



**A**ROUND THE WORLD, politicians, investors, and the general public consider the incidence of homicide a fair index of insecurity. Countries and cities that exhibit high homicide rates often suffer as a result of lost investment, tourism, and, ultimately, revenue collection. Yet while homicide data serves as a proxy for certain forms of armed violence, it routinely leaves knowledge gaps that undermine its use in evidence-based policy-making. While some areas are known to be more dangerous than others, relevant data may not reveal who exactly is being killed, or by whom, where, how, or under what circumstances. Nor does it necessarily point to potential deterrents to homicidal violence. Information on these factors is central to designing and implementing interventions that prevent and effectively reduce intentional death and injury.

One way to facilitate obtaining such information is by disaggregating homicidal violence into separate categories. The Organisation for Economic Co-operation and Development proposes a conceptual framework—the armed violence ‘lens’—for this very purpose (OECD, 2009; INTEGRATED APPROACH). The armed violence lens draws attention to the people affected by armed violence (both immediate victims and the wider communities and societies that suffer the consequences), the perpetrators of armed violence and their motives, the instruments of armed violence, and the wider institutional environment that enables,

or protects against, armed violence. In principle, the lens can be applied to both conflict- and non-conflict-related armed violence and to lethal and non-lethal violence.

The armed violence lens draws attention to the limitations of a single aggregate indicator, such as intentional homicide. It suggests that decision-makers and planners who rely exclusively on monitoring homicide rates may fail to capture vital information about the nature and extent of specific and repeated acts of violence. From a statistical point of view, the lens requires *disaggregation* of ‘total offence data’ in order to provide additional details concerning the context and characteristics of homicidal violence. This chapter takes a first step towards addressing this information gap by examining available data on the *context* in which homicides occur. It also explores the state *response* to non-conflict violence based on law enforcement and criminal justice data.

The main findings of the chapter are:

- The *situational context* of homicide events tends to vary according to geographical context.
- The proportion of homicides related to *gangs or organized crime* is significantly higher in countries in Central and South America than in those of Asia or Europe.
- Homicide rates related to *robbery or theft* tend to be higher in countries with greater

**PHOTO ▼** Members of a citizen vigilante group patrol the streets of Barcenas, Guatemala City, September 2007. © Carlos Javier Ortiz/Laif/Redux

- income inequality, including countries located in the Americas.
- The proportion of homicides related to *intimate partners or the family* represents a significant proportion of homicides in some countries in Europe and Asia.
- The relative weakness of a country's rule of law is broadly linked with higher overall homicide rates. Yet particular challenges—such as gang activity, a history of conflict, or high income inequality—may lead to high homicide rates even in societies with comparatively strong institutions and rule of law.
- A nexus appears to exist between high homicide rates, a high proportion of homicides committed with firearms, and a low proportion of cases solved by law enforcement. Countries showing this combination of factors risk entering a spiral of increasing violence and impunity.
- Measuring the effectiveness of the criminal justice system response to homicide and crime involving armed violence requires more than a simple calculation of conviction rates or 'case attrition' rates. The deterrent effect of police and justice institutions is also linked to public perception and the quality of justice.



## Contextualizing homicide

Governments, non-governmental groups, and the media frequently present homicide as a proportion of the population—usually as a rate per 100,000 people. While a certain degree of confidence may be placed in these figures, the identification, collection, and interpretation of data on national homicide rates is a complex enterprise. These challenges are compounded when it comes to assessing the specific circumstances surrounding violent deaths and the responses of the criminal justice system. This chapter considers the widely varying approaches to collecting data on violent death. It highlights the need for greater investment in the development of effective criminal justice system performance measures in order to increase understanding of the context and drivers of homicide.

Just as there are different legal definitions of what constitutes an ‘intentional homicide’, there are also many approaches to characterizing homicide events.<sup>1</sup> These include classifying events according to:

- victims and perpetrators based on demographics (sex, age, race, education, income, marital status);
- the victim–offender relationship (intimate partner, family member, friend, acquaintance, perpetrator unknown to the victim);
- the location of the event (home, street, business premises, urban, rural);
- the threatened or actual use of a weapon (sharp object, blunt object, firearm [by type]);
- the time of offence (daytime, evening, night);
- the characteristics of the offence, such as the involvement of drugs, alcohol, or gang membership;
- motivating factors, such as racial, religious, or communal tensions; and
- any other contemporaneous offences, such as robbery or theft.

Although superficial data on the incidence of homicides may be accessible for most countries, more detailed information on the instruments, actors, institutions, and affected people is seldom easy to obtain. At the national just as at the municipal level, comparable statistics on homicide circumstances also require a consistent level of police investigative work, in addition to systematic coding and recording systems for victim, offender, and offence elements and circumstances.<sup>2</sup> Such information may be recorded only for investigation or operational purposes and need not necessarily form part of national statistics. Where it is available, methods of categorization of the event context tend to be tailored to specific local needs, rather than designed to facilitate cross-national comparison.

Likewise, medical examination records and coroners’ death certificates may provide details on a victim’s race, sex, age, location, and probable cause of death, but they do not usually include data on the characteristics of the offender and may reveal only limited information on the victim and situational elements (Riedel, 1999). While police records generally offer more information, the quality and level of detail recorded can vary considerably, both within a country and cross-nationally. Suspected homicide cases will have varying degrees of clarity regarding the circumstances surrounding a death, witnesses’ willingness to talk, the availability and confidentiality of forensic evidence, and the likelihood of identifying and locating suspected perpetrators.

The sheer diversity of categories used in different countries to classify homicides underlines the

difficulties in developing a standardized approach to data collection and analysis. National homicide categories are often developed according to local needs and rarely with international comparison in mind. While detailed local typologies may be useful for individual study, the identification of generic categories for national and regional comparison represents a significant challenge. Successful translation of national data into cross-national categories requires both a bottom-up approach (working with the data that is available) and a top-down approach that defines common standards. The relatively low response rate to previous data collections on homicide typology<sup>3</sup> and the recent attempt to develop a European-level classification system of offences to be used in the context of crime statistics have shown that striking the right balance in this domain is a delicate exercise.<sup>4</sup>

This chapter draws from three categories of homicide, derived from a review of available national data and the requirements of developing—as far as possible—comparable definitions for cross-national comparison. Such an approach treats the homicide incident holistically, as a complete composite of offender, victim, and offence as well as temporal and spatial elements (Miethe and Regoeczi, 2004). Data in this chapter is therefore disaggregated into *organized crime and gang-related homicides*, *robbery- and theft-related homicides* (based on contextual variables), and *intimate partner- or family-related homicides* (related to the offender–victim relationship). In addition, the chapter considers the category of *homicides committed with firearms*. The categories are forged on the basis of the following definitions:

- A *gang* is defined as a structured group of three or more persons existing for a period of time and acting in concert with the aim of committing one or more serious crimes or

offences, including drug trafficking. The group can be randomly formed for the immediate commission of an offence. It does not need to have formally defined roles for its members, continuity of its membership, or a developed structure.

- The *intimate partner or family* category includes ‘intimate’ individuals such as current or former intimate partners; a ‘family’ is defined as persons living in the same household as the victim, in addition to blood relatives.
- *Robbery* refers to the theft of property from a person by using force to overcome resistance or by threatening the use of force. *Theft* involves the removal of property without the property owner’s consent. This category includes muggings, domestic burglary, and house-breaking as well as theft of a motor vehicle.

