Report

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GLOBAL VIOLENT DEATHS 2017

Time to Decide

Claire Mc Evoy and Gergely Hideg

small arms survey

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HLPF	High-level Political Forum on Sustainable Development
IPV	Intimate partner violence
SDG	Sustainable Development Goal

Executive summary

In 2016, interpersonal and collective violence claimed the lives of 560,000 people around the world. About 385,000 of them were the victims of intentional homicides, 99,000 were casualties of war, and the rest died in unintentional homicides or due to legal interventions.

For the first time since 2004, the global homicide rate increased, growing from 5.11 to 5.15 per 100,000 population in 2015–16. That increase does not necessarily indicate a new trend, but it signals growing insecurity in non-conflict areas. At the same time, the global conflict death rate continued to decline, dropping from 1.61 per 100,000 population in 2015 to 1.32 in 2016. This decrease contributed to a reduction in the overall violent death rate, which fell from 7.73 to 7.50 per 100,000 population over the same period. As the uptick in homicides affects far more people's perceptions of local security than does the drop in conflict deaths, however, the overall decrease in violent deaths is unlikely to lead to an increased sense of safety at the global scale.

Of the five countries with the highest violent death rates in 2016—Syria, El Salvador, Venezuela, Honduras, and Afghanistan—only two had active armed conflicts. Nigeria, Syria, and Yemen accounted for nearly two-thirds of the global decrease in direct conflict deaths in 2015–16; in contrast, Somalia witnessed 36 per cent more war fatalities, the highest such increase.

More than 1 million lives could be saved by 2030. If current trends continue, the annual number of violent deaths is likely to increase to approximately 610,000 by 2030, primarily due to population growth. Yet if states were able to replicate the results of the countries that have been most successful at preventing and controlling violence in their respective world regions, that number could drop to about 408,000—meaning that about 1.35 million lives could be saved between 2017 and 2030. Nearly half a million of those lives could be saved in Latin America and the Caribbean.

Within the framework of the 2030 Agenda for Sustainable Development, states have an unprecedented opportunity to significantly reduce 'all forms of violence and related death rates everywhere'. The extent to which they implement the Agenda will largely determine how many lives can be saved between now and 2030.

Some states—particularly those in or emerging from conflict—need urgent assistance to build the requisite capacity. Civil society groups also require funding to be able to serve as independent data sources and as watchdogs that hold governments to account.

To be effective, violence prevention and reduction initiatives need to be informed by reliable data. The Small Arms Survey is at the forefront of efforts to improve data collection and analysis methods. The Survey's analytical tools can assist policy-makers in understanding the extent to which they can save lives—and the risks associated with inaction.

Key findings

Global trends

- In 2016, at least 560,000 people were killed violently, which corresponds to about 7.50 violent deaths per 100,000 population. The rate is slightly lower than it was in 2015 (7.73) and 2014 (8.12).
- About 385,000 intentional homicides were recorded worldwide in 2016. These deaths accounted for more than two-thirds (68 per cent) of all the victims of lethal violence.
- The year 2016 saw the first increase in the global homicide rate since 2004. Between 2015 and 2016, the rate rose from 5.11 to 5.15 homicides per 100,000 population.
- Direct conflict deaths accounted for 18 per cent of all violent deaths in 2016, a confirmation that a large majority of victims of lethal violence continue to lose their lives off the battlefield.
- Of the 23 countries with the highest violent death rates in 2016, nine were affected by armed conflict.
- Globally, 99,000 people died in armed conflict in 2016. This number is lower than in 2015 (119,000), following a peak in 2014 (143,000), but it is still more than twice as high as in 2004 (42,000).
- The five most violent countries in 2016—in terms of recorded violent death rates—were Syria, El Salvador, Venezuela, Honduras, and Afghanistan.

Violent death scenarios

- If current regional trends persist, annual violent deaths are likely to increase from about 560,000 in 2016 to more than 610,000 by 2030. Reflecting projected population growth, the yearly *number* of homicides will increase from approximately 385,000 to 421,000 while the global homicide *rate* will decrease marginally between 2016 and 2030, from 5.15 to just below 5.0 per 100,000 population. The number of annual direct conflict deaths is anticipated to exceed 100,000 by 2030.
- A more positive scenario entails a reduction in the annual number of violent deaths to about 408,000 by 2030, down from 560,000 in 2016. In a significantly more negative scenario, the total number of violent deaths could increase to about 819,000 by 2030.
- Up to 1.35 million lives could be saved between 2017 and 2030 if states were to abandon the 'business-as-usual' approach in favour of the positive scenario. Compared to the negative scenario, the positive one foresees nearly 2.6 million saved lives.
- In terms of homicides alone, states could save up to 825,000 lives between 2017 and 2030 if they gradually stepped up their approach to crime control and prevention to reach the violence reduction levels of the top performers in their respective world

regions. In so doing, states in the subregion of Latin America and the Caribbean would benefit most, saving as many as 489,000 lives in total by 2030, followed by states in South-eastern Asia (86,000 lives) and Eastern Africa (56,000 lives).

Firearms

- In 2016, firearms were used to kill about 210,000 people—38 per cent of all victims of lethal violence. About 15 per cent of these individuals died in direct conflict, while the majority fell victim to intentional homicide (81 per cent).
- Latin America and the Caribbean recorded particularly high proportions of firearm deaths in 2016. Firearms were also used in at least half of all lethal violence incidents in several African countries—Benin, Cape Verde, Mauritania, Senegal, and Togo—as well as in Albania, Thailand, and the United States.
- In countries characterized by the highest levels of lethal violence, 50 per cent of all killings were committed with a firearm, as opposed to about 12 per cent in countries with the lowest rates.

Gender

- Globally, men and boys accounted for 84 per cent of the people who died violently in 2016; 87,300 women and girls made up the remaining 16 per cent. These are the same proportions as in 2015.
- The past decade and a half witnessed a slow but steady decline in the global violent death rate of women and girls, most notably in Eastern Europe, Eastern Asia, and Central Asia.
- Between 2015 and 2016, the violent death rate for women and girls in Syria dropped dramatically, to 7.6 per 100,000 female population. From 2012 to 2015, when the average rate exceeded 30 per 100,000 female population, Syria had recorded the world's highest violent death rate among women and girls.
- Jamaica exhibited the highest violent death rate among women and girls in 2016: 25.6 per 100,000 female population.
- The greatest number of women and girls were killed in 2016 in countries with large populations, such as India (10,700 deaths), followed by Nigeria (6,400), Brazil (5,700), Pakistan (4,400), China (3,900), the Russian Federation (3,800), the United States (3,400), and the Democratic Republic of the Congo (2,900).
- In industrialized countries, a general decrease in homicide rates has not been accompanied by an equivalent decline in the violent deaths of women, in part because levels of intimate partner homicide remain high.
- In seven countries that are characterized by high income and generally low violence levels—namely Austria, Belgium, Germany, Japan, Slovenia, South Korea, and Switzerland—about as many or more women than men died violently in 2016.

“Approximately 560,000 people lost their lives violently in 2016, meaning that, on average, interpersonal or collective violence killed at least one person every minute of every day of the year.”

Introduction

Approximately 560,000 people lost their lives violently in 2016, meaning that, on average, interpersonal or collective violence killed at least one person every minute of every day of the year. For every person killed, many others suffered devastating consequences. The vast majority of these killings did not occur on battlefields, but were crimes committed outside of conflict zones. [1]

At the global level, there is a growing desire to identify strategies to prevent violence and violent deaths. The international community recognizes the need to prioritize conflict prevention by tackling the root causes of tensions, helping to build and strengthen institutions, and implementing human rights obligations (UNSG, 2017c). UN Secretary-General António Guterres recently called for a 'surge in diplomacy' as an instrument for peace in the context of global solutions to global problems (UNSG, 2017b). At the national level, a growing number of states have invested in promoting initiatives to prevent crime and violence (WHO, UNODC, and UNDP, 2014, p. 27). Still, states spend far more time and resources responding to international and national crises than preventing them. Efforts to reduce violent deaths are nowhere near the level that is commensurate with the scale of the problem.

The 2030 Agenda for Sustainable Development has the potential to usher in much-needed changes. When world leaders gathered at the United Nations in September 2015 to adopt a landmark blueprint for global development, they recognized peaceful societies as a prerequisite for all 17 Sustainable Development Goals (SDGs) of the 2030 Agenda—and as a goal in its own right. In committing to Goal 16, all states pledge to promote 'peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels' (UNGA, 2015, p. 25). The 2030 Agenda is the first universal framework to make an explicit connection between violence, conflict, and development, stating that '[s]ustainable development cannot be realized without peace and security; and peace and security will be at risk without sustainable development' (p. 9).

Each of the SDGs is accompanied by a series of concrete and measurable targets. The first of Goal 16's targets—Target 16.1—commits states to significantly reducing 'all forms of violence and related death rates everywhere' (IAEG, 2017, p. 34).[2] Progress towards a reduction of violent death rates is to be measured using two global indicators,[3] one on intentional homicides and the other on direct conflict deaths. Each state will determine its own national indicators based on its needs and priorities. These will represent the 'backbone' of monitoring progress towards achieving Target 16.1 (LCSDSN, 2015, p. 2). By allowing for these 'report cards' to measure progress, the indicator frameworks will guide states in developing and strengthening current violence reduction strategies and allocating resources accordingly (p. 2). This national-level activity is to be complemented by monitoring at the regional and global levels.

The 2030 Agenda thus calls for an unprecedented global shift in attention towards a reduction in violent deaths as a means of facilitating global development. The framework

presents a unique opportunity to enhance techniques for measuring violent deaths—thereby advancing our understanding of the scope and characteristics of the problem, as well as our ability to curb and prevent it. As part of the highly anticipated 'data revolution'—a key aspiration of the 2030 Agenda (IEAG, 2014, pp. 4–10)—states are expected to collect, disaggregate,[4] and analyse data and develop nationally owned, targeted, evidence-based violence prevention and response policies and programmes. Capacities and partnerships will be developed to enable them to meet their obligations, and thus to help them to move beyond vague and aspirational pledges to concrete commitments and results by 2030.

Metadata and paradata[5] will be required to ensure transparency and accessibility (OHCHR, 2017b, p. 9). National developers of violence reduction initiatives and civil society will require independent, credible statistics to stay informed and to hold key actors to account. The road ahead is uphill; as of 2016, data on violent deaths remained scarce or was completely unavailable in many countries, even for intentional homicides (see Box 1).

Continuing a stream of work undertaken to support the measurement pillar of the Geneva Declaration on Armed Violence and Development[6] and the measurement of

Box 1 Measuring violent deaths: the homicide data gap

In parallel with the implementation of the 2030 Agenda, which calls for the strengthening of national efforts to collect and analyse data on relevant indicators, the Small Arms Survey prioritizes the monitoring of global trends in violent deaths. This type of analysis is unlikely to reveal major changes from year to year, but over time it will generate nuanced trend lines that will allow for the tracking of national, regional, and global progress against SDG goals and targets, as well as the identification of obstacles to progress, including knowledge and capacity gaps.

One of the challenges is that many states still do not produce timely and relevant data on violent deaths, which is essential for measuring progress using global and national indicators. As of July 2017, 96 states were unable to provide a complete series—that is, one data point per year—of country-produced, disaggregated data on intentional homicides committed in 2010–15 (UN, n.d.).[7] More than half of these states (52), including 19 in Africa, did not provide any data between 2013 and 2015. Twenty-six additional African countries did not report country data for three or more years for the period 2010–15, thus bringing the total to 45 African countries with poor or scattered reporting. Eighteen countries in the Americas,[8] 18 in Asia, 7 in Oceania, and 3 in Europe provided similar, scattered reporting.

To fill the data gap, the Small Arms Survey's global Database on Violent Deaths draws on multiple sources—both governmental and non-governmental—and takes advantage of data expansion efforts being made in various settings and sectors, including public health (see Annexe 3).

Contributor: Moshe Ben Hamo Yeger

A man walks along a demolished street in Aleppo, Syria, November 2016.
Source: Abdalrhman Ismail/Reuters

violent deaths around the world,[9] this *Global Violent Deaths Report* provides the latest overall and regional updates with a view to supporting and complementing national efforts within the SDG framework.

The report comprises four main sections. The first presents an overview of global trends in violent deaths in 2016. Section II introduces research on 'scenarios', which predict the number of violent deaths that are likely to occur if current trends—namely, decreasing direct conflict death rates and slightly increasing homicide rates—persist. The section also features a 'positive' projection in the event that states do their utmost to achieve Target 16.1, and a 'negative' one that envisions the potential failure of global crime and violence control efforts. Section III focuses on firearm deaths and Section IV provides a gendered analysis of violent deaths. Policy implications for governments and civil society groups are discussed throughout the report.

Despite the increasing availability of data on violence and related deaths, this report undoubtedly underestimates the scale of the problem due to several factors. These include the systematic underreporting of certain forms of lethal violence, such as killings during legal interventions, extrajudicial killings, and intimate partner homicides;[10] limitations inherent to both police and public health statistical systems, including unclear classification of lethal events; the limited coverage of monitoring systems in areas that are highly affected by armed conflict; and the fact that some states have yet to report their data for 2016.[11]

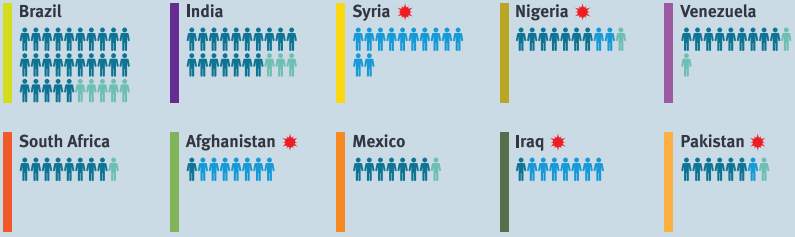
Global overview of violent deaths in 2016

560,000
violent deaths

- Intentional homicides
- Direct conflict deaths
- Other forms of violent deaths
  Unintentional homicides and killings due to legal interventions

18% are direct conflict deaths

Countries with the highest numbers of violent deaths



Countries affected by conflict

Each icon represents 2,500 persons

> “Recording and understanding morbidity rates and the circumstances in which people are killed are critical steps in the development of effective policies to decrease violent death rates.”

I. Monitoring global trends in violent deaths

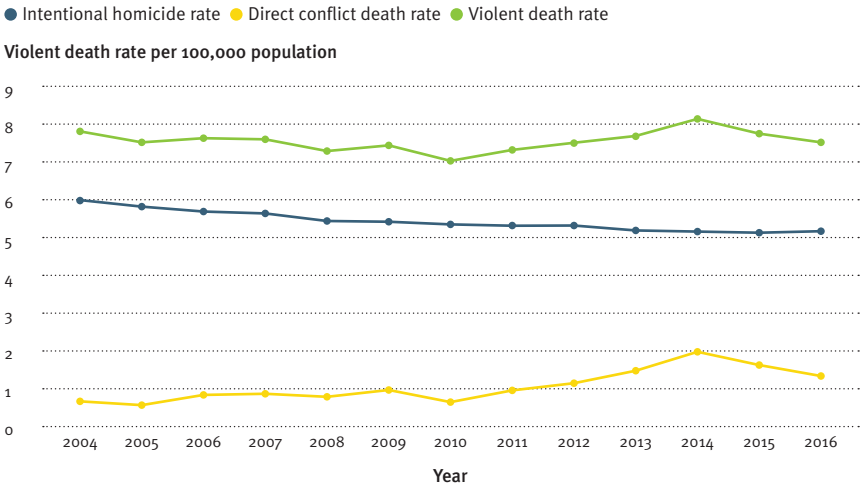
Recording and understanding morbidity rates and the circumstances in which people are killed are critical steps in the development of effective policies to decrease violent death rates. This section assesses the global burden of lethal violence for 2016 by analysing data on violent deaths in both conflict and non-conflict settings.[12] It finds that at least 560,000 people were killed violently across the globe in 2016. Fewer than one-fifth of these individuals died in armed conflict and more than two-thirds were the victims of intentional homicides, indicating that the majority of violent deaths continue to occur outside of conflict zones. Syria, El Salvador, Venezuela, Honduras, and Afghanistan were the five most violent countries in 2016.

Violent deaths in 2016: a global overview

At least 560,000 people lost their lives violently in 2016. This translates to a global rate of 7.50 violent deaths per 100,000 population.

This analysis breaks down violent deaths into direct conflict deaths, intentional homicides,[13] unintentional homicides, and killings during legal interventions. At the global level, most violent deaths occurred outside of war zones. About 18 per cent (99,000) were direct conflict deaths; 68 per cent (385,000) were intentional homicides. An estimated 10 per cent of all violent killings are classified as unintentional homicides and another 3 per cent as killings due to legal interventions.

Figure 1 Global annual rates of violent death, homicide, and direct conflict death, 2004–16



Source: Small Arms Survey (n.d.)

Table 1 Global homicide and direct conflict death counts and rates, 2014–16

Year	World population (billion)	Homicide count	Homicide rate per 100,000	Direct conflict death count	Direct conflict death rate per 100,000
2014	7.3	375,000	5.14	143,000	1.96
2015	7.4	377,000	5.11	119,000	1.61
2016	7.5	385,000	5.15	99,000	1.32

Source: Small Arms Survey (n.d.)

The global estimate for 2016 is lower than the rates for 2015 (7.73) and 2014 (8.12). Figure 1 illustrates the global evolution of violent death rates between 2004 and 2016. It shows that the world experienced a noticeable increase in violent deaths starting in 2011, and a peak in 2014.

It also indicates that the global homicide rate declined from 2004 to 2015, and that 2016 was the first year during which a higher homicide rate was recorded than in previous years. That increase is only a marginal one, however: from 5.11 per 100,000 population in 2015 to 5.15 per 100,000 in 2016 (see Table 1 and Map 1).

In contrast, the number of direct conflict deaths has grown substantially since 2004.[14] Globally, 99,000 people died in armed conflict in 2016—fewer than in 2015 (119,000) and 2014 (143,000), but more than twice as many as in 2004 (42,000) (see Table 1). The decrease in the global violent death rate in 2016 was due to the reduction of direct conflict deaths, compared to 2015.

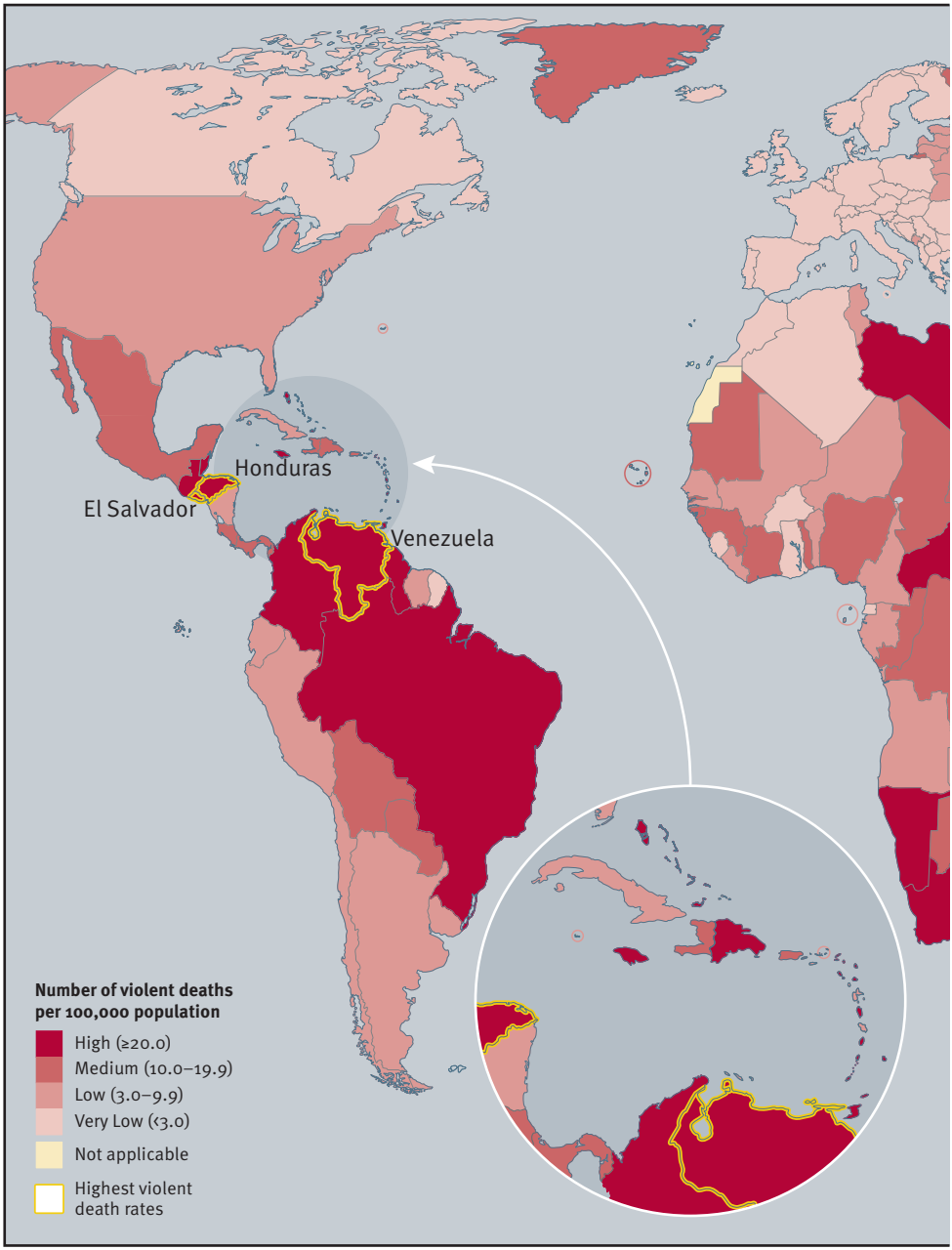
Violent deaths in 2016: the most-affected countries

Direct conflict deaths

The number of casualties in Syria began to decline in 2014 but, as of 2016, the country's conflict remained the deadliest, followed by those in Afghanistan and Iraq. These three conflicts have consistently been the world's most lethal since 2012 (Widmer and Pavesi, 2016a, p. 5). Together, they accounted for close to two-thirds of all direct conflict deaths around the world in 2016 (see Figure 2); in the seven years from 2010 to 2016, they claimed more than 370,000 lives.

