Measuring and Monitoring Armed Violence
Goals, Targets and Indicators

Background Paper

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Executive Summary

The human, social and economic costs of armed violence are extensive and far reaching: direct and indirect violence claims more than 740,000 lives each year. A growing body of evidence indicates that armed violence may hinder progress towards certain Millennium Development Goals (MDGs) and development in general. The forthcoming MDG review process (starting on 20–22 September 2010) is an opportunity to revisit the relationship between armed violence prevention and reduction and achieving MDGs. In order to support this process, the United Nations (UN) Secretary-General has recommended that clear goals, targets and indicators be created to measure and monitor armed violence.

This paper sets out a framework of goals, targets and indicators to track armed violence, and to support prevention and reduction activities. The framework is based on extensive consultations with UN agencies and specialists in various disciplines. The three overall goals are to (1) reduce the number of people physically harmed from armed violence; (2) reduce the number of people and groups affected by armed violence, and (3) strengthen institutional responses to prevent and reduce armed violence. The paper also introduces eight specific targets that flow from these goals, and proposes specific indicators to measure progress towards achieving them. Taken together, the framework offers a means of comparing and measuring patterns and trends in armed violence to 2015 and beyond.

The paper does not propose to include these goals, targets and indicators as part of the MDGs in their own right. The MDG process is far too advanced for these kinds of armed violence measurements to be usefully or practically integrated into MDG monitoring and assessments. Rather, the paper presents a framework for international partners, national and local governments and civil society to measure systematically changes in armed violence and to monitor progress in prevention and reduction activities in tandem with and complementary to the MDGs.

The framework draws extensively on a variety of data sources and data harvesting mechanisms. It also considers the limitations and challenges associated with collecting and analysing data on armed violence. In order to assist in expanding and deepening information and analysis of armed violence, it recommends establishing an armed violence monitoring group, with governmental and non-governmental expert representatives who specialize in statistics, economics, demographics, public health, sociology, criminal justice and criminology. The group would test proposed goals, targets and indicators in a pilot phase to identify gaps and build towards a global database of proposed indicators.
1. Introduction

The international community has become increasingly aware of the causes and negative consequences of armed violence. Mounting evidence of this has come to light through the work of the United Nations Development Programme (UNDP),1 the World Bank,2 the World Health Organization (WHO),3 the United Nations Office on Drugs and Crime (UNODC),4 the Geneva Declaration on Armed Violence and Development (GD)5 and a host of regional and local initiatives. In November 2009, the UN Secretary General presented his report ‘Promoting Development through the Reduction and Prevention of Armed Violence’ (A/64/228). In it, he examined the complex relationships between armed violence and development. Through all of these activities it is now clear that the issue of armed violence prevention and reduction is squarely on the international agenda.

The concept of ‘armed violence’ has various definitions. However, this paper considers armed violence as “the intentional use of illegitimate force (actual or threatened) with arms or explosives, against a person, group, community, or state that undermines people-centered security and/or sustainable development.”6

The costs of armed violence are diverse and far-reaching. Armed violence affects all societies, cities and population groups at all income levels. According to recent estimates, at least 740,000 people die annually directly or indirectly due to armed violence.7 But this is just the tip of the iceberg. For every person violently killed, there are many more non-fatal injuries with significant long-term costs. These include long-term hospitalization, extensive rehabilitation and care, negative impacts on household investment decision-making, disruption in social and community relations and severe gender inequalities. In many countries, the act or threat of large-scale armed violence causes both people and money to flee. As such, armed violence can result in the loss of fixed assets, the disruption of formal and informal labour markets, reductions in (or absence of) foreign and domestic investment, declining tax revenues and diminishing service-delivery capacities. In short, armed violence undermines development.

Important progress is being made towards achieving the MDGs, but societies affected by armed conflict and criminal armed violence are often off track. These countries are usually in the lower ranks of the Human Development Index (HDI) or are experiencing specific risk factors shaping armed violence onset.8 For example, in 2005, the UN stated that 22 of the 34 countries farthest from reaching the MDGs are in or emerging from armed conflict.9 This suggests that armed violence is both a cause and consequence of certain forms of underdevelopment. Risk factors commonly associated with underdevelopment all play an important role in shaping patterns of armed violence. These factors include weak public institutions, systemic economic and horizontal inequalities, persistent exclusion of minority groups, highly unequal gender relations, limited educational opportunities, high rates of unemployment, the presence of organized crime and illicit markets, and the availability of illegal firearms and drugs.

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6  GD Secretariat (2008). The UN Secretary-General defines armed violence as the intentional use of physical force, threatened or actual, with arms, against oneself, another person, group, community or State that results in loss, injury, death and/or psychiatric harm to an individual or individuals and that can undermine a community’s, country’s or region’s security and development achievements and prospects (UNSG, 2009). Unlike the definition used by the UN Secretary General, the concept of armed violence applied in this paper excludes self-inflicted violence.
7  GD Secretariat (2008).
8  GD Secretariat and UNDP (2010 forthcoming).
The MDG review process – starting with the UN’s MDG Review Summit on 20 - 22 September 2010 – offers an opportunity to assess how armed violence prevention and reduction can play a role in achieving specific development goals. In order to advance this process, the UN Secretary-General recommends systematically measuring armed violence and developing clear ‘goals, targets and indicators’ to monitor and measure armed violence prevention and reduction within and across countries. The Secretary-General noted that “[d]eveloping measurable goals on armed violence towards 2015 will offer the opportunity to integrate security-related themes into the possible follow-up of the Millennium Development Goals.”

Following this recommendation, this paper – which is the result of extensive consultations – sets out a roadmap to establish appropriate goals, targets and indicators for measuring and monitoring armed violence prevention and reduction efforts. It presents a framework for international partners, national and local governments and civil society to systematically measure changes in armed violence and to monitor progress in prevention and reduction activities, in tandem with and complementary to the MDGs. The paper does not propose to include discrete goals, targets and indicators as part of the MDGs in their own right. The MDG process is far too advanced for these kinds of armed violence measurements to be usefully or practically integrated into MDG monitoring and assessments.

The first section offers an overview of existing frameworks that address armed violence prevention and reduction. Based on these frameworks, the paper then presents a set of goals and targets. The second section recommends a selection of indicators to measure progress towards achieving these goals and targets. It considers existing data sources and highlights limitations and challenges related to gathering comparable and verifiable data for key indicators. The final section recommends practical steps to systematically gather data in order to track these goals, targets and indicators towards 2015 and beyond. Finally, it proposes a straightforward armed violence data harvesting and monitoring system.

2. A framework to address armed violence reduction

Development policy makers and practitioners increasingly support interventions with a proven record of success. Today, results- and evidence-based programming is widely practised, including in relation to security provision. Efforts are also increasing to make all kinds of service delivery more efficient by making providers accountable to affected groups. The MDGs are the most widely recognized example of an evidence-based development initiative that links concrete targets to improve social and economic wellbeing with agreed benchmarks, indicators and opportunities for wider public scrutiny and engagement. The MDGs represent a departure in international thinking about how to build meaningful partnerships between donor and recipient countries, encourage low- and middle-income states to manage their own progress, and to have a positive influence on the social contract between governments and citizens.

12 For example, the Secretary for Public Security and Governor of Rio de Janiero are establishing a results-based crime prevention scheme. It involves military and civilian police, the “metas e acompanhamento de resultados” (SIM) initiative links incentives to positive reductions in homicide, common assault, armed robbery and other areas. The SIM effort is already in use by private security providers and is rapidly being scaled up in 2010 and beyond.
13 Manning (2009).
The MDG framework

The 2000 UN Millennium Declaration\(^\text{14}\) committed states to a global partnership to reduce extreme poverty. In order to track progress, the UN system – including member states, UN agencies, the World Bank and the International Monetary Fund (IMF), as well as the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC)\(^\text{15}\) – came together under the Office of the Secretary-General to translate the Millennium Declaration into concrete goals, the Millennium Development Goals (MDGs).\(^\text{15}\) A team of experts and practitioners then translated the eight MDGs into concrete targets, and indicators were selected with a time frame from 2000 to 2015 to achieve agreed goals and targets.\(^\text{16}\) The UN Millennium Declaration also focused on peace and security challenges, but no indicators dealt directly with conflict, violence or insecurity.