The abovementioned categories do not exhaust the range of possible homicide situations and are not strictly mutually exclusive. Nevertheless, they do reflect commonly used typologies and capture the predominant contexts in which non-conflict lethal violence may occur (Mohanty, 2004). In particular, the term ‘gang’ incorporates a wide range of contexts and groups, including youth gangs, street gangs, drug gangs, motorcycle gangs, skinheads, and prison gangs (Small Arms Survey, 2010, ch. 5). The term ‘organized criminal group’ is defined in the United Nations Convention against Transnational Organized Crime; however, the definition is diffuse and does not require a developed group structure (UNODC, 2004).<sup>5</sup>

Gangs may include organized criminal groups whose members act in concert to commit serious offences, yet some organized criminal groups—such as drug cartels with high levels of organization—are not necessarily gangs. This chapter presents classifications that are as broad as

possible in order to take account of a range of national police-recorded data that employs local definitions. Examples from reviewed police records include homicides that are linked to gangs called *pandillas* (Panama); ‘drugs’ or ‘gangs’ (Jamaica); *modalidad sicariato* (paid assassinations) and *relacionado con mara* (related to gangs, Honduras); ‘drug disputes’ (Dominican Republic); and ‘gang interaction’ (Korea). The intimate partner and family category includes homicides recorded in national statistics as ‘homicide perpetrated by husband, wife, mother, father, son, daughter, brother, sister, other family, boyfriend or girlfriend’ (United States), ‘domestic violence’ (Uganda), and ‘intimate or family’ (Japan). The robbery and theft category includes homicides recorded in national statistics as related to *robo* (Argentina), ‘robber’ (India), and ‘robbery offences’ (Germany).<sup>6</sup>

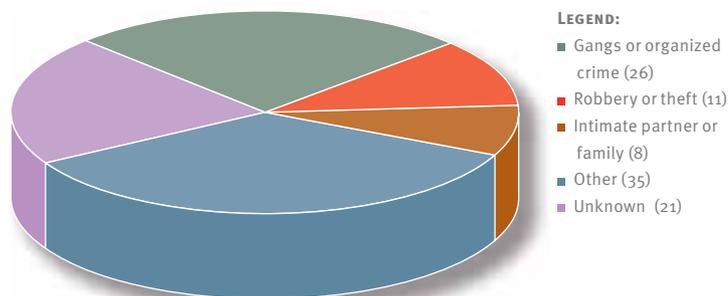
## Contextualizing homicide by region

Overall homicide rates vary significantly across geographic regions. The average national homicide rates range from 29.0 per 100,000 population in Central America and 27.4 in Southern Africa, to 3.3 per 100,000 population in Oceania and 1.1 in Western Europe (TRENDS AND PATTERNS). Analysis of the homicide context in countries with available data suggests that—in addition to overall homicide rates—both the *use of weapons* and the *situational context* of lethal violence also vary by geographic region.

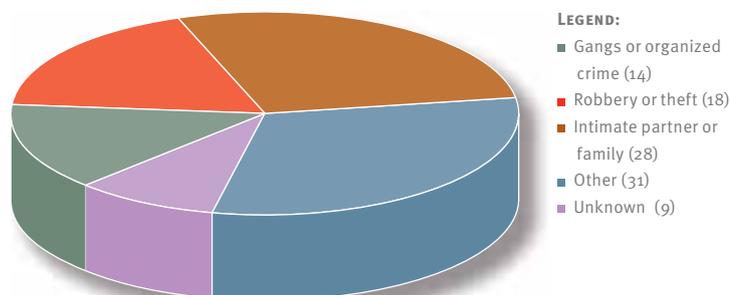
Figure 3.1 shows four categories of homicide context for 26 countries in the Americas, Asia, and Europe based on an analysis of UNODC homicide statistics (see online methodological annex; UNODC, n.d.a.). In addition to the categories of *organized crime and gang-related homicides*,

**FIGURE 3.1** Homicide context by geographic region

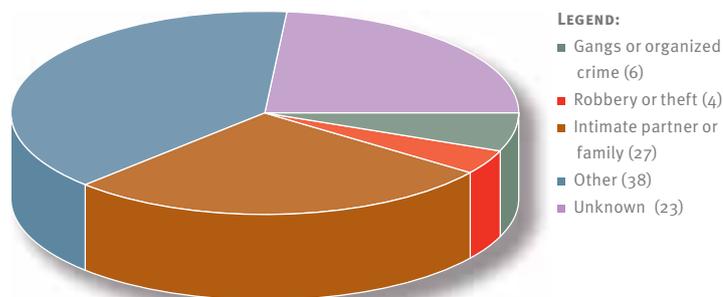
### 11 countries in the Americas



### 6 countries in Asia



### 9 countries in Europe



SOURCE: UNODC elaboration based on UNODC (n.d.a)

*robbery- and theft-related homicides*, and *intimate partner- and family-related homicides*, the ‘other’ category contains all homicides positively identified as *not* belonging to one of the above three categories. These may include homicides related

to fights, arguments, or sex offences. While results must be interpreted with caution due to the limited number of countries for which data is available, two patterns are particularly prominent: the high proportion of gang- or organized crime-related homicides in countries of the Americas (more than 25 per cent) and the high proportion

of intimate partner- or family-related homicides in Asia and Europe (around 30 per cent).

It is not currently possible to present an equivalent chart for countries in Africa. Even if better data existed, the exercise would still be particularly challenging. While homicide categories, such as ‘gang- and organized crime-related’, have relatively

### Box 3.1 Mob justice in Africa

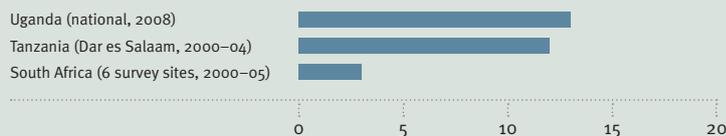
Power and security vacuums are not unusual in post-conflict settings. When they occur, vigilante groups and mob violence can replace formal state-led policing and justice:

Disillusionment with the governing authority’s ability to thwart these crimes may result in the population relying on parallel power structures such as militias, which may be seen as able to protect people from the effects of serious crimes (Rausch, 2006, p. 7).

In post-conflict Liberia, for example, violence related to community and informal justice and policing continue to be reported: ‘Communal and mob violence continue, often emanating from tensions between ethnic groups and communities over land disputes’ (UNSC, 2009). The incidents of vigilante attacks and mob justice—though rare—reveal a lethal potential whose effects can be destabilizing, especially in the absence of strong law enforcement institutions (Small Arms Survey, 2011).

In the aftermath of presidential elections in Kenya in December 2007, for example, violence flared between rival factions of the country’s main ethnic groups—the Kikuyu, Luos, and Kalenjin. In addition to large-scale rioting and clashes between protestors and the police, the post-election period saw a significant rise in ‘mob’ or ‘vigilante’ killings, as long-held tensions over land, the economy, and political power spilled into lethal violence. An estimated 1,100 people were killed and some 350,000 displaced in violence following the election (CIPEV, 2008, pp. 272, 308). ▶▶

**FIGURE 3.2** Vigilante/mob killings as a percentage of homicides in three African countries



SOURCES: Uganda Police (2008); Ng’walali and Kitinya (2006); CSVR (2008)



consistent meanings across the Americas, Asia, and Europe, the nexus between gangs, armed groups, insurgents, rebels, bandits, local warlords, and organized criminal groups is especially complex in the African region (Small Arms Survey, 2010, p. 142ff.). In post-conflict environments in Africa, homicides may take place in contexts as

diverse as politicized inter-communal clashes, individual retribution, criminal looting, and mob violence.<sup>7</sup> This situational complexity, which is often combined with weak rule of law and limited criminal justice capacity for data recording, makes analysis in this area highly demanding.<sup>8</sup> Box 3.1 considers one type of homicide common to a



According to the Commission of Inquiry into the Post Election Violence:

[internally displaces persons] in most camps organised themselves into representative committees to access services, security and other matters. Young men were mobilised in what is commonly referred to as vigilante groups to provide security within the camps (CIPEV, 2008, p. 278).

The issue of vigilante killings and mob justice has received attention at the international level in recent years, not least due to the concern of the *United Nations Special Rapporteur on extrajudicial, summary, or arbitrary executions* (UN, 2009b). Nonetheless, data on the proportion of homicides that relate to vigilante or mob actions in African countries is limited.