Reductions in war fatalities in Nigeria, Syria, and Yemen between 2015 and 2016 account for nearly two-thirds of the decrease in direct conflict deaths. Yet these findings do not provide a complete picture. Indirect conflict deaths in Yemen are on the rise (see Box 5), for example. A recent UN analysis notes that people in Yemen were dying due to deliberate military tactics that 'inflict suffering on civilians and [. . .] collapse community

Map 1 Violent death rates per 100,000 population, 2016



Source: Small Arms Survey (n.d.)

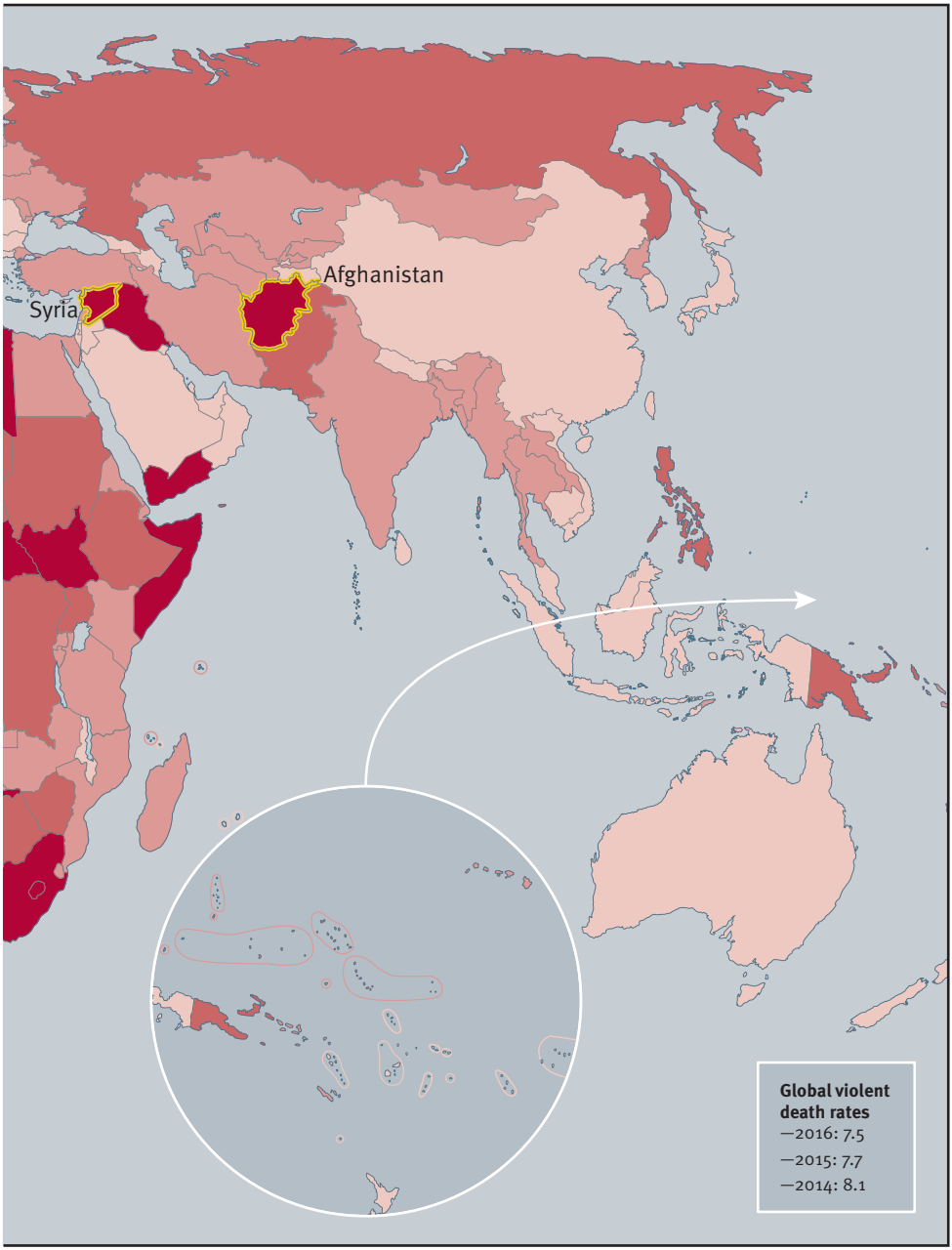
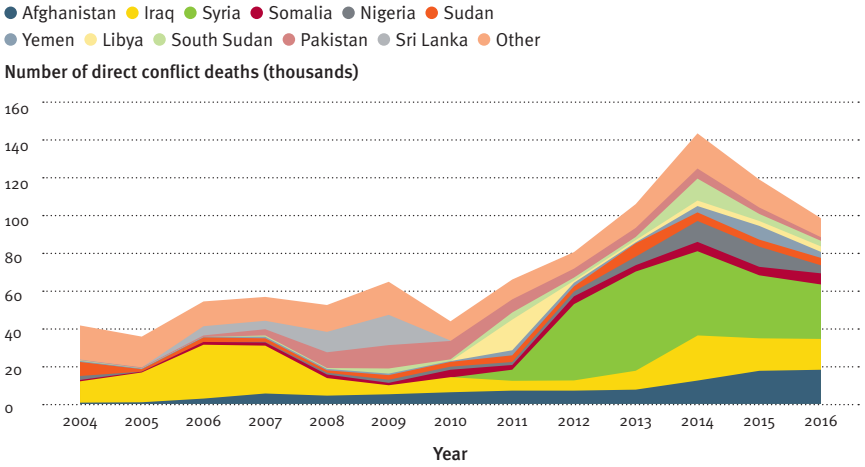


Figure 2 Direct conflict deaths, by conflict, 2004–16



Source: Small Arms Survey (n.d.)

and institutional safety-nets that sustain life' (UNOCHA, 2017, p. 3). The report cites a fast-spreading cholera outbreak and the threat of famine as consequences of such military tactics and the conflict in general, noting that humanitarian actors were being asked to cover gaps that were well beyond their mandates (p. 3).

Somalia was the only country that recorded a substantial increase (36 per cent) in direct conflict deaths from 2015 to 2016. Between 2004 and 2010, the Iraqi conflict alone accounted for nearly three in ten direct conflict deaths globally. With an annual average of 86 direct conflict deaths per 100,000 population—or nearly 15,000 dead per year—it was the most intense armed conflict globally for that period.

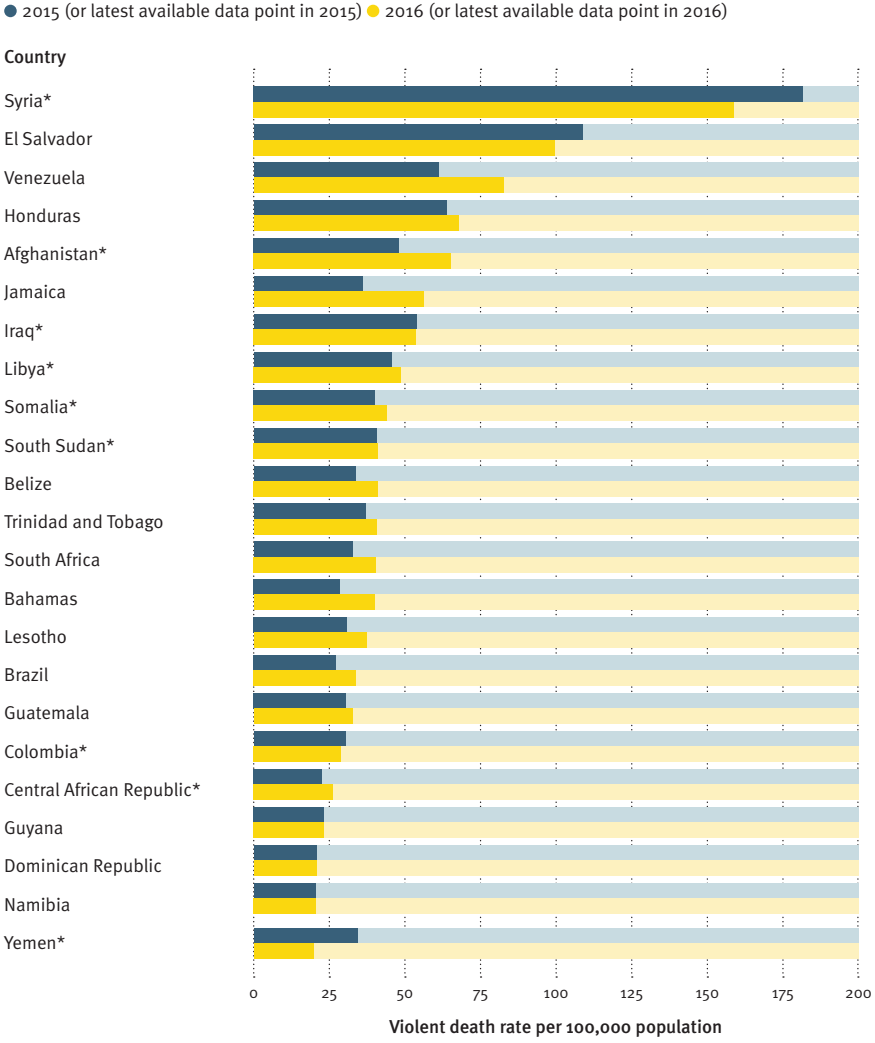
From 2010, a wave of demonstrations in the context of the 'Arab Spring' led to major uprisings and sociopolitical violence across Northern Africa and the Middle East. The armed conflict in Syria emerged as one of the deadliest of these, with more than 200 annual direct conflict deaths per 100,000 population in 2012–14. As Figure 2 shows, a peak in global direct conflict deaths was observed in 2014, largely due to conflicts in Afghanistan, Iraq, and Syria. Nigeria, South Sudan, and Ukraine were also among the countries that contributed to the exceptional rise in conflict deaths in 2014 (Widmer and Pavesi, 2016a, p. 5).

Violent deaths

In 2016, the highest numbers of violent deaths were recorded in Brazil, India, Syria, Nigeria, and Venezuela. That year, 23 countries exhibited extremely high violent death

rates, meaning at least 20 per 100,000 population (see Figure 3). Violence is often unevenly distributed and highly concentrated; indeed, these countries are home to just over 7 per cent of the world's population, yet they account for 44 per cent of all violent

Figure 3 Countries with violent death rates of at least 20 per 100,000 population, 2015 and 2016



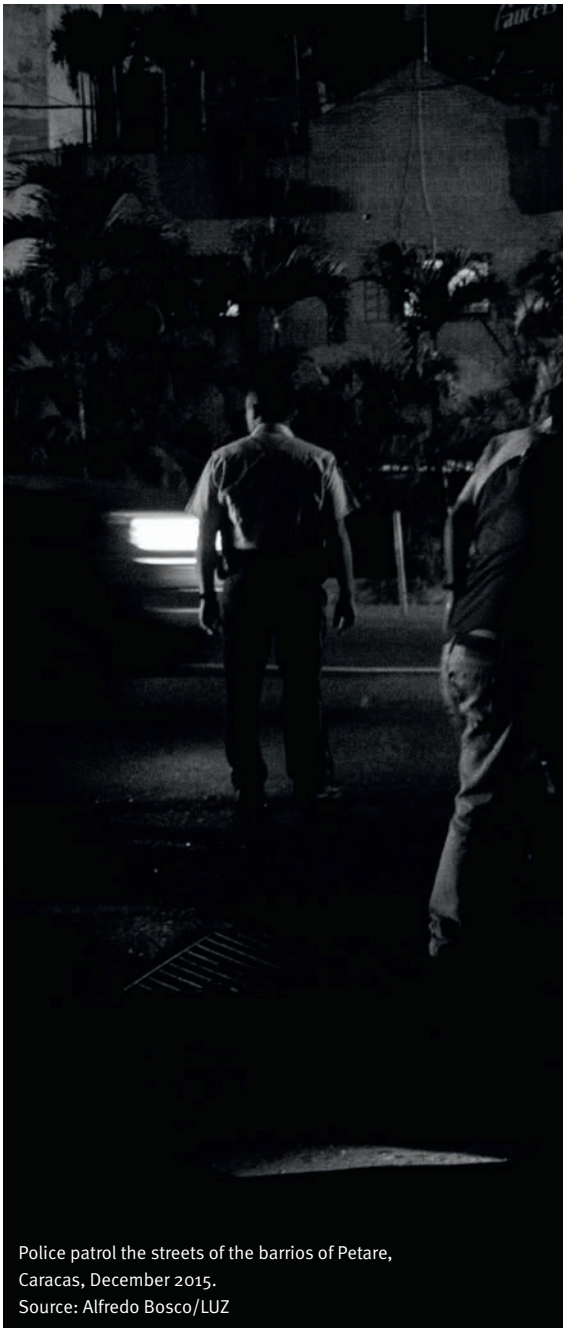
Note: An asterisk (*) indicates that a country experienced armed conflict during the period under review.

Source: Small Arms Survey (n.d.)

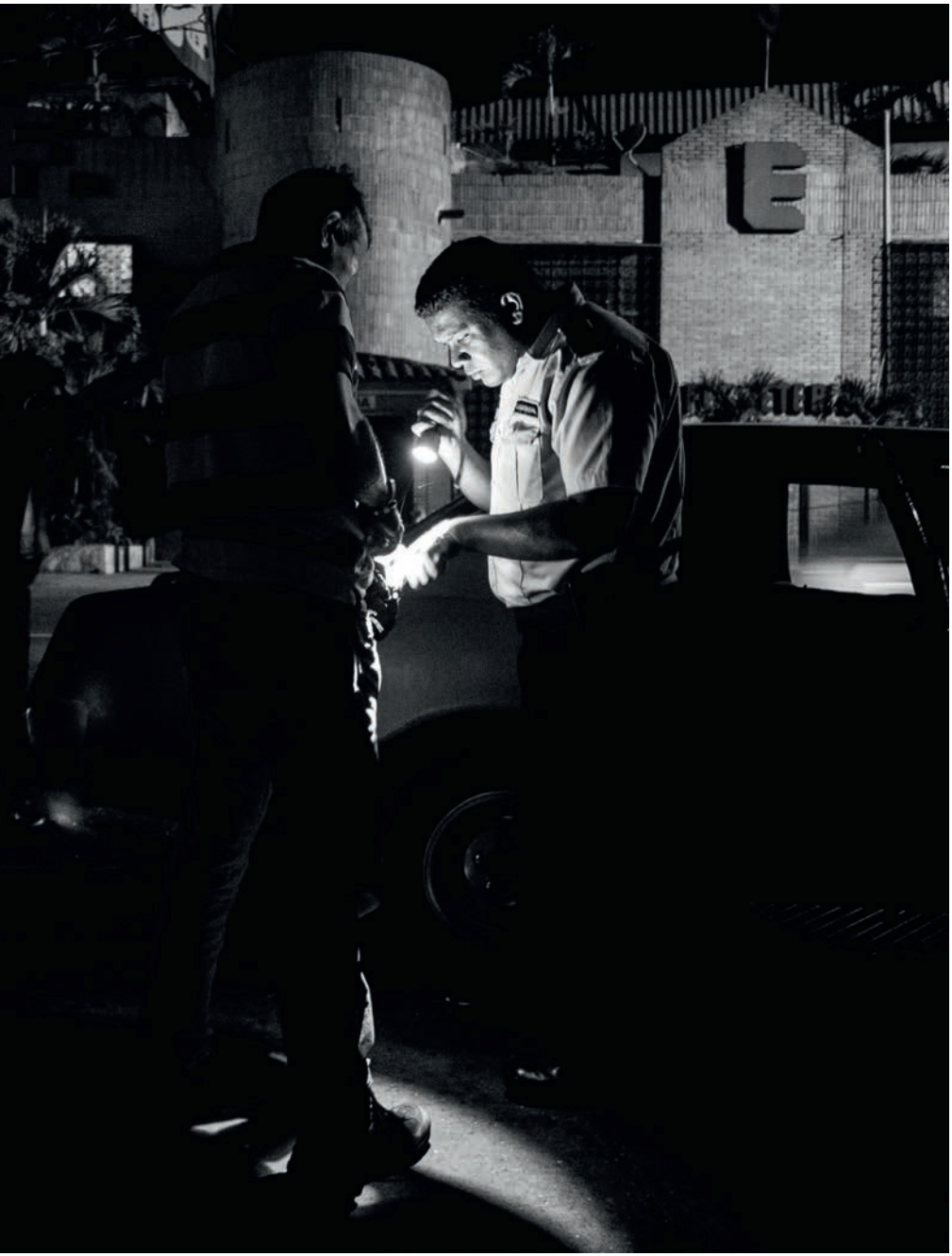
deaths globally (UNDESA, 2017). Only nine of these countries were affected by an active armed conflict during the period under review, namely Afghanistan, the Central African Republic, Colombia, Iraq, Libya, Somalia, South Sudan, Syria, and Yemen. In the remaining countries—the Bahamas, Belize, Brazil, the Dominican Republic, El Salvador, Guyana, Guatemala, Honduras, Jamaica, Lesotho, Namibia, Trinidad and Tobago, South Africa, and Venezuela—crime claimed, in proportion to their populations, as many victims as some high-intensity conflicts.[15]

Some of these countries—Venezuela, for example—are plagued by high levels of violence related to economic and political crises, fragility, discredited security agencies, and widespread impunity for crimes (see Box 2). Rising inequality, poverty, unemployment (especially among youths), and exclusion may also play a role. Central American and Caribbean countries such as Belize, the Dominican Republic, and Jamaica point to the deleterious effects of slow economic growth, high unemployment, and underemployment—especially among youths and women—compounded by high government debt and the state's inability to establish adequate policies to prevent the erosion of human development gains (UNDP, 2016b, p. vi). In 2014, Jamaica registered its lowest number of homicides in more than a decade, but since then the number has increased by more than 10 per cent annually.

Brazil remains highly affected by lethal violence, having recorded more than 58,000 homicides in 2015,[16] although it has made considerable progress since 1990 on key dimensions of human development (UNDP,



Police patrol the streets of the barrios of Petare, Caracas, December 2015.
Source: Alfredo Bosco/LUZ



Box 2 Venezuela: homicide rates soar as transparency is placed at risk

Between 2005 and 2015, when homicide rates soared in Venezuela, the governments of Hugo Chávez (who served as president in 1999–2013) and Nicolás Maduro (who took office in 2013) did not release any data on homicide and refused to grant public access to police data (Herrera Nuñez, 2015). In the absence of official data, civil society groups—particularly the Venezuelan Observatory of Violence and Paz Activa—carried out surveys and produced estimates.

Then, on 2 February 2016, Venezuela released official homicide data. In addressing the parliament, then attorney general Luisa Ortega Díaz cited a total homicide count of 17,788 for 2015 and a homicide rate of 58 per 100,000 population (Venezuela Investigative Unit, 2016). The following year, the Public Ministry announced that the homicide count had reached 21,752 and the homicide rate 70.1 per 100,000 (Ministerio Público, 2017, p. 12). A total of 86.6 per cent of these homicides were committed with a firearm (p. 12).

The ministry's figure for 2016 was 30 per cent lower than that of the Venezuelan Observatory of Violence, which reported 28,479 violent deaths (OVV, 2016). In contrast to the official data, the Observatory's count included cases in which the motive for the killing was unclear and incidents of legal intervention, such as killings of people who 'resist' authorities (see Box 3).

While the official figures have been disputed, Ortega Díaz undeniably fostered an unprecedented degree of government transparency regarding homicide statistics. In July 2015, while the UN Office of the High Commissioner for Human Rights was conducting the universal periodic review of Venezuela, a delegation led by Ortega Díaz stated that the homicide rate in 2014 had been 62 per 100,000 (OHCHR, 2015). The government also released official data in 2016 and 2017.

Having become a vocal critic of the Maduro government, however, Ortega Díaz has not been able to maintain her influence. The Supreme Court barred her from leaving the country and ordered her bank accounts frozen, leading her to seek protection from the Inter-American Commission on Human Rights in June 2017 (*Guardian*, 2017). She was removed from her post in August and has since fled to Colombia (al Jazeera, 2017).

2016c, p. 2). In cities such as Rio de Janeiro, gang and drug-related violence, the excessive use of state force, a corrupt criminal justice system, the militarization of key areas, and the 'social accumulation of violence'—whereby violence generates more violence—underpin extremely high homicide rates. Drug traffickers, 'extermination groups' and militias that extort residents of insecure areas, along with police and other public employees who offer protection to these groups, are believed to be central—either directly or indirectly—to most violent crimes occurring in Rio (Misse, 2017, pp. 2–3).