The success of the MDGs resides in their simplicity, coherence and symbolic function. The MDGs are clearly organized by individual goals and are easy to follow. Each goal includes a few straightforward targets tied to reliable and comparable indicators. Taken together, the MDGs represent a common goal of reducing poverty and ensuring socioeconomic development. The MDGs have been almost universally adopted, and as such also resolve many of the (often politicized) coordination problems associated with global development processes. Moreover, the adoption of the MDGs ensures that relevant data on key indicators are routinely stated (or estimated) for nearly all UN member states. These features of the MDGs may be imperfect,\(^\text{17}\) but they are a commonly understood, easily accessible development framework and measurement tool.

The widespread acceptance of the MDGs as a means of tracking progress (or lack thereof) suggests the model is worth adapting to efforts to prevent and reduce armed violence. Nevertheless, efforts to establish goals, targets and indicators of any sort do not occur in a vacuum, particularly for armed violence. In fact, armed violence remains a sensitive issue for many states. However, international consensus is converging around wider peace and security as important goals and critical forerunners to meaningful development. Many processes are underway to develop indicators that track security, peace and justice. This paper aims to bring the different approaches together and develop comprehensive and comparable goals, targets and indicators. Several background papers formed the basis of this paper and were prepared by key stakeholders involved in debates on armed violence measurements for public health, criminal justice, and peace and security.\(^\text{18}\)

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\(^\text{14}\) UNGA (2000).

\(^\text{15}\) The MDGs call for the (i) eradication of extreme poverty and hunger; (ii) the achievement of universal primary education; (iii) the promotion of gender equality and empowerment of women; (iv) the reduction of child mortality; (v) improvements in maternal health; (vi) concerted action against HIV/AIDS, malaria and other diseases; (vii) greater environmental sustainability; and (viii) the development of a global partnership for development.

\(^\text{16}\) UNGD (2003). The UN Secretary-General presented the goals, targets and indicators to the General Assembly in September 2001; see UNGA (2001).

\(^\text{17}\) Criticisms include that the indicators are imperfect proxies for the phenomena they are trying to address, and that simple numerical targets make attaining the MDGs less likely in Africa, even if its progress is in line with or above historical and contemporary experience of other regions. Unrealistic targets may also turn relative successes into perceptions of failure, which may undermine future constituencies for aid (in donors) and reforms (in recipients). See Easterly (2007), Clemens et al. (2004).

Conceptualizing armed violence prevention and reduction

The concept of armed violence encompasses a wide spectrum of conflict, post-conflict, crime-related and ostensibly peaceful settings. In recent decades, the changed character and dynamics of armed violence in many war and post-war contexts is breaking down traditional distinctions between these categories. This is due to the growth of global networks of non-state actors, rapid international commodity flows, nodes of fragility in certain countries and cities, as well as politically and economically motivated violence. These frequently come together in complex ways. Simple distinctions between different types of armed violence may have meaning in rhetoric, but they are becoming practically and analytically irrelevant. Therefore, the concept of armed violence adopts a collective meaning and takes into account multiple forms of physical force between individuals, groups, communities and states.

The Inter-American Development Bank (IADB) was one of the first development agencies to develop an armed violence ‘concept’. It categorized violence or ‘victimization’ according to different (and not exclusive) variables. Core variables were spelled out on the basis of several criteria: who are the victims of the violence; who are the violent agents; what is the nature of the violent act; what is the intention of the perpetrator; is the violence instrumental; what is the motive of the perpetrator; what is the location of the violent act; and what is the relationship between the victim and the aggressor.19

Meanwhile, public health specialists associated with WHO, regional agencies and collaborating centres also invested in developing violence prevention and reduction concepts. A public health approach stresses gathering evidence through systematically collecting data on the magnitude, scope, characteristics and consequences of armed violence at local, national and international levels. It examines the causes and manifestations of violence through analysing ‘risk’ and ‘protective’ factors that alternately increase and decrease exposure. This approach also draws attention to ‘environmental’ factors shaping violence onset and severity that may be modified through indirect interventions.20

In parallel, the OECD-DAC and bilateral donor partners have developed a conceptual framework to analyse armed violence as part of their wider investment in post-conflict settings and fragile states. In partnership with fragile states, the International Network on Conflict and Fragility (INCAF) issues guidance on how to improve international engagement – especially evidence-based, conflict-sensitive and effective assistance. INCAF has also launched working groups to deepen understanding of the overlapping nature of development and security, as well as of urban-, youth- and security-related features of armed violence reduction.21

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19 IADB (1999), Technical Note 1.
Figure 1: The armed violence lens

Figure 1 shows the OECD-DAC Armed Violence Lens which advances a unified framework to examine the context-specific risk factors, protective factors and effects of armed violence. The armed violence lens puts people’s experience and perceptions at the centre of any diagnosis or treatment. A starting point for any intervention is to understand who is being affected by armed violence, and where, when, how and why a violent incident occurs. Understanding the means and motivations of perpetrators and the way behaviour and attitudes are shaped is also a priority for designing effective responses. The instruments aspect of the lens considers the supply and availability of weapons and ammunition, together with the presence of explosive remnants of war. The institutional dimension focuses on the ‘rules of the game’ that are embedded in formal laws, informal norms and practices, means of enforcement, and organizational structures.\(^{22}\)

On the basis of these different conceptual frameworks, the Geneva Declaration Secretariat has developed a set of three goals and eight targets to measure changes in the level of armed violence, and to track its prevention and reduction. In line with the armed violence lens, the attention centres on people and focuses on reducing the number of armed violence victims. The goals also emphasize the central role played by the state in addressing risk factors and in preventing, reducing and responding to armed violence. It is important to note that risk factors as such do not cause violence and protective factors do not prevent it. Rather, they influence the capacity of individuals or communities to respond to stress and to become victims (or perpetrators) of violence. Therefore, individual risk factors are not included in armed violence prevention and reduction goals and targets.

Source: OECD, 2009

\(^{22}\) OECD (2009).
Goals and targets of armed violence prevention and reduction

The three goals and eight targets were derived through wide consultation with UN and non-UN agencies and practitioners and scholars with expertise in public health, demographics, statistics, economics, sociology, and development policy.23 However, there is still no political consensus on appropriate baselines against which armed violence prevention and reduction goals and targets can be evaluated. Nor is there clear agreement on whether improvements in security ought to be measured in relation to a ‘national average’ (over time), an internationally accepted baseline, or some other measurement. Moreover, experts have yet to agree on an appropriate timeframe for measuring when armed violence will be successfully reduced. The goals and targets described in this paper consequently do not assume specific cross-national baselines or fixed timelines.

Table 1 summarizes the goals, targets and indicators and the text that follows sets out why certain goals and targets are included or not. Definitions of the different terms used in this table will be explained more in-depth below.