Figure 3.2 shows estimates for three African countries: South Africa, Tanzania, and Uganda. For South Africa, an examination of police records at six survey sites finds that vigilante justice and revenge killings together add up to around 7 per cent of all recorded homicides; vigilante actions alone can be positively attributed to around 3 per cent of the homicide dockets (CSV, 2008). Research based on hospital records in Dar es Salaam, Tanzania, reveals a higher rate of mob action killings, estimated at around 12 per cent of suspicious deaths during the period 2000 to 2004. Stoning and burning were reported as the most common methods of execution (Ng'walali and Kitinya, 2006). Killings by 'mob action' are reported in the *Annual Police Reports* of Uganda, one of the few African countries to make such information publicly available. The 2008 report suggests that the number of killings from mob action increased 'from 184 cases in 2007, to 368 cases in 2008' (Uganda Police, 2008, p.12).

**PHOTO** ◀ A young boy walks past the wreckage of burnt-out shacks, following xenophobic attacks in Reiger Park, Johannesburg, May 2008.

© Rodger Bosch/AFP Photo

number of post-conflict or transitioning African countries, that of vigilante killings or ‘mob justice’.

It should be noted that a high *proportion* of a particular type of homicide in Figure 3.1 does not necessarily correspond to a high *rate* of that type of homicide. While countries in Asia and Europe show a comparatively high proportion of intimate partner- and family-related homicides (around 30 per cent), for example, *overall* homicide rates in Asia and Europe are significantly lower than in the Americas. This difference results in correspondingly lower intimate partner and family-related homicide rates for Asia and Europe than for the Americas.

Nonetheless, the significant proportion of intimate partner- and family-related homicides in many countries in Asia and Europe does highlight the importance of this homicide context as a focus for violence reduction initiatives in these regions. These types of killings are more likely to be

unplanned and often represent spontaneous and emotion-laden acts (Gillies, 1976). While men are generally more likely to be victims of homicide than women, women are generally more likely to be killed by someone they know.<sup>9</sup>

Yet patterns of intimate partner and family-related homicides, particularly in Asian countries, are complex. Underlying reasons for lethal violence are heavily influenced by local traditions, family and social structures, and levels of education. On the one hand, patriarchal societies in Asian countries can present a particular risk factor for lethal violence against women who are considered property and whose subjugation is a symbol of male power and status (UNFPA, 2003). On the other hand, some observers argue that the Asian emphasis on a collectivistic culture, with a high degree of interdependence among partners and within the family, makes lethal violence less likely to involve an offender and victim with close ties (Salfati and Park, 2007; WHEN THE VICTIM IS A WOMAN).



**PHOTO** ► A man involved in an attempted robbery is transported to hospital following an exchange of gunfire with police, Karachi, June 2010.  
© Athar Hussain/Reuters

In contrast to countries in Europe and Asia, the proportion of intimate partner and family homicides in countries in the Americas is comparatively low (just under 10 per cent). As with countries with lower levels of human development, this rate is probably not indicative of a low rate of intimate partner or family homicides per se, but rather the result of a high number of homicides falling in other categories—in particular, gang- and organized crime-related homicide.

Killings related to gangs and organized crime can take many forms in the Americas. Gangs in the United States, for example, range from loose associations often based along ethnic ties to more clearly structured groups that focus on profitable property crime (Covey, 2010). While drug use and violence are commonplace among many gangs, such phenomena are not necessarily central to all gangs. Although US street gangs have long been involved in the distribution and sale of illegal drugs, for example, evidence on the extent to which gang-motivated homicides are related to drugs can be contradictory (Block and Block, 1993).

From 1998 to 2009, gang-related homicides in the United States stayed reasonably constant and low at the national level (around 5.5 per cent of total homicides).<sup>10</sup> At the level of individual cities and neighbourhoods, however, gang-related homicides represent a far greater proportion of violent deaths (Small Arms Survey, 2010, p. 134). Killings linked to Mexican drug cartels have tended to be similarly localized, with the majority of violent deaths seen in provinces and cities that are strategic for the drug trade (see Box 1.3, A UNIFIED APPROACH).

Other countries in the Americas, particularly Central and South America, are well-known

homes to gangs and gang violence. *Pandillas*, found primarily in Nicaragua and Costa Rica, and *maras*, present mostly in El Salvador, Guatemala, and Honduras, are two distinct types of gangs, originating in Central American neighbourhoods and formed around deportees from the United States, respectively (Jütersonke, Muggah, and Rodgers, 2009). Estimates of the degree to which such groups are responsible for violent deaths in these countries vary considerably, however (UNODC, 2007).

Cross-national comparison is further complicated by different definitions and methods of identifying gang involvement in police statistics. Of the countries in the Americas represented in Figure 3.1, for example, statistics from Panama record 19 per cent of intentional homicides as related to *pandillas*, although it is unclear whether this term refers to a particular gang genus or general gang activity (Panama, 2007). Available statistics from Honduras report homicides separately as *relacionado con mara* (under 1 per cent of total homicides) and *modalidad sicariato* (36 per cent of total homicides), implying the involvement of hired assassins (Honduras, 2008).

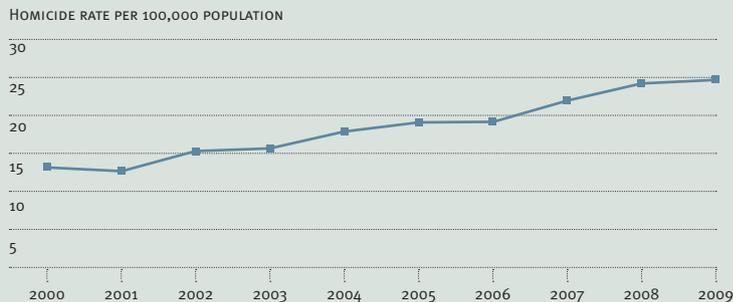
The basis on which such distinctions are made is unclear, particularly when gangs resort to such modes of killing in turf conflicts with other groups. Overall, the countries for which data is available and therefore included in Figure 3.1 are drawn largely from North America, Central America, and the Caribbean. Box 3.2 highlights that gang-related homicides in Jamaica and Trinidad and Tobago have significantly increased in the last ten years. It should be noted that the overall percentage of gang- and organized crime-related homicides may be affected by further inclusion of countries from South America, in particular.

### Box 3.2 The homicide context and responses in the Caribbean

Overall, intentional homicide rates in the Caribbean have increased dramatically in recent years. Figure 3.3 shows a significant increase of intentional homicide rates for 12 countries in the Caribbean in the ten-year period from 2000 to 2009. In 2009, the average national rate stood at 24.7, which is more than double the rate of 13.2 in 2000.<sup>11</sup> Evidence from at least two Caribbean countries—Jamaica and Trinidad and Tobago—suggests that this increase is largely due to an increase in gang-related killings. In order to better understand what is driving these trends, it is essential to understand the dynamics of gangs themselves (Townsend, 2009).