Among the five countries with the highest violent death rates in 2016—Syria, El Salvador, Venezuela, Honduras, and Afghanistan—only two had active armed conflicts. Overall, Syria remained the country most affected by lethal violence in 2016, despite the above-

Box 3 Monitoring killings by law enforcement officials

Some violent deaths do not fall neatly within the homicide or direct conflict death categories. Depending on where and in what context a person is killed, the violent act may be considered 'justified' or 'lawful' based on cultural, ethical, political, or legal reasons; as a consequence, it will not necessarily appear in homicide statistics. In some cases, states may assume authority for killing in defence of public order (as can occur in legal interventions) or as a punishment (as in the death penalty) (Alvazzi del Frate et al., 2014, pp. 2881–82).

The disaggregation of data on violent deaths allows researchers to understand the circumstances in which they occur and to identify patterns, which, in turn, can serve to inform effective violence prevention strategies. In some countries, the high sensitivity of information related to police killings can make it difficult to establish whether trends in published data reveal actual changes in the numbers of legal interventions or changes in data monitoring or communications policies.

In the United States, law enforcement agencies are not required to report on police killings. In fact, they have an interest in treating such incidents as 'justifiable homicides', which may or may not be included in homicide statistics (Zimring, 2017, p. 29). In essence:

> the voluntary nature of the reporting system means that significant numbers of killings by police do not get included in the official numbers mentioned, and the absence of auditing means that agencies with clear pecuniary interests in justifying cases are the only source of information available to the reporting system (Zimring, 2017, p. 29).

Following the fatal shooting of an unarmed black teenager by a white police officer in Ferguson, Missouri, in 2014, a wave of resentment generated multiple civil society initiatives for more comprehensive reporting and police reform. Nevertheless, as the *Washington Post* observes, 2015 and 2016 witnessed 'twice as many shootings by police [. . .] as ever recorded in a single year by the Federal Bureau of Investigation's tracking of such shootings, a pattern that is emerging again in 2017' (Sullivan et al., 2017). The US Department of Justice is planning a redesign of the reporting system (Banks et al., 2016, p. 9).

Monitoring the lethality of law enforcement operations also provides insight into the extent of state-sanctioned violence, helping to identify potential abuses and human rights violations. In Bangladesh, human rights organizations have denounced an escalation of state violence, as almost 2,900 extrajudicial killings reportedly occurred from 2001 to early 2017 (Odhikar, 2017). In the Philippines, extrajudicial killings by government-backed 'death squads' were occurring before President Rodrigo Duterte's 'war on drugs' began (HRW, 2016a, p. 460). Human rights groups have linked the campaign and Duterte's rhetoric to a surge of killings by police and 'unidentified gunmen', as nearly 4,800 people have been killed since he took office in mid-2016 (HRW, 2017, pp. 485–86). In Myanmar, there were widespread reports of extrajudicial killings targeting the Rohingya ethnic minority in 2016 (HRW, 2016b).[17] In Venezuela, 5,281 people were reportedly killed in 2016 alone, allegedly for showing 'resistance to authorities' (OVV, 2016). While official statistics may not reflect the real magnitude of the problem, civil society is well equipped to monitor these incidents independently.

mentioned decrease in recorded deaths—possibly due in some measure to a series of partial ceasefires between the main parties to the conflict from February to April of that year and again for a brief time in September (*Guardian*, 2016; see Figure 3). After Syria, El Salvador registered the highest rate of lethal violence, although it was somewhat lower than in 2015. The next three highest violent death rates were recorded in Venezuela, Honduras, and Afghanistan, each of which experienced an increase in the rate between 2015 and 2016. In Venezuela the security situation has worsened over the past 15 years (see Box 2). Between 2015 and 2016, the official violent death toll rose from nearly 18,000 to almost 22,000.

El Salvador and Honduras, countries that have historically exhibited extremely high homicide rates, have shown opposite tendencies since 2015. In the past decade the level of violence in El Salvador has risen sharply, yet it decreased somewhat between 2015 and 2016 (Widmer and Pavesi, 2016a, p. 6). Still, the 2016 level remains higher than any year before 2015. In Honduras, in contrast, violence levels rose slightly from 2015 to 2016.

Opportunities arising from the 'data revolution'

The decision to include Target 16.1—which commits states to significantly reducing 'all forms of violence and related death rates everywhere' (IAEG, 2017, p. 34)—in the SDG framework represents a step towards filling major data gaps in the crucial area of measuring violence and violent deaths. As Box 1 indicates, however, many states are currently unable or reluctant to gather or share homicide data that is required to track progress on this target. States still exhibit sensitivity around making public announcements on violence levels, increasing the risk that government officials may manipulate statistics (Kleinfeld, 2017).

Obtaining data on conflict-related deaths can be even more challenging (Pavesi, 2017); definitions and methodologies to monitor such deaths for the SDGs are still being developed, rendering trend analysis particularly difficult (UNSD, 2017, pp. 205–06). States may also miss development opportunities because they lack reliable data on which to base their policies and programmes.

The 'data revolution' called for by the Independent Expert Advisory Group on a Data Revolution for Sustainable Development is based on an understanding that:

> Data are the lifeblood of decision-making and the raw material for accountability. Without high-quality data providing the right information on the right things at the right time; designing, monitoring and evaluating effective policies becomes almost impossible (IEAG, 2014, p. 2).

SDG Target 17.18 grants states until 2020 to enhance capacity building support to developing countries so as to facilitate this revolution (IAEG, 2017, p. 38). In 2017, the Cape Town Global Action Plan for Sustainable Development Data was drawn up to provide a framework for discussion on, and planning and implementation of, statistical capacity building necessary to achieve the scope and intent of the 2030 Agenda (HLG-PCCB, 2017, p. 1). The plan acknowledges that this work will be country-led, but that it will also occur at the sub-national and regional levels. It notes that:

> “One of the key roles of civil society groups is to act as champions or defenders of the 2030 Agenda.”

> the global statistical system is called upon to take decisive actions to transform how data and statistics are produced and disseminated to inform development policy decision, with the vital support of governments and in closer partnership with stakeholders from academia, civil society, the private sector, and the public at large (HLG-PCCB, 2017, p. 2).

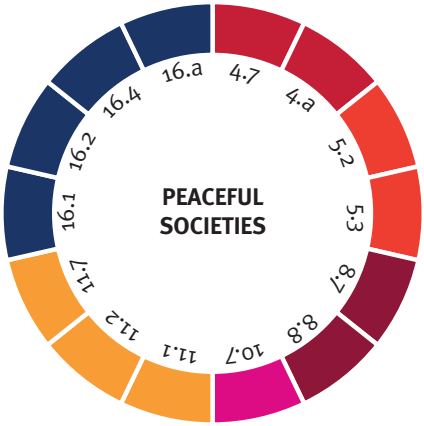
This global focus on a data revolution presents a series of opportunities for governments, but also for civil society groups, which have multiple roles to play in ensuring that states live up to their SDG commitments. Specifically, these groups can:

- use their expertise to provide supplementary sources of data disaggregated by sex, age, location, instrument of violence, and other relevant indicators that can inform policy-making on violence reduction;
- monitor violence trends towards a more complete understanding of the phenomenon in different contexts;
- provide baselines of information against which violence reduction policies can be monitored;
- highlight and provide analysis on information gaps (for example, indirect conflict deaths; see Box 5);
- work in consultation with governments (wherever possible); and
- lobby to develop action plans for the implementation of Goal 16.

One of the key roles of civil society groups is to act as champions or defenders of the 2030 Agenda. They are in a position to hold national governments to account by acting as watchdogs, organizing coalitions, mobilizing agents for change, and calling out governments that engage in ‘SDG window-dressing’ by paying lip service to the framework

Figure 4 Building peaceful societies as part of the SDG framework

Culture of peace and non-violence (4.7)
Safe education facilities (4.a)
Violence against women and girls (5.2)
Child marriage, female genital mutilation (5.3)
Child labour, child soldiers, forced labour, modern slavery, human trafficking (8.7)
Safe workplaces (8.8)
Safe migration (10.7)



Safe housing (11.1)
Safe transport (11.2)
Safe public spaces (11.7)
All forms of violence (16.1)
Violence against children (16.2)
Arms flows (16.4)
National institutions to prevent violence, terrorism, and crime (16.a)

Note: Related targets appear in brackets.
Source: Based on Pathfinders (2016, p. 3)

while failing to make meaningful implementation efforts (Saferworld, 2016). In the current global climate of piecemeal approaches to global initiatives, such as the SDGs, deregulation, and austerity, it is particularly vital that they fulfil this role (Reflection Group, 2017).

By the same token, it is important for civil society groups to be able to participate in international fora—such as the UN High-level Political Forum on Sustainable Development (HLPF), which carries out regular, voluntary reviews of particular SDGs[18]—and for international donors to provide financial, political, and other support to such groups. The next HLPF review of the progress made on Goal 16 is not planned until 2019. Yet, since peace is recognized as an enabler of all of the SDGs, there is a crucial role for civil society groups that focus on peace issues in all of the HLPFs, particularly if they work in conflict-affected, fragile, or undemocratic states (ACSC, 2016, p. 7).

Furthermore, it is vital that all actors recognize that the approach to attaining the SDGs is deeply integrated, with 'peace themes' underpinning many of the related targets (see Figure 4). No goal can be achieved without advancing on the others, be they related to peace, the environment, inequality, health, education, migration, culture, or any other issue.

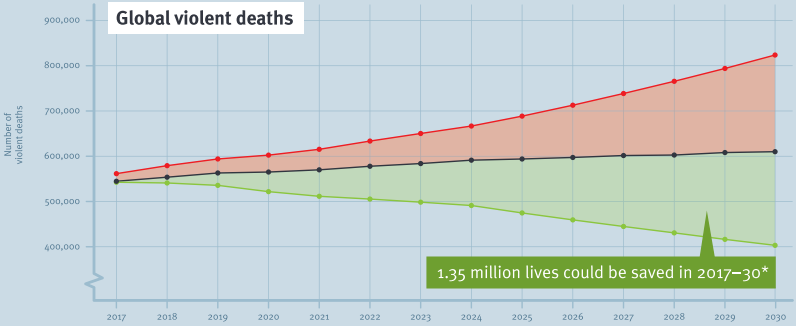
“How many people will die violently if current trends continue between 2017 and 2030? And how many lives can be saved if states take effective action to reduce and prevent violence?”

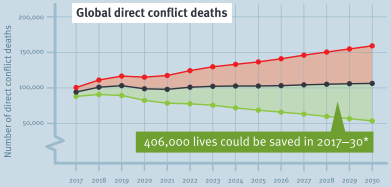
II. The consequences of (in)action: violent death scenarios

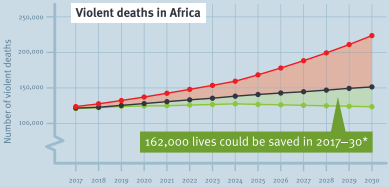
Violent death scenarios, 2017–30

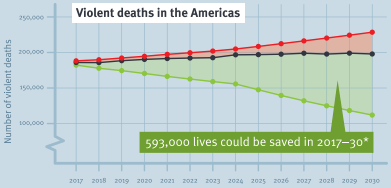
How many lives can be saved globally by 2030 by moving from a 'business-as-usual' to a positive scenario?

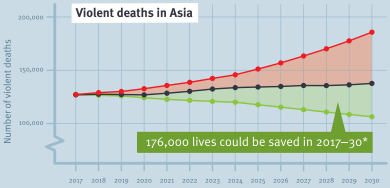
- 'Business-as-usual' scenario *(if current trends continue)*
- Positive scenario *(if states reinforce violence prevention efforts)*
- Negative scenario *(if crime and violence control efforts fail)*

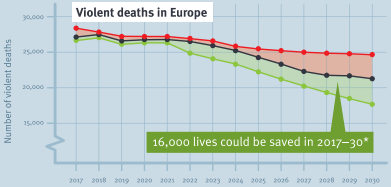


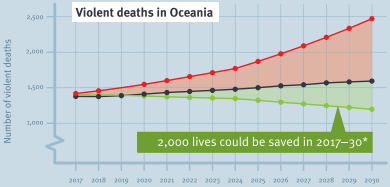












* In view of the inherent limitations of scenario analysis, none of the hypothetical projections should be treated as reliable predictions of future violent death patterns.

Future scenarios of violent deaths point to widely differing outcomes, depending—to a significant extent—on what actions policy-makers take. How many people will die violently if current trends continue between 2017 and 2030? And how many lives can be saved if states take effective action to reduce and prevent violence?

This section presents three possible outcomes for the 2017–30 period:

- the 'business-as-usual' scenario: nothing changes in terms of initiatives to reduce or prevent violent deaths;
- the 'positive' scenario: states take effective further action to reduce and prevent violence; and
- the 'negative' scenario: global crime and violence control efforts become significantly less effective.

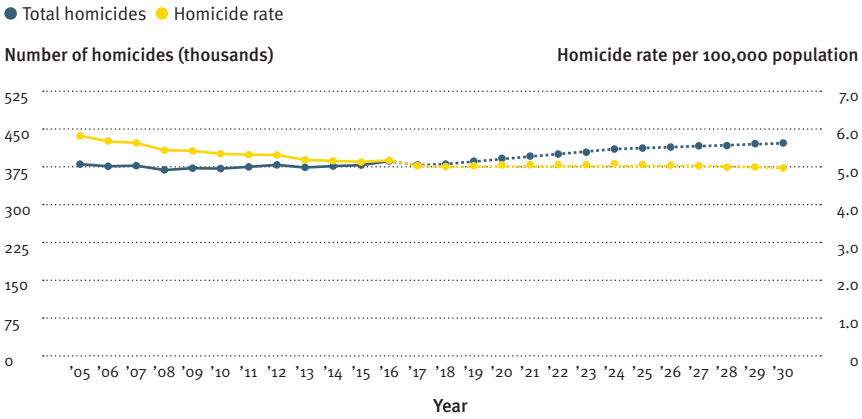
If current trends continue and states opt for 'business as usual', the annual number of violent deaths is likely to exceed 610,000 by 2030 (see Box 4). If states were to shift to the positive scenario—meaning that they would make the maximum effort to achieve SDG Target 16.1—they could save up to 1.35 million lives between 2017 and 2030. Put another way, the annual number of violent deaths could drop to 408,000 by 2030. Yet if states abandon some of their programmes or simply are not able to contain increasing levels of violence, and global crime and violence control efforts become less effective as a result, fatalities from interpersonal and collective violence could rise to 819,000. Given that it is impossible to predict conflict deaths with any degree of accuracy, however, that figure could be a significant underestimate. The projections do not include the possibility of a widespread global or regional armed conflict, which could vastly inflate the numbers of conflict-related deaths.

Scenario 1: 'business as usual'

If current trends persist until 2030, the global homicide rate will decrease only slightly (see Figure 5).[19] Continued good performance among countries that have managed to decrease their rates of violence would lead to a shrinking of the global homicide rate from 5.15 per 100,000 population to somewhat below 5.0 by 2030. Given rapid population growth in many countries, however, the number of homicide victims per year would still increase substantially, from about 385,000 to 421,000.

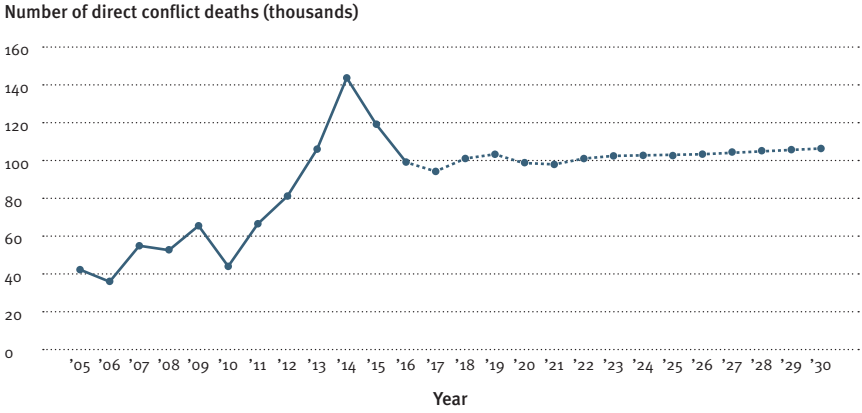
Figure 6 shows a projection of the number of direct conflict deaths using a conservative, logarithmic estimation (in which the growth rate decreases incrementally over time). The annual number of direct conflict deaths in 2030 is expected to be just above 100,000, or about 7 per cent higher than in 2016.

Figure 5 Global homicide trends and projections, 2005–30



Source: Small Arms Survey (n.d.)

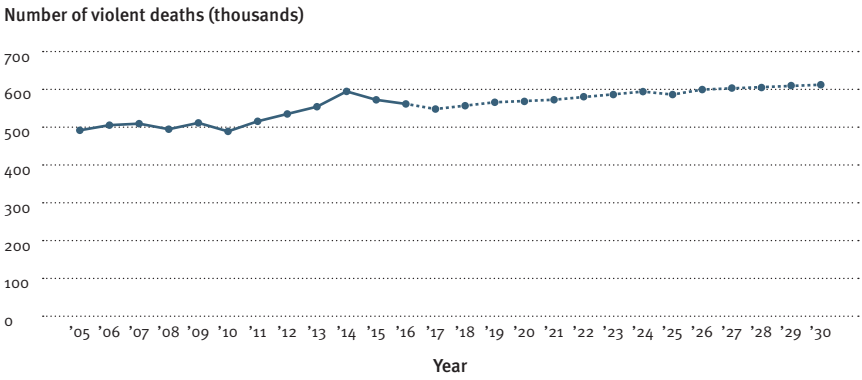
Figure 6 Global direct conflict death trends and projections, 2005–30



Source: Small Arms Survey (n.d.)

These projected global homicide and direct conflict death figures form the bulk of the global numbers of violent deaths predicted for 2017–30, which also include unintentional homicides and killings in legal interventions (see Box 4). As shown in Figure 7, the annual global number of violent deaths is predicted to increase from about 560,000 in 2016 to more than 610,000 by 2030 if current trends persist. This combination of violent deaths projects a fairly linear—although not very steep—increase over the next decade and a half.

Figure 7 'Business-as-usual' scenario: global violent death trends and projections, 2005–30



Source: Small Arms Survey (n.d.)

Box 4 A note on scenarios: methodology and interpretation

As with the rest of the data in this report, the scenarios are based on information gathered in the Small Arms Survey's Database on Violent Deaths and a unified approach to violent deaths (Small Arms Survey, n.d.). For each scenario, the global number of violent deaths comprises four categories:

- projected annual number of intentional homicides—the largest single portion of the total;
- projected annual number of direct conflict deaths;
- annual number of unintentional homicides, estimated at 15 per cent of the projected intentional homicide totals; and
- annual number of killings in legal interventions, estimated at 5 per cent of the projected intentional homicide totals.

Simple regression analysis was used to determine the homicide rate trends in the recent past for each UN world region (see Annexe 1); these were projected for the entire 2017–30 period. The 'business-as-usual' model was then adjusted to develop positive and negative scenarios, to reflect the potential impact of action or inaction with respect to reducing violent deaths. For direct conflict deaths, trends were estimated at the global level and projected for the period from 2017 to 2030.[20]

The scenarios should be understood as 'a structured way [. . .] to think about the future' (*Economist*, 2008); they provide an indication of what is possible, not an actual forecast. It is impossible to predict with any accuracy what the next decade and a half will bring in terms of armed conflict or influential technological or sociopolitical developments. If drugs were to be legalized, for example, the world could experience a substantial reduction in violence related to drug trafficking—a significant risk factor associated with violent deaths. The scenarios in this report should, therefore, be viewed as a reasonable and statistics-based approach to estimating a range of eventualities.

Whether this 'business-as-usual' scenario occurs depends to a large extent on the actions of policy-makers at the national and global levels. A coordinated commitment to the achievement of Target 16.1 could change the trajectory of current trends and result in a more positive scenario. Research indicates that major and long-term declines in homicide rates have occurred in the past, but that policy-makers do not have the requisite information to bring them about. The development of a knowledge base of what works in violent crime reduction is thus a key priority. Such a knowledge base would need to overcome 'traditional limitation to Western, highly developed societies', incorporate macro-level dynamics, and be based on a 'significant expansion of experimental, quasi-experimental and observational studies on the effects of programs and processes on violence in different setting[s] and for various groups' (Eisner and Nivette, 2012, p. 6).

It is also worth remembering that a fuller picture of the global burden of violence comprises not only violent death figures, but also data on non-lethal violence, which is much harder to measure. It includes sexual and psychological violence and abuse, as well as perceptions of insecurity[21] and estimates of indirect conflict deaths (see Box 5). The latter have hardly been taken into account in estimating the impact of conflicts, even though 'recent technical advances make such neglect increasingly unacceptable'; indeed, our abilities to measure these deaths[22] and to reduce their number through medical interventions have both improved (Wise, 2017, p. 139).

Women participate in a march to celebrate the International Day for the Elimination of Violence Against Women in Santo Domingo, Dominican Republic, November 2013.
Source: Ricardo Rojas/Reuters

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olores Hiciano Jiménez
Yudelka
Maricilis
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Casado

Box 5 Beyond the battlefield: understanding the human cost of armed conflict[23]

The scenarios in this report cover direct conflict deaths, but not the people who die as an indirect consequence of armed conflict, such as the breakdown of infrastructure, health, and social services, a heightened risk of disease transmission, or malnutrition, both during and after hostilities. These deaths are understood as non-violent mortality that exceeds levels that could have been expected in the absence of war.[24]

Data on direct conflict deaths is available from a variety of sources—including UN missions, international databases on conflicts, and casualty recorders[25]—although it remains patchy and does not cover a number of smaller conflicts that garner less international attention (and that do not lead to military interventions). In contrast, there is a dearth of information on indirect conflict deaths. The lack of knowledge on these deaths is exacerbated by a host of methodological challenges that limit our understanding of their root causes and, by extension, how to prevent them.

