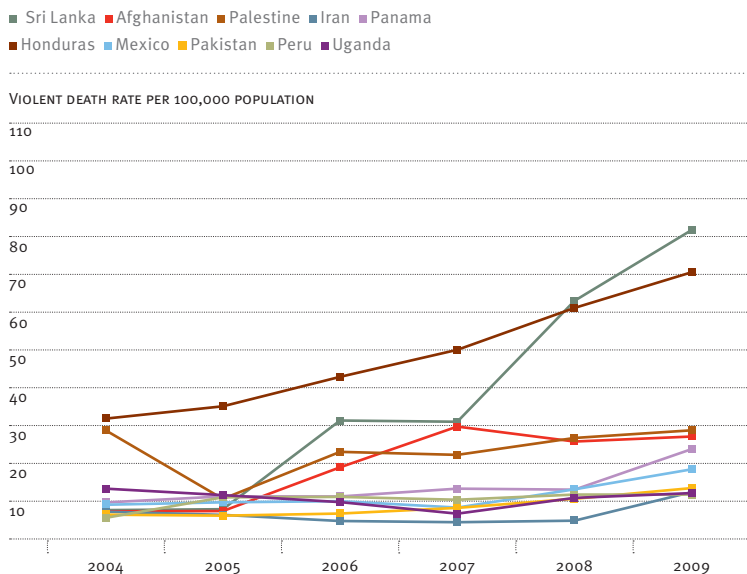
FIGURE 2.11 Violent death rates per 100,000 population, 2004 and 2009



SOURCE: GBAV 2011 database

more than two times higher than the lowest rate in any given year between 2004 and 2009. It shows that the violent death rate in 2009 in Sri Lanka was more than ten times higher than that reported for 2004. The increase in violent deaths is largely a function of extensive military operations in the final phase of the 26-year civil war. In 2009, the armed conflict cost the lives of at least 15,500 people.³⁰ Meanwhile, a number of Central American countries experienced fast and steady increases in homicidal violence. Between 2004 and 2009, violent death rates in Honduras more than doubled, from 31.9 to 70.6 per 100,000. Perhaps somewhat paradoxically, and despite concerns about underreporting with respect to dramatic declines in lethal violence, upward trends are usually based on fairly robust data.

FIGURE 2.12 Countries with significant increases in violent death rates per 100,000, 2004–09



NOTE: For 2009, these countries recorded violent death rates that were twice as high as the lowest rate recorded for any given year between 2004 and 2009.

SOURCE: GBAV 2011 database

In contrast, a cluster of countries reported dramatic decreases in lethal violence between 2004 and 2009. Figure 2.13 shows six of the 40 countries under review whose reported violent death rates in 2009 were less than half the highest rate recorded for any given year between 2004 and 2009. The country exhibiting the largest proportional decline was Lebanon. After a sharp increase during the 2006 conflict between Hezbollah and Israel (resulting in a violent death rate of 33.1 per 100,000), the violent death rate dropped to a reported level of just 2.7 per 100,000 in 2009. The country now appears to have low levels of armed violence, although the completeness of national reporting is questionable (Small Arms Survey, 2011).

Between 2007 and 2009, violent death rates in Somalia dropped more than sixfold, from 76.0 per 100,000 in 2007 to 12.5 in 2009. Lethal violence in Iraq also plummeted. In 2006, Iraq experienced an estimated overall violent death rate of 105.6 per 100,000, but by 2009 the annual toll was down to around 5,400 people—or a rate of roughly 17.6 per 100,000—largely attributed to a combination of military ‘surge’ activities and declining insurgent violence.

All of these six countries were affected by an armed conflict at some point between 2004 and 2009. While post-conflict settings are sometimes associated with rising criminal armed violence, a number of post-conflict countries seem to exhibit reductions in violent death rates.²⁹ Burundi and Nepal, for example, report a considerable decline in lethal violence. These declines over a short period are mainly attributed to peace processes and conflict termination, and the consequent reduction in direct conflict deaths.

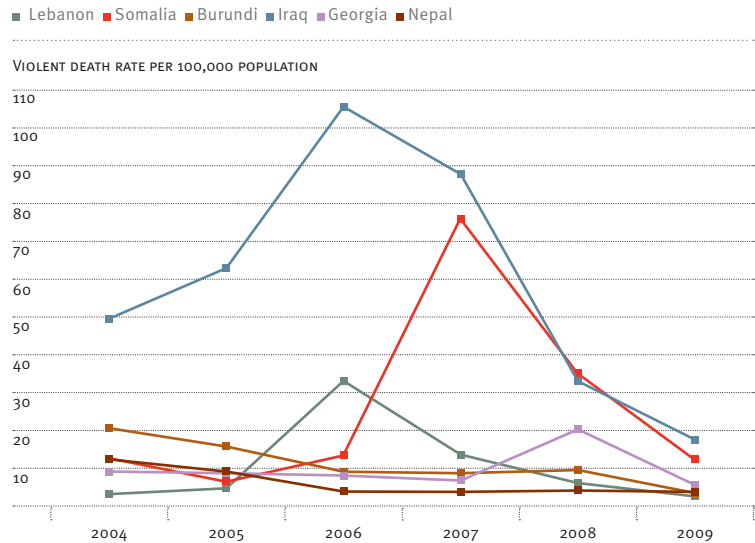
In Burundi, the number of reported direct conflict deaths dropped from 820 in 2004 to 17 in 2009,