Table 1: Goals, targets and indicators of armed violence24

<table>
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<tr>
<th>Targets</th>
<th>Indicators25</th>
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<tbody>
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<td><strong>Goal 1: Reduce the number of people physically harmed from armed violence</strong></td>
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</tbody>
</table>
| 1a. Reduce the number of conflict deaths | 1.1. Number of direct conflict deaths  
1.2. Number of indirect conflict deaths |
| 1b. Reduce the number of non-conflict violent deaths | 1.3. Rates of intentional homicides per 100,000 population  
1.4. Rate of extrajudicial killing per 100,000 population |
| 1c. Reduce the number of people with non-fatal injuries caused by armed violence | 1.5. Emergency room visits due to violence-related injuries per 100,000 population  
1.6. Rate of victimization caused by armed violence per 100,000 population |
| 1d. Reduce sexual and intimate partner violence | 1.7. Rate of women subjected to sexual violence  
1.8. Rate of women subjected to sexual or physical violence by current or former intimate partner |
| **Goal 2: Reduce the number of people and groups affected by armed violence** |
| 2a. Reduce the number of children associated with armed violence | 2.1. Number of children recruited by military forces  
2.2. Number of children associated with non-state armed groups  
2.3. Number of children associated with gangs |
| 2b. Reduce the number of violence-related refugees and IDPs | 2.4. Number of violence-related refugees in a foreign territory  
2.5. Number of violence-related IDPs  
2.6. Number of violence-related returnees/resettlers |
| **Goal 3: Strengthen institutional responses to prevent and reduce armed violence** |
| 3a. Increase the effectiveness and accountability of justice and security systems | 3.1. Percentage change in willingness of persons to report incidents of armed violence (reporting rate)  
3.2. Percentage change in public confidence in the ability of justice and security providers to contribute to security and safety effectively and fairly  
3.3. Percentage change in real/perceived judicial/criminal impunity (unresolved violent crimes) |
| 3b. Increase national investments in armed violence prevention and reduction programmes and related official development assistance (ODA) | 3.4. Formation of national and local strategies for armed violence prevention and reduction  
3.5. Creation or strengthening of routine monitoring and surveillance of armed violence in all its forms  
3.6. Percentage change in bilateral ODA devoted to direct and indirect armed violence prevention and reduction programmes |

24 In countries affected by high levels of armed violence, vital statistics, police and health information systems may be able to identify and record violent events such as homicides or assaults, but cannot always provide detailed information about the types of weapons involved. If statistics focus exclusively on guns, these useful sources of information are lost. The goals, targets and indicators therefore include physical harm incidents committed with guns, other instruments or by mere physical force.
25 Many of indicators could be disaggregated by age and sex and could progressively also include ethnicity, religion, geographical location, and in several cases, information on the instruments involved, and on the relationship between victim and perpetrator.
Goal 1 seeks to reduce the number of people physically harmed by armed violence. Meaningful armed violence prevention and reduction strategies need to focus on the conditions that enable armed violence to occur, and require an understanding of the dynamics between victims and perpetrators. Ultimately, effective programming would focus on victims and seek to reduce the scale and severity of human suffering. Of course, the effects of armed violence extend well beyond physical harm: a narrow focus on physical fatal and non-fatal injuries hardly reflects the full burden of misery and suffering generated by different forms of armed violence. It psychologically traumatizes those affected and can generate long-lasting mental health problems with debilitating effects on households and communities. Armed violence can also undermine social relationships and networks. These impacts stem from physical harm; which is why a simple and coherent Goal 1 focuses only on reducing the physical harm.

Two targets focus on reducing the number of conflict deaths (1a) and reducing the number of non-conflict violent deaths (1b). If a person is killed in conflict or in criminal settings, families and communities are traumatized and a significant burden on national development occurs due to lost productivity and non-productive expenditure. The 2008 Global Burden of Armed Violence (GBAV) report estimated that in an average year between 2004 and 2007, roughly 52,000 people died directly, and perhaps another 200,000 people died indirectly in armed conflict. In 2004, another 490,000 people were violently killed in non-conflict settings. They became the victims of crimes and/or interpersonal violence. The illegitimate killing of a person authorized by and/or perpetuated by a state agent – extrajudicial killing – is not included in this figure, but will be included as an indicator. The issue of extrajudicial killing will be reviewed again in the discussion of indicators.

A third target aims to reduce the number of people with non-fatal injuries due to armed violence (1c). Non-fatal armed violence results in injuries, pain and suffering. Treating injuries – with their implications of lost productivity and earnings – can generate significant economic burdens for a society. The health costs associated with treating gunshot and stabbing injuries are frequently paid for through public funds, and absorbed by government and society in the form of uncompensated care financing and overall higher rates of taxation and insurance premiums. In low- and middle-income countries, society likely absorbs much of the costs of violence through direct public expenditures and negative effects on investment and economic growth.

A fourth target seeks to reduce sexual and intimate partner violence (1d). Across all affected societies, young males are both the most common perpetrators and immediate victims of armed violence. Women and girls suffer disproportionally from sexual and intimate partner violence. The GBAV report observed that in countries with high levels of homicides, women generally account for about 10 percent of the victims. They represent up to 30 percent of victims in countries with low levels of homicides. This suggests that intimate partner violence does not necessarily rise and fall with other forms of armed violence, and may not decline as other forms of armed violence are reduced. Therefore, intimate partner violence and sexual violence need to be addressed in a separate target that analyses violence in conflict and non-conflict settings. The costs of intimate and sexual violence are tremendous. Several of the MDG targets – not just MDG 3 on gender inequality – will likely be missed if violence against women is not comprehensively addressed.

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27 The CIRI Human Rights Data Project defines extrajudicial killings as “the killings by government officials without due process of law. They include murders by private groups if instigated by government. These killings may result from the deliberate, illegal, and excessive use of lethal force by the police, security forces, or other agents of the state whether against criminal suspects, detainees, prisoners, or others.” See http://ciri.binghamton.edu/documentation/ciri_variables_short_descriptions.pdf.
30 GD Secretariat (2008).
**Goal 2** aims to reduce the number of people and groups affected by armed violence: Goal 1 focuses on the physical harm caused by armed violence, but Goal 2 looks beyond physical harm. There are two additional population groups that should be considered: child soldiers and children associated with other armed groups and internally displaced people (IDPs) or refugees due to armed violence. Focusing specifically on these clusters does not mean that other groups (such as women, young men or minorities) are less relevant, but focusing on children and displaced persons is a useful proxy for affected groups beyond those directly captured by Goal 1.

A first target under the second goal aims to reduce the number of children associated with armed violence (2a). Increased international attention on children’s rights and the social and economic importance of a safe childhood means that researchers and implementing agencies are also treating children as core stakeholders in assessments and programming that deal with situations of armed violence. Children are physically vulnerable and easily intimidated; this makes them cheap, expendable soldiers. As a result, they face substantial post-conflict risks through psychological trauma, social dislocation and loss of educational and vocational opportunities. The less formal nature of contemporary conflicts and the increase in organized criminal group activity raises the similar question of youth involvement in gangs. In fact, there are some parallels between child soldiers and children involved in organized crime and gang networks. Therefore, this first target addresses child and youth involvement in military forces, informal armed groups and gangs.

A second target aims to reduce the number of violence-related refugees and IDPs (2b). Armed conflict and criminal violence are major reasons why people flee their homes, either within or beyond the borders of their own country, or they may decide to migrate involuntarily to safer ground. When conflict causes people to leave their homes, their vulnerability to predation, disease and malnutrition often increases and they face a higher risk of indirect death caused by deteriorated infrastructure and lack of access to essential needs. The plight of IDPs can be worse than that of refugees due to the lack of international protection, including by the UN High Commissioner for Refugees (UNHCR). In some cases, refugee camps become staging grounds and resource bases for combatants in areas experiencing some of the world’s most protracted wars. The latest figures show that the number of refugees of concern to the UNHCR stood at 10.5 million at the beginning of 2009. Another 4.7 million registered refugees are looked after in some 60 camps in the Middle East. In addition, there are some 26 million IDPs around the world.