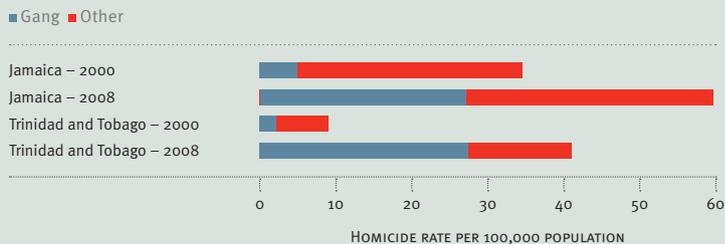
In Jamaica a distinction can be made between ‘corner crews’ (or simply ‘crews’) that hang out on street corners they consider their turf, area ‘dons’ who serve as role models for younger gang members, and highly active criminal gangs (Leslie, 2010). These groups have different levels of involvement in crime, ranging from petty offences to car-jacking, marijuana or cocaine trafficking, and, in some cases, white-collar crime. Crews often have violent conflicts with rival crews, leading to revenge murders and fuelling persistent violence (Covey, 2010). Community responses to gangs in Jamaica are comparatively tolerant, due perhaps to the fact that many gangs represent a source of income from drug activities for low-income families. ▶▶

**FIGURE 3.3** Homicide rate in 12 Caribbean states, 2000–09



SOURCE: GBAV 2011 database

**FIGURE 3.4** Homicide context in Jamaica and Trinidad and Tobago, 2000 and 2008



SOURCE: UNODC elaboration based on UNODC (n.d.a)





**PHOTO** A cemetery employee walks away from caskets for victims of clashes between Jamaican security forces and supporters of an alleged drug lord.  
© Hans Deryk/Reuters

Figure 3.4 shows an increase in the overall homicide rate in Jamaica from just over 30 in 2000 to almost 60 per 100,000 population in 2008. Similarly, the rate in Trinidad and Tobago increased from less than 10 in 2000 to more than 40 per 100,000 in 2008.<sup>12</sup> Strikingly, the proportion of gang- or organized crime-related killings increased from 14 per cent to 45 per cent in Jamaica and 24 per cent to 69 per cent in Trinidad and Tobago in 2008. In both countries, this rise accounts for almost all of the increase in overall homicide. The pattern of homicides is tightly linked to the use of firearms. Guns were used in approximately 80 per cent of homicides in both Jamaica and Trinidad and Tobago in 2008 (UNODC, n.d.a). This triple combination of high overall levels of homicide, a high proportion of firearm homicides, and a high degree of gang- or organized crime-related homicides presents a significant challenge to an effective state response.

Figure 3.5 shows that, as homicide rates have relentlessly risen in Jamaica since the 1970s, the police 'clearance rate' for reported homicides has gradually fallen, from more than 80 per cent of cases in 1970 to around 40 per cent in 2005. The drop in the clearance rate may be partly due to an increasing proportion of cases that are difficult to solve. Detailed police statistics reveal the challenges in solving drug or gang-related homicides. In 2008:

- No drug-related homicides were reported as cleared up by the Jamaican police.

- Just under 20 per cent of gang-related homicides were reported as cleared up.
- Almost 60 per cent of domestic-related homicides and just over 50 per cent of homicides related to another criminal act were reported as cleared up.
- Clearance rates for firearm homicides were just 30 per cent, compared with more than 40 per cent for homicides committed using any other weapon (JCF, 2010).

Limited police resources may still be a restraining factor in homicide case clearance. Figure 3.5 shows that, in years when homicide rates dropped, clearance rates rose. This suggests either a brief respite for overwhelmed law enforcement officials and/or a drop in harder-to-solve, gang-related homicide cases in those years.

The crime and security situation in Jamaica and, increasingly, in other Caribbean countries threatens to reach endemic proportions. A recent national victimization survey in Jamaica found that more than 7 per cent of all respondents had a relative or close friend who had been murdered in the past year, and almost 33 per cent reported having witnessed the murder of a relative or close friend in their lifetime (Wortley, 2009, p. 24). Analysis of the homicide context and responses indicates that armed violence reduction must begin with addressing the issues of gang membership and impunity from justice for members of criminal groups who engage in violence.

**FIGURE 3.5** Homicide rate and case clearance in Jamaica, 1970–2005

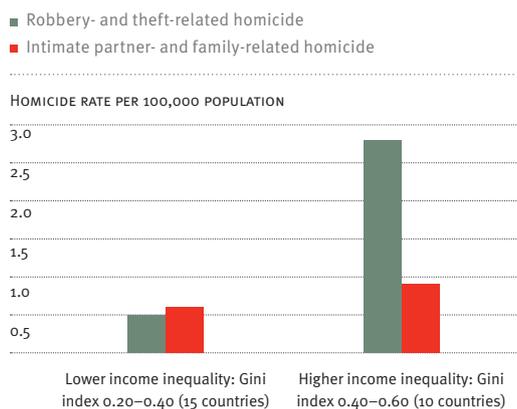


SOURCE: UNODC elaboration based on JCF (n.d.)

In addition to regional variations in homicide context, patterns of difference also emerge when countries are clustered by degree of income inequality. Figure 3.6 shows average rates of intimate partner and family homicide and average rates of robbery- and theft-related homicide for 15 countries with lower income inequality (Gini index 0.20–0.40) and ten countries with higher income inequality (Gini index 0.40–0.60).<sup>13</sup> Increasing income inequality appears to have a greater impact on the use of lethal force in property crime, such as robbery or theft, than in violence against intimate partners or family members.

It has been recognized for some time that countries with higher income inequality tend to have more homicides (Fajnzylber, Lederman, and Loayza, 2002); the finding in Figure 3.6 provides nuance in that it suggests (albeit on the basis of a limited group of countries) that such increases in homicide may not be uniform across homicide context. Rather, differences in income, social inequality, and tension may heighten motivations to use violence, particularly once a criminal

**FIGURE 3.6** Homicide context and income inequality, 2010 or latest available year



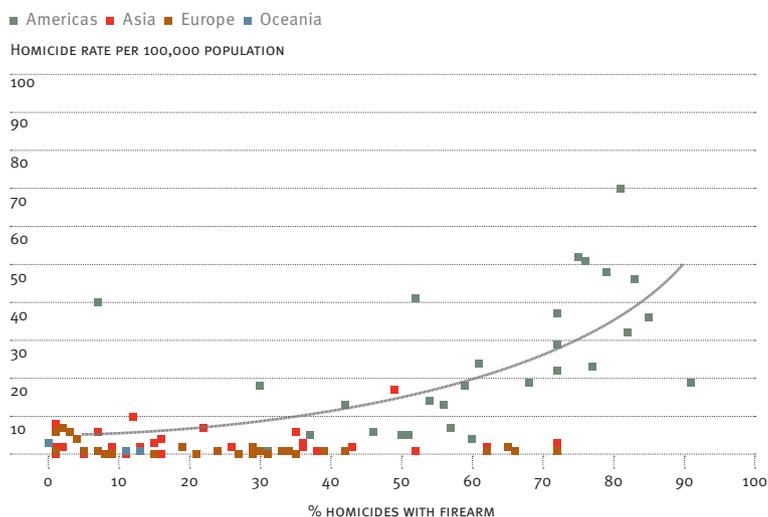
SOURCE: UNODC calculations

endeavour (such as robbery or theft) has already been embarked upon. Chapter Five analyses the findings of a statistical assessment of the relationships between homicidal violence and development indicators (MORE VIOLENCE, LESS DEVELOPMENT).

## Homicide context and firearm use

Figure 3.7 shows the impact of the *instruments* of armed violence on homicide rates. Data from 104 countries, organized by region, demonstrates the relationship between the overall homicide rate per 100,000 population and the proportion of those homicides committed by firearm as recorded by national police. Countries with homicide rates that exceed 20 per 100,000 population do not necessarily have a high proportion of firearm homicides. A case in point is South Africa, which had a homicide rate of around 34 per 100,000

**FIGURE 3.7** Homicide rate and proportion of homicides committed with firearms, 2009 or latest available year



SOURCE: UNODC elaboration based on UNODC (n.d.a.)

population in 2009, although less than 50 per cent of those homicides were carried out by firearm.<sup>14</sup> Of the countries where more than 70 per cent of homicides are carried out by firearm, however, some four-fifths have homicide rates of 20 or higher (UNODC, n.d.a).

Regionally, countries in the Americas tend to show both significantly higher homicide rates and higher proportions of homicides committed with firearms than countries in Asia, Europe, or Oceania. For example, the nine Caribbean countries included in their analysis show an average homicide rate of around 25 per 100,000 population, with an average of 60 per cent of homicides committed by firearm. Ten countries in South America show an average homicide rate of around 18 per 100,000 population, with 60 per cent of homicides committed by firearm. These figures stand in stark contrast to the average rates of below 5 per 100,000 population for certain countries in Asia and Europe, where 22 per cent and 24 per cent of homicides are committed by firearm, respectively. As discussed below, this discrepancy may be linked to the higher proportion of gang- or organized crime-related homicides in a number of countries in the Americas region, particularly in Central America. Figure 3.7 does not include information from African countries, for which there is insufficient data.