translating into a drop in the direct conflict death rate from 11.5 to 0.2 per 100,000. At the same time, the homicide rate in Burundi was also reported to have dropped considerably since the end of the armed conflict. After a sharp increase between 2004 and 2005, homicide rates in Burundi reportedly fell from 12.2 in 2005 to 3.2 per 100,000 in 2009. Owing in part to the destruction of surveillance-related infrastructure during the war, however, official data collection capabilities in post-conflict settings such as Burundi remain poor; official figures must be interpreted cautiously as statistics may undercount the actual number of people murdered. For example, data collected by the Burundian Observatory on Armed Violence places the rate of homicide committed with guns, bladed weapons, and explosives alone at 12.3 per 100,000 for 2008 (Pézard and de Tessières, 2008, p. 26); meanwhile, the Burundi National Police officially reported a rate of 7.6 per 100,000 to UNODC for the same year (UNODC, n.d.).

Likewise, in Nepal the number of direct conflict deaths decreased significantly—from 2,380 in 2004 to fewer than 300 in 2009. This translates into a decline of the direct conflict death rate from 8.9 to 1.0 per 100,000. Unlike in Burundi, however, the reported homicide rates in Nepal remained comparatively stable over the six-year period, varying only between 3.4 per 100,000 in 2004, 2.2 in 2006, and 2.8 in 2009.

In the absence of contextual analysis, these shifts—both upward and downward—do not by themselves reveal anything about the factors driving changing patterns of armed violence in particular countries. They do, however, highlight that while global trends may remain relatively stable, a more fine-grained analysis is needed to assess the shifting dynamics of violence at the regional, national, and local levels.

FIGURE 2.13 Countries with significant decreases in violent death rates per 100,000 population, 2004–09



NOTE: For 2009, these countries recorded violent death rates of less than half the highest rate recorded for any given year between 2004 and 2009.

SOURCE: GBAV 2011 database

Violent deaths: the missing pieces?

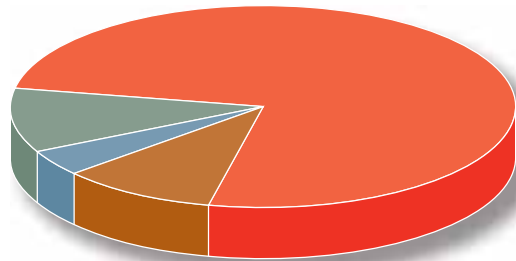
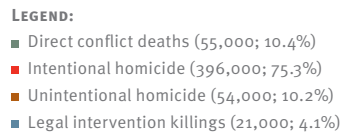
The national, regional, and trend analysis above is derived from a systematic review of intentional homicide and direct conflict deaths. While offering important insight, this data provides only a partial picture of the actual magnitude of lethal violence, much less of the total burden of armed violence. Consequently, this chapter presents overall totals that also include aggregate data for unintentional homicides and killings during legal interventions. This data cannot, at this stage, be broken down by country or over time, but it is an important part of the puzzle.

Tabulating homicide and conflict deaths is comparatively straightforward, especially given recent improvements in the availability of criminal justice

data. This edition of the *Global Burden of Armed Violence* estimates an average of approximately 396,000 intentional homicide victims per year between 2004 and 2009, a lower figure than the 490,000 homicide victims estimated in the 2008 report. The latter figure draws more extensively on public health data that reports violent deaths independent of the intent behind the killing, or that relies on modeling estimates. In addition, this edition estimates a small increase in annual direct conflict deaths, yielding an annual average of 55,000 deaths between 2004 and 2009 (compared to the 52,000 estimated in 2008 for the period 2004 to 2007).

Adding the figures for the total number of violent deaths from unintentional homicide (54,000) and from killings during legal interventions (21,000) to these two subtotals—the 396,000 intentional homicide victims and 55,000 direct conflict deaths—yields an estimated 526,000 violent deaths each year between 2004 and 2009. As Figure 2.14 shows, slightly more than 75 per cent of these violent deaths are the result of intentional homicide,

FIGURE 2.14 Disaggregating the global burden of lethal violence



SOURCE: GBAV 2011 database

while just over 10 per cent are direct conflict deaths. Unintentional homicide also accounts for just over 10 per cent of all violent deaths, while killings during legal interventions account for slightly more than 4 per cent of all violent deaths.

The 2011 *Global Burden of Armed Violence* does not focus on indirect or ‘excess’ conflict deaths, which is certainly the largest portion of the burden of conflict deaths. Individuals dying in conflict zones due to easily preventable diseases such as dysentery, measles, hunger, and malnutrition are a major contributor to the overall burden. The 2008 *Global Burden of Armed Violence* report estimates a ratio of 4:1 indirect to direct conflict deaths. This conservative ratio was used to facilitate estimates of the overall excess death rate in conflict-affected countries; it was generated from a review of mortality rates in 13 different conflicts around the world (Geneva Declaration Secretariat, 2008, p. 42). Applying this same ratio to the estimated 55,000 direct conflict deaths in an average year between 2004 and 2009 would imply an excess death toll of 220,000. If indirect conflict deaths are added to the total number of violent deaths, the total global burden of armed violence reaches 746,000 deaths per year for 2004–09.