**Goal 3** aims to strengthen institutional responses to prevent and reduce armed violence. The state plays a central role in regulating and containing armed violence. State authority and legitimacy often comes from its ability to monopolize the legitimate use of force in order to protect and safeguard its people and institutions. This is consistent with international law and human rights principles. In certain cases, states (or state agents) may be unable or unwilling to prevent and reduce armed violence, or may even be implicated in committing it. Studies in Europe and the US on changes in homicide over time show that crucial factors linked to increases in homicidal violence include political instability, governmental failure to provide security and justice, a loss of government legitimacy, and a loss of faith in the social hierarchy. Likewise, evidence shows that a gradual process of state failure is frequently accompanied by a parallel rise in armed violence.
A first target under Goal 3 aims to increase the effectiveness and accountability of justice and security systems (3a). Establishing effective and accountable justice and security institutions based on the rule of law is key to responding to armed violence. The absence or weakness of security and justice institutions can deprive citizens of their rights and encourage them to resort to informal and non-state methods to secure personal or community safety. If security sector regulation is weak and individuals and communities cannot seek effective remedies to their grievances through legal action or political advocacy, they may adopt violence as an indispensable coping strategy to preserve their interests or even survival. In contrast, if a state has well-functioning justice and security systems, the cost of resorting to violence to meet political, economic, and justice goals is prohibitively high. Most UN agencies now appreciate the importance of consolidating the rule of law to ensure meaningful peace dividends. Meanwhile, bilateral development agencies also acknowledge that strengthening the delivery of security and justice is a priority for states emerging from armed conflict or affected by chronic armed violence.

A second target aims to increase national investments in armed violence prevention and reduction programmes and related official development assistance (ODA) (3b). In the last decade, the number of national and city-level governments actively developing and implementing diverse, innovative and widespread violence prevention policies and programmes has grown rapidly. However, in low- and middle-income countries, governments still face major challenges in scaling-up armed violence prevention and reduction activities. The UN system, particularly UNDP, WHO and the World Bank, play an important role in supporting affected countries to prevent and reduce armed violence. However, the ability of these agencies to effectively provide aid assumes that a government is willing and able to lead, and is perceived as legitimate by its citizens. In this regard, the second target combines the financial resources of a donor country and national and local investments allocated to armed violence prevention and reduction programming in affected countries.

3. Indicators to measure progress

Goals and targets for armed violence prevention and reduction require related indicators to measure incremental progress. Creating and applying these indicators is a key concern of development practitioners and government policy-makers. An indicator is a measurement of the state or level of a phenomenon. It is usually composed of a single value and reflects relatively simple concepts. There are several basic factors that shaped the selection of the indicators that fit the above goals and targets. First, indicators should provide relevant and robust measures of progress towards established targets. Second, they should be clear and straightforward to interpret and provide a basis for comparison. Third, they need to be broadly consistent with other key priorities and avoid imposing a disproportionately high burden on governments and other partners. Fourth, to the greatest extent possible, they should be based on existing international standards, recommendations and best practice. Finally, they should be assembled from well-established data sources, quantifiable and consistent in order to enable measurement over time.

Data on armed violence are typically collected from a variety of sources, ranging from administrative registration systems to surveillance and household surveys. Administrative data include information collected by a government or other organization so they can complete their duties of governance. Typically, administrative data are collected from citizens through censuses, or at birth or death, when they pay taxes, or when they register for social security medical benefits, or other state services. By contrast, surveillance data include information collected to track phenomena that affect particular population

43 UN Secretary-General (2004).
44 The UK Department for International Development treats access to security and justice as a basic service, on a par with health and education. See DFID (2009).
45 For an overview of different programming efforts, see http://www.preventviolence.info/, and see for example IADB (1999), Guerra (2005), WHO (2008).
46 WHO (2009), p. 5.
groups in society. These data include vital registration information documenting the causes of death; crime data collected by police stations to determine trends and hot spots; or data collected from schools, hospitals and emergency wards in order to track injury patterns.49

Household and related surveys can fill the gap if administrative or surveillance data is lacking or incomplete, or the phenomenon is likely to be underreported.50 Survey data are collected from a subset of the population of interest. In ideal situations, survey data are collected from a random sample of the population in order to ensure the resulting statistics can be accurately generalized to a wider population. The state is an important party that ensures armed violence is monitored. However, researchers, civil society and community-based groups play a crucial role in complementing official data sources. They conduct surveys or gather surveillance data, or they provide information if formal data infrastructure is weak or adverse to good practice.

**Indicators for Target 1a) – reduce conflict-related deaths**

Armed conflict generates two related yet different death tolls. Direct deaths, as the term suggests, result directly from lethal injuries caused by military or paramilitary operations, or by armed groups. Indirect deaths include the victims of armed conflict who die from a variety of easily preventable causes, including diseases such as dysentery or measles, or from hunger and malnutrition. These occur because people cannot obtain basic health care, adequate food and shelter, clean water or other necessities of life.

Two different methods are commonly applied to estimate the number of people who die directly and indirectly in an armed conflict. Incident reporting tabulates the number of people known to be killed in a war. However, national administrative data seldom capture the distribution of direct conflict deaths. This is determined on the basis of triangulation: media reports, hospital, morgue, NGO and official figures.51 Arriving at accurate numbers relies on the quality of available documentation and the ability to trace specific events. The strength of the data often depends on effective media coverage and NGO reporting.52

However, the limitation of incident reporting methods means that retrospective surveys are now a common standard to assess a humanitarian situation in a country. Epidemiologists typically survey a random sample of households in a post-conflict setting to obtain information on population size, adult and child mortality rates and causes of deaths. Public health specialists53 commonly use this survey data to estimate indirect conflict deaths by comparing the conflict mortality rate during a conflict with the baseline mortality rate in times of peace. Excess mortality rates are used by humanitarian agencies to fully assess the severity of the impact of conflict on civilian populations affected by complex humanitarian emergencies. Accuracy depends on whether baseline mortality data are reliable; often uncertainties about pre-war mortality rates, population size and growth rates can affect the accuracy.54

If there are no governmental statistics, research institutions commonly provide data on direct and indirect conflict deaths. Experts often disagree on the methodologies used to count the dead, but for many years researchers have been improving the data. The estimates are still often not comprehensive, but improved data availability allows researchers to make meaningful intra and inter-country comparisons.

49 Asher et al. (2010).
50 This is especially the case with mass killings, systematic human rights violations and domestic, sexual and intimate partner violence.
52 Human Security Centre (2003), Bail (2003).
54 On the debate about estimating indirect conflict deaths, see, for example HSR (2010), Spagat et al. (2009), Mack et al. (2009), Obermayer et al. (2008), Murray et al. (2002).
**Indicators for Target 1b) – reduce non-conflict violent deaths**

The number of homicides is the most widely recognized indicator to determine overall levels of armed violence in a community, city or country. The WHO and the UNODC both publish comprehensive datasets on homicide. It is a legal requirement in nearly all countries that every death be certified and registered. A fair proportion of countries have established nationally regulated systems with standard instruments, i.e. death certificates, to collect cause of death information, including in many instances information about the type of weapon involved (e.g. gun, knife, blunt instrument).

The International Classification of Diseases and Injuries (ICD), in its tenth revision (ICD-10, Code Numbers X85 – Y09), applies the term ‘assault’, which includes “homicides and injuries inflicted by another person with intent to injure or kill, by any means”.\(^{55}\) The UNODC definition also focuses on action with intent. It defines intentional homicide as “the intentional killing of a person by another”.\(^{56}\)

The WHO Statistical Information System (WHOSIS)\(^{57}\) is an interactive database that brings together core health statistics for its 193 WHO member states. It comprises more than 100 publicly available indicators collected by WHO regional offices. According to the ICD, regional coverage of death registrations in WHOSIS varies from close to 100 percent in the European region, to less than 10 percent in the African region.\(^{58}\) To compensate for these data gaps, the WHO Global Burden of Disease (GBD) programme has developed models for estimating broad cause-of-death patterns. They serve as the starting point for estimating mortality stemming from a comprehensive list of detailed causes, including deaths due to suicide, homicide and collective violence.\(^{59}\)

**Figure 2: Availability of criminal justice data on homicide**

![Figure 2: Availability of criminal justice data on homicide](http://www.unodc.org/unodc/en/data-and-analysis/homicide.html)

Criminal justice statistics are the other common source of data on homicide. At a global level, the UNODC’s Crime Trends and the Operations of Criminal Justice Systems (CTS)\(^{60}\) incorporate statistical data from as early as 1970 (first and second CTS) up to the current eleventh edition with data up to 2008. The CTS covers intentional homicides by country and illustrates the rates of intentional homicides per 100,000

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\(^{55}\) http://www.who.int/classifications/icd/en/index.html
\(^{57}\) http://apps.who.int/whosis/
\(^{58}\) Butchart et al. (2010).
\(^{59}\) http://www.who.int/topics/global_burden_of_disease/en/
persons.61 Drastic improvements in the availability of criminal justice data have been noted in recent years. With the exception of a number of countries in Africa, criminal justice data on homicide are available for most countries in the world, either through cross-national crime statistics initiatives such as the CTS, or from national-level sources (see Figure 2).