Methods used to measure the broader scope of conflict-related deaths generally focus on excess mortality, or the difference between wartime crude mortality rates and the baseline or counterfactual mortality that would have occurred in the absence of conflict. Typically, retrospective mortality surveys, prospective surveillance through health information systems, and the analysis of multiple data sources are used to arrive at estimates. Many researchers have suggested methodologies to measure conflict-related deaths, but no validation mechanism has been developed to create consensus on which methods best capture both direct and indirect conflict deaths.

SDG Indicator 16.1.2 explicitly calls for the disaggregation of data on conflict-related deaths by sex, age, and cause. Disaggregation by cause is particularly useful in the assessment of conflict-related deaths. Data collected under this indicator will inform policymakers on how, when, and where people—both male and female[26]—are dying (Alda and Mc Evoy, 2017, p. 5).[27] Complementing this type of analysis with qualitative data can shed light on the causal chains that lead to indirect deaths; in turn, information on these chains can be used to inform efforts to prevent such deaths, for example through rapid humanitarian interventions.

The international community often has the capacity to relieve suffering by responding quickly to humanitarian crises. Yet, in some conflicts—such as the current one in Yemen—humanitarian agencies cannot access populations in need and thus cannot prevent people from dying. Their access may be blocked due to factors such as insecurity, the inaccessibility of locations, an absence of funding, military tactics, or government interference.

SDG Goal 3 is germane to a discussion about indirect conflict deaths because it endeavours to '[e]nsure healthy lives and promote well-being for all at all ages', including in conflict settings. It mandates the measurement of mortality from a number of communicable and non-communicable conditions that are highly relevant in conflict and post-conflict situations.[28] Health-related targets under the following SDGs are also key in conflict situations:

- Goal 2: '[e]nd hunger, achieve food security and improved nutrition, and promote sustainable agriculture'; and
- Goal 6: '[e]nsure availability and sustainable management of water and sanitation for all' (IAEG, 2017, pp. 16–19, 22–23).

In response to the need to assess the scale of indirect conflict deaths, some researchers have produced ratios of direct to indirect deaths (Geneva Declaration Secretariat, 2008, p. 32; Human Security Project, 2011, p. 105). Based on its analysis of conflicts that date back to the early 1990s and for which sufficient data exists, the Small Arms Survey estimated in 2008 that the number of indirect deaths was anywhere between three and 15 times the number of direct conflict deaths. It suggested a conservative global ratio of four indirect conflict deaths for every direct death as a reasonable average estimate (Geneva Declaration Secretariat, 2008, p. 32).

Analysts now recognize that estimates that feed into such ratios should take into account a host of local factors and their role in the causal chains that lead to indirect deaths. A more fine-grained analysis could produce ratios that reflect factors such as the intensity and length of a conflict, the sex and age of the victims, available humanitarian aid (such as the provision of medicine, food, or shelter), the condition of pre-war public health infrastructure, and seasonal or climatic trends.

To date, efforts to measure conflict-related deaths—both direct and indirect—have been scattered and driven by institutional and individual interests. The official SDG monitoring process itself will initially focus on direct conflict deaths, partly due to methodological uncertainties regarding the measurement of indirect conflict deaths. To take the discussion to another level, experts have called for the establishment of a dedicated, resourced civil society research platform with a clear mandate to:

- develop more nuanced ratios of direct to indirect conflict deaths on the basis of case studies;
- advance and develop related methodologies;
- scientifically triangulate and validate different methods; and
- unpack causal chains that lead to conflict-related deaths beyond the battlefield.

This initiative would complement and take advantage of the official SDG data collection process—specifically, data gathered in conflict settings—and ultimately lead to more informed decision- and policy-making on violence prevention.

Scenario 2: progress against Target 16.1

In a more positive—yet still evidence-based—scenario, the global human toll of lethal violence could be reduced by 2030. A two-pronged approach would be required. First, individual states (or the international community) would need to find ways to reduce the direct conflict death rate, meaning that they would have to ensure that conflicts decrease in both number and intensity. Second, states would need to bring about significant reductions in homicide rates, especially in highly affected areas.

Homicide projections in this scenario are based on the assumptions that:

- countries and territories in any of the world's regions should be able to—via policy, knowledge transfers, and a strengthened focus on violent crime prevention at the national level—curb their homicide rates at a pace similar to that of the best-performing countries in their regions (see Box 6);[29] and
- the positive impact of violence reduction policies or strategies will become apparent over time, and all countries and territories in every region will reach their best performance rates over a span of eight years—from 2017 to 2024.

This scenario foresees a reduction of the annual number of global violent deaths to about 408,000 by 2030, down from approximately 560,000 in 2016 (see Figure 8). It signals that, given the necessary political will and successful, coordinated, and integrated interventions, a serious reduction in the number of violent deaths could be possible even if the global population increases by about a billion people in this period. This positive scenario, which builds on actual regional best performances in the 2004–16 period, projects a global violent death rate of 4.80 per 100,000 population by 2030, significantly below what the 'business-as-usual' scenario projects for that year (7.18).

If states managed to move from a 'business-as-usual' to a positive scenario, they could save up to 1.35 million lives between 2017 and 2030. This total can be broken down into two categories of prevented deaths: more than 400,000 direct conflict deaths and 949,000 other violent deaths. The latter category comprises:

- 162,000 prevented deaths in Africa;
- 593,000 in the Americas;
- 176,000 in Asia;
- 16,000 in Europe; and
- 2,000 in Oceania.

Projections for direct conflict deaths in this positive scenario anticipate a gradual reduction to levels registered in 2006–08 (50,000–60,000 fatalities annually), or less than half of the current total. A change of this magnitude could save more than 400,000 lives between 2017 and 2030. It would require a serious reduction in the number of deaths occurring in the world's most violent ongoing conflicts, namely Afghanistan, Iraq, and Syria; together, these three have accounted for about 60 per cent of all direct conflict deaths since 2012.

With respect to homicide, states could save about 825,000 lives over the next decade and a half by shifting away from the 'business-as-usual' approach and instead prioritizing the development and implementation of more effective violence prevention policies, including by fighting impunity, for example.[30] If countries were able to reduce their

Box 6 Top performers in homicide rate reductions, 2004–16

Over the period from 2004 to 2016 (or the year with the latest available data), countries and territories across all regions in the world demonstrated that a reduction in lethal violence levels was possible, even where high levels of violence were endemic.[31] Those that recently emerged from armed conflicts were able to profit most immediately, as homicide rates dropped by an average of anywhere between 4 per cent (Nepal) and 11 per cent (Kosovo)[32] per year.[33] Colombia, Georgia, Sri Lanka, Tajikistan, and Timor Leste all fall into this category.

Progress varies across the world's regions (see Annexe 1). Although they remain at risk of surges of violence, Middle and Western Africa are home to countries that secured marked annual reductions in violent deaths from 2004 to 2016. On average, homicide rates declined by 10 per cent in Côte d'Ivoire, 16 per cent in the Republic of the Congo and Mauritania, and 17 per cent in Senegal.

The situation is similar in other countries that have faced security crises due to local or subregional instability. Papua New Guinea, for example, recorded an average annual decrease of 15 per cent.

Countries in the Baltic region and in Eastern and Southern Europe, such as Croatia and the Czech Republic, registered a slightly lower rate of progress: their homicide rates dropped by 5–6 per cent annually.

In Central America and the Caribbean—regions that are affected by some of the highest homicide rates since 2004—countries such as Nicaragua and the Dominican Republic were able to decrease lethal violence by 3 per cent annually over the 2004–16 period.

Finally, reductions of homicide levels were also possible in subregions or countries where lethal violence levels were relatively low, as in the case of Australia (which saw a decrease of 3 per cent), Austria (4 per cent), France (4 per cent), and Switzerland (5 per cent).

Author: Luigi De Martino

homicide rates at a pace similar to that of the top performers in their world regions, Latin America and the Caribbean would benefit most, saving as many as 489,000 lives from 2017 to 2030 (about 59 per cent of the global gain), followed by South-eastern Asia (86,000 lives), and Eastern Africa (56,000 lives).

The immediate challenge will be to demonstrate at least some measurable progress in reducing violent deaths by 2019, when the High-level Political Forum is due to review progress in relation to Goal 16. Doing so would provide a platform for scaling up delivery on Target 16.1 in the 2020s (Pathfinders, 2016, p. 2). Related advocacy campaigns could focus on illustrating recent progress in curbing violent deaths—reductions in the number of female homicide victims, for example—and what can be achieved given the necessary political will.[34]

> “Equipped with a better understanding of what is achievable, how change can happen, and how individual states can contribute to national and global progress on reducing violent deaths, governments are more likely to take meaningful steps towards achieving Target 16.1.”

It is clear that progress in building more peaceful and inclusive societies—in line with SDG 16—will not be a technical or process-based exercise. Ultimately, it will come down to ‘power and politics’ and political will (Saferworld, 2016). Equipped with a better understanding of what is achievable, how change can happen, and how individual states can contribute to national and global progress on reducing violent deaths, governments are more likely to take meaningful steps towards achieving Target 16.1.

Scenario 3: losing control of lethal violence

The ‘business-as-usual’ scenario anticipates a slight increase in the total number of violent deaths (to about 610,000). In a significantly more negative scenario, the total number of violent deaths could increase by nearly 50 per cent, from about 560,000 in 2016 to 819,000 by 2030 (see Figure 8). Such an upsurge in lethal violence could arise from a variety of potential factors, including new armed conflicts or the intensification of existing ones, serious shortages of food or water on a regional scale, mass displacement or migration, or globally strengthened organized crime. States’ failure to curb related violence could be a symptom of negligence or grave structural problems, such as increased fragility[35] or lawlessness.

This scenario assumes that changes in homicide rates in all countries in a given region will regress towards those experienced in the worst-performing countries in that region.[36] Unlike in the positive scenario, the analysis does not presume that countries will in fact *reach* the annual rates of change in homicides among the worst performers; the trend anticipates only a relatively slow regression *towards* these rates.[37]

It is unlikely that all countries in each region will simultaneously regress towards the average among their worst performers, yet it is not outside of the realm of possibility. Violence is not necessarily confined to one country; it can easily spread across borders. In this negative scenario, annual homicide deaths around the world would exceed 551,000 by 2030. That figure would correspond to a homicide rate of nearly 6.50 per

100,000, up from 5.15 in 2016, and a violent death rate of nearly 10 (9.64), which is almost 30 per cent higher than the 2016 rate (7.50).

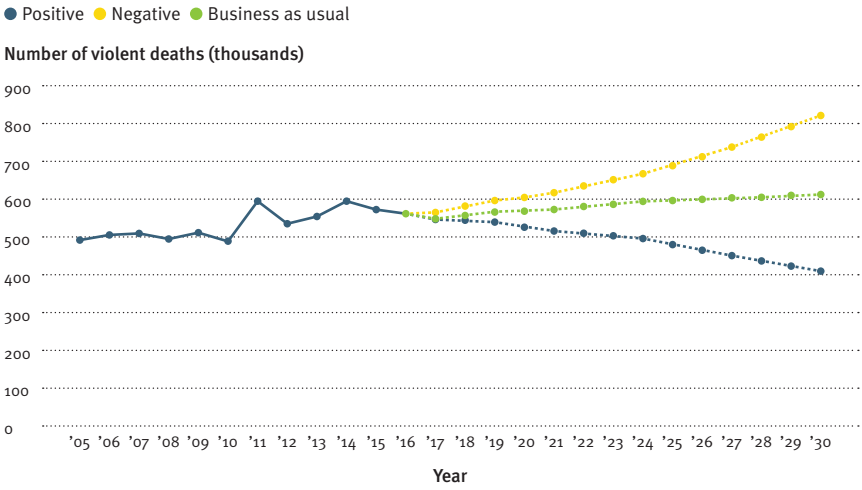
Estimating direct conflict deaths for a negative scenario is particularly difficult as it not possible to provide a reliable forecast of future armed conflicts. Nor is it possible to estimate the duration or intensity of ongoing conflicts, as these will vary.[38] Furthermore, conflict-related casualties do not typically correlate directly with country size, as a conflict may be limited to particular regions and the number of combatants is not directly related to a country's population. This negative scenario anticipates that conflict deaths continue to rise, not exponentially (as the trend since 2004 would suggest), but rather in a linear fashion. This scenario also foresees a slight rise in the number of armed conflicts, possibly in addition to a higher number of fatalities in ongoing or future conflicts. It assumes that the number of direct conflict deaths will gradually reach levels that are about 50 per cent higher than the ones predicted in the 'business-as-usual' model. It thus yields a projection of nearly 160,000 battlefield deaths in 2030—about 60 per cent more than in 2016.

In the negative scenario, violence claims nearly 2.6 million more lives in 2017–30 than in the positive scenario,[39] and about 410,000 more lives in 2030 alone.[40]

A comparison of scenarios

In Figure 8, the trend lines for global violent deaths reflect the projected direct conflict deaths and intentional homicides as well as estimated unintentional homicides and

Figure 8 Global violent death trends and projections, 2005–30



Source: Small Arms Survey (n.d.)

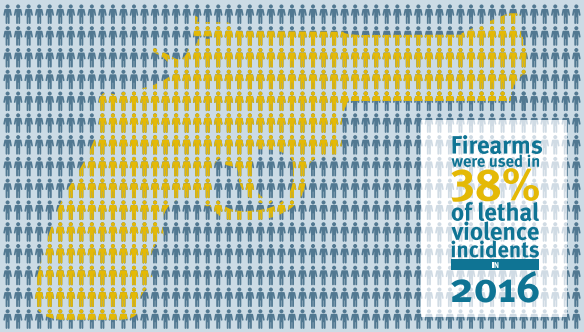
legal intervention fatalities for all three of the Small Arms Survey's scenarios (see Box 4). The results suggest that, depending to a large extent on the actions of policy-makers, the annual number of violent deaths could fall to 408,000, or rise to double that figure by 2030. As indicated above, if states were to intensify their violence prevention efforts and were able to replicate past best performances in their respective regions, about 1.35 million lives could be saved between 2017 and 2030. Nearly half a million of those lives could be saved in Latin America and the Caribbean.

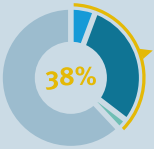
> “Countries with the highest rates of lethal violence typically had a higher proportion of firearm-related killings (about 50 per cent) than countries with lower levels of lethal violence (about 12 per cent).”

III. Firearms and lethal violence

The role of firearms in lethal violence in 2016*

Firearms were used to kill 210,000 in 2016

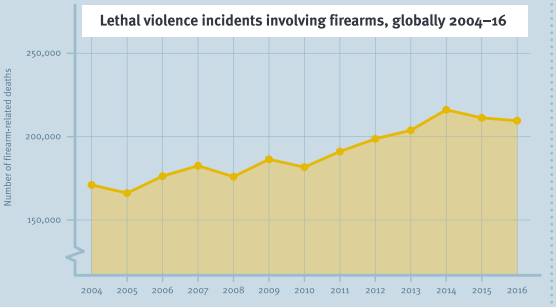




81% → Homicides
15% → Direct conflict deaths
4% → Other violent deaths

Countries with the highest levels of lethal violence: **50%** committed with a firearm

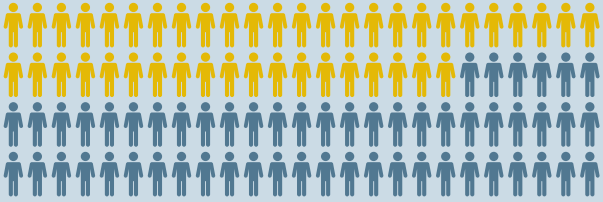
Countries with the lowest levels of lethal violence: **12%** committed with a firearm



1.04 million firearm-related deaths globally in 2012–16

Percentage of homicides committed with a firearm

Of all homicides in 2016, **44%** were committed with a firearm



* All figures are for 'violent deaths' only, as measured by homicides, direct conflict deaths, and other violent deaths (unintentional homicides and killings due to legal interventions), excluding suicides and accidents.

This section analyses the latest trends in global and regional firearm-related violent deaths, in both conflict and non-conflict zones. It finds that firearms were used in 38 per cent of all lethal violence incidents in 2016 and 44 per cent of all recorded homicides. Overall, they were used to kill 210,000 people around the world. Countries with the highest rates of lethal violence typically had a higher proportion of firearm-related killings (about 50 per cent) than countries with lower levels of lethal violence (about 12 per cent). In several countries, including El Salvador and Honduras, the proportion of fatalities that involved firearms decreased substantially from 2015 to 2016, yet increases were noted elsewhere, including in the Bahamas, Brazil, Trinidad and Tobago, and Venezuela.

Global review of firearms use

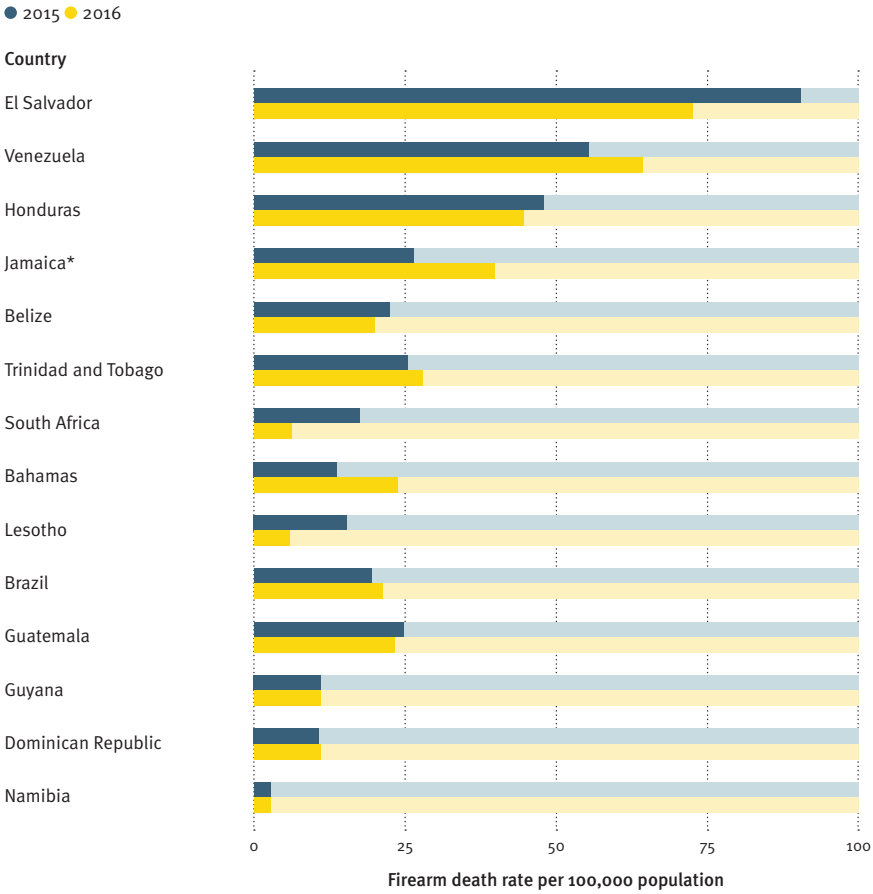
Globally, firearms were used in 44 per cent of all homicides in 2016. In 2004, they were used in about 40 per cent of all homicides.[41] Available data suggests that global fatalities from firearms rose from about 171,000 in 2004 to 210,000 in 2016.

In 2016, 41 per cent of all firearm-inflicted violent deaths—not just direct conflict deaths—occurred in conflict-affected countries. That same year, globally, 81 per cent of firearm deaths were intentional homicides, 15 per cent were direct conflict deaths, and an estimated 4 per cent were unintentional homicides or killings during legal interventions. Direct conflict deaths account for a relatively small proportion of firearm deaths because many result from 'complex attacks', which are characterized by the use of varying types of weapons, such as grenades and improvised explosive devices, or mortar fire and aerial bombardment.

At the global level, there has been little change in the role played by firearms in lethal violence since 2015. Data analysis reveals mixed trends in countries with the highest lethal violence levels—discounting those with active armed conflicts and a lack of data disaggregated by cause of death, for which it is not possible to ascertain the national proportion of deaths from gunshot wounds. In several countries, including Belize, El Salvador, and Honduras, firearm fatalities decreased substantially from 2015 to 2016, often in line with a general decrease in lethal violence, as was the case in El Salvador (Reuters, 2017; see Figure 9). However, firearm violence increased in the Bahamas, Brazil, Trinidad and Tobago, and Venezuela.

During 2012–16, 1.04 million firearm-related killings were registered. Over the past decade, the use of firearms in homicides increased in a number of countries, yet in others, it decreased (see Table 2).[42] For example, in Sweden, where overall homicide numbers are extremely low, for example, a recent increase was focused primarily in cities and is attributed to the growth of local gangs and gang-related criminality, as well as the

Figure 9 Firearm death rate per 100,000 population, 2015–16



Notes: * The Jamaica Constabulary Force released data for 2016 (*Jamaica Observer*, 2017). Earlier data is only available from estimates made by the Jamaican Institute for Health Metrics and Evaluation, which are much lower than police figures. The graph shows countries with the highest rates of violent deaths, excluding those experiencing conflict. The countries are presented according to their overall violent death rates, in descending order.

Source: Small Arms Survey (n.d.)

ease with which firearms can be acquired (Khoshnood, 2017). Scotland, in contrast, has reduced firearm homicides over the past several years. The government attributes the drop to a combination of law enforcement and targeted 'prevention and early intervention' programmes, which are run by partners and focus on encouraging 'positive life choices' in areas such as parenting, early childhood, and relationships (Scottish Government, n.d.).