Nevertheless, fundamental disagreements persist over the methodologies used to measure direct and indirect conflict deaths.³¹ There remains considerable debate over whether conflict deaths have been increasing or decreasing in recent decades, and over whether estimates of indirect deaths and excess mortality are accurate. The controversy over efforts to measure the burden of violence in the Democratic Republic of the Congo highlights the challenges of estimating excess mortality in complex emergencies (see Box 2.6).

Box 2.6 Estimating crude mortality rates in the Democratic Republic of the Congo

In 2000 the International Rescue Committee (IRC) launched a major effort to better understand the human costs of armed conflict in the Democratic Republic of the Congo (DRC). In a widely cited report, the IRC estimates—based on four surveys that were conducted between 2000 and 2004—that 3.9 million people died between 1998 and 2004. In a 2007 report, based on additional surveys conducted between 2006 and 2007, the IRC estimates that between 1998 and 2007 a total of 5.4 million people died as a result of the conflict (Coghlan et al., 2007, p. 2). The primary approach used to estimate the death toll was a ‘verbal autopsy’—a randomized household survey.

A number of organizations have challenged this figure and the use of survey-based approaches to calculating mortality rates. The *Human Security Report 2010*, for example, claims that the ‘excess deaths’ estimate in the first survey is actually almost 60 per cent lower than asserted by the IRC. The report further claims that for the last three surveys, the difference is even more significant and only one-third of the IRC estimate can be attributed to so-called ‘excess deaths’ or indirect conflict deaths (HSRP, 2010, p. 45).

Researchers associated with the *Human Security Report* contend that the difference between high and low estimates is a result of a disagreement over the DRC’s *baseline* crude mortality rate (CMR)—the natural mortality rate in the absence of an armed conflict. Since excess mortality is the difference between the baseline CMR and the CMR in a crisis situation, the choice of a baseline rate has a major impact on the final figures.

On the basis of three nationwide surveys carried out in 2002, 2004, and 2007, the IRC estimated an average mortality rate of 5.2 deaths per 1,000 population per month. The pre-war baseline CMR of 1.5 per 1,000 per month was then subtracted from this figure, yielding the IRC estimate of 3.7 excess deaths per 1,000 per month for the five areas surveyed. The

HSRP report contends that a baseline CMR of 2.0 deaths per 1,000 per month would be more appropriate; the excess mortality toll would thus be reduced ‘by some 60 percent’ (HSRP, 2010, p. 33).

A new report by the Centre for Research on the Epidemiology of Disasters (CRED) on health in complex emergency situations in eight African countries highlights the complexity of estimating CMRs as they ‘can be subject to many sources of bias, which can lead to over- or under-estimation of deaths and therefore to raging debates around estimated death tolls’ (CRED, 2011, p. 8).

CRED concludes that most mortality surveys conducted between 2000 and 2010 in the DRC reveal a CMR below the emergency threshold of 1 death per 10,000 people per day, which translates into roughly 3 deaths per 1,000 people per month (CRED, 2011, p. 12). The CRED report shows that the overall CMR in all provinces in the DRC has decreased or remained stable over the past decade. The positive trend is particularly clear in the eastern provinces, including North and South Kivu, Katanga, and Maniema. The CRED report does not provide an estimate of a baseline CMR, but its figures for the post-conflict CMR (between 0.3 and 1.1 per 10,000 per day) are consistent with a baseline rate of 1.5 per 1,000 per month, or 0.5 per 10,000 per day, used by the IRC (p. 70).

At the same time, the CRED study highlights fluctuations in CMRs. Within certain regions, some communities show improving trends over the last five years, while neighbouring communities show deteriorating CMRs. In this context, CRED observes volatility of CMRs in the last five years on a communal level (CRED, 2011, p. 30). Where survey data was available, CRED found that during the period 2006–07 and 2008–10, four districts showed improvements, three remained almost unchanged, and six districts witnessed a deterioration. The latter areas were mainly located in eastern DRC (the region that shows the most positive trend), but no clear geographical pattern could be identified since several sites demonstrating an improvement included neighbouring areas where rates deteriorated.



PHOTO ▲ Displaced people, who fled their homes due to fighting, line up for food at a distribution centre in Kibati, DRC, November 2008.

© Les Neuhaus/Reuters

Disaggregating unintentional homicide

Extending the analysis of non-conflict lethal violence beyond intentional homicide remains a daunting task. As noted above, there is still considerable disagreement over how to classify and record ‘homicides’. On the one hand, intentional homicide, commonly referred to as ‘murder’, typically requires that the perpetrator purposefully intend to cause death.³² ‘Manslaughter’, on the other hand, is ‘a categorisation that implies diminished responsibility or intentionality on the part of the perpetrator’ (Krause, 2009, p. 349). ‘Unintentional homicides’ are generally ‘accidental’ and commonly described as ‘manslaughter’. The agency Eurostat defines homicide as the ‘intentional killing of a person, including murder, manslaughter, euthanasia and infanticide’ (Eurostat, 2010, p. 4). Causing death through dangerous driving is excluded, as are abortion and assisted suicide. Attempted but incomplete homicide is also excluded (p. 4).