However, for many low- and middle-income countries, public health data appear to be more complete, more reliable and more valid than police crime data on homicide. Therefore, UNODC started to also include public health sources. Since 2009, UNODC now publishes a comprehensive dataset on homicide rates. The statistics currently cover 198 countries or territories. The data (both criminal justice and public health) are also available in a ‘trends dataset’.62

Homicide rates alone do not reflect all non-conflict violent deaths. Certain forms of armed violence perpetrated by individuals acting in the name of the state may not be illegal, but can be classified as illegitimate. Human rights groups, such as Amnesty International and Human Rights Watch, or trade unionists and local NGOs have long decried the use of extrajudicial armed violence. Few comprehensive database statistics on extrajudicial killings exist within the human rights community. Rather, human rights practice tends to focus on individual cases rather then cross-country comparisons.

Similarly, the UN Special Rapporteur on extrajudicial, summary or arbitrary executions received a mandate to investigate ‘situations’, rather than establish global or even national datasets on extrajudicial killings.63 One source of data on extrajudicial killing is the Cingranelli–Richards (CIRI) Human Rights Data Project, which features cross-country data on extrajudicial killings.64 Data is drawn from reports of the US State Department and Amnesty International. Cingranelli and Richards state that in 2006, there were at least 31 countries in which extrajudicial killings occurred frequently (more than 50 deaths per year), and 73 countries in which they occurred occasionally (between 1 and 49 deaths per year).

**Indicators for Target 1c) – reduce non-fatal injuries caused by armed violence**

Selecting indicators to measure the number of non-fatal injuries caused by armed violence is challenging. In many parts of the world where health services vary in quality and distribution, victims and survivors rarely report to official institutions, and often they do not seek treatment at a hospital or clinic. No matter which indicator is chosen, it is reasonable to assume a higher level of undercounting as access to health services declines.65 Two indicators that can be applied comprehensively across countries include emergency-room (ER) visits of people intentionally injured, and self-reported victimization.

Data on ER visits are an accurate form of surveillance data since they reflect traumatic, but also less serious injuries that may not require admission to a hospital, but still need medical attention. The concept of measuring progress in achieving the MDGs has also increased efforts to establish ER-based injury surveillance systems in low- and middle-income countries (see Table 2).66

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61 At the international level, UNODC’s sources include Interpol, the Statistical Office of the European Communities (Eurostat) and regional crime prevention and violence observatories. At the national level, data are drawn from national law enforcement institutions, prosecutors’ offices, and ministries of interior and justice.

62 At the regional level additional sources include Interpol, the Statistical Office of the European Communities (Eurostat) and regional crime prevention and violence observatories. At the national level, data are drawn from national law enforcement institutions, prosecutors’ offices, ministries of the interior and justice, and/or crime observatories. See http://www.unodc.org/unodc/en/data-and-analysis/ihs.html.


66 Butchart et al. (2010).
Table 2: Low- and middle-income countries in which WHO focal points indicate ER-based injury surveillance activities are underway

<table>
<thead>
<tr>
<th>Region</th>
<th>Countries</th>
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<tbody>
<tr>
<td>Africa</td>
<td>Ethiopia, Ghana, Mozambique, Kenya, South Africa, Uganda</td>
</tr>
<tr>
<td>Latin America</td>
<td>Argentina, Brazil, Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>Egypt, Iran</td>
</tr>
<tr>
<td>Europe</td>
<td>Belarus, Lithuania, Russian Federation, Turkey</td>
</tr>
<tr>
<td>South East Asia</td>
<td>Bangladesh, Democratic People’s Republic of Korea, Maldives, Myanmar, Nepal, Timor, Thailand</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>Cambodia, Vietnam, China, Mongolia</td>
</tr>
</tbody>
</table>

Source: Butchart et al., 2010

However, focusing on ER data alone will be biased in favour of urban settings. Rural aspects of non-fatal (and possibly fatal) injuries will be significantly overlooked. Lower-tier primary health care systems and community-based elements of health systems are also not covered by the ER indicator. Therefore, a second indicator of victimization is recommended. These data are typically based on surveys. Since 1984, the Demographic Health Survey (DHS)67 project has provided technical assistance to more than 240 surveys in over 85 countries, advancing global understanding of health and population trends in low- and middle-income countries. DHS has earned a worldwide reputation for collecting and disseminating accurate, nationally representative data on health issues, and captures both fatality and injury phenomena over time to show both trends and rates.

The MDG process has similarly generated several ambitious survey projects. Most have contributed to a broader understanding of disease and population health, but they sometimes also focus on questions of intentional injury and violence.68 For example, the Global Schools-based Student Health Survey (GSHS)69 includes core questions about armed violence victims and risk factors. GSHS is administered to a nationally representative sample of school-going children aged 13-15 years (see Table 3). For adults aged 25-64 years, the WHO Stepwise approach to surveillance (STEPS)70 includes similar questions to those in the GSHS. However, the violence module for STEPS has only recently been finalized, and it is not yet possible to indicate which countries will apply it.71

Table 3: Countries administering the GSHS with a violence module, by WHO region

<table>
<thead>
<tr>
<th>Region</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>Algeria, Angola, Botswana, Ghana, Kenya, Malawi, Mauritius, Namibia, Seychelles, Swaziland, Tanzania, Uganda, Zambia Zimbabwe</td>
</tr>
<tr>
<td>Latin America</td>
<td>Anguilla, Antigua and Barbuda, Argentina, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Dominica, Ecuador, Grenada, Guyana, Jamaica, Montserrat, Peru, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>Djibouti, Jordan, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Tunisia, United Arab Emirates, Yemen</td>
</tr>
<tr>
<td>Europe</td>
<td>Former Yugoslav Republic of Macedonia, Tajikistan</td>
</tr>
<tr>
<td>South East Asia</td>
<td>Bangladesh, Indonesia, Maldives, Myanmar, Sri Lanka, Thailand</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>China, Fiji, Philippines, Nauru</td>
</tr>
</tbody>
</table>

Source: Butchart et al., 2010

70 http://www.who.int/chp/steps/en/.
71 Butchart et al. (2010).
In the field of criminal justice, the International Crime Victim Surveys (ICVS)\(^{72}\) include a series of standardized surveys to examine household experiences with crime, policing, crime prevention, injury and feelings of insecurity. These surveys were initiated within UNODC by European criminologists with expertise in national crime surveys (Jan Van Dijk, Pat Mayhew and Martin Killias). The core questionnaire of the ICVS was drafted and pilot tested in several countries in 1987, building on the existing instruments of national crime victim surveys of the Netherlands, England and Wales, and Switzerland.\(^{73}\) By the end of 2005, more than 140 surveys were conducted, and more than 300,000 people were interviewed about their experiences with victimization and related subjects in 78 different countries. The fifth ICVS of 2004 and 2005 covered 30 countries and 33 capital or main cities and compared results with earlier ICVS sweeps.\(^{74}\)

It is important to recognize official international and national sources and larger-scale surveys, as well as more localized surveys and sustained civil society monitoring activities that are an existing resource for building a more comprehensive picture of injury rates and effects.

### Indicators for Target 1d) – reduce sexual and intimate partner violence

The incidence of intimate partner violence has typically been measured as a function of the number of cases registered by the police, doctors, or other public service providers. However, it is widely recognized that the vast majority of cases of sexual and intimate partner violence are not reported to the authorities, and the standard of measurement does not reveal the full extent of the problem. As a result, focused surveys or survey modules are increasingly used to document the scale and distribution of sexual and intimate partner violence.