Available data on civilian firearm ownership—part of the ‘instruments’ element of the armed violence lens—shows no obvious relationship with overall homicide rates. It is thus not possible to assess the impact of given numbers of civilian firearms on the pattern shown in Figure 3.7.

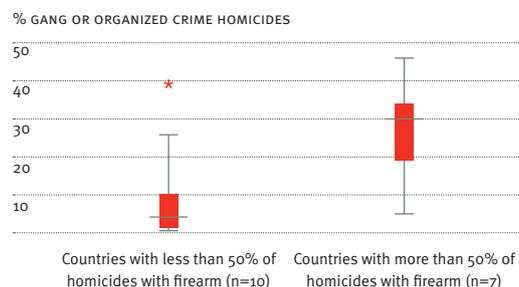
Nonetheless, the presence of guns clearly represents an increased risk of lethality of violent encounters. A number of researchers have demonstrated that weapons in the home constitute more of a health risk than a benefit.<sup>15</sup> On the one

hand, gun usage in homicide is probably linked to the comprehensiveness and application of regulations (regarding purchase, carrying, licensing, weapon type, and access to ammunition). On the other, it is also potentially connected to the relative presence of gang and organized crime structures that are more likely to misuse weapons than the general population. Indeed, Figure 3.8 demonstrates the close links between the proportion of homicides committed by firearm and the proportion of homicides attributable to gangs or organized crime activity for 2009 or the latest available year for 17 countries in the Americas, Asia, and Europe.

Despite the lack of reliable, comparable, cross-national data on the sub-types of gang or organized crime groups responsible for lethal violence in the Americas, the ubiquitous involvement of firearms in such killings is well established. Figure 3.8 shows medians and quartiles for the proportion of gang or organized crime homicides in ten countries with less than 50 per cent of homicides committed with firearms and seven countries with more than 50 per cent of homicides committed with firearms. It demonstrates that in the former

**FIGURE 3.8** Proportion of gang- or organized crime-related homicides and firearm use

**LEGEND:** the outlier (star), the median (horizontal bar), and the upper and lower quartiles (top and bottom of each bar)



**SOURCE:** UNODC calculations

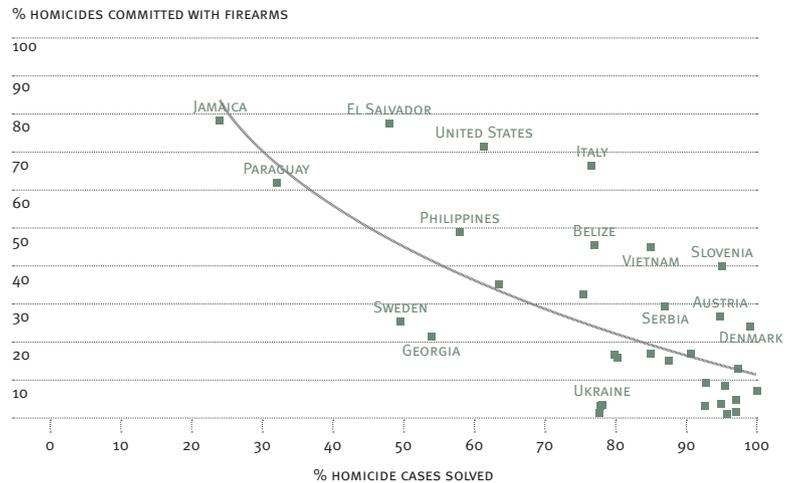
group of countries, the average proportion of gang- or organized crime-related homicides is comparatively low (with a median of 4 per cent and half the group under 10 per cent). In contrast, in the countries where more than half of all homicides are committed by firearm, the average proportion of gang- or organized crime-related homicides tends to be higher (a median of 30 per cent, with half the group at more than 20 per cent).

Guns are increasingly the weapon of choice of gangs and groups engaged in organized crime. The extent to which gangs and criminal groups possess (individually or collectively) firearms, however, appears to vary significantly according to general weapon availability in civilian society and the ease of firearm smuggling. Estimates based primarily on survey data from the United States, England, and Wales suggest that gang gun ownership could be around four times the rate of normal civilian ownership in any given country. Gang members may have a history of owning guns prior to joining a gang, may purchase guns legally or through an intermediary, or may share or steal weapons (Small Arms Survey, 2010, p. 115).

## Homicide context and the law enforcement response

Not only does the use of small arms in homicide appear linked with overall levels of homicide and the role of gangs or organized criminal groups, but it is also a major factor in the 'solvability' of homicide cases. Viewed through the armed violence lens, this link highlights the interconnected nature of the institutional context (including the law enforcement and criminal justice system), the instruments of violence, and the agents of violence in combining to restrain or enable violent events. Figure 3.9 shows the percentage of

**FIGURE 3.9** Proportion of homicides committed with firearms and cases solved



SOURCE: UNODC elaboration based on CTS-10 data (UNODC, n.d.c)

homicides committed with firearms against the percentage of homicide cases solved for 33 countries for which data is available for 2006 or the closest available year.<sup>16</sup>

The set of countries for which data is available is very limited, and data reported by countries concerning 'cases solved' may have different meanings. Caution should thus be exercised in the interpretation of results. Nonetheless, it is possible to assert that as the percentage of homicides committed with firearms increases, the police solve a lower proportion of homicides. Countries with a high proportion of homicides carried out with firearms include those in the Americas in which gang-related homicides are particularly prevalent, such as El Salvador and Jamaica.

In addition to the issues surrounding clearance of gang-related homicides (such as the reluctance of some witnesses to come forward due to fear of reprisals), homicide cases involving a firearm are

less likely to be solved than those involving a knife or other forms of physical contact between the victim and the offender. Many countries have limited forensics capacity for detailed ballistics analysis, and the lack of close contact between the victim and the offender means that few types of physical evidence (such as the offender's hair, blood, or fingerprints) are left behind (Addington, 2006; Riedel, 2008).

A study on the decline in the percentage of homicide cases solved in the United States from more than 90 per cent in 1960 to 61 per cent in 2006 finds that homicides involving weapons other than firearms were related to higher clearance rates:

The reason that weapons other than firearms are cleared more quickly is that forensic evidence is [. . .] not available with firearms, especially handguns that kill at a distance and are widely available (Riedel, 2008, p. 1157).

Furthermore, a number of countries at the top left of Figure 3.8 (high percentage of firearms, low clearance) also have higher overall homicide rates, while countries towards the bottom right (low percentage of firearms, high clearance) tend to be those with lower overall homicide rates. For example, Jamaica had a homicide rate of 58 per 100,000 in an average year between 2004 and 2009, with 75–80 per cent of homicides committed using a firearm and typically less than 40 per cent of homicides 'cleared up' by police.<sup>17</sup> This may indicate a connection, in some contexts, between *high rates of homicide, use of firearms, low police performance*, and, potentially, *limited police resources*. Countries that report low rates of solved cases also show comparatively low *numbers of police per recorded homicide*. In particular, Jamaica and El Salvador (two of the countries whose homicide rates are among the highest in the world) have less than ten police

officers per recorded homicide. In contrast, countries with higher rates of solved cases have between 50 and 500 police officers per recorded homicide.<sup>18</sup>

There is not enough data to ascertain whether this pattern holds true for other countries with high homicide rates. Nonetheless, at least in some countries, it may be the case that law enforcement officers are unable to devote sufficient resources to individual case investigation and clearance when faced with especially high levels of lethal violence. Looking through the armed violence lens, however, does not help to determine the direction of cause and effect. Law enforcement institutions, for example, may lack the requisite resources to fully investigate a large number of homicides, which leads, in turn, to a culture of impunity, little deterrent effect, and further increases in levels of armed violence. Whether impunity from law enforcement drives high levels of armed violence or vice versa remains an open question. However the problem is viewed, it is clear that strengthening the effectiveness of the criminal justice system represents a key entry point for armed violence reduction and an essential component for violence prevention.