The reality is that legal definitions of what constitutes a homicide frequently vary across (and sometimes even within) countries. In Australia, for example, criminal offences are often adjudicated at the state and territory level, which means that each administrative unit features a separate criminal law. As a result, there are eight slightly different justice systems, sets of legislation, and offence definitions for each administrative unit, not to mention a separate federal system. The Australian Bureau of Statistics confirms that ‘while murder and manslaughter are fairly generic offences, there are differences across the states and territories in how they are defined in terms of degree, culpability and intent’.³³

To account for degrees of intentionality, some countries divide manslaughter into several sub-categories. England and Wales, for example,



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TABLE 2.3 Intentional versus unintentional homicide: a sample

| Country* | Latest available year | Intentional homicide | Unintentional homicide** |
|-----------------------------------|-----------------------|----------------------|--------------------------|
| Argentina | 2008 | 2,305 | 613 |
| Burkina Faso | 2008 | 222 | 98 |
| Costa Rica | 2009 | 525 | 5 |
| France | 2009 | 682 | 137 |
| Fiji | 2008 | 20 | 3 |
| Germany | 2009 | 706 | 0 (341) |
| Ghana | 2005 | 383 | 4 |
| India | 2009 | 32,369 | 3,930 |
| Italy | 2008 | 611 | 372 |
| Kenya | 2009 | 1,203 | 41 |
| Mexico | 2009 | 16,117 | 2,763 |
| Nepal | 2009 | 806 | 12 |
| Nicaragua | 2008 | 693 | 22 |
| Nigeria | 2008 | 1,956 | 17 |
| UK (England and Wales) | 2009 | 638 | 0 (194) |
| Total sample | | 59,236 | 8,017 |
| Global total (rounded) | | 396,000 | 54,000 |

include murder, section 2 manslaughter (accepting diminished responsibility), other manslaughter, and cases of infanticide in homicide records (Smith et al., 2011). Complicating matters is the fact that in almost all other languages besides English, there is no exact equivalent of the word 'homicide'. Some languages do not even feature a generic term, while others use a generic term for intentional killings only. In many countries, unintentional homicide also includes deaths resulting from car accidents. In Mexico and numerous other Latin American countries, murder is commonly referred to as *homicidio doloso* while

involuntary manslaughter is defined as *homicidio culposo*. In many of these countries, *homicidio culposo* also includes the killing of one person by another as a result of a road accident. This can lead to serious misunderstandings and errors when working on comparing homicides statistics across countries and language groups (Smit, 2011). At a minimum, it is critical that policy-makers, practitioners, and researchers recognize these disparities and reconcile them where possible.

Table 2.3 presents a sample of countries that differentiate between intentional and unintentional

TABLE 2.3 Notes

*** COUNTRY NOTES:**

Argentina: *Homicidios dolosos* (intentional homicides) are included in intentional homicide statistics; *homicidios culposos por otros hechos* (unintentional homicides using other means) are not. The largest group of homicide refers to deaths as a result of traffic accidents (*homicidios culposos en tránsito*), which is also excluded from intentional homicide statistics (MJS DH, 2008, p. 1).

Burkina Faso: *Homicides volontaires et assassinats* (voluntary homicide and assassinations) are both included in intentional homicide statistics; *coups mortels* (mortal blows) are not included (INSD, 2010, p. 144).

Costa Rica: *Homicidio doloso* is included in homicide statistics (PJC R, 2009a, p. 5); *homicidio culposo* (unintentional homicide) is not included. Some of these deaths refer to victims of car accidents. The five victims per year only include the categories *lesiones arma de fuego* (firearm injuries) (PJC R, 2009b, p. 8).

France: *Coups et blessures volontaires, suivis de mort* (voluntary blows and injuries, followed by death) are not included in intentional homicide statistics (DCPJ, 2009, p. 11).

Fiji: ‘Murder’ is included in intentional homicide statistics; ‘manslaughter’ is not (FIBOS, 2011, p. 125).

Germany: The 365 cases of murder (*Mord*) and the 341 victims of manslaughter or killing on request (*Totschlag und Tötung auf Verlangen*) are all included in intentional homicide statistics (BKA, 2010, p. 131).

Ghana: ‘Murder’ is included in intentional homicide statistics; ‘manslaughter’ is not (GST, 2005, p. 18).

India: ‘Murder’ is included in intentional homicide statistics; ‘culpable homicide not amounting to murder’ is not (NCRB, 2009, p. 220).

Italy: *Omicidi volontari consumati* (voluntary homicides, completed) are included in intentional homicide statistics; unintentional homicides (*omicidi colposi*) are not included. The 372 victims refer to unintentional homicides without victims of car accidents (*di cui da incidente stradale*) (ISTAT, 2008).

Kenya: ‘Murder and infanticide’ are included in intentional homicide statistics; ‘manslaughter’ is not included (Kenya Police, 2010, p. 19).

Mexico: *Homicidios dolosos* are included in intentional homicide statistics. The 2,763 cases of *homicidios culposos* refer only to the victims who died from the following causes: *por arma de fuego*, *por arma blanca*, and *sin datos* (with a firearm, with a bladed weapon, and no data). The largest group of unintentional homicide victims who died of ‘other causes’—12,665 people in 2009—is not listed in the table as it probably includes victims of car accidents (SESNSP, 2009, p. 1).

Nepal: The 806 cases of ‘murder’ are included in intentional homicide statistics, while the 12 cases of ‘dacoity with murder’ (banditry with murder) are excluded (CBS, 2009, p. 1).