As for violence against women, much work has been done in the UN system to support developing indicators on this issue. For example, in 2006 the General Assembly requested its Statistical Commission\(^{75}\) to develop a set of indicators to help governments assess the scope, prevalence and incidence of violence against women.\(^{76}\) At its 40th session in February 2009, the Statistical Commission adopted a set of six indicators.\(^{77}\) Several agencies and institutions are currently involved in developing and testing survey module questions and methodologies to collect data on these indicators. In September 2009, the UN Security Council (UNSC) further unanimously adopted Resolution 1888 on Women, Peace and Security and also recommended that the Secretary-General ensure systematic reporting on trends, emerging patterns of attack, and early warning indicators of violence against women in conflict settings.\(^{78}\)

Several surveys that assess the status of women have developed special modules on sexual and intimate partner violence, and there is increasing political will to monitor these in a more systematic fashion. The DHS\(^{79}\) includes questions on the incidence of domestic violence and attitudes towards it, but currently these are optional modules and not applied in all countries.\(^{80}\) The ICVS\(^{81}\) also includes questions on sexual incidents, such as rape, threats and other sexual assaults. The WHO’s Multi-country Study on Women’s Health and Domestic Violence includes questions about physical, sexual and emotional abuse by partners, and physical and sexual violence by other perpetrators, and has been implemented now in more than 15 countries.\(^{82}\) Many more localized random sample surveys, refugee (or IDPs) camp-based surveys, or

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\(^{72}\) http://rechtten.uvt.nl/ICVS/.

\(^{73}\) Background to the International Crime Victims Survey. Available online at: http://rechtten.uvt.nl/icvs/background_to_the_international.htm.

\(^{74}\) Van Dijk J. et al. (2007).

\(^{75}\) In consultation with the Commission on the Status of Women, and building on the work of the Special Rapporteur on violence against women, its causes and consequences.

\(^{76}\) UNGA (2007).

\(^{77}\) These indicators are: 1. Total and age-specific rate of women subjected to physical violence in the last 12 months by severity of violence, relationship to the perpetrator(s) and frequency; 2. Total and age-specific rate of women subjected to physical violence during lifetime by severity of violence, relationship to the perpetrator(s) and frequency; 3. Total and age-specific rate of women subjected to sexual violence in the last 12 months by relationship to the perpetrator(s) and frequency; 4. Total and age-specific rate of women subjected to sexual violence during lifetime by relationship to the perpetrator(s) and frequency; 5. Total and age-specific rate of women subjected to sexual or physical violence by current or former intimate partner in the last 12 months by frequency; 6. Total and age-specific rate of women subjected to sexual or physical violence by current or former intimate partner during lifetime by frequency. See: http://www.un.org/womenwatch/daw/vaw/i-issues-loos.htm.

\(^{78}\) UNSC (2009).

\(^{79}\) http://www.measuredhs.com/.

\(^{80}\) Diprose (2008), p. 34.

\(^{81}\) http://rechtten.uvt.nl/ICVS/.

\(^{82}\) Garcia-Moreno et al. (2005).
surveys that are entirely dedicated to the issue of sexual and other forms of violence against women, are increasingly used to more accurately estimate the prevalence of sexual and domestic/partner violence.83

These initiatives to measure the scale and distribution of sexual and intimate partner violence in conflict and non-conflict settings have contributed to an increase in cross-national data. However, enormous challenges to collecting this data remain in many countries. In addition to social-cultural and economic pressures not to report sexual or intimate partner violence, these are often not considered to be a crime, and/or the police discourage reporting on domestic violence by taking no action. This means that future research needs to take into account ethical and safety concerns related to sexual or intimate partner violence.84

Two key indicators that could serve as useful proxies for armed violence against women include (i) the rate of women subjected to sexual violence, and (ii) the rate of women subjected to sexual or other forms of physical violence by current or former intimate partner. These indicators do not capture the full scale of sexual and intimate partner violence, but they do offer a tentative entry point to assess the issue.

Indicators for Target 2a) – reduce the number of children associated with armed violence

There are comprehensive and detailed standards in international law relevant to children's involvement in armed conflicts.85 There is also qualitative information on children abducted and recruited into armed forces, but so far there is no single source that disaggregates data into a comprehensive comparative database.86 In 2005, the UN Security Council adopted Resolution 1612 on children in armed conflicts which, among other things, called for the creation of monitoring and reporting mechanisms. The Office of the Special Representative of the Secretary-General for Children and Armed Conflict (SRSG-CAAC), along with UNICEF and other national and international partners, is now implementing the resolution by monitoring and reporting child rights' violations in several pilot countries.87 UNICEF has helped develop a common terminology and indicators for violations against children, including information on the recruitment of children into armed forces.

There are some similarities between 'child soldiers' and children involved in organized armed violence or gangs. These similarities include so-called 'voluntary' recruitment dynamics; a focus on the 15-17 year old age group; a hierarchical structure enforced by order and punishment; payment for a service; being given a weapon; being on call 24 hours a day; surviving in a 'kill-or-be-killed' reality; younger and younger children being used in armed functions; and involvement in armed confrontations.88 Indicators on the number of children recruited into military forces and associated with armed groups are being developed, but indicators on the number of children associated with gangs do not exist. In line with UNSC Resolution 1612 and the terminology developed by UNICEF, three linked indicators could serve to measure armed violence more generally: (i) the number of children recruited into military forces, (ii) the number of children associated with non-state armed groups, and (iii) the number of children associated with armed gangs.

The Multiple Indicator Cluster Survey (MICS)89 is an important source for data on the situation of children and women. UNICEF has developed the programme and helps countries to fill data gaps. However, when gathering data on children associated with armed violence, a major challenge is that household surveys such as the MICS fail to capture the situation of children who do not live with families. To fully monitor the situation of children associated with armed violence, children living in the streets need to be taken into account. They are an especially vulnerable group and specialized surveys will need to fill this gap.

83 Walby and Myhill (2001).
84 WHO is involved in developing ethical guidelines on researching violence against women. See WHO (2001) and WHO (2007).
85 The key international agreement safeguarding the protection of children and youth is the 1989 UN Convention of the Rights of the Child (CRC). In 2000, the Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict entered into force. It outlawed the involvement of children under age 18 in hostilities, raising the previous standard of age (15 years) set by the CRC, and the 1949 Geneva Conventions and their 1977 Additional Protocols. Some 120 states have ratified this Optional Protocol.
86 In its 2008 report, the Coalition to Stop the Use of Child Soldiers provided detailed information regarding populations under the age of 18, the number of government forces, conscription, recruitment age and voting age by country, along with non-statistical details for countries in conflict and with known child soldiers. It includes progress towards DDR.
87 Burundi, Côte d’Ivoire, the Democratic Republic of Congo, Nepal, Somalia, Sri Lanka and Sudan.
Indicators for Target 2b) – reduce number of violence-related refugees and IDPs

The UNHCR and national refugee councils provide the most comprehensive refugee statistics worldwide.90 A single electronic platform, the UNHCR's Statistical Online Population, features standardized data on UNHCR’s population of concern at national, regional and global levels. Detailed information recorded as early as 1951 on country of asylum and origin is available for some population categories. Various sources are used to establish the size and characteristics of the population of concern to UNHCR, including governmental agencies, UNHCR field offices and NGOs. Data are compiled or collected mainly using registers, surveys, registration processes or censuses. The role of the UNHCR in registration depends on the country of operation. In many cases, the government alone does the registration; in other situations the UNHCR assists the government or is fully in charge of it.91

Meanwhile, the Internal Displacement Monitoring Centre (IDMC) compiles annual global figures for internally displaced populations. Producing reliable figures on conflict-induced internal displacement in politically-sensitive contexts is challenging. In most countries affected by internal displacement, existing data on IDPs are often incomplete, unreliable, out of date or inaccurate. Arriving at a commonly agreed numbers of IDPs requires governments to recognize the displacement crisis, and also what constitutes a displaced person. IDMC seeks and compiles data from national governments, the UN and other international organizations, national and international NGOs, human rights organizations and the media. Through all of this, a comprehensive picture of the number of conflict-and violence-related refugees and IDPs is beginning to emerge.92

It is now possible to disaggregate figures provided by UNHCR and the IDMC and to adopt the following indicators of armed violence: (i) the number of violence-related refugees in a foreign territory, (ii) the number of violence-related IDPs, and (iii) the number of returnees/resettlers.