## Homicide and criminal justice system performance

A criminal justice system may take many forms, both in terms of both its structural organization and its aims. It may choose a strong deterrent approach through the extensive use of punitive sanctions, such as imprisonment. It may alternatively (and usually for crimes less serious than homicide) seek restorative outcomes through resolution between the victim and perpetrator. The law enforcement component of the system



may be oriented towards the solving of reported crime and the arrest of offenders. On the other hand, it may focus on a strong crime prevention and community policing element. The system itself may even be semi-formal and largely independent of central state control, as in the case of informal justice systems mediated by tribal or village elders whose decisions are recognized and enforceable by state courts.

Whatever the nature of the system, as shown below, respect for the rule of law—including in the operation of the criminal justice system—is broadly linked with lower levels of intentional homicide. The chapter also suggests that, where

impunity for serious crime exists, this may contribute (in some contexts) to a spiral of violence in which homicide rates increase significantly over time. Such analysis highlights an urgent need to increase understanding of the effectiveness of the criminal justice system, at both the national and cross-national levels.

Methods for measuring the criminal justice system's effectiveness in preventing and responding to crimes involving armed violence are highly varied. Common approaches include the examination of:

- criminal justice system *resources* (both human and financial);

**PHOTO** ▲ A homicide suspect stands trial in Malaga, Spain, October 2005. © Rafael Marchante/Reuters

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- system *workload* (such as the number of officials per recorded case);
- *case progress* (such as ‘case solved’ rates or the likelihood that a suspected offender will be convicted of an offence, known as case ‘attrition’);
- the *impact* of justice on the individual offender (such as recidivism rates); and
- the *quality* of justice (including the extent to which the system is perceived to lead to ‘wrongful’ convictions).<sup>19</sup>

This chapter has already briefly considered possible connections between police resources and case solved rates. It now focuses on measures of the likelihood that an offender will be brought to justice. A common approach to this issue for crime involving armed violence is the use of case ‘attrition’ rates.

Criminal justice system case attrition rates can be measured in a number of ways. The exact name given to the measure often depends upon the reference points within the system from which it is derived. A ‘conviction rate’, for example, may use different starting points (such as persons

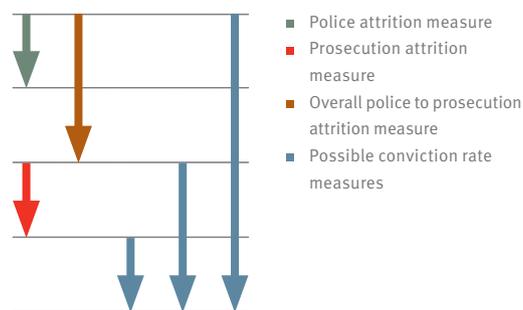
brought before the criminal courts, persons prosecuted, or persons arrested) but always uses the end point of conviction by a competent court or tribunal. In contrast, an ‘attrition rate’ usually describes the ‘exit’ of persons from the criminal justice system at various stages, whether at the police, prosecution, or court levels. Attrition rates may be calculated separately for different stages of the system or for the system as a whole, usually with reference to the number of persons brought into initial formal contact with the police.<sup>20</sup> Figure 3.10 depicts the different stages of the criminal justice system and possible attrition measures.

Such measures can provide quantitative information about the progress of cases through the criminal justice system and reveal areas where system performance—and the resulting deterrent effect—could be improved. A significant drop in case load from police to prosecution, for example, may indicate difficulties in obtaining sufficient evidence to link suspects to offences in order to proceed to court trial.

At the international level, the collection and interpretation of such data is extremely challenging.

**FIGURE 3.10** Possible criminal justice system attrition measures

System stage	Persons
Police	Persons brought into initial formal contact
Police/prosecution	Persons formally charged
Prosecution	Persons prosecuted
Courts	Persons brought before the criminal courts
Courts	Persons convicted at first instance



One approach is the calculation of an approximate attrition measure from total suspect data at different stages of the criminal justice process. A comparison can be made, for example, between the number of homicide offences recorded by the police in one year against the number of persons arrested for homicide, the number of persons prosecuted, and the number of persons convicted that year.

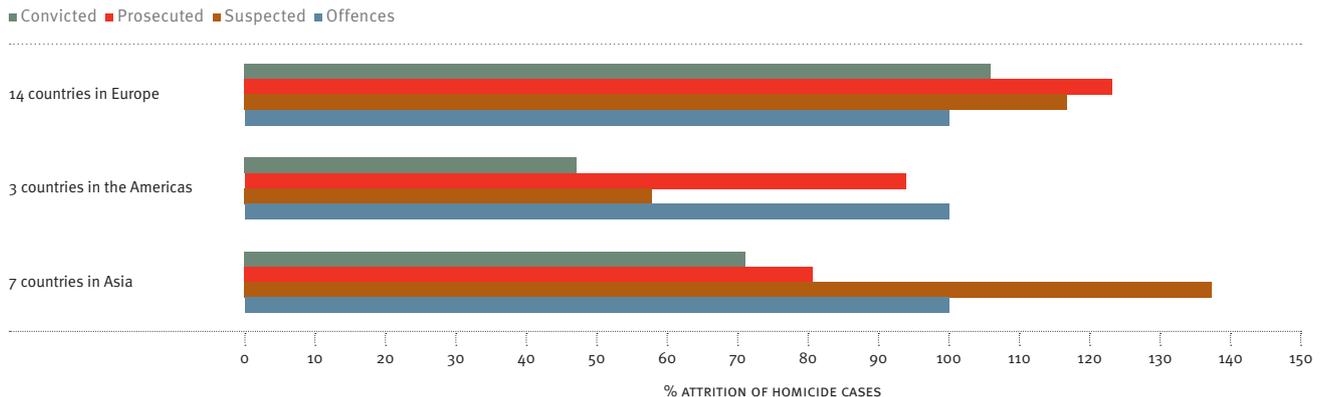
Such measures are likely to be imprecise, since the compared data does not represent the same 'cohort' of cases; instead, it is affected by cases carried over from one year to the next, with potentially significant consequences. Data from India, for example, suggests that, for criminal trials ending in 2007, more than 80 per cent of cases took more than one year, with more than 50 per cent of cases taking more than three years.<sup>21</sup> This effect can be accounted for, to some extent, by averaging of measurements over time.

Figure 3.11 presents available data reported to the *United Nations Survey of Crime Trends and Operations of Criminal Justice Systems* for the crime of intentional homicide in 24 countries, averaged for a (minimum) two-year period between

2003 and 2009, presented by region.<sup>22</sup> In the figure, the number of annual recorded homicide offences is set to '100 per cent'. The number of *persons suspected* of homicide is presented as a percentage of the number of *offences*. Numbers of persons *prosecuted* and *convicted* are then presented as a percentage of the number of persons initially entering the system as suspects.

Due to high variance in the data, the averaging of case attrition across countries may create results that do not reflect typical case attrition patterns in practice. Recording practices may vary between institutions, including the 'carrying over of cases' from previous years or counting of files that have been open for a number of years. Nonetheless, as a methodological exercise, Figure 3.11 reveals some features that may indeed be indicative of criminal justice system performance in different regions. Countries in Europe and Asia show, on average, more homicide suspects than homicide offences. In the three countries in the Americas for which data is available, however, the average number of homicide suspects is less than two-thirds that of the number of recorded offences. This fits with the pattern of higher fire-

**FIGURE 3.11** Attrition of homicide cases in cross-national perspective



SOURCE: UNODC elaboration based on CTS-11 and CTS-12 data (UNODC, n.d.c)

arm homicides and resultant lower case clearance rates in some countries in the Americas.