Nicaragua: The 693 victims that are included in intentional homicide statistics refer to *asesinatos* (assassinations) and *homicidio doloso*. The categories *homicidio culposo* and *homicidio preterintencional* (felony homicide), accounting for 22 victims in 2008, are not included in intentional homicide statistics (PN, 2008, p. 66).

Nigeria: The intentional homicide statistics include the 1,956 victims of ‘murder’, but not the 17 victims of ‘manslaughter’ (CLEEN, n.d., p. 1).

UK (England and Wales): Of the 638 homicides, 479 cases reported a conviction. Among these are 284 murders, 28 section 2 manslaughterers, and 166 other manslaughterers, as well as 1 infanticide. All cases are included in intentional homicide statistics (Smith et al., 2011, p. 36).

**** UNINTENTIONAL HOMICIDE NOTES:**

Germany and the UK (England and Wales) include unintentional homicides (shown in brackets) in the statistics on intentional homicides.

homicide, while excluding car accidents. Countries that do not differentiate between unintentional homicides as a result of interpersonal violence and those resulting from road accidents have been excluded from the list. As a result, the table does not include the more than 13,184 ‘culpable homicides’ that occurred in 2008 in South Africa (SAPS, 2010), some of which are certainly due to armed violence. Likewise, it excludes the 163 unintentional homicides that occur in an average year between 2004 and 2009 in Yemen (see Box 2.5).

The table shows the number of homicides that are included in intentional homicides statistics.

It suggests that in some cases overall homicide rates would increase substantially if unintentional homicides were included. Sample countries with unintentional homicide rates that are more than 10 per cent of the total of intentional homicides include Argentina, Burkina Faso, France, Germany, India, Italy, and Mexico. Distinguishing between intentional and unintentional homicide may lead to underestimating of overall rates of lethal violence in many cases; as Table 2.3 shows, only a few countries—such as England and Wales or Germany—include unintentional homicides in statistics on intentional homicides.

A review of the available figures suggests that the rate of homicide would increase by around 13.6 per cent if unintentional homicides were included. Put another way, if this proportion were applied to the estimated 396,000 intentional homicides, the global burden would increase by an additional estimated 54,000 deaths, yielding an estimated 450,000 annual homicide deaths (intentional and unintentional). This is roughly consistent with (although somewhat lower than) the estimate for homicide deaths put forward in the first edition of the *Global Burden of Armed Violence*, which relied extensively on WHO estimates.

Killings during legal interventions and extrajudicial executions

Another category of lethal violence often not captured by homicide statistics consists of deaths occurring during legal interventions and extrajudicial killings. The UN Special Rapporteur on extrajudicial, summary or arbitrary executions, whose office was established in 1982, defines extrajudicial executions and unlawful killings as ‘killings that violate international human rights or humanitarian law’ (UNGA, 2010b; UN-ECOSOC, 2005, para. 6). Such a broad interpretation opens the door to a wide range of categories of lethal violence. For example it would include killings by law enforcement officials or other security forces; killings during armed conflict; killings during counterterrorism operations; killings by non-state actors; and deaths in custody and due to the death penalty (UNGA, 2010b).³⁴

It is currently impossible to verify or validate the annual global distribution and burden of extrajudicial executions. There are no reliable monitoring mechanisms and many governments are not prepared for full disclosure or may lack the




PHOTO A woman holds her head in her hands following an explosion at Assumption Church, Kathmandu, in which two people were killed, May 2009. © Shruti Shrestha/Reuters



capacities and resources to undertake necessary investigations. The human rights sector often represents the only set of actors seeking to report on extrajudicial executions and unlawful killings. As reported in the 2008 *Global Burden of Armed Violence*:

extrajudicial executions and unlawful killings frequently go unreported, for the simple reason that there is nobody to report them or a lack of awareness about reporting practices and a fear of the legitimacy of relevant institutions (Geneva Declaration Secretariat, 2008, p. 132).

Nevertheless, the Cingranelli–Richards Human Rights Data Project attempts to generate comparative country-level data on extrajudicial killings, defined by the project as:

killings by government officials without due process of law. They include murder by private groups *if* instigated by government. These killings may result from the deliberate, illegal, and excessive use of lethal force by the police, security forces, or other agents of the state whether against criminal suspects, detainees, prisoners, or others (Cingranelli and Richards, 2008, p. 7).

The project divides countries into three categories: 1) countries where no extrajudicial executions or unlawful killings occur; 2) countries where occasional killings take place (1–49 deaths per year); and 3) countries where extrajudicial executions and unlawful killings are frequent (more than 50 deaths per year). Applying conservative multipliers of 5 for category 2 and 51 for category 3 yields an estimate of at least 1,900 annual deaths as a result of extrajudicial executions.