Indicators for Target 3a) – increase the effectiveness and accountability of justice and security systems

Indicators to measure the effectiveness and accountability of justice and security systems are more complex, compared with estimating the number of people killed, injured and harmed by armed violence. A wide range of indices exist that combine indicators based on administrative, surveillance and survey data and that can give insights into the characteristics of political authority; the level of institutional and political stability; the constraints on executive power; judicial and parliamentary oversight and accountability mechanisms; the state of civil society and public access to information; the role of the state monopoly on violence in politics; institutional integrity; the existence of anti-corruption mechanisms; or the perceived corruption level in a state.93 All of these issues offer insight into the quality and quantity of state interaction with citizens on issues of violence and insecurity.94

The United Nations Department for Peacekeeping Operations (UN DPKO) and the United Nations Office of the High Commissioner for Human Rights (UN OHCHR) are currently developing a compendium of rule of law (RoL) and criminal justice indicators under the United Nations Rule of Law Indicators Project.95 These will be used to obtain information on law enforcement agencies, the judicial system and the correctional services, and the transformation of these institutions over time. Particular attention will focus on the role

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90  The 1951 Refugee Convention that established the United Nations High Commissioner for Refugees (UNHCR) spells out that a refugee is someone who “owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country.” See http://www.unhcr.org.
92  http://www.internal-displacement.org/.
93  Examples include the World Development Indicators (WDI)/Country Policy and Institutional Assessment (CPIA)/Failed States Index/Global Peace Index/ Index of State/Weakness in the Developing World/Peace and Conflict Instability Ledger/State Fragility Index
94  Scheye and Chigas (2009) propose several baskets of indicators to reflect the overall structure, capacity, and effectiveness of the criminal justice system and the security sector. The baskets include, criminal justice capacity and effectiveness, rule of law and administration of justice, access to justice, corruption, prisons, policing and oversight of the justice and security sector. See Scheye and Chigas (2009), p. 39-41.
95  http://www.unhco.org/.
played in many countries by traditional or informal systems of law. So far, the project has developed a methodology to define indicators, and has listed a wealth of possible indicators, including transparency of the justice system, bias in public administrations, bias in enforcement, integrity of the judicial system, performance of the police, role of the informal justice system, accessibility and legal representation.\textsuperscript{96}

There is no authoritative list of global indicators and standardized methodologies for measuring popular trust in the ability of security and justice institutions to respond to crime. The three indicators proposed in this paper demonstrate a logical basis for further development: (i) percentage change in the willingness of persons to report incidents of armed violence (reporting rate), (ii) percentage change in public confidence in the ability of justice and security providers to contribute to security and safety effectively and fairly, and (iii) percentage change in real/perceived judicial/criminal impunity (unresolved violent crimes).

To assess whether a society trusts its security providers, the first indicator serves as the closest possible proxy that is not based on perception surveys. Official criminal justice data depends on the willingness of the population to report crimes to the authorities. Reporting rates are a function of ‘real’ crime, and the population’s perception of the level of corruption and institutional quality in the country. Reporting rates for homicides can be calculated as the number of homicides reported to the criminal justice system\textsuperscript{97} as a percentage of the number of homicides registered by the public health system\textsuperscript{98} (see further information under Target 1b).

Many household surveys mentioned previously – including ICVS and LSMS – ask about perceptions of safety and security. They can potentially be used to gather data on the other suggested indicators. Another important survey module is the Gallup World Poll.\textsuperscript{99} UNDP’s many rule of law, justice and security programmes in conflict and post-conflict settings currently employ a host of indicators to measure context specific challenges. UNDP states that public surveys are important for gathering data on the performance of the justice and security sector. Official data are typically lowest when the justice and security system is weakest. Also, the reliability of administrative data may be diminished by political concerns.\textsuperscript{100} If these political concerns are taken into account, civil society becomes the central partner to conduct surveys on aspects of perception.

**Indicators for Target 3b) – increase national investments in armed violence prevention and reduction programmes and related official development assistance (ODA)**

The final set of indicators addresses the particular role of government and the development community in responding to armed violence, since strategic investments in programmes can reduce the spread and intensity of armed violence.\textsuperscript{101} Likewise, if ODA support can be used to develop national armed violence prevention and reduction strategies and action plans, violence can be similarly diminished. Taken together, effective armed violence prevention requires developing a national or local action plan, enhancing capacity to collect data, and implementing and evaluating specific programmes and actions to prevent and reduce armed violence. The three proposed indicators proposed serve as a basis for further discussion: (i) the formation of national and local strategies for armed violence prevention and reduction, (ii) the creation or strengthening of routine monitoring and surveillance of armed violence in all its forms, and (iii) the percentage change in bilateral ODA devoted to direct and indirect armed violence prevention and reduction programmes.

\textsuperscript{96} Vera Institute of Justice (2003).
\textsuperscript{97} UNODC’s Crime Trends and the Operations of Criminal Justice Systems (CTS).
\textsuperscript{98} WHO Global Burden of Disease (GBD).
\textsuperscript{99} With ongoing research projects in more than 150 countries, Gallup is a leader in collecting and analysing global data and measurements. Using core worldwide questionnaires, along with custom-designed research projects, Gallup can be contracted by international clients to conduct research. See http://www.gallup.com/.
\textsuperscript{101} WHO (2002).
The first two indicators differ from the third since they are binary in their forms. However, the existence of national and local strategies for armed violence prevention and reduction, and the existence of effective routine monitoring of armed violence could potentially be scaled according to the quality or depth of the strategies or the monitoring system. For these two indicators, the key data gatherers are national and local authorities.

The OECD-DAC is the relevant source for data on ODA. This international forum of donor governments and multilateral organizations helps partner countries to achieve development and reach the MDGs. ODA comprises grants or concessionary loans to low- and middle-income countries and territories on the DAC list of aid recipients. The loans and grants primarily aim to promote economic development and welfare. The DAC Working Party on Statistics brings together international statisticians to measure official and private flows from DAC donors, multilateral organizations and other donors to about 150 low- and middle-income countries and territories. The data are drawn from national statistical offices. The DAC already collects MDG-related data on the proportion of official ODA of DAC donor countries allocated to essential social services such as basic education, primary health care, nutrition, safe water and sanitation. Its work may be expanded to collect data on official ODA allocated to armed violence reduction and prevention programmes.

4. A global armed violence monitoring system

There have been recent improvements in coverage and quality of data on armed violence. However, these data are still patchy at best and any measurement effort – of armed violence or most other social phenomena - is bound to be imperfect. Gathering and monitoring indicators of armed violence is especially politically sensitive and challenging at both international and practical levels. In many parts of the world, national surveillance and data-gathering capacity remains weak. Certain types of violence continue to be heavily stigmatized. This is compounded by the lack of or poor quality of services to deal with the violence which reduces reporting rates further. Furthermore, although household surveys play an important role in filling data gaps, they are logistically challenging, particularly in high-violence regions.

Even when data are available, the variety of sources of armed violence data makes gathering and monitoring common indicators a sensitive task. The quality of the information, the absence of common definitions or methodologies, or an inability to coordinate data collection, may make data inadequate for comparative analyses. These challenges mean that governments and local officials often do not have sufficient information about the particular risk factors or manifestation of armed violence that may be affecting their communities. In these circumstances, it is difficult to design evidence-based programmes and policies for armed violence reduction and prevention.