At first glance, countries in Europe and the Americas show—paradoxically—more persons ‘prosecuted’ for intentional homicide than persons ‘suspected’. This may be due to the inclusion of countries, particularly in Eastern Europe and Latin America, with legal and criminal justice systems that allow cases to be initiated at the prosecution level or in which serious charges, such as homicide, are only assigned at the prosecution stage, following investigation by the prosecution service. Finally, data from countries in the Americas shows particularly low numbers of persons convicted for homicide compared to persons suspected and prosecuted. This may be due to the use of different definitions at the prosecution and court levels or different counting rules. Nonetheless, the pattern is striking and may hint at limited criminal justice system capacity and resultant minimal deterrent effect.

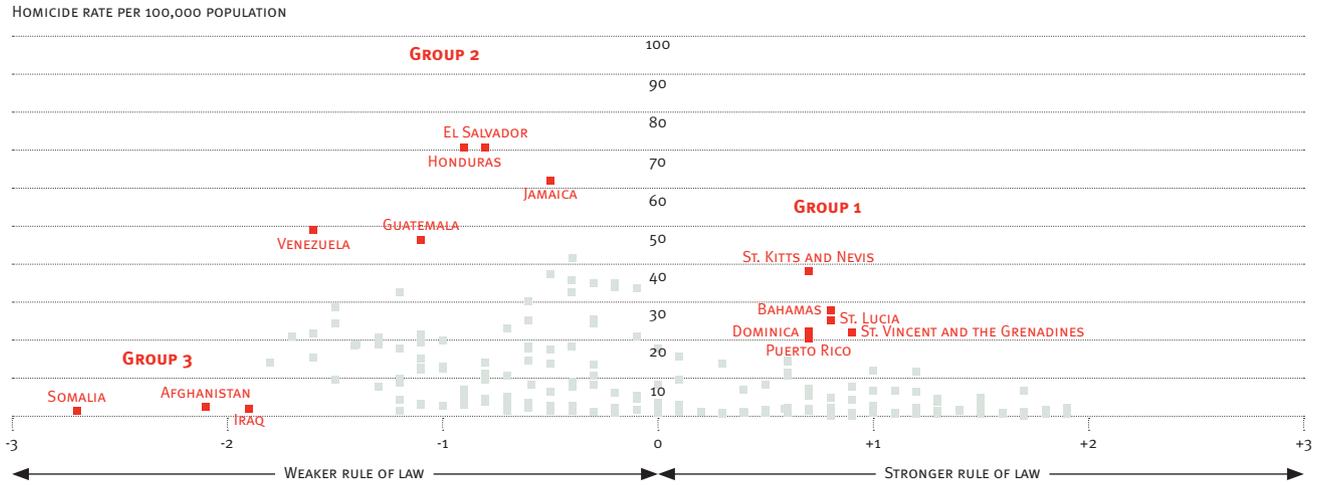
*High* case attrition in the form of low conviction rates should not automatically be associated with *poor* criminal justice system performance, however. Experts argue that there is a spectrum of criminal justice system approaches. At one end is a large law enforcement–punishment apparatus designed for public order maintenance, with high rates of arrest, prosecution, conviction, and incarceration. At the other end is a system commonly found in liberal democracies, which emphasizes the protection of human and due process rights, invests more heavily in the judiciary, and accepts a higher rate of case acquittals as a price for overall legally defensible convictions (Sung, 2006).

Thus, while a criminal justice system can be efficient at convicting persons for criminal offences, it is not necessarily effective in preventing crime

in the first place, nor in correctly identifying perpetrators or in reforming and successfully reintegrating convicted criminals into society. Indeed, the core aim of the criminal justice system should be to uphold the rule of (criminal) law.

This means that acts of armed violence must be carefully defined and prohibited by clear criminal law. Such laws must be publicly promulgated, equally and fairly enforced, and independently adjudicated. The criminal justice system must itself be accountable to procedural law, must demonstrate equality of persons before the law, show fairness in application of the criminal law, ensure procedural transparency, avoid arbitrariness, and—importantly—operate in a manner consistent with international human rights standards and norms (UN, 2010). Indeed, case attrition and conviction rates contain no information about the quality of justice. In that context, the United Nations Human Rights Committee has expressed concern, for example, about ‘extremely high conviction rate[s] based primarily on confessions’ (UN, 2008, para. 19). In one survey of US law enforcement and criminal justice system professionals, respondents said that wrongful felony convictions occurred in 1–3 per cent of all felony cases (Ramsey and Frank, 2007).

One element that is inherent to the rule of law is the *quality* of justice, including the idea that all persons are ‘accountable to laws that are publicly promulgated, equally enforced and independently adjudicated’ (UN, 2004). Thus, while the rule of law demands strong state institutions endowed with clear legal powers, it also requires that institutions act *fairly* and in a manner consistent with international standards. The presence of weak state law enforcement and criminal justice institutions may create space for violent crime to prosper (UN, 2009a). Conversely, where institutions are

**FIGURE 3.12** Rule of law and overall intentional homicide rates, 2009 or latest available year

SOURCE: UNODC elaboration based on CTS-10 data (UNODC, n.d.c)

basically strong but do not respect principles of the rule of law, they risk generating animosity and loss of public trust. This, in turn, can help fuel violent crime. Persons killed in confrontations with civil and military police in Rio de Janeiro in 2009, for example, accounted for a death rate higher than the overall homicide rate in most Western European countries (FBSP, 2010, p. 32).

The broad links between weak rule of law and intentional homicide are shown in Figure 3.12, which plots rule of law, as measured by the World Bank Rule of Law Index, against overall intentional homicide rates (2009 or latest available year).<sup>23</sup> Stronger rule of law is expressed with positive numbers to the right on the x-axis; weaker rule of law is assigned negative numbers to the left. The figure demonstrates that higher homicide rates are broadly linked with poorer rule of law.

Figure 3.12 identifies three groups of countries that are noticeable outliers. In particular, Caribbean countries—including St. Kitts and Nevis,

the Bahamas, St. Lucia, St. Vincent and the Grenadines, Dominica, and Puerto Rico (Group 1 in Figure 3.12)—show higher rates of intentional homicide than may be expected from the comparatively solid levels of rule of law. It should be noted that homicide rates in this region can be somewhat unstable due to small country populations and the corresponding small absolute number of deaths involved. Nonetheless, this finding does suggest the presence of additional factors, such as gang conflict or the presence of drug trafficking, that contribute to acts of lethal armed violence, notwithstanding the potential preventive influence of (reasonably strong) government institutions.

Group 2 consists of countries with mid- to low-level rule of law but significantly higher rates of homicide than expected from the general curve (including El Salvador, Guatemala, Honduras, Jamaica, and Venezuela). These countries are not linked geographically but may represent examples of particular contexts in which

comparatively weak rule of law is combined with challenges, such as a past history of conflict, gang or organized crime activity, or high income inequality. The presence of such underlying drivers of violence with the absence of an effective deterrence system appears to be responsible for the especially high homicide levels in these countries.

Finally, countries in Group 3 (Afghanistan, Iraq, and Somalia) show much lower levels of homicide than expected from very weak rule of law institutions. This is probably due to limited institutional recording of violent deaths and particular difficulties in distinguishing between conflict- and non-conflict-related deaths. None of the three countries provide any homicide statistics; the estimates on homicide rates are all based on estimates of deaths caused by interpersonal violence provided by the World Health Organization (TRENDS AND PATTERNS). These estimates of deaths caused by interpersonal violence are far lower than in many other countries (Afghanistan: 2.6, Iraq: 2.2, and Somalia: 1.5 per 100,000). One reason for the low levels is that the programme categorizes many of the deaths that occur in these conflict-affected countries as collective violence.