There are many potential overlaps between direct conflict deaths, intentional homicides, and extrajudicial executions. This edition of the *Global Burden of Armed Violence* examines only deaths occurring during legal interventions (killings of

TABLE 2.4 Killings during legal interventions: A sample

| Country* | Latest available year | Intentional homicide | Killings during legal interventions |
|-------------------------------|-----------------------|----------------------|-------------------------------------|
| Argentina | 2008 | 2,305 | (52) |
| Colombia | 2009 | 15,817 | (363) |
| Costa Rica | 2009 | 525 | (1) |
| Croatia | 2009 | 58 | 1 |
| Czech Republic | 2009 | 79 | 1 |
| Finland | 2009 | 99 | 1 |
| Honduras | 2008 | 4,473 | (54) |
| India | 2009 | 32,369 | 644 |
| Netherlands | 2009 | 145 | 2 |
| Nigeria | 2008 | 1,956 | 967 |
| Spain | 2009 | 314 | 1 |
| Sweden | 2009 | 51 | 1 |
| United States | 2009 | 15,241 | 454 |
| Uzbekistan | 2009 | 619 | 2 |
| Venezuela | 2009 | 13,985 | 2,685 |
| Total sample | | 88,036 | 4,759 |
| Global total (rounded) | | 396,000 | 21,000 |

civilians by law enforcement officials, or killings of law enforcement officials on duty). Often, these deaths are referred to as deaths as a result of legal actions. The Special Rapporteur routinely encounters what are effectively ‘intentional homicides’ in which ‘police shoot to kill alleged criminals without resort to other appropriate measures’ (UNGA, 2010b, p. 8). The lack of respect for principles on the use of force and firearms while arresting a suspect or the indiscriminate force in a riot-control context are ‘often due to poor training, inappropriate “use of force” regulations and resource deficiencies’ (p. 8). Owing to significant political sensitivity, reporting on deaths occurring

during legal interventions is predictably scarce and often anecdotal.

While severely underreported, killings during legal actions appear to be surprisingly routine. According to a recent report from Jamaica, one in five killings in the country is committed by security forces, yet these do not appear in the official national homicide record (*Sunday Herald*, 2011). A study on the criminal justice systems in Jamaica and the Dominican Republic estimates that approximately 200 police killings took place in 2007 (Foglesong and Stone, 2007, p. 18); in the Dominican Republic, there have been reports of up to 58 police killings per month (p. 17). Table 2.4

TABLE 2.4 Notes*** COUNTRY NOTES:**

Argentina: The 52 cases of intentional homicide (*homicidio doloso*) include police officers who committed killings while being on duty (*policía en servicio*). Another 50 homicides were committed by police officers who were not on duty or by other security personnel (MJS DH, 2008, p. 8).

Colombia: The intentional homicide statistics include the 363 ‘anti-social elements’ who were killed by official security forces (*antisociales abatidos por fuerza pública y organismos de seguridad*) (Espino-Duque, 2010, p. 75).

Costa Rica: The intentional homicides statistics for 2009 include a category of homicides committed by perpetrators while on duty (*en cumplimiento del deber*) (PJCR, 2009a, p. 34).

Croatia: The European Detailed Mortality Database (DMDB) of the WHO lists one person killed during legal interventions (ICD-10: Y35) and 58 people killed as a result of violent assaults (ICD-10: X85–Y05) (WHO, n.d.c).

Czech Republic: The DMDB lists one person killed during legal interventions (ICD-10: Y35) and 79 people killed as a result of violent assaults (ICD-10: X85–Y05) (WHO, n.d.c).

Finland: The DMDB lists one person killed during legal interventions (ICD-10: Y35) and 99 people killed as a result of violent assaults (ICD-10: X85–Y05) (WHO, n.d.c).

Honduras: The Violence Observatory in Honduras lists 54 homicides as a result of police action, all of which are included in the overall intentional homicide figures (IUDPAS, 2009, p. 3).

India: The crime statistics in India list 184 civilians and 131 policemen killed in police firing (NCRB, 2009, p. 563); they also report 329 police officers otherwise killed on duty—excluding those who died as a result of a car accident (p. 567).

The Netherlands: The DMDB lists two persons killed during legal interventions (ICD-10: Y35) and 164 people killed as a result of violent assaults (ICD-10: X85–Y05) (WHO, n.d.c).

Nigeria: The CLEEN Foundation reports that police killed 857 robbers in 2009 and that armed robbers killed 110 policemen that same year (CLEEN, n.d., p. 10).

Spain: The DMDB lists one person killed during legal interventions (ICD-10: Y35) and 314 people killed as a result of violent assaults (ICD-10: X85–Y05) (WHO, n.d.c).

Sweden: The DMDB lists one person killed during legal interventions (ICD-10: Y35) and 51 people killed as a result of violent assaults (ICD-10: X85–Y05) (WHO, n.d.c).

United States: The Federal Bureau of Investigation reports 406 justifiable homicides by a law enforcement agent (the killing of a felon by a law enforcement officer in the line of duty) (FBI, 2010a). These killings are listed separately from the 15,241 cases of murder and non-negligent manslaughter (FBI, 2010c) since these killings are determined through law enforcement investigations to be justifiable (FBI, 2010e). An additional 48 law enforcement officers were feloniously killed on duty in 2009 (FBI, 2010d). Not included in the table are the 261 justifiable homicides by private citizens (the killing of a felon, during the commission of a felony, by a private citizen), although they are not counted as murder or non-negligent manslaughter either. Without the involvement of law enforcement officers, they do not qualify as legal interventions, narrowly defined in endnote 2 of this chapter as killings that involve police or other law enforcement officials (FBI, 2010b).

Uzbekistan: The DMDB lists two persons killed during legal interventions (ICD-10: Y35) and 619 people killed as a result of violent assaults (ICD-10: X85–Y05) (WHO, n.d.c).

Venezuela: The Venezuelan non-governmental organization Provea (Programa Venezolano de Educación–Acción en Derechos Humanos) reports that 2,685 civilians were killed during resistance (*resistencia*) in 2009 (Provea, 2010, p. 418).

provides examples of killings during legal interventions in selected countries. It shows that in several countries, such as Argentina, Colombia, Costa Rica, and Honduras, the national statistics on intentional homicides already include these killings.