The solution is not to abandon data collection. Instead, efforts need to be redoubled to develop clear targets and indicators in a transparent manner. The limits of data should be noted in advance, but, over time, efforts that use existing data-gathering systems can work to improve data quality and coverage. Building up a comprehensive armed violence monitoring system over time is thus both practical and realistic.
**Armed violence monitoring group**

The Partnership in Statistics for Development in the 21st Century (PARIS21) was founded by the UN, the European Commission, OECD, the IMF and the World Bank. It aims to develop a culture of evidence-based policy making and implementation. As a result of these efforts, many countries have now established statistical offices that make data publicly available. The creation of the MDGs has further increased support to set up comparable national datasets that enable systematic measurement and monitoring of trends in social, economic, humanitarian and development policies. The achievements of the MDGs are monitored by an Inter-Agency and Expert Group (IAEG) on MDG indicators (see Box 2). The IAEG is unique in its scope and mandate. It can also serve as a blueprint to build up a monitoring system to achieve goals, targets and indicators on armed violence prevention and reduction.

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**The Inter-Agency and Expert Group (IAEG) on MDG Indicators**

The MDG dataset is maintained by an Inter-Agency and Expert Group (IAEG) coordinated by the United Nations Statistics Division. The Group includes various departments within the United Nations Secretariat, several UN agencies and various government agencies, national statisticians and other organizations that develop MDG data. The statistics presented are compiled by specialized agencies, and are drawn from data provided by national governments to the UN international statistical system. The availability of data depends on the capacity of the national statistical departments to produce necessary data and/or to report in a timely manner. When national governments do not produce the data for indicator compilation, or do not report their data, international agencies make estimates based on available data or use surveillance and survey data. The IAEG promotes improving and better documenting the standards and methods used in compiling and analysing MDG indicators, including finding ways to bring together country data in a meaningful way, overcoming problems of comparability, and providing a significant analysis of the aggregated figures.


At regional, national and municipal levels, a range of crime and health observatories have been established in an effort to better document trends in victimization, and ultimately to assist in designing targeted strategies on the ground. An observatory can be defined as “a knowledge-building tool by virtue of its ability to identify social and crime trends and social risk factors that increase one’s chance of being harmed by social changes and crime.”\(^{105}\) It monitors social trends, the prevalence of risk factors, and identifies emergent threats in order to inform decision-makers how to develop policies, strategies or programmes to remedy their local problems. Regional and municipal observatories or monitoring centres are increasingly being used by cities to design effective violence prevention and reduction strategies.\(^{106}\) They involve multidisciplinary and multisectoral partnerships, bringing together agencies and data from the public and private sectors, including the police, municipal services, transport, social housing, landlords, businesses and NGOs. They help analyse the incidence, causes and trends in crime and violence and related problems. This enables more efficient resource use and progress monitoring through strategic plans implemented over time.\(^{107}\)

Current trends reveal that the existence of these observatories means the traditional model of having “government agencies, health, social services, security, environment and criminal justice programmes”\(^{108}\) working in isolation of each other is now increasingly changing. These sectors now collaborate within

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106 UN (2010).

107 Better known observatories include the Crime Observatory in Jamaica ([http://www.crime-prevention-intl.org/pub/96_1.pdf](http://www.crime-prevention-intl.org/pub/96_1.pdf)); a security observatory in Madrid; an observatory of the city of Bogota; municipal observatories in El Salvador, Guatemala and Panama; the Regional Observatory on Security Policies in Italy; the Observatorio Centroamericano sobre Violencia; and the Observatoire National de la Délinquance in France, or the Camilo Reyes’ observatory in Colombia; just to mention a few. Many observatories (such as the Crime Observatory in Trinidad and Tobago) focus on overall safety issues; others (such as the Canadian Observatory on School Violence Prevention and l’Observatoire français des drogues et toxicomanies in France) focus on specific topics. On a regional level, the Central American E-Observatory on Violence (OCIVA) functions as a resource centre for decision-makers, programme managers and field officers that work in the field of crime and violence prevention.

departments, or between agencies and levels of government, and between public, private, and non-profit sectors in order to achieve common goals such as crime prevention. Furthermore, data collection focuses not just on issues of crime and violence, but in many observatories, has expanded to include education, health and other key development structures. Many of these observatories also stress sustainable development as their major aim.109

Scaling up these efforts will require establishing an armed violence monitoring group. States play the primary role in monitoring armed violence and would have a central role. The group would also draw on the experience of international UN and non-UN stakeholders including the World Bank, WHO, UNODC, and UNDP, as well as civil society, academic institutions, and practitioners from the field. They would all work together to build up a credible data portfolio (see Figure 3). An armed violence monitoring group could generate a global database to support the proposed goals, targets and indicators cited above in this paper.

A feasibility study could define the character and direction of the group, and a first objective could be to test the proposed goals, targets and indicators, and to review their coherence and measurability. With the help of an expert-level task force, and additional national inputs and expertise from practitioners working in affected countries, gaps in the armed violence measurements could be identified.

Figure 3: Key participants in an armed violence monitoring group

Source: UNDP and GD Secretariat

5. Conclusion

As long as armed violence has been present, there have also been religious, philosophical, legal and communal systems in place that have aimed to prevent or limit it. “None have been completely successful, but all have made their contribution to this defining mark of civilization.”110 Academics and practitioners have started to systematically analyse these contributions to reducing and preventing armed violence, and have started to build up an evidence base of what does and does not work in preventing violence in a specific context. The complex links between armed violence and underdevelopment — with armed violence being both a cause and consequence of underdevelopment — are also becoming better recognized.

Governments, civil society actors and UN agencies are starting to work together to address risk factors and the negative effects of armed violence on development. The last decade has witnessed a rapid growth in awareness of ways armed violence can be prevented and reduced.111 In high-income countries in particular, there is a visible increase in the number of national and urban governments actively developing violence reduction and prevention policies and implementing programmes.112 However, the international response remains fragmented. Armed violence prevention and reduction activities are very diverse and widespread, but there are still many challenges to be faced in scaling-up these activities in low-income and middle-income countries.113

Comprehensive, reliable and timely information on armed violence is critical to achieve informed policy-making, and for different UN agencies to clearly diagnosis the problems, design effective and coordinated responses from multiple areas of expertise, and to implement realistic programming based on knowledge of patterns and trends in armed violence. This involves ongoing and baseline data collection and analysis, regular transfer of knowledge and lessons learned, and innovative approaches to bring evidence and analysis into the programming process.

Investing in a comprehensive data-gathering system that measures and monitors armed violence on a global scale is a first step. In his recent report on the link between armed violence and development, the UN Secretary-General emphasized the need for common standards of comparison and recommended developing goals, targets and indicators to monitor and measure armed violence reduction between now and 2015, which he said “will offer the opportunity to integrate security-related themes into the possible follow-up of the Millennium Development Goals”.114

Establishing the MDGs has increased support to create comparative national datasets that enable systematic measurement and monitoring of trends in social, economic, humanitarian and development policies. Many countries have now established statistical offices and make data publicly available. This paper recommends using these existing national and international data-gathering systems, and proposes a framework of goals, targets and indicators for the international community, and national and local governments to more systematically begin tracking and acting on armed violence prevention and reduction initiatives.

This paper further recommends building up an armed violence monitoring group. States have the key responsibility of gathering data on armed violence and therefore would have a central role in such a group. An armed violence monitoring group would also draw together the experience of international UN and non-UN stakeholders, civil society, academic institutions, and practitioners from the field. All efforts would aim to systematically track these goals, targets and indicators from now until 2015 and beyond, in tandem with and complementary to achieving the MDGs. These efforts represent a crucial step towards achieving measurable reductions in the global burden of armed violence, and tangible improvements in human and community security worldwide.

112 For examples of programming, see http://www.preventviolence.info/.
113 WHO (2009), p. 5.
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