Table 2 The most significant changes in the proportion of homicides committed with firearms, 2005–10 to 2011–16

Rising levels of firearm use	Falling levels of firearm use
Israel (+57%)	Slovenia (–66%)
Sweden (+52%)	Georgia (–59%)
Norway (+45%)	UK (Scotland) (–51%)
Saudi Arabia (+42%)	Peru (–50%)
Poland (+34%)	Kyrgyzstan (–37%)
Chile (+30%)	Belgium (–33%)
Uruguay (+29%)	Switzerland (–29%)
South Korea (+27%)	Armenia (–28%)
Japan (+24%)	Portugal (–27%)
France (+21%)	UK (England, Wales) (–26%)
China (+21%)	French Guiana (–23%)
Bangladesh (+16%)	Croatia (–22%)

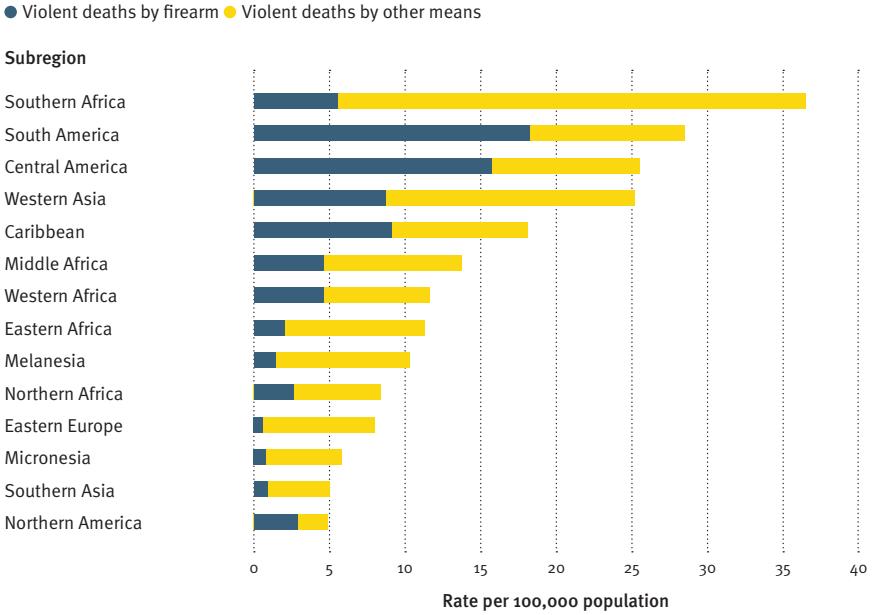
Note: Percentages indicate the change in the proportion of firearm-inflicted lethal violence, and not the percentage point difference between time points. This means that a change from 10 per cent to 11 per cent in the proportion of homicides committed with a firearm represents an increase of 10 per cent in the above analysis. These changes are independent of the actual firearm homicide rates, which vary substantially across countries.

Source: Small Arms Survey (n.d.)

Figure 10 illustrates, in line with earlier Small Arms Survey research, that the use of firearms in lethal violence is prevalent in Western Asia and the Americas (Widmer and Pavesi, 2016b, p. 2).[43] In each subregion of the Americas, the majority of lethal violence incidents that occurred in 2011–16 were perpetrated with a firearm. Regional analysis based on available data indicates that in other regions other means or types of weapons play a larger role in violent deaths than firearms.

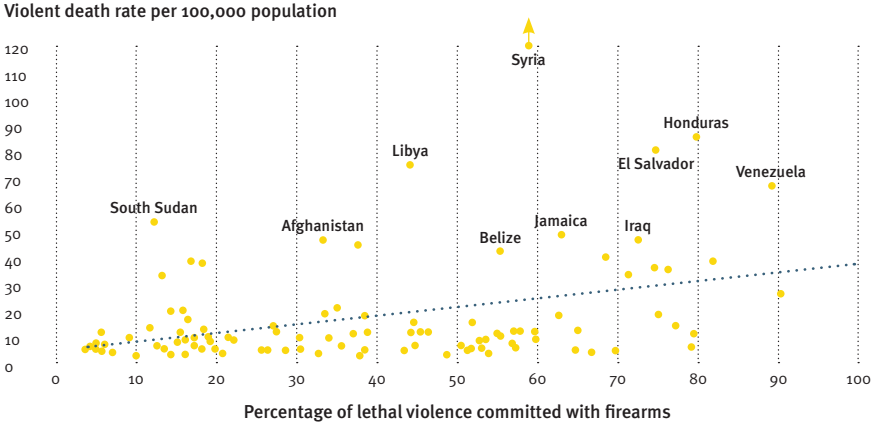
The data continues to suggest that higher overall victimization rates are associated with a higher likelihood that a firearm will be used to cause a death (Geneva Declaration Secretariat, 2011, pp. 7, 88; see Figure 11). In fact, in countries that are experiencing the highest levels of violence—those with violent death rates of at least 20 per 100,000 population—about half of all lethal violence is committed with firearms, as opposed to about 12 per cent in countries with very low rates of lethal violence (that is, fewer than 3 per 100,000 population).

Figure 10 Average rates of violent death by firearm and other means, selected subregions, 2011–16



Source: Small Arms Survey (n.d.)

Figure 11 The role of firearms in lethal violence, 2011–16



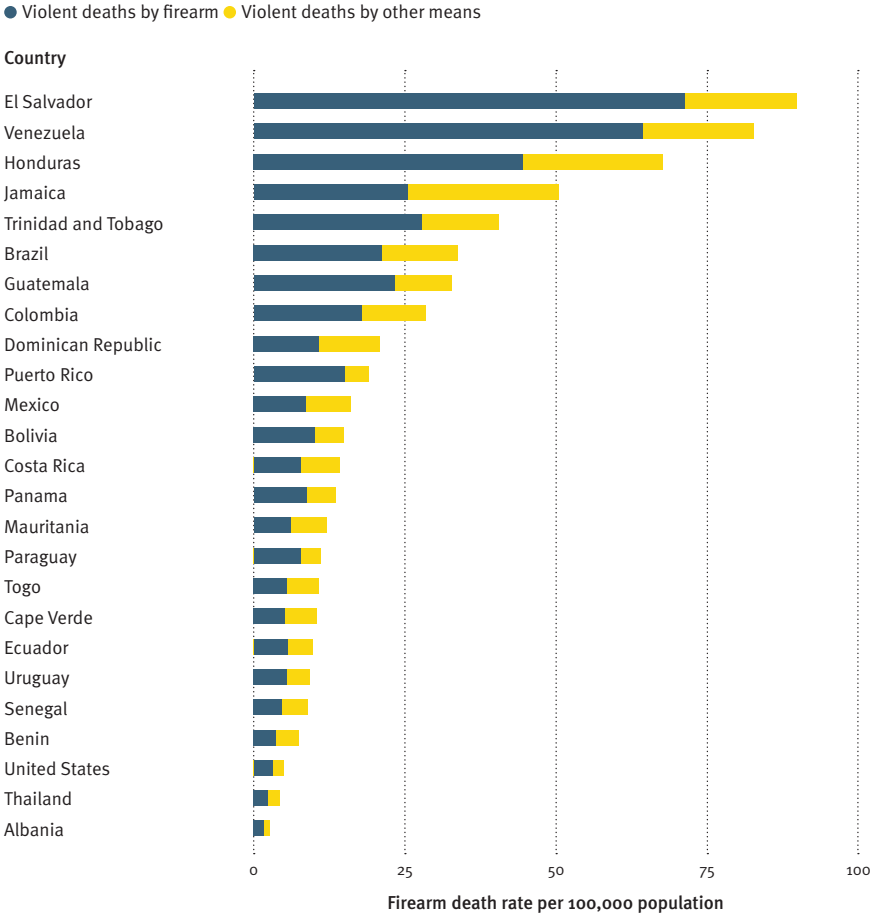
Note: Plotted countries have a violent death rate of at least 3 per 100,000 population.

Source: Small Arms Survey (n.d.)

Country-specific risks

Most countries that experienced the highest rates of firearm-inflicted deaths in 2016 were in Latin America and the Caribbean, whose subregions are among those with the highest rates of firearm-inflicted lethal violence globally (see Figure 10). At least 50 per cent of lethal violence incidents were firearm-related in 18 countries in the Americas, as well as in Albania, Thailand, and several countries in Africa, namely Benin, Cape Verde, Mauritania, Senegal, and Togo (see Figure 12). The United States was the only

Figure 12 Countries where firearms were used in at least 50 per cent of killings, 2016 or latest available year



Source: Small Arms Survey (n.d.)

industrialized nation where firearms were used in at least 50 per cent of killings (discounting US troop fatalities in other regions of the world). In countries characterized by relatively low levels of lethal violence—such as Uruguay (which had a lethal violence rate of 9.2 per 100,000 in 2016), Senegal (8.9), Benin (7.4), the United States (5.0), Thailand (4.4), and Albania (2.7)[44] —the impact of firearm violence was disproportionately large.

Reducing firearm deaths

The impact of access to firearms on levels of violence is difficult to demonstrate at the global level. While there is no firm evidence of a general connection between the availability of firearms and homicides, there is a correlation between access to guns and suicide by firearm (Alvazzi del Frate and Pavesi, 2014, p. 1). In the context of domestic violence and intimate partner violence, access to firearms in the home, including guns held for professional reasons, increases the risk of a lethal outcome (Shaw, 2013, pp. 31–32). Indeed, in the Western Balkans, a region with a relatively high level of gun possession, a high percentage of homicides with female victims involve the use of a firearm (Widmer and Pavesi, 2016b, p. 5).

Once put in place, policies and measures that target the use, possession, and transfer of firearms can help to reduce firearm suicides and intimate partner homicides, while also mitigating the wider impacts of lethal violence in both conflict and non-conflict settings (Widmer and Pavesi, 2016b, p. 1). Such policies can produce

Weapons are destroyed as part of a regional programme to combat illicit trafficking in Varaždin, Croatia, October 2012.
Source: Antonio Bronic/Reuters

results by addressing the proliferation of illicit arms, which underpins violence and insecurity. The 'theory of change' that supports arms control initiatives suggests that more effective implementation and better controls can reduce the risk of diversion and curb the illicit trade in firearms. As a result, such initiatives are able to usher in reductions in levels of violence, violent deaths, and accidents (Alvazzi del Frate, 2017, slide 6).

Assessments of violence reduction policies are fraught with methodological difficulties, however, not least because 'there are numerous analytical challenges to deriving unbiased estimates of policy impacts' (Webster et al., 2016, pp. 1–4). Moreover, the data needed to evaluate (and develop) policies and programmes is often unavailable, which has led to calls for '[s]ignificant investments in research over the long term [. . .] to answer questions central to successful prevention of gun violence' (p. 1).

At the global level, no correlation has been found between firearm availability and killings, and researchers have drawn divergent conclusions regarding the relationship between control efforts and changes in the rates of lethal violence. A recent study that covered 52 countries found that neither the availability of firearms nor firearm legislation had any significant effect on the rate of firearm homicides, for example (Dantinne and André, 2017, p. 20). At the same time, other evaluations have demonstrated that firearm control efforts save lives. Evidence from 130 studies in ten countries indicates that 'in certain nations the simultaneous implementation of laws targeting multiple firearms restrictions is associated with reductions in firearms deaths' (Santaella-Tenorio et al., 2016, p. 140).[45]

National initiatives that have been found to reduce firearm deaths include dedicated legislation, licensing, background checks, marking, transfer controls, amnesties, and crackdowns on illicit possession (Widmer and Pavesi, 2016b, p. 1; ISACS, 2012; 2015). Effective stockpile management to avoid diversion—including measures such as choosing appropriate locations for stockpiles, controlling access to stockpiles, inventory management, staff training, and secure transportation—has played a role in preventing fatal incidents (MAG and UNSCAR, 2015, p. 4). Such measures can also assist in curbing non-lethal outcomes, such as the rate of firearm-related injuries, disability, and psychological trauma (Widmer and Pavesi, 2016b, p. 1).

Research indicates that the most effective weapons control programmes 'include comprehensive strategies for interventions that combine policy reforms, prohibitions on the carrying of weapons, policing, weapons collection and destruction campaigns, awareness raising, and behavioural change' (Wilson, 2014, pp. 1–2). There is also growing consensus that measures that lead to sustained reductions in armed violence levels are those that address both the supply and the demand for firearms, including the factors that drive their acquisition and (mis)use, such as perceptions of insecurity or absent or mistrusted state security providers (p. 2). It is in this spirit that the European Union recently introduced more rigorous controls on the acquisition and possession of firearms, 'in particular so that legitimate channels and regulatory set-ups for the acquisition and possession of firearms are not abused by criminal groups or terrorists' (European Council, 2017).

Comprehensive national policies, accompanied by legislation and the necessary resources to implement them, are of particular importance in reducing illicit arms flows. Policies that draw on the full set of international instruments and normative frameworks are most likely to lead to reductions in diversion risks and unauthorized arms flows (see Box 7).

Box 7 The role of national and international normative frameworks in reducing illicit arms flows

In linking development to peace and security, SDG Target 16.4 recognizes that a significant reduction in illicit arms flows is a precondition for development (see Annexe 2). Indicator 16.4.2, one of the global indicators for measuring progress against the target, focuses on establishing the illicit origin of weapons or, more specifically, on the '[p]roportion of seized, found or surrendered arms whose illicit origin or context has been traced or established by a competent authority in line with international instruments' (IAEG, 2017, p. 35).[46] The indicator—as revised in 2017[47]—implicitly acknowledges the relevance of arms control frameworks to the achievement of Target 16.4 (McDonald, 2017).

At the international level, the arms control toolkit comprises: the International Tracing Instrument, which governs small arms identification and tracing (UNGA, 2005); the UN Firearms Protocol, which provides measures to curb illicit firearm manufacturing and trafficking (UNGA, 2001a); the UN Programme of Action, which comprises control measures applicable throughout the small arm and light weapon life cycle (UNGA, 2001b); and the Arms Trade Treaty, which regulates the international transfer of conventional arms and ammunition (UNGA, 2013).

Compiling and analysing weapons data, including through successful traces, is an essential diagnostic tool in the fight against the illicit small arms trade. Yet, while Indicator 16.4.2 may spur the tracing of seized, found, or surrendered weapons—along with their marking—it will have only an indirect impact on the underlying objective, as expressed in Target 16.4, of reducing illicit arms flows by 2030 (McDonald and De Martino, 2016, p. 3). This is because Indicator 16.4.2 aims not at arms control per se, but at the gathering of information on illicit arms flows, in particular through the tracing of seized arms.

Other measures, especially those found in the arms control instruments cited above, 'act more directly to curb diversion risks and reduce illicit arms flows in accordance with Target 16.4' (McDonald and De Martino, 2016, p. 3). The 2030 Agenda recognizes this, emphasizing the importance of building on existing platforms and processes in implementing the SDGs (UNGA, 2015, p. 32).

Such synergies extend not only to the international arms control instruments, but also to arms-related legislation and policy at the national level. International arms control commitments are invariably given practical effect at the national level. National laws, regulations, and administrative procedures act at the 'ground level' to reduce diversion risks and prevent the transfer of arms to anyone who is likely to misuse them. National-level indicators will complete the picture—complementing Indicator 16.4.2 in tracking implementation of Target 16.4 over time.[48]

Contributor: Glenn McDonald

Overall, the availability of quality data on firearm deaths is poor (Widmer and Pavesi, 2016b, p. 7). This dearth is an underlying reason behind the call for a 'data revolution' to underpin the 2030 Agenda (IEAG, 2014, pp. 4–10). The reduction of firearm violence requires a more comprehensive understanding of its characteristics and drivers, including the motivations behind such violence, the identities of victims and perpetrators, locations of violent incidents, the types and the origins of weapons used, and the interaction of these parameters with other risk factors (Widmer and Pavesi, 2016b, p. 7).

Box 8 Juvenile homicide offenders: a key target group for policy-makers

Juvenile homicide offenders[49] represent a special subgroup of homicide perpetrators. They stand out as a result of a higher reliance on firearms as compared to other homicide perpetrators, an accentuated gendered dynamic (as young men account for the vast majority of perpetrators), and a high risk of recidivism.[50] Since evidence shows that youths are likely to re-offend, it makes sense to target them with preventive policies and programmes.

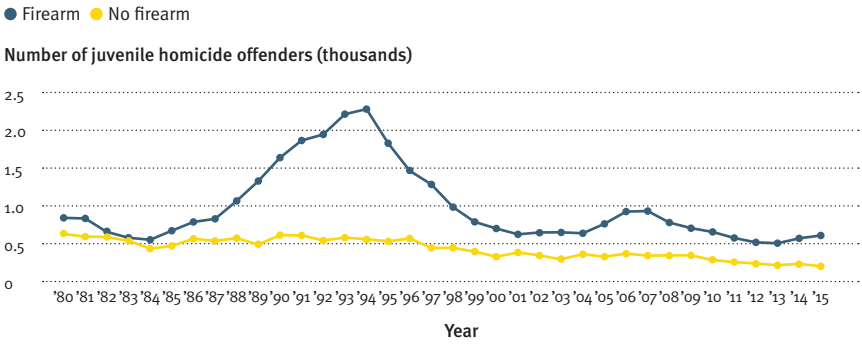
Globally, few states invest in the disaggregation of data on homicide offenders by age, sex, and weapons. The United States is a notable exception. Having experienced a sharp rise in the number of juvenile homicide offenders who used firearms in the early 1990s, the US Department of Justice began a sustained campaign to identify relevant triggers and risk factors. Trend data suggests that after another small peak in firearm-related homicides in 2006 and 2007—committed by 916 and 923 juveniles, respectively—the number of offenders decreased to 498 in 2013, the lowest point since at least 1980. By 2014 and 2015, the number of firearm-related homicides by juveniles had begun to rise again, however, reaching 562 and 600 offenders, respectively (see Figure 13).

The profile of juvenile homicide offenders in the United States has changed somewhat over time. Analysis of age- and race-disaggregated data shows that juvenile offending among black youths accounted for more than 60 per cent of all homicides committed by juveniles in 2015 (OJJDP, 2016). Studies of arrested youths confirm that while overall rates of incarceration for any type of crime decreased between 2003 and 2013, racial disparities increased; juveniles of colour—notably African Americans and Native Americans—were overrepresented (Rovner, 2016).

In analysing the causes of African-American delinquency, scholars have identified similar triggers across juvenile offenders, such as weak social bonds, but they also point to macro-level societal factors, including persistent racism within schools (Krohn and Lane, 2015, p. 123). African-American youths are particularly affected by poverty and emotional or behavioural disorders dating back to their formative years, which increase the risk of recidivism (Barrett and Katsiyannis, 2015). Scholars who examine the sentencing of juveniles have also found that black youths are also more likely to receive harsher punishments than young people from other groups (Lehmann, Chiricos, and Bales, 2016).

Author: Mihaela Racovita

Figure 13 Juvenile homicide offenders in the United States, by year and involvement of a firearm, 1980–2015



Source: OJJDP (n.d.)

The extent of firearm-related injuries and deaths 'is an important benchmark for evaluating the efficiency of policies aimed at addressing violence' (Nygård, 2017, p. 4). Towards this end, and to assist states at the national level, the intergovernmental organization Community of Democracies has put forward a voluntary global supplemental indicator for Goal 16 to measure 'firearm-related injuries per 100,000 population', which it recognizes as 'a critical aspect of peaceful, just and inclusive societies' (p. 3).[51]

In addition to weapons, deaths, and injuries, it is also important to monitor at-risk perpetrator groups and to target them with prevention programmes, particularly in the most highly affected countries (see Box 8). Research indicates that specific risk factors can lead individuals to engage in violent behaviour. These are 'aspects of a person, group or environment that make [. . .] violence more or less likely to occur' (WHO, 2015, p. 13). The more risk factors that accumulate in an individual or in a particular setting—such as alcohol and drugs, a lack of social ties, parental involvement in crime, access to firearms, a history of violence and child mistreatment—the higher the likelihood that youths, a key target group for interventions, will become involved in violence (p. 13).[52]

At the subnational level, the monitoring of specific locations, timing, and circumstances in which firearm violence takes place can also provide valuable data for interventions. The smaller the units of analysis, however, the greater are the concerns regarding confidentiality. There is a need to protect sensitive data relating to different groups, which may be composed of relatively small numbers of individuals. Still, effective violence prevention requires accurate localization and contextualization of events at the subnational level.

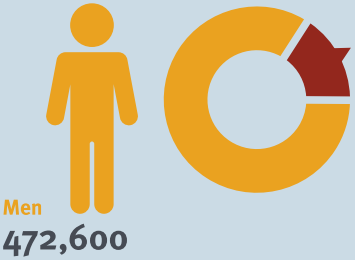
Other risk factors include inequality, unemployment and related inactivity, violent approaches to public security adopted by security actors, weak public institutions, and low clearance rates for homicide in the criminal justice system (Igarapé Institute, 2017, p. 4). Research from the Igarapé Institute reveals that while 'Asia and Europe feature

clearance rates ranging from 80 percent to 85 percent for murder, in the Americas this falls to 50 percent—and below 10 percent in some countries' (p. 4). Impunity for homicides is also cited as a risk factor in Latin America; the impunity rate for homicides in Mexico is reportedly around 80 per cent, for example (p. 4).

> “Despite efforts to integrate gender into the analysis of lethal violence, it is often the missing piece of the puzzle.”