The Venezuela example highlights the challenges inherent in identifying and counting extrajudicial killings and deaths occurring during legal interventions. Reports published by the non-

governmental organization Provea indicate that in 2009 an estimated 2,685 people were killed each year while ‘resisting authorities’ (Provea, 2010, p. 418). According to the Venezuelan Research Institute on Citizen Security, these deaths are not included in government statistics on intentional homicides (INCOSEC, 2010, p. 4). However, Provea also provides data on several hundred annual ‘executions’ by security providers (on or off duty)

who open fire with the intent to kill; a lack of information makes it impossible to determine whether they are included in the intentional homicide statistics (Provea, 2010, p. 417).

A review of this sample of 15 countries indicates that an additional 4,759 deaths would have to be added to the number of intentional homicides for states that do not already include them in the homicide statistics. The number of intentional homicide victims would thus increase by about 5.4 per cent if killings during legal interventions were included. When applied to the estimated 396,000 intentional homicides, this percentage implies that at least 21,000 people are killed during legal interventions every year.

Conclusion

The production and dissemination of reliable, comprehensive, and cumulative data is essential to promoting a better understanding of and more appropriate responses to trends and patterns of lethal violence. This chapter has taken an important step towards providing such a picture, through a careful integration of data from diverse sources and a holistic approach to counting lethal violence. Yet the gaps in the data are many, allowing for only a partial picture. A more accurate description of the overall global burden of lethal violence will require continued commitment to building global and national administrative and analytical capabilities, legal frameworks, and political will to present the facts on the ground (Harrendorf, Heiskanen, and Malby, 2010).

The international development community appears to be recognizing the importance of evidence as a driver of effective policy and programming. A growing number of multilateral and bilateral

agencies are requiring a more determined focus on data and analysis to shape programme design, implementation, and monitoring and evaluation. It is unsurprising that statistics—including data related to lethal violence—are profoundly shaped by political and economic interests. This is especially the case if reputations and the flow of aid dollars are even partly determined by factual evidence. Specialists agree that these challenges are particularly pronounced in relation to trends in homicide, conflict deaths, and other forms of lethal violence (Andreas and Greenhill, 2010).

The chapter has also demonstrated that existing administrative data on lethal violence must be cautiously and critically interpreted. On the one hand, reported increases in particular trends—such as intentional homicide or unlawful killings—may imply a genuine escalation of armed violence. On the other, such increases can also imply increased faith or trust of citizens in government institutions and therefore increased *reporting* rather than changes in the underlying phenomenon itself.³⁵ What is more, decreases in violent mortality could imply improvements in health care provision, policing, or other unrelated phenomena.

This chapter presents estimates that will continue to be refined and enhanced over time. By drawing attention to the most violent contexts worldwide, and to the importance of armed violence in so-called non-conflict settings, it widens the lens for policy-makers, practitioners, and researchers. While the overall number of people dying in armed conflicts is at historic lows, in several regions the burden of armed violence remains frighteningly high, with ripple effects on the prospects for local, regional, and global security and development. 📌

Abbreviations

| | |
|---------------|--|
| CMR | Crude mortality rate |
| CRED | Centre for Research on the Epidemiology of Disasters |
| DMDB | European Detailed Mortality Database |
| DRC | Democratic Republic of the Congo |
| DWI | Dirty war index |
| GTD | Global Terrorism Database |
| ICD | International Classification of Disease |
| IISS | International Institute for Strategic Studies |
| IRC | International Rescue Committee |
| NCTC | National Counterterrorism Center |
| UCDP | Uppsala Conflict Data Program |
| UN-CTS | <i>Survey of Crime Trends and Operations of Criminal Justice Systems</i> |
| UNODC | United Nations Office on Drugs and Crime |
| WHO | World Health Organization |
| WHOMDB | World Health Organization's Mortality Database |

Endnotes

- 1 On the relationship between lethality of gunshot wounds and medical technology, see, for example, Harris et al. (2002) and Jarman et al. (1999).
- 2 Killings during legal interventions are defined here as the killings of civilians attributed to police or other law enforcement officials in the course of arresting lawbreakers, quelling disturbances, maintaining order, or other legal actions, or the killings of police or other law enforcement officials by civilians during legal actions.
- 3 See the online methodological annexe at www.genevadeclaration.org.