The complexities of unpacking the two-way relationship between violence and institutional responses suggests that information, such as statistics on the number of offenders suspected, prosecuted, or convicted, is unlikely to provide a complete picture of the probable impact of the law enforcement or criminal justice system. Rather, information is also required on factors such as the degree of public confidence in the system and the professionalism and integrity of criminal justice system professionals. Crime victimization surveys and specialized access-to-justice surveys are one way of obtaining such information. Figure 3.13 shows, for example, the extent to which victims reported experience of an assault with a weapon to police or to other authorities. The data is derived from the International Crime Victim Surveys conducted in urban areas in 74 countries between the years 1989 and 2005 (ICVS, n.d.).

In countries in East Africa, victims of assault with a weapon reported the crime to the police in just 31 per cent of cases. In 23 per cent of cases, the crime was reported to a different authority. This compares to only 12 per cent of victims reporting to other authorities and 48 per cent to the police in Western and Central Europe. Low levels of case reporting, particularly of serious crime types such as assault with a weapon, may be symptomatic of distrust or even of fear of law enforcement authorities. Where victims turn to authorities other than the police, the role of these authorities must be considered in the broader armed violence prevention context. In Europe, 'other authorities' could include private security guards, neighbourhood watch coordinators, or community support organizations. In many countries in Africa, traditional dispute resolution structures, such as clan elders or councils of elders, have historically functioned and still function as relevant

**FIGURE 3.13** Reporting of crime involving armed violence by victims, 1989–2005



SOURCE: UNODC calculations from ICVS (n.d.)

authorities capable of imposing penalties, such as payment of compensation.<sup>24</sup> Increasingly, though, private security sector organizations in a number of countries in Africa and the Americas have begun to adopt a law enforcement role, including coercive policing techniques (van der Spuy and Lever, 2010).

## Conclusion

Intentional homicide is increasingly recognized as an indicator that is critical to development and the attainment of the Millennium Development Goals. Heightened interest in the links between armed violence and development has resulted in the frequent publication of ‘headline’ homicide rates at the international level.<sup>25</sup> Chapter 2 of this report finds that an estimated 396,000 deaths from intentional homicide occurred in an average year between 2004 and 2009, with homicide rates highest in Middle and Southern Africa, Central and South America, and the Caribbean (TRENDS AND PATTERNS). At the regional and national levels, a proliferation of crime, security, and violence observatories have been effective in promoting homicide rates as a key policy tool for measuring and combating non-conflict armed violence.<sup>26</sup>

Cross-national comparison of homicide levels has increasingly been applied in development settings in recent years, including in the UN’s *Human Development Report 2007/8*, the *Economist’s* Global Peace Index, and the Ibrahim Index of African Governance. While such comparisons highlight the negative impact lethal violence can have on states and societies, they represent only a limited step towards an understanding of the underlying causes of homicide and of its situational context.

Available data suggests that—in contrast to the ‘single indicator’ approach of measuring ‘intentional homicide per 100,000 population’—events classified and recorded as intentional homicide actually correspond to a diverse range of actions and contexts. These may range from violent killings carried out by gangs or organized criminal groups, to unplanned crimes of passion committed against intimate partners or family members, to killings in the context of a secondary crime, such as robbery or theft. Each homicide context requires different action to prevent and reduce its occurrence.

Many governments affected by high levels of armed violence have started to establish comprehensive monitoring systems that have since become an important tool to better understand the scale and distribution of homicides and the complexities of armed violence in particular (MORE VIOLENCE, LESS DEVELOPMENT).

The ability of the international community, as well as national and local governments, to develop coherent national and regional policies for the reduction of non-conflict armed violence and to deliver technical support, where needed, is critically dependent upon a clear understanding of the context of lethal (and non-lethal) violence and on the existing capacity of a state to respond. Key steps towards the improvement of data in this area include the strengthening of law enforcement and criminal justice information systems for the purposes of timely and complete monitoring of cases encountered and responses delivered. 📌

## Endnotes

- 1 See Bijleveld and Smit (2006); Deker (1993); Killias (1993); Roberts (2009).
- 2 See, for example, FBI (2009).

- 3 See, for example, the annexe of the *Tenth United Nations Survey on Crime Trends and Operations of Criminal Justice Systems*, or CTS-10 data (UNODC, n.d.c).
- 4 See De Bondt and Vermeulen (2010).
- 5 The United Nations Convention against Transnational Organized Crime defines an 'organized criminal group' as 'a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit' (UNODC, 2004, art. 2(a)). A 'structured group' means 'a group that is not randomly formed for the immediate commission of an offence and that does not need to have formally defined roles for its members, continuity of its membership or a developed structure' (art. 2(c)).
- 6 Data sources used, including the GBAV 2011 dataset, are provided in the online methodological annexe to this chapter; see [www.genevadeclaration.org](http://www.genevadeclaration.org).
- 7 See, for example, Muggah and Krause (2009).
- 8 See Small Arms Survey (2009, ch. 7).
- 9 See, for example, Home Office (2010), FBI (2009), and Salfati and Park (2007).
- 10 This rate is the average percentage of homicides classified as 'gangland killings' or 'juvenile gang killings' (information on 'murder circumstances') among total homicides for the period 1998 to 2008, as reported by the Federal Bureau of Investigation in the *United States Uniform Crime Reports* (FBI, n.d.).
- 11 The countries included are: Antigua and Barbuda, the Bahamas, Bermuda, Cuba, Dominica, Dominican Republic, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago. (TRENDS AND PATTERNS).
- 12 This chapter treats Trinidad and Tobago separately, whereas Chapter Two lists it as part of the Lesser Antilles Region (TRENDS AND PATTERNS).
- 13 The Gini coefficient of inequality assigns values between 0 and 1 to each country, with 0 representing absolute equality and 1 representing absolute inequality.
- 14 See Minnaar (2008).
- 15 See Hemenway (2011).
- 16 The *Tenth United Nations Survey on Crime Trends and Operations of Criminal Justice Systems* defines a case as 'solved' according to the following criteria: '(i) The police are satisfied of a suspect's guilt because there is a corroborated confession and/or because of the weight of the evidence against him, or (ii) The offender was caught in the act (even if he denies all guilt), or (iii) The person who committed the offence has been identified (regardless of whether he is in custody, on provisional release, still at large, or dead), or (iv) Police investigations reveal that no penal offence was in fact committed' (UNODC, n.d.c).
- 17 See the crime review period 1 January 2008–31 December 2008 in JCF (2010).
- 18 UNODC calculations based on CTS data (UNODC, n.d.c).
- 19 Aromaa and Heiskanen (2008); Riedel (2008); Ramsey and Frank (2007); Smit, Meijer, and Groen (2004).
- 20 See, for example, Aromaa and Heiskanen (2008).
- 21 UNODC calculation based on NCRB (n.d.).
- 22 The *Eleventh and Twelfth United Nations Surveys of Crime Trends and Operations of Criminal Justice Systems* contain time series for the period 2003 to 2009. Recorded intentional homicide offences, persons suspected of intentional homicide, persons prosecuted for intentional homicide, and persons convicted of intentional homicide were averaged, by country and by two-year groups, across the time period. Only countries with a consistent two-year percentage change across the variables were included in the analysis (UNODC, n.d.c).
- 23 The World Bank Rule of Law Index consists of a composite measure of both representative and non-representative survey-based sources that attempt to capture perceptions and experience of concepts related to the rule of law (World Bank, n.d.). The index represents a general rule of law measure and not an assessment of the effectiveness of the criminal justice system alone. Some correlation between the Rule of Law Index and intentional homicide rates is to be expected, insofar as the index includes perceptions of crime and measures of victimization, giving rise to some degree of cross-linking between the two datasets.
- 24 See, for example, Kinyanjui (2009).
- 25 See, for example, Geneva Declaration Secretariat (2010).
- 26 At the regional level, see OIS (n.d.).

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