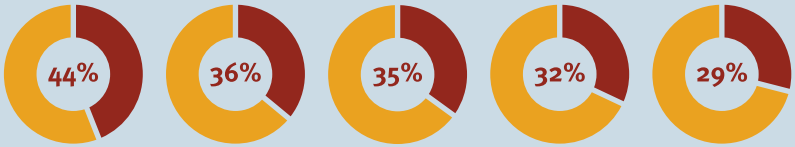
IV. A gendered analysis of violent deaths

Female and male victims of lethal violence in 2016



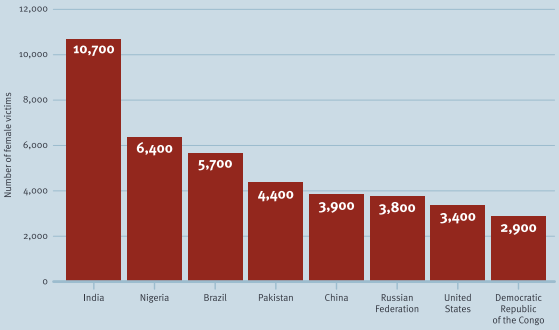
87,300 women killed violently in 2016

Regions with the highest percentages of female victims



As general rates of violence decrease the female share of homicide victims increases

Countries with the most female victims



High-income, low-violence countries where at least as many women as men were killed in 2016

Austria	Belgium	Germany	Japan
Slovenia	South Korea	Switzerland	

Despite efforts to integrate gender into the analysis of lethal violence, it is often the missing piece of the puzzle. Far from being an optional consideration, however, gender is an integral element without which a fuller picture of the scale and characteristics of violent deaths remains elusive.

This section provides the latest sex-disaggregated data on violent deaths.[53] It finds that 87,300 women and girls were killed in 2016. Overall, they represented 16 per cent of all the victims of lethal violence. Yet, in some countries that are characterized by high income and low general levels of violence, the number of women and men who died violently was roughly equal, partly because levels of intimate partner homicide remain high. Data also shows that in non-conflict settings, the past ten years in particular have seen a steady decline in the lethal victimization of women and girls.

Violent deaths from a gender perspective

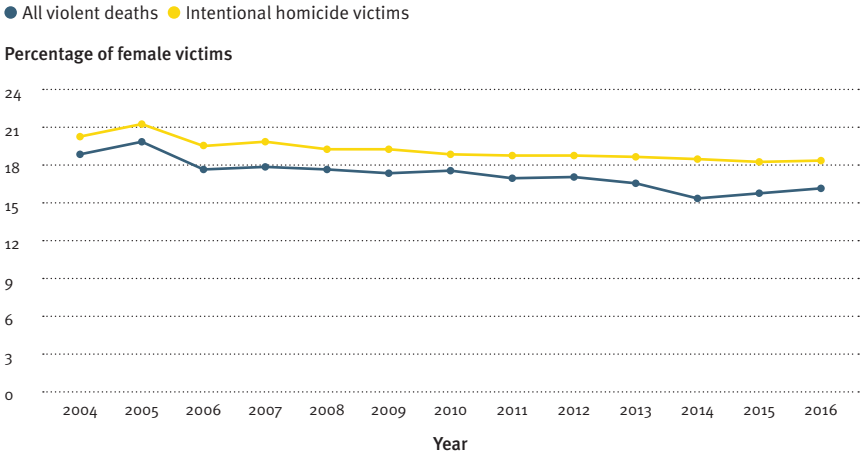
In 2016, an estimated 16 per cent of people who died violently were women and girls. Men and boys—472,600 of whom were killed during that year—thus continued to represent the majority (84 per cent) of people who experienced violent deaths worldwide. In homicides that are related to intimate partner violence (IPV), however, women and girls remain the primary victims (Norman and Bradshaw, 2013, p. 836).[54]

The proportion of women and girls among violent death victims has been fairly constant over the past decade. It reached a peak of about 20 per cent in 2005, decreased until 2014, when it arrived at a low of 15 per cent, and then increased to the current 16 per cent (see Figure 14). Changes in the share of direct conflict deaths in any particular year tend to have an inverted relationship with the proportion of female victims, since conflicts have claimed significantly fewer female victims (about 5 per cent, in conflicts for which sex-disaggregated data is available) than homicides (18–19 per cent annually since 2010). Hence, in years with exceptionally high numbers of direct conflict deaths—such as 2014—the share of female victims of all types of lethal violence contracted.

In non-conflict settings, the data reveals a slow but essentially uninterrupted decrease in the proportion of female homicide victims since 2007. In 2016, about 18 per cent of recorded homicide victims were female (see Figure 14). The period 2006–16 also witnessed a slow but steady decline in the overall violent death rate of women and girls around the world, most notably in Eastern Europe, Eastern Asia, and Central Asia.

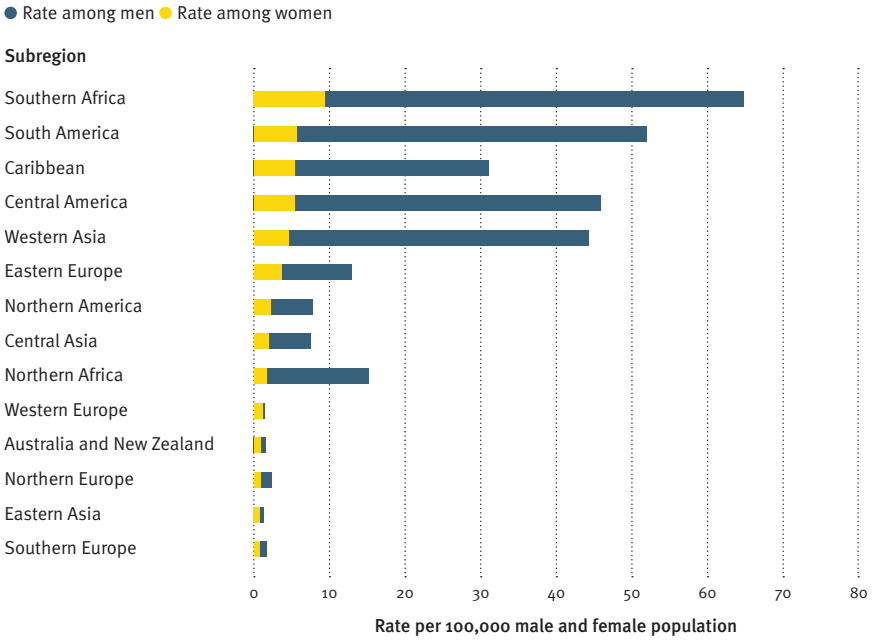
The ratio of female to male victims of lethal violence varies substantially across subregions, however. The proportion of female victims is highest in Western Europe (44 per cent), followed by Australia and New Zealand (36 per cent), Eastern Asia (35 per cent), Southern Europe (32 per cent), and Melanesia (29 per cent). The proportions are lowest in South America (11 per cent) and Central America (12 per cent). Figure 15

Figure 14 Female share of victims of lethal violence, 2004–16



Source: Small Arms Survey (n.d.)

Figure 15 Average violent death rate in selected subregions, by sex, 2011–16



Source: Small Arms Survey (n.d.)

presents violent death rates among men and women in selected subregions, based on the sex-disaggregated data that was available.

As is the case for overall violent death rates, sex-disaggregated violent death rates in 2016 were highest for both men and women in Southern Africa, Latin America and the Caribbean, and Western Asia (see Annexe 1).[55] Victim rates among men varied heavily across the subregions—the rate was nearly 70 per cent higher in South America (52 per 100,000 men) than in the Caribbean (31 per 100,000 men), for example. In contrast, victim rates among women were similar across most subregions, with rates of 5–6 per 100,000 women; the region with the highest female victimization rate was Southern Africa (9.4 per 100,000 women).

“An examination of the proportion of male to female victims across subregions reveals that Western Europe, Southern Europe, Eastern Asia, and Australia and New Zealand stand out.”

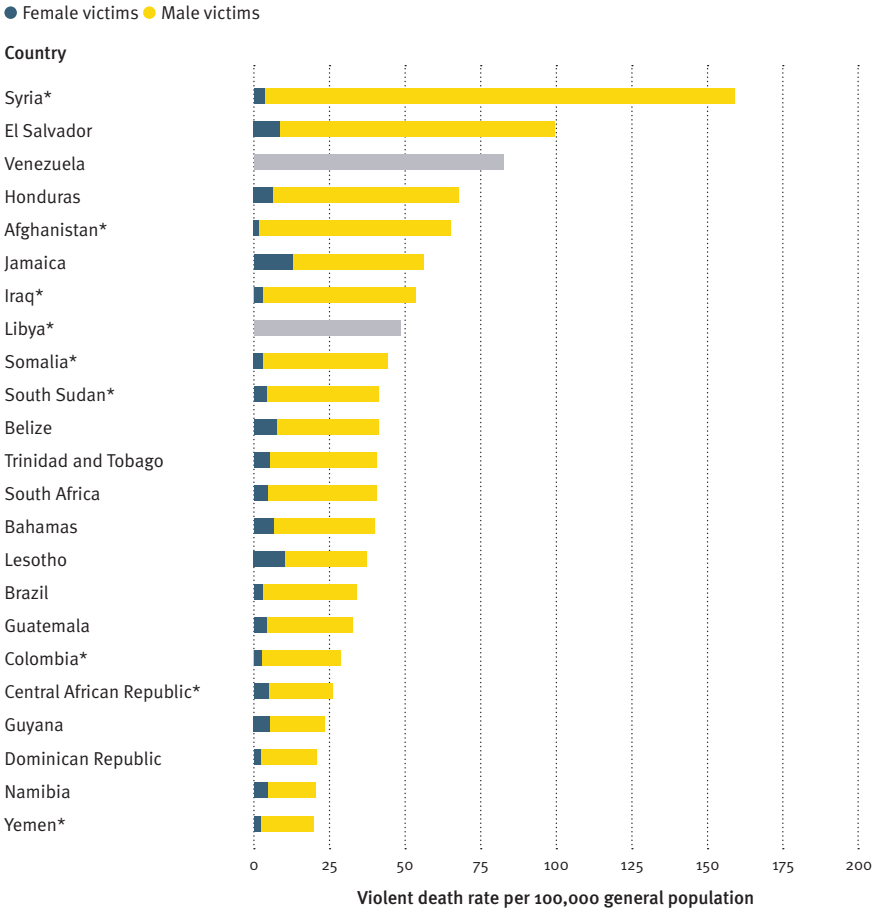
An examination of the proportion of male to female victims across subregions reveals that Western Europe, Southern Europe, Eastern Asia, and Australia and New Zealand stand out. In these subregions, women and girls accounted for an unusually high proportion—between 30 and 44 per cent—of people who were killed in 2011–16. Analysis of the data for 2016 confirms that the subregions with the highest violent death rates among the overall population had below-average proportions of female victims. This trend was also identified in earlier studies (Geneva Declaration Secretariat, 2011, p. 123; Widmer and Pavesi, 2016c, p. 2). In contrast, in the subregions with low overall violent death rates, women accounted for a relatively high proportion of the victims. The relationship holds true even after conflict deaths are discounted: regions with higher homicide rates usually have a lower proportion of female victims (see Figure 18).

The instruments used to kill women vary depending on the types of perpetrators and circumstances of the crimes committed (Geneva Declaration Secretariat, 2015, p. 100). The presence of a firearm has been found to be an important risk factor for IPV-related homicides, or serious injuries resulting from IPV, especially when compared to other types of weapons (Shaw, 2013, p. 25).

Although there is a general lack of data on non-fatal firearm injuries sustained by women, research suggests that lethal incidents account for a small part of overall female victimization (Shaw, 2013, p. 29). In both the private and the public spheres, firearms can be used to facilitate various types of non-lethal violence that particularly affect women and girls, including harassment and intimidation, domestic violence, rape, trafficking, forced prostitution, assault, and sexual violence (Chinkin, n.d., p. 6). While arms may

not always be used in gender-based violence, they are correlated with an increase in gender inequality and 'a generalized culture of violence, against women in particular' (WILPF, 2017, p. 2). This kind of aggression is often rooted in what scholars refer to as 'hyper-masculinities' or firearm-related social norms that focus on physical strength, control, and aggression (Dziewanski, LeBrun, and Racovita, 2014, p. 14).

Figure 16 Estimated proportion of lethal violence victims by sex in countries with violent death rates of at least 20 per 100,000 general population, 2016 (or latest available year)



Note: An asterisk (*) indicates that a country experienced armed conflict in 2016. Sex-disaggregated data was not available for Venezuela or Libya.

Source: Small Arms Survey (n.d.)

Country-specific risks

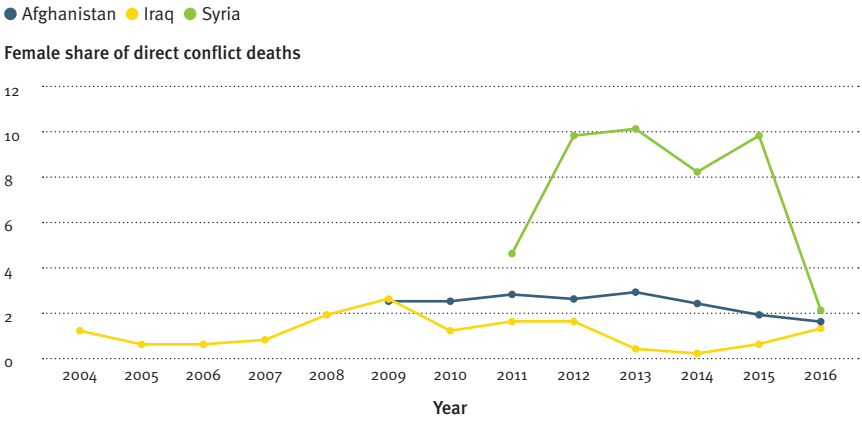
Figure 16 shows sex-disaggregated violent death rates for countries that registered homicide rates of at least 20 per 100,000 population in 2016.[56]

As Figure 16 illustrates, in all of these countries, men and boys were the primary victims of lethal violence—by a considerable margin. In 2016 (or the latest year for which data was available), victimization rates for women and girls were highest in Jamaica (25.6 per 100,000 women), Lesotho (20.1), El Salvador (16.2), Belize (15.2), and Honduras (12.6).[57] The greatest number of women and girls lost their lives violently in countries with large populations, such as India (10,700 female violent deaths), followed by Nigeria (6,400), Brazil (5,700), Pakistan (4,400), China (3,900), the Russian Federation (3,800), the United States (3,400), and the Democratic Republic of the Congo (2,900).

In 2011–16, women and girls were more exposed to lethal violence in Syria than anywhere else in the world. Following a peak in 2012–15, the number of female victims in the country significantly decreased with the de-escalation of the conflict in 2016. On average, the violent death rate exceeded 30 victims per 100,000 women and girls in 2012–15; it peaked in 2013, with 55 violent deaths per 100,000 women and girls, and dropped to 7.6 in 2016. At its peak, it was the single highest violent death rate observed for women and girls in any country since the Small Arms Survey began gathering data for its Database on Violent Deaths in 2004.

Sex-disaggregated data on direct conflict deaths, typically among civilians, in Afghanistan, Iraq, and Syria shows that in each of these three conflicts, the proportion of female victims peaked before 2016 (Humanitarian Tracker, 2016; Iraq Body Count, n.d.;

Figure 17 Female share of direct conflict deaths in Afghanistan, Iraq, and Syria, 2004–16



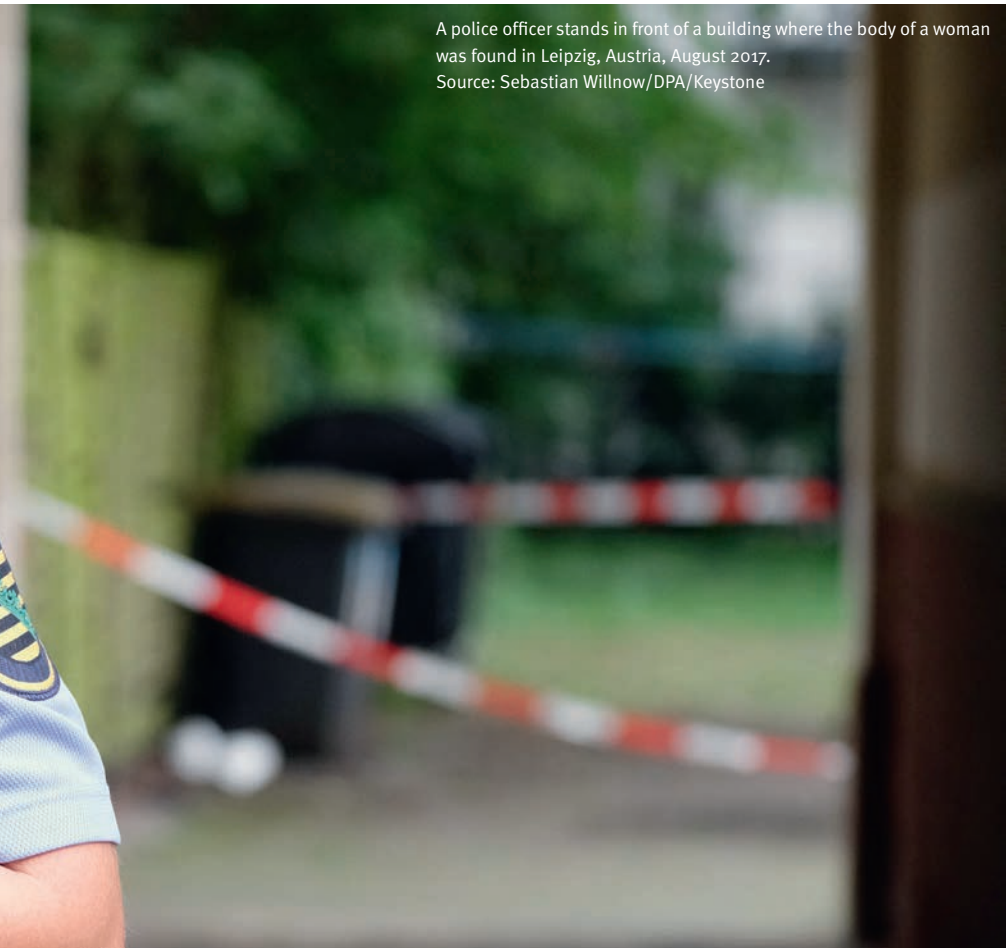
Source: Small Arms Survey (n.d.)

UNAMA, 2015). Iraq exhibited a slight upward trend in the female share of direct conflict deaths from 2014 to 2016; in contrast, the proportion of women and girls killed in the wars in Afghanistan and especially in Syria decreased substantially in 2016 (see Figure 17).[58]

While it is evident that direct conflict deaths predominantly affect men and boys, it must be remembered that available statistics on conflict deaths capture only a fraction of the many types of harm inflicted on people in conflict settings. The female share of fatalities may be higher than that of males with respect to indirect conflict deaths, such as those resulting from a lack of access to healthcare and risks associated with displacement (see Box 5).

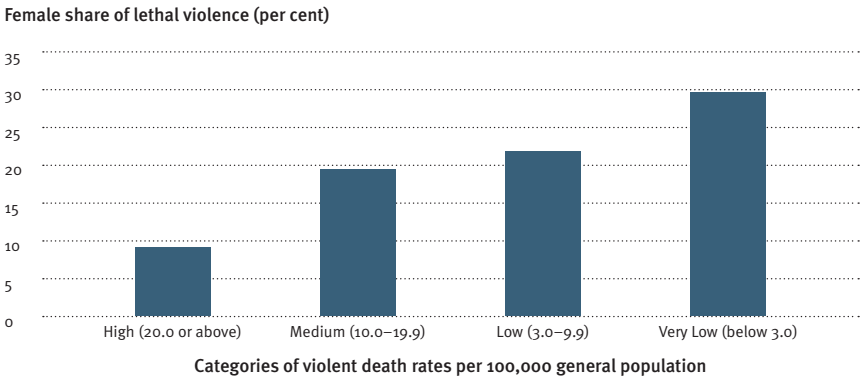
Variations in violence rates among female and male victims

Men, women, girls, and boys also face different risks in countries that are not affected by armed conflict. Figure 18 shows the average percentage of female victims by levels of lethal violence in their country of residence. It indicates that the female share of victims in countries with 'high' rates of lethal violence is generally below the global average of 16 per cent, whereas the reverse is true in countries with lower violent death rates. High rates of overall violence are usually related to large-scale organized criminal activity or gang violence, which is disproportionately male-dominated. In contrast, in countries with 'low' overall homicide rates, the high proportion of female homicide victims reflects the fact that IPV-related homicides make up a significant share of all



A police officer stands in front of a building where the body of a woman was found in Leipzig, Austria, August 2017.
Source: Sebastian Willnow/DPA/Keystone

Figure 18 Female share of violent deaths, per category of violent death rates, 2011–16



Source: Small Arms Survey (n.d.)

violent deaths. Much of the IPV, which can escalate to homicide, is perpetrated by spouses or intimate partners in the home (Mc Evoy, 2012, p. 11).

At the bottom end of the spectrum, in countries with 'very low' rates of violent deaths, the proportion of female homicide victims is about 30 per cent, which is well above the global average of 16 per cent. A comparison with data for the period 2010–15 reveals that the average proportion of female victims has decreased slightly in the high, low, and very low categories, but not in countries with 10–19 violent deaths per 100,000 population.

Table 3 lists eight industrialized countries in which the female share of homicide victims was, on average, similar to (within a 10 per cent range) or higher than the male share in 2011–16. Many of the female victims were killed in the context of IPV. For five of the countries—Austria, Germany, Japan, Slovenia, and Switzerland—this finding confirms a pattern that was already observed for 2010–15 (Widmer and Pavesi, 2016c, p. 4). Seven of the countries—namely Austria, Belgium, Germany, Japan, Slovenia, South Korea, and Switzerland—are high-income countries that are listed among the top 25 in the Human Development Index (UNDP, 2016a, p. 206); they usually register overall homicide rates well below 3 per 100,000 population.