- 4 For more details, see Ad Hoc Committee (n.d.).
- 5 The 1996 Ad Hoc Committee has produced a draft definition. Presented in 2005, Article 2 of the draft reads: 'Any person commits an offence within the meaning of the present Convention if that person, by any means, unlawfully and intentionally, causes: (a) Death or serious bodily injury to any person; or (b) Serious damage to public or private property, including a place of public use, a State or government facility, a public transportation system, an infrastructure facility or to the environment; or (c) Damage to property, places, facilities or systems referred to in paragraph 1 (b) of the present article resulting or likely to result in major economic loss; when the purpose of the conduct, by its nature or context, is to intimidate a population, or to compel a Government or an international organization to do or to abstain from doing any act' (UNGA, 2005, pp. 9–10). See also CNS (2010).
- 6 Author communication with the International Institute for Strategic Studies, 19 May 2011.
- 7 For a definition of 'main armed conflict', see the online methodological annexe at www.genevadeclaration.org.
- 8 For a detailed analysis of data sources on armed violence, see Gilgen and Tracey (2011, annexe 2).
- 9 See 'Deaths Estimates for 2008 by Cause for WHO Member States' in WHO (n.d.b).
- 10 The ICD classification for 'assault' is X85–Y09; it excludes injuries due to legal intervention and operations of war (WHO, n.d.a).
- 11 The ICD classification for 'event of undetermined intent' is Y10–Y34 (WHO, n.d.a).
- 12 See Obermeyer, Murray, and Gakidou (2008) and Alkhuzai et al. (2008).
- 13 For details, see the online methodological annexe at www.genevadeclaration.org.
- 14 The Lesser Antilles region includes Anguilla, Antigua and Barbuda, Barbados, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago. The Micronesia Region is comprised of the Federated States of Micronesia, Guam, Kiribati, the Marshall Islands, Nauru, and Palau.
- 15 The database includes the 189 UN member states (all but San Marino, Tuvalu, and the UK, which is split into three territories in the GBAV 2011 database), and 10 non-UN members (Anguilla, Bermuda, Guam, Hong Kong, Palestine, Puerto Rico, Reunion, and the UK's England and Wales, Northern Ireland, and Scotland). Of the total of 199 countries, 15 were amalgamated into 2 regions (Lesser Antilles Region and Micronesia Region). The presentation of countries and their names does not imply the expression of any opinion of the editors concerning the legal status of any country, or the delimitation of its boundaries.

- 16 The 16 countries are Afghanistan, Burundi, Chad, Central African Republic, Colombia, Côte d'Ivoire, the Democratic Republic of the Congo, Ethiopia, Iraq, Lebanon, Palestine, the Russian Federation, Somalia, Sri Lanka, Sudan, and Uganda.
- 17 Post-conflict settings are defined according to the UCDP terminology of 'termination of the use of armed force'. This occurs when the incompatibility is solved either by an agreement or by a victory; when a party ceases to exist; or when the use of armed force does not meet the 25 battle-related deaths criteria (Kreutz, 2010).
- 18 The 55,000 direct conflict deaths figure also includes the 1,100 direct conflict deaths that occurred in Jammu-Kashmir; Central Asia (Fergana Valley, which is split between Kyrgyzstan, Tajikistan, and Uzbekistan); and the conflict between Armenia and Azerbaijan. In the analysis of the national violent death rates, however, these figures are not included because they cannot be attributed exclusively to one country.
- 19 The statistics on intentional homicides in Colombia include extrajudicial executions and unlawful killings, as well as people killed as a result of the armed conflict.
- 20 WHO estimates of 2008 'war deaths' in Afghanistan (83.6 per 100,000) and Somalia (129.0 per 100,000) are much higher than those used in the GBAV 2011 dataset.
- 21 The regions are labeled according to geographical regions defined by the UN Statistical Division (UNSD, n.d.).
- 22 Saudi Arabian military forces entered the war in Sa'dah in early November 2009, while both the United States and the United Kingdom have supported the development of Yemen's counterterrorism capacity (Aljazeera.net, 2009; *The New York Times*, 2009; BBC, 2010).
- 23 The UCDP battle-related deaths database lists an estimated 1,491 victims of the 1994 civil war in Yemen (best estimate). See UCDP (n.d.c).
- 24 Crimes in Yemen and elsewhere are generally formally recorded only once they are 'detected', such as once a suspect has been identified and a prosecutor has received the relevant file.
- 25 The figures do not include direct conflict deaths that occurred in the disputed area of Jammu-Kashmir.
- 26 Part of this fluctuation may be due to a greater reliance on WHO estimates in 2004 and again in 2008 and 2009; these years have slightly higher rates than do years for which only reported administrative data was available.
- 27 Criminal justice data on homicides in Latin America and the Caribbean is relatively accessible and comprehensive; an analysis of trends in armed violence in these regions can be conducted across all countries. Most countries in Sub-Saharan Africa were excluded.
- 28 The violent death rates of Georgia and Lebanon were below the threshold of 10 per 100,000, both in 2004 and 2009. Nevertheless, both countries witnessed violent death rates of more than 10 per 100,000 in a given year between 2004 and 2009 (GBAV 2011 dataset). They are discussed in detail below.
- 29 For a more detailed discussion of post-conflict violence, see the first edition of the *Global Burden of Armed Violence* (Geneva Declaration Secretariat, 2008, ch. 3).
- 30 The UN Panel of Experts on Accountability in Sri Lanka reports an estimated 7,721 civilians killed between August 2008 and May 2009. In the limited surveys that were carried out in the aftermath of the conflict, a high percentage of people reported dead relatives. A number of credible sources have estimated that there could have been as many as 40,000 civilian deaths in a similar time period (UNSG, 2011, pp. 40–41).
- 31 HSRP (2010); Murray et al. (2002); Obermayer, Murray, and Gakidou (2008); Spagat et al. (2009).
- 32 'Situations where the perpetrator is reckless or grossly negligent, or where the perpetrator kills in self-defence, are therefore usually excluded from the category of intentional homicide' (Geneva Declaration Secretariat, 2008, p. 68).
- 33 Author communication with the Australian Bureau of Statistics, 13 May 2011.
- 34 See also PEE (n.d.).
- 35 See Marenin (1997) and Soares (2004a; 2004b).

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