The inverted relationship between the rate of lethal violence and the proportion of female victims has been known as the 'static law' since the 1930s (Lappi-Seppälä and Lehti, 2016, p. 428). According to studies, female homicide rates in industrialized countries have declined over the past 20 years, probably due to a general decrease in violence and 'not so much to any gender specific policy actions' (p. 467). Gender equality can lead to an increase in the *relative* homicide victimization risk for women

Table 3 Industrialized countries where lethal victimization rates among women are similar to or higher than rates among men, 2011–16 average

Country (Human Development Index rank)	Average lethal violence rate per 100,000 population of the same sex, 2011–16		Women's rate as compared to men's*
	Women	Men	
Brunei (30)	0.7	0.2	+61%
Austria (2)	0.6	0.6	+18%
Switzerland (2)[59]	0.8	0.7	+11%
Japan (17)	0.4	0.3	+8%
Germany (4)	1.0	1.0	+1%
Belgium (22)	2.0	2.5	–7%
South Korea (18)	2.2	2.5	–8%
Slovenia (25)	1.0	1.1	–9%

Note: * The calculations are based on unrounded figures.

Sources: Small Arms Survey (n.d.); UNDP (2016a, p. 206)

(see Box 9). Equality tends to be accompanied by other welfare gains, which, in turn, lead to a general decrease in lethal violence; rates of homicide involving male victims tend to drop faster than those with female victims, however (Lappi-Seppälä and Lehti, 2016, p. 467).

The persistence of intimate partner violence

Research on homicide mortality reveals significant differences between men and women. Indeed, women are much more likely to be killed by family members or intimate partners than are men. Even in countries where overall rates of homicide are decreasing, including the female share of homicide victims, some types of lethal violence, such as intimate partner homicide, remain prevalent (Geneva Declaration Secretariat, 2011, pp. 128–29; Widmer and Pavesi, 2016c, p. 1; see Box 9). This is true even in high-income, low-violence countries where resources are relatively plentiful; in these contexts, IPV accounts for most of the lethal violence against women (Geneva Declaration Secretariat, 2015, p. 88). In recognition of this trend, some Western European statistical offices recently made progress in recording not only the sex of the victim, but also factors such as the relationship between the victim and the offender, as well as the

Box 9 IPV and the 'Nordic paradox'

Although gender inequality has long been associated with a higher incidence of IPV, a few countries have defied this norm (Falb, Annan, and Gupta, 2015). The Nordic countries—Denmark, Finland, Iceland, Norway, and Sweden—display the world's highest levels of gender equality, occupying top positions in the 2015 Global Gender Gap Index (World Economic Forum, 2015).[60] Nevertheless, the prevalence of IPV is high in all five. This contradictory finding—which was recently dubbed the 'Nordic paradox' (Gracia and Merlo, 2016)—raises many questions about the dynamics at play.

The high level of domestic violence in Nordic countries is nothing new. A 2014 European Union survey found that high percentages of women in Denmark, Finland, and Sweden had experienced physical and/or sexual violence at the hands of a current or previous partner: 32, 30, and 28 per cent, respectively (FRA, 2014, pp. 17–18). The latest statistics indicate a slight amelioration. In Finland, for instance, trend data shows a slow but steady decrease in the number of IPV-related incidents since 2012, yet more than 5,200 IPV cases were registered in 2016 (Statistics Finland, 2017, p. 2). In 2015, Sweden recorded about 17,000 cases of intimate partner assaults, which accounted for 24 per cent of all assaults reported that year (Swedish NCCP, 2017). While these figures could be a sign of better reporting practices in Nordic countries, at least some data suggests that a smaller proportion of women who have experienced IPV report the incidents to the police in these countries than elsewhere in Europe (Gracia and Merlo, 2016, p. 29).

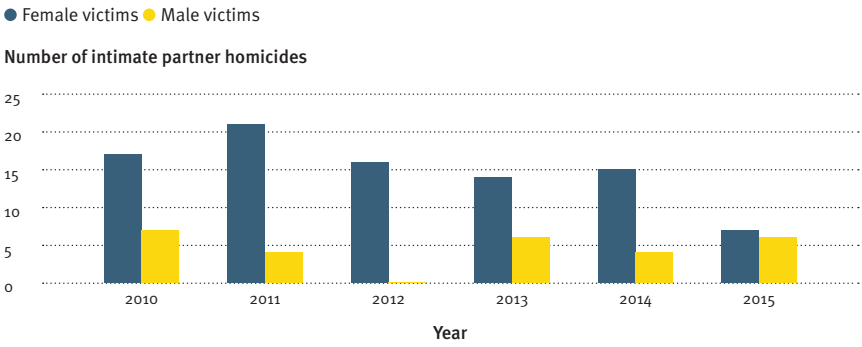
Homicide by an intimate partner, the most extreme manifestation of IPV, accounts for just a fraction of domestic violence. Women are the primary victims of IPV-related homicide in the Nordic region, although in some countries the proportion of female victims has been shrinking. In Finland, for example, the number of women killed by an intimate partner has continued to decrease since 2011, while the number of men killed in similar circumstances has remained more inelastic (see Figure 19).

In Iceland, one of the countries with the lowest homicide numbers in the world, 40 per cent of homicides registered between 1980 and 2015 (22 out of 56) were connected to domestic violence; the victims of these killings were equally divided between the sexes (Reykjavíkurborg Mannréttindaskrifstofa, 2016, pp. 13–14).[61] During that period in Iceland, far more women—11 out of 16 (nearly 70 per cent)—were killed as a result of domestic violence than other causes. In contrast, almost 30 per cent of the killings of men (11 out of 40) occurred in domestic settings.

Scholars have put forward various theories to explain the paradox. Some have argued that, as in other contexts, a woman's attainment of a social or economic status that is equal or superior to her partner's may trigger a backlash, increasing the risk of IPV (Abramsky et al., 2011; Gracia and Merlo, 2016; Jewkes, 2002). Other studies of IPV perpetrators suggest that mental health issues and 'inherited violence'—the links between childhood experiences of domestic violence and the perpetration of violence as an adult—may play an important explanatory role (Øistad, 2015; Vall, 2017).

Author: Mihaela Racovita

Figure 19 Number of women and men killed by intimate partners in Finland, 2010–15



Source: ICLP (2016)

motivation for the crime, allowing for an improved understanding of lethal violence as it affects women (Widmer and Pavesi, 2016c, p. 5).[62] Still, disaggregated data on IPV-related homicides is not readily available in most countries, including some Western European states (Widmer and Pavesi, 2016c, p. 5). The result is a gap in our understanding of the problem.

IPV is a complex issue that requires complex, cross-sectoral interventions, including the development of system-wide relevant protocols and policies, routine screening within the health sector, the changing of social norms, legal protection for survivors, and the provision of financial support for survivors (Niolon et al., 2017). The comparability of IPV statistics is rendered difficult by inconsistencies in the way violence and abuse are defined in different countries; moreover, the reliability of the data is undermined by chronic underreporting, as survivors may not be willing to speak openly about their experiences, including for social and financial reasons.

Nevertheless, global risk factors for IPV have long been recognized and a wealth of information is available on prevention strategies (Jewkes, 2002; WHO, 2002, pp. 96–100; WHO and LSHTM, 2010). While it is not clear that better data on IPV will automatically lead to better policies in this highly politicized arena, governments will be unable to make informed decisions on related SDG targets without relevant data (Fincham et al., 2013, p. 5). It is thus crucial that this data gap on the national prevalence of IPV be recognized and addressed as a priority early in the SDG era, alongside other data gaps.

To that end, countries will need to collect data—normally via specialized surveys—on non-lethal violence in accordance with SDG Indicator 5.2.1, which serves to track the proportion of 'ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in

the previous 12 months, by form of violence and by age' (IAEG, 2017, p. 21). To capture IPV-related homicides, national homicide data needs to be disaggregated by perpetrator, in line with Indicator 16.1.1, which calls for information on the '[n]umber of victims of intentional homicide per 100,000 population' (p. 34). The recommended disaggregation for this indicator includes the 'situational context/motivation', such as whether the homicide resulted from 'organized crime, intimate partner violence, etc.' (IAEG, 2016, p. 2). It is this level of detail that should help to pave the way to more informed prevention and response measures.

> “Within the framework of the 2030 Agenda, governments have an unprecedented opportunity to prevent violent deaths among their populations.”

Conclusion

In 2016 at least 560,000 people died violently. The vast majority of the victims of lethal violence continued to lose their lives outside of conflict zones. Of the 23 countries with the highest rates of violent deaths in 2016, only nine were affected by an armed conflict. Global homicide rates increased slightly from 2015 to 2016, following a prolonged period of contraction in 2004–15. In contrast, the overall number of direct conflict deaths decreased from 2015 to 2016, and the most deadly armed conflicts continued to be Afghanistan, Iraq, and Syria. Direct conflict deaths accounted for approximately 18 per cent of all violent deaths.

The data presented in this report confirms a number of trends identified in previous Small Arms Survey publications, including the following:

- Significantly more violent deaths continue to occur in non-conflict zones than on the battlefield.
- The proportion of women and girls among violent death victims has remained at a constant level.
- The Americas region continues to account for the greatest proportion of violent deaths worldwide.

All countries—both industrialized and developing—have committed to pursuing a significant reduction in violent deaths, regardless of their baseline in terms of violent death rates. As this report reveals, pursuing policies that would lead to a 'positive' over a 'negative' scenario could save nearly 2.6 million lives over the whole 2017–30 period. Within the framework of the 2030 Agenda, governments have an unprecedented opportunity to prevent violent deaths among their populations.

More generally, states and other actors that seek to reduce lethal violence levels have the option to use the available data and lessons learned—both from this report and future analyses—as a means of working towards the agreed SDG targets. Advocates of violence reduction initiatives can make use of the data on global, regional, and subregional violent deaths, as well as the scenarios data, to open up debates at the national and international levels, to seek technical, financial, and political support for programmes in the most-affected countries, and to demonstrate the great potential for change in the SDG era. Equipped with a better understanding of what is achievable, how change can happen, and how individual states can contribute to national and global progress on reducing violent deaths, governments are far more likely to take meaningful steps towards achieving Target 16.1.

In partnership with UN agencies, intergovernmental organizations, national governments, and civil society groups, the Small Arms Survey is actively supporting the SDG agenda (see Box 10). The Survey will continue to analyse data from states and civil society to track violent deaths worldwide and to assess progress made against Goal 16.

Box 10 The Small Arms Survey and the SDG agenda

As part of the 'global statistical community', the Small Arms Survey is at the forefront of analytical work to enhance data collection and analysis methods in support of sustainable development (UNSG, 2017a, p. 2). These efforts involve:

- providing methodological support to aid the development of violence-related SDG indicators;
- measuring and documenting legal and illicit arms flows;[63]
- providing national, regional, and global analysis on SDG-related targets for monitoring purposes;
- highlighting data gaps on (armed) violence; and
- using statistical analysis to develop projections and scenarios to allow policy-makers to understand the enormity of the problem—and the risks associated with inaction.

The Small Arms Survey will remain engaged, not only by working with partners to monitor violence, identify global and regional trends, and track changes in the roles of firearms and gender, but also by participating in the SDG16 Data Initiative.[64] Moreover, it will contribute to international debates by generating new projections and scenarios to capture both positive and negative emerging trends. By continuing to invest in this kind of independent, global analysis, the international community can maintain attention on Goal 16 and enhance implementation efforts.

This report illustrates both the challenges and opportunities inherent in reducing violence levels in the SDG era. Its findings point to the following policy-relevant considerations, the most obvious of which is that if SDG Target 16.1 is to be realized, the reduction of violent deaths—and in particular homicides—must become a priority for states.

- **Prioritize violence reduction**. Violence reduction initiatives are among the key ways to achieve peaceful, just, and inclusive societies and are therefore crucial indicators of successful implementation of Goal 16. For populations around the world, reduced levels of violence go hand in hand with improved safety levels, which can have a series of positive knock-on effects. National governments have the primary responsibility for reducing violent deaths under the 2030 Agenda. It will be key for states to develop bold, targeted, evidence-based strategies, policies, and programmes to meet Target 16.1, based on accurate disaggregated data gathered at the national level. The 2030 Agenda presents governments with a concrete and unprecedented opportunity to move beyond vague and aspirational commitments—especially in relation to reducing homicide levels—to concrete action and results.
- **Build evidence**. Solid evidence on what works to reduce homicide levels, particularly in highly affected countries, is still lacking. Governments and civil society actors can develop evidence-based knowledge on what strategies and programmes work—

particularly at scale—by engaging in cross-regional learning, sharing experiences (including from violence observatories), and designing and monitoring the impact of relevant programmes and policies. Related adaptation of successful programmes and policies to local contexts is an essential pathway to violence reduction.

- **Join forces**. No single actor can secure reductions in violent deaths. A collective effort is required, as is leadership from, and collaboration among, different sectors and actors, including at the subnational and municipal levels. It is also important to involve actors in neighbouring regions and countries, as violence—and its spill-over effects, including mass migration—is rarely confined within borders.
- **Tackle risk factors and strengthen institutions**. The scenarios in this report illustrate clearly the consequences of not taking action to reduce violent deaths. Action must not only address the risk factors—such as drug trafficking, inequality, unemployment, and organized crime—but also strengthen the institutions responsible for delivering peaceful societies, in line with the aims of Goal 16.
- **Support states in building capacity**. Tailored and targeted assistance is urgently required for some states—particularly those in or emerging from conflict—to upskill relevant authorities, such as national statistical offices and health agencies, so that they can measure violent deaths with accuracy and authority. They should be supported to ensure that the sharing of data does not lead to retaliation or have negative political implications, especially in cases where better data reveals higher levels of violence than previously documented. Many affected states do not have adequate resources to address these issues; assistance and mentoring may help them not only to produce better data, but also to establish benchmarks for evidence-based policies and interventions.
- **Support civil society**. A coordinated, independent, and strong civil society has a crucial role to play in supporting national governments to realize the promise of Target 16.1, particularly in relation to reducing homicide rates. Civil society can use data strategically to provide baselines, to triangulate (and challenge) government data, to measure progress against milestones and outcomes independently, and to hold governments to account. Relevant groups should seek to foster partnerships at the global and regional levels, in support of their national violence reduction and prevention efforts. International funding for civil society organizations, including for staff training, will enable these groups to perform their tasks successfully.
- **Be part of the data revolution**. Delivery on Target 16.1 requires 'increased investment in the knowledge, data and evidence that is needed to inform decision-making' (Pathfinders, 2017, p. 47). Yet, as this report illustrates, data gaps present a persistent challenge to monitoring global and national trends. Data on intimate partner homicides is particularly sparse, even in countries with high levels of resources. The disaggregation of homicide data can shed light on the motivations behind killings and on the perpetrators, and can thus inform the design of violence prevention

policies and programmes. Improvements in the accuracy and availability of data alone will not counter lethal violence but will better position states and civil society groups to implement the SDGs. Data disaggregated by sex, age, ethnicity, victim–perpetrator relationship, and motivations for violence, along with contextual information such as the location, time, and instrument of violence, are indispensable to efforts to diagnose, reduce, and prevent violence.

- **Develop holistic national policies on reducing illicit firearms**. Comprehensive national policies, accompanied by legislation and the necessary resources to implement them, are key to reducing illicit arms flows. These measures will be most effective at curbing diversion risks and reducing illicit arms flows if they draw on the full set of international instruments and normative frameworks.

Annexe 1. UN statistical ('M49') regions

Africa

Northern Africa

Algeria
Egypt
Libya
Morocco
Sudan
Tunisia
Western Sahara

Sub-Saharan Africa

Eastern Africa

British Indian Ocean Territory
Burundi
Comoros
Djibouti
Eritrea
Ethiopia
French Southern Territories
Kenya
Madagascar
Malawi
Mauritius
Mayotte
Mozambique
Réunion
Rwanda
Seychelles
Somalia
South Sudan
Uganda
Tanzania
Zambia
Zimbabwe

Middle Africa

Angola
Cameroon
Central African Republic
Chad
Democratic Republic of the Congo
Equatorial Guinea
Gabon
Republic of the Congo
São Tomé and Príncipe

Southern Africa

Botswana
Lesotho
Namibia
South Africa
Swaziland

Western Africa

Benin
Burkina Faso
Cape Verde
Côte d'Ivoire
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali
Mauritania
Niger
Nigeria
Saint Helena
Senegal
Sierra Leone
Togo

Americas

Latin America and the Caribbean

Caribbean*

Anguilla
Antigua and Barbuda
Aruba
Bahamas
Barbados
Bonaire, Sint Eustatius, and Saba
British Virgin Islands
Cayman Islands
Cuba
Curaçao
Dominica
Dominican Republic
Grenada
Guadeloupe
Haiti
Jamaica
Martinique
Montserrat
Puerto Rico
Saint Barthélemy
Saint Kitts and Nevis
Saint Lucia
Saint Martin (French part)
Saint Vincent and the Grenadines
Sint Maarten (Dutch part)
Trinidad and Tobago
Turks and Caicos Islands
United States Virgin Islands

Central America

Belize
Costa Rica
El Salvador
Guatemala
Honduras
Mexico
Nicaragua
Panama

South America

Argentina
Bolivia
Bouvet Island
Brazil
Chile
Colombia
Ecuador
Falkland Islands (Malvinas)
French Guiana
Guyana
Paraguay
Peru
South Georgia and the South Sandwich Islands
Suriname
Uruguay
Venezuela

Northern America*

Bermuda
Canada
Greenland
Saint Pierre and Miquelon
United States of America

Antarctica

Asia

Central Asia

Kazakhstan
Kyrgyzstan
Tajikistan
Turkmenistan
Uzbekistan

Eastern Asia

China
China, Hong Kong
China, Macao
Japan

Mongolia
North Korea
South Korea

South-eastern Asia

Brunei
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Singapore
Thailand
Timor-Leste
Vietnam

Southern Asia

Afghanistan
Bangladesh
Bhutan
India
Iran
Maldives
Nepal
Pakistan
Sri Lanka

Western Asia

Armenia
Azerbaijan
Bahrain
Cyprus
Georgia
Iraq
Israel
Jordan
Kuwait
Lebanon
Oman
Palestinian Territories
Qatar
Saudi Arabia
Syria
Turkey
United Arab Emirates
Yemen

Europe

Eastern Europe

Belarus
Bulgaria
Czech Republic
Hungary
Moldova
Poland
Romania
Russian Federation
Slovakia
Ukraine

Northern Europe

Åland Islands
Channel Islands
  Guernsey
  Jersey
  Sark
Denmark
Estonia
Faroe Islands
Finland
Iceland
Ireland
Isle of Man
Latvia
Lithuania
Norway
Svalbard and Jan Mayen Islands
Sweden
United Kingdom of Great Britain and
  Northern Ireland

Southern Europe

Albania
Andorra
Bosnia and Herzegovina
Croatia
Gibraltar
Greece
Holy See
Italy
Macedonia, the former Yugoslav Republic of
Malta
Montenegro
Portugal
San Marino
Serbia
Slovenia
Spain

Western Europe

Austria
Belgium
France
Germany
Liechtenstein
Luxembourg
Monaco
Netherlands
Switzerland

Oceania

Australia and New Zealand

Australia
Christmas Island
Cocos (Keeling) Islands
Heard Island and McDonald Islands
New Zealand
Norfolk Island

Melanesia

Fiji
New Caledonia
Papua New Guinea
Solomon Islands
Vanuatu

Micronesia*

Guam
Kiribati
Marshall Islands
Micronesia
Nauru
Northern Mariana Islands
Palau
United States Minor Outlying Islands

Polynesia*

American Samoa
Cook Islands
French Polynesia
Niue
Pitcairn
Samoa
Tokelau
Tonga
Tuvalu
Wallis and Futuna Islands

Note: * For the purposes of this analysis and Map 1, small territories and islands have been aggregated and treated as single countries, as follows:

Caribbean Islands: Aruba, the British Virgin Islands, the Cayman Islands, Curaçao, Guadeloupe, Martinique, Montserrat, Turks and Caicos Islands, and the United States Virgin Islands;

Lesser Antilles: Anguilla, Antigua and Barbuda, the Bahamas, Barbados, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines;

Northern American Islands: Bermuda, Greenland, and Saint Pierre and Miquelon;

Micronesia: Guam, Kiribati, the Marshall Islands, Micronesia, Nauru, and Palau; and

Polynesia: Cook Islands, French Polynesia, Niue, Samoa, Tonga, and Tuvalu.

Source: UNSD (n.d.)

Annexe 2. Selected SDGs, targets, and indicators

Goal	Target	Indicator
Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture		
Goal 3 Ensure healthy lives and promote well-being for all at all ages	**Target 3.1** By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	**Indicator 3.1.1** Maternal mortality ratio
	Target 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	**Indicator 3.2.1** Under-five mortality rate **Indicator 3.2.2** Neonatal mortality rate
	Target 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	**Indicator 3.9.2** Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)
Goal 5 Achieve gender equality and empower all women and girls	**Target 5.2** Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	**Indicator 5.2.1** Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age

Goal	Target	Indicator
Goal 6 Ensure availability and sustainable management of water and sanitation for all		
Goal 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	**Target 16.1** Significantly reduce all forms of violence and related death rates everywhere	**Indicator 16.1.1** Number of victims of intentional homicide per 100,000 population, by sex and age **Indicator 16.1.2** Conflict-related deaths per 100,000 population, by sex, age and cause
	Target 16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime	**Indicator 16.4.2** Proportion of seized, found or surrendered arms whose illicit origin or context has been traced or established by a competent authority in line with international instruments
Goal 17 Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	**Target 17.18** By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts	

Source: IAEG (2017)

Annexe 3. Data sources and methodology

The Small Arms Survey's methodology is based on a unified approach to lethal violence and the conviction that prevention of all forms of violence and violent deaths is necessary to achieve 'peaceful and inclusive societies', as envisaged in the 2030 Agenda. This approach is aimed at securing a safe future for everybody, to ensure that 'no one will be left behind' (UNGA, 2015, p. 3).

Through its Database on Violent Deaths, the Survey uses national or other country-level indicators to track changes in lethal violence worldwide. The database contains data reaching back to 2004 and is updated on a yearly basis; the cut-off date for the analysis presented in this report was 1 July 2017. Work on the three scenarios for the period 2017–30 was undertaken in 2017 based on data series ending in 2016.

'Violent deaths' is understood as a composite indicator that combines data on lethal violence in both conflict and non-conflict situations. The analysis focuses on violent deaths as measured by:

- homicides;[65]
- direct conflict deaths;[66] and
- other violent deaths (unintentional homicides and killings due to legal interventions).[67]

This approach to measuring violent deaths is broadly consistent with the SDG framework for monitoring trends of lethal violence by using global indicators (Geneva Declaration Secretariat, 2015).

This report analyses data on violent deaths from 223 countries and territories. Estimates were calculated from national and cross-national specialized data sets. A similar methodology constituted the basis for the violent deaths estimates presented in the *Global Burden of Armed Violence* reports, as well as the Survey's most recent Research Notes on violent deaths (Geneva Declaration Secretariat, 2008; 2011; 2015; Widmer and Pavesi, 2016a; 2016b; 2016c). All statistics presented in this report are based on the latest available data; for the missing data points for 2016, projections were made based on the latest available data.

Homicide

Data on intentional homicide is typically produced by national criminal justice and public health systems and disseminated by a range of governmental agencies, such as national statistical offices. Other national institutions and international organizations

disseminate secondary homicide data. If more than one source was available, a single source was selected on the basis of the following criteria: length of time series; clarity; consistency; and accessibility.

For countries and territories with incomplete time series, missing data points were imputed either from alternative available sources or on the basis of the most recent previous year with available information.[68] In the absence of national criminal justice statistics on homicide counts for 28 countries, it was necessary to use mortality estimates from international health organizations.

For all countries and territories, homicide data was disaggregated by sex and the use of firearms either on the basis of available statistical sources or using a regional average estimate. For the years 2004–16, at least some sex-disaggregated homicide data covering one or more years was available from criminal justice or public health statistics for 194 countries, while data on firearm homicides was available for 168 countries.[69] The proportion of countries where disaggregated national criminal justice statistical sources were available was low: out of the 223 countries in the Small Arms Survey database, only 58 had sufficient national sources for trend analysis based on data disaggregated by sex, and just 36 had enough data disaggregated by firearm use.

Conflict-related deaths

The Database on Violent Deaths includes documented conflict fatalities by any source, including academic centres, civil society organizations, states or state-funded agencies, and international organizations (Pavesi, 2017). As of July 2017, the direct conflict deaths data set contained information on fatalities in 37 countries and territories, all of which experienced armed conflict at some point between 2004 and 2016. Monitoring systems run by international organizations and civil society groups differ in terms of their thematic coverage, geographical focus, and level of disaggregation. In view of these methodological challenges, the Small Arms Survey produced annual data points by averaging multiple converging sources and excluding any outliers (Geneva Declaration Secretariat, 2009, p. 9).

Other violent deaths

The proportions of legal intervention killings and unintentional homicides in this report are based on samples of data from countries for which the information is available.

All findings presented are from the Survey's Database on Violent Deaths, unless stated otherwise. The database can be accessed online (Small Arms Survey, n.d.).[70]

Scenarios

Table A1 summarizes the statistical approach and considerations used in developing the 'business-as-usual', positive, and negative projections of violent deaths for the 2017–30 period, with a focus on intentional homicides and direct conflict deaths.

Table A1 Overview of scenario methodology

Scenario Research question	Assumptions	Notes
'Business-as-usual' *What happens if current trends continue?*	**Homicide**: Current trends continue on a subregional level.	Homicide projections are derived from current trends.[71] Most regions display logarithmic trends,[72] which are projected to continue until 2030.[73] For regions that exhibit exponential trends, extrapolations were undertaken more cautiously, to avoid a rapid inflation or deflation of rates.
	Direct conflict deaths: A moderate increase is foreseen.	While current trends reflect a decrease in conflict deaths since 2014, this scenario anticipates a logarithmic curve that starts in 2004 and remains just above 100,000 direct conflict deaths for most of the 2020s and 2030.
Positive *How many lives could be saved if states reinforced their efforts to achieve SDG Target 16.1?*	**Homicide**: Countries start to progress towards, and eventually reach, the average homicide rate changes recorded by the top performers in their respective world regions.	This scenario assumes that countries will gradually be able to replicate the performance of states in their respective world regions that exhibited the greatest annual rates of decrease in homicides in 2005–16 (based on up to three top performers, depending on the number of countries in the particular region). It is anticipated that immediate policy action could bring countries close to this performance over a period of about eight years and that from 2025 onwards, each country would improve its homicide rate annually, at the rate seen in 2005–16 among the top performers in their respective world regions.

Scenario Research question	Assumptions	Notes
	Direct conflict deaths: Global conflict deaths gradually drop to levels recorded prior to the conflicts of the current decade.	This scenario presumes a gradual phasing out of ongoing major armed conflicts, such as the ones in Afghanistan, Iraq, and Syria; it assumes that countries will revert back to the pattern that prevailed from 2001 until 2008, with 40,000–60,000 direct conflict deaths annually.
Negative *What happens if the situation deteriorates?*	**Homicide**: Countries start to regress towards the worst performers in their respective world regions.	This scenario assumes that countries will regress towards the performance—that is, the average annual growth rate in homicides—of the worst performers in their respective world regions in 2005–16 (based on up to three worst performers, depending on the number of countries in the particular region). It is anticipated that countries will generally not be able to replicate these worst performances, but that their performance will gradually deteriorate towards those levels. In comparison to lives lost in the 'business-as-usual' scenario, Eastern Africa and South-eastern Asia would suffer an additional 170,000 and 140,000 homicides, respectively, in 2017–30. Latin America and the Caribbean could see 147,000 more deaths in the same period.
	Direct conflict deaths: Conflict deaths continue to rise, yet not exponentially (as in 2004–16, but rather in a linear fashion. This scenario foresees a slight rise in the number of armed conflicts, possibly in addition to a higher number of fatalities in ongoing or future conflicts.	It is impossible to anticipate the number, duration, or intensity of conflicts that could potentially erupt or continue in 2017–30. This scenario presumes that by the year 2030 the number of direct conflict deaths will be about 50 per cent higher than levels predicted by the 'business-as-usual' model, meaning that an additional 409,000 people would be killed in armed conflicts between 2017 and 2030.

Notes

The composition of subregions referred to in this report is based on the UN's standard country and area codes for statistical use (known as 'M49'); small territories and islands have been aggregated and treated as single countries (UNSD, n.d.; see Annexe 1). Population rates are drawn from the UN's World Population Prospects (UNDESA, 2017).

The selection of sources used to establish the time series is affected by changes in the availability of data, due to either the discontinuation of a given time series or the introduction of new data sets. This means that the database is constantly being updated, including retroactively.

Endnotes

1 This report uses the term 'violent death' to cover intentional and unintentional homicides, direct conflict deaths, and killings in legal interventions. Unless otherwise noted, the term 'homicide' refers to intentional homicide. In line with the approach taken by the set of indicators to measure Target 16.1 of the Sustainable Development Goals, this report focuses on interpersonal violence, excluding suicide. All figures have been rounded.

2 See Annexe 2 for a list of relevant goals, targets, and indicators.

3 The global indicators were developed by the Inter-Agency and Expert Group on SDG Indicators as 'a practical starting point' for measuring progress against the SDGs (IAEG, 2017, p. 2).

4 Disaggregation of data is key to the SDG's core message of 'leaving no one behind'. It allows for comparison of different population groups to reveal and assess the extent of possible inequality or discrimination (OHCHR, 2017b, p. 6).

5 *Metadata* describes or provides information about other data; *paradata* relates to the process by which data is collected.

6 See Geneva Declaration Secretariat (2008; 2011; 2015).

7 Indicator 16.1.1 concerns the '[n]umber of victims of intentional homicide per 100,000 population, by sex and age' (IAEG, 2017, p. 34). The SDG Indicators Global Database contains baseline data on this and other indicators (UN, n.d.).

8 For the purposes of this analysis, 'the Americas' covers North and South America, Central America, and the Caribbean region (see Annexe 1).

9 See, for example, Widmer and Pavesi (2016a; 2016b; 2016c).

10 'Intentional homicide' covers many underreported forms of killing.

11 The Small Arms Survey updates its Database on Violent Deaths using new and adjusted figures for current and past years. In addition, the Survey continually develops and periodically updates its estimation techniques for missing data points. Hence, data published in annual reports may not be comparable with previously published data for any given year. This general remark applies to any discrepancies between this and earlier publications based on the Small Arms Survey's database (see Annexe 3).

12 The underlying assumption of this 'unified' approach is that it is virtually impossible to classify contemporary violence in mutually exclusive categories due to the blurred lines between political, interpersonal, criminal, and organized violence. Deaths may be recorded under different categories—or not at all—depending on the national context (Geneva Declaration Secretariat, 2011, pp. 44–51).

13 The adoption of a common definition for intentional homicide is crucial for the purposes of the 2030 Agenda. In order to track progress towards SDG Target 16.1, states have to produce statistics that disaggregate intentional from unintentional homicides. Currently, few countries make that distinction; moreover, legal definitions vary across national penal codes, as some place an emphasis on the element of intent while others consider the presence of mitigating circumstances to determine culpability.

14 The number of violent deaths recorded in 2010–15 was higher than in 2004–09 and 2007–12 (Widmer and Pavesi, 2016a, p. 2).

15 Similar patterns related to high levels of non-conflict violence and the lasting impact of armed violence have been observed since the first *Global Burden of Armed Violence* report was published in 2008 (Geneva Declaration Secretariat, 2008).
16 Data is not available for 2016.
17 These attacks continued and escalated in 2017. See OHCHR (2017a, pp. 13–18).
18 The most recent HLPF gathering was held in July 2017 under the auspices of the UN's Economic and Social Council (UNDSD, n.d.).
19 A continuation of current trends would mean that existing mechanisms for controlling crime, violence, and conflict would persist and develop, following their current respective trajectories.
20 The global level was used because the number of individual conflicts is unpredictable, as is their duration, intensity, and scale in relation to host populations.
21 Perceptions of insecurity can be gauged through surveys. See, for example, UNDP and Small Arms Survey (2017).
22 For a review of challenges in measuring indirect conflict deaths and a discussion of applicable methodologies, see Alda and Mc Evoy (2017).
23 The analysis in this box is largely based on Alda and Mc Evoy (2017).
24 Conflict is also associated with increased rates of homicide, suicide, and unintentional, life-threatening injuries, which blur the distinction between violent and non-violent deaths. See Ghobarah, Huth, and Russett (2003, p. 8).
25 For a review of monitoring systems that track conflict-related deaths, see Pavesi (2017).
26 Sex-disaggregated data on most indicators under Goal 16, including conflict-related deaths, is still scarce.
27 Disaggregation by time is not specified in SDG Indicator 16.1.2 but is arguably implicit in the intention to measure and track mortality trends.
28 The following indicators are particularly relevant to measuring indirect conflict deaths: 3.1.1 on maternal mortality; 3.2.1 on under-five mortality rates; 3.2.2 on neo-natal mortality rates; and 3.9.2 on mortality rates attributed to unsafe water, sanitation, and poor hygiene (IAEG, 2017, pp. 17–19).
29 For every region, the Small Arms Survey identified up to three top performers based on the pace at which they reduced their homicide rates from 2004 to 2016. The presumption for this scenario is that every country will gradually reach the average annual progress rate of the top performers in their region.
30 This calculation is based on the aggregate number of possible homicide victims in 2017–30.
31 This analysis excludes countries with populations of less than 200,000, with no available data, or with only a single known data point. Projections were made based on data for 2005–16.
32 The designation of Kosovo is without prejudice to positions on its status.
33 The percentages represent the average annual reduction in the homicide rate between the earliest and latest available data points, divided by the number of years passed; the first data point equals 100 per cent. For example, if a country decreased its homicide rate from 10.0 to 5.0 over a five-year span, the annual average decrease is (((5.0–10.0)/5)/10.0)*100 = -10%.
34 For examples of recent advocacy drives, see Krisch et al. (2015) and the Instinct for Life campaign to reduce homicides in seven Latin American countries by half in ten years (Igarapé Institute, n.d.).
35 Fragility is 'the combination of exposure to risk and insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks. Fragility can lead to

negative outcomes including violence, the breakdown of institutions, displacement, humanitarian crises or other emergencies' (OECD, 2016, p. 21).

36 The benchmarks used were the annual homicide rate changes in 2004–16.

37 This approach also allows for a possible *decrease* of homicide rates in some countries, as some of the worst performers may in fact decrease their homicide rates, although not as much as other countries in their region.

38 While attempts have been made to estimate the average duration of conflicts, estimating the intensity is more challenging. It depends in particular on how the start and end dates of a conflict are defined. Furthermore, intensity varies with time and sometimes countries revert to an armed conflict while temporarily reducing levels of armed violence. For background, see Hegre, Nygård, and Ræder (2017, p. 247).

39 This calculation is based on an aggregation of all annual gains and losses for the entire period.

40 As the model anticipates gradual change, the annual number of lives saved would be relatively small in the early years and would gradually increase to the level indicated for 2030.

41 This estimate is based on data for 2004, which is sparse. The results may be indicative of a lack of data rather than a reduction in firearm deaths.

42 Countries that register a low number of violent deaths exhibit more volatility regarding certain parameters, such as whether a firearm was the lethal weapon; hence, countries with the highest rates of change in violent deaths are generally low-violence countries.

43 This finding could also reflect the extensive availability of statistical data in the Americas, which may be lacking in other world regions.

44 For more information on firearm violence in the Balkans, see Widmer and Pavesi (2016b, pp. 5–6).

45 This area of research is methodologically challenging and at times divisive. Lott, Moody, and Whitley (2016) provide a critique of Santaella-Tenorio et al. (2016).

46 The revised version was approved in March 2017.

47 For background information on the recent change to Indicator 16.4.2, see Small Arms Survey (2017).

48 National-level indicators may include the price of arms and ammunition and the proportion of legally held and illicit firearms used to conduct crimes (among cases in which a weapon is recovered). These indicators are mandated by the 2030 Agenda (UNGA, 2015, p. 32).

49 Juvenile offenders are generally understood to be under 18 years of age, although national and regional variations apply. Globally, the age of criminal responsibility varies considerably, from 10 or younger in some countries, to 12–14 or older in others (CRIN, n.d.).

50 For background, see Circo, Pizarro, and McGarrell (2016); Khachatryan, Heide, and Hummel (2016); Krohn and Lane (2015); and Price and Khubchandani (2017).

51 The global voluntary supplemental indicators aim to help states to assess their progress towards the achievement of Goal 16 by identifying additional indicators for progress evaluation at the national level (Community of Democracies, n.d.).

52 In contrast, protective and 'buffering' factors can help individuals to avoid violence. These include above-average intelligence; low levels of impulsiveness; close relationships to parents; intensive parental supervision; at least a medium socioeconomic status; strong ties to school; and living in a non-deprived and non-violent neighbourhood (WHO, 2015, p. 13).

53 All sex-specific rates are computed relative to the population count of the respective sex. The lethal violence rate for women and girls in any country would thus be counted per 100,000 women and girls in that country.

54 In the United States in 2015, for instance, women who were killed by intimate partners accounted for more than one-third of female homicide victims (35.8 per cent of 2,818), whereas men who were killed by intimate partners accounted for a small proportion of male homicide victims (2.5 per cent of 10,608) (FBI, 2016a; 2016b). A separate study found that more than half of the women who were the victims of homicide in the United States were killed in connection with IPV (Domonoske, 2017; Petrosky et al., 2017). Data from 15 European countries (with England and Wales counted as one country) reveals that about 40 per cent of female homicides committed in 2008–15 were IPV-related (Eurostat, n.d.). A separate, global study found that of all women who were the victims of homicide in 2012, almost half were killed by intimate partners or family members, compared to less than 6 per cent of men killed in the same year (UNODC, 2014, p. 14).

55 As noted above, not all states produce sex-disaggregated data for violent deaths.

56 For each country that experienced armed conflict, the share of female direct conflict deaths was estimated based on available data from Afghanistan, Iraq, and Syria.

57 For Venezuela it was not possible to produce a credible estimate of the proportion of female victims for this report. Based on the average proportion of female victims in South America, Venezuela could have more than 12 victims per 100,000 female population, but some reports suggest that the actual rate may be lower. According to a UNICEF report published in late 2014, homicide is the leading cause of death among young people in Venezuela. For 10–19-year-olds, the homicide rate is 39 per 100,000 population; for this age range, the rates are 74 male victims and 3 female victims per 100,000 general population (UNICEF, 2014, p. 38).

58 The baseline for total conflict deaths in Afghanistan, Iraq, and Syria comes from multiple sources and includes non-civilian deaths. The totals are different from those available from other sources, such as UN missions. The estimated rates of female victimization remain below the levels suggested by these sources, which primarily document civilian or non-combatant deaths. For example, statistics collated by the United Nations Assistance Mission in Afghanistan, which have been disaggregated by sex since 2009, suggest that the proportion of female direct conflict deaths reached almost 11 per cent of overall civilian deaths by 2015, starting from a baseline of fewer than 6 per cent in 2009. Yet, while the number of combatant deaths increased steadily (specifically among the Afghan military, police, and insurgents, all of whom are recorded as men for the purposes of this analysis), the female share of the victims is lower than the above UN estimate. For more information on death tolls in Afghanistan, see Crawford (2016) and Livingston and O'Hanlon (2017).

59 Austria and Switzerland share second place in the Human Development Index (UNDP, 2016a, p. 206).

60 Iceland occupies the top position the 2015 Global Gender Gap Index; it is immediately followed by Norway, Finland, and Sweden, yet Denmark is in 14th place (World Economic Forum, 2015, p. 8).

61 Nine of these killings were perpetrated by women and 13 by men.

62 Germany, for example, has identified crimes involving intimate partners since 2012. In France, crime data gathered by the police and gendarmerie is reviewed by a victims' delegation, an entity created in 2005 within the national police. The delegation identifies cases of intimate partner homicide, collects additional information, and verifies this information with regional police before compiling and publishing a detailed annual report (Widmer and Pavesi, 2016c, p. 6).

63 See the Small Arms Survey's recent analysis of illicit arms flows in Honduras (Nowak, 2016); Niger (de Tessières, 2017); Somalia (Carlson, 2016); and Ukraine (Martyniuk, 2017).

64 The SDG16 Data Initiative is a collective project established in 2016 by 14 academic and civil society organizations to compile existing global data that can help track progress towards the achievement of Goal 16 (SDG16 Data Initiative, n.d.).

65 Intentional homicide is 'unlawful death inflicted upon a person with the intent to cause death or serious injury' (UNODC, 2015, p. 17).

66 Direct conflict deaths are deaths caused by war-related injuries or attacks.

67 Legal intervention killings are defined as the 'killing of civilians by law enforcement officials, or killings of law enforcement officials on duty' (Carapic and De Martino, 2015, p. 1; see Box 3). Monitoring and reporting of deaths due to legal interventions is very uneven, and available figures are probably underestimates. Trends in unintentional homicides depend largely on legal definitions and codification of relevant indicators, which vary widely across states (Widmer and Pavesi, 2016a, p. 8).

68 The approach involves projecting the last known homicide rates to population figures for the subsequent year(s).

69 For the analyses presented in this report, subregional averages were used to estimate the possible extent of lethal violence, disaggregated by sex and by cause of death (with a focus on firearms), in countries without available data from criminal justice statistics or the World Health Organization.

70 For a discussion on the challenges related to the collection of data on violent deaths, see Alvazzi del Frate and De Martino (2015).

71 The analysis is based on the most recent consistent regional trends that have spanned at least four years since 2005 and are still ongoing. If a world region experienced an increase in homicide rates between 2005 and 2010, but a decrease between 2011 and 2016, trends were calculated on the basis of the data points for 2011–16. Reference periods thus vary across world regions.

72 A logarithmic trend is indicative of a decelerating pattern of change.

73 With the exception of South-eastern Asia (for which past data points could be extrapolated to project a linear growth of homicide rates), trends to date show a non-linear pattern. For most world regions projected change is represented by a logarithmic curve, with an ever-decreasing rate of change over time; other regions exhibit an exponential trend, meaning that change there is projected to accelerate to some extent.

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The Small Arms Survey is a global centre of excellence whose mandate is to generate impartial, evidence-based, and policy-relevant knowledge on all aspects of small arms and armed violence. It is the principal international source of expertise, information, and analysis on small arms and armed violence issues, and acts as a resource for governments, policymakers, researchers, and civil society. It is located in Geneva, Switzerland, at the Graduate Institute of International and Development Studies.

The Survey has an international staff with expertise in security studies, political science, law, economics, development studies, sociology, and criminology, and collaborates with a network of researchers, partner institutions, non-governmental organizations, and governments in more than 50 countries